

Hubbard County 2024 Hazard Mitigation Plan



Hubbard County Minnesota

2024 Hazard Mitigation Plan

Hubbard County Emergency Management

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Section 1 – Introduction

1.1 Hazard Mitigation Planning in Minnesota

Hazard mitigation planning refers to any sustained action to reduce or eliminate long-term risk to human life and property from natural disasters. The Federal Emergency Management Agency (FEMA) has made reducing hazards one of its primary goals, and a primary mechanism in achieving this goal is both the hazard mitigation planning process and the subsequent implementation of resulting projects, measures, and policies (FEMA, 2023b).

Since 1980, damages from natural disasters in the U.S. exceeded \$2.72 trillion. 2023 saw a record 28 separate billion-dollar weather and climate disaster events in the United States, breaking the previous record of 22 events set in 2020. Minnesota alone has experienced 59 separate billion-dollar disasters since 1980 (NCEI, 2024). Hazard mitigation planning is an effective process to prepare communities and lessen the impact of loss of life and property from future disasters. Although mitigation efforts will not eliminate all disasters, government at all levels should strive to be as prepared as possible for a disaster for the well-being of its residents.

The Hazard Mitigation Plan (HMP) is a requirement of the Federal Disaster Mitigation Act of 2000. The development of a local government plan is required to maintain eligibility for federal hazard mitigation grant funding programs. To be eligible for future mitigation funds, communities must adopt an HMP.

Researchers at the National Institute of Building Sciences looked at the results of 23 years of federally funded mitigation grants provided by FEMA, the U.S. Economic Development Administration (EDA), and the U.S. Department of Housing and Urban Development (HUD). Their findings revealed that for every \$1 spent on hazard mitigation funding in the nation, \$6 is saved in future disaster costs (Multi-Hazard Mitigation Council, 2019).

Hubbard County is vulnerable to a variety of natural hazards that threaten the loss of life and property. Hazards such as tornadoes, flooding, wildfires, blizzards, straight-line winds, and droughts can potentially inflict vast economic loss and personal hardship.

This planning document is accompanied by a website that allows for easy stakeholder and community engagement, as well as interactive maps, dashboards, and infographics.

A broad overview of this companion website's features is as follows:

- About HMP Planning
- County Profile
- Natural Hazard Profiles
- Climate Change
- Mitigation Actions

[Hubbard County HMP Website](#)

1.1.1 Scope

U-Spatial, University of Minnesota, was contracted by Minnesota Homeland Security and Emergency Management using FEMA Pre-Disaster Mitigation (PDM) grant funds to work with Hubbard County Emergency Management to facilitate an update to the 2017 Hubbard County HMP. U-Spatial brings extensive geographic data analysis skills and hazard risk assessment expertise to the process. U-Spatial also employed the services of Hundrieser Consulting LLC for county and stakeholder outreach as well as mitigation action development related to this plan.

This HMP evaluates and prioritizes the major natural hazards affecting Hubbard County as determined by frequency of event, economic impact, deaths, and injuries. Mitigation recommendations are based on input from state and local agencies, the public, and national best practices.

This is a multi-jurisdictional plan that covers Hubbard County, including the cities of Akeley, Nevis, and Park Rapids. The city of Laporte (population 133) was included in the planning process, but ultimately did not contribute as a plan participant and is not seeking to adopt the plan. The Hubbard County mitigation activities identified in this plan also incorporate the concerns and needs of townships, school districts, and other participating entities.

Members from each of these jurisdictions actively participated in the planning process by assisting with public outreach, attending planning team meetings, providing local information, identifying mitigation actions, and reviewing the plan document (see Appendix C). The information in these forms was used to help identify mitigation actions for local implementation (see also Section 2.2). Each jurisdiction will adopt the plan by resolution after the plan is approved by FEMA. County and local city resolutions will be added by Hubbard County after final approval by FEMA (see Appendix B).

Hubbard County has specified the following goals for this plan update:

- Include more recent data documenting the critical infrastructure and hazards faced by Hubbard County.
- Reformat and reorganize the plan to reflect definitions of hazards as expressed in the 2024 Minnesota State Hazard Mitigation Plan.
- Reflect current hazard mitigation priorities in Hubbard County.
- Encourage recipients and sub-recipients of hazard mitigation grants to consider climate change adaptation, resiliency, and equity in their planning efforts.

1.1.2 Hazard Mitigation Definition

Hazard mitigation may be defined as any action taken to eliminate or reduce the long-term risk to human life and property from natural hazards. The benefits of hazard mitigation planning include the following:

- saving lives, protecting the health of the public, and reducing injuries
- preventing or reducing property damage
- reducing economic losses
- minimizing social dislocation and stress
- reducing agricultural losses

- maintaining critical facilities in functioning order
- protecting infrastructure from damage
- protecting mental health
- reducing legal liability of government and public officials

1.2 State Administration of Mitigation Grants

FEMA currently has three mitigation grant programs that are administered by the State of Minnesota: the Hazard Mitigation Grant Program (HMGP), the Building Resilient Infrastructure and Communities (BRIC) program, and the Flood Mitigation Assistance (FMA) program. The HMGP, BRIC, and FMA programs are administered through the state of Minnesota Department of Public Safety Homeland Security Emergency Management (HSEM) Division. All applicants must have or be covered under an approved Hazard Mitigation Plan. Eligible applicants include state and local governments, certain private non-profit organizations or institutions, and tribal communities.

Section 2 – Public Planning Process

2.1 Planning Team Information

The Hubbard County HMP planning team is headed by the Hubbard County emergency manager, who is the primary point of contact. Planning team members include representatives from public and governmental sectors. Table 1 identifies the planning team individuals and the organizations they represent

[Find the planning team members on the Hubbard County HMP website](#)

Table 1. Hazard Mitigation Planning (HMP) Team

Name	Agency/Organization	Participant Title
Nikolas Opsal	Hubbard County Emergency Management	Emergency Management Director
Jack Bovee	Hubbard County	GIS Supervisor
Kay Rave	Hubbard County	Auditor-Treasurer
Thomas Krueger	Hubbard County	County Commissioner
Ted Van Kempen	Hubbard County	County Commissioner District 5
Jeff Cadwell	Hubbard County	County Administrator
David De La Hunt	Hubbard County	County Commissioner, District 1
Kristi Kath	City of Akeley	Clerk Treasurer
Dawn Veit	City of Nevis	City Administrator
Angel Weasner	City of Park Rapids	City Administrator / Treasurer
Scott Burlingame	City of Park Rapids	Public Works Superintendent
Jeff Appel	Park Rapids Police Department	Chief of Police
Sebrina Hegg	Akeley Township	Clerk
Theora Goodrich	Badoura Township	Supervisor
Michael Schmidt	Guthrie Township	Guthrie Township Supervisor
Russell Johnsrud	Henrietta Township	Chairman
Alexis Hadrava	Lakeport Township	Clerk
Milica Stanfel	Mantrap Township	Supervisor
Thomas Walz	Nevis Township	Township Chairman
Mike Spry	Nevis Township	Supervisor
Zheni Goodrich	Mahube Otwa Community Action Partnership, Inc.	Agency Operations Manager
Greg Larson	Mahube Otwa Community Action Partnership, Inc.	Agency Operations Manager
Owen Fifield	American Red Cross Serving Northern Minnesota	Disaster Program Manager
Laura Johnson	Hubbard County DAC, Inc.	Executive Director
Micah Waalen	Hubbard County DAC, Inc.	Maintenance & Safety
Crystal Mathisrud	Hubbard County Soil & Water Cons District	District Manager
Megan FitzGerald	Hubbard SWCD	Community Engagement and Grant Reporting Coordinator

Name	Agency/Organization	Participant Title
Shannon Snell	Itasca-Mantrap Electric Coop	Director of Operations
Marlee Morrison	CHI St. Joseph's Community Health	Community Health Director
Gerald Byer	Itasca Mantrap electrical coop	Operations Manager
William Jones	Ham Radio Operator	Emergency Ham Radio
Jennifer Olson	MN HSEM	Regional Program Coordinator
Nettie Cole	MN DNR – Itasca State Park	Director of Operations
Chad Emery	Cass County Sheriff's Office	Deputy Sheriff / Deputy EMD
Adam Douglas	Becker County Sheriff's Office	Emergency Management Director
Christopher Muller	Beltrami County Sheriff's Office	Emergency Management Director

2.2 Review of Existing Plans, Capabilities & Vulnerabilities

Hubbard County and its local communities utilized a variety of planning documents to direct plan development. These documents included a Comprehensive/Master Plan, Emergency Operations Plan, Transportation Plan, etc. (see Section 5.1.3 and Appendix D). The planning process also incorporated the existing natural hazard mitigation elements from previous planning efforts. In addition, the 2024 Minnesota All-Hazard Mitigation Plan was consulted.

In the development of the Hubbard County HMP, U-Spatial consultants reviewed and incorporated a variety of planning documents that direct community development and influence land use decisions for the county and its jurisdictions. In addition, U-Spatial consultants worked closely with the Hubbard County emergency management director and other key county staff and local city officials to collect feedback on local mitigation capabilities and vulnerabilities that either support or hinder the ability to mitigate against natural hazards countywide and at the local level. Following is a summary of the assessment tools used to gather information on local capabilities and vulnerabilities during the planning process:

Capabilities Assessment (hazard-specific): In this assessment, detailed information was collected from Hubbard County on current plans and programs in place (i.e., existing programs, plans, or policies) as well as program gaps or deficiencies that currently exist to mitigate against damages caused by each natural hazard addressed in the plan. Section 4 identifies current gaps and deficiencies for mitigation and Section 5.3 describes the mitigation capabilities that are in place by Hubbard County to support mitigation.

Local Mitigation Surveys: As part of Hubbard County's 2024 HMP update, participating jurisdictions and key county personnel were asked to fill out a Local Mitigation Survey (LMS) form. Questions in the LMS form addressed the following:

- Part A: Hazard Identification, Risk Assessment & Vulnerability Analysis
- Part B: Local Mitigation Capabilities Assessment
- Part C: Local Mitigation Projects
- Part D: Survey Participants

The purpose of the survey was to gather jurisdictionally specific information needed to support the update of the plan and to help inform development of local-level mitigation actions for the next five-year planning cycle (for the full Hubbard County LMS report, see Appendix C).

2.3 Planning Process Timeline and Steps

In order to update the 2017 Hubbard County HMP, U-Spatial consultants worked in coordination with Hubbard County Emergency Management and members of the planning team. The updated plan includes new data documenting the types of hazards faced by Hubbard County residents and emergency planning officials as well as new thinking on how to address these hazards.

2.3.1 Hubbard County Stakeholder Coordination

Two planning team meetings took place via Zoom video conference hosted by U-Spatial. Meeting participants included representatives from Hubbard County, city and township governments, neighboring jurisdictions, and other key stakeholders. Appendix F provides documentation of stakeholder outreach and participation in the plan update

*Survey forms to acquire mitigation ideas and feedback
remain available on the HMP website*

To provide opportunity for public input, Hubbard County issued two news releases announcing the plan update and inviting public review and feedback on the draft plan. The news release provided information on where to view the plan and submit comments. The County HMP website, hosted by U-Spatial, and the feedback and mitigation action ideas survey will remain available through the five-year planning period to foster public engagement. Table 2 documents dates of Hazard Mitigation update meetings and public outreach. The public feedback period for the draft plan was open from 11/8/24 to 11/22/24, for a period of 15 days. Appendix G provides documentation of the public outreach for feedback on the draft plan by Hubbard County and jurisdictions.

Table 2. Hubbard County hazard mitigation update meetings and public outreach

Event	Date	Appendix
Kickoff Webinar	5/3/23	Appendix F, Planning Team Meetings
News Release #1	6/8/23	Appendix G, Public Outreach & Engagement Documentation
Planning Team Meeting #1	2/13/24	Appendix F, Planning Team Meetings
Planning Team Meeting #2	10/22/24	Appendix F, Planning Team Meetings
News Release #2	11/8/24	Appendix G, Public Outreach & Engagement Documentation

At the close of the public outreach period, the U-Spatial consultants worked with the Hubbard County Emergency Manager and members of the planning team to incorporate feedback from the public into the HMP.

For more information on the planning process, see Sections 5 and 6.

2.3.2 Overview of Jurisdictional Participation

Throughout the planning process, Hubbard County and the U-Spatial team worked to engage representatives from the county and each city in the update of the plan. Key activities for jurisdictions included assisting with public outreach, participating in planning team meetings, providing local-level information, reviewing and providing feedback to the plan update.

U-Spatial and Hubbard County actively used the following methods to engage jurisdictions in the HMP plan update process:

- **Zoom Video Conferencing:** Planning team meetings were conducted via Zoom video conferencing hosted by U-Spatial. Virtual meetings proved to be a beneficial addition to the planning process, resulting in a high turnout from jurisdictional representatives and other stakeholders, as well as providing the ability for presenters to collect, respond to, and document feedback from participants through Zoom functions such as surveys, chat, and Q&A.
- **Email Correspondence:** Email was a primary tool used to communicate with representatives from Hubbard County, municipal governments, and other stakeholders. Emails were used to distribute news releases for public outreach, to invite participation in meetings and to share meeting summaries, as well as to request local information and final review of the draft plan. Email proved to be an effective tool that resulted in increased jurisdictional participation and collection of locally specific information. Email was also used by the public to submit feedback to Hubbard County following news releases on the HMP.
- **Phone Calls:** Phone calls were frequently used to conduct direct outreach or follow-up to jurisdictions to ensure participation or to collect information via one-on-one interviews. Phone calls proved to be an effective tool that resulted in increased jurisdictional participation and collection of quality information. Phone calls were especially useful in engaging very small communities that had limited staff or technological capabilities.

Cities participating in Hubbard County HMP update varied by population and associated government resources to participate in the planning process (e.g., personnel, time, and technology). Rural communities with smaller populations (under 500) typically had part-time elected officials, limited-to-no city staff, and reduced city hall hours in which to conduct business. Hubbard County and U-Spatial were sensitive to these local challenges and worked to help these local governments to participate using the methods that worked best to accommodate them, such as phone interviews to complete local mitigation survey forms (see Appendix C).

Table 3 provides an overview of each city's participation in the Hubbard County HMP update planning process and a reference to supporting documentation.

Table 3. Jurisdictional participation in planning process

Jurisdiction (2022 Est. Population, Esri)	News Release #1	Planning Team Mtg. #1	Local Mitigation Survey	Mitigation Action Charts	Planning Team Mtg. #2	News Release #2 & Plan Review
Supporting Documentation	App. G	App. F	App. C	Sec. 5.3 App. H	App. F	App. G
Hubbard County (21,351)	X	X	X	X	X	X
City of Akeley (415)	X	X	X	X	X	X
City of Laporte (133)*	X			X		X
City of Nevis (374)	X		X	X	X	X
City of Park Rapids (4,152)	X	X	X	X	X	X
Neighboring Jurisdictions:						
Beltrami County					X	
Cass County		X				
Wadena County						
Becker County					X	
Clearwater County						
Leech Lake Reservation						X

*The City of Laporte is not included in this plan as a participating jurisdiction.

Section 3 – Risk Assessment and Vulnerability Analysis

The goal of mitigation is to reduce or eliminate the future impacts of a hazard, including loss of life, property damage, disruption to local and regional economies, and the expenditure of public and private funds for recovery. Sound mitigation practices must be based on sound risk assessment. A risk assessment involves quantifying the potential loss resulting from a disaster by assessing the vulnerability of buildings, infrastructure, and people.

The risk assessments in this plan are based on widely accepted tools and databases as well as consultation with hazard mitigation planning expertise at FEMA and HSEM as well as technical guidance from the MN DNR State Climatology Office. Geographic Information System (GIS) tools are used throughout to demonstrate geographically based risk and vulnerabilities.

3.1 Natural Hazard Identification

This assessment identifies the characteristics of natural hazard events, the severity of the risk, the likelihood of these events occurring, and the vulnerability of each jurisdiction’s population and assets.

*See a list of all natural hazards covered in the 2024
HMP*

The cornerstone of the risk assessment is identifying the hazards that affect jurisdictions. Listed below are the natural hazards addressed in the 2024 Minnesota State Hazard Mitigation Plan:

Flooding	Lightning	Drought
Dam/Levee Failure	Winter Storms	Extreme Heat
Wildfires	Landslides (Erosion and	Extreme Cold
Windstorms	Mudslides)	Earthquakes
Tornadoes	Land Subsidence (Sinkholes	Coastal Erosion & Flooding
Hail	and Karst)	

3.1.1 Hazard Prioritization

As part of the plan update process, the planning team reviewed, updated, and prioritized the hazards faced by residents of Hubbard County, updated the existing mitigation actions published in the 2017 HMP, and proposed new mitigation actions.

The team examined the hazards identified in the 2017 HMP and adjusted them to reflect the definitions of natural hazards used in the 2024 Minnesota State Hazard Mitigation Plan.

While the focus of this HMP is on natural hazards, planning took place with the understanding that many non-natural hazards could occur as a result of natural disasters (e.g., disruption in electrical service due to downed powerlines from heavy snow, ice storms, or high wind events).

The prioritization of hazards for the Hubbard County HMP Update (Table 4) was based upon group review and discussion of the natural hazards that pose risk to the county during the HMP Planning Team Meeting #1. While reviewing each hazard, the group was asked to consider if the risk to severe natural hazards had increased or decreased since the last plan, and if this affected their priority level to mitigate against that hazard. Appendix F provides the discussion notes from the meeting.

Table 4. Prioritization of hazards for 2024 Hubbard County HMP Update

Natural Hazards	Current Priority
Winter Storms	High
Wildfire	High
Windstorms	Moderate
Tornadoes	Moderate
Flooding	Moderate
Extreme Cold	Moderate
Lightning	Low
Hailstorms	Low
Extreme Heat	Low
Drought	Low
Landslides	Low
Dam Failure	Low

3.1.2 FEMA- and Minnesota-Declared Disasters and Assistance

Another historical perspective is derived from FEMA-declared disasters. Between 1957 and July 2024, seven federal disaster declarations and three federal emergency declarations were made in Hubbard County; see details on the [Hubbard County HMP website](#).

Minnesota Statutes Chapter 12A established a framework for state agencies to help communities recover from disaster. In 2014, Governor Mark Dayton signed legislation establishing the state's Disaster Assistance Contingency Account to assist local communities after a natural disaster when federal aid is not available. Damage required to declare a disaster is half the threshold of the federal/FEMA public assistance (only) program threshold (MN HSEM, 2019). Hubbard County has been included in one State Disaster Declaration.

The Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), and Flood Mitigation Assistance (FMA) Program are FEMA-administered hazard mitigation assistance programs which provide funding for eligible mitigation planning and projects that reduce disaster losses and protect life and property from future disaster damages (FEMA, 2021). Table 5 lists the projects in the county funded by a hazard mitigation assistance program.

Table 5. Historical hazard mitigation funding awarded in Hubbard County

Project Identifier	Sub-Grantee	Project Type	Project Total	Federal Share
DR-1717-0020-P	Hubbard County	91.1: Local Multihazard Mitigation Plan	\$39,000	\$29,250
DR-4182-0013-R	Hubbard County	206.2: Safe Room (Tornado and Severe Wind Shelter) - Public Structures	\$1,344,592	\$1,008,444
DR-1772-0007-R	Itasca-Mantrap Co-Op Electrical Ass'n	400.1: Utility Protective Measures (Electric, Gas, etc.)	\$161,209	\$98,511
DR-1225-0010-R	Itasca-Mantrap Cooperative Electric Association	400.1: Utility Protective Measures (Electric, Gas, etc.)	\$370,000	\$277,500

SOURCE: (FEMA, 2023c)

3.2 Community Vulnerability

The degree to which a person is vulnerable to the impacts of a hazard depends on how well they can react before, during, and after a hazardous event. The Centers for Disease Control and Prevention (CDC) Agency for Toxic Substances & Disease Registry (ATSDR) defines social vulnerability as “...the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks” (ATSDR, 2020). Exacerbating these stressors are the increasing number of extreme weather events attributed to Minnesota’s changing climate (MPCA, 2018).

The ATSDR created the CDC Social Vulnerability Index (SVI) to help identify vulnerable communities that need support in preparing for hazards or recovering from disaster. The CDC SVI is created at the census tract level using American Community Survey (ACS) five-year data.

The SVI is included in the FEMA National Risk Index (NRI) and presented on the webpage for each hazard. Additionally, at-risk populations are summarized for each jurisdiction in the county profile page. Vulnerable attributes of a population are addressed with each natural hazard.

[Explore population vulnerability on the Hubbard County HMP Website](#)

3.3 Climate Change

Minnesota’s climate change summary is informed primarily by the Midwest Chapter of the Fifth National Climate Assessment (NCA5) dated November 2023 and with interpretations from the MN DNR State Climatology Office (Wilson et al., 2023).

Rising global temperatures and the resulting increases in atmospheric moisture from evaporation of ocean waters have allowed Minnesota to become warmer, wetter, and more humid during the past several decades. The ten combined warmest and wettest years between 1895 and 2022 all occurred since 1998. Nights have warmed faster than days since 1970, and winter has warmed several times

faster than summer. Even with the drought conditions of the early 2020s in Minnesota, heavy precipitation continues to show long-term increases, with damaging rain and snowfall events reported somewhere in the state each year of the decade through 2023. Despite no increase in the highest temperatures of summer, maximum annual heat index values (one measure of how hot it feels) have been rising across the state because of increased humidity during heat waves.

Even though periods of intense growing-season drought have defined the climate of the early 2020s in much of Minnesota, long-term increases in annual precipitation have continued because of heavy and even record-setting precipitation during the cold season. For instance, record-dry conditions during May through mid-August of 2021 led to parts of northwestern and northern Minnesota reaching “Exceptional Drought”—the worst category on the US Drought Monitor. A shift to a stormy pattern during the following winter and spring, however, produced unprecedented precipitation between December in May in the exact same areas, with historic flooding along the Rainy River.

The observed changes in our climate have altered growing seasons, damaged forests, challenged natural resource management, limited recreational opportunities, destroyed infrastructure, and affected the conditions of lakes, rivers, wetlands, and groundwater aquifers that provide water for drinking and agriculture. Climate models project that temperature and precipitation increases will continue in Minnesota through the 21st century, with hotter summers and increased drought severity during dry periods as well.

To help the public understand how the changing climate has affected and is expected to affect the behavior of common weather hazards in the Minnesota, the MN DNR State Climatology Office developed graphical summaries of the scientific confidence associated with each hazard’s relationship to climate change (Table 6 and Table 7). Climate change in Minnesota has by far the strongest associations with (1) sharp declines in the frequency and severity of extreme cold outbreaks, tied to a persistent warming of winters, and (2) sharp increases in the frequency and intensity of extreme precipitation events. For instance, from 1970 through 2023, Minnesota’s winters warmed at a rate of almost one degree F per decade, and approximately three-four times faster than summer. During that same period, the coldest night of the year has warmed almost twice as fast as winter as a whole—up to two degrees F per decade (or 20 degrees F per century).

Despite major losses to cold extremes, the warming climate and increased abundance of atmospheric moisture has led to an uptick in many heavy snowfall metrics across Minnesota, leading to moderately high confidence that the changing climate is increasing heavy snowfall events—even as other winter characteristics decline. The intensity and frequency of tornadoes and severe convective storms are weakly connected at best to recent climate changes, and since the 1950s, despite superior detection and verification capabilities, the number of damaging tornadoes rated at least F-2 or EF-2 in Minnesota has shown no increases. Dramatic changes in the seasonal and geographical ranges of severe convective weather have, on the other hand, already affected Minnesota. In 2021, a damaging tornado crossed the Boundary Waters into Canada, becoming the latest on record so far north in the state. Then, on December 15th, an outbreak of destructive thunderstorm winds and over 20 tornadoes struck the southeastern parts of the state, producing the latest tornadoes on record by 29 days.

The climatic picture is expected to change further beyond the 2020s and especially as Minnesota approaches the middle of the 21st century (Table 7). Dramatic losses in extreme cold and additional

increases in heavy and extreme precipitation are expected to remain the state's leading climate change symptoms. Although Minnesota has not yet observed increases in the frequency, severity, or duration of summertime high temperatures or drought (through 2023), climate model projections summarized in NCA5 indicate that heat waves are all but certain to increase by mid-century. A 2018 study conducted by NOAA scientists indicates that by the 2050s, heat waves in Minnesota will be more attributable to climate change than to natural variability (Lopez et al., 2018).

Table 6. Confidence that climate change has already impacted common Minnesota weather/climate hazards

Confidence	Hazard	Recent & Current Observations
Highest	Extreme cold	Rapid decline in severity & frequency
	Extreme rainfall and heavy snowfall	Becoming larger and more frequent
Moderately High	Humid heat waves	Some increase in maximum dew point and Heat Index values since 1980
Moderately Low	Tornadoes, hail, thunderstorm winds	Intensity and frequency unchanged, but seasons expanding aggressively
Low	Drought and dry spells	Intense & major episodes in early 2020s but no long-term trend
Lowest	Summer high temperature extremes	Highest temperatures still well within historical ranges, and number of hot days increasing only slightly in isolated locations

SOURCE: (BLUMENFELD, K. MINNESOTA STATE CLIMATOLOGY OFFICE, PERSONAL COMMUNICATION, DECEMBER 21, 2023)

Table 7. Confidence that climate change will impact common Minnesota weather/climate hazards through 2070

Confidence	Hazard	Expectations through 2070
Highest	Extreme cold	Continued rapid decrease in severity and frequency
	Extreme rainfall	Unprecedented events more common
High	Heat waves	Summer high temperatures, maximum dew point and heat index values all projected to increase
Moderately High	Drought	Increased severity likely as summer heat increases; frequency and duration projections unclear
Moderately Low	Heavy snowfall	Greater extremes, but events less frequent as winter rain increases
	Tornadoes, hail, thunderstorm winds	Intensity and frequency unclear but continued seasonal expansion and larger “outbreaks” possible

SOURCE: (BLUMENFELD, K. MINNESOTA STATE CLIMATOLOGY OFFICE, PERSONAL COMMUNICATION, DECEMBER 21, 2023)

3.3.1 Climate Change Impacts and Resilience Planning

The NCA5 states that even if the world decarbonizes rapidly, the Nation will continue to face climate impacts and risks. Adequately and equitably addressing these risks involves longer-term inclusive planning, investments in transformative adaptation, and mitigation approaches that consider equity and justice. In the Midwest, rising temperatures, extreme precipitation, drought, and other climate-related events are impacting agriculture, ecosystems, cultural practices, health, infrastructure, and waterways. Communities, Indigenous Peoples, governments, and businesses are embracing adaptation approaches that include climate-smart agriculture, improved landscape management, innovative green infrastructure financing, and collaborative decision-making.

NCA5 includes these key messages for the Midwest region ([Chapter 24: Midwest](#)):

- Changes in precipitation extremes, timing of snowmelt, and early-spring rainfall are expected to pose greater challenges for crop and animal agriculture, including increased pest and disease transmission, muddier pastures, and further degradation of water quality. Climate-smart agriculture and other adaptation techniques provide a potential path toward environmental and economic sustainability.
- Increasing incidence of flooding and drought is expected to further alter aquatic ecosystems, while terrestrial ecosystems are being reshaped by rising temperatures and decreasing snow and ice cover. In response, communities are adapting their cultural practices and the ways they manage the landscape, preserving and protecting ecosystems and the services they provide.
- Climate change has wide-ranging effects on lives and livelihoods. Mitigation and adaptation strategies, such as expanded use of green infrastructure, heat-health early warning systems, and improved stormwater management systems, when developed in collaboration with affected communities, have the potential to improve individual and community health.
- Increases in temperatures and extreme precipitation events are already challenging aging infrastructure and are expected to impair surface transportation, water navigation, and the electrical grid. Shifts in the timing and intensity of rainfall are expected to disrupt transportation along major rivers and increase chronic flooding. Green infrastructure and public and private investments may mitigate losses, provide relief from heat, and offer other ways to adapt the built environment to a changing climate.
- Climate-related changes to water quantity and quality are increasing the risks to ecosystem health, adequate food production, surface water and groundwater uses, and recreation (high confidence). Projected increases in droughts, floods, and runoff events across the Mississippi River basin and the Great Lakes will adversely impact ecosystems through increased erosion, harmful algal blooms, and expansion of invasive species.

Key messages from the NCA5 are indicated in green throughout this document.

3.3.2 Health Impacts of Climate Change in Minnesota

Climate change already impacts our health, and these impacts are expected to worsen in the years ahead. The risks are especially high for Minnesotans who are less able to cope due to their age, income, housing insecurity, preexisting health conditions, and more.

Heat, air pollution (including wildfire smoke and allergens like pollen), extreme precipitation, floods, droughts, and ecosystem changes are all “climate hazards” that impact our health. Some of these climate hazards have a direct effect, like a heat-related illness from a heatwave, while some have an indirect impact, like exacerbation of asthma from mold growth in a flooded basement.

Heat

Minnesotans will experience a wide range of impacts from the increased frequency and severity of extreme heat events. Higher heat, increased humidity, and longer and more frequent extreme heat events can lead to direct health impacts of dehydration and heatstroke. Untreated heat stroke can lead to death. Heat-related illness directly accounted for 75 deaths in Minnesota from 2000–2022.

Heat can also worsen existing health conditions, such as respiratory and cardiovascular diseases. The people most at risk include those who are more exposed and those who may be more susceptible due to physiological reasons. People more likely to be exposed to heat include outdoor workers in agriculture and construction, student athletes, people who live in cities (due to the heat island effect), people without air conditioning, and unhoused persons.

People at higher risk because of physiological reasons include those with underlying medical conditions, pregnant people, older adults, infants, and young children.

Just as one example of the devastating effects of heat, in the summer of 2011, Minnesota had six days when the heat index was 105 degrees F or higher—and that same summer there were 1,302 emergency department visits and 3 deaths due to heat. What makes these numbers tragic is that heat-related illnesses are preventable.

Indirect impacts of extreme heat include infrastructure failures like roads buckling and power outages; strain on essential services, such as emergency medical services and law enforcement response time due to increases in crime; and disruptions to important social and economic networks, such as school and event cancellations, which reduces access to education, physical activity, and community support.

Air Pollution

In general, we breathe clean air in Minnesota, according to federal standards. But on some days and in some locations, air is unhealthy due to ozone or fine particulate matter. Greenhouse gas emissions can increase air pollution, and rising temperatures can also affect the formation and release of pollutants. Unhealthy air days are expected to become more frequent, and more intense due to climate change.

Climate change is likely to increase three main air contaminants in Minnesota: ozone, particulate matter (including wildfire smoke), and allergens. These air pollutants can cause or exacerbate cardiovascular and respiratory diseases, chronic obstructive pulmonary disease (COPD), allergies, and asthma.

Pollen is intensifying with climate change, and can trigger allergies, asthma attacks, and affect other respiratory conditions. In Minnesota, asthma affects one in 16 children (6.4%) and one in 13 adults (7.4%). People with asthma need to be especially aware of pollen sources and seasons to prevent an allergy-related asthma attack.

There are three pollen seasons in Minnesota: trees, grasses, and weeds. Trees are the first to release pollen, typically starting in early April, grasses usually ramp up pollen release in early June, and weeds

typically begin releasing pollen in mid-June and continue until the first hard frost. Research shows that the growing season for ragweed pollen, which is highly allergenic, has increased by 15 to 25 days in and around Minnesota. The lengthening pollen season is strongly related to climate change characteristics, such as lengthening of the frost-free season and later timing of the first fall frost.

Indirect health effects from air pollution can include reduced visibility on a high smog day, reduced productivity at work or school due to allergies or asthma, and reduced productivity and degradation of crops and water sources, which can lead to economic burdens.

Those most at risk include:

- Children, because they have developing lungs, are outside more, and they play vigorously and inhale more air per pound of body weight compared to adults.
- Adults over 60, because their bodies are aging.
- People with chronic respiratory or cardiovascular disease because they are more susceptible to air pollution.
- Individuals living near other sources of air pollution (such as roadways, freeways, and heavy industry), because they are chronically exposed to air pollution.
- People of color, because they are more likely to be exposed to more air pollution and have a disproportionate burden of heart and lung diseases, which may increase susceptibility.

Extreme Precipitation, Floods, Drought

Rain is falling more frequently in extreme, heavy, localized events, leading to some parts of our state experiencing flooding while other parts experience drought.

Increased frequency and severity of heavy rainfalls can lead to flooding, which results in both direct and indirect health impacts like:

- Injury or even death from drowning.
- Illnesses from being exposed to contaminated drinking water or recreational sources.
- Mental health stress from experiencing the trauma of the event or later from being displaced or dealing with damaged homes and business.
- Respiratory ailments from exposure to mold from flooded basements.
- Carbon monoxide poisoning from exposure to carbon monoxide when using secondary power sources, like generators.
- Flooding can also disrupt economic and social networks and put a strain on essential services.

The people most at risk are Minnesotans who are more likely to be exposed to flood waters, like those who live in a flood plain or near water bodies, or people who cannot easily evacuate or recover from flooding destruction, such as people who do not have reliable transportation, people who can't use the stairs when elevators are out of service, people in wheelchairs, people with disabilities, older adults, and lower income people.

Heavy rain events can cause standing water in backyards or basements. Many homeowners have experienced wet basements, which is mentally and financially stressful, and if mold starts to grow that can become a health problem.

Localized flash flooding can also be a problem where our infrastructure is undersized, and people get caught off guard by flooded roads. This is an important public health safety concern as almost half of

flash flood fatalities occur in vehicles. It takes as little as six inches of fast-moving water to knock over and carry away an adult, and as little as 12 inches can carry away a small car.

Another public health concern with precipitation changes exacerbated by climate change is waterborne disease outbreaks. Heavy downpours can lead to a host of problems, including increased runoff and sewage overflows, which can cause outbreaks of waterborne diseases such as *E. coli* and *Cryptosporidium*. Runoff can carry viruses and other disease-causing agents into wells and recreational waters, contaminating them and causing health problems.

Zoonotic Diseases

Zoonotic diseases or zoonoses are caused by germs like viruses, bacteria, parasites, and fungi that spread between animals and people. Increases in temperatures and changes in rain patterns are changing our ecosystems, which can affect the spread of diseases carried by insects, ticks, rodents, birds, and other animals.

Diseases from ticks include Lyme disease, Anaplasmosis, and Babesiosis. As temperatures increase, disease-transmitting ticks will become active sooner and stay active longer, allowing more time to develop and feed on hosts. Ticks thrive in warm humid environments.

Additionally, there may be a decreased die off over the winter months if temperatures do not get very cold. An increase in winter temperatures can also lead to new tick species moving into and surviving in Minnesota, which can lead to the introduction of new diseases.

People more at risk for diseases carried by insects, ticks, and rodents are people who spend more time outdoors or are more exposed to these pests.

Harmful Algal Blooms

An increase in water temperatures can lead to blue-green algal blooms, which contain toxins that can pose harmful health risks. People or pets who drink or swim in water with dangerous levels of harmful algal bloom (HAB) contamination may experience stomach illness, skin irritation, allergic responses, and damage to the liver and nervous system. In extreme cases, dogs and other animals have died after drinking water containing these toxins.

Harmful algal blooms in Minnesota lakes result from several factors including runoff from fertilizers, discharges from waste treatment plants, warmer waters, and higher temperatures. While HABs can occur naturally, the frequency of outbreaks is increasing in part because human activities create favorable conditions for the blooms.

Zoonotic diseases and HABs can have an indirect health effect when they threaten the livelihoods of people who work in recreation-dependent economies that revolve around camping, fishing, and hunting.

Mental Health

Climate change threatens our mental health through direct exposure to a climate-related disaster (e.g., flooding); through the disruption to a major determinant of health, such as a loss of livelihood or a cultural tradition; and through awareness or uncertainty of climate change as an existential threat. These experiences may overlap and lead to compounded impacts on an individual or even an entire community, such as family farmers burdened with decadal drought who are more likely to commit suicide.

Existing research has associated several mental health conditions with climate change, such as psychological distress, grief reactions, depression, post-traumatic stress disorder, interpersonal conflicts, drug or alcohol abuse, loss of identity, and suicidal ideation.

Vulnerable populations such as children, the elderly, communities of color, and other marginalized communities are most at risk of climate change-related mental health impacts.

3.3.3 Climate Change Adaptation

Climate change adaptation is important for increasing the resilience of communities and the environment. The shocks caused by more extreme weather events and the stressors of longer-term changes to the climate affect all natural systems. For human communities, these impacts challenge the surroundings in which they live, the critically important ecosystem services upon which they depend, public health, local facilities and infrastructure, the safety of their residences, and the viability of their livelihoods. Development trends can further exacerbate both climate impacts and population vulnerability. Communities are only as resilient as the most vulnerable within them.

3.3.4 Climate Change Data and Tools in Minnesota

The University of Minnesota Extension and the University of Minnesota's Water Resources Center coordinate the Minnesota Climate Adaptation Partnership (MCAP), which brings together federal and state agencies, organizations, and individuals statewide with an interest in climate adaptation. MCAP received funding after the 2021 legislative session to develop high-resolution (2.6 mile/4km grid) dynamically downscaled climate projections utilizing the University of Minnesota's Supercomputing Institute. This data is being made publicly accessible via the new [Minnesota CliMAT—Climate Mapping and Analysis Tool](#). This interactive online tool provides highly localized climate projections for Minnesota. MN CliMAT is based on data from the latest generation of global climate models, called [CMIP6](#). With the dynamically downscaled climate projection data, users can visualize even how small cities will likely be impacted in the coming decades (Liess, S. et al., 2023).

More resources are available on the [climate change page](#) of the Hubbard County website

3.4 Jurisdictional Change in Risk or Vulnerability Assessment

Jurisdictions in Hubbard County have varying vulnerabilities to and concerns about impacts to their communities. Interviews with jurisdictional representatives in addition to the Local Mitigation Survey resulted in some specific concerns (see Appendix C). Participants were asked to provide feedback on how their community's vulnerability to natural hazards had either increased (due to changes such as development) or decreased (due to local mitigation efforts) over the past five years.

At the local jurisdictional level, several communities did note an increase in development over the last five years as a factor for an increase in vulnerability to severe weather or disaster events.

3.4.1 Jurisdictional Responses

As part of the Local Mitigation Survey form, Hubbard County Emergency Management and each city jurisdiction were asked to provide a vulnerability assessment that described what structures, systems,

populations, or other community assets were susceptible to damage and loss from specific hazard events. This information was used to help tie local vulnerability back to the exposure of people, buildings, infrastructure, and the environment to the natural hazards listed in Table 4 and to assist local governments in development of related local mitigation actions to reduce risk.

The following is a compilation of common responses taken directly from jurisdictional representatives as noted in Appendix C: Part A. Responses here are edited only for clarity.

Hubbard County

Flooding: We have had washouts on many dirt roads throughout the county due to heavy rain and spring snowmelt. Several roads within the county can become covered with water and unpassable.

Ice Storms, Blizzards: Much of the county's municipal and county's electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.

Windstorms, Tornadoes: We have multiple mobile home parks within the county that do not have a storm shelter and residents are vulnerable to high wind and tornado events. There are also several campgrounds active during summer and fall months with RVs and campers and does not have a storm shelter. We have experienced power outages from strong wind events that brought down power lines.

Extreme Cold: We have a high population of senior citizens and low-income residents throughout the county who are more vulnerable during periods of extreme cold with power outages. The county has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.

Drought: Drought in recent years have caused crop failure and placed strain on farmers. Drought has also been a contributing factor to many large grass and brush fires Hubbard County has experienced in recent years.

City of Akeley

All Hazards: We need to obtain a portable generator for our City Hall so that communication with the community and or public utilities systems can be maintained. We also are in need of generators for our utility systems to keep them running in the event of a power outage. Currently we would only have approximately two days of water in the winter months and 1-1.5 in the summer if there were extended power outages.

Flooding: The city park and campground are vulnerable to flooding and park equipment has been damaged in the past.

Ice Storms, Blizzards: Much of the city's municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.

The campground and the city as a whole have a very aging tree canopy and storms pose a serious threat to it. Several houses are completely surrounded by trees.

The city is home to the Eastern Hubbard County Fire Department and tree or snow damage could block the driveway into the Fire Station thus causing delay or non-response from the EHCDFD.

Windstorms, Tornadoes: Our municipal campground is active during summer and fall months with RVs and campers and does not have a storm shelter.

We have experienced power outages from strong wind events that brought down power lines and trees.

High winds could pose a problem if it were to blow over the large irrigation system at the wastewater ponds.

Extreme Cold: In the past we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold. The city has experienced damage to roads from spring frost heaves. In extreme cold the city's Water Tower has no recirculation pump or mixer inside the bowl and could possibly freeze and tip over.

Extreme Heat: Extreme heat could [overwhelm] the power grid and that could cause widespread outages meaning no pumps at the water tower or lift stations.

City of LaPorte

No local vulnerabilities to report.

City of Nevis

Windstorms, Tornadoes: The city has no designated locations as a tornado shelter. The city of Nevis has no propane generator.

City of Park Rapids

No local vulnerabilities to report.

3.4.2 Future Development

Because Hubbard County is vulnerable to a variety of natural hazards, the county government—in partnership with the state government—must make a commitment to prepare for the management of these events. Hubbard County is committed to ensuring that county elected and appointed officials become informed leaders regarding community hazards so that they are better prepared to set and direct policies for emergency management and county response.

As part of the vulnerability assessment conducted for the Hubbard County HMP update, jurisdictions were asked to describe if there were any factors related to population growth, zoning, or development they felt have increased their community's vulnerability to future severe weather or disaster events. The following is a compilation of common responses taken directly from jurisdictional representatives as preserved in Appendix C: Part A. Responses here are edited only for clarity.

Hubbard County

New residential and commercial properties within our county would increase the cost of damage due to a tornado, wind, or hail along with increased stormwater runoff to our stormwater system.

City of Akeley

No increase in vulnerability to report.

City of Laporte

No increase in vulnerability to report.

City of Nevis

No increase in vulnerability to report.

City of Park Rapids

No increase in vulnerability to report.

In the development of local mitigation actions, all jurisdictions were encouraged to consider hazard mitigation strategies that would reduce risk in relation to future development, such as the update of local comprehensive plans, enforcement of ordinances, and incorporation of infrastructure improvements to reduce local vulnerabilities (see Appendix H).

The Hubbard County emergency management director will work to keep the jurisdictions covered by the HMP engaged and informed during the plan's cycle. By keeping jurisdictional leaders involved in the monitoring, evaluation, and update of the HMP, they will keep their local governments aware of the hazards that face their communities and how to mitigate those hazards through planning and project implementation.

Section 6 of this plan further outlines the process by which Hubbard County will address the maintenance of this plan, including monitoring, evaluation, and update of the plan, as well as implementation and continued public involvement.

Section 4 – Hazards

As part of the risk assessment, each natural hazard that poses risk to the county was independently reviewed for its past hazard history, relationship to future trends, and jurisdictional vulnerability to future events. A capabilities assessment was also conducted by the county to review the plans and programs that are in place or that are lacking (program gaps or deficiencies) for the implementation of mitigation efforts, as related to each natural hazard. An assessment was also conducted for local jurisdictions to identify the plans, policies, programs, staff, and funding they have in place in order to incorporate mitigation into other planning mechanisms (see Section 5.1 and Appendix C).

[Read more about natural hazard prioritization and view interactive information on all hazards](#)

Hazards that were deemed by Hubbard County to be of moderate to high risk are addressed in the following hazard profiles. Hazards that were determined to be of low risk or without substantive mitigation actions to address them are not required to be included.

4.1 Flooding

Flooding is the most significant and costly natural hazard in Minnesota. Only one of the 11 federal disaster declarations in Hubbard County included flooding.

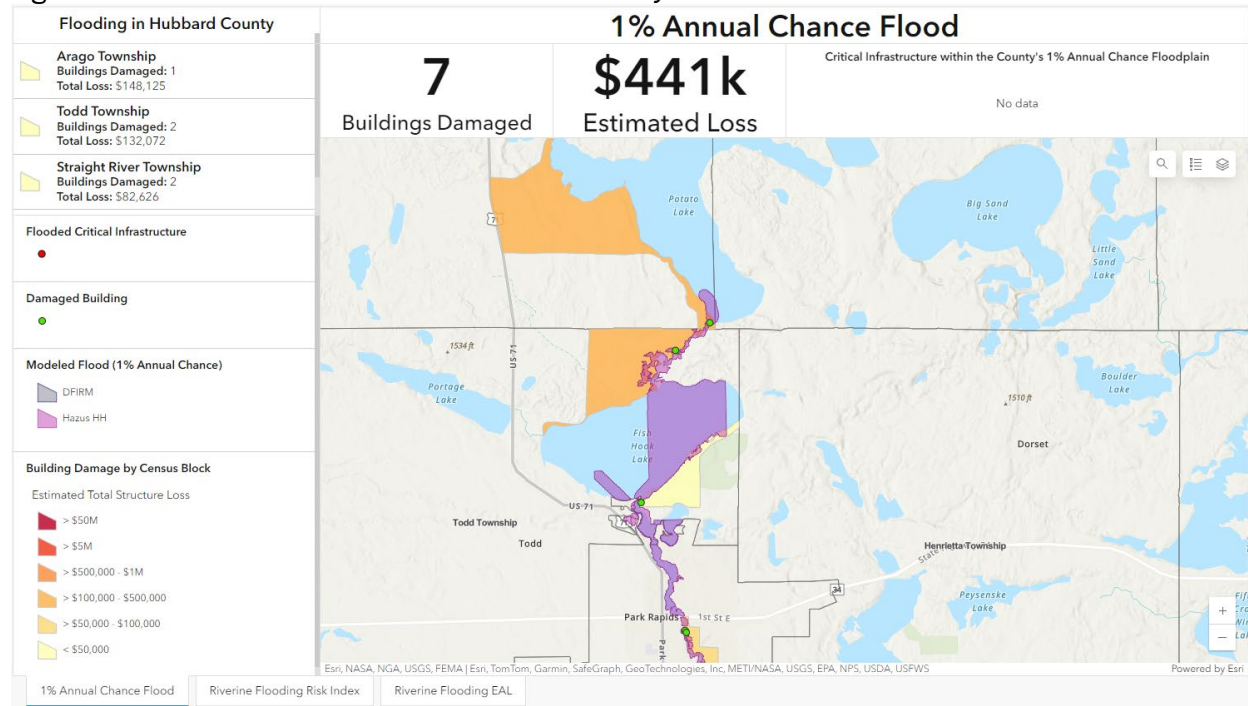
4.1.1 Probability of Occurrence

From 1997 through February 2024, the NCEI Storm Events Database has recorded nine flood and flash flood events. Hubbard County has experienced one flash flood event every 4.1 years and one riverine flood event every 5.1 years on average during this period.

[View interactive maps and see information about flooding history, risk, and vulnerability](#)

Minnesota HSEM has encouraged a potential risk and economic loss analysis for a 1% annual chance flood using the FEMA tool, Hazus for ArcGIS. Digital Flood Insurance Rate Maps (DFIRM) were not available to define the 1% annual chance flood boundary. A Hydrologic and Hydraulic (H&H) model was run in Hazus to generate a depth grid with a 10-meter horizontal resolution. This modeling was only done for rivers intersecting an incorporated city in Hubbard County. The resulting Hazus 1% annual chance floodplain is shown in the Flood Vulnerability dashboard on the Hubbard County HMP website (Figure 1), where it is available in an interactive form.

Figure 1. 1% Annual chance flood in Hubbard County



4.1.2 Vulnerability

Potential economic loss estimates were based on county-specific building data. Hubbard County provided parcel tax and spatial databases that included building valuations, occupancy class, square footage, year built, and number of stories. The quality of the inventory is the limiting factor to a Hazus flood model loss estimation. Best practices were used to use local data and assumptions were made to populate missing (but required) values.

[View at-risk populations in Hubbard County](#)

Hazus reports the percent damage of each building in the floodplain, defined by the centroid of each building's footprint. After formatting the tax and spatial data, 24,329 points were input to Hazus to represent buildings with a total estimated building plus contents value of \$5.8 billion. Approximately 85% of the buildings (and 81% of the building value) are associated with residential structures. The estimated loss by occupancy class for the entire county is shown in Table 8.

Table 8. Summary of 1% annual chance flood loss estimation by occupancy class

General Occupancy	County Total Buildings	County Building and Contents Value	Floodplain Total Buildings	Floodplain Building + Contents Value	Buildings with damage	Building + Contents Loss
Residential	20,875	\$4,698,933,218	6	\$2,062,950	2	\$167,420
Commercial	736	\$320,872,808	4	\$819,600	3	\$195,403
Other	2,718	\$787,675,402	2	\$188,800	2	\$78,189
Totals	24,329	\$5,807,481,428	12	\$3,071,350	7	\$441,012

SOURCE: (FEMA, 2023A)

The distinction between building attributes within a parcel was not known, so the maximum percent damage to a building in that parcel was used to calculate loss estimates for the entire parcel. The sum of all the losses in each census block were aggregated to visualize the loss (see [flood risk map on the HMP website](#)). Please note: It is possible for a building location to report no loss even if it is in the flood boundary. For example, if the water depth is minimal relative to 1st-floor height, there may be 0% damage.

Hazus Critical Infrastructure Loss Analysis

Critical facilities and infrastructure are vital to the public and their incapacitation or destruction would have a significant negative impact on the community. These facilities and infrastructure were identified on the [HMP website](#) and verified by Hubbard County.

Buildings identified as essential facilities for the Hazus flood analysis include hospitals, police and fire stations, and schools (often used as shelters). Loss of essential facilities are vulnerable to structural failure, extensive water damage, and loss of facility functionality during a flood, thereby negatively impacting the communities relying on these facilities' services. Fortunately, none of Hubbard County's essential facilities included in the Hazus flood analysis are located within the 1% annual chance floodplain.

Extreme precipitation resulting in flooding may overwhelm water infrastructure, disrupt transportation and cause other damage. Particularly where stormwater, sewage and water treatment infrastructure is aging or undersized for more intense rainstorms, extreme rain events may pose both health and ecological risks in addition to costly damage (USGCRP, 2018b).

It is important to identify any critical infrastructure within the 1% annual chance floodplain, given the higher risk of the facility or infrastructure being incapacitated or destroyed during a flood. None of Hubbard County's critical infrastructure was determined to be in the 1% chance flood boundary using the available facility data.

Community Vulnerability

Potential economic losses were estimated by Census Minor Civil Division. Park Rapids City, as well as Arago, Todd, and Straight River Township all would experience some flooding and in the 1% annual chance flood.

The status of jurisdictional participation in the National Flood Insurance Program and any repetitive loss properties are detailed in Section 5.1.1. National Flood Insurance Program (NFIP).

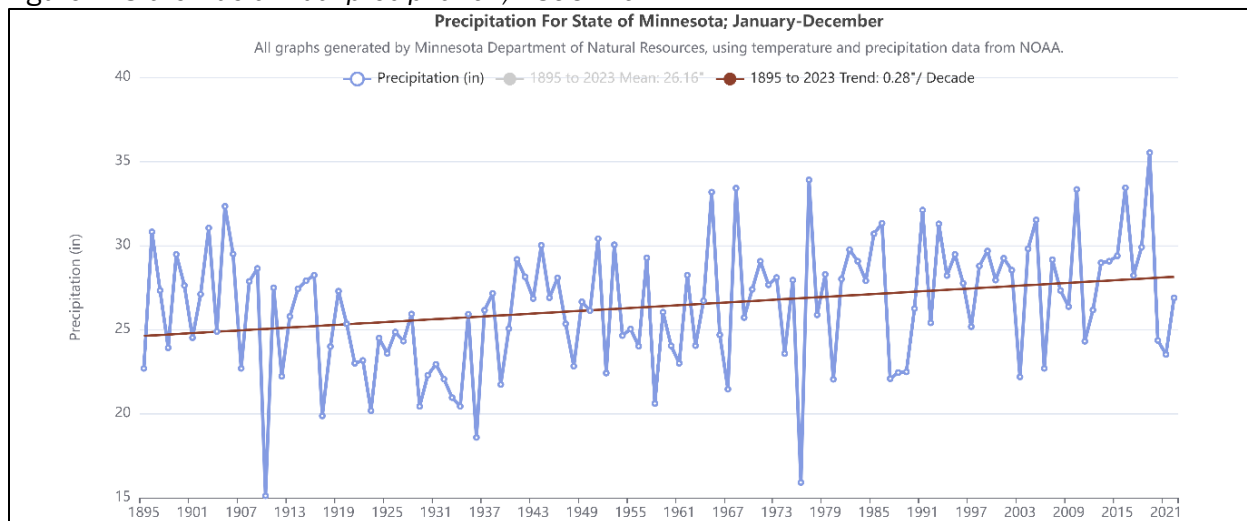
The Lake Belle Taine Watershed was mentioned by planning team members as an area of localized and potentially increasing flooding due to rising lake levels. This isolated watershed does not connect directly to the Mississippi watershed. Lake Belle Taine, in the south part of this watershed, is at the bottom of the Mantrap chain of lakes. As the water height increases, there are impacts to property, lake water quality, and commerce that is supported by recreation (Geisen, 2022). Hubbard County Soil and Water Conservation District (SWCD) is leading a 10-year, comprehensive management plan for the Crow Wing River Watershed which includes parts of 9 counties. This One Watershed, One Plan planning process will address some of the vulnerabilities caused by rising water levels and the geography of the area. Detailed water quantity and storm water flow modeling will be conducted in the

Lake Belle Taine area to inform the planning (C. Mathisrud, personal communication, October 31, 2024).

4.1.3 Flooding and Climate Change

Higher temperatures globally have evaporated more surface and ocean water into the atmosphere, which, in turn, has provided more potential moisture for precipitating weather systems. In Minnesota, the result has been increased precipitation, with annual totals increasing at an average rate of just over a quarter inch per decade statewide since 1895 (see Figure 2).

Figure 2. Statewide annual precipitation, 1895–2022



SOURCE:(MN DNR, 2024B)

Key Message #1 in the Water Chapter of the NCA5 states that climate change will continue to cause profound changes in the water cycle.

Snow cover will decrease and melt earlier and heavier rainfall is leading to increasing flooding (Payton et al., 2023). Additional increases in heavy and extreme precipitation are expected to remain the state's leading climate change symptoms. Heavy rains are now more common in Minnesota and more intense than at any time on record. Long-term observation sites have seen dramatic increases in one-inch rains, three-inch rains, and the size of the heaviest rainfall of the year. Since 2000, Minnesota has seen a significant uptick in devastating, large-area extreme rainstorms as well. Rains that historically would have been in the 98th percentile annually (the largest 2%) have become more common (MN DNR, 2024a).

This precipitation increase is found in all seasons, but spring and summer are becoming wetter at faster rates than fall and winter. Whereas temperature increases have been greatest in the northern parts of the state, precipitation increases have been well distributed geographically, and have somewhat favored southern Minnesota, which has better access to moisture from the Gulf of Mexico and is more frequently near the “low-level jet” airflow (a relatively fast-moving zone of winds in the lower atmosphere) that influences precipitation production

4.1.4 Program Gaps and Deficiencies

Hubbard County Emergency Management identified existing program gaps and deficiencies that make its residents more vulnerable to flooding. The following gaps and deficiencies should be addressed with new mitigation efforts to reduce that vulnerability:

Road Infrastructure: Flood mitigation for county and township roads (i.e., culvert replacements, road repair) is an ongoing need. The county and many of our townships have limited funding for road infrastructure. Hubbard County continues to provide assistance on road infrastructure mitigation projects to reduce the impacts of localized flooding.

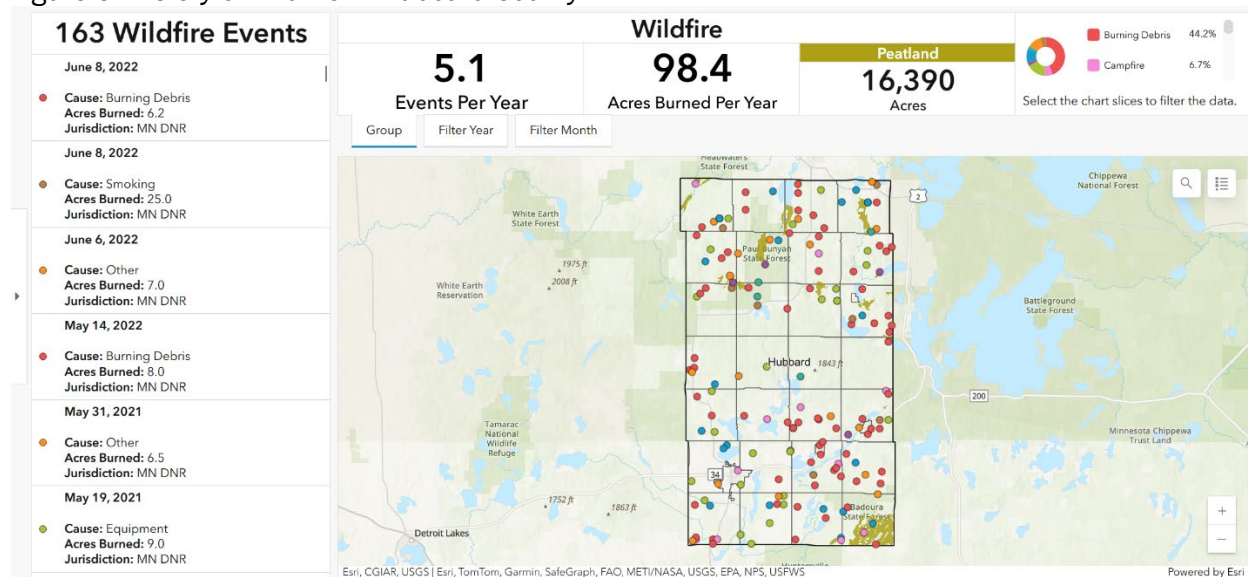
Funding: The county needs funding assistance to improve roads and culverts that experience repetitive flooding. Significant State and Federal funding is needed to construct infrastructure projects to prevent, reduce, and mitigate the impacts of high rain events and flooding.

4.2 Wildfire

Wildfire is an uncontrolled fire spreading through vegetative fuels, posing danger and destruction to property. Minnesota experienced an average of 1,400 wildfires each year between 1985 and June 2021 (MN DNR, 2021b). Wildfires occur throughout the spring, summer, and fall; however, most wildfires in Minnesota take place in March, April, and May. The history of wildfire in Hubbard County is shown in Figure 2; an interactive map is available on the Hubbard County HMP website.

[View interactive maps and see information about wildfire history, risk, and vulnerability](#)

Figure 3. History of wildfire in Hubbard County



4.2.1 Probability of Occurrence

To determine the probability of future wildfires, records of previous wildfire events in THE COUNTY were summed and divided by the dataset's period of record, resulting in the annual relative frequency of wildfires during the period of record. Based on Minnesota DNR records, from January 1985 to June 10, 2021, the relative frequency of wildfire events in the county is 5.1 per year (MN DNR, 2023). This relative frequency can be used to infer the probability of these events occurring in the future.

4.2.2 Vulnerability

Wildfires jeopardize the built environment, health, and wellbeing of individuals living near its fuel source. Some residents are more vulnerable to air quality conditions of wildfire, including children, older adults, and those with respiratory issues (AirNow, 2021).

Structures located in areas near undeveloped wildland are vulnerable to wildfires. The SILVIS Lab at University of Wisconsin–Madison created a dataset documenting the changes of the wildland–urban interface (WUI) in the United States from 1990 to 2010. Radeloff et al. (2018) define WUI as the area where structures and other human development meet or intermingle with wildland vegetation. With the increase of development in metropolitan fringes and rural areas, the WUI is growing. The expansion of the WUI in recent decades has significant implications for wildfire management and impact as it creates an environment in which fire can readily move between structural and vegetation fuels. Its expansion has increased the likelihood that wildfires will threaten structures and people (Radeloff et al., 2018).

There are two main types of WUI: intermix and interface. Intermix WUI are areas where housing and wildland vegetation intermingle; interface WUI are areas where housing are adjacent to wildland vegetation (Radeloff et al., 2018). Table 9 shows the change of total WUI (intermix and interface) in the county from 2000 to 2020, and the percentage of the county's land, housing, and population in the WUI area.

Table 9. Wildland-Urban Interface (WUI), Hubbard County, 2000–2020

	Total WUI 2000	Total WUI 2010	Total WUI 2020	% Change (2000–2020)
Land Area	13.5%	16.6%	17.5%	+29%
Housing	65.1%	67.3%	68%	+4.5%

SOURCE: (RADELOFF, MOCKRIN, ET AL., 2023)

Communities with higher proportions of WUI areas are more vulnerable to wildfires. The percentage of WUI within individual jurisdictions in Hubbard County is shown in Table 10. Section 3.4 provides jurisdictional responses to localized vulnerabilities to specific hazards.

Table 10. Percentage of land area classified as WUI per jurisdiction in Hubbard County

Township/City	Percent WUI
Helga	49.2
Lake Emma	46
Nevis	42.2
Akeley	41.1
Laporte	36.7

Township/City	Percent WUI
Henrietta	36.3
Crow Wing Lake	29.3
Akeley	26.7
Todd	26.7
Mantrap	24.7
Arago	23.7
Lakeport	23.1
Hubbard	19.2
Farden	14
Straight River	13.9
White Oak	12.8
Nevis	11.8

SOURCE: (RADELOFF, HELMERS, ET AL., 2023)

4.2.3 Wildfire and Climate Change

The changing climate poses a complex web of issues for wildfire in Minnesota. Climate change likely is affecting the frequency and intensity of Canadian wildfires, similar to its effect on wildfires in the western U.S. and Alaska (Wehner, 2017). Small particulate pollution from smoke plumes has numerous health impacts as described above, and if severe enough can result in spikes of demand for emergency services. Based even on intermediate (RCP4.5) future climate projections, many Midwest counties will experience increased exposure to wildfire smoke (Mills et al., 2018).

According to the NCA5, Key Message #3 in the Midwest Chapter, Climate Adaptation will require innovative collaborations between public health and other sectors such as emergency management (Wilson et al., 2023).

Changes in Minnesota's climate also may be influencing the frequency, severity, and areal coverage of wildfires. For example, warmer winters with inconsistent snow cover, the arrival of wet conditions prior to the growing season, plus early and more frequent thaws, all combine to prolong the exposure of susceptible vegetation to dry conditions, potentially extending the peak wildfire season.

Minnesota's changing climate also may affect fire-damaged areas. For instance, heavy rains in burned areas can lead to erosion and mudslides. Documented and projected increases in the frequency and intensity of heavy and extreme rainfall suggest that Minnesota is becoming and will become more prone to post-fire landscape hazards. Climate change also is having an impact on the pests that damage the health and composition of Minnesota forests, although the ultimate consequences for wildfire are complex and uncertain. Shorter winters are allowing two reproductive cycles of the Eastern Larch Beetle, which has now killed off at least 143,000 acres of mature tamarack forest in Minnesota since 2001 and affected about 535,000 acres to some degree during that period. The decline in severity and frequency of extreme cold may allow more rapid establishment of Emerald Ash Borer to latitudes further north than without climate change. Minnesota forests are home to an estimated 1 billion ash trees. Many of these trees are in nearly pure stands of black ash growing in wet areas. So while the deaths of these lowland species will increase fuel loading, their decreased transpiration will increase water on the ground. The ultimate contribution to wildfire will depend on the interplay

between increased precipitation, warming temperatures, extreme heat, and periods of drought as our climate continues to change.

Temperatures are predicted to rise in the state, which could lead to more extreme heat events and associated wildfire risks. As Minnesota's climate changes, weather fluctuations between drought and extreme rain events and increasing temperatures will result in changes to forest composition and/or distribution. These fluctuations can lead to dry conditions that may cause increased fire risk in both grassland and forest environments.

The varied impacts of climate change are complicated by how these changes also interact with and reinforce one another. Drought and heat may both contribute to wildfires, which may in turn lead to changes in plant and animal populations and other ecological shifts. Increasing events of extreme heat and drought can increase the number of wildfires (Blumenfeld, K. Minnesota State Climatology Office, personal communication, January 9, 2019).

4.2.4 Program Gaps and Deficiencies

Hubbard County Management identified existing program gaps and deficiencies that make its residents more vulnerable to wildfire. These gaps should be addressed with new mitigation efforts to reduce vulnerability, outlined as follows:

Community Wildfire Protection Plan: Hubbard County does not have a CWPP in place. Developing a CWPP in coordination with local fire departments and the MN DNR will allow Hubbard County to identify areas of high wildfire risk, targeted wildfire mitigation activities, and allow for greater access to more funding for any follow-up projects identified.

Wildland Fuels Mitigation and Water Resources: Wildfire is an increasing concern with continued expansion of the wildland urban interface. Hubbard County can seek to work in greater coordination with MN DNR Forestry and local jurisdictions to address wildland fuels mitigation in wildland-urban interface areas within the county. Local fire departments may also need to assess needs for rural water supplies such as cisterns.

4.3 Windstorms

A windstorm is a wind strong enough to cause damage to trees and buildings and typically exceeding 34 mph (Pielke, 2012). Windstorm events encompass a variety of types of damaging wind. The history of windstorms in Hubbard County is shown in Figure 4; an interactive version of this map can be found on the Hubbard County HMP website.

[View interactive maps and see information about windstorm history, risk, and vulnerability](#)

4.3.1 Probability of Occurrence

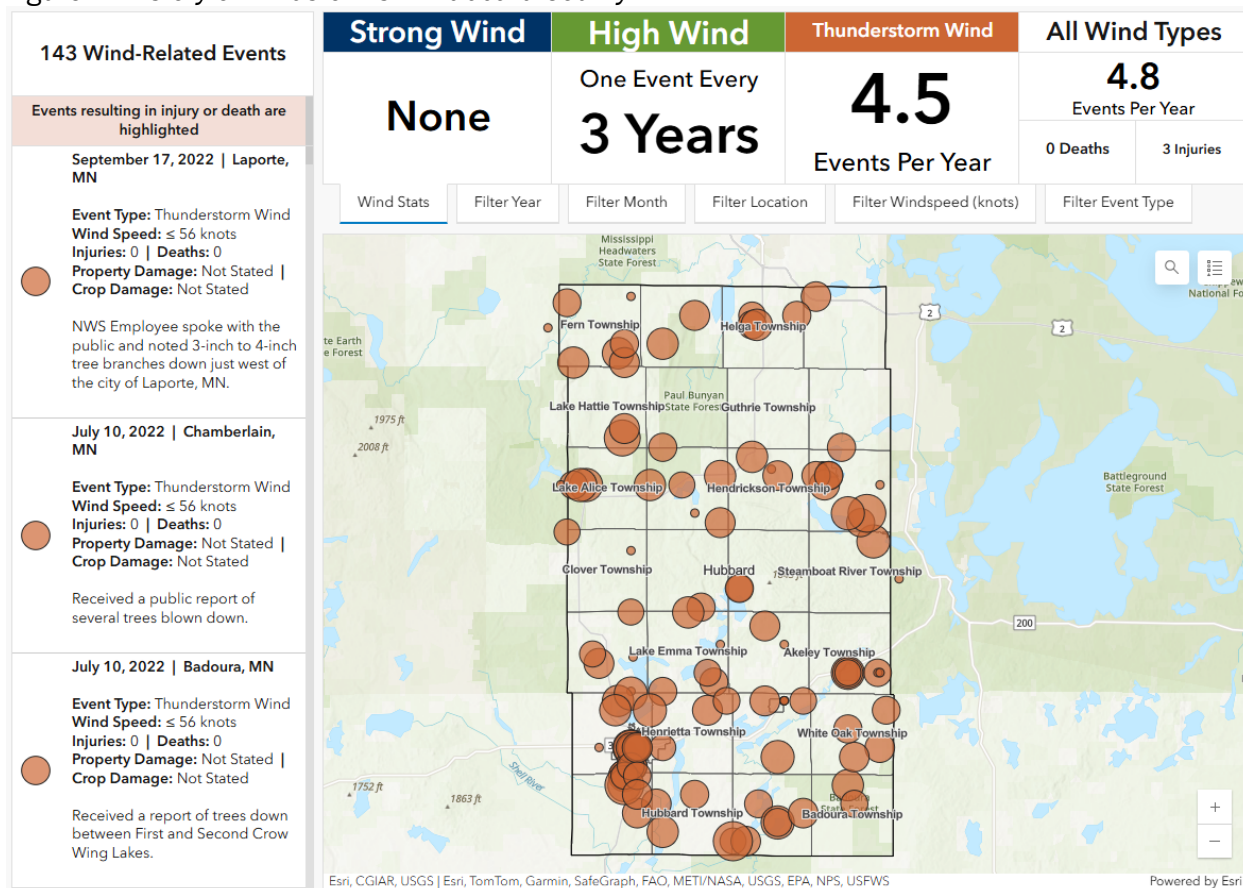
To determine the probability of future wind-related events in Hubbard County, records of previous wind-related events (strong wind, high wind, and thunderstorm wind) in Hubbard County were examined since 1996, the period of record all wind events have in common. The relative frequency of all wind-

related events from January 1996 to February 2024 is 4.8 per year. These relative frequencies can be used to infer the probability of these events occurring in the future.

4.3.2 Vulnerability

The likelihood of a windstorm event does not vary geographically within the county, but the vulnerability of its residents is not constant. Vulnerability to injury from all kinds of windstorms decreases with adequate warnings, warning time, and sheltering in a reinforced structure. Therefore, residents living in rural areas, living alone or with limited mobility, or living in a manufactured home may be more vulnerable. Also at a higher risk to windstorms are those who work outdoors or do not have permanent housing.

Figure 4. History of windstorms in Hubbard County



Structural vulnerability depends in part upon the construction of a building and its infrastructure. Residents of mobile homes are more vulnerable to fatality or injury from windstorms because mobile homes are not able to withstand high winds as well as other structural dwellings, with 50 mph (43.4 knots) being the lower limit of wind speeds capable of damaging mobile homes (AMS, 2004). Steps to mitigate these vulnerabilities have been taken by the state, requiring all mobile home parks to provide an evacuation plan, and parks with at least 10 homes licensed after March 1, 1988 to provide a storm shelter (MDH, 2020). However, mobile home parks often do not provide the required storm shelters (Sepic, 2017). Building codes have also changed to improve the strength of new mobile home construction but there are still many older mobile homes in use that do not meet these new standards.

Section 3.4 provides jurisdictional responses to localized vulnerabilities to specific hazards.

4.3.3 Windstorms and Climate Change

Lack of high-quality long-term data sets makes assessment of changes in wind speeds very difficult (Kunkel et al., 2013). In general, one analysis found no evidence of significant changes in wind speed distribution. Other trends in severe storms, including the number of hurricanes and the intensity and frequency of tornadoes, hail, and damaging thunderstorm winds, are uncertain. Since the impact of more frequent or intense storms can be larger than the impact of average temperature, climate scientists are actively researching the connections between climate change and severe storms (USGCRP, 2018a).

According to the NCA5 Key Message #5 in the Climate Trends chapter, extreme events are becoming more frequent.

4.3.4 Program Gaps and Deficiencies

Hubbard County Emergency Management identified several program gaps and deficiencies that make its residents more vulnerable to summer storms, including windstorms, that should be addressed with new mitigation efforts to reduce vulnerability. These include:

Above-Ground Power Lines: Most powerlines throughout Hubbard County are above ground, exposing them to potential damage from high wind events. The county and local jurisdictions continue to work with utility providers to convert overhead powerlines to underground or to implement other measures to reduce risk of power failure.

Public Education: Ongoing public education is needed during tornado season to inform the public on what is a tornado watch/warning and what to do when outdoor warning sirens are activated. Hubbard County and local jurisdictions also need to continue to encourage residents to be aware of and ready for severe storm events that can lead to long-term power outages.

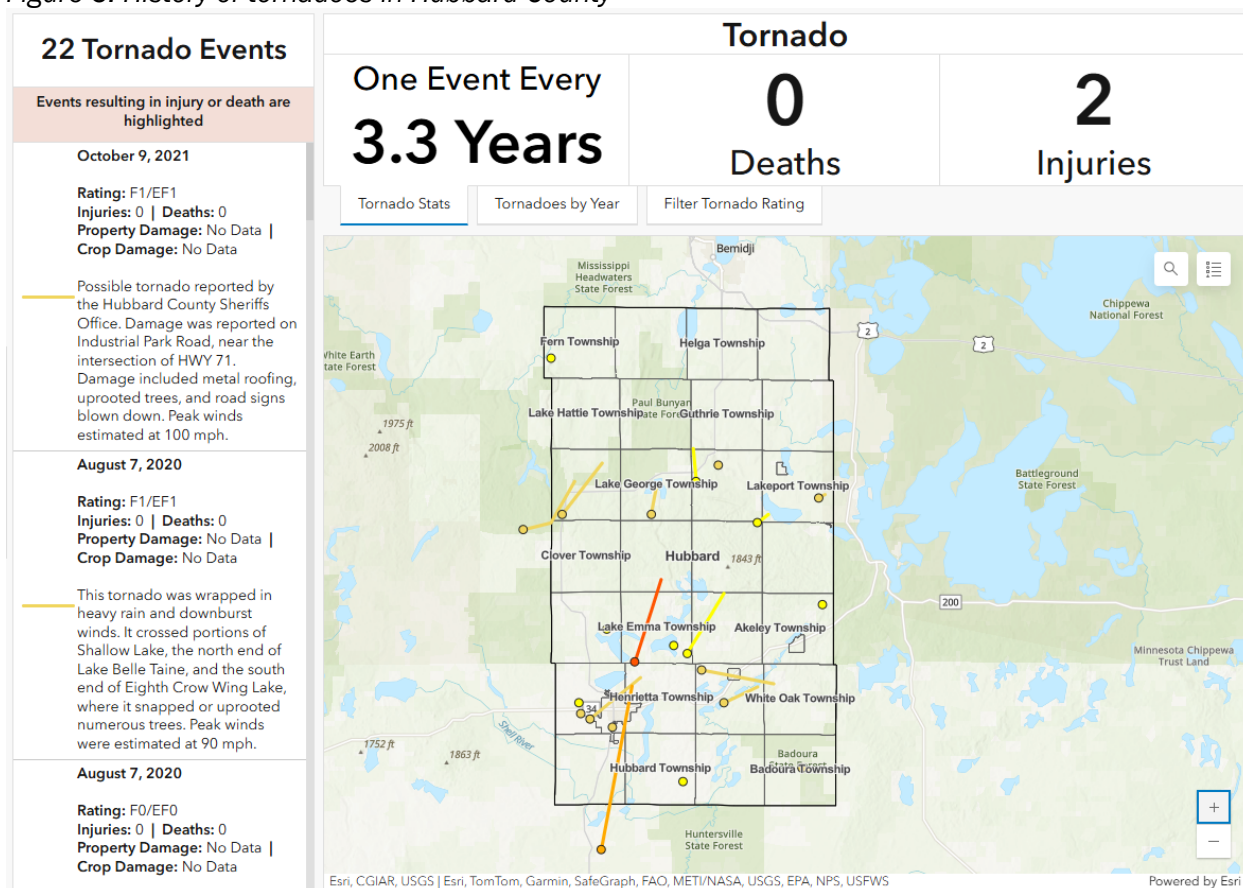
Storm Shelters and Tornado Safe Rooms: There are areas throughout Hubbard County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as mobile home parks and campgrounds. A coordinated approach is needed to identify where storm shelters or tornado safe rooms are needed and to evaluate whether new construction or a retrofit of facilities is possible. Finding funding for the implementation of such construction projects is also a barrier.

4.4 Tornadoes

With wind speeds reaching up to 300 mph, tornadoes are one of nature's most violent storms (Hogeback, 2020). The history of tornadoes in Hubbard County is shown in Figure 5; an interactive version of this map can be found on the Hubbard County HMP website.

[View interactive maps and see information about tornado history, risk, and vulnerability](#)

Figure 5. History of tornadoes in Hubbard County



4.4.1 Probability of Occurrence

Estimating the probability of future tornadoes in Hubbard County was done using two methods. The first method summed the total number of tornadoes that either touched down in or traveled through the county. This sum was divided by the number of years tornado data was recorded, resulting in the annual relative frequency of tornado occurrences in the county. Based on records in the NCEI Storm Events Database through January 2024, there has been one tornado every 3.3 years in Hubbard County. These 22 tornadic events occurred in 13 of the 72 years on record.

Because tornadoes often cross county lines and tornadic frequency may be better understood using events from a larger area, a second method was used to describe the frequency of tornadic events within a 50-mile radius of any location within the county. A grid of 900 square-meter cells was used to cover Minnesota and 50 miles beyond its border. From the center of each cell, the number of tornadoes that intersected a 50-mile radius was counted. Each cell was assigned a total tornado line count, which was then divided by the tornado dataset's period of record, resulting in the annual relative frequency of tornadoes occurring within 50 miles of the respective cell.

For any location in Hubbard County, there was an annual frequency of 1–3 tornadoes within a 50-mile radius. The historical frequency was only slightly higher in the southwest than the northeast. These relative frequencies can be used to infer the probability of these events occurring in the future.

4.4.2 Vulnerability

The likelihood of a tornado does not vary significantly across geography within Hubbard County; however, certain populations may be more vulnerable and less resilient to the impacts of a tornado. In general, tornado casualties decrease when people receive adequate warnings with sufficient time to seek shelter in a reinforced structure. Because communication is critical before a tornadic event, certain residents may be more negatively impacted by a tornado, including those living in rural areas, individuals with limited mobility, people who do not live near an outdoor warning siren, or those who do not use social media. Section 3.4 provides jurisdictional responses to localized vulnerabilities to specific hazards.

[View at-risk populations in Hubbard County](#)

People living in mobile homes are particularly vulnerable to tornadoes due to them not being able to withstand the strong winds produced by a tornado. An analysis by the Associated Press of NOAA storm data found that since 1996, 53% of tornado fatalities in the United States were people who remained within or attempted to flee from mobile homes (Borestein et al., 2023). While Minnesota law requires most mobile home parks to have storm shelters, many do not (Raiche, 2022).

4.4.3 Tornadoes and Climate Change

Minnesota's climate is undergoing distinct changes, but as reported by the MN DNR State Climatology Office, these changes are only weakly connected to increases in tornadoes or severe convective storms. Minnesota, like all parts of the U.S., has seen increases in the weakest class of tornadoes (rated F-0 or EF-0), but these increases are known to be linked to improved spotting, detection, and verification procedures within the National Weather Service.

When examining tornadoes that cause significant structural damage and are rated EF-2 or above, Minnesota has seen no recent trends towards increasing frequencies—whether measured as raw counts, or as days with one or more of these tornadoes (MN DNR, 2019).

The tornado trends in Minnesota match those found nationally. NCA5 states that while the average annual number of tornadoes appears to have remained relatively constant, there is evidence that tornado outbreaks have become more frequent, tornado seasons are extending into later in the fall, and that tornado strength has increased (Marvel et al., 2023). An October 10, 2021 tornado in the Boundary Waters Canoe Area Wilderness became the latest on record so far north in the state. Then, on December 15, 2021, an outbreak of destructive thunderstorm winds and over 20 tornadoes struck the southeastern parts of the state, producing the latest tornadoes on record by 29 days (Blumenfeld, K. Minnesota State Climatology Office, personal communication, December 21, 2023).

According to the NCA5 Key Message #5 in the Climate Trends chapter, extreme events are becoming more frequent.

However, climate scientists are unclear about whether the recent statistical behavior of these severe convective storm events has any relationship with the changing climate. This uncertainty results from the fact that tornadoes and their parent thunderstorms operate on smaller scales and more localized processes than the global climate. There has been some indication that, on a national basis, tornadoes

are being clustered into fewer days, suggesting a greater tendency towards outbreaks. Scientific modelling studies indicate that the meteorological conditions supportive of severe thunderstorms should increase in the future, but it is unclear whether the specific conditions required for the formation of tornadoes, and particularly significant tornadoes, will increase (Kossin, 2017). Until more studies are completed, the Minnesota State Climatology Office recommends assuming that tornadoes will remain an important and dangerous part of Minnesota's climate, even if they do not increase in frequency or severity in response to changing climatic conditions.

4.4.4 Program Gaps and Deficiencies

Hubbard County Emergency Management identified that there are several program gaps and deficiencies that make its residents more vulnerable to summer storms, including tornadoes, that should be addressed with new mitigation efforts to reduce vulnerability. These include:

Above-Ground Power Lines: Most powerlines throughout Hubbard County are above ground, exposing them to potential damage from high wind events. The county and local jurisdictions continue to work with utility providers to convert overhead powerlines to underground or to implement other measures to reduce risk of power failure.

Public Education: Ongoing public education is needed during tornado season to inform the public on what is a tornado watch/warning and what to do when outdoor warning sirens are activated. Hubbard County and local jurisdictions also need to continue to encourage residents to be aware of and ready for severe storm events that can lead to long-term power outages.

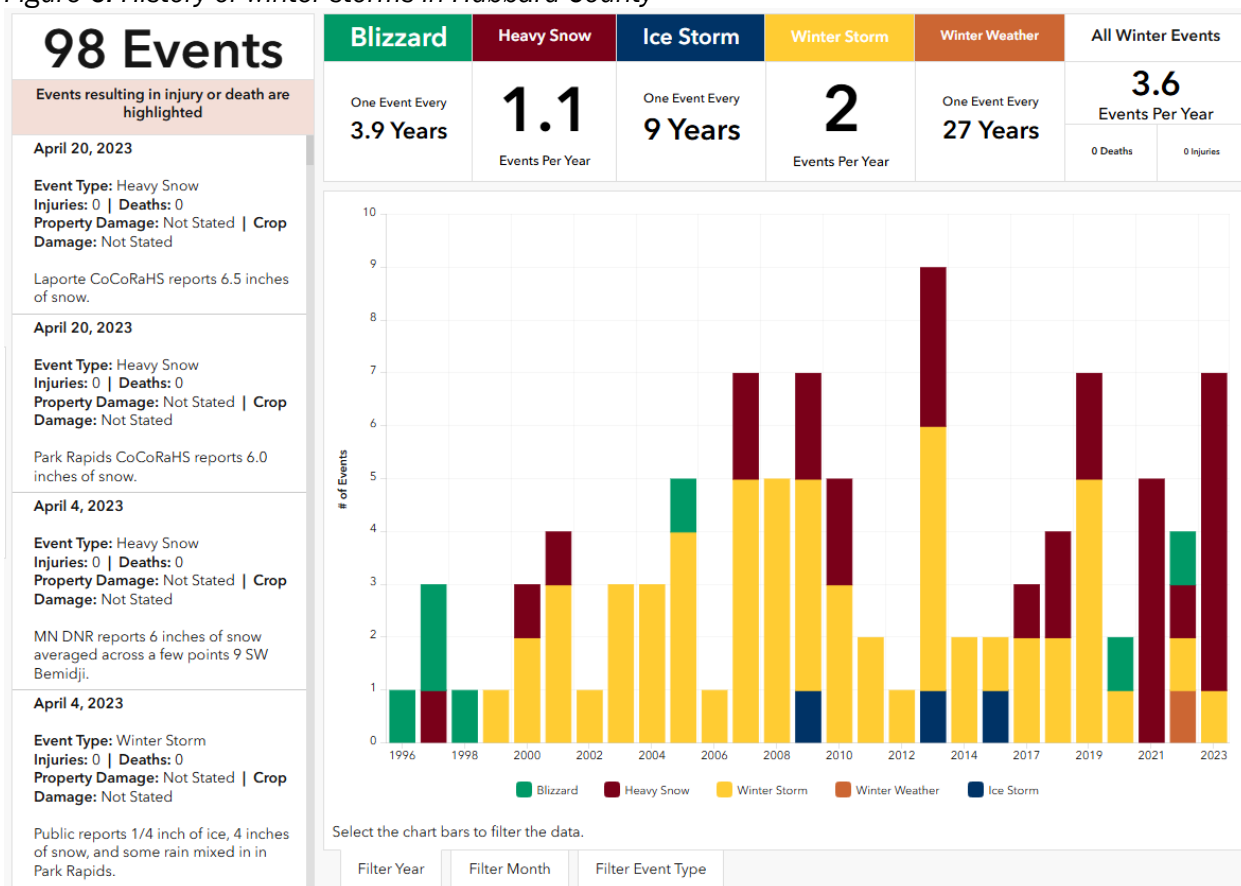
Storm Shelters and Tornado Safe Rooms: There are areas throughout Hubbard County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as mobile home parks and campgrounds. A coordinated approach is needed to identify where storm shelters or tornado safe rooms are needed and to evaluate whether new construction or a retrofit of facilities is possible. Finding funding for the implementation of such construction projects is also a barrier.

4.5 Winter Storms

Winter storms encompass a number of winter weather events which the National Weather Service (NWS) organizes into the following categories: blizzard, heavy snow, ice storm, winter storm, and winter weather. Winter weather events are common in Minnesota and can be costly. According to the Spatial Hazard Events and Losses Database (SHELDUS), winter weather events in Minnesota have cost more than \$1.02 billion in damages since 1960 (CEMHS, 2023). The history of winter storms in Hubbard County is shown in Figure 6; an interactive version of this map can be found on the Hubbard County HMP website.

[View interactive maps and see information about winter storm history, risk, and vulnerability](#)

Figure 6. History of winter storms in Hubbard County



4.5.1 Probability of Occurrence

To determine the probability of future winter-related storm events in Hubbard County, records of previous events (blizzards, heavy snows, ice storms, winter storms, and winter weather) were summed and divided by the dataset's period of record, resulting in the annual relative frequency of winter-related storms. Based on records in the NCEI Storm Events Database through January 2024, the relative frequency of winter-related storm events in Hubbard County is 3.6 per year. This relative frequency can infer the probability of these events occurring in the future.

4.5.2 Vulnerability

Transportation systems, electrical distribution systems, and structures are vulnerable to winter storms throughout the county. These events do not vary geographically within the county; all jurisdictions are equally vulnerable. While it is highly likely these events will continue occurring annually, the amount of snow and ice and number of winter-related storm events to occur each year are unpredictable. Citizens living in climates such as these must always be prepared for situations that put their lives or property at risk. It is important that extra consideration be given to the vulnerable populations discussed in Section 3.2. Section 3.4 provides jurisdictional responses to localized vulnerabilities to specific hazards.

4.5.3 Winter Storms and Climate Change

Historically, winter storms have had a large impact on public safety in Minnesota. If the frequency of snowstorms and annual total snowfalls increase, as anticipated effects of Climate Change, the effects on public safety will also increase. Pressures on energy use, reduced reliability of services, potential outages, and potential rise in household energy costs are major climate change risks to public health that can occur from winter weather.

Table 7 in Section 3.3 discusses confidence that climate change will impact common Minnesota weather/climate hazards beyond 2025, there is some weak evidence that warming winters may make heavy snowfall events less frequent as winter warms.

4.5.4 Program Gaps and Deficiencies

Hubbard County Emergency Management identified several program gaps and deficiencies that make its residents more vulnerable to severe winter storms. The following gaps and deficiencies should be addressed with new mitigation efforts to reduce that vulnerability:

Above-Ground Power Lines: Most powerlines throughout Hubbard County are above ground, exposing them to impacts/damage from winter high wind and ice events, potentially leading to localized or extensive power outages.

Public Education: Ongoing public education is needed to encourage residents to be ready for long-term power outages or to be snowed in during dangerous winter events such as ice storms and blizzards.

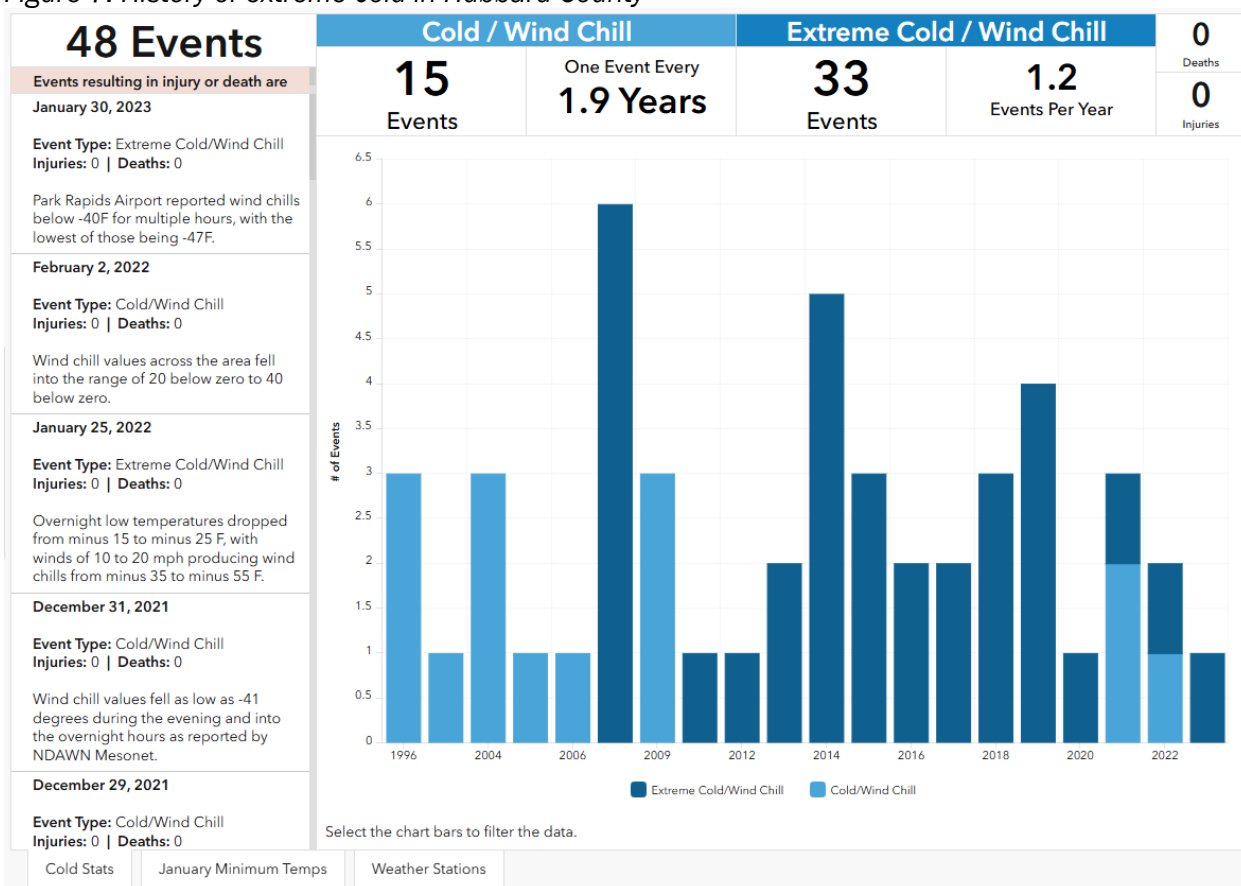
Backup Power: Not all designated shelter facilities have generator back-up power to provide the ability to care for residents if displaced during a severe winter event coupled with an extended power outage.

4.6 Extreme Cold

Due to Minnesota's position in the middle of the continent and subsequent climate, the state may experience extremely frigid temperatures in winter. Winter in Hubbard County can be especially dangerous when low temperatures and wind create arctic-like wind chills. The history of extreme cold in Hubbard County is shown in Figure 7; an interactive version of this dashboard can be found on the Hubbard County HMP website.

[View interactive maps and see information about extreme cold history, risk, and vulnerability](#)

Figure 7. History of extreme cold in Hubbard County



4.6.1 Probability of Occurrence

To determine the probability of future cold-related events in Hubbard County, records of previous cold/wind chill and extreme cold/wind chill events were summed and divided by the dataset's period of record, resulting in the annual relative frequency. Based on records in the NCEI Storm Events Database through January 2024, the relative frequency of extreme cold/wind chill events in Hubbard County is 1.2 per year. (NCEI, 2023). This relative frequency can be used to infer the probability of these events occurring in the future.

4.6.2 Vulnerability

The risk of extreme cold does not vary geographically within the county. Citizens living in climates such as these must always be prepared for situations that put their lives or property at risk. The youngest and more elderly residents, homeless persons, individuals with chronic medical conditions, and those who are working or recreating outdoors are most at risk for frostbite and hypothermia (MDH, 2021).

[*View at-risk populations in Hubbard County*](#)

It is not always the depth of the cold that poses a threat but rather unpreparedness for the cold, such as an individual with a vehicle breakdown who lacks a personal winter safety kit in the vehicle. The cost of propane can make rural residents more vulnerable to issues with extreme cold. A propane

shortage and resulting crisis, such as that which occurred in 2014, may increase the cost of heating homes and farms to a prohibitive amount (Eaton, 2014). The Minnesota Department of Commerce presents options and suggestions for homeowners who use propane [on their website](#).

The CDC publication “Extreme Cold: A Prevention Guide to Promote Your Personal Health and Safety” outlines preparation measures that individuals can take to reduce their vulnerability to extreme cold. Highlights in this document include advice about travel preparations, securing your home water supply, and safety during recreation (CDC, 2021).

Section 3.4 provides jurisdictional responses to localized vulnerabilities to extreme cold.

4.6.3 Extreme Cold and Climate Change

Although climate research indicates that Minnesota’s average winter lows are rising rapidly, and our coldest days of winter are now warmer than we have ever recorded, cold temperatures have always been a part of Minnesota’s climate, and extreme cold events will continue.

As the climate changes, an increase in extreme precipitation or storm events could lead to a higher risk of residents being exposed to cold temperatures during power outages or other storm-related hazards. Extreme and changing temperatures are already challenging aging infrastructure and are expected to impair surface transportation and the electrical grid.

Key Message #4 in NCA5 in the Midwest Chapter states that green infrastructure and public and private investments may mitigate losses, provide relief from heat, and offer other ways to adapt the built environment to a changing climate.

4.6.4 Program Gaps and Deficiencies

Hubbard County Emergency Management identified several program gaps and deficiencies that make its residents more vulnerable to extreme cold. The following gaps and deficiencies should be addressed with new mitigation efforts to reduce that vulnerability:

Generators for Backup Power to Critical Facilities & Shelters: Not all healthcare and other critical facilities utilized for the care of residents & visitors, including designated severe weather/emergency shelters (schools, churches, etc.) have backup power to run heating systems in the event of a power outage.

Public Education: Ongoing public education is needed to encourage residents to be prepared for extreme weather, including power outages during periods of extreme cold. Hubbard County Emergency Management continues to do public education through the local schools, senior and health care centers, and local government for severe weather awareness.

4.7 Extreme Heat

Extreme heat is the combination of very high temperatures and exceptionally humid conditions. Hubbard County’s agricultural lands and structures are vulnerable to heat damage and its residents to injury, exacerbation of pre-existing chronic conditions, and even death (Moss, 2017). Medical costs related to extreme heat can be enormous, and with extreme heat estimated to create \$1 billion in

healthcare-related costs in the United States in 2023 (Center for American Progress, 2023). In 2023 in Minnesota, 682 people went to the emergency department and two died from heat-related illness (MDH, 2024).

When the atmospheric moisture content is high, the rate of perspiration from the body decreases and the human body feels warmer (NWS, 2021). Heat stress can be indexed by combining the effects of temperature and humidity.

Data from the Spatial Hazard Events and Losses Database (SHELDUS) for the United States was examined to identify the county's monetary losses due to heat damage to crops. Data from the Spatial Hazard Events and Losses Database (SHELDUS) for the United States was examined to identify the county's monetary losses due to heat damage to crops. Ranking 58th among Minnesota counties in crop indemnity payments, heat-related losses for Hubbard County totaled over \$566,792 (2021 ADJ) for the period of record spanning 1989 to 2022 (CEMHS, 2023).

4.7.1 Probability of Occurrence

To determine the probability of future heat-related events in Hubbard County records of previous heat and excessive heat events were summed and divided by the dataset's period of record, resulting in the annual relative frequency of heat-related events. Based on records in the NCEI Storm Events Database through January 2024, the relative frequency of extreme heat events in the county is one event every 15.6 years.

Based on records in the Midwestern Regional Climate Center (MRCC) that date back to 1991, the average daily maximum temperature for July in Hubbard County has historically been in the 78–79 °F range (MRCC, 2021), which is below the 90 °F for 2–3 days criteria for “extreme” heat events (FEMA, 2024). However, the Park Rapids Municipal Airport weather stations reported daily maximum temperatures above 90 °F a total of 171 times, which is an average of six days per year. This historical average can be used to infer future events, although climate change projections show an increase in the number of days that exceed 90 °F by mid-century (see Section 4.8.3).

4.7.2 Vulnerability

The Minnesota Department of Health released a 2012 Minnesota Extreme Heat Toolkit, to help local governments prepare for extreme heat events. In their toolkit, they note extreme heat events are often dubbed “silent killers” because deaths and illnesses from these events are often misunderstood and underreported. Minnesota has no official system to report deaths and illnesses linked to extreme heat (MDH, 2012). It is important to not underestimate the danger of extreme heat events within the state.

Key Message #3 in the Midwest Chapter of the NCA5 states that Mitigation and adaptation strategies, such as expanded use of green infrastructure and heat-health early warning systems, have the potential to improve both individual and community health (Wilson et al., 2023).

The impact extreme heat has on individuals is not equal. According to the Center for Disease Control and Prevention (CDC), population groups more vulnerable to extreme heat include:

- Older adults (≥ 65 years old). The elderly cannot easily adjust to sudden changes in temperature and are more likely to have a chronic medical condition or take medication affecting their body's ability to control its temperature.
- Infants and children. Young children and infants have limited control with their surroundings and rely on others to keep them cool and hydrated.
- Individuals with chronic health conditions. These individuals are less likely to respond to changes in temperature, may be taking a medication which exacerbates the effects of extreme heat, or have a condition which is a risk-factor for heat-related illness (e.g., heart disease, mental illness, poor blood circulation, and obesity).
- People with low income. These individuals may not be able to afford to properly cool their home and may face transportation challenges when trying to access cooling shelters.
- Athletes and people working outdoors. Both groups are likely to exert energy while being exposed to the heat (CDC, 2020).

[View at-risk populations in Hubbard County](#)

Warming temperatures will continue to increase the risk of extreme heat, especially among these already vulnerable populations. Section 3.4 provides jurisdictional responses to localized vulnerabilities to extreme heat.

4.7.3 Extreme Heat and Climate Change

Minnesota's annual average temperature has increased more than 3 °F since record keeping began in 1895, and nine of Minnesota's hottest 16 years on record have occurred since the year 2000 (MCAP, 2024).

Climate models project that temperature and precipitation increases will continue in Minnesota through the 21st century, with hotter summers and increased drought severity during dry periods as well. Already, the maximum annual heat index values have been rising across the state, because increased humidity during heat waves (Blumenfeld, K. Minnesota State Climatology Office, personal communication, December 21, 2023).

The average number of days per year with temperatures over 95 °F under a high carbon emissions (SSP 585), mid-century (2040–2059) scenario is illustrated in the [Climate Dashboard](#) on the [Plan website](#)

On average, by mid-century (2040–2059), under a high emissions (SSP 585) scenario, Hubbard County may reach 7.23 days/year of temperature greater than 95 °F, an increase of 5.43 more days to the historical (1995–2014) simulations average of 1.80 days/year (Liess, S. et al., 2023).

Greenhouse gas concentrations will continue rising through the century, and the air's ability to trap heat from the earth's surface will increase accordingly. Warming of the atmosphere will evaporate even more water into the air, further limiting the amount of cooling Minnesota will be able to achieve

at night and during the winter. As warmer winters and warmer baseline conditions transition into summer, it will be much easier to attain extreme heat (ICAT, 2017).

4.7.4 Program Gaps and Deficiencies

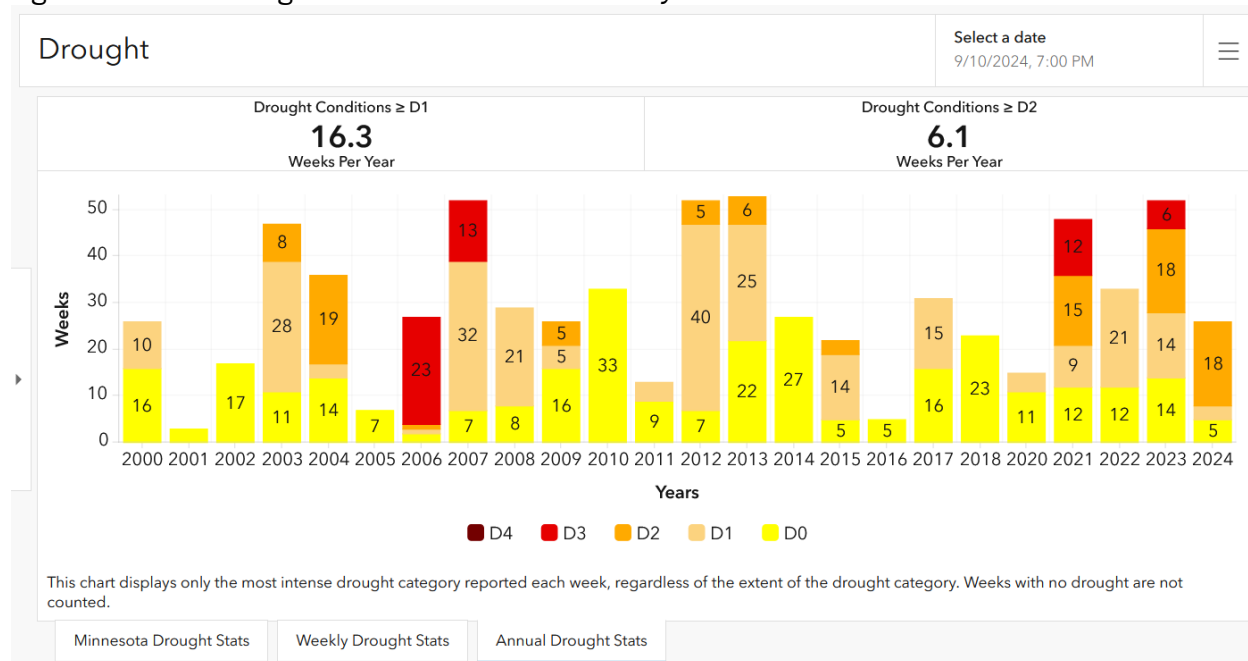
Extreme Heat was considered to be a low priority by the planning team for this HMP. Gaps and Deficiencies were not assessed.

4.8 Drought

There are numerous approaches to assessing drought conditions. The current gold standard for accurate drought conditions in the United States is the United States Drought Monitor (USDM). Annual drought statistics since 2000 can be seen in Figure 8; an interactive version of this dashboard can be found on the Hubbard County HMP website.

[See interactive information about drought, including history and the USDM Dashboard, on the Hubbard County HMP website](#)

Figure 8. Annual drought statistics in Hubbard County since 2000



4.8.1 Probability of Occurrence

To determine the probability of future droughts in Hubbard County, records of previous droughts were summed and divided by the dataset's period of record, resulting in the annual relative frequency of droughts. The USDM database was examined from January 2000–September 10, 2024 for any occurrence of drought \geq D1 in Hubbard County, regardless of the duration of the drought. According to the weekly reported data, the relative frequency of the county experiencing drought conditions \geq D1 is 16.3 weeks per year, and the relative frequency of drought conditions \geq D2 is 6.1 weeks per year.

(NDMC, 2024b). The relative frequency of past droughts can be used to infer the probability of similar droughts occurring in the future.

4.8.2 Vulnerability

One way to identify county assets vulnerable to drought is by examining the impacts of previous droughts. Overseen by the National Drought Mitigation Center (NDMC), the Drought Impact Reporter (DIR) is a comprehensive database that gathers drought-related reports from a variety of sources and identifies the sector(s) impacted by each drought. The NDMC (NDMC, 2024b) defines a drought impact as “[a]n observable loss or change that occurred at a specific place and time because of drought.” A drought meeting this definition is categorized based on the sector(s) the drought impacts; therefore, a single drought affecting multiple sectors will be counted once for each respective sector it impacted.

DIR records show 14 reported drought incidents in Hubbard County between 2000 and 2023, impacting six sectors with greatest impacts to the following sectors: fire; and relief, response & restrictions (NDMC, 2024). Since droughts are regional in nature, jurisdictions within Hubbard County do not vary in their vulnerability to drought; however, the impact from droughts are not equal.

Drought conditions may impact soil moisture reserves, groundwater supplies, lake levels, and stream flows. Water-dependent industries that experience the greatest impacts include: agriculture, public utilities, forestry, and tourism (MN DNR, 2021a). In addition, droughts may negatively affect an individual’s health by contributing to poor air quality caused by wildfire smoke and particulate, or a dusty environment. The 2021 drought resulted in elevated fire danger in roughly the northern two-thirds of the state, and record high particulate readings across Minnesota due to the Canadian wildfires (Huttner, 2021). [Populations vulnerable to these conditions](#) include children, older adults, and those with respiratory issues.

According to the DIR, Hubbard County’s agriculture sector has been impacted by drought more than once, and with 7% of Hubbard County’s land devoted to cultivated crops, the county’s agriculture community is also vulnerable to the economic impact a drought may have on crops. From 1989–2022, Hubbard County received \$4,535,493.61 (2021 ADJ) in crop indemnity payments due to drought, placing it as the 78th-highest-paid county in Minnesota (CEMHS, 2023).

Section 3.4 provides jurisdictional responses of localized vulnerabilities to specific hazards.

4.8.3 Drought and Climate Change

Droughts have been happening throughout Minnesota’s history. While the degree at which climate change will impact future droughts is not certain, an increase in efforts and resources are being devoted to project these impacts. In 2023, the NCA5 was completed by the U.S. Global Change Research Program. It provided a comprehensive scientific review of how climate change is impacting the U.S. as well as providing climate change projections.

According to the report, a warming climate is contributing to oscillations between extreme droughts and floods, threatening the agriculture and livestock in the Midwest which produces more than 30% of the world’s corn and soybeans (Wilson et al., 2023). Climate change is attributed to an estimated \$31.9 billion (2022 USD adjusted) of US crop indemnity payments over the last 30 years, with the

largest portion of payments going to farmers affected by drought (Wilson et al., 2023). In Minnesota, drought alone represents 25% of the total crop indemnity payments made in the state (CEMHS, 2023).

Climate projections indicate an increase in annual precipitation of 0.2%–0.5% in the western Midwest and the increase in cumulative runoff is expected to continue through the midcentury (Wilson et al., 2023).

Key Message #5 in the Midwest Chapter of the NCA5 states that managing extremes is necessary to minimize impacts on water quality and quantity. The extreme variability between wet and dry periods is expected to negatively impact the water quality and quantity of the Mississippi River System and adversely affect dependent ecosystems and commerce (Wilson et al., 2023).

4.8.4 Program Gaps and Deficiencies

Hubbard County Emergency Management did not identify any program gaps or deficiencies that make its citizens more vulnerable to dam failure.

4.9 Dam Failure

The MN DNR Dam Safety Program has the mission of protecting the life and safety of people by ensuring that dams are safe. Minnesota's Dam Safety Program sets minimum standards for dams and regulates the design, construction, operation, repair, and removal of both privately and publicly (non-federal) owned dams (MN DNR, 2020). The federal government is responsible for regulating and maintaining dam safety of federally owned dams. No single agency regulates all federally owned dams. 42% of federal dams are owned and managed by the U.S. Army Corp of Engineers (USACE) and the Bureau of Reclamation. The remaining federal dams are owned and managed by other federal agencies, including the Fish and Wildlife Service, Forest Service, the Department of Defense, and the Bureau of Indian Affairs, among others (Normand, 2019). The Federal Energy Regulatory Commission (FERC) Dam Safety Program is the largest dam safety program in the U.S. The Commission works with federal and state agencies to ensure and promote dam safety of over 3,000 dams across the U.S. The Commission inspects projects on an unscheduled basis to investigate potential dam safety problems; complaints about constructing and operating a project; safety concerns related to natural disasters; and issues concerning compliance with the term and conditions of a license (FERC, 2020).

Dam Inventory: The National Dam Inventory reports that there are six dams in Hubbard County. Dams are mapped on the [MN State 2024 HMP website](#). Hubbard County had no dams classified as High Hazard Dams, one dam classified as a Significant Hazard Dam, and five dams classified as Low Hazard Dams. No dams have been removed.

4.9.1 Probability of Occurrence

Extreme precipitation is only one factor contributing to dam failure, and the possibility of failure is dam-specific, relating to both environmental and structural conditions. There are two noted dam incidents in Hubbard County, both of which occurred at the Fish Hook River Dam. In 1983, a cofferdam that was built to protect the main dam during reconstruction washed out due to structural

inadequacy. The cofferdam failed again amid dewatering during a subsequent reconstruction of the dam. This was a dam of Significant Hazard Potential. Total dam failures are extremely unlikely if the dam is maintained in compliance with Minnesota's Dam Safety Program. The likelihood of failure in Hubbard County is low.

4.9.2 Vulnerability

Although dam regulatory authorities differ between various federal and state agencies, all authorities attempt to classify dams according to the potential impacts from a dam failure or mis-operation. In response to the numerous classification systems, FEMA's Interagency Committee on Dam Safety created a downstream hazard potential classification system that is adaptable to any agency's current system. Table 11 provides an overview of the main criteria agencies consider when determining a dam's downstream hazard potential. This classification system does not imply that the dam is unsafe, but rather categorizes dams based on the probable loss of human life and the impacts on economic, environmental, and lifeline interests (FEMA, 2004).

Table 11. Downstream hazard potential classification criteria

Hazard Potential Classification	Loss of Human Life	Economic, Environmental, Lifeline Losses
Class III (Low)	None expected	Low and generally limited to owner
Class II (Significant)	None expected	Yes
Class I (High)	Probable - one or more expected.	Yes (but not necessary for this classification)

SOURCE: (USACE, 2008)

Dams for which a hazard potential has not been designated, or is not provided, are classified as "Undetermined."

An Emergency Action Plan (EAP) is a document that identifies potential emergency conditions at a dam and specifies preplanned actions to be followed during a dam failure to minimize property damage or loss of life. An EAP is required for Class I dams and strongly recommended for Class II dams (MN DNR, 2020).

4.9.3 Dam Failure and Climate Change

Dams are designed based on assumptions about a river's annual flow behavior that will determine the volume of water behind the dam and flowing through the dam at any one time. Changes in weather patterns due to climate change may change the hydrograph or expected flow pattern. Spillways are put in place on dams as a safety measure in the event of the reservoir filling too quickly. Spillway overflow events are mechanisms that also result in increased discharges downstream. It is conceivable that bigger rainfalls at earlier times in the year could threaten a dam's designed margin of safety, causing dam operators to release greater volumes of water earlier in a storm cycle in order to maintain the required margins of safety. Such early releases of increased volumes can increase flood potential downstream.

Climate change may increase the probability of design failures. Some spillways may not be large enough to convey the increased flow pattern. An undersized spillway could lead to dam overtopping and failure.

The partial failure of the Rapidan Dam in Blue Earth County in June of 2024 highlighted the growing threat climate change poses to the country's aging infrastructure as extreme weather becomes more common and severe. The Rapidan Dam is a Significant Hazard Dam in "poor" condition. About 20% of Minnesota's Significant and High Hazard Potential Dams are in "fair" or "poor" condition, with a few in "undefined" condition, and about 70% of these dams were built before 1970 (USACE, 2024). These older dams are growing increasingly taxed by extreme weather, especially in the Midwest (Harrison, 2024). Climate change is adding a new level of uncertainty that needs to be considered with respect to assumptions made during the dam construction.

While the Rapidan Dam partial failure did not result in mass inundation, it sent an estimated 11.6 million cubic yards of sediment downstream. The sediment was high in phosphorus and nitrogen because of nearby agricultural runoff. The impacts to the fish habitat and ecology of the stream may not be known for years (MPR News, 2024). The sediment loading behind older dams adds another compounding threat of dam failure to the stream and structures below.

4.9.4 Program Gaps and Deficiencies

Hubbard County Emergency Management did not identify any program gaps and deficiencies that make its residents more vulnerable to dam failure.

Section 5 – Mitigation Strategy

The goal of mitigation is to protect lives and reduce the impacts of future hazard events including property damage, disruption to local and regional economies, the amount of public and private funds spent to assist with recovery, and to build disaster-resistant communities. Mitigation actions and projects should be based on a well-constructed risk assessment, provided in Section 3 of this plan. Mitigation should be an ongoing process adapting over time to accommodate a community's needs.

5.1 Community Capability Assessments

The capability assessment identifies current activities and existing planning tools used to mitigate hazards. The capability assessment identifies the policies, regulations, procedures, programs and projects that contribute to the lessening of disaster damages. The assessment also provides an evaluation of these capabilities to determine whether the activities can be improved in order to more effectively reduce the impact of future hazard events. The following sections identify existing plans and mitigation capabilities within all of the communities:

- Appendix D: Lists the plans and programs in place in Hubbard County as related to hazard mitigation.
- Appendix C: As part of the Hubbard County HMP update, the county and city governments were asked to participate in filling out a “Local Mitigation Survey” (LMS) form to report on their current mitigation capabilities and program gaps. Appendix C provides the LMS reports gathered for Hubbard County.

Information from the capability assessments was used to support development of local mitigation actions for implementation over the next five years (see column *Comments on Implementation & Integration*).

5.1.1 National Flood Insurance Program (NFIP)

The NFIP is a federal program created by Congress to mitigate future flood losses nationwide through sound, community-enforced building and zoning ordinances and to provide access to affordable, federally backed flood insurance protection for property owners. The NFIP is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods. Participation in the NFIP is based on an agreement between local communities and the federal government that states that if a community will adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas (SFHAs), the federal government will make flood insurance available within the community as a financial protection against flood losses.

Table 12 lists and describes jurisdictional participation in the National Flood Insurance Program (NFIP).

Table 12. NFIP participation in Hubbard County

FEMA Plan Requirements Plan Review Tool, Section C2		Description
Name of Community	Hubbard County	
Participation in the NFIP	Participating – Entry date 05/15/1985	
FEMA Map	No FEMA-mapped high-risk areas	
Current Effective Map Date	NSFHA - No Special Flood Hazard Area is mapped; In counties with maps older than 2003, usually means earliest emergency maps were rescinded & determination made that anticipated development areas were low flood risk.	
Potential Buildings Damaged in Floodplain (including all townships and cities)	7	
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: N/A Community participates in the NFIP but does not have a floodplain ordinance.	
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	N/A Not a mapped community (i.e., no FIRM or no mapped SFHA).	
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	N/A Community participates in the NFIP but does not have a floodplain ordinance.	
4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP	Floodplain Administrator: Eric Buitenwerf, Hubbard County Environmental Services Director	
5. Description of how participant implements the substantial improvement / substantial damage provisions of their floodplain management regulations after an event.	Following a flood event, the county would work with the MN DNR to use a form to track cumulative improvements and repetitive losses in the floodplain. The county would also review the MN DNR Minnesota Post-Flood Substantial Damage Playbook for Local Officials.	
Name of Community	City of Park Rapids	
Participation in the NFIP	Participating – Entry date 06/22/1984	
FEMA Map	No FEMA-mapped high-risk areas	
Current Effective Map Date	NSFHA	
Potential Buildings Damaged in Floodplain	2	
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: N/A Community participates in the NFIP but does not have a floodplain ordinance.	

FEMA Plan Requirements Plan Review Tool, Section C2		Description
Name of Community		Hubbard County
2.	Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	N/A Not a mapped community (i.e., no FIRM or no mapped SFHA).
3.	Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	N/A Community participates in the NFIP but does not have a floodplain ordinance.
4.	Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP	Floodplain Administrator: Ben Oleson, City Planner
5.	Description of how participant implements the substantial improvement / substantial damage provisions of their floodplain management regulations after an event.	Following a flood event, the city would work with the MN DNR to use a form to track cumulative improvements and repetitive losses in the floodplain. The city would also review the MN DNR Minnesota Post-Flood Substantial Damage Playbook for Local Officials.
Name of Community		City of Akeley
	Participation in the NFIP	NOT Participating
	FEMA Map	No FEMA-mapped high-risk areas
Name of Community		City of Laporte
	Participation in the NFIP	NOT Participating
	FEMA Map	No FEMA-mapped high-risk areas
Name of Community		City of Nevis
	Participation in the NFIP	NOT Participating
	FEMA Map	No FEMA-mapped high-risk areas

SOURCE: (CEIL STRAUSS, MN FLOODPLAIN MANAGER, PERSONAL COMMUNICATION, SEPTEMBER 22, 2023)

Repetitive loss properties are defined as properties that have had two or more flood insurance claims of \$1,000 or more in any rolling 10-year period. Property owners are asked to consider mitigation activities such as acquisition, relocation, or elevation, among other options. FEMA's Repetitive Loss (RL) properties strategy is to eliminate or reduce the damage to property and the disruption to life caused by repeated flooding of the same properties. Property owners are notified of their status by FEMA.

A Severe Repetitive Loss (SRL) property is defined as a residential property that is covered under an NFIP flood insurance policy and:

- a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.
- c) For both (a) and (b) above, at least two of the referenced claims must have occurred within any 10-year period and must be greater than 10 days apart.

Hubbard County has two RL properties and no SRL properties. Both RL properties are single-family homes with first loss dates in 2001.

For more on the areas that flood repeatedly in Hubbard County, see the [Hubbard County Flooding page](#).

5.1.2 Plans and Ordinances

Hubbard County and its incorporated communities have a number of plans and ordinances in place to ensure the safety of residents and the effective operation of communities including a Zoning Ordinance, Emergency Operations Plan, and Wellhead Protection Plan.

5.1.3 Plans and Programs in Place to Address Natural Hazards

Hubbard County has numerous plans and programs in place to address natural hazards. Some of these programs are specific to a hazard and others address impacts and human safety for many types of events (“All-Hazards”). For the purpose of grouping related natural hazards, “Summer Storms” encompasses Tornadoes, Windstorms, Lightning, and Hail. Following is a description of the plans and programs in place by Hubbard County to support mitigation for the hazards addressed in this plan.

All Hazards

All Hazards Emergency Operations Plan: Hubbard County Emergency Management maintains an all-hazards Emergency Operations Plan (EOP) which lays out concepts and operating guidelines for all incident management and support functions that may be needed to ensure life safety, incident stabilization, and property preservation during an incident and the transition to recovery.

Everbridge Emergency Notification System and IPAWS: Hubbard County maintains the Everbridge Emergency Notification System which allows residents and visitors to sign up (“opt-in”) to receive severe weather alerts targeted to their location, along with other local emergency alerts. A link to sign up for the system is located on the Hubbard County Emergency Management website page. Hubbard County also uses IPAWS (Integrated Public Alert Warning System), which allows for both targeted and county-wide emergency notifications to both residents and visitors (not an “opt-in” service).

Relationship with National Weather Service: Hubbard County has a strong relationship with the Grand Forks, ND National Weather Service (NWS) Forecast Office, having access to all live

and on-demand briefings, announcements, and educational opportunities, and contact information for direct collaboration as needed. The county also receives all products/statements issued by the NWS, and in turn shares or incorporates these into its community outreach and public education.

Preparedness Outreach & Public Education: Hubbard County Emergency Management utilizes the Hubbard County website, Hubbard County Sheriff's Office Facebook page, and local news media to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather, and other hazard conditions throughout the year. The Hubbard County Emergency Management webpage provides emergency preparedness information and resource links for the public.

Mass Care Sheltering: In the event of a disaster where temporary sheltering is needed, Hubbard County Emergency Management works in coordination with Hubbard County Social Services, the American Red Cross, and local governments/Fire & EMS to provide mass care services as needed. The county EOP includes plans, procedures, and resources available for mass care sheltering.

NOAA Weather Radios: Hubbard County Emergency Management promotes the use of NOAA Weather Radios by residents, businesses, schools, long term care facilities, government buildings, faith communities, and other places of common gathering. NOAA Weather Radios broadcast continuous weather information directly from the nearest National Weather Service office, including warnings, watches, forecasts, and other hazard information 24 hours a day, 7 days a week. They are an important tool to be able to receive information, particularly in the event of extended power outages where updates from local media and cell phone apps may not be available.

NWS Storm Ready Certification: Hubbard County Emergency Management is working to obtain StormReady Certification with the National Weather Service.

Backup Power: Hubbard County works to ensure the continuity of operations of county government services and critical infrastructure in the event of an extended power outage. County facilities with backup generators include the Hubbard County Sheriff's Office, Hubbard County Jail, Social Services, Hubbard County Highway Department fuel pumps, and the Emergency Operation Center.

Schools Support: Hubbard County Emergency Management coordinates with local school districts as needed on related emergency planning and preparedness, including support for specific trainings, exercises, equipment, and relay of county-level emergency notifications. School districts have their own policies, decision-making protocols, and communications plans in place to determine the need to close school and to notify targeted audiences in the event of severe weather, extreme temperatures, or other events that pose risk to students and staff.

Regional Collaboration: Hubbard County Emergency Management works closely with the MN HSEM Region 3 regional program coordinator and neighboring county emergency managers

on a range of planning, training, and exercises to support all-hazards preparedness, mitigation, response, and recovery capabilities.

Public Health Collaboration: CHI St. Joseph's Community Health is the Hubbard County contracted public health agent, and collaborates with Emergency Management for disaster and emergency responses.

Severe Winter Storms

Winter Weather Statements (Watch, Advisory, Warning, etc.): Hubbard County Emergency Management works to relay winter weather statements received from the NWS to help alert residents and visitors to hazardous conditions.

Winter Hazard Awareness Week: Hubbard County participates in the Winter Hazard Awareness Week campaign sponsored by MN HSEM and the NWS each November. The week-long effort provides specific information each day covering the topics of winter weather, outdoor winter safety, indoor winter safety, and winter driving safety. Hubbard County Emergency Management promotes and shares information during the week via social media with communities, schools, churches or other civic programs are encouraged to share locally.

Snow Removal & Ice Control: The Hubbard County Highway Department conducts winter road maintenance on county roads in accordance with the Hubbard County Snow Plowing Policy. Other road jurisdictions conduct winter road maintenance on their respective road systems in accordance with each of their established policy and/or practice.

Severe Summer Storms

Severe Weather Statements (Watch, Advisory, Warning, etc.): Hubbard County works to relay severe spring and summer weather statements (such as for thunderstorms, windstorms, or tornadoes) received from the NWS to help alert residents and visitors to hazardous conditions.

Outdoor Warning Sirens: Outdoor warning sirens are located throughout the county and are tested monthly by the Hubbard County Sheriff's Office in coordination with local jurisdictions. Warning sirens are owned and maintained by the cities where they are located.

Skywarn Program: Hubbard County Emergency Management works with the National Weather Service to offer Storm Spotter training on an annual basis to local fire and law enforcement departments and area residents that wish to be trained as spotters. SkyWarn Storm Spotters help to keep their local communities safe by providing timely and accurate reports of severe weather to their local NWS office.

Severe Weather Awareness Week: Hubbard County participates in the Severe Weather Awareness Week campaign sponsored by MN HSEM and the NWS each April. The week-long effort provides specific information each day covering the topics of severe weather alerts and warnings, lightning, hail, floods, tornadoes (with statewide drills), and extreme heat. Each topic

covered includes factsheets, checklists, data, and other resources. Hubbard County Emergency Management promotes and shares information during the week via social media with communities, schools, churches or other civic programs are encouraged to share locally.

Vegetation Management: The Hubbard County Highway Department conducts vegetation management along county roads to reduce the risk of downed trees or branches resulting from severe spring and summer storm events. Local utility providers also work to manage vegetation near power lines to reduce the risk of downed lines and power outages.

Extreme Cold

Emergency Notifications: Extreme cold temperature warnings are issued by the National Weather Service. Hubbard County Emergency Management works to relay extreme cold temperature warnings from the NWS to help alert residents and visitors to hazardous conditions. The Hubbard County Emergency Management Office also encourages residents to follow local news or NWS weather applications to receive severe weather and extreme temperature notifications.

Extreme Cold Safety Awareness: Hubbard County Emergency Management and Hubbard County Public Health promote public awareness of personal safety measure to take during periods of extreme cold, such as sharing information via Facebook posts.

Emergency Sheltering: In the event of an extended power outage coupled with a period of extreme cold, Hubbard County Emergency Management will work with Hubbard County Social Services and local Fire or EMS agencies as needed to assist vulnerable residents such as the elderly who may need temporary sheltering.

Wildfire

Public Awareness & Emergency Notifications: In event of wildfire, Hubbard County Emergency Management works with local law enforcement, local fire departments, the NWS, and the MN DNR to get the word out on the risk of the level of fire danger and any burning restrictions to help keep the public informed and protected.

Burning Restrictions/Permits: Burning restrictions are set by the MN DNR. Burning permits within Hubbard County are obtained through the MN DNR website or local office.

Wildland Fire Fighting: Local fire departments respond to woodland or grassland fires within their boundaries or in coordination with other fire departments as needed via mutual aid agreements.

Flooding

National Flood Insurance Program (NFIP): Hubbard County has No FEMA Mapped High Risk Areas and participates in the NFIP. Initial entry date into the program was 05/15/1985.

Floodplain Administrator: The Hubbard County Environmental Services Director is the county's designated Floodplain Administrator, who is responsible to implement the requirements of the NFIP.

Floodplain Ordinance: Hubbard County floodplain regulations are addressed under the Hubbard County Shoreland Ordinance, Sec. 507.1 High Water Elevations.

Floodplain Mapping: No floodplain maps. Hubbard County has NSFHA (No Special Flood Hazard Area) status as per MN DNR records.

Shoreland Ordinance: Hubbard County Shoreland Management Ordinance No. 17, Amendment 16, 06/25/2014. Managed by Hubbard County Environmental Services. The shoreland ordinance establishes allowable uses and development standards in shoreland areas designated within the county. In addition to establishing setback requirements, the ordinance specifies that local shoreland controls must regulate placement of structures in relation to high water elevation for flood protection.

Subdivision Ordinance: Hubbard County Subdivision Ordinance, revised 05/18/2021 is managed by Hubbard County Environmental Services. The ordinance is established to regulate the subdividing of land in Hubbard County.

Transportation Plan: The Hubbard County Highway Department maintains update of the county's transportation plan and schedules projects for implementation. (Is there something to reference here like a 5-year transportation plan?)

Minnesota Buffer Law: The Hubbard SWCD administers the state Buffer Law and provides technical assistance on buffer compliance by landowners. Buffers benefit bank stabilization and reduced erosion and sedimentation into ditches, streams, rivers, and lakes.

One-Watershed One Plan (1w1P): The Hubbard County SWCD participates in the following 1W1P's: Leech Lake, Mississippi River Headwaters, and Crow Wing River. These plans address regional watershed planning which include measures for flood mitigation.

Dam/Levee Failure

No noted plans or programs in place.

5.2 Mitigation Goals

The goals and strategies for natural hazards in the 2024 Minnesota State Hazard Mitigation Plan were adopted for use in the Hubbard County Plan. This framework, as outlined below, will allow for integration of the mitigation actions that are listed by Hubbard County and its jurisdictions into the state plan. The state will then be able to develop a statewide strategy that will benefit all of Minnesota.

Flooding Goal: Reduce deaths, injuries, property loss and economic disruption due to all types of flooding (riverine, flash, coastal, dam/levee failure).

Wildfire Goal: Reduce deaths, injuries, property loss, natural resource and economic disruption due to wildfires (forest, prairie, grass, and peat bogs).

Windstorms Goal: Reduce deaths, injuries, property loss, and economic disruption due to windstorms.

Hail Goal: Reduce deaths, injuries, property damage, and economic disruption due to hailstorms.

Winter Storms Goal: Reduce deaths, injuries, property loss, and economic disruption due to winter storms (blizzard, ice, and ice storm).

Lightning Goal: Reduce deaths, injuries, property losses, loss of services, and economic disruption due to lightning.

Tornado Goal: Reduce deaths, injuries, property loss, and economic disruption due to tornadoes.

Drought Goal: Reduce economic loss and environmental impacts due to drought.

Extreme Heat Goal: Reduce deaths, injuries, and economic disruption due to extreme heat.

Extreme Cold Goal: Reduce deaths, injuries, and economic disruption due to extreme cold.

Dam/Levee Failure Goal: Reduce deaths, injuries, property loss, natural resource and economic disruption due to dam/levee failure.

Erosion/Landslide/Mudslide Goal: Reduce deaths, injuries, property loss, and economic disruption due to hillside, coastal, bluff: caused primarily by oversaturation of soil.

5.3 Mitigation Action and Project Strategies

The mitigation actions in this plan are summarized into four main strategy types, as described in the FEMA publications *Local Mitigation Planning Handbook* (2013) and *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (2013). A fifth strategy type was determined by Minnesota HSEM for use within the state: Mitigation Preparedness and Response. The strategies and example actions are listed in Table 13.

Table 13. Mitigation strategies and action types

Mitigation Strategy	Description	Example Mitigation Actions
Local Plans and Regulations	These actions include government authorities, policies, or codes, that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> • Comprehensive plans • Land use ordinances • Planning and zoning • Building codes and enforcement • Floodplain ordinances • NFIP Community Rating System • Capital improvement programs

		<ul style="list-style-type: none"> • Open space preservation • Shoreline codes • Stormwater management regulations and master plans
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p> <p>Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.</p>	<ul style="list-style-type: none"> • Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits • Floodwalls and retaining walls • Detention and retention structures • Culverts • Safe rooms
Natural Systems Protection	<p>These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.</p>	<ul style="list-style-type: none"> • Sediment and erosion control • Stream corridor restoration • Forest management • Conservation easements • Wetland restoration and preservation
Education and Awareness Programs	<p>These are actions to inform and educate residents, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities.</p> <p>Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions.</p>	<ul style="list-style-type: none"> • Radio or television spots • Websites with maps and information • Real estate disclosure • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • StormReady Certification • Firewise Communities
Mitigation Preparedness and Response	<p>This is a State of Minnesota mitigation strategy with the intent of covering preparation and actions that protect life and property during a natural disaster.</p>	<ul style="list-style-type: none"> • Emergency operations plan • Flood fight plans and preparedness • Dam emergency action plans • Warning • Backup power • Emergency capabilities

Local leaders work together with the Hubbard County emergency management director to assure that the hazards and mitigation actions included in this plan are accurate and addressed in their jurisdictions. Development of mitigation actions for the county and each city was informed by a community's hazard and risk assessment; identification of local vulnerabilities, and review of capabilities in place to address mitigation. Planning team members, local elected officials and staff from Hubbard County and each city actively participated in the development and review of mitigation action charts for implementation through participation in planning team meetings (see Appendix F)

and development of Local Mitigation Surveys (see Appendix C). Additional jurisdictional and public feedback was incorporated following news releases inviting public input to the planning process (see Appendix G).

The Hubbard County risks and mitigation activities identified also incorporate the concerns and needs of townships, school districts, and other entities participating in this plan. Appendix H contains the jurisdictional mitigation action charts for the cities of Akeley, Laporte, Nevis, and Park Rapids.

See Mitigation Actions for all jurisdictions and provide ongoing feedback on the HMP website

Following is an overview the mitigation action charts and description of each element of the chart.

Number (#)

Each mitigation action is identified by a number.

Hazard

Each mitigation action is identified by the natural hazard it relates to. Actions that fall under “All Hazards” relate to both natural and non-natural hazards. “Severe Winter Storms” includes blizzards, heavy snow, ice storms, winter storms, and winter weather. “Severe Summer Storms” includes windstorms, tornadoes, lightning, and hail.

Mitigation Strategy

Each mitigation action is identified by one of the following five mitigation strategies.

- Local Planning and Regulations
- Structure and Infrastructure Projects
- Natural Systems Protection
- Education and Awareness Programs
- Mitigation Preparedness and Response Support

See Table 13 for a description of each mitigation strategy and related types of actions.

Mitigation Action

Each mitigation action provides a concise, action-oriented description of the action or project to be undertaken. If a mitigation action reduces risk to new or existing buildings/infrastructure, it is noted.

Status

The status of each mitigation action is indicated by one of the following categories:

- New – New actions that have been identified since the last plan.
- Existing – Actions that are carried over from the last plan or have been updated.
- In Progress – Actions from the last plan that are currently being acted upon.

Mitigation actions that have been completed or deleted from the 2017 Hubbard County Hazard Mitigation Plan are identified and reported on in Appendix H. Completed and deleted mitigation actions are not carried over into the updated mitigation action chart.

Priority

In the review and discussion of selected mitigation strategies and actions, the planning team ranked mitigation actions by priority for implementation. Table 14 provides criteria that were taken into consideration in the process.

Table 14. Criteria for Mitigation Action Priority Ranking

Ranking	Criteria
High Priority	<ul style="list-style-type: none"> • Methods for reducing risk from the hazard are technically reliable. • The County has experience in implementing mitigation measures. • Mitigation measures are eligible under federal grant programs. • There are multiple mitigation measures for the hazard. • The mitigation measure(s) are known to be cost effective. • The mitigation measures protect lives and property for a long period of time, or are permanent risk reduction solutions.
Moderate Priority	<ul style="list-style-type: none"> • Mitigation methods are established. • The County has limited experience with the kinds of measures that may be appropriate to mitigate the hazard. • Some mitigation measures are eligible for federal grants. • There is a limited range of effective mitigation measures for the hazard. • Mitigation measures are cost-effective only in limited circumstances. • Mitigation measures are effective for a reasonable period of time.
Low Priority	<ul style="list-style-type: none"> • Methods for reducing risk from the hazard are not well-established, are not proven reliable, or are experimental. • The State or Counties have little or no experience in implementing mitigation measures, and/or no technical knowledge of them. • Mitigation measures are ineligible under federal grant programs. • There is a very limited range of mitigation measures for the hazard, usually only one feasible alternative. • The mitigation measure(s) have not been proven cost effective and are likely to be very expensive compared to the magnitude of the hazard. • The long-term effectiveness of the measure is not known or is known to be relatively poor.

Time frame

Each mitigation action identifies the anticipated timeframe for implementation of the action within the next five-year planning cycle.

- Ongoing – Implementation of the action will require continued application.
- Defined (year) – Implementation of the action will occur within a defined time frame that is noted.
- TBD – The anticipated time frame for implementation of an action is to be determined.

Responsibility

Each mitigation action identifies what personnel, department or agency will be lead for the administration or implementation of the action.

Comments on Implementation & Integration

Each mitigation action provides a description of how the jurisdiction will work to implement the mitigation action and incorporate the activity into other existing planning mechanisms. As part of the plan update process, communities were asked to describe how they will integrate the mitigation actions listed into other planning mechanisms since the last plan update. This can include description of methods for public outreach, enforcement of policies, development of plans, and coordination of key staff and partnership efforts.

Possible Funding

Each mitigation action identifies where potential funding may come from to support implementation of the mitigation activity, such as existing county or city funding, state or federal funding. Projects that may be eligible for future FEMA Hazard Mitigation Assistance grant funding are noted.

5.3.1 Hubbard County Mitigation Action Chart

The Hubbard County Mitigation Action Chart is provided in Table 15. Appendix H provides the mitigation action charts developed for each city participating in the HMP update.

See Mitigation Actions for all jurisdictions and provide ongoing feedback on the HMP website

Table 15. Hubbard County Mitigation Action Chart (2024–2028)

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All Hazards	Education & Awareness Programs	EMERGENCY NOTIFICATION Encourage all county residents to sign-up for the county's Everbridge Emergency Notification System.	Existing High Ongoing	Hubbard County Emergency Management (HCEM)	Hubbard County maintains the Everbridge Emergency Notification System, which allows residents and visitors to sign up ("opt-in") to receive severe weather alerts targeted to their location, along with other local emergency alerts. A link to sign up for the system is located on the Hubbard County Emergency Management website page. Hubbard County utilizes IPAWS and WEA to send emergency alerts to specific geographic locations to individuals who have not signed up for Everbridge.	County Funding
2	All Hazards	Education & Awareness Programs	PUBLIC OUTREACH Conduct outreach to the public to increase awareness and preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High Ongoing	HCEM	Hubbard County Emergency Management utilizes the Hubbard County website, Hubbard County Sheriff's Office Facebook page, and local news media to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather, and other hazard conditions throughout the year. The Hubbard County Emergency Management webpage provides emergency preparedness information and resource links for the public.	County Funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
3	All Hazards	Mitigation Preparedness & Response Support	EOP PLANNING Ensure the county's Emergency Operations Plan (EOP) is updated and addresses policies & procedures needed to support EM functions prior to, during, and following a disaster.	Existing High Ongoing	HCEM	Hubbard County Emergency Management maintains an all-hazards Emergency Operations Plan (EOP) which lays out concepts and operating guidelines for all incident management and support functions that may be needed to ensure life safety, incident stabilization, and property preservation during an incident and the transition to recovery.	County Funding
4	All Hazards	Local Planning & Regulations	FUTURE DEVELOPMENT Incorporate mitigation strategies across county and local government plans and policies that address future growth and new development.	Existing High 2025-2030	GHC Admin, HC Env. Services., HC Public Works in coord with local gov'ts	Hubbard County continues to work closely with surrounding communities to address planning for increased growth and development that will affect emergency response services as well as an increase in vulnerable systems and infrastructure. Hubbard County uses its Shoreland Ordinance, Subdivision Ordinance, and Transportation Plan to address long-term planning for future development.	County Funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	All-Hazards	Mitigation Preparedness & Response Support	<p>VULNERABLE POPULATIONS</p> <p>Work with county departments, partner agencies, facilities, and local jurisdictions to address planning and outreach efforts for those considered to be more vulnerable to severe weather events.</p>	Existing High Ongoing	HCEM, HCHS	Hubbard County Emergency Management and Hubbard County Human Services continue to provide outreach to and assistance as needed to facilities such as schools, long-term care facilities, and directly to individuals. Schools throughout the county participate annually in tornado drills annually. The county works in coordination with agencies such as the Red Cross and Salvation Army. HCEM and HCHS work with our GIS department to maintain information on the location of key facilities such as hospitals, nursing homes, and day cares.	County Funding other agencies & organizations
6	All-Hazards	Mitigation Preparedness & Response Support	<p>GENERATOR BACKUP POWER</p> <p>Install generators at key county facilities to ensure continuity of operations and services in the event of loss of power.</p>	Existing High Ongoing	HCEM	This is an ongoing effort of HCEM in coordination with Hubbard County Administration and other departments. Not all county, city, and other incident support facilities (e.g., public safety/emergency services stations, designated mass care shelters, etc.) have backup power to provide care for the displaced and the logistical needs of an incident, such as tornadoes, flooding, long-term power outages, and winter storms. HCEM encourages local jurisdictions to evaluate and address where backup power is needed.	County Funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
7	All-Hazards	Mitigation Preparedness & Response Support	<p>MASS CARE SHELTERING</p> <p>Ensure that plans and designated facilities are in place in order to provide temporary sheltering due to a severe weather or other disaster event.</p>	Existing High 2025-2030	HCEM, HCHS	In the event of a disaster where temporary sheltering is needed, Hubbard County Emergency Management works in coordination with Hubbard County Human Services, the American Red Cross, and local governments/Fire & EMS to provide mass care services as needed. The county EOP includes plans, procedures, and resources available for mass care sheltering.	County Funding
8	Extreme Cold	Education & Awareness Programs	<p>EXTREME TEMPS PUBLIC OUTREACH</p> <p>Provide outreach and education to the public on personal safety measures to take during periods of extreme cold.</p>	In-Progress High 2024	HCEM	HCEM works to share information received from the Grand Forks, ND National Weather Service (NWS) Forecast Office when periods of extreme cold are forecast and occurring. Public education regarding extreme cold safety also occurs during the NWS Winter Weather Awareness week that occurs in November each year.	County Funding
9	Extreme Cold	Mitigation Preparedness & Response Support	<p>WARMING CENTERS</p> <p>Work with local communities to develop plans for operating warming centers for those who are vulnerable during extreme cold events.</p>	New High 2025-2030	HCEM	HCEM encourages communities to have plans in place for a local facility (i.e., school, church, community center, Fire Hall) to be designated to operate for temporary sheltering and prepared with backup power and other supplies. HCEM is available to assist communities in this planning as needed.	County and Local Gov't Funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
10	Severe Winter Storms	Local Planning & Regulations	SNOW & ICE CONTROL Implement snow removal and ice control to ensure the safety of county roads impacted by winter storms.	Existing High 2025-2030	Hubbard County Hwy. Dept.	The Hubbard County Highway Department conducts winter road maintenance on county roads in accordance with the Hubbard County Snow Plowing Policy. Other road jurisdictions conduct winter road maintenance on their respective road systems in accordance with each of their established policy and/or practice.	County Funding
11	Severe Summer Storms	Education & Awareness Programs	SKYWARN TRAINING Work with the National Weather Service (NWS) to provide SkyWarn training and develop a network of trained Storm Spotters throughout the county.	Existing High 2025-2030	HCEM in coord with NWS	HCEM works with the Grand Forks, ND NWS Office to offer this training on an annual basis to local fire and law enforcement departments and local residents that wish to be trained as spotters.	National Weather Service
12	Severe Summer Storms	Mitigation Preparedness & Response Support	OUTDOOR WARNING SIRENS Ensure outdoor warning sirens throughout the county are functional and maintained by the jurisdictions where they are located.	Existing High 2025-2030	HCEM in coord with local jurisdictions	Outdoor warning sirens are located throughout the county and are tested monthly by the Hubbard County Sheriff's Office in coordination with local jurisdictions. Warning sirens are owned and maintained by the cities where they are located. HCEM will work with local jurisdictions that are seeking to upgrade their existing warning sirens or to purchase a new one.	County Funding & local jurisdictions

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
13	Severe Summer Storms	Structure & Infrastructure Projects	STORM SHELTERS / TORNADO SAFE ROOMS Address the need for the construction of storm shelters or tornado safe rooms in areas where residents or visitors are vulnerable to high wind events, such as mobile home parks and campgrounds.	Existing High 2025-2030	HCEM in coord with local jurisdictions	HCEM will assist any mobile home park or community in their effort to assess and address the need for construction of a storm shelter or tornado safe room. Grant funding may be available for tornado safe rooms from FEMA Hazard Mitigation grant program funding, based on funding availability and application approval.	County Funding, Local Gov't, Possible FEMA Grant Funding
14	Severe Winter & Summer Storms	Structure & Infrastructure Projects	POWERLINE RETROFITS Encourage municipal and rural electric coops to address burying powerlines or strengthening power poles to avoid power outages from high wind events and storms.	Existing High 2025-2030	HCEM, local jurisdictions in coord with electric utility providers	HCEM works with the utility cooperatives that serve the county and local governments on these efforts as needed. FEMA HMA grant funding may be a source for powerline infrastructure retrofits that eligible rural and municipal electric coops can apply for.	Electric Coop funding, Possible FEMA Grant Funding
15	Severe Winter & Summer Storms	Local Planning & Regulations	BUILDING SAFETY Ensure that new development projects follow state building codes in order to withstand the impacts of severe weather events, including roof collapse from heavy snow or damages from high wind events.	Existing Moderate 2025-2030	Hubbard County Environmental Services	Hubbard County Environmental Services oversees permits for new development. Hubbard County recommends new development is built to meet the specifications as provided by the State of Minnesota's Department of Labor and Industry in order to minimize financial burdens and potential safety hazards which can arise from poorly constructed buildings. Local jurisdictions enforce their own building permits respectively.	County Funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
16	Severe Winter & Summer Storms	Natural Systems Protection	VEGETATION MANAGEMENT Manage trees and other vegetation along roads from severe storm events to reduce risk to powerlines and passing motorists.	Existing Moderate 2025-2030	HC Highway Dept., Local Utility Providers	The Hubbard County Highway Dept. regularly conducts vegetation management along county roads to reduce the risk of downed trees or branches resulting from severe spring and summer storm events. Local utility providers also work to manage vegetation near power lines to reduce the risk of downed lines and power outages.	County Funding, Utility Coops
17	Wildfire	Local Planning & Regulations	COMMUNITY WILDFIRE PROTECTION PLAN Develop a CWPP in coordination with the MN DNR Firewise Program and local jurisdictions.		HCEM in coord with NE MN DNR Firewise Coordinator	This a priority project area for Hubbard County. HCEM will work with the MN DNR Central MN Firewise Coordinator to evaluate and apply for possible grant funding from the federal Community Wildfire Defense Grants to develop a new Hubbard County CWPP. When the plan is being updated, HCEM will work with local city and township fire departments and government officials to assess current fire risks and a range of mitigation actions to reduce wildfire risk. CWDG grants cover 90% cost share match with awards up to \$250,000.	Community Wildfire Defense Grant & County/local government cost share
18	Wildfire	Natural Systems Protection	FIREWISE OUTREACH & EDUCATION Promote wildfire safety awareness and encourage homeowners to conduct assessments for defensible space.	Existing High 2025-2030	HCEM in coord with local FDs	Hubbard County Emergency Management provides information on the EM website page that links to the Firewise "50 things you can do to protect your home". HCEM encouraged local fire departments to work with homeowners who live in high risk wildfire areas to conduct Level 1 Firewise assessments for defensible space.	County Funding, Local FD's

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
19	Flooding	Local Planning & Regulations	SHORELAND ORDINANCE Implement the county's Shoreland Ordinance to reduce potential impacts of high rain events to adjacent structures.	Existing High 2025- 2030	HC Envr. Services	Hubbard County Shoreland Management Ordinance No. 17, Amendment 22, 02/06/2024 is managed by HC Environmental Services. The shoreland ordinance establishes allowable uses and development standards in shoreland areas designated within the county. In addition to establishing setback requirements, the ordinance specifies that local shoreland controls must regulate placement of structures in relation to high water elevation for flood protection. Hubbard County has NSFHA (No Special Flood Hazard Area) status as per MN DNR records.	County Funding
20	Flooding	Local Planning & Regulations / Structure & Infrastructure Projects	LOCALIZED FLOOD RISK REDUCTION Plan for and implement measures to address localized flood reduction projects for roads, bridges, and culverts throughout the county.	Existing High 2025- 2030	HC Hwy. Dept.	The Hubbard County Highway Department maintains update of the county's Transportation Plan, which addresses scheduled improvements to county roads, bridges, and culverts. Heavy rain and spring snowmelt affects several county roads. The Highway Dept. continues to address solutions for these areas.	County Funding
21	Flooding	Local Planning & Regulations	WATERSHED PLANNING Work with area watershed organizations to address mitigation plans and projects that address risk reduction for localized flooding and erosion.	Existing Moderate 2025- 2030	Hubbard SWCD	The Hubbard County SWCD participates in the following 1W1P's: Leech Lake, Mississippi River Headwaters, and Crow Wing River. These plans address regional watershed planning which include measures for flood mitigation.	SWCD, Watershed District funding

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
22	Flooding	Local Planning & Regulations	PROPERTY BUYOUTS Conduct property buyouts to acquire homes affected by repetitive flooding and physically relocate or remove those homes to eliminate future flood damages.	Existing Low 2025-2030	HCEM, HC Envr. Services	There are currently no potential property buyout projects identified by Hubbard County. The county will continue to evaluate and assist with potential future property acquisition projects and application to FEMA or MN DNR for grant funding to conduct buyouts.	Hubbard County, Possible FEMA Grant Funding
23	Drought	Education & Awareness Programs	DROUGHT OUTREACH & EDUCATION Provide outreach and education to residents to be aware of watering restrictions, water conservation tips, and fire safety during periods of severe drought.	Existing High 2025-2030	HCEM	HCEM continues to provide public outreach and education during heightened drought periods using the county website and social media platforms. HCEM encourages city and townships to promote drought awareness to residents at the local level.	Hubbard County
24	Drought	Local Planning & Regulations	WATERING RESTRICTIONS Implement watering restrictions during periods of drought as per MN DNR guidance.	Existing High 2025-2030	HCEM in coord with MN DNR and local jurisdictions	Hubbard County and local jurisdictions will establish and enforce watering restrictions as per MN DNR guidelines during periods of severe drought.	County Funding, Local Gov'ts

Section 6 – Plan Maintenance

6.1 Monitoring, Evaluation, and Updating the Plan

The Hubbard County Hazard Mitigation Plan (HMP) should be considered a living document. The plan should be updated and approved by FEMA at a minimum of every five years. The guidance in this section will function as the primary tool when reviewing progress on the implementation of the Hubbard County HMP.

The Hubbard County emergency management director (EMD) is the individual responsible for leading all efforts to monitor, evaluate, and update the hazard mitigation plan within the five-year window. Throughout the five-year planning cycle, the Hubbard County EMD will work with an emergency managers group to help monitor, review, evaluate, and update the HMP. The group will include township representatives and designated city emergency managers from the cities of Akeley, Laporte, Nevis, and Park Rapids, and include other city elected officials or staff as needed. Representatives from agencies or organizations that are involved with related mitigation work in the county as well as those that work with underserved communities or socially vulnerable populations will also be invited to participate in the group. The Hubbard County EMD will conduct outreach to and communicate with the group on a quarterly basis on emergency management matters regarding severe weather awareness, local preparedness, mitigation, and response & recovery as needed. Additional stakeholders will be added based on need or in response to severe weather events.

If necessary, the Hubbard County EMD will convene the group to meet on a more regular basis to monitor plan implementation progress and reassess needs and opportunities. This could be done in response to funding cycles of programs that provide resources for hazard mitigation activities. If there is a need for a special meeting due to new developments or a declared disaster occurring in the county, the group will meet to update pertinent mitigation strategies. Depending on Hubbard County opportunities and fiscal resources, mitigation projects may be implemented independently by individual communities or through local partnerships.

The group will continue to review the HMP goals and objectives to determine their relevance to changing situations in Hubbard County. In addition, state and federal policies will be reviewed to ensure they are addressing current and expected conditions. The group will also review the risk assessment portion of the plan to determine if this information should be updated or modified. The parties responsible for the various implementation actions will report on the status of their projects, and will include which implementation processes worked well, any difficulties encountered, how coordination efforts are proceeding, and which strategies should be revised.

Updates or modifications to the HMP during the five-year planning process will require a public notice and a meeting prior to submitting revisions to the individual jurisdictions for approval. The plan will be updated via written changes, submissions as the group deems appropriate and necessary, and as approved by county commissioners.

Throughout the five-year window of the plan, each respective county department and jurisdiction will be required to report on the status of mitigation actions in their charts to the Hubbard County EMD so that progress notes may be maintained for the next plan update.

6.2 Implementation

Hubbard County and its included municipalities share a common HMP and work together closely to develop, revise, and implement it. This HMP provides a comprehensive chart of mitigation actions for Hubbard County and its jurisdictions (see Appendix H and Section 5.3). The cities of Akeley, Laporte, Nevis, and Park Rapids participated in the HMP planning process and identified the specific mitigation strategies that they would seek to implement in their communities during the five-year planning cycle. These mitigation actions are provided in Appendix H.

Several implementation tools are available to address hazards. The strategies to use will be part of an ongoing discussion as Hubbard County looks for opportunities for plan implementation. The following tools will be considered:

Education: In many cases, education of residents has been identified as one of the most effective mitigation strategies.

Capital Investments: Capital investments such as fire and ambulance equipment, sprinkler systems, and dry hydrants are tools that can limit risks and impacts of natural and manmade hazards.

Data Collection and Needs Assessments: Data collection and needs assessments can aid in gaining a better understanding of threats and allow planning for mitigation strategies accordingly. As resources are limited for this part of the planning process, additional data collection is likely to be an ongoing activity as resources become available.

Coordination: Responsibilities for mitigation strategies run across various county departments, local fire and ambulance departments, city and township governments, and a host of state and federal agencies. Ongoing coordination is an important tool to ensure resources are used efficiently. Coordination can also avoid duplication of efforts or prevent gaps that are created because of unclear roles and responsibilities. The mitigation plan review process can function as a tool to have an ongoing discussion of roles, responsibilities, and opportunities for coordination.

Regional Cooperation: Counties and public safety services providers throughout the region often share similar challenges and concerns. In some cases, a regional approach may be warranted as a mitigation strategy in order to save resources. Mutual aid agreements are a tool already in use for a number of services. Needs assessments for fire and ambulance services and development of assistance for volunteer recruiting, training, and retention could benefit from a regional approach. Cooperation among counties could also help in lobbying for certain funding priorities that address concerns relating to challenges in service delivery in rural areas. Organizations such as FEMA Region 5 and the Minnesota Division of Homeland Security and Emergency Management (HSEM) through the Regional Program Director can offer tools and resources to assist in these cooperative efforts.

Regulation: Regulation is an important mitigation tool for Hubbard County. Regulation plays a vital role in land use, access to structures, and the protection of water resources and public health.

6.3 Continued Public Involvement

Continued public involvement is critical to the successful implementation of the Hazard Mitigation Plan. The Hubbard County Emergency Management Director and the emergency managers group will continue to engage new public stakeholders in planning discussions and project implementation during the five-year cycle of this plan.

The Hubbard County HMP website provides opportunities for continued public involvement and feedback

To seek continued public participation after the plan has been approved and during the five-year window of implementation for this plan, Hubbard County will take the following measures:

- The Hubbard County HMP website link will be posted on the Hubbard County Emergency Management website. The website provides a PDF of the plan for download and an interactive experience for the public to understand the planning process, where county-specific vulnerabilities lie, national best practices, as well as a chance to submit feedback. Collected feedback will be reviewed during the five-year plan cycle and will be noted for future update of the plan or addressed as necessary.
- Following any major storms or natural disasters, Hubbard County Emergency Management will seek to gather concerns and new ideas for mitigation from local residents to include in the next update of the plan. This may be done through public meetings, outreach via social media, or news releases via local media.
- Each community participating in the plan will be responsible for keeping their local government, schools, and community members updated and engaged in the implementation of their respective mitigation action charts (see Appendix H or the Hubbard County HMP website). Each respective jurisdiction will be required to report on the status of mitigation actions in their charts to the Hubbard County EMD.
- Hubbard County and its jurisdictions will use numerous means of public outreach to engage new public stakeholders in providing input on mitigation concerns, including those from underserved communities or socially vulnerable populations. Outreach methods may include presentations at city council or township board meetings, sharing information at special events, working with local schools and partner organizations, and posting information in areas that are used to communicate with the public (bulletin boards, websites, social media, and local media sources that communities use to inform and engage the public). As mitigation projects are implemented, jurisdictions will work to keep the public updated and engaged in those local efforts.

Appendices

Appendix A – References

Appendix B – Adopting Resolutions

Appendix C – Local Mitigation Survey Report

Appendix E – Past Mitigation Action Review Status Report

Appendix F – Planning Team Meetings

Appendix G – Public Outreach & Engagement Documentation

Appendix H – Mitigation Actions by Jurisdiction

Appendix A – References

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Appendix B – Adopting Resolutions

Appendix C – Local Mitigation Survey Report



Hubbard County

Local Mitigation Survey Report

Overview

As part of Hubbard County's 2024 Hazard Mitigation Plan update, participating jurisdictions and county personnel were asked to fill out a Local Mitigation Survey (LMS) form. The purpose of the survey was to gather jurisdictionally-specific information needed to support update of the plan and to help inform development of local-level mitigation actions for the next five-year planning cycle.

Following is a list of the jurisdictions that participated in the survey.

LMS Forms

Hubbard County	Yes
City of Akeley	Yes
City of Laporte	No
City of Nevis	Yes
City of Park Rapids	Yes

The following LMS Survey Report includes a copy of each jurisdiction's completed survey.

Hubbard County

LOCAL MITIGATION SURVEY

Please fill out the Point of Contact information and Parts A, B, C, and D of this survey. Please be as specific as in your responses with information as it relates to your jurisdiction. It is strongly recommended to include government officials and staff to help provide detailed feedback.

Name of Jurisdiction: HUBBARD COUNTY

Point of Contact:

Name: Nikolas Opsal
Job Title: Emergency Management Director
Phone: (218) 732-2588
Email: nikolas.opsal@co.hubbard.mn.us

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. HAZARD IDENTIFICATION

In the chart below, please identify the natural hazards that pose the greatest risk to your community. Consider past damaging events, likelihood of future events, and impacts to community assets. Rank the prioritization of hazards as high, moderate, or low. Only put an "X" next to those hazards that are of moderate to high priority. These will be addressed with localized mitigation actions.

Natural Hazard	Use an "X" to select the hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Do feel that this hazard has increased, decreased, or had no change?
Flooding		Moderate	No change
Winter Storms	X	High	No Change
Tornadoes		Moderate	No Change
Windstorms	X	Moderate	No Change
Lightning		Low	No Change
Hail		Low	No Change
Extreme Cold	X	High	No Change
Extreme Heat		Low	No Change
Drought		Low	No Change
Wildfire	X	High	No Change
Landslides		Low	No Change
Dam/Levee Failure		Low	No Change

2. RECENT HAZARD EVENTS

Please describe any severe weather or disaster events that have occurred over roughly the last 5 years that caused damages in your community or resulted in a disaster declaration.

A tornado touched down on Oct. 9, 2021 near the U.S. Hwy. 71 roundabout in Park Rapids, tearing the roof off Faith Bridge Church's family life center and leaving debris scattered around the neighborhood.

In June 2011 an EF-1 tornado packing wind speeds of 105 mph hit Park Rapids. It was accompanied by a microburst that dumped as much as 2 inches of torrential rain on the region. Many houses and businesses' roofs sustained damage in the City of Park Rapids.

In April 2023 wet heavy snow left 54 Hubbard County residents without power in the Itasca-Mantrap Cooperative Electrical Association service area.

In October 2013, a dozen outages were caused by high winds, leaving 309 residents of Hubbard County without power for around 90 minutes. During the same storm a power pole was struck by lightning leaving 1,109 residents without power.

In August 2020, a wall cloud produced a tornado with multiple brief touchdowns west of Fishhook Lake near US-71, several trees were damaged. Peak winds were approximately 70 mph.

3. LOCAL VULNERABILITIES

Use the chart below to identify what specific community assets are vulnerable to damages or loss from the hazards that pose risk to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Flooding	We have had washouts on many dirt roads throughout the county due to heavy rain and spring snowmelt. Several roads in our jurisdiction become covered with water and unpassable.
Ice Storms, Blizzards	Much of the county's municipal and county's electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.
Windstorms and Tornadoes	We have multiple mobile home parks within the county that do not have a storm shelter and residents are vulnerable to high wind and tornado events. There are also several campgrounds active during summer and fall months with RVs and campers and does not have a storm shelter. We have experienced power outages from strong wind events that brought down power lines.
Extreme Cold	We have a high population of senior citizens and low-income residents who are more vulnerable during periods of extreme cold with power outages. In the past, we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold. The county has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.
Drought	Drought in recent years have caused crop failure and placed strain on farmers. Drought has also been a contributing factor to many large grass and brush fires Hubbard County has experienced in recent years.

4. REDUCTION IN VULNERABILITY

Please describe any actions your community has taken to reduce vulnerability against future severe weather or disaster events. This can include examples of any work that has been completed or is currently underway.

Hubbard County has increased use of our website and Facebook page to communicate with residents on emergency preparedness.

Hubbard County Emergency Management worked with Camp Wilderness Boy Scout Camp staff to construct two tornado safe rooms to reduce vulnerability of hind winds and tornados.

5. INCREASE IN VULNERABILITY

Please describe any current conditions or changes you feel have increased your community's vulnerability to future severe weather or disaster events. Consider factors such as recent population growth or new development.

New residential and commercial properties within our county would increase the cost of damage due to a tornado, wind, or hail along with increased storm water runoff to our storm water system.

Hubbard County is 1 of the 72 counties in the state that have some level of weather radar gap. This is alarming when considering how volunteer weather spotters are used. Many counties are sending weather spotters out into weather that may not be captured on radar. In addition, when considering how weather alerts are issued, and that at times weather systems are developing and happening below radar coverage, there is also cause for more concern for public safety.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. PUBLIC OUTREACH

Please describe what capabilities you have in place to communicate with those in your community to share information about severe weather events and personal preparedness. Please include any considerations for underserved communities or socially vulnerable populations within your jurisdiction.

Hubbard County Emergency Management utilizes the Hubbard County website, Hubbard County Sheriff's Office Facebook page, and local news media to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather, and other hazard conditions throughout the year. The Hubbard County Emergency Management webpage provides emergency preparedness information and resource links for the public.

2. EMERGENCY NOTIFICATION SYSTEM

Do you encourage residents in your community to sign up for the county's emergency notification system and/or a local emergency alert system? If yes, how? If not, is this something you would do?

Hubbard County maintains the Everbridge Emergency Notification System, which allows residents and visitors to sign up ("opt-in") to receive severe weather alerts targeted to their location, along with other local emergency alerts. A link to sign up for the system is located on the Hubbard County Emergency Management website page. Hubbard County utilizes IPAWS and WEA to send emergency alerts to specific geographic locations to individuals who have not signed up for Everbridge.

3. LOCAL PLANS & POLICIES

Please describe any local plans, authorities or policies in place that help to reduce risk from natural hazards in your community. Please make note of enforcement of existing building codes and land use and development ordinances or regulations as they apply to your community. Please also note if your community has any plans or policies in place related to resilience and adaptation for climate change.

All Hazards Emergency Operations Plan: Hubbard County Emergency Management maintains an all-hazards Emergency Operations Plan (EOP) which lays out concepts and operating guidelines for all incident management and support functions that may be needed to ensure life safety, incident stabilization, and property preservation during an incident and the transition to recovery.

Mass Care Sheltering: In the event of a disaster where temporary sheltering is needed, Hubbard County Emergency Management works in coordination with Hubbard County Social Services, the American Red Cross, and local governments/Fire & EMS to provide mass care services as needed. The county EOP includes plans, procedures, and resources available for mass care sheltering.

Snow Removal & Ice Control: The Hubbard County Highway Department conducts winter road maintenance on county roads in accordance with the Hubbard County Snow Plowing Policy.

Shore land Ordinance: Hubbard County Hubbard County Shore land Management Ordinance No. 17, Amendment 16, 06/25/2014. Managed by Hubbard County Environmental Services. The shore land ordinance establishes allowable uses and development standards in shore land areas designated within the county. In addition to establishing setback requirements, the ordinance specifies that local shore land controls must regulate placement of structures in relation to high water elevation for flood protection.

Subdivision Ordinance: Hubbard County Subdivision Ordinance, revised 05/18/2021 is managed by Hubbard County Environmental Services. The ordinance was established to regulate the subdividing of land in Hubbard County.

Transportation Plan: The Hubbard County Hubbard County Highway Department maintains update of the county's transportation plan and schedules projects for implementation.

Minnesota Buffer Law: The Hubbard SWCD administers the state Buffer Law and provides technical assistance on buffer compliance by landowners. Buffers benefit bank stabilization and reduced erosion and sedimentation into ditches, streams, rivers, and lakes.

One-Watershed One Plan (1w1P): The Hubbard County SWCD participates in the following 1W1P's: Leech Lake, Mississippi River Headwaters, and Crow Wing River. These plans address regional watershed planning which include measures for flood mitigation.

4. STAFF & PARTNERSHIPS

Please describe what staff or other partnerships are in place to help accomplish mitigation in your community. This can include specific department staff or outside agencies that have a role with mitigation-related planning or projects.

Hubbard County departments work together to accomplish mitigation goals through integrated policies and programs. Key departments include Hubbard County Emergency Management, Hubbard County Sheriff's Office, Hubbard County Highway Department, Hubbard County Environmental Services, CHI St. Joseph Health Community Health, Hubbard County Administration, and Hubbard Soil and Water Conservation District.

Hubbard County Emergency Management works closely with the MN HSEM Region 3 regional program coordinator and neighboring county emergency managers on an annual basis for joint planning, training, and exercises.

Hubbard County Emergency Management coordinates with local school districts as needed on related emergency planning and preparedness, including support for specific trainings, exercises, equipment, and relay of county-level emergency notifications.

Hubbard County has a strong relationship with the Grand Forks, ND National Weather Service (NWS) Forecast Office, having access to all live and on-demand briefings, announcements, and educational opportunities, and contact information for direct collaboration as needed. The county also receives all products/statements issued by the NWS, and in turn shares or incorporates these into its community outreach and public education.

5. PROGRAMS IN PLACE

Describe any programs in place that to help reduce risk from natural hazards in your community.

Severe Weather Statements (Watch, Advisory, Warning, etc.): Hubbard County Emergency Management works to relay all severe weather and extreme temperature statements received from the NWS to help alert residents and visitors to hazardous conditions.

NOAA Weather Radios: Hubbard County Emergency Management promotes the use of NOAA Weather Radios by residents, businesses, schools, long-term care facilities, government buildings, faith communities, and other places of common gathering.

National Weather Service – Severe Weather Awareness Weeks: Hubbard County participates in the annual Winter Hazard Awareness Week and Severe Weather Awareness Week campaigns sponsored by MN HSEM and the NWS each November and April. Each weeklong effort provides specific information each day covering the topics of severe weather winter weather, outdoor winter safety, indoor winter safety, and winter driving safety. Hubbard County Emergency Management promotes and shares information during the week via social media that communities, schools, churches or other civic programs are encouraged to share locally.

Outdoor Warning Siren Testing: Outdoor warning sirens throughout the county are tested monthly by the Hubbard County Sheriff's Office in coordination with local jurisdictions.

Skywarn Program: Hubbard County Emergency Management works with the National Weather Service to offer Storm Spotter training on an annual basis to local fire and law enforcement departments and area residents that wish to be trained as spotters. SkyWarn Storm Spotters help to keep their local communities safe by providing timely and accurate reports of severe weather to their local NWS office.

Vegetation Management: The Hubbard County Highway Department conducts vegetation management along county roads to reduce the risk of downed trees or branches resulting from severe spring and summer storm events. Local utility providers also work to manage vegetation near power lines to reduce the risk of downed lines and power outages.

Precipitation Monitoring: The Hubbard SWCD participates in the MNgage Minnesota Volunteer Precipitation Observing Program, which is administered by the DNR Minnesota State Climatology Office. Data collected by volunteers is entered into a database for various studies and weather prediction simulations, including the assessment of drought severity and impacts.

6. FUNDING & OTHER RESOURCES

Please describe what sorts of funding or other resources are available to help accomplish mitigation in your community. Please make note of any work with outside organizations or agencies or municipal/rural electrical coop providers.

Currently for mitigation projects, Hubbard County would need to budget for those projects unless there was potential grant funding available.

PART C: LOCAL MITIGATION PROJECTS

1. LOCAL MITIGATION PROJECTS

Please describe what mitigation actions would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address local vulnerabilities; limit risk to existing structures or new development; and also any actions that benefit underserved communities or socially vulnerable populations in your community. Please be as specific as possible in your responses.

- Encourage all county residents to sign-up for the county's emergency notification alert system.
- Provide ongoing education and outreach to residents on personal preparedness for severe weather, extreme temperatures, and extended power outages. Coordinate with local jurisdictions to share information locally.
- Ensure the county's Emergency Operations Plan (EOP) is updated and addresses policies & procedures needed to support EM functions prior to, during, and following a disaster.
- Ensure designated facilities are in place and prepared for providing mass care sheltering and county staff are trained in sheltering operations.
- Work with municipalities / rural electric coops to encourage them to address burying power lines or strengthening power poles to avoid power outages from high wind events and storms.
- Address the safety of county, city, and township roads in winter through snow removal and ice control.
- Ensure there is a network of trained Storm Spotters throughout the county to support situational awareness of and public notification for dangerous storms such as severe thunderstorms and tornadoes.

- Work with county departments and local jurisdictions to acquire generator backup power to support critical infrastructure and delivery of essential services during an extended power outage due to storms.
- Encourage schools and long-term facilities that house senior citizens or other vulnerable populations to have emergency plans and generators in place to deal with severe weather, extreme temperatures and power outages.
- Work with local governments to ensure the functionality of outdoor warnings sirens to warn residents of dangerous high wind or tornado events.
- Work in coordination with local jurisdictions to address the need for the construction of storm shelters or tornado safe rooms in locations where residents and visitors are vulnerable to high wind events, such as mobile home parks, municipal campgrounds, and other public areas.
- Conduct outreach to residents to be aware of water restrictions, water conservation tips, and fire safety during periods of severe drought.
- Continue to enforce the Minnesota State Building Code to ensure new development is built to construction standards that help to minimize damages from severe storms.
- Continue to enforce ordinances and policies within the county's code of ordinances to support reduction of risk to existing buildings, structures, and infrastructure as well as to limit risk to new development and redevelopment. This includes shore land regulations, setback limits, and floodplain regulations.
- Plan for and implement measures to address localized flood reduction projects for roads, bridges, and culverts throughout the county such as hardening public roads, bridges, and installing high-flow culverts to mitigate recurring flood damages. Additional projects may include paving shoulders of roads, paving or adding rip-rap around culverts, and adding rip-rap to the banks of ditches and streams. These projects may be in coordination between the county, SWCD, and other area watershed districts and in accordance with other existing plans.
- Continue to work in partnership with the Soil & Water Conservation District and other watershed partners to address mitigation plans, policies, and projects that address risk reduction for localized flooding and erosion.
- Continue to address shore land zoning regulations and storm water management to mitigate impacts from high rain events, especially for areas of new development and population growth within the county.
- Conduct soil stabilization and slope management projects in unstable areas for sediment and erosion control resulting from high rain events.
- Conduct floodplain and stream corridor restoration in areas that are impacted by high rain events.

- Construct flood diversion and storage projects where identified as needed to reduce the impacts of high rain events on streams, rivers, or drainage systems which may result in localized or downstream flooding. There is a need for runoff storage projects as well as channel restoration techniques to reduce the impacts of flooding. These efforts are under investigation by the Sauk River Drainage Authority.

2. GAPS OR DEFICIENCIES

Please describe any specific gaps or deficiencies that are a barrier to implementing local mitigation measures.

Community Wildfire Protection Plan: Hubbard County does not have a CWPP in place. Developing a CWPP in coordination with local fire departments and the MN DNR will allow Hubbard County to identify areas of high wildfire risk, targeted wildfire mitigation activities, and allow for greater access to more funding for any follow up projects identified.

Wildland Fuels Mitigation and Water Resources: Wildfire is an increasing concern with continued expansion of the wildland urban interface. Hubbard County can seek to work in greater coordination with MN DNR Forestry and local jurisdictions to address wildland fuels mitigation in wildland-urban interface areas within the county. Local fire departments may also need to assess needs for rural water supplies such as cisterns.

PART D: SURVEY PARTICIPANTS

Please list the names & titles of all persons that contributed information to this survey.

Nik Opsal, Emergency Manager

Hubbard County

LOCAL MITIGATION SURVEY

Please fill out the Point of Contact information and Parts A, B, C, and D of this survey. Please be as specific as in your responses with information as it relates to your jurisdiction. It is strongly recommended to include government officials and staff to help provide detailed feedback.

Name of Jurisdiction: CITY OF AKELEY

Point of Contact:

Name: Kristi Kath
Job Title: Clerk/Treasurer
Phone: 218-652-2465
Email: akeleych@arvig.net

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. HAZARD IDENTIFICATION

In the chart below, please identify the natural hazards that pose the greatest risk to your community. Consider past damaging events, likelihood of future events, and impacts to community assets. Rank the prioritization of hazards as high, moderate, or low. Only put an "X" next to those hazards that are of moderate to high priority. These will be addressed with localized mitigation actions.

Natural Hazard	Use an "X" to select the hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Do feel that this hazard has increased, decreased, or had no change?
Flooding	x	L	NC
Winter Storms	x	H	I
Tornadoes	x	M	NC
Windstorms	x	H	I
Lightning	x	H	NC
Hail	x	M	NC
Extreme Cold	x	H	I
Extreme Heat	x	M	NC
Drought			
Wildfire	x	M	I
Landslides			
Dam/Levee Failure			

2. RECENT HAZARD EVENTS

Please describe any severe weather or disaster events that have occurred over roughly the last 5 years that caused damages in your community or resulted in a disaster declaration.

We have had numerous high wind events that have damaged trees and powerlines, resulting in power outages and tree damage. In July of 2020 our municipal campground experienced damages from a

severe thunderstorm with high winds and excess rainfall which brought down tree limbs and caused danger to campers.

3. LOCAL VULNERABILITIES

Use the chart below to identify what specific community assets are vulnerable to damages or loss from the hazards that pose risk to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
All Hazards	We need to obtain a portable generator for our City Hall so that communication with the community and or public utilities systems can be maintained. We also are in need of generators for our utility systems to keep them running in the event of a power outage. Currently we would only have approximately two days of water in the winter months and 1-1.5 in the summer if there were extended power outages.
Flooding	The city park and campground are vulnerable to flooding and park equipment has been damaged in the past.
Ice Storms, Blizzards	<p>Much of the city's municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.</p> <p>The campground and the city as a whole has a very aging tree canopy and storms pose a serious threat to it. Several houses are completely surrounded by trees.</p> <p>The city is home to the Eastern Hubbard County Fire Department and tree or snow damage could block the driveway into the Fire Station thus causing delay or non-response from the EHCDF.</p>
Windstorms and Tornadoes	<p>Our municipal campground is active during summer and fall months with RVs and campers and does not have a storm shelter.</p> <p>We have experienced power outages from strong wind events that brought down power lines and trees.</p> <p>High winds could pose a problem if it were to blow over the large irrigation system at the wastewater ponds.</p>
Extreme Cold	In the past we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold. The city has experienced damage to roads from spring frost heaves. In extreme cold the city's Water Tower has no recirculation pump or mixer inside the bowl and could possibly freeze and tip over.
Extreme Heat	Extreme heat could over compensate the power gride and that could cause widespread outages meaning no pumps at the water tower or lift stations.

4. REDUCTION IN VULNERABILITY

Please describe any actions your community has taken to reduce vulnerability against future severe weather or disaster events. This can include examples of any work that has been completed or is currently underway.

In 2023 the city applied for and was rewarded a Department of Natural Resources Shade Tree Program Bonding Grant. These funds along with help from Hubbard County Soil and Water Conservation District we are working on locating and replacing some of the most vulnerable areas of the tree canopy. This work is scheduled to begin in 2024.

We also received two small MN Department of Health Source water protection grants to work on getting a generator for the City Water Plant. To date we are still seeking matching funds and additional funding to secure the generator necessary to run the water plant.

5. INCREASE IN VULNERABILITY

Please describe any current conditions or changes you feel have increased your community's vulnerability to future severe weather or disaster events. Please include any factors such as recent population growth or new development.

The change in climate has been one of the largest factors in increased vulnerability.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. PUBLIC OUTREACH

Please describe what capabilities you have in place to communicate with those in your community to share information about severe weather events and personal preparedness. Please include any considerations for underserved communities or socially vulnerable populations within your jurisdiction.

We post information on our city website and Campground Facebook page. We also post information on bulletin boards at the Senior Center and at the Post Office. We make announcements at City Council meetings and post flyers on our community bulletin board outside of City Hall.

2. EMERGENCY NOTIFICATION SYSTEM

Do you encourage residents in your community to sign up for the county's emergency notification system and/or a local emergency alert system? If yes, how? If not, is this something you would do?

Our city is part of Hubbard County Tornado awareness program and has monthly siren testing

3. LOCAL PLANS & POLICIES

Please describe any local plans, authorities or policies in place that help to reduce risk from natural hazards in your community. Please make note of enforcement of existing building codes and land use and development ordinances or regulations as they apply to your community. Please also note if your community has any plans or policies in place related to resilience and adaptation for climate change.

Nothing to note

4. STAFF & PARTNERSHIPS

Please describe what staff or other partnerships are in place to help accomplish mitigation in your community. This can include specific department staff or outside agencies that have a role with mitigation-related planning or projects.

City staff and city council. We work with the county as needed.

5. PROGRAMS IN PLACE

Describe any programs in place that to help reduce risk from natural hazards in your community.

None.

6. FUNDING & OTHER RESOURCES

Please describe what sorts of funding or other resources are available to help accomplish mitigation in your community. Please make note of any work with outside organizations or agencies or municipal/rural electrical coop providers.

In 2023 the city applied for and was rewarded a Department of Natural Resources Shade Tree Program Bonding Grant. We also received two small MN Department of Health Source water protection grants to work on getting a generator for the City Water Plant. To date we are still seeking matching funds and additional funding to secure the generator necessary to run the water plant.

PART C: LOCAL MITIGATION PROJECTS

1. LOCAL MITIGATION PROJECTS

Please describe what mitigation actions would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address local vulnerabilities; limit risk to existing structures or new development; and also any actions that benefit underserved communities or socially vulnerable populations in your community. Please be as specific as possible in your responses.

We are still seeking matching funds and additional funding to secure the generator necessary to run the water plant.

2. GAPS OR DEFICIENCIES

Please describe any specific gaps or deficiencies that are a barrier to implementing local mitigation measures.

None.

PART D: SURVEY PARTICIPANTS

Please list the names & titles of all persons that contributed information to this survey.

Kristi Kath – City Clerk Treasurer

Jimmy Hansen – Akeley Chief of Police

Mike Hubner – Certified Utilities Operator

Reid Watson – Maintenance- Highways Streets and Roads and Utilities Supervisor

Akeley City Council

Hubbard County

LOCAL MITIGATION SURVEY

Please fill out the Point of Contact information and Parts A, B, C, and D of this survey. Please be as specific as in your responses with information as it relates to your jurisdiction. It is strongly recommended to include government officials and staff to help provide detailed feedback.

Name of Jurisdiction: CITY OF NEVIS

Point of Contact:

Name: Don Umthun
Job Title: Public Works Supervisor
Phone: 218-252-6411
Email: dumthun@hotmail.com

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. HAZARD IDENTIFICATION

In the chart below, please identify the natural hazards that pose the greatest risk to your community. Consider past damaging events, likelihood of future events, and impacts to community assets. Rank the prioritization of hazards as high, moderate, or low. Only put an "X" next to those hazards that are of moderate to high priority. These will be addressed with localized mitigation actions.

Natural Hazard	Use an "X" to select the hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Do feel that this hazard has increased, decreased, or had no change?
Flooding			
Winter Storms	x	High	No Change
Tornadoes			
Windstorms	x	Moderate	No Change
Lightning			
Hail			
Extreme Cold	x	Moderate	No Change
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam/Levee Failure			

2. RECENT HAZARD EVENTS

Please describe any severe weather or disaster events that have occurred over roughly the last 5 years that caused damages in your community or resulted in a disaster declaration.

No events in the last 5 years.

3. LOCAL VULNERABILITIES

Use the chart below to identify what specific community assets are vulnerable to damages or loss from the hazards that pose risk to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Windstorms / Tornadoes	The city has no designated locations as a tornado shelter. The city of Nevis has no propane generator.

4. REDUCTION IN VULNERABILITY

Please describe any actions your community has taken to reduce vulnerability against future severe weather or disaster events. This can include examples of any work that has been completed or is currently underway.

We trim and maintain roadways to help manage high wind events.

5. INCREASE IN VULNERABILITY

Please describe any current conditions or changes you feel have increased your community's vulnerability to future severe weather or disaster events. Please include any factors such as recent population growth or new development.

No increase.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. PUBLIC OUTREACH

Please describe what capabilities you have in place to communicate with those in your community to share information about severe weather events and personal preparedness. Please include any considerations for underserved communities or socially vulnerable populations within your jurisdiction.

We post on our city website.

2. EMERGENCY NOTIFICATION SYSTEM

Do you encourage residents in your community to sign up for the county's emergency notification system and/or a local emergency alert system? If yes, how? If not, is this something you would do?

Yes, we have placed the link to the Hubbard County Emergency Notification System on our new website.

3. LOCAL PLANS & POLICIES

Please describe any local plans, authorities or policies in place that help to reduce risk from natural hazards in your community. Please make note of enforcement of existing building codes and land use and development ordinances or regulations as they apply to your community. Please also note if your community has any plans or policies in place related to resilience and adaptation for climate change.

The city of Nevis Planning and Zoning Ordinance does enforce the MN State Building Code along with other zoning requirements for all new development and remodels. We have had a Comprehensive Land Use Plan in place since 1999.

4. STAFF & PARTNERSHIPS

Please describe what staff or other partnerships are in place to help accomplish mitigation in your community. This can include specific department staff or outside agencies that have a role with mitigation-related planning or projects.

Like above, our Fire Chief is our designated Emergency Manager. We are part of a Regional Safety Committee. Our Public Works Supervisor addresses road maintenance issues.

5. PROGRAMS IN PLACE

Describe any programs in place that to help reduce risk from natural hazards in your community.

We add the Spring/Winter Severe Weather Awareness Week link to our website along with our quarterly newsletters. Our local schools practice tornado drills annually.

6. FUNDING & OTHER RESOURCES

Please describe what sorts of funding or other resources are available to help accomplish mitigation in your community. Please make note of any work with outside organizations or agencies or municipal/rural electrical coop providers.

The city primarily uses its own budget to address mitigation projects. We recently worked with Minnesota Rural Water for new controls on our well and with long range planning for Wellhead Protection.

PART C: LOCAL MITIGATION PROJECTS

1. LOCAL MITIGATION PROJECTS

Please describe what mitigation actions would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address local vulnerabilities; limit risk to existing structures or new development; and also any actions that benefit underserved communities or socially vulnerable populations in your community. Please be as specific as possible in your responses.

Windstorms/Tornadoes – We have no city shelter for windstorms/tornadoes.

Severe Winter / Summer Storms – Continue to encourage residents to sign up for the county's emergency notification system and to be ready for severe weather events.

2. GAPS OR DEFICIENCIES

Please describe any specific gaps or deficiencies that are a barrier to implementing local mitigation measures.

Our city has its own website. Not all of our residents are signed up for the county's emergency notification system. We are a small city with limited financial and staff resources to address local mitigation.

PART D: SURVEY PARTICIPANTS

Please list the names & titles of all persons that contributed information to this survey.

Dawn Veit, City Administrator

Don Umthun, Public Works Supervisor

Hubbard County

LOCAL MITIGATION SURVEY

Please fill out the Point of Contact information and Parts A, B, C, and D of this survey. Please be as specific as in your responses with information as it relates to your jurisdiction. It is strongly recommended to include government officials and staff to help provide detailed feedback.

Name of Jurisdiction: CITY OF PARK RAPIDS

Point of Contact:

Name: Angel Weasner
Job Title: City Administrator
Phone: 218-732-3163
Email: City.admin@ci.park-rapids.mn.us

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. HAZARD IDENTIFICATION

In the chart below, please identify the natural hazards that pose the greatest risk to your community. Consider past damaging events, likelihood of future events, and impacts to community assets. Rank the prioritization of hazards as high, moderate, or low. Only put an "X" next to those hazards that are of moderate to high priority. These will be addressed with localized mitigation actions.

Natural Hazard	Use an "X" to select the hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Do feel that this hazard has increased, decreased, or had no change?
Flooding		Low	
Winter Storms	X	Moderate	No Change
Tornadoes	X	High	No Change
Windstorms	X	Moderate	No Change
Lightning	X	Moderate	No Change
Hail	X	Moderate	No Change
Extreme Cold	X	High	No Change
Extreme Heat	X	Moderate	No Change
Drought	X	Moderate	INCREASED
Wildfire	X	Moderate	INCREASED
Landslides		Low	
Dam/Levee Failure		Low	

2. RECENT HAZARD EVENTS

Please describe any severe weather or disaster events that have occurred over roughly the last 5 years that caused damages in your community or resulted in a disaster declaration.

There was a summer storm with straight line winds and bouncing tornado that caused damage to a few buildings. We are experiencing drought conditions and need to limit water usage.

3. LOCAL VULNERABILITIES

Use the chart below to identify what specific community assets are vulnerable to damages or loss from the hazards that pose risk to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
	None noted.

4. REDUCTION IN VULNERABILITY

Please describe any actions your community has taken to reduce vulnerability against future severe weather or disaster events. This can include examples of any work that has been completed or is currently underway.

In 2023 we completed a new road reconstruction on Fair Avenue and during that process water and sewer lines were insulated and lowered to accommodate colder temperatures. During this process overhead electrical lines were also placed underground reducing the likelihood of power outages to the nursing home.

5. INCREASE IN VULNERABILITY

Please describe any current conditions or changes you feel have increased your community's vulnerability to future severe weather or disaster events. Please include any factors such as recent population growth or new development.

None noted.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. PUBLIC OUTREACH

Please describe what capabilities you have in place to communicate with those in your community to share information about severe weather events and personal preparedness. Please include any considerations for underserved communities or socially vulnerable populations within your jurisdiction.

The city is trying to utilize social media (Facebook) more to notify residents of issues in city limits.

2. EMERGENCY NOTIFICATION SYSTEM

Do you encourage residents in your community to sign up for the county's emergency notification system and/or a local emergency alert system? If yes, how? If not, is this something you would do?

We have not at this time. In the future could be possible.

3. LOCAL PLANS & POLICIES

Please describe any local plans, authorities or policies in place that help to reduce risk from natural hazards in your community. Please make note of enforcement of existing building codes and land use and development ordinances or regulations as they apply to your community. Please also note if your community has any plans or policies in place related to resilience and adaptation for climate change.

The city has a contracted building official to ensure owners applying for building permits are meeting the State Building codes to ensure as much safety as possible. The city has a comprehensive plan and is planning on updating it to accommodate the growth of the city to ensure best possible layout of environment.

4. STAFF & PARTNERSHIPS

Please describe what staff or other partnerships are in place to help accomplish mitigation in your community. This can include specific department staff or outside agencies that have a role with mitigation-related planning or projects.

The city has an Emergency Operations plan that is reviewed every few years to ensure accuracy and contact information is up to date.

5. PROGRAMS IN PLACE

Describe any programs in place that to help reduce risk from natural hazards in your community.

None noted.

6. FUNDING & OTHER RESOURCES

Please describe what sorts of funding or other resources are available to help accomplish mitigation in your community. Please make note of any work with outside organizations or agencies or municipal/rural electrical coop providers.

The city staff continuously looks for grant opportunities to upgrade equipment and systems to ensure best possible safety measures are available.

PART C: LOCAL MITIGATION PROJECTS

1. LOCAL MITIGATION PROJECTS

Please describe what mitigation actions would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address local vulnerabilities; limit risk to existing structures or new development; and also any actions that benefit underserved communities or socially vulnerable populations in your community. Please be as specific as possible in your responses.

Staff regularly receives updates about the drought conditions and asks city council to implement water usage restrictions.

2. GAPS OR DEFICIENCIES

Please describe any specific gaps or deficiencies that are a barrier to implementing local mitigation measures.

There are private wells in the city and residents will use that to allow for water usage at their discretion. The appearance is that water restrictions do not apply to them so why should everyone else abide by the water restriction.

PART D: SURVEY PARTICIPANTS

Please list the names & titles of all persons that contributed information to this survey.

Angel Weasner, City Administrator

Jeff Appel, Police Chief

Scott Burlingame, Public Works Director

Appendix D – Plans & Programs in Place

Hubbard County

HMP Plans & Programs in Place Form

EMERGENCY PLANNING CAPABILITIES	Yes/No	Comments
Emergency Mass Notification System	Yes	Everbridge
Outdoor Warning Sirens (#'s and location)		List the cities that have warnings sirens and # per community, i.e., Akeley – 1 Laporte – 1 Nevis – 1 Park Rapids - 1
Emergency Operations Plan (EOP)	Yes	County EOP is typically updated annually
Mass Care Sheltering Plan / List of Shelter Facilities	Yes	Addressed in EOP and in coordination with local jurisdictions
Tornado Safe Rooms / Storm Shelters	No	Addressed in coordination with schools & local jurisdictions with local vulnerabilities
NWS Weather Ready Nation / StormReady Certification	No	StormReady Certification has been discussed with the National Weather Service and we will hopefully obtain a StormReady Certification in the near future
Coordination with Schools	Yes	Tornado Drills, other trainings
Coordination with Neighboring County/Tribal Jurisdictions	Yes	Annual regional planning and training; statewide AMEM conference
Coordination with Local / Regional Agencies involved in mitigation	Yes	SWCD, MN DNR, MnDOT, Rural and Municipal Electric Cooperatives, Watershed Districts

Coordination with organizations or agencies addressing disaster related issues and vulnerable populations, emergency preparedness, access and functional needs populations	Yes	Public Health, American Red Cross, Salvation Army
Hazard data and information	Yes	Damage information is kept on file from past storm events and disaster declarations
<i>Other (please describe)</i>		PH has preparedness plans in place

PLANNING & REGULATORY CAPABILITIES	Yes/No	Comments
Comprehensive/Land Use Plan	No	See Hubbard County Ordinances
Capital Improvements Plan	Yes	Hubbard County Capital Improvement Plan – public hearing 06/20/2023.
Economic Development Plan	No	
Climate Adaptation Plan	No	
Continuity of Operations Plan (COOP)	Yes	COOP planning under Hubbard County Emergency Management
Transportation Plan (Roads, Bridges, Culverts, Ditches)	Yes	Hubbard County Highway Dept / Public Works
Stormwater Management Plan / Drainage Plan	Yes	Hubbard County Environmental Services oversees related activities/ordinances for stormwater and drainage
Burning Permits/Restrictions (Sheriff's Office or MN DNR)	Yes	MN DNR
Comprehensive Local Water Management Plan	Yes	Hubbard County SWCD Local Water Management Plan, January 2016 to January 2026
Watershed Plan (One Watershed, One Plan)	Yes	Hubbard County SWCD participates in the following 1W1P's: Leech Lake, Mississippi River Headwaters, and Crow Wing River

Wellhead Protection Plan	No	Municipal level plans are done in coordination with MDH
Forest Management Plan	Yes	Hubbard County Natural Resource Management – 2002 Forest Resources Management Plan
Community Wildfire Protection Plan (CWPP)	No	
Participation in MN DNR Firewise Program	No	
Database of Dry Hydrants/Well Access	No	Information managed by local fire depts.
<i>Other (please describe)</i>	Yes	Hubbard County Snowplowing Policy (Highway Dept.)

LOCAL POLICY / PROGRAM CAPABILITIES	Yes/No	Comments
Land Use, Planning, & Zoning Ordinance	Yes	Hubbard County Code of Ordinances
Subdivision Ordinance	Yes	Hubbard County Subdivision Ordinance, revised 05/18/2021. Managed by Hubbard County Environmental Services
Building Codes	No	Hubbard County Environmental Services issues building permits
National Flood Insurance Program (NFIP)	Yes	Hubbard County NFIP entry date 05/15/1985
Flood insurance rate maps	No	No floodplain maps - Hubbard County has NSFHA (No Special Flood Hazard Area) status as per MN DNR records.
Floodplain Ordinance	No	Not a separate ordinance; addressed under Shoreland Ordinance, Sec. 507.1 High Water Elevations

Shoreland Ordinance	Yes	Hubbard County Shoreland Management Ordinance No. 17, Amendment 16, 06/25/2014. Managed by Hubbard County Environmental Services
Minnesota Buffer Law / Soil Erosion Ordinance	Yes	Hubbard County Ordinance No. 43 – Buffer Ordinance. Managed by Hubbard County Environmental Services
Home Buyouts for flood or erosion mitigation	No	Hubbard County has not conducted any past home buyouts for repetitive flooding
Other natural hazard specific ordinance (i.e., stormwater, steep slope, wildfire)	Yes	Shoreland Ordinance addresses bluff impact zones and Steep Slopes
Maintenance programs to reduce risk	Yes	Highway Dept. ROW maintenance and drainage systems
<i>Other (please describe)</i>	Yes	Hubbard SWCD Community Partners Program - Pine Haven Camp Storm-Water/Erosion Control Project. Hubbard SWCD also participates in Wild Rice Easement programs to protect shorelines on important wild rice lakes in central MN.

ADMINISTRATIVE/TECHNICAL CAPABILITIES	Yes/No	Comments
Emergency Management Director	Yes	Hubbard County Emergency Management Dept.
Sheriff/Police Department	Yes	Hubbard County Sherriff's Office
Floodplain Administrator	Yes	Hubbard County Environmental Services Director

Chief Building Official	Yes	Hubbard County Environmental Services Director
County Engineer	Yes	Hubbard County Highway Engineer / Public Works Director
Mapping Specialist (GIS)	Yes	Hubbard County GIS Department
Public Health Coordinator/Department	Yes	CHI St. Joseph Health Community Health
Planning Commission	No	Hubbard County has a range of committees with Commissioners and county staff representation
Soil and Water Conservation District	Yes	Hubbard SWCD & NRCS
Minnesota Department of Natural Resources	Yes	
Mitigation Planning Committee		2023 HMP Update Planning Team
Mutual Aid Agreements	Yes	Regional
<i>Other (please describe)</i>	Yes	Hubbard County Emergency Management Planning Committee

EDUCATION & OUTREACH CAPABILITIES	Yes/No	Comments
SKYWARN Program Training with NWS	Yes	Annual event
Severe Weather Awareness Week (HSEM/NWS)	Yes	Annual event
Winter Weather Awareness Week (HSEM/NWS)	Yes	Annual event
Promotion of NOAA Weather Radios	Yes	During NWS Severe Weather Weeks and Ongoing
<i>Other (please describe)</i>	Yes	Hubbard County EM website page provides extensive links for public education

Appendix E – Past Mitigation Action Review Status Report

Hubbard County

Past Mitigation Action Review Status Report

Following is a report on the status of mitigation actions related to natural hazards included in the Hubbard County 2017 Hazard Mitigation Plan. This report identifies those actions that have been completed, are being deleted, or are considered as ongoing efforts. Mitigation actions that are noted as “ongoing” will be reviewed and revised as necessary for inclusion in the plan update. This report covers the mitigation actions that were listed for implementation by Hubbard County and by city jurisdictions, as applicable.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
All-Hazards	Work to ensure that all Hubbard County residents are aware of and sign-up for the CodeRed emergency notification system.	Hubbard County & All Cities	Ongoing	Hubbard County currently uses the Everbridge emergency notification system. Work is ongoing to ensure that all Hubbard County residents are aware of and sign-up for Everbridge.
All-Hazards	Form an Emergency Planning Committee, which will meet semi-annually to discuss emergency preparedness and response issues.	Hubbard County	Delete	Not a necessary mitigation action.
All-Hazards	Identify and purchase essential supplies and have them readily available in all schools.	School Districts	Delete	Not a necessary mitigation action.
All-Hazards	Install remote locking system for all main entrance points.	School Districts	Delete	Not a necessary mitigation action.
All-Hazards	Install universal locks throughout the entire school so each room can easily be accessed with a master key.	School Districts	Delete	Not a necessary mitigation action.
All-Hazards	Implement measures to allow for remote accessibility of school warning systems.	School Districts	Delete	Not a necessary mitigation action.
All-Hazards	Practice remote access from Hubbard County Law Enforcement Center.	School Districts, Hubbard County	Delete	Not a necessary mitigation action.
All-Hazards	Purchase backup generators for all schools currently without a backup power source.	School Districts	Ongoing	School districts are responsible for their own backup power.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
All-Hazards	Plan and implement a mock disaster response in coordination with other agencies for a hazardous material spill.	School Districts	Delete	Not a necessary mitigation action.
All-Hazards	Continue to practice various types of mock drills including fire and tornado drills.	School Districts	Delete	Not a necessary mitigation action.
All-Hazards	Update school Emergency Operations Plans regularly and ensure copies are available to Hubbard Co. EM and Law Enforcement.	School Districts	Delete	Not a necessary mitigation action.
Severe Winter & Summer Storms	Educate the public on the dangers of severe winter and summer storms to help protect life safety during severe storm events (i.e., stay away from downed power lines, winter driving hazards, etc.)	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Severe Winter & Summer Storms	Promote individual and family emergency preparedness for safety and survival during periods of severe winter and spring/summer weather.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Severe Winter & Summer Storms	Identify critical facilities or infrastructure that do not have backup power in the event of a major power outage resulting from severe winter or summer storms.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Severe Winter & Summer Storms	Purchase and install generator hook-ups and encourage local generator purchases for identified critical facilities that require backup power.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Severe Winter & Summer Storms	Work with MN Power, Beltrami Electric Coop, and Itasca-Mantrap to identify and address mitigation measures for above ground power lines that are susceptible to damage from severe storms in order to reduce potential power outages.	Hubbard County & All Cities	Ongoing	The utility providers that serve Hubbard County continue to address risk reduction measures for power outages, including converting overhead powerlines to underground when deemed necessary and feasible.
Severe Winter & Summer Storms	Work with local utility companies to educate citizens on the importance of keeping trees and branches clear of power lines.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Severe Winter & Summer Storms	Work with utility companies, St. Joseph Hospital, and private businesses to promote the high priority service list for people who rely on life saving medical devices in the event of a major power outage.	Hubbard County	Delete	Not a necessary mitigation action.
Severe Summer Storms	Identify areas where warning sirens are needed or require upgrade throughout Hubbard County for severe wind storms and Civil Defense warning. Ensure sirens can be remotely activated by Hubbard County.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Severe Summer Storms	Test warning sirens throughout the County on a regular basis and educate local residents, schools, and businesses on what to do when they are activated for high winds or tornado.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions. Outdoor warning sirens are tested on a monthly basis.
Severe Summer Storms	Provide/participate in the National Weather Service's SkyWarn "Storm Spotter" training in various parts of the County for first responders and community residents.	Hubbard County & All Cities	Ongoing	An annual training is held with the National Weather Service for local law enforcement, fire departments, and local residents who wish to be trained as spotters.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Severe Summer Storms	Identify areas where vulnerable populations are susceptible to tornadoes or extreme wind events (i.e. schools, campgrounds, or mobile home parks) and evaluate for construction or retrofit of safe rooms or storm shelters.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Severe Summer Storms	Implement construction or retrofit projects for safe rooms or storm shelters in identified vulnerable locations.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HCEM and local jurisdictions. Funding is a common limitation for construction projects. The Boy Scouts of America – Camp Wilderness did implement a safe room construction project since our last plan, funded by a FEMA HMGP grant.
Extreme Temps (Heat / Cold)	Educate the public on the dangers of extreme heat or extreme cold and how to take personal safety measures during periods of extreme temperatures.	Hubbard County, School Districts	Ongoing	This is an ongoing effort of HCEM and local jurisdictions.
Flooding	Identify, map, and prioritize roads, bridges, and culverts in the County that are impacted by flood events, and prioritize required mitigation measures to reduce future flood damages.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HC Highway Dept. and local road authorities.
Flooding	Review the MN DNR Fisheries culvert inventory for the county and prioritize where improvements are needed to handle high water flow (such as modification of culverts or creation of retention areas).	Hubbard County & Townships	Ongoing	Ongoing by HC Highway Dept. and Hubbard SWCD.
Flooding	Implement prioritized flood mitigation measures for roads, bridges, culverts, and drainage systems.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HC Highway Dept. and local road authorities/public works.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Flooding	Work with FEMA to update the County's digital floodplain insurance rate maps (DFIRM).	Hubbard County & All Cities	Ongoing	The DFIRM maps for Hubbard County have not been updated by MN DNR yet.
Flooding	Work with Henrietta Township to replace culvert on 209th Avenue in Hellkamp Creek due to potential failure and low efficiency ratings by MN DNR waters.	Hubbard County Henrietta Township and Nevis Township	Ongoing	HC Highway Dept. continues to work with all townships on reinforcement / repair of roads and culverts.
Flooding	Structurally improve and redesign roads, streets, culverts and bridges countywide to reduce and eliminate overland flooding and road washouts.	Hubbard County	Ongoing	This is an ongoing effort of HC Highway Dept. and local road authorities/public works.
Flooding	Identify locations of storm water mains throughout the county and assess the need to construct and replace existing storm water mains to handle high water rain events.	Hubbard County	Ongoing	This is an ongoing effort of HC Highway Dept. and local road authorities/public works.
Flooding	Ensure that storm water management plans and improvement projects are identified and prioritized to address flood management for future high-impact rain events throughout the County (i.e., conduct hydro-modeling, GIS map of where culverts must be re-sized).	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HC Highway Dept. and local road authorities/public works.
Flooding	Implement storm water management structure and infrastructure projects to assist with flood management throughout the County.	Hubbard County & All Cities	Ongoing	This is an ongoing effort of HC Highway Dept. and local road authorities/public works.
Flooding	Ensure that wellhead protection plans are in place to address flooding that may lead to contaminated drinking water.	Hubbard County & All Cities	Delete	Municipalities work with MDH on wellhead protection plans. Not a necessary mitigation action.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Wildfire	Work with the MN DNR to develop a Community Wildfire Protection Plan (CWPP) for high-risk wildfire areas of Hubbard County.	Hubbard County	Ongoing	Hubbard County does not have a CWPP yet.
Wildfire	Work with MN DNR to conduct Level-1 wildfire risk assessments in areas with significant wildfire potential in the county, specifically around communities at risk (Akeley, Park Rapids, and Nevis).	Hubbard County	Ongoing	Local fire departments have the opportunity to work with the area MN DNR Firewise Coordinator.
Wildfire	Promote defensible space education and provide training for property owners that have properties at-risk for wildfire.	Hubbard County	Ongoing	Done by local fire departments.
Wildfire	Coordinate with MN DNR on providing wildfire education and awareness to the public promote wildfire risk reducing activities.	Hubbard County	Ongoing	HCEM and MN DNR promote wildfire safety and awareness during periods of high risk for wildfire.
Wildfire	Identify areas in the county where water resources are limited to support wildfire suppression. Evaluate if there are key water resources (lakes/rivers) that may support installation of a dry hydrant or where an underground water tank may be possible.	Hubbard County	Ongoing	Done by local fire departments.
Wildfire	Work with Henrietta Township on constructing an access point on the northern most end of Deer Dr. on the east side of Long Lake that is large enough to fit a fire truck for pumping water from the lake.	Hubbard County	Ongoing	Not completed.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Wildfire	Work with the Boy Scouts of America Camp Wilderness to prevent and reduce wildfire damage through: planning, technical studies, enforcement of regulations; vegetation management, defensible space, install and maintain water treatment measures/sprinklers and/or warning systems; new or retrofit construction utilizing fire resistant building materials.	Hubbard County BSA Camp Wilderness	Ongoing	BSA has leadership on wildfire mitigation for Camp Wilderness. HCEM provides support on wildfire mitigation as needed.
Landslides & Soil Erosion	Provide engineering support to Hubbard County townships to help identify and address design corrections to rural road issues due to erosion from rain events and flooding.	SWCD	Ongoing	This is an ongoing program effort of the Hubbard SWCD.
Landslides & Soil Erosion	Work with community partners to identify and implement conservation practices to prevent or control soil erosion and sedimentation of waterways.	SWCD	Ongoing	This is an ongoing program effort of the Hubbard SWCD.
Landslides & Soil Erosion	Work to increase public education and awareness of soil erosion and conservation issues and actions that can be taken.	SWCD	Ongoing	This is an ongoing program effort of the Hubbard SWCD.
Landslides & Soil Erosion	Work with Hubbard County SWCD, Henrietta Township and Thorpe Township to address high-priority erosion and sediment issues occurring as a result of storm events and which negatively impact local lakes.	Hubbard County, SWCD	Ongoing	This is an ongoing program effort of the Hubbard SWCD.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Drought	Monitor rainfall and wells throughout Hubbard County to track precipitation and water levels.	Hubbard County	Ongoing	This is an ongoing program effort of the Hubbard SWCD.
Drought	Educate the public on water conservation measures and fire safety awareness during periods of drought.	Hubbard County	Ongoing	Ongoing by HCEM and local jurisdictions. When MN DNR establishes we are in a state of severe drought, information is shared with the public on water conservation measures and watering restrictions that may be in effect.

Appendix F – Planning Team Meetings

Hubbard County HMP Update

Appendix F – Kickoff Meeting Documentation

Overview:

On 5/3/23 U-Spatial@UMD hosted a kickoff meeting online that was attended by the Hubbard County Emergency Manager. The webinar included a project overview, U-Spatial@UMD's background, the roles and responsibilities of the Emergency Manager, the contents of the Hazard Mitigation Plan, the planning process, and the projected timeline of the project.

Attached Documentation:

- **Project Handout:** "Minnesota 2023-2024 Multi-Hazard Mitigation Plan Update Project Overview"
- **Webinar Slides:** "Minnesota 2023-2024 Multi-Hazard Mitigation Plan Update Project Kickoff Orientation Webinar"

Minnesota 2023-2024 Hazard Mitigation Plan Update Project Overview

During 2023-2024, U-Spatial at the University of Minnesota Duluth (U-Spatial@UMD) will be working to update Hazard Mitigation Plans (HMPs) for 14 counties. Our team consists of UMD staff who specialize in GIS applications and research and Hundrieser Consulting LLC, who specializes in stakeholder engagement and mitigation strategies.

Participating Jurisdictions

Becker, Chisago, Goodhue, Grant, Houston, Hubbard, Kanabec, Lake, Lyon, Mille Lacs, Olmsted, Pennington, Roseau, and Wabasha counties. Cities within each county are required to participate in the planning process.

Overview of Update Process

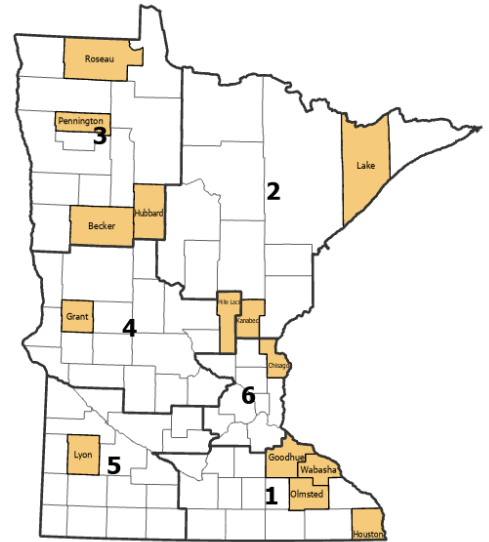
The U-Spatial@UMD team will coordinate with each Emergency Manager throughout the plan update process to engage participating jurisdictions and other stakeholders in the planning process. Following is an overview of key tasks that the U-Spatial@UMD team will facilitate to meet FEMA requirements in the update of each plan:

- Conduct 2 planning team meetings
- Conduct public outreach & engagement
- Assess Plans & Programs in Place to address natural hazards
- Conduct a Past Mitigation Action Review from past plan
- Update prioritization of natural hazards that pose risk
- Complete jurisdictional Local Mitigation Surveys (hazards, vulnerabilities & capabilities)
- Conduct hazard risk assessment for 1% annual chance floods using the Hazus GIS tool
- Inventory critical infrastructure
- Develop hazard profiles for each natural hazard (description, incident history, geographic variability, future probability, relationship to changing climate trends and local vulnerabilities) and present data in an interactive website.
- Prepare a PDF document and interactive website that meets FEMA HMP plan requirements.
- Develop 5-year jurisdictional Mitigation Action Charts

The planning process generally occurs over the course of 14-18 months from start to finish.

Contact

Stacey Stark, U-Spatial Associate Director (MHMP Project Manager)
Phone: (218) 726-7438 / Email: slstark@d.umn.edu



Overview of the HMP Update Process

The U-Spatial@UMD team will coordinate with each Emergency Manager (EM), participating jurisdictions, and other stakeholders throughout the planning process. The plan update generally occurs over the course of 14-18 months from start to finish. Following is an overview of key tasks that will occur and the approximate timeline for completion. This list is not a complete list of what the plan update entails.

Stage 1 Tasks (4-5 months)

- HMP kickoff meeting/webinar with EM and U-Spatial@UMD
- Develop jurisdictional contact list for MHMP planning team
- Disseminate & document News Release #1 (plan update announcement)
- Complete Plans & Programs in Place Checklist
- Conduct a Past Mitigation Action Review from prior plan
- Complete Capabilities Assessment to address natural hazards
- Hold & document Planning Team Meeting #1
- Complete Local Mitigation Surveys (hazards, vulnerabilities & capabilities)
- Revisit prioritization of natural hazards that pose risk
- Assist U-Spatial@UMD with provision of key data
- Complete inventory of Critical Infrastructure

Stage 2 Tasks (5-7 months)

- Develop 5-year Jurisdictional Mitigation Action Charts
- Conduct hazard risk assessment for 1% annual chance floods using the Hazus GIS tool
- Develop hazard profiles for each natural hazard (description, incident history, geographic variability, future probability)
- Complete hazard profiles for each natural hazard
- Complete Plan Maintenance section of draft plan

Stage 3 Tasks (2-3 months)

- EM review of Draft Plan
- Hold & document Planning Team Meeting #2
- Finalize Mitigation Action Charts
- Disseminate & document News Release #2 (Public Review & Comment Period)
- EM coordination of plan review by local government(s) & other stakeholders

Stage 4 Tasks (2-3 months)

- Post-public review revisions made to plan (as necessary)
- Draft Plan sent to HSEM for review & approval
- Draft Plan sent to FEMA for review & approval
- Post FEMA review revisions made to plan (as necessary)
- FEMA to send letter stating "Approval Pending Adoption" to EM
- EM to facilitate MHMP jurisdictional adoptions (County/Tribe and cities)

Ongoing - Quarterly 25% Local Match Tracking Quarterly to HSEM

As part of the MHMP plan update, Emergency Managers are required to submit quarterly reports to HSEM on their local 25% match accrued through HMP activities during that quarter.

Minnesota 2023-2024 Multi-Hazard Mitigation Plan Update Project Kick-off Orientation Webinar

U-SPATIAL
UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Webinar Purpose & Goals

The purpose of this webinar is to provide an orientation for Emergency Managers participating in 2023-2024 Multi-Hazard Mitigation Plan Updates.

- Introduce the U-Spatial@UMD Team and county contacts.
- Provide an overview of the project.
- Clarify roles and responsibilities.
- Outline the planning process, discuss key tasks and timelines.
- Discuss next steps and answer your questions.

Stacey Stark

Introductions

U-Spatial@UMD Project Team



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hundrieser
Emergency Management Planning Consultant
Hundrieser Consulting LLC



Zach Vavra
GIS Specialist and Researcher
U-Spatial@UMD



Steve Graham
Research Associate, Flood Modeling Specialist
U-Spatial@UMD



Jane Lindelf
Project Coordinator, Communications Specialist
U-Spatial@UMD

Emergency Managers:

- Name, Title, and Jurisdiction
- Past Experience with MHMP?

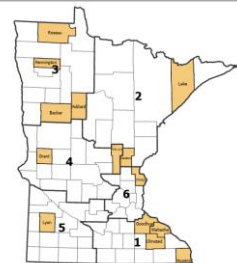
Minnesota HSEM:

Jennifer Davis, MN HSEM
State Hazard Mitigation Officer

Project Overview

14 Counties:

Becker
Chisago
Goodhue
Grant
Houston
Hubbard
Kanabec
Lake
Lyon
Mille Lacs
Olmsted
Pennington
Roseau
Wabasha



Why U-Spatial@UMD?

➤ Proven experience

Our updates of 40+ MHMPs, as well as the State MHMP, have been quickly approved by FEMA and adopted by counties.

➤ Advanced Capabilities

Expertise in the application of GIS, HAZUS, and research supports plan development and meeting all FEMA requirements.

➤ Ability to Expedite

A consistent and proven approach for multiple counties supports State & FEMA review of draft plans.

➤ Planning Team

Our project team includes advanced GIS students and Hundrieser Consulting.

Purpose

The Federal Disaster Mitigation Act of 2000 (DMA 2000) established programs and funding:

"to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs resulting from natural disasters"

A local government plan is required in order to maintain eligibility for FEMA hazard mitigation grant programs.

MHMP's must be updated every 5 years.

Flooding	Hail	Drought
Dam/Levee Failure	Lightning	Extreme Heat
Wildfire	Winter Storms	Extreme Cold
Windstorms	Landslides	Earthquakes
Tornadoes	Sinkholes & Karst	Coastal Erosion

Natural hazard categories for Minnesota MHMPs. Hazards may be omitted if low risk is demonstrated.

Overview of MHMP Update Process

Bonnie Hundrieser

U-Spatial@UMD Team Roles & Responsibilities

- Keep you informed about the progress of your plan.
- Facilitate & document jurisdictional engagement.
- Facilitate & document public outreach.
- Work with EM and planning team to complete key tasks.
- Keep up-to-date on FEMA requirements and Minnesota guidance.
- Produce a quality plan that FEMA will approve.
- Answer questions in a timely fashion.
- Support EM's in tracking your required local 25% match.
- Provide quarterly reports to HSEM on your plan progress.

EM Roles & Responsibilities

- Act as main Point of Contact. (EM / Deputy EM)
- Report to HSEM quarterly on required local 25% match.
- Coordinate engagement of MHMP Planning Team.
- Conduct & document public outreach.
- Participate in completion of key assignments for plan update.
- Coordinate with county staff & other key stakeholders to obtain information.
- Assist in timely review of draft document.
- Facilitate completion of local adoptions.

Local 25% Match

EM's will be responsible to track and submit local match documentation to HSEM on a quarterly basis.

Notes:

- EM's are provided with a "Master Match Tracking" Excel Workbook to document match MHMP activities, participants, and amount accrued.
- Bonnie will assist with local match tracking on several task items.
- Regular reminders & guidance will be provided on tracking match.

MHMP Planning Team

In addition to jurisdictional participation, the plan must provide documentation of an **opportunity for stakeholders to be involved** in the current planning process. The MHMP Planning Team should include:

1. Local & Regional Agencies involved in hazard mitigation
2. Agencies that have the authority to regulate development
3. Neighboring communities (counties, tribes)
4. Representatives of businesses, academia, and other private organizations
5. Representatives of nonprofit organizations, including community-based organizations that work with/provide support to underserved communities and socially vulnerable populations

Key Tasks

- Develop Jurisdictional Contact List.
- Hold & document Planning Team Meeting #1 & Meeting #2.

Public Outreach

The plan update must document how the public was given the opportunity to be involved in the planning process and how their feedback was incorporated into the plan.

- Collect feedback on local-level concerns & mitigation actions.
- Use of local/social media, websites & community bulletin boards.
- Other outreach (i.e., attendance at City Council mtgs)
- Must include underserved communities and vulnerable populations within the planning area.

Key Tasks

- Distribute & document News Release #1 (start of plan)
- Distribute & document News Release #2. (public review of plan)
- Conduct additional public outreach (i.e., County Fair, other events).

Hazard Risk Assessment and Vulnerability Analysis

The U-Spatial@UMD Team will work closely with each EM and key departments to provide information as needed.

Key Tasks

- Review and contribute to critical infrastructure inventory.
- Identify specific, local-level impacts and vulnerabilities.
- Identify if and how risk priorities have changed since the last plan.
- Identify any factors (i.e., new development) that may increase the community's vulnerability to natural hazard events.
- Review social vulnerability factors.

Key Task Assignments

Bonnie Hundrieser will coordinate with each EM and participating cities on key task assignments that will provide information required for the plan update.

Key Tasks

- Complete Plans in Place Checklist.
- Complete Capabilities Assessment for Mitigation.
- Conduct Past Mitigation Action Review.
- Coordinate Local Mitigation Survey (LMS) Forms.
- NFIP Status Information and documentation program compliance

Mitigation Action Charts

Bonnie Hundrieser will also coordinate development of draft 5-year jurisdictional Mitigation Action Charts (MACs) for the county and each participating city jurisdiction.

Key Tasks

- Conduct local-level development of MACs.
- Facilitate & document jurisdictional MAC review.
- Hold Planning Team Mtg. #2 for any additional feedback.
- Complete final MAC revisions.

Draft Plan Review

The U-Spatial@UMD Team will work with each EM to conduct a review of the draft MHMP and provide an opportunity for public review & comment on the plan.

Key Tasks

- EM review of initial draft plan > Revisions made as needed.
- Distribute News Release #2 - public review & comment period.
- EM coordination of review by county & key stakeholders.
- Posting of draft plan online with comment form.
- Documentation and incorporation of public feedback.

Plan Submission

The draft MHMP will be submitted to HSEM and FEMA for review & approval. Timing for review & approval is generally within 1-2 months.

Key Steps

- U-Spatial@UMD will submit the draft plan & Plan Review Tool (PRT) to HSEM.
- HSEM will submit the draft plan & PRT to FEMA reviewer.
- FEMA may respond with requests for revisions > U-Spatial@UMD to address revisions and resubmit plan.
- FEMA will send a letter of Approval Pending Adoption (APA status)

Plan Adoption

After FEMA has provided APA status, the county and all participating cities must formally adopt the plan.

Notes

- Good jurisdictional participation will facilitate local adoptions.
- Adoption of the plan is required for HMA grant program eligibility.
- Example adoption resolutions are provided for county and city adoption. Townships may elect to adopt (not required).
- Resolutions are incorporated into the final MHMP (PDF) by the Emergency Manager or included as hard copies.

Plan format and delivery

“Next Gen” – MN Hazard Mitigation Plans

PDF document

- Contains almost all required elements
- No mapping
- Community outreach/input remains the same
- Includes appendices with jurisdictional outreach

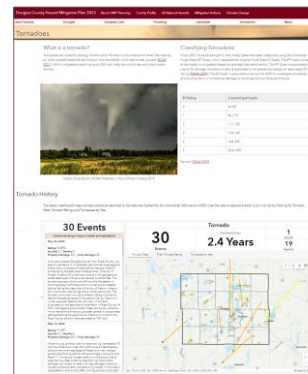
ArcGIS Hub (website) companion

- Interactive maps and content
- Simple, concise explanations and highlights
- Multiple ways to navigate the content
- Links to PDF components and document
- Public input form on site

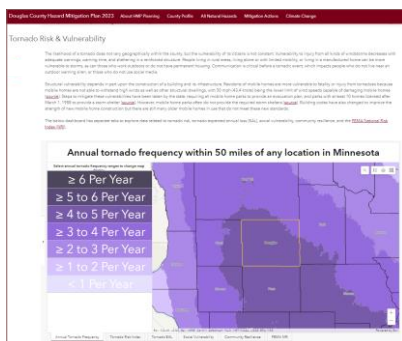
Stacey Stark



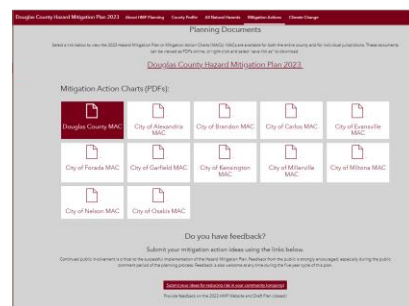
Example Web Site



Example Web Site



Example Web Site



Example Web Site

Timeline Overview

- 18-Month total timeline (April 2023 – October 2024)
- Most plans take 14-18 months.
- Staggering of plans will be required to complete update of risk assessments, research of hazard histories, etc. for each jurisdiction.
- Many tasks occur concurrently, others must be done in succession.
- Work is expedited at the pace by which Emergency Managers complete tasks with Bonnie Hundrieser.

Possible timeline for your plan		Red includes county action items
Stage 1 Tasks (4-5 months)	May – October 2023	HMP kickoff meeting/webinar with U-Spatial@UMD Develop jurisdictional contact list for MHMP planning team Disseminate & document News Release #1 Hold & document Planning Team Meeting #1 Complete Plans & Programs in Place Checklist Complete Capabilities Assessment to address natural hazards Conduct a Past Mitigation Action Review from prior plan Complete Local Mitigation Surveys Revisit prioritization of natural hazards that pose risk Assist U-Spatial@UMD with provision of key data Complete inventory of Critical Infrastructure
Stage 2 Tasks (4-6 months)	November 2023 – May 2024	Develop 5-year Jurisdictional Mitigation Action Charts Hazus hazard risk assessment for flooding Develop hazard profiles for each natural hazard Complete county profile sections and maps Complete Draft Plan
Stage 3 Tasks (2-3 months)	June – August 2024	EM review of Draft Plan Hold & document Planning Team Meeting #2 Finalize Mitigation Action Charts Disseminate & document News Release #2 EM coordination of plan review by stakeholders
Stage 4 Tasks (2-3 months)	September - November 2024	Post-public review revisions made to plan (as necessary) Draft Plan sent to HSEM for review & approval Draft Plan sent to FEMA for review & approval

Next Steps

U-Spatial@UMD Team members will coordinate each EM to commence work on several tasks that will take place over the next several months.

Notes:

- We are sensitive to the workloads of EM's.
- All information requests or assignments are in prepared form.
- Please communicate your availability to complete/not complete work.
- Plans most expired are priority; however, EM's with completed tasks move up in the que for plan development.

Questions?

What questions do you have for U-Spatial@UMD or HSEM about the MHMP update process?

Contact Information

Stacey Stark, MS, GISP

U-Spatial@UMD

slstark@d.umn.edu

218-726-7438

Example Plans:

<https://z.umn.edu/hazardmitigation>

Hubbard County HMP Update

JURISDICTIONAL CONTACT LIST

COUNTY CONTACTS

Name	Title	Phone	Email
Nik Opsal	Emergency Management Director	(218) 732-2588	Nikolas.opsal@co.hubbard.mn.us
Cory Aukes	County Sheriff / Assistant EM Director	(218) 732-2502	Cory.aukes@co.hubbard.mn.us
Scott Williams	Deputy Sheriff	(218) 252-6733	scott.williams@co.hubbard.mn.us
Jeff Cadwell	County Administrator	(218)-732-2336	jeff.cadwell@co.hubbard.mn.us
Maria Shepherd	Assistant County Assessor	(218) 732-3452	maria.shepherd@co.hubbard.mn.us
Kay Rave	County Assessor	218-732-3196	kay.rave@co.hubbard.mn.us
Eric Buitenwerf	Environmental Services Director	(218)-732-3890	eric.buitenwerf@co.hubbard.mn.us
Jack Bovee	GIS Supervisor	(218) 732-2351	jack.bovee@co.hubbard.mn.us
Jed Nordin	Highway Engineer/Public Works Coordinator	(218) 732-3302	jed.nordin@co.hubbard.mn.us
Bobby Wilkins	Maintenance Manager	218-732-2290	bobby.wilkins@co.hubbard.mn.us
Mark (Chip) Lohmeier	Land Commissioner, Natural Resource Management Dept. / Parks and Recreation	(218) 732-4270	mark.lohmeier@co.hubbard.mn.us
Aaron Funk	Natural Resource Management Dept., Resource Manager	(218) 732-4270	aaron.funk@co.hubbard.mn.us
Greg Hensel	Parks Supervisor/Ag Inspector	(218) 732-4270	greg.hensel@co.hubbard.mn.us
Brian Ophus	Social Services Dept. Director	218 732-1451	Brian.ophus@co.hubbard.mn.us
Marlee Morrison	CHI St. Joseph Health Community Health, Community Health Director	218 237 5464	Marlee.morrison@commonspirit.org
Nicholas Johnson	Hubbard County Heartland Express Coordinator	218 732 2421	Nicholas.johnson@co.hubbard.mn.us
David De La Hunt	District 1 Commissioner	218-616-4029	david.delahunt@co.hubbard.mn.us
Charlene Christenson	District 2 Commissioner	218-616-2181	char.christenson@co.hubbard.mn.us
Tom Krueger	District 3 Commissioner	218-616-4069	tom.krueger@co.hubbard.mn.us
Vacant	District 4 Commissioner		
Ted Van Kempen	District 5 Commissioner	218-616-4073	ted.vankempen@co.hubbard.mn.us

CITY CONTACTS

CITY OF AKELEY (415)

Name	Title	Phone	Email
Kristi Kath	City Clerk/Treasurer	218-652-2465	akeleymn@arvig.net
Michaela Becker	Deputy Clerk	218-652-2465	akeleymn@arvig.net
Brian Hitchcock	Mayor	218-252-9596	
Jimmy Hansen	Police Chief	(218) 652-4440	jimmyz802@yahoo.com

CITY OF LAPORTE (133)

Name	Title	Phone	Email
Maggie O'Connor	City Clerk	763-370-9556	cityclerklaporte@gmail.com
Tammy Hamilton	City Treasurer	218- 224-2787	laportecitytreasurer@hotmail.com
Patricia Gendron	Mayor	(218) 224-2837	

CITY OF NEVIS (374)

Name	Title	Phone	Email
Dawn M Veit	Clerk/Treasurer	218-652-3866	neviscty@gmail.com
Jeanne Thompson	Mayor	763-742-2235	

CITY OF PARK RAPIDS (4,152)

Name	Title	Phone	Email
Ryan Leckner	Mayor	218-252-7888	mayor@ci.park-rapids.mn.us
Angel Weasner	City Administrator	218-732-3163	city.info@ci.park-rapids.mn.us
Beret Ramstad Skoyles	City Clerk	218-732-3163	bramstadskoyles@arvig.net
Jeffrey Appel	Police Chief	218-237-2726	jappel@co.hubbard.mn.us

TOWNSHIP CONTACTS

Name of Township	Name & Title	Phone	Email
Akeley Township	Sebrina Hegg, Clerk	218-252-4611	hegg1@hotmail.com
Arago Township	Megan Auzenne, Clerk	404-725-2715	meganauzenne@gmail.com
Badoura Township	Tim Scouton, Clerk	218-252-1583	Badouraclerk@Gmail.com
Clay Township	Kristina Case, Clerk	218-732-8544	clerkclaytownship@gmail.com
Clover Township	Wayne Koop, Clerk	218-616-2087	clovertownship@live.com
Crow Wing Lake Township	Brian Ford, Clerk	218-252-8323	cwltclerk@outlook.com
Farden Township	Laurel Schummer, Clerk	218-368-5654	schumme@paulbunyan.net
Fern Township	Kim Watkins, Clerk	218-209-6884	frnkenberries@hotmail.com
Guthrie Township	Amanda Fallgren, Clerk	218-556-1790	guthriet@paulbunyan.net
Hart Lake Township	Charlotte Rauch, Clerk	218-224-3217	char@paulbunyan.net
Helga Township	Aric Porter, Clerk	218-760-2052	clerk@helgatownship.com
Hendrickson Township	Kim Tomlinson, Clerk	916-267-5916	hendricksontownshipclerk@gmail.com
Henrietta Township	Ann Lempola, Clerk	218-699-3617	henriettatown@unitelc.com
Hubbard Township	Laura Kujawa, Clerk	218-732-8836	lkujawa@hotmail.com
Lake Alice Township	Lois Holleman, Clerk	218-308-0093	clerklakealiceretownship@gmail.com

Lake Emma Township	Nan Iles, Clerk	218-732-0516	lakeemmatwp@outlook.com
Lake George Township	Kaaren Mikus, Clerk	218-252-1048	lgtwp@paulbunyan.net
Lake Hattie Township	Christopher Parthun, Clerk	218-854-7272	lakehattietownship@gmail.com
Lakeport Township	Alexis Hadrava, Clerk	218-224-2853	akhadrava@msn.com
Mantrap Township	Carice Golberg-Cummins, Clerk	218-255-4052	mantrapclerk@gmail.com
Nevis Township	Pat Hrubes, Clerk	218-652-3546	nevistownship@outlook.com
Rockwood Township	Jean Diffley, Clerk	218-751-5672	tjdiff@paulbunyan.net
Schoolcraft Township	Stephen Booth, Clerk	218-556-3975	steevbooth@hotmail.com
Steamboat River Township	Tom Knight, Clerk	218-224-3195	pinhurst@paulbunyan.net
Straight River Township	Amy Vigen, Clerk	218-252-1818	straightrivertownshipclerk@gmail.com
Thorpe Township	Brian Ford, Clerk	218-252-8323	cwltclerk@outlook.com
Todd Township	Pat Cadreau, Clerk	218-255-0826	cadreaubob@unitelc.com
White Oak Township	Jeff Lindstrom, Clerk	218-652-3456	whiteoakclerk1@gmail.com

OTHER STAKEHOLDER CONTACTS

LOCAL & REGIONAL AGENCIES INVOLVED IN HAZARD MITIGATION

Name of Agency / Organization	Name & Title	Phone	Email
MN Homeland Security & Emergency Management	Andrew Tepfer, HSEM Region 3 Regional Program Coordinator	651-387-9997 cell 651-201-7491 Office	andrew.tepfer@state.mn.us
MN Homeland Security & Emergency Management	Lisa Villcheck, Acting HSEM Region 3 Regional Program Coordinator	320-429-0348	Lisa.Villcheck@state.mn.us
Hubbard Soil & Water Conservation District (SWCD)	Crystal Mathisrud, District Manager	(218) 732-0121 ext. 105	crystal.hcswcd@gmail.com
Natural Resources Conservation Service (NRCS)	Dan Pazdernik, District Conservationist	(218) 732-0121 ext. 4	daniel.pazdernik@mn.usda.gov
USDA Rural Development Community Programs	Angie Bokovoy, Area Specialist	218-751-1942 x116	angela.bokovoy@usda.gov
MnDOT District 2	J.T. Anderson, Transportation District Engineer	218-755-6549	j.t.anderson@state.mn.us
Itasca State Park	Aaron Wunrow, Park, Manager	218-699-7205	Aaron.wunrow@state.mn.us

REPRESENTATIVES OF BUSINESSES, ACADEMIA, AND OTHER PRIVATE ORGANIZATIONS

Name of Agency / Organization	Name & Title	Phone	Email
Park Rapids Public School	Lance Bagstad, Superintendent	218-237-6501	lbagstad@parkrapids.k12.mn.us
Nevis Public School	Gregg Parks, Superintendent	218-652-3500 ext. 103	gparks@nevis308.org

Laporte Public School	AJ Dombeck, Superintendent	218-224-2288 ext. 1009	aj.dombeck@laporte.k12.mn.us
Itasca-Mantrap Cooperative Electrical	Shannon Snell, Director of Operations	218-237-0671	ssnell@itasca-mantrap.com

**REPRESENTATIVES OF NONPROFIT ORGS, INCLUDING COMMUNITY-BASED ORGS THAT WORK WITH
OR PROVIDE SUPPORT TO UNDERSERVED COMMUNITIES AND SOCIALLY VULNERABLE POPULATIONS**

Name of Agency / Organization	Name & Title	Phone	Email
Salvation Army Northern Division (MN/ND)	Major Michele Heaver	651-238-7783	Michele.heaver@usc.salvationarmy.org
American Red Cross	Owen Fifield, Disaster Program Manager	218-341-6059	Owen.Fifield@redcross.org
Northwest Minnesota Foundation	Nate Dorr, VP For Advocacy and Dawn Ganje, Director for Community Philanthropy	218-759-2057	nated@nwmf.org dawng@nwmf.org
Hubbard County Developmental Achievement Center (DAC)	Laura Johnson, Director	218-237-8518	Ljohnson@hcdac.org
Heritage Living Center	Stephanie Fairchild, Executive Director	218-237-8312	StephanieFairchild@ecumen.org
MAHUBE-OTWA	Liz Kuoppala, Executive Director	218-530-1691 ext. 190	lkuoppala@mahube.org
Mantrap Valley Conservation Club	William Jones, Board Member	218-255-3664	bjandcj218@gmail.com

NEIGHBORING JURISDICTIONS

Name of Jurisdiction	Name & Title	Phone	Email
Beltrami County	Chris Muller, EMD	(218) 333-8386	Chris.muller@co.beltrami.mn.us
Cass County	Chad Emery, EM Deputy Director	(218) 547-7437	chad.emery@casscountymn.gov
Wadena County	Tyler Wheeler, EMD	(218) 631-7795	Tyler.wheeler@wcmn.us
Becker County	Adam Douglas, EMD	(218) 847-2661	Adam.douglas@co.becker.mn.us
Clearwater County	Andy Anderson, EMD	(218) 776-3112	andy.anderson@co.clearwater.mn.us
Leech Lake Reservation	Duane Oothoudt, EMD	218-335-6312	DuaneOothoudt@llpolice.org

LOCAL MEDIA CONTACTS

Name of Local Media	Media Contact	Phone	Email
Delahunt Media	Butch Delahunt, Editor	218-732-3306	Butch@delahuntmedia.com
Park Rapids Enterprise	Shannon Geisen, Editor	218-237-1822	sgeisen@parkrapidsenterprise.com

Hubbard County HMP Planning Team

Meeting #1 Presentation and Discussion

2/13/2024 Meeting Summary & Documentation

Summary: On February 13, 2024 Hubbard County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 1st Planning Team Meeting for the update of the Hubbard County Hazard Mitigation Plan (HMP). The purpose of the meeting was to formally present information about the Hubbard County HMP update and to discuss key items that would inform plan development. The meeting was held via Zoom webinar video conference and was facilitated by Stacey Stark and Bonnie Hundrieser of the U-Spatial@UMD project team.

Stakeholder Invitations: Hubbard County Emergency Management invited all stakeholders included on the county's HMP Update Jurisdictional Contact List (JCL), which includes the key County Contacts, City Contacts, Township Contacts, Other Stakeholder Contacts, and Neighboring Jurisdiction Contacts identified to be invited to participate in the plan update process. Contacts were encouraged to engage additional staff or to send someone in their stead if they could not attend. A copy of the county's Jurisdictional Contact List is provided in *Appendix F Planning Team Meetings*.

Pre-Meeting Materials: Several days in advance of the meeting an email was sent out to the HMP stakeholder list with materials to review prior to the meeting. Materials included an HMP overview handout, a list of discussion questions that would be covered during the meeting, and a handout on the FEMA Hazard Mitigation Assistance Grant Program. Participants who were registered for the meeting were encouraged to review the questions and be ready to discuss them during the meeting. Stakeholders who were not attending the meeting were also encouraged to fill out and return the discussion question form.

Meeting Participants: A total of **25** people attended the meeting. Representation included elected officials and departmental staff from Hubbard County and the cities of Akeley and Park Rapids. Representatives from the cities of Laporte and Nevis were not available to attend. Other stakeholders, including neighboring jurisdictions, participated in the meeting. A participant list is provided below:

	Name	Organization	Job Title
1	Nikolas Opsal	Hubbard County Emergency Management	Emergency Management Director
2	Jack Bovee	Hubbard County	GIS Supervisor
3	Kay Rave	Hubbard County	Auditor-Treasurer
4	Thomas Krueger	Hubbard County	County Commissioner
5	Ted Van Kempen	Hubbard County	County Commissioner District 5
6	Kristi Kath	City of Akeley	Clerk Treasurer
7	Angel Weasner	City of Park Rapids	City Administrator / Treasurer
8	Scott Burlingame	City of Park Rapids	Public Works Superintendent
9	Jeff Appel	Park Rapids Police Department	Chief of Police
10	Theora Goodrich	Badoura Township	Supervisor
11	Michael Schmidt	Guthrie Township	Guthrie Township Supervisor
12	Russell Johnsrud	Henrietta Township	Chairman
13	Alexis Hadrava	Lakeport Township	Clerk

14	Milica Stanfel	Mantrap Township	Supervisor
15	Thomas Walz	Nevis Township	Township Chairman
16	Zheni Goodrich	Mahube Otwa Community Action Partnership, Inc.	Agency Operations Manager
17	Owen Fifield	American Red Cross Serving Northern Minnesota	Disaster Program Manager
18	Laura Johnson	Hubbard County DAC, Inc.	Executive Director
19	Micah Waalen	Hubbard County DAC, Inc.	Maintenance & Safety
20	Crystal Mathisrud	Hubbard County Soil & Water Cons District	District Manager
21	Shannon Snell	Itasca-Mantrap Electric Coop	Director of Operations
22	Marlee Morrison	CHI St. Joseph's Community Health	Community Health Director
23	Gerald Byer	Itasca Mantrap electrical coop	Operations Manager
24	William Jones	Ham Radio Operator	Emergency Ham Radio
25	Chad Emery	Cass County Sheriff's Office	Deputy Sheriff / Deputy EMD

Presentation Overview: The Power Point presentation covered the following items. A PDF of the presentation slides is included with this meeting summary.

- Welcome & Introductions
- Review of HMP Overview (*handout)
- Review of Past Hazard Risk Prioritization, Hazard Profiles, and New Priorities
- Overview of Mitigation Strategies, Actions
- Overview of FEMA HMA grant program
- Discuss local mitigation ideas
- Overview of Next Steps

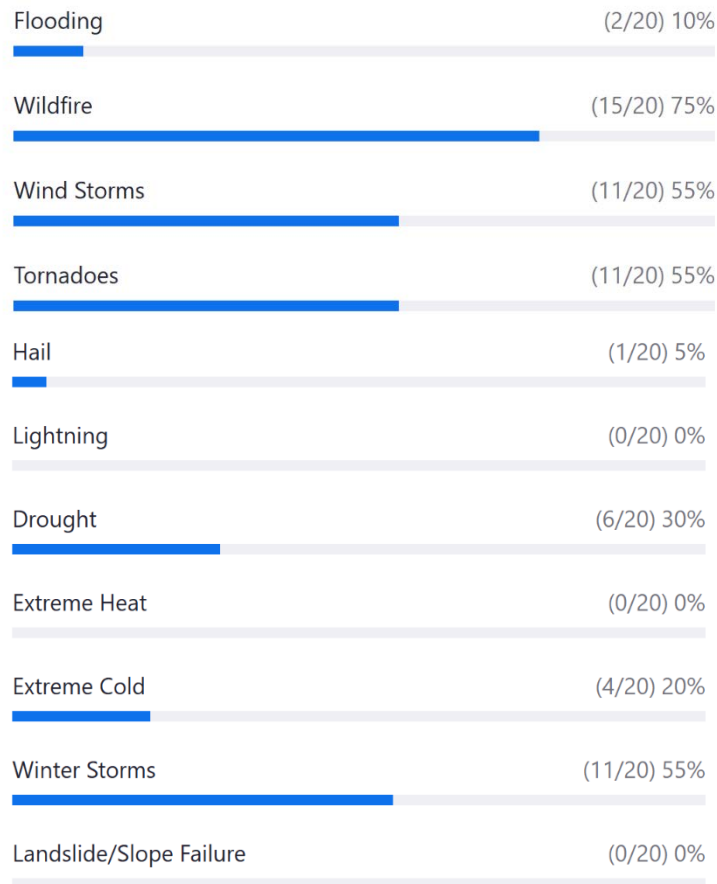
HUBBARD COUNTY HMP PLANNING TEAM MEETING #1 DISCUSSION NOTES

PARTICIPANT POLLS

During the presentation, participants were presented with two poll questions to respond to. Following are the poll questions and responses:

POLL #1: TOP HAZARDS

What are the top three hazards of most concern to you in this county? (Multiple Choice)



The top 3 hazards noted were Wildfire, Winter Storms, and Windstorms/Tornadoes.

POLL #2: CHANGE IN PERCEIVED RISK

Has the risk of any natural hazards changed in your jurisdiction in the last 5 years? (increased severity, decreased risk, increased extent, etc) (Single Choice)



What hazard risk has changed, and in what jurisdiction?

- Theora Goodrich - Decrease in trees, wildfire but more ag with wind
- Jack Bovee - I think drought should be factored higher, especially considering the secondary effects like reduced availability of drinking water supplies, and fire vulnerability.

- Thomas Walz - As a township we usually deal with trees down from high winds.
- Shannon Snell - Storm severity increasing.
- Thomas Krueger - Severity of storms and wind.
- Kay Rave - Yes, severe storms are more likely due to weather change.

FOCUSED DISCUSSION QUESTIONS

During the presentation there were 3 key discussion questions (DQ's) that were presented to the planning team for feedback. Following are the questions and responses:

DQ #1: *Are there any vulnerable populations or underserved communities you would identify for Hubbard County or within your own local jurisdiction? If so, are there any best outreach methods to provide an opportunity to participate?*

- Marlee Morrison - Elderly/homebound residents; also non-english speaking. Outreach methods - Social media for younger populations, postcard/mailings for homebound, translated materials.
- Laura Johnson - HCDAC serves adults with Disabilities.
- Ted Van Kempen - Low income, people on a fixed income.
- Theora Goodrich - Distance from fire and EMS locations. Outreach – Share info at meetings like Hubbard County TA meetings.
- Jack Bovee - Not necessarily "vulnerable", but what about transitory people? Have a lot of seasonal population in the county.

DQ#2: *What do you feel should be recorded as the updated Hazard Prioritizations for the Hubbard County 2023 HMP? Why?* Following are the updated hazard priorities noted by planning team members during the meeting:

Natural Hazards	Current Priority
Winter Storms	High
Wildfire	High
Windstorms	Moderate
Tornadoes	Moderate
Flooding	Moderate
Extreme Cold	Moderate
Lightning	Low
Hailstorms	Low
Extreme Heat	Low
Drought	Low
Landslides	Low
Dam Failure	Low

Comments:

- Jack Bovee - On the flooding topic, there are a few older dams in the county. Are catastrophic events affecting dams from flooding factored in? / Stacey – There is one significant hazard dam in the county that we will want to profile the risk of that dam and any possible mitigation actions for that. Other dams within the county are classified as low risk. Dam Failure is something that is required by FEMA because they have a high hazard dam grant program to mitigate failure of high hazard potential dams.
- Jack Bovee - Several elements (i.e. windstorms, drought, lightning) seems to impact the wildfire risk. Tornadoes are more of a point risk, but very visible end results. Drought is also a hazard that takes longer to show up. / Stacey – We will be working to profile each hazard risk itself (i.e. wildfire) but we will also talk about consideration of other impacting factors that may influence the # of events in the county, such as how lightning strikes may contribute to wildfire events.
- Nik Opsal – Overall, I don't think that much has really changed for hazard priorities since our last plan update in 2017.
- Micah Waalen - Without having the data visible right now it seems to me severe cold weather & heart-attack snow would negatively affect more of the population than small wildfire break-outs. How to mitigate??? / Response from Owen Fifield - The American Red Cross can facilitate presentations of "Be Red Cross Ready" customized to specific hazards and our closest presenter is in Park Rapids. The presentation is around individual and family readiness, building an emergency kit and making a plan. For more information contact: Owen Fifield, Disaster Program Manager, American Red Cross Serving Northern Minnesota, owen.fifield@redcross.org, 218-341-6059

DQ#3: Do you have any ideas for specific mitigation activities for implementation at the county or local level?

- No participant feedback regarding local mitigation actions.

ADDITIONAL QUESTIONS/COMMENTS

Following are additional comments or questions addressed during the planning team meeting and responses from meeting presenters:

Regarding hazards addressed in the HMP:

Milica Stanfel - Where does a pandemic fit? natural or man-made? What are we doing to prepare for a possible repeat of Covid? / Bonnie Hundrieser response: That falls under the realm of Public Health planning. The HMP addresses the natural hazards that pose risk to the county, such as flooding, windstorms, winter storms, etc.

The meeting concluded with an overview of next steps and estimated timeline for completion.

MEETING DOCUMENTATION

Attached are additional documentation items for the Hubbard County HMP Mtg #1:

- Mtg #1 Email Invitation to RSVP
- Mtg #1 Pre-meeting Materials: Email, HMP Overview Handout, Discussion Questions Response Form, and HMA Grants Program Overview
- Mtg #1 Power Point Presentation Slides

Meeting Summary Prepared By: Bonnie Hundrieser, U-Spatial@UMD Project Team

From: [Nikolas Opsal](#)
To: [Nikolas Opsal](#); [Cory Aukes](#); [Scott Williams](#); [Jeffrey Cadwell](#); [Maria Shepherd](#); [Kay Rave](#); [Eric Buitenwerf](#); [Jack Bovee](#); [Jed Nordin](#); [Bobby Wilkins](#); [Mark Lohmeier](#); [Aaron Funk](#); [Greg Hensel](#); [Brian Ophus](#); [Marlee.morrison@commonspirit.org](#); [Nicholas Johnson](#); [David J. De La Hunt](#); [Charlene Christenson](#); [Tom Krueger](#); [Ted Van Kempen](#); [akeleymn@arvig.net](#); [jimmyz802@yahoo.com](#); [cityclerklaporte@gmail.com](#); [laportecitytreasurer@hotmail.com](#); [neviscty@eot.com](#); [mayor@ci.park-rapids.mn.us](#); [city.info@ci.park-rapids.mn.us](#); [bramstadskoyles@arvig.net](#); [Jeffrey Appel](#); [hegg1@hotmail.com](#); [meganauzenne@gmail.com](#); [Badouraclerk@gmail.com](#); [clerkclaytownship@gmail.com](#); [clovertownship@live.com](#); [cwlclerk@outlook.com](#); [schumme@paulbunyan.net](#); [frnkenberries@hotmail.com](#); [guthriet@paulbunyan.net](#); [char@paulbunyan.net](#); [clerk@helgatownship.com](#); [hendricksontownshipclerk@gmail.com](#); [henriettatown@unitelc.com](#); [lkujawa@hotmail.com](#); [clerklakeallicetownship@gmail.com](#); [lakeemmatwp@outlook.com](#); [lgtwp@paulbunyan.net](#); [lakehattietownship@gmail.com](#); [akhadrava@msn.com](#); [mantrapclerk@gmail.com](#); [nevistownship@outlook.com](#); [tjdiff@paulbunyan.net](#); [steevbooth@hotmail.com](#); [pinhurst@paulbunyan.net](#); [straightrivertownshipclerk@gmail.com](#); [cwlclerk@outlook.com](#); [cadreaubob@unitelc.com](#); [whiteoakclerk1@gmail.com](#); [andrew.tepfer@state.mn.us](#); [Lisa.Villcheck@state.mn.us](#); [crystal.hcswcd@gmail.com](#); [daniel.pazdernik@mn.usda.gov](#); [angela.bokovoy@usda.gov](#); [j.t.anderson@state.mn.us](#); [Aaron.wunrow@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [lbagstad@parkrapids.k12.mn.us](#); [gparks@nevis308.org](#); [aj.dombeck@laporte.k12.mn.us](#); [ssnell@itasca-mantrap.com](#); [Owen.Fifield@redcross.org](#); [nated@nwmf.org](#); [dawn@nwmf.org](#); [Ljohnson@hcdac.org](#); [StephanieFairchild@ecumen.org](#); [lkuoppalae@mahube.org](#); [bjandcj218@gmail.com](#); [Chris.muller@co.beltrami.mn.us](#); [chad.emery@casscountymn.gov](#); [Tyler.wheeler@wcmn.us](#); [Adam.douglas@co.becker.mn.us](#); [andy.anderson@co.clearwater.mn.us](#); [DuaneOothoudt@lpolice.org](#)
Cc: [hundrieserconsulting@outlook.com](#); [slstark@d.umn.edu](#)
Subject: Hubbard County HMP Meeting Invitation
Date: Wednesday, January 3, 2024 9:38:15 AM

HUBBARD COUNTY

HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at a Planning Team Meeting for the update of the **Hubbard County Hazard Mitigation Plan**. You are requested to participate in this vital meeting because you have a position of administrative or departmental responsibility within either the county, a municipal government, or are a key stakeholder related to the planning process. Emergency Managers from neighboring jurisdictions are also encouraged to attend so we may strengthen our shared mitigation efforts.

We will be holding the meeting virtually using Zoom video/phone conferencing:

Date: Tuesday, February 13, 2024

Time: 1:00 – 2:30 p.m.

Zoom Link: https://umn-private.zoom.us/webinar/register/WN_vtBHusYTR4S3iAbUYUAftg

You must click on the link above to register. (Ctrl+Click to follow link) When you register, you will automatically be placed on an RSVP list and will be sent an email confirmation.

About the Plan

The update of the Hubbard County Hazard Mitigation Plan (HMP) is a requirement by the State of Minnesota Department of Homeland Security & Emergency Management (HSEM) as well as the Federal Emergency Management Agency (FEMA) every 5 years. Our last plan is due for an update and our planning is currently underway. The plan addresses the natural hazards that face Hubbard County and will result in the identification of mitigation actions and projects that will help to reduce

or eliminate the impact of future hazard events, such as flooding and severe winter or summer storms.

Your participation in this plan update is important for several reasons:

1. You will help to identify critical mitigation actions to implement at the county / municipal level, and how they can be integrated with existing plans, policies, or project efforts.
2. Participating jurisdictions will be eligible to apply for FEMA hazard mitigation grant funding.
3. Mitigation planning is necessary to keep our communities resilient against future disasters and reduce the costs of recovery.
4. FEMA requires documentation of how local government and key stakeholders participated in the planning process.

During this meeting we will review and prioritize the natural hazards that pose risk to Hubbard County and individual communities and discuss a range of mitigation measures for local implementation. The meeting will be facilitated by personnel from U-Spatial at the University of MN Duluth who are working closely with us on this project.

We look forward to you joining us for this important meeting.

Thank you,

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-252-3225 - Cell
nikolas.opsal@co.hubbard.mn.us

From: [Bonnie K Hundrieser](#) on behalf of hundrieserconsulting@outlook.com
To: "Nikolas.opsal@co.hubbard.mn.us"; "Cory.aukes@co.hubbard.mn.us"; "scott.williams@co.hubbard.mn.us"; "jeff.cadwell@co.hubbard.mn.us"; "maria.shepherd@co.hubbard.mn.us"; "kay.rave@co.hubbard.mn.us"; "eric.buitenwerf@co.hubbard.mn.us"; "jack.bovey@co.hubbard.mn.us"; "jed.nordin@co.hubbard.mn.us"; "bobby.wilkins@co.hubbard.mn.us"; "mark.lohmeier@co.hubbard.mn.us"; "aaron.funk@co.hubbard.mn.us"; "greg.hensel@co.hubbard.mn.us"; "Brian.ophus@co.hubbard.mn.us"; "Marlee.morrison@commonspirit.org"; "Nicholas.johnson@co.hubbard.mn.us"; "david.delahunt@co.hubbard.mn.us"; "char.christenson@co.hubbard.mn.us"; "tom.krueger@co.hubbard.mn.us"; "ted.vankempen@co.hubbard.mn.us"; "akeleymn@arvig.net"; "jimmyz802@yahoo.com"; "cityclerklaporte@gmail.com"; "laportecitytreasurer@hotmail.com"; "neviscty@eot.com"; "mayor@ci.park-rapids.mn.us"; "city.info@ci.park-rapids.mn.us"; "bramstadskoyles@arvig.net"; "jappel@co.hubbard.mn.us"; "hegg1@hotmail.com"; "meganauzenne@gmail.com"; "Badouraclerk@Gmail.com"; "clerkclaytownship@gmail.com"; "clovertownship@live.com"; "cwltclerk@outlook.com"; "schumme@paulbunyan.net"; "frnkenberries@hotmail.com"; "guhriet@paulbunyan.net"; "char@paulbunyan.net"; "clerk@helgatownship.com"; "hendricksonclerk@gmail.com"; "henriettatown@unitelc.com"; "lkujawa@hotmail.com"; "clerklakealiceretownship@gmail.com"; "lakeemmatwp@outlook.com"; "lgtwp@paulbunyan.net"; "lakehattietownship@gmail.com"; "akhadrava@msn.com"; "mantrapclerk@gmail.com"; "nevistownship@outlook.com"; "tjdiff@paulbunyan.net"; "steevbooth@hotmail.com"; "pinhurst@paulbunyan.net"; "straightrivertownshipclerk@gmail.com"; "cwltclerk@outlook.com"; "cadreaubob@unitelc.com"; "whiteoakclerk1@gmail.com"; "andrew.tepfer@state.mn.us"; "Lisa.Villcheck@state.mn.us"; "crystal.hcsacd@gmail.com"; "daniel.pazdernik@mn.usda.gov"; "angela.bokovoy@usda.gov"; "j.t.anderson@state.mn.us"; "Aaron.wunrow@state.mn.us"; "Michele.heaver@usc.salvationarmy.org"; "lbgstad@parkrapids.k12.mn.us"; "gparks@nevis308.org"; "aj.dombeck@laporte.k12.mn.us"; "ssnell@itasca-mantrap.com"; "Owen.Fifield@redcross.org"; "nated@nwmf.org"; "dawng@nwmf.org"; "Ljohnson@hcdac.org"; "StephanieFairchild@ecumen.org"; "lkuoppala@mahube.org"; "bjandcj218@gmail.com"; "Chris.muller@co.beltrami.mn.us"; "chad.emery@casscountymn.gov"; "Tyler.wheeler@wcmn.us"; "Adam.douglas@co.becker.mn.us"; "andy.anderson@co.clearwater.mn.us"; "Duane.Oothoudt@lilpolice.org
Cc: [Stacey Stark](#)
Subject: Hubbard County 2/13/24 HMP Planning Team Meeting Materials
Date: Monday, February 12, 2024 8:50:00 AM
Attachments: [Hubbard County 2023-2024 HMP Overview handout.pdf](#)
[Hubbard County HMP Mtg. #1 Discussion Questions.docx](#)
[HSEM HMA Grants Program Overview.pdf](#)
Importance: High

Greetings,

The Hubbard County Hazard Mitigation Plan (HMP) Update – Planning Team Meeting #1 will be held via Zoom on **Tuesday, February 13, 2024 from 1:00 – 2:30 p.m.** This meeting is a critical step in the plan update process where we meet with county and local government officials, departmental staff, and other agency stakeholders to provide an overview of the plan update and gather important feedback.

Attached are several items that we will reference during the meeting.

- 1. Hubbard County 2023-2024 Hazard Mitigation Plan Update Overview**
- 2. Hubbard County HMP Planning Team Meeting #1 - Discussion Questions.** If you are registered for the meeting, you are encouraged to review and fill out the form in advance. If you are not able to join us, we welcome your feedback by returning the Discussion Questions form via email. Please return your form prior to the meeting so that we may include you in the list of meeting participants and include your feedback in the meeting documentation.
- 3. HSEM Hazard Mitigation Assistance (HMA) Grants Program Overview**

If you have not registered yet but wish to do so, please control+click on the following registration link: https://umn-private.zoom.us/webinar/register/WN_vtBHusYTR4S3iAbUYUAftg

We look forward to meeting with you! If you have any questions, please let me know.

Thank you,
Bonnie Hundrieser

Bonnie K. Hundrieser, CEM

Hazard Mitigation Planning Specialist

Part of the **U-Spatial@UMD** HMP Planning Team

Hundrieser Consulting LLC

Phone: 218-343-3468



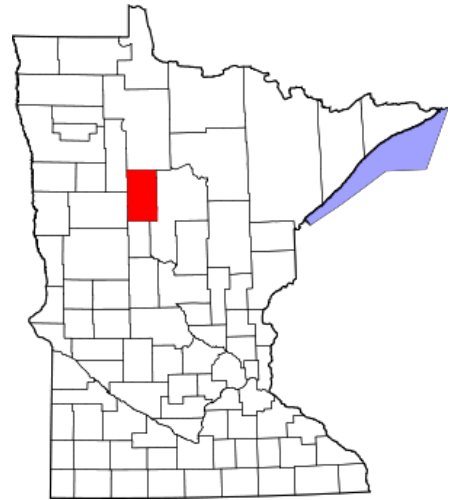
Hubbard County 2023-2024 Hazard Mitigation Plan Update Overview

During 2023-2024, U-Spatial at the University of Minnesota Duluth (U-Spatial@UMD) will be working to update the **Hubbard County Hazard Mitigation Plan (HMP)**. Our team consists of UMD staff who specialize in GIS applications and research and Hundrieser Consulting LLC, who specializes in stakeholder engagement and mitigation strategies.

Overview

Following are key points regarding the Hubbard County HMP Update:

Plan Requirement: It is a state and federal requirement that local governments develop and adopt an updated HMP every 5 years to be eligible for FEMA hazard mitigation assistance grant program funding. Plans must include a comprehensive risk assessment, engage a range of stakeholders and the public, and result in a plan of action to reduce risk from future natural hazard events.



Who the Plan Covers: The HMP is a multi-jurisdictional plan, covering all of Hubbard County, including all cities and townships within the county. The plan also takes into consideration the needs and concerns of other stakeholders such as schools, watershed districts, and agencies or organizations involved in mitigation or services to vulnerable populations within the county.

Who Participates: The HMP is developed in coordination with a local “planning team,” which includes county, city, and township government officials and departmental staff and other related key stakeholders. The team participates in two meetings, assists with public outreach, and provides information to help inform the plan update. Input is also sought from the larger public via news releases, social media, and public events. Planning team members and the public help to review and comment on the draft plan.

Plan Content: The HMP addresses the natural hazards that pose risk to Hubbard County, such as flooding, severe winter storms, windstorms, tornadoes, extreme temperatures, and drought. A hazard profile is developed for each hazard prioritized as moderate to high. Each profile includes a description, incident history, geographic variability, future probability, relationship to changing climate trends and local vulnerabilities, as well as a review of planning and program capabilities. The HMP results in a plan of action for implementation.

Timeframe: The planning process generally occurs over the course of 14-18 months from start to finish.

Final Product: The Hubbard County HMP will include a PDF plan and an accompanying interactive website.

Contact:

Stacey Stark, U-Spatial Associate Director (HMP Project Manager)
Phone: (218) 726-7438 / Email: slstark@d.umn.edu

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Hubbard County Hazard Mitigation Plan Update

Planning Team Meeting #1 Discussion Questions

As part of the Hubbard County 1st HMP Planning Team meeting, we will be covering several key discussion items. Your input is important to ensure the plan update reflects current concerns, priorities, and ideas for mitigation activities to reduce risk. Following are **3 discussion questions** where we will be seeking your feedback.

Meeting participants are encouraged to take down notes prior to the meeting using this form. You may also submit your form electronically if you wish to provide your written notes. Forms should be returned to: hundrieserconsulting@outlook.com

Please provide your contact information:

Name:

Jurisdiction/Agency:

Job Title:

Phone:

Email:

1. Outreach to Vulnerable Populations / Underserved Communities

As part of the planning process, FEMA specifically seeks to ensure that communities have addressed how vulnerable populations and underserved communities within the planning area were provided an opportunity to be involved. We are interested in what this means for your county and local community.

DISCUSSION QUESTION: Are there any vulnerable populations or underserved communities you would identify for Hubbard County or within your own local jurisdiction? If so, are there any best outreach methods to use to provide an opportunity to participate?

Type any comments

2. Review of Hazard Risk Prioritization

As part of the planning process, FEMA specifically seeks to ensure that participants have reviewed the natural hazards that pose risk to the county and its jurisdictions and consider how the priority of those hazards may have changed. Below are the natural hazards were addressed in the county's past hazard mitigation plan and the risk priorities that were noted for each.

HUBBARD COUNTY 2017 HAZARD MITIGATION PLAN

Hazards	Risk Priority
Wildfire	High
Severe Summer Storms (Thunderstorms, Lightning, Hailstorms, Windstorms, Tornadoes)	High
Severe Winter Storms	Moderate
Flash Flood & Riverine Flood	Moderate

Extreme Heat	Moderate
Extreme Cold	Moderate
Erosion/Land Subsidence	Low
Drought	Low
Dam Failure	Low
Landslides	Not Addressed

DISCUSSION QUESTION: What do you feel should be recorded as the updated hazard prioritizations for the Hubbard County 2023 HMP? Consider the probability of future events occurring (likelihood) and damaging impacts to local vulnerabilities (people, systems, and critical infrastructure). Please use the chart below to note your answers.

HUBBARD COUNTY 2023 HMP UPDATE - HAZARD RISK PRIORITIZATIONS

Hazards	Risk Priority (Low, Moderate, or High)	Comments
Flooding		
Windstorms		
Tornadoes		
Hail		
Lightning		
Winter Storms (heavy snow, blizzards, ice storms)		
Extreme Heat		
Extreme Cold		
Drought		
Wildfire		
Landslides		
Dam/Levee Failure		

Type any additional comments

3. Identification of Mitigation Actions

The end-result of the Hubbard County HMP will be a set of jurisdictional mitigation action charts which will provide a course of action for the county and each city jurisdiction to reduce risk against future hazard events. The development of mitigation actions will be drawn from local-level hazard priorities, known vulnerabilities, and local capabilities to implement actions. The development of mitigation actions is guided by different types of strategies, including: Local Planning & Regulations, Structure & Infrastructure Projects, Natural Systems Protection, Education & Awareness Programs, and Mitigation Preparedness & Response Support. We are interested to know what ideas you may have for mitigation activities that can be incorporated into our planning as we move forward. Please be as specific as possible. For example, "Construct a tornado safe room for the City of X mobile home park." "Increase the size of culverts on township roads to reduce over the road flooding and erosion from high rain events."

DISCUSSION QUESTION: Do you have any ideas for specific mitigation activities for implementation at the county or local level?

Type any comments



State of Minnesota
Department of Public Safety
Division of Homeland Security and Emergency Management
445 Minnesota Street, Suite 223
St. Paul, MN 55101-6223

HAZARD MITIGATION ASSISTANCE

Hazard Mitigation Assistance (HMA) grant programs provide funding with the aim to reduce or eliminate risk to property and loss of life from future natural disasters. HMA programs are typically a 75%/25% cost share program. The federal share is 75% of total eligible project reimbursement costs. The local applicant is responsible for 25% of the project costs. The amount of HMGP funds availability is based on a percent of Public Assistance provided by Federal Emergency Management Agency (FEMA).

- Hazard Mitigation Grant Program (HMGP) funds assists in implementing long-term hazard mitigation measures following a Presidential major disaster declaration.
- Pre-Disaster Mitigation (PDM) provides funds for hazard mitigation planning and projects on an annual basis.
- Flood Mitigation Assistance (FMA) provides funds on an annual basis to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP).

Who is eligible for grant funding?

All applicants must have or be covered under an approved Hazard Mitigation Plan. Eligible applicants include: State and local governments; certain private non-profit organizations or institutions; and Tribal Communities

What types of projects can be funded?

All projects must be eligible, technically feasible, and cost-effective. All projects are subject to environmental and cultural resource review. Examples of projects include:

- **Advance Assistance** may be used to develop mitigation strategies and obtain data, including for environmental and historic preservation compliance considerations, and develop complete project applications in a timely manner.
- **Aquifer Storage and Recovery** (ASR) projects serve primarily as a drought management tool, but can also be used to reduce flood risk and restore aquifers that have been subject to overdraft. The concept is to capture water when there is an abundant supply, store the water in subsurface aquifers, and recover water from the storage aquifer when needed. Storing water underground can help protect it from pollutants, evaporation, and weather events.
- **Floodplain and stream restoration** (FSR) projects are used primarily to reduce flood risk and erosion by providing stable reaches, and may also mitigate drought impacts. FSR projects restore and enhance the floodplain, stream channel and riparian ecosystem's natural function. They provide base flow recharge, water supply augmentation, floodwater storage, terrestrial and aquatic wildlife habitat, and recreation opportunities by restoring the site's soil, hydrology and vegetation conditions that mimic pre-development channel flow and floodplain connectivity.
- **Flood Diversion and Storage** (FDS) projects often are used to reduce flood risk, but also can be used to mitigate drought and improve ecosystem services. These projects involve diverting floodwaters from a stream, river, or other body of water into a conduit such as a canal, pipe, or wetland and storing them in an above-ground storage facility. Water is then slowly released, reducing flood risk.

- **Green Infrastructure Methods** are a sustainable approach to natural landscape preservation and storm water management. Include in *eligible hazard mitigation activities* as well as provide additional ecosystem benefits. Ecosystem-based approach to replicate a site's pre-development, natural hydrologic function. Benefits include: Increase water supply, improved water quality, can be scaled to size and designed to fit site conditions.
- **Property Acquisition and Structure Demolition or Relocation** – The voluntary acquisition of an existing at-risk structure and the underlying land, and conversion of the land to open space through the demolition or relocation of the structure. The property must be deed-restricted in perpetuity to open space uses to restore and/or conserve the natural floodplain functions.
- **Retrofit Flood-Prone Residential Structures** are changes made to an existing structure to reduce or eliminate the possibility of damage to that structure from flooding, erosion, or other hazards. Examples of this mitigation are primarily elevation of structures above flood levels and floodwalls.
- **Safe Room Construction** - Safe room construction projects are designed to provide immediate life-safety protection for people in public and private structures from tornado and severe wind events. Includes retrofits of existing facilities or new safe room construction projects, and applies to both single and dual-use facilities
- **Minor Localized Flood Reduction Projects** - Projects to lessen the frequency or severity of flooding and decrease predicted flood damages, such as the installation or up-sizing of culverts, and stormwater management activities, such as creating retention and detention basins. These projects must not duplicate the flood prevention activities of other Federal agencies and may not constitute a section of a larger flood control system.
- **Infrastructure Retrofit** - Measures to reduce risk to existing utility systems, roads, and bridges.
- **Soil Stabilization** - Projects to reduce risk to structures or infrastructure from erosion and landslides, including installing geotextiles, stabilizing sod, installing vegetative buffer strips, preserving mature vegetation, decreasing slope angles, and stabilizing with rip rap and other means of slope anchoring. These projects must not duplicate the activities of other Federal agencies. *New tools for Bioengineered Shoreline Stabilization, Bioengineered Streambank Stabilization.*
- **Wildfire Mitigation** - Projects to mitigate at-risk structures and associated loss of life from the threat of future wildfire through: Defensible Space for Wildfire, Application of Ignition-resistant Construction and Hazardous Fuels Reduction. *New tool for Bioengineered Wildfire Mitigation.*
- **HMGP only - 5 Percent Initiative Projects** – These projects, which are only available pursuant to an HMGP disaster, provide an opportunity to fund mitigation actions that are consistent with the goals and objectives of approved mitigation plans and meet all HMGP program requirements, but for which it may be difficult to conduct a standard Benefit-Cost Analysis (BCA) to prove cost-effectiveness.

How do I apply?

Start by submitting a Notice of Interest, available on HSEMs website at:

<https://dps.mn.gov/divisions/hsem>

Where can I obtain further information?

For additional information about the HMA grant program, you can refer to the FEMA website:

<http://www.fema.gov/hazard-mitigation-assistance>

HUBBARD COUNTY Hazard Mitigation Plan Update 2024

Planning Team Meeting #1
Presentation & Discussion, 2/13/24



U-SPATIAL
UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Welcome & Introductions

U-Spatial@UMD Project Leads



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hundrieser
HM Planning Specialist
Hundrieser Consulting LLC

Hubbard County Project Lead

- Nikolas Opsal, Hubbard County Emergency Management Director



Please type your name and jurisdiction in CHAT  – so others know who is here

PRESENTER: STACEY STARK

Zoom Logistics

If you haven't yet, please type your Hubbard and jurisdiction or department in the Chat window

PLEASE REMAIN MUTED AND VIDEO OFF SO EVERYONE CAN HAVE THE BEST EXPERIENCE.

USE CHAT:

- Send a message to everyone
- Send a message to individuals or the presenters
- Send a message to host to ask for help or ask a question that isn't for the whole group. The host is Stacey Stark



ASK TO SPEAK:



PRESENTER: STACEY STARK

Meeting Purpose & Agenda

The purpose of this meeting is to formally convene the **Hubbard County HMP Planning Team** for a presentation on the plan update and to discuss key items required for the plan update.

AGENDA

- Welcome & Introductions
- Review of HMP Overview (*handout)
- Review of Past Hazard Risk Prioritization, Hazard Profiles, and New Priorities
- Overview of Mitigation Strategies, Actions
- Overview of FEMA HMA grant program
- Discuss local mitigation ideas
- Overview of Next Steps

Throughout the presentation we will cover key discussion questions to gather your input!

PRESENTER: STACEY STARK

HMP OVERVIEW – KEY POINTS

HUBBARD COUNTY 2024 HMP UPDATE

Plan Requirement

The Hazard Mitigation Plan (HMP) is a requirement of the Federal Disaster Mitigation Act of 2000 (DMA 2000).

- The development of a local government plan is required to maintain eligibility for FEMA HMA grant programs.
- Plans must be updated every 5 years.
- Must address all jurisdictions and engage key stakeholders + the public
- Must be approved by FEMA for meeting all federal requirements.

Hubbard County HMP Update 2024

- Last plan was adopted in 2017.
- The updated plan will cover a 5-year window for implementation and grant program eligibility
- Participating jurisdictions must have documented engagement in the planning process and adopt the final plan.

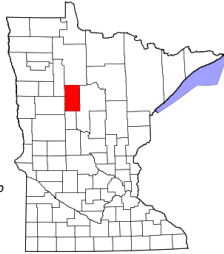


PRESENTER: BONNIE HUNDRIESER

Who the Plan Covers

This is a **multi-jurisdictional plan** that covers Hubbard County, including all cities and townships within the county.

The plan also takes into consideration the needs and concerns of other stakeholders such as schools, watershed districts, and agencies or organizations involved in mitigation or services to vulnerable populations within the county.



PRESENTER: BONNIE HUNDRIESER

Who Participates



Planning Team

The HMP is developed in coordination with county, city, and township government officials and departmental staff and other related key stakeholders.

- Two planning team meetings
- Assistance with public outreach
- Participation in Local Mitigation Survey, Mitigation Action Chart development, and final plan review

The Public

It is required to provide an opportunity to the public to be aware of and provide input to the HMP plan update process.

- Information is shared via news releases, social media, local bulletin boards, and public events.
- Public outreach must include vulnerable populations or underserved communities within the planning area.

PRESENTER: BONNIE HUNDRIESER

Discussion Question #1:

Who are the vulnerable populations or underserved communities in Hubbard County or within your own local jurisdiction?

What are outreach methods to provide these groups an opportunity to participate?

Plan Content

What Hazards are Addressed

- The HMP addresses the **natural hazards** that pose risk to the county and its jurisdictions.
- Manmade hazards are not required to be addressed (per the DMA 2000).
- Hazards that are deemed to be of low risk may be omitted from the plan.
- Hazard risk may differ in cities and the county overall.

Flooding	Hail	Drought
Dam/Levee Failure	Lightning	Extreme Heat
Wildfire	Winter Storms	Extreme Cold
Windstorms	Landslides	Earthquakes
Tornadoes	Sinkholes & Karst	Coastal Erosion

Natural hazard categories as per the State Hazard Mitigation Plan

Poll #1

PRESENTER: BONNIE HUNDRIESER

Plan Content

Risk Assessment & Vulnerability Analysis

The U-Spatial@UMD Team will work closely with the county and each city to provide information as needed.

- Inventory of critical infrastructure.
- Identify specific, local-level impacts and vulnerabilities.
- Identify any factors (i.e., new development) that may increase the community's vulnerability.
- Review social vulnerability factors.
- Identify if and how risk priorities have changed since the last plan. (Increased / Decreased)



PRESENTER: STACEY STARK

Timeframe for development & Plan Format

Timeframe:

The planning process generally occurs over the course of 14-18 months from start to finish.

- The Hubbard County Plan will be completed in **2024**.

Format:

- PDF document (paper version)
- Interactive website companion
- Developed and hosted by U-Spatial at UMD



Comments and Questions?

Hazard Prioritization

REVIEW OF THE HAZARD RISK PRIORITIES FOR
HUBBARD COUNTY

Hubbard County 2017 HMP Risk Rankings

Wildfire	High	<i>Has the level of priority for the following natural hazards changed for Hubbard County?</i> <i>Please consider:</i> ➤ Increase or decrease of events (probability) ➤ Local vulnerabilities (impacts to people, systems, and infrastructure) ➤ New development and population growth
Severe Summer Storms (Thunderstorms, Lightning, Hailstorms, Windstorms, Tornadoes)	High	
Severe Winter Storms	Moderate	
Flash Flood & Riverine Flood	Moderate	
Extreme Heat	Moderate	
Extreme Cold	Moderate	
Erosion/Land Subsidence	Low	
Drought	Low	
Dam Failure	Low	
Landslides	Not Addressed	

Poll #2

PRESENTER: STACEY STARK

Discussion Question #2

What should be recorded as the updated Hazard Prioritizations for the Hubbard County 2024 HMP?

<https://z.umn.edu/HubbardHMP>

PRESENTER: STACEY STARK

Natural Hazards
Assessment on Website-
Demo

HUBBARD COUNTY HMP UPDATE Review of hazard prioritizations

Hazards	2024 Risk Priority (Low, Moderate, or High)
Flooding	
Windstorms	
Tornadoes	
Hail	
Lightning	
Winter Storms (heavy snow, blizzards, ice storms)	
Extreme Heat	
Extreme Cold	
Drought	
Wildfire	
Landslides	
Dam/Levee Failure	

Comments and Questions?

Mitigation Strategies, Actions & FEMA HMA grants

DEVELOPMENT OF MITIGATION ACTIONS AND
ELIGIBLE ACTIVITIES FOR FEMA HAZARD
MITIGATION ASSISTANCE GRANT FUNDING

PRESENTER: BONNIE HUNDRIESER

Overview of Mitigation Actions



Mitigation Action Charts are the end product of the HMP.

- Mitigation actions address hazards of moderate to high priority.
- Mitigation actions are specific.
- Mitigation actions address known vulnerabilities.
- Mitigation actions utilize capabilities to reduce risk.
- Jurisdictional mitigation action charts will be developed for the county and each city. Townships and other related agency mitigation efforts will be integrated where appropriate.

PRESENTER: BONNIE HUNDRIESER

FEMA HMA Grant Funding



Eligible Activities:

- All applicants must be covered by an approved HMP
 - Cost share: Federal 75%, Applicant 25%
 - Projects must address risk reduction.
 - Eligible projects must be identified in the plan of action.
- Property Acquisition (flooding/erosion)
Tornado Safe Rooms (new/retrofit)
Infrastructure Retrofits (utility systems, roads & bridges)
Wildfire Mitigation
Soil Stabilization
Flood Risk Reduction
Green Infrastructure
Other projects difficult to conduct a standard BCA

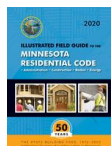
PRESENTER: BONNIE HUNDRIESER

Local Planning & Regulations



Examples:

- Enrollment in the NFIP and enforcement of county and local floodplain ordinances.
- Participation in regional One Watershed, One Plan (1W1P) and partnership projects
- Working with mobile home parks to be in compliance with Minnesota State statutes for storm shelters & evacuation plans.
- Permitting for new development and adhering to MN state building codes to reduce impacts of severe weather to structures.



PRESENTER: BONNIE HUNDRIESER

Structure & Infrastructure Projects

Examples:

- Installation of new outdoor warning sirens
- Construction of safe rooms / storm shelters
- Burying powerlines to reduce power failure
- Conducting property buyouts for flooding
- Addressing road, bridge, culvert, and drainage ditch improvements to reduce localized flood risks
- Protection of vulnerable critical infrastructure such as lift stations and Fire Halls



PRESENTER: BONNIE HUNDRIESER

Natural Systems Protection

Examples:

- Conduct vegetation management along roads to reduce the risk of downed trees and branches resulting from severe storms. (County, Local, Electric Coop)
- Planting Living Snow Fences to reduce snow drifting
- Installing Rain Gardens to reduce impacts of high rain events



PRESENTER: BONNIE HUNDRIESER

Education & Awareness Programs

Examples:

- Promoting sign-up for the county's emergency notification system and EM Facebook page.
- Providing presentations and information on preparedness at schools, special facilities, and public events.
- Participation in the NWS Severe Weather Awareness Weeks and SKYWARN Storm Spotter Training
- Outreach to vulnerable populations



PRESENTER: BONNIE HUNDRIESER

Mitigation Preparedness & Response Support

Examples:

- Acquire generators for backup power of critical infrastructure and key facilities
- Update of county EOP
- Conduct local and regional shelter planning
- Preparation for extended power outages and evacuation of vulnerable populations.
- Testing of outdoor warning sirens.
- Participate in regional EM planning, training, and exercising



PRESENTER: BONNIE HUNDRIESER

Discussion Question #3

Do you have any ideas for specific mitigation activities for implementation at the county or local level?

PRESENTER: BONNIE HUNDRIESER



Following Planning Team Meeting #1

Development of Local Mitigation Surveys

Representatives from Hubbard County and each city jurisdiction will participate in filling out Local Mitigation Survey forms. These forms include:

- Local hazard identification & risk prioritization.
- Local vulnerabilities (critical infrastructure, populations or assets)
- Local-level capabilities (programs, policies, staff, funding)
- Identify local mitigation projects.

PRESENTER: BONNIE HUNDRIESER

Questions?

What questions do you have for U-Spatial@UMD about development of the HMP or next steps?

PRESENTER: STACEY STARK

Contact Information

Stacey Stark, MS, GISP

U-Spatial@UMD

slstark@d.umn.edu

218-726-7438

U-SPATIAL

UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Bonnie Hundrieser, HM Planner

Hundrieser Consulting LLC

hundrieserconsulting@outlook.com

218-343-3468



**HUNDRIESER
CONSULTING LLC**

PRESENTER: STACEY STARK

Hubbard County HMP Planning Team Meeting #2

10/22/24 Meeting Summary & Documentation

Summary: On Tuesday, October 22, 2024, Hubbard County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 2nd and final Planning Team Meeting for the update of the Hubbard County Hazard Mitigation Plan (HMP). The purpose of the meeting was to formally convene the Hubbard County HMP Planning Team for a presentation on the draft plan and discussion of key items prior to public review and submission of the plan to HSEM and FEMA. The meeting was held via Zoom webinar video conference and was facilitated by Stacey Stark and Bonnie Hundrieser of the U-Spatial@UMD project team.

Stakeholder Invitations: Hubbard County Emergency Management invited all stakeholders included on the county's HMP Update Jurisdictional Contact List (JCL), which includes the key County Contacts, City Contacts, Township Contacts, Other Stakeholder Contacts, and Neighboring Jurisdiction Contacts identified to be invited to participate in the plan update process. Contacts were encouraged to engage additional staff or to send someone in their stead if they could not attend. A copy of the county's Jurisdictional Contact List is provided in *Appendix F Steering Committee Meetings*.

Meeting Participants: A total of **22** people attended the meeting. Representation included elected officials and departmental staff from Hubbard County and the cities of Akeley, Nevis, and Park Rapids. The city of Laporte was not available to participate and were not in attendance. Other stakeholders, including neighboring jurisdictions, participated in the meeting. A participant list is provided below:

	Name	Organization	Job Title
1	Nik Opsal	Hubbard County Sheriff's Office	Emergency Management Director
2	Jeff Cadwell	Hubbard County	County Administrator
3	Ted Van Kempen	Hubbard County	Hubbard County Commissioner District 5
4	Jack Bovee	Hubbard County	GIS Supervisor
5	Kay Rave	Hubbard County	Auditor-Treasurer
6	David De La Hunt	Hubbard County	Commissioner Dist. 1
7	Megan FitzGerald	Hubbard County Soil & Water Conservation District	Community Engagement and Grant Reporting Coordinator
8	Kristi Kath	City of Akeley	Clerk Treasurer
10	Dawn Veit	City of Nevis	City Administrator
11	Angel Weasner	City of Park Rapids	City Administrator
12	Sebrina Hegg	Akeley Township	Clerk
13	Russ Johnsrud	Henrietta Township	Township Supervisor
14	Mike Spry	Nevis Township	Supervisor
15	Thomas Walz	Nevis Township	chairman
16	Marlee Morrison	CHI St. Joseph's Health	Community Health Director
17	Jennifer Olson	MN HSEM	Regional Program Coordinator
18	Greg Larson	MAHUBE-OTWA Community Action Partnership, Inc.	Agency Operations Manager

19	Shannon Snell	Itasca-Mantrap Electric Cooperative	Director of Operations
20	Nettie Cole	MN DNR - Itasca State Park	Visitor & Emergency Services Supervisor
21	Adam Douglas	Becker County	Emergency Manager
22	Christopher Muller	Beltrami County	Emergency Management Director

Presentation Overview: The PowerPoint presentation covered the following items about the process and content of the plan update. A PDF of the presentation slides is included with this meeting summary.

- Meeting Purpose and Agenda
- About the Project Team
- Overview of Plan Update
- Who the Plan Covers
- Who Needs to Participate
- Overview of the Structure of the HMP (Website and PDF)
- Prioritization of Natural Hazards
- Review of Risk Assessment Factors and Hazard Profiles
- Overview of Mitigation Action Charts and FEMA HMA Grant Funding
- Review of Mitigation Strategies and Actions
- Open Discussion (Comments and Questions)
- Discussion of Next Steps & answer your questions

The opening PowerPoint presentation covered a re-cap of key points about the plan update, a review of the Risk Assessment & Vulnerability Analysis, an overview of FEMA Hazard Mitigation Assistance (HMA) grant funding; an overview of how mitigation actions are developed and an overview of the jurisdictional Mitigation Action Charts (MACs). Following the presentation, participants were provided with an opportunity to review and discuss the county and local mitigation action charts. This discussion period offered a facilitated opportunity for participants to consider any changes or new additions to the MACs prior to completion of the draft plan for public review.

HUBBARD COUNTY HMP PLANNING TEAM MEETING #2 DISCUSSION NOTES

- Jack Bovee, GIS Supervisor - For the interactive maps, where is data stored and is it accessible for other operations? (i.e. GIS maps). Stacey Stark response - There will be some GIS deliverables as part of this project; so Hubbard County will have that data available. This is something that Stacey will follow up on with Jack.
- Jack Bovee, GIS Supervisor - Was any work done on the Belle Taine Lake Watershed? It is an isolated watershed that does not connect directly to the Mississippi watershed. Stacey Stark response – No, we did not model this area; we do not include lake flooding modeling, but she would like to include this information in the plan. It was recommended that Stacey follow up with the Hubbard SWCD for further information. David De La Hunt, Hubbard County Commissioner District 1 comment - SWCD is reviewing as we speak. Will be trying to survey potential future events. We want to do a basic study on what a best lake level would be and at what level it would be problematic enough to warrant action.
- Sebrina Hegg, Akeley Township Clerk - Not sure if I missed it, but Akeley needs better planning for severe weather. It never fails we have issues access safe places for those that need it like

campground / poor housing. Bonnie Hundrieser response – The City of Akeley mitigation action chart does address planning for severe weather and also addresses the need for a new storm shelter or tornado safe room at the city's municipal campground.

Meeting Conclusion: The meeting concluded with an overview and timeline of the upcoming next steps for public review and submission of the draft plan to HSEM and FEMA for final review and approval.

Attached are the following documentation items for the Hubbard County HMP Meeting #2:

- Meeting Invitation to Stakeholders
- PowerPoint Presentation Slides
- Information Handouts

Meeting Summary Prepared By: Bonnie Hundrieser, U-Spatial@UMD Project Team

From: [Nikolas Opsal](#)
To: [Nikolas Opsal](#); [Cory Aukes](#); [Scott Williams](#); [Jeffrey Cadwell](#); [Maria Shepherd](#); [Kay Rave](#); [Eric Buitenwerf](#); [Jack Bovee](#); [Jed Nordin](#); [Bobby Wilkins](#); [mark.lohmeier@co.hubbard.mn.us](#); [Aaron Funk](#); [Greg Hensel](#); [Brian Ophus](#); [Marlee.morrison@commonspirit.org](#); [Nicholas.johnson@co.hubbard.mn.us](#); [David De La Hunt](#); [Charlene Christenson](#); [Tom Krueger](#); [Ted Van Kempen](#); [akeleymn@arvig.net](#); [jimmyz802@yahoo.com](#); [cityclerklaporte@gmail.com](#); [laportecitytreasurer@hotmail.com](#); [neviscty@eot.com](#); [mayor@ci.park-rapids.mn.us](#); [city.info@ci.park-rapids.mn.us](#); [bramstadskoyles@arvig.net](#); [Jeffrey Appel](#); [hegg1@hotmail.com](#); [meganauzenne@gmail.com](#); [Badouraclerk@Gmail.com](#); [clerkclaytownship@gmail.com](#); [clovertownship@live.com](#); [cwlclerk@outlook.com](#); [schumme@paulbunyan.net](#); [frnkenberries@hotmail.com](#); [guthriet@paulbunyan.net](#); [char@paulbunyan.net](#); [clerk@helgatownship.com](#); [hendricksontownshipclerk@gmail.com](#); [henriettatown@unitelc.com](#); [lkkujawa@hotmail.com](#); [clerklakeallicetownship@gmail.com](#); [lakeemmatwp@outlook.com](#); [lgtwp@paulbunyan.net](#); [lakehattietownship@gmail.com](#); [akhadrava@msn.com](#); [mantrapclerk@gmail.com](#); [nevistownship@outlook.com](#); [tjdiff@paulbunyan.net](#); [steevbooth@hotmail.com](#); [pinhurst@paulbunyan.net](#); [straightrivertownshipclerk@gmail.com](#); [cwlclerk@outlook.com](#); [cadreaubob@unitelc.com](#); [whiteoakclerk1@gmail.com](#); [andrew.tepfer@state.mn.us](#); [Lisa.Villcheck@state.mn.us](#); [crystal.hcswcd@gmail.com](#); [daniel.pazdernik@mn.usda.gov](#); [angela.bokovoy@usda.gov](#); [j.t.anderson@state.mn.us](#); [Aaron.wunrow@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [lbagstad@parkrapids.k12.mn.us](#); [gparks@nevis308.org](#); [aj.dombeck@laporte.k12.mn.us](#); [ssnell@itasca-mantrap.com](#); [Owen.Fifield@redcross.org](#); [nated@nwmf.org](#); [dawn@nwmf.org](#); [Ljohnson@hcdac.org](#); [StephanieFairchild@ecumen.org](#); [lkuoppala@mahube.org](#); [bjandcj218@gmail.com](#); [Chris.muller@co.beltrami.mn.us](#); [chad.emery@casscountymn.gov](#); [Tyler.wheeler@wcmn.us](#); [Adam.douglas@co.becker.mn.us](#); [andy.anderson@co.clearwater.mn.us](#); [DuaneOothoudt@lpolice.org](#)
Cc: [hundrieserconsulting@outlook.com](#); [slstark@d.umn.edu](#)
Subject: Hubbard County Hazard Mitigation Planning Team Meeting #2 Invitation
Date: Wednesday, September 18, 2024 12:17:05 PM

HUBBARD COUNTY HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at the **2nd Planning Team Meeting** for the update of the **Hubbard County Hazard Mitigation Plan (HMP)**. You are requested to participate in this vital meeting because you have a position of administrative or departmental responsibility within either the county, a municipal government, or are a key stakeholder related to the planning process. Emergency Managers from neighboring jurisdictions are also encouraged to attend so we may strengthen our shared mitigation efforts. This meeting will be the final planning meeting for the HMP update process.

We will be holding the meeting virtually using Zoom webinar:

Date: Tuesday, October 22, 2024

Time: 10:00 a.m. – 11:30 a.m.

Register: [Control+Click here to follow to link to register for the meeting](#)

The purpose of this meeting is to provide an overview of the plan and interactive website, including a review of the updated risk assessment for natural hazards that affect the county. We will also discuss the Mitigation Action Charts that will be specific to Hubbard County and each city, as well as funding opportunities available under the FEMA Hazard Mitigation Assistance grant programs.

Your participation in this meeting and feedback on the draft plan is important to us. The draft Hubbard County HMP is nearing completion and will be ready for review by planning team members and the public in the coming weeks.

When you register, you will automatically be placed on an RSVP list. If you are not able to attend, please consider sending another representative in your stead.

Thank you,

Nik Opsal
Deputy Sheriff / Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-252-3225
nikolas.opsal@co.hubbard.mn.us

Hubbard County Hazard Mitigation Plan Update 2024 Planning Team Meeting #2

October 22, 2024



U-SPATIAL
UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Welcome & Introductions

U-Spatial@UMD Project Leads



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hurdieser
HMP Planning Specialist
Hurdieser Consulting LLC

Hubbard County Project Lead

- Nikolas Opsal, Hubbard County Emergency Management Director



Please type your name and jurisdiction in the CHAT – so others know who is here

PRESENTER: STACEY STARK

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- Send a message to host to ask for help or ask a question that isn't for the whole group. The host is Stacey Stark



ASK TO SPEAK:



PRESENTER: STACEY STARK

Meeting Purpose & Agenda



This meeting formally convenes the **Hubbard County HMP Planning Team** for a presentation on the draft plan and discussion of key items prior to public review and submission of the plan to HSEM and FEMA.

Agenda

- Welcome & Introductions
- Recap of Key HMP Points
- Preview of Deliverables
- Review of Risk Assessment & Vulnerability Analysis in Website
- Overview of FEMA HMA Funding and Mitigation Action Charts
- Review & Feedback
- Next Steps

PRESENTER: STACEY STARK

Overview of Plan Update

Hubbard County is updating its **Hazard Mitigation Plan (HMP)** to fulfill a state & federal requirement. The plan must be updated every 5 years. The last plan was adopted in 2017.

The purpose of the plan is to identify & assess natural hazards that pose risk to the county and its jurisdictions and **develop long-term strategies and mitigation actions** that will help to reduce or eliminate the impact of future hazard or disaster events.



Hazard Mitigation is any action taken to reduce or eliminate long term risk to people and property from natural disasters.

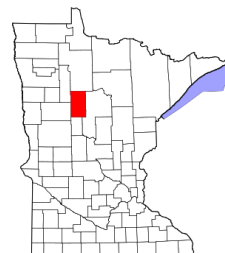
PRESENTER: BONNIE HURDIESER

Who the Plan Covers



This is a **multi-jurisdictional plan** that covers Hubbard County, including all cities and townships within the county.

The plan also takes into consideration the needs and concerns of other stakeholders such as schools, watershed districts, and agencies or organizations involved in mitigation or services to vulnerable populations within the county.



PRESENTER: BONNIE HURDIESER

Stakeholder Involvement



Planning Team

- County and local government, other agencies & organizations.
- Participation in planning team meetings, public outreach, local mitigation survey, provision of spatial or other data, and review of draft plan.

The Public

- Opportunity to learn about the plan and provide feedback on local-level concerns, mitigation ideas, and review of draft plan.

PRESENTER: BONNIE HUNDRIESER

HMP Deliverables

PDF document:

- Contains FEMA required elements
- Limited figures & Images
- Links to Website integrated
- Summary of Hazard Identification
- Local Mitigation Summary Report
- Plans & Programs in Place
- Past Mitigation Action Review
- Planning Team Meetings
- Public Outreach & Engagement Documentation
- Mitigation Actions by Jurisdiction



Website companion:

- Links to PDF components and document
- Interactive maps and context
- Simple, concise explanations
- Multiple ways to navigate the content
- Public input form on site

PRESENTER: STACEY STARK

Prioritization of Hazards for Hubbard County



Prioritization of hazards by the Hubbard County planning team included consideration of:

- Probability and Severity of natural hazard events (risk)
- Observed increase or decrease in risk since last plan
- Jurisdictional variations in risk (i.e., local vulnerabilities, changes in development)

Natural Hazards	Current Priority
Winter Storms	High
Wildfire	High
Windstorms	Moderate
Tornadoes	Moderate
Flooding	Moderate
Extreme Cold	Moderate
Lightning	Low
Hailstorms	Low
Extreme Heat	Low
Drought	Low
Landslides	Low
Dam Failure	Low

PRESENTER: STACEY STARK

Hazards Risk Assessment

- Validates the prioritization of hazards
- Provides probability and severity of future events as possible
- Identifies vulnerable populations and structures at risk as possible
- Considers variable jurisdictional vulnerability
- Informs Mitigation Actions in the HMP



PRESENTER: STACEY STARK

Website Demo

z.umn.edu/HubbardHMP

Comments and Questions?

Overview of Mitigation Action Charts



Mitigation Action Charts are the end product of the HMP.

They demonstrate a community's 5-year plan to:

- Reduce future risk to natural hazard events.
- Address local vulnerabilities through targeted activities.
- Utilize local capabilities to implement actions.



Eligible FEMA HMA grant activities must be identified in the plan of action.

PRESENTER: BONNIE HUNDRIESER

FEMA Mitigation Grant Funding



FEMA

Section 406

Available *after* a disaster occurs.

Focuses on mitigation measures for facilities that have actually been damaged in a particular disaster.

Section 404

Requires an approved & adopted HMP. Funds mitigation projects for both damaged and non-damaged facilities. Several different grant programs.

Example Section 404 activities:

- Property Acquisition
- Tornado Safe Rooms
- Bury Overhead Powerlines
- Wildfire Mitigation
- Soil Stabilization
- Flood Risk Reduction
- Green Infrastructure
- Other projects difficult to conduct a standard BCA (i.e., tornado warning sirens, generators for critical facilities)

PRESENTER: BONNIE HUNDRIESER

Local Planning & Regulations



Hubbard County Examples:

- Incorporation of mitigation into existing plans for future growth (Shoreland Ordinance, Subdivision Ordinance, Transportation Plan, local Comp Plans)
- Regional watershed planning with SWCD and area watershed districts
- Development of a new Hubbard County Community Wildfire Protection Plan (CWPP)
- Encourage all new development to follow MN state building codes to help withstand impacts of severe weather to structures.



PRESENTER: BONNIE HUNDRIESER

Structure & Infrastructure Projects

Hubbard County Examples:

- Installation of new outdoor warning sirens
- Construction of tornado safe rooms (City of Nevis)
- Installation of recirculation pump for water tower to avoid freezing water (City of Akeley)
- Burying powerlines to reduce power failure (City of Park Rapids)
- Conducting property buyouts for flooding
- Stormwater management improvements (culverts, drainage systems, curb & gutter)

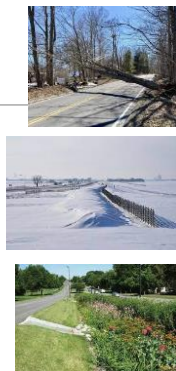


PRESENTER: BONNIE HUNDRIESER

Natural Systems Protection

Hubbard County Examples:

- Conduct vegetation management along roads to reduce the risk of downed trees and branches resulting from heavy snow, ice, or high winds.
- Other examples:
 - Wildfire fuels reduction, Defensible space
 - Planting Living Snow Fences to reduce snow drifting
 - Installing Rain Gardens to reduce impacts of high rain events



PRESENTER: BONNIE HUNDRIESER

Education & Awareness Programs

Hubbard County Examples:

- Promoting sign-up for Everbridge
- Wildfire Awareness / Firewise Education
- Warning Siren Education
- Awareness of how to avoid frozen pipes
- Encouraging residents to be prepared for severe weather events, extreme temperatures, and extended power outages.
- Special consideration for vulnerable populations



PRESENTER: BONNIE HUNDRIESER

Mitigation Preparedness & Response Support

Hubbard County Examples:

- Acquire backup generators (City of Akeley)
- Update of county EOP
- Conduct local and regional shelter planning, establish warming centers
- Testing of outdoor warning sirens.
- Participate in regional EM planning, training, and exercising



PRESENTER: BONNIE HUNDRIESER

Comments and Questions?



Oct-Nov, 2024

EM + Local Gov't Review of Draft Plan and Public Review & Comment Period



Following Planning Team Mtg. #2

- EM + Local government review of draft plan
- Public review & comment period (News Release #2)
- Document local postings
- Document public feedback & incorporate as appropriate

PRESENTER: BONNIE HUNDRIESER



Nov-Dec, 2024

Draft Plan Submission to HSEM & FEMA, Plan Approval, and Collection of Adopting Resolutions

- Draft plan will be submitted first to HSEM and then to FEMA for approval for meeting all Federal requirements.
- Typically requires 1-2 months.
- APA letter
- EM coordination of adopting resolutions from each city.
- Final approval letter

PRESENTER: BONNIE HUNDRIESER

Questions?

What questions do you have for
U-Spatial@UMD about the draft MHMP or
next steps ?

PRESENTER: STACEY STARK

Contact Information

Stacey Stark, MS, GISP

U-Spatial@UMD

slstark@d.umn.edu

218-726-7438

Bonnie Hundrieser, HM Planner

Hundrieser Consulting LLC

hundrieserconsulting@outlook.com

218-343-3468

U-SPATIAL
UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover


**HUNDRIESER
CONSULTING LLC**

PRESENTER: STACEY STARK



State of Minnesota
Department of Public Safety
Division of Homeland Security and Emergency Management
445 Minnesota Street, Suite 223
St. Paul, MN 55101-6223

HAZARD MITIGATION ASSISTANCE

Hazard Mitigation Assistance (HMA) grant programs provide funding with the aim to reduce or eliminate risk to property and loss of life from future natural disasters. HMA programs are typically a 75%/25% cost share program. The federal share is 75% of total eligible project reimbursement costs. The local applicant is responsible for 25% of the project costs. The amount of HMGP funds availability is based on a percent of Public Assistance provided by Federal Emergency Management Agency (FEMA).

- Hazard Mitigation Grant Program (HMGP) funds assists in implementing long-term hazard mitigation measures following a Presidential major disaster declaration.
- Pre-Disaster Mitigation (PDM) provides funds for hazard mitigation planning and projects on an annual basis.
- Flood Mitigation Assistance (FMA) provides funds on an annual basis to reduce or eliminate risk of flood damage to buildings that are insured under the National Flood Insurance Program (NFIP).

Who is eligible for grant funding?

All applicants must have or be covered under an approved Hazard Mitigation Plan. Eligible applicants include: State and local governments; certain private non-profit organizations or institutions; and Tribal Communities

What types of projects can be funded?

All projects must be eligible, technically feasible, and cost-effective. All projects are subject to environmental and cultural resource review. Examples of projects include:

- **Advance Assistance** may be used to develop mitigation strategies and obtain data, including for environmental and historic preservation compliance considerations, and develop complete project applications in a timely manner.
- **Aquifer Storage and Recovery** (ASR) projects serve primarily as a drought management tool, but can also be used to reduce flood risk and restore aquifers that have been subject to overdraft. The concept is to capture water when there is an abundant supply, store the water in subsurface aquifers, and recover water from the storage aquifer when needed. Storing water underground can help protect it from pollutants, evaporation, and weather events.
- **Floodplain and stream restoration** (FSR) projects are used primarily to reduce flood risk and erosion by providing stable reaches, and may also mitigate drought impacts. FSR projects restore and enhance the floodplain, stream channel and riparian ecosystem's natural function. They provide base flow recharge, water supply augmentation, floodwater storage, terrestrial and aquatic wildlife habitat, and recreation opportunities by restoring the site's soil, hydrology and vegetation conditions that mimic pre-development channel flow and floodplain connectivity.
- **Flood Diversion and Storage** (FDS) projects often are used to reduce flood risk, but also can be used to mitigate drought and improve ecosystem services. These projects involve diverting floodwaters from a stream, river, or other body of water into a conduit such as a canal, pipe, or wetland and storing them in an above-ground storage facility. Water is then slowly released, reducing flood risk.

- **Green Infrastructure Methods** are a sustainable approach to natural landscape preservation and storm water management. Include in *eligible hazard mitigation activities* as well as provide additional ecosystem benefits. Ecosystem-based approach to replicate a site's pre-development, natural hydrologic function. Benefits include: Increase water supply, improved water quality, can be scaled to size and designed to fit site conditions.
- **Property Acquisition and Structure Demolition or Relocation** – The voluntary acquisition of an existing at-risk structure and the underlying land, and conversion of the land to open space through the demolition or relocation of the structure. The property must be deed-restricted in perpetuity to open space uses to restore and/or conserve the natural floodplain functions.
- **Retrofit Flood-Prone Residential Structures** are changes made to an existing structure to reduce or eliminate the possibility of damage to that structure from flooding, erosion, or other hazards. Examples of this mitigation are primarily elevation of structures above flood levels and floodwalls.
- **Safe Room Construction** - Safe room construction projects are designed to provide immediate life-safety protection for people in public and private structures from tornado and severe wind events. Includes retrofits of existing facilities or new safe room construction projects, and applies to both single and dual-use facilities
- **Minor Localized Flood Reduction Projects** - Projects to lessen the frequency or severity of flooding and decrease predicted flood damages, such as the installation or up-sizing of culverts, and stormwater management activities, such as creating retention and detention basins. These projects must not duplicate the flood prevention activities of other Federal agencies and may not constitute a section of a larger flood control system.
- **Infrastructure Retrofit** - Measures to reduce risk to existing utility systems, roads, and bridges.
- **Soil Stabilization** - Projects to reduce risk to structures or infrastructure from erosion and landslides, including installing geotextiles, stabilizing sod, installing vegetative buffer strips, preserving mature vegetation, decreasing slope angles, and stabilizing with rip rap and other means of slope anchoring. These projects must not duplicate the activities of other Federal agencies. *New tools for Bioengineered Shoreline Stabilization, Bioengineered Streambank Stabilization.*
- **Wildfire Mitigation** - Projects to mitigate at-risk structures and associated loss of life from the threat of future wildfire through: Defensible Space for Wildfire, Application of Ignition-resistant Construction and Hazardous Fuels Reduction. *New tool for Bioengineered Wildfire Mitigation.*
- **HMGP only - 5 Percent Initiative Projects** – These projects, which are only available pursuant to an HMGP disaster, provide an opportunity to fund mitigation actions that are consistent with the goals and objectives of approved mitigation plans and meet all HMGP program requirements, but for which it may be difficult to conduct a standard Benefit-Cost Analysis (BCA) to prove cost-effectiveness.

How do I apply?

Start by submitting a Notice of Interest, available on HSEMs website at:

<https://dps.mn.gov/divisions/hsem>

Where can I obtain further information?

For additional information about the HMA grant program, you can refer to the FEMA website:

<http://www.fema.gov/hazard-mitigation-assistance>

Mitigation Strategies & Action Types

Following are the five types of mitigation strategies that will be used in the update of the Multi-Hazard Mitigation Plan with examples of related mitigation actions. Minnesota HSEM recommends the use of these mitigation strategies to be in alignment with the State plan and those recommended by FEMA. The first four strategies listed are taken from the FEMA publications *Local Mitigation Planning Handbook* (2013) and *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (2013). The fifth strategy type was determined by Minnesota HSEM for use within the state.

These strategies will provide the framework for identification of new jurisdictional-level mitigation actions for implementation over the next 5-year planning cycle.

Mitigation Strategy	Description	Example Mitigation Actions
Local Planning and Regulations	These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> • Comprehensive plans • Land use ordinances • Planning and zoning • Building codes and enforcement • Floodplain ordinances • NFIP Community Rating System • Capital improvement programs • Open space preservation • Shoreline codes • Stormwater management regulations and master plans • Mobile home park compliance for storm shelters
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p>	<ul style="list-style-type: none"> • Property Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits (i.e., metal roofs) • Floodwalls and retaining walls • Detention and retention structures • Culvert Installation/Modification • Roads & Bridge risk reduction • Safe Room (New construction or facility retrofit) • Green Infrastructure Methods <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>

Mitigation Strategy	Description	Example Mitigation Actions
Natural Systems Protection	<p>These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.</p>	<ul style="list-style-type: none"> • Soil stabilization for sediment and erosion control • Floodplain and Stream corridor restoration • Slope management • Forest management (defensible space, fuels reduction, sprinkler systems) • Conservation easements • Wetland restoration and preservation • Aquifer Storage & Recovery • Flood Diversion and Storage <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>
Education and Awareness Programs	<p>These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions that support life safety and lessen property damage.</p>	<ul style="list-style-type: none"> • Radio or television spots • Websites with maps and information • Social media outreach • Promotion of sign-up for emergency warnings • Real estate disclosure • Promotion of NFIP insurance to property owners • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • NWS StormReady Program • Firewise Communities <p><i>Some of these types of actions may be projects eligible for funding through the FEMA HMA "5 Percent Initiative Program".</i></p>
Mitigation Preparedness and Response Support	<p>This is a State of Minnesota mitigation strategy with the intent of covering emergency preparedness actions that protect life and property prior to, during, and immediately after a disaster or hazard event. These activities are typically not considered mitigation, but support reduction of the effects of damaging events.</p>	<ul style="list-style-type: none"> • Emergency Operations Plan • Flood fight plans and preparedness measures • Dam emergency action plans • Emergency Warning Systems (i.e., CodeRed, warning sirens) • Generator backup power • NWS Storm Spotter Training • Training and education for local elected officials and key partners.

Appendix G – Public Outreach & Engagement Documentation

Hubbard County MHMP News Release #1

Record of Public Input & Incorporation

Overview: On **June 8, 2023**, Hubbard County Emergency Management put out a news release titled **“Public Input Wanted as County Updates Multi-Hazard Mitigation Plan”** to announce the start of the county’s Hazard Mitigation Plan. The news release provided information on the purpose and content of the plan, who the plan covers, stakeholders involved in the plan update and examples of hazard mitigation activities. Hubbard County used the news release to gather feedback from residents and businesses from across the county to incorporate into the plan, inviting feedback to the following:

- What are the natural hazards you feel pose the greatest risk to your community?
- What concerns do you have, and what sorts of mitigation actions or projects do you feel would help to reduce the damages of potential future events for your personal property, your community, or the County as a whole?

The public was strongly encouraged contact Hubbard County Emergency Management to submit comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update process. The public was also able to post comments electronically on county or city Facebook sites where the news release was posted.

Distribution: The news release was sent via email to the county’s HMP Jurisdictional Contact List, which includes the names, titles, phone numbers, and email addresses of key stakeholders to be engaged in the HMP update, including county, city, and township contacts; other related agency and organizational stakeholder contacts, and neighboring jurisdiction contacts. (A copy of the Jurisdictional Contact List can be found in Appendix F). The news release was additionally sent to local media contacts with a request to carry the news release.

Postings: Attached is documentation of the news release postings by Hubbard County, participating jurisdictions, local media, and other stakeholders. Cities and townships were encouraged to help share the news release locally by posting it on their websites, social media, or community bulletin boards.

Public Input & Incorporation:

Following is a record of public responses to the news release and how their input will be incorporated into the plan update, and if not relevant to be addressed, why.

Comment #1 - Email to Hubbard County EMD

Sent: Tuesday, September 12, 2023 6:51 PM

To: Nikolas Opsal <nikolas.opsal@co.hubbard.mn.us>

Subject: Lake Belle Taine water level stabilization

It not clear that you are addressing the need for water level stabilization on our lake. Water level changes season to season and within a season are problematic for lake shore properties. Restoration of an outlet, would prevent damage from high water as has

been seen in the past (erosion, flooding, vegetation damage, ...), and stability of water level could prevent the current reconfiguring of docks and boat lifts over a season. Thanks for considering my input.

Jim Caratozzolo
21338 Co 80, Nevis, MN 56467

EMD Return Email Response

From: Nikolas Opsal
Sent: Wednesday, September 13, 2023 12:39 PM
Subject: RE: Lake Belle Taine water level stabilization

Mr. Caratozzolo,

I greatly appreciate your input regarding the need for water level stabilization on Lake Belle Taine.

We will include your input during our hazard mitigation analysis of Hubbard County.

Thank you!

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-732-2523 - Voicemail
nikolas.opsal@co.hubbard.mn.us

Comment #2 - Email to Hubbard County EMD

Sent: Wednesday, September 13, 2023 3:55 PM
To: Nikolas Opsal <nikolas.opsal@co.hubbard.mn.us>
Subject: Lake Belle Taine

Hi Nikolas,
My name is Linda Fox and we are permanent full-time residents on the west end of Lake Belle Taine. We are very concerned about the increasing water levels from when we first bought our place in 2006. I've seen some people's yards flooded and their septic systems underwater. I've also seen major shoreline erosion and loss of trees along the shoreline on our property and elsewhere on the lake within the last few years.

Please add our flooding concerns and erosion issues back into the hazard mitigation plan.

Thank you,
Linda Fox

EMD Return Email Response**From:** Nikolas Opsal**Sent:** Wednesday, September 13, 2023 12:39 PM**Subject:** RE: Lake Belle Taine

Ms. Fox,

I greatly appreciate your input regarding flooding and erosion concerns on Lake Belle Taine.

We will include your input during our hazard mitigation analysis of Hubbard County.

Thank you!

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-732-2523 - Voicemail
nikolas.opsal@co.hubbard.mn.us

Comment #3 - Email to Hubbard County EMD**Sent:** Wednesday, September 13, 2023 4:32 PM**To:** Nikolas Opsal <nikolas.opsal@co.hubbard.mn.us>**Subject:** Request for mitigation of high water

Nick,

The purpose of this email is to request your support, attention, & action to mitigate the historical water level fluctuations on lake Belle Taine.

My primary concern is flooded shores debris, nutrients, toxic materials, and bacteria entering the lake as flooded lawn water recedes into the lake proper. These pollutants can cause direct human and pet health effects and lead to excess nutrient concentrations that contribute to the formation of harmful algae blooms that are a threat to aquatic ecosystems and fisheries.

This can be prevented. We need your support and assistance in this matter.

Thank you,
Steven Hankey

EMD Return Email Response**From:** Nikolas Opsal**Sent:** Wednesday, September 13, 2023 12:39 PM**Subject:** RE: Request for mitigation of high water

Mr. Hankey,

I greatly appreciate your input regarding the need for water level stabilization on Lake Belle Taine. Thank you for sharing your concerns regarding pollutants entering the lake due to the fluctuations in water levels.

We will include your input during our hazard mitigation analysis of Hubbard County.

Thank you!

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-732-2523 - Voicemail
nikolas.opsal@co.hubbard.mn.us

Incorporation: The 3 comments submitted regarding flooding and erosion concerns due to high water levels on Lake Belle Taine will be addressed as part of the Hubbard County flood hazard risk and vulnerability assessment. Hubbard County and other related agencies with a role for planning or mitigation with this water body will be included in the discussion on this local concern.

From: [Nikolas Opsal](#)
To: [Nikolas Opsal](#); [Cory Aukes](#); [Scott Williams](#); [Jeffrey Cadwell](#); [Maria Shepherd](#); [Kay Rave](#); [Eric Buitenwerf](#); [Jack Bovee](#); [Jed Nordin](#); [Bobby Wilkins](#); [Mark Lohmeier](#); [Aaron Funk](#); [Greg Hensel](#); [Brian Ophus](#); [Marlee.morrison@commonspirit.org](#); [Nicholas Johnson](#); [David J. De La Hunt](#); [Charlene Christenson](#); [Tom Krueger](#); [Ted Van Kempen](#); [akeylemn@arvig.net](#); [jimmyz802@yahoo.com](#); [cityclerklaporte@gmail.com](#); [laportecitytreasurer@hotmail.com](#); [neviscty@eot.com](#); [mayor@ci.park-rapids.mn.us](#); [city.info@ci.park-rapids.mn.us](#); [bramstadskoyles@arvig.net](#); [Jeffrey Appel](#); [hegg1@hotmail.com](#); [meganauzenne@gmail.com](#); [Badouraclerk@gmail.com](#); [clerkclaytownship@gmail.com](#); [clovertownship@live.com](#); [cwlclerk@outlook.com](#); [schumme@paulbunyan.net](#); [frnkenberries@hotmail.com](#); [guthriet@paulbunyan.net](#); [char@paulbunyan.net](#); [clerk@helgatownship.com](#); [hendricksontownshipclerk@gmail.com](#); [henriettatown@unitelc.com](#); [lkujawa@hotmail.com](#); [clerklakeallicetownship@gmail.com](#); [lakeemmatwp@outlook.com](#); [lgtpw@paulbunyan.net](#); [lakehattietownship@gmail.com](#); [akhadrava@msn.com](#); [mantrapclerk@gmail.com](#); [nevistownship@outlook.com](#); [tjdiff@paulbunyan.net](#); [steevbooth@hotmail.com](#); [pinhurst@paulbunyan.net](#); [straightrivertownshipclerk@gmail.com](#); [cwlclerk@outlook.com](#); [cadreaubob@unitelc.com](#); [whiteoakclerk1@gmail.com](#); [Heather.Winkleblack@state.mn.us](#); [Lisa.Villcheck@state.mn.us](#); [crystal.hcswcd@gmail.com](#); [daniel.pazdernik@mn.usda.gov](#); [angela.bokovoy@usda.gov](#); [j.t.anderson@state.mn.us](#); [Aaron.wunrow@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [lbagstad@parkrapids.k12.mn.us](#); [gparks@nevis308.org](#); [aj.dombeck@laporte.k12.mn.us](#); [ssnell@itasca-mantrap.com](#); [Owen.Fifield@redcross.org](#); [nated@nwmf.org](#); [dawng@nwmf.org](#); [Ljohnson@hcdac.org](#); [StephanieFairchild@ecumen.org](#); [lkuoppala@mahube.org](#); [bjandcj218@gmail.com](#); [Chris.muller@co.beltrami.mn.us](#); [chad.emery@casscountymn.gov](#); [Tyler.wheeler@wcmn.us](#); [Adam.douglas@co.becker.mn.us](#); [andy.anderson@co.clearwater.mn.us](#); [DuaneOothoudt@lpolice.org](#); [Scott Williams](#)
Cc: [Bonnie K Hundrieser](#)
Subject: Hubbard County Hazard Mitigation News Release
Date: Thursday, June 8, 2023 11:26:43 AM
Attachments: [June 8, 2023 News Release.pdf](#)

Greetings,

Hubbard County Emergency Management is commencing work on the update of the Hubbard County Hazard Mitigation Plan (HMP). Attached is a news release for your information.

Your assistance is requested to post this news release to help notify the public about the plan update and to have an opportunity to provide feedback. If you have a website and/or Facebook page we encourage you to post the news release electronically to those places. You may also post a hardcopy of the news release in locations such as City Hall, the Post Office, or other common area. We welcome as many of ways of posting that you can cover. As part of the plan update we must document the public outreach that was conducted. Please send me an email with information on your posting as follows:

- **Websites/Facebook Postings:** Please send me an email detailing the date, location, and link of the posting. We will need to get a screenshot of the posting online.
- **Hardcopy Postings:** Please send me an email detailing the date and location of where the news release was posted (i.e., City Hall bulletin board).

-
All city governments within the county are requested to participate in order to meet FEMA requirements. Townships, businesses, and other agencies or organizations are also strongly encouraged to participate.

If you receive any return public feedback, please notify me so we may document this and incorporate this feedback into the plan update.

The timely return of your posting documentation is appreciated. We will be working to wrap this up before the end of June.

I look forward to your participation in the Hubbard County HMP update.

If you have any questions, please let me know.

Thank you,

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-732-2523 - Voicemail
nikolas.opsal@co.hubbard.mn.us

From: [Nikolas Opsal](#)
To: sgeisen@parkrapidsenterprise.com
Cc: [Bonnie K. Hundrieser](#)
Subject: Hubbard County Emergency Management News Release
Date: Thursday, June 8, 2023 10:37:05 AM
Attachments: [June 8, 2023 News Release.pdf](#)

Shannon,

Please publish the attached news release in the Park Rapids Enterprise. Please advise which newspaper date it is going to be published in.

If you have any questions or need anything else, please let me know.

Thank you!

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-732-2523 - Voicemail
nikolas.opsal@co.hubbard.mn.us

From: [Nikolas Opsal](#)
To: Butch@delahuntmedia.com; news@delahuntmedia.com
Cc: [Bonnie K. Hundrieser](#)
Subject: Hubbard County Emergency Management News Release
Date: Thursday, June 8, 2023 10:55:57 AM
Attachments: [June 8, 2023 News Release.pdf](#)

Butch,

Please publish the attached news release on your website at your convenience. I would greatly appreciate it if you would send me a link to the article when it is published.

If you have any questions or need anything else, please let me know.

Thank you!

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-732-2523 - Voicemail
nikolas.opsal@co.hubbard.mn.us



Hubbard County Sheriff's Office Emergency Management



301 Court Ave
Park Rapids, MN 56470
218-732-2588-Direct-or- Toll Free Number 1-888-732-3332
218-732-2550-Fax

HUBBARD COUNTY NEWS RELEASE

June 8, 2023

Public Input Wanted as County Updates Hazard Mitigation Plan

Hubbard County residents, community leaders, business owners, area agencies and organizations now have an opportunity to share how severe weather events impact their property and lives. There is also an opportunity to share their ideas on how to reduce local impacts in the future.

The Hubbard County Office of Emergency Management is working with U-Spatial at the University of Minnesota Duluth to update the county's Hazard Mitigation Plan (HMP). The plan assesses the natural hazards that pose risk to the county, such as tornadoes, straight line winds, ice storms, blizzards, wildfire, flooding, and extreme temperatures and identifies ways to minimize the damage of future events. As the county works to update the plan, it wants to hear from the public.

The Hubbard County HMP is a multi-jurisdictional plan that covers Hubbard County, including the cities of Akeley, Laporte, Nevis, and Park Rapids. The Hubbard County HMP also incorporates the concerns and needs of townships, school districts, and area agencies or organizations participating in the plan. The plan will be updated by a planning team made up of representatives from county departments, local municipalities, school districts and other key stakeholders. When completed, the plan will be submitted to the Minnesota Department of Homeland Security and Emergency Management and the Federal Emergency Management Agency (FEMA) for approval.

"Hazard mitigation planning is a central part of our emergency management program," said Nikolas Opsal, Hubbard County Emergency Management Director. "Understanding the natural hazards that can cause serious impact to our communities and taking action to reduce or eliminate the impact of future disasters makes us more resilient. Hazard mitigation helps us to break the cycle of damage and repair caused by things like flooding, ice storms, and severe wind events that can damage property, stress economies, and threaten life safety in our county."

Examples of hazard mitigation include:

- Conducting public outreach on severe weather awareness and preparedness
- Limiting or restricting development in floodplain areas
- Removing existing buildings from flood or erosion prone hazard areas



Hubbard County Sheriff's Office Emergency Management



301 Court Ave
Park Rapids, MN 56470
218-732-2588-Direct-or- Toll Free Number 1-888-732-3332
218-732-2550-Fax

- Using snow fences to limit blowing and drifting of snow over road corridors
- Constructing tornado safe rooms in vulnerable areas such as mobile home parks
- Burying overhead power lines that may fail due to heavy snow, ice, or windstorms

Some mitigation activities may be eligible for future FEMA Hazard Mitigation Assistance grant funding.

Public input is an essential part of the plan update. As part of the planning process, Hubbard County is seeking feedback from residents and businesses from across the county to incorporate into the plan:

- What are the natural hazards you feel pose the greatest risk to your community?
- What concerns do you have, and what sorts of actions do you feel would help to reduce damages of future hazard events in your community or the county as a whole?

Comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update should be submitted to Hubbard County Emergency Management by phone, email, or by posting a comment via a social media posting of this article.

There will be additional opportunities for public feedback throughout the planning process. A draft of the plan will be made available for public review prior to submission of the plan to the State of Minnesota. Future news releases will be shared with the media to notify the public of these opportunities.

The Federal Disaster Mitigation Act of 2000 (DMA 2000) requires counties to update their plan every 5 years to maintain eligibility for FEMA's Hazard Mitigation Assistance (HMA) grant programs.

Contact

Nikolas Opsal
Hubbard County Emergency Management Director
Phone: (218) 732-2588
Email: Nikolas.opsal@co.hubbard.mn.us

Hubbard County HMP News Release #1 – June 8, 2023
Chart Documentation of News Release Postings

Jurisdiction or Agency	Posting Representative	Date & Location of News Release Posting
Hubbard County	Nik Opsal, Hubbard County EMD	6/8/23, Hubbard County website, Sheriff's Office Facebook page, and hardcopy postings at the Hubbard County Public Works Building, Laporte Highway Department County Shop, and the Nevis Highway Department County Shop.
City of Akeley	Kristi Kath, Clerk/Treasurer	6/13/23, City Hall bulletin board and City website
City of Laporte	Maggie O'Connor, City Clerk	6/23/23, City Hall public notice board
City of Nevis	Dawn Veit, City Clerk	6/23/23, City Hall bulletin board
City of Park Rapids	Jeffrey Appel, Chief of Police	6/13/23, Police Department Facebook page
Mantrap Township	Carice Golberg-Cummins, Township Clerk	6/11/23, Town Hall bulletin board
Clay Township	Kristina Case, Township Clerk	6/21/23, Town Hall bulletin board
Nevis Township	Pat Hrubes, Township Clerk	6/26/23, Nevis Post Office bulletin board and Nevis Senior Center outdoor bulletin board
DeLaHunt Media	Butch Delahunt Editor	6/8/23, Local radio stations Public Service Announcement
Park Rapids Enterprise	News Editor	6/13/23, Park Rapids Enterprise online news article

Hubbard County HMP News Release #2

Record of Public Input & Incorporation

Overview: On November 8, 2024 Hubbard County Emergency Management put out a news release titled **“Public Comment Sought for Hubbard County’s Hazard Mitigation Plan”** to announce the completion of the draft Hubbard County Hazard Mitigation Plan and invitation for public review and comment. The news release informed jurisdictional stakeholders and the public that a copy of the draft plan, interactive website, and comment form for public feedback was available online with a website link. The public review period for the draft plan was open from 11/8/24 – 11/22/24 for a total of 15 days.

Distribution: The news release was sent via email to the county’s HMP Jurisdictional Contact List, which includes the names, titles, phone numbers, and email addresses of key stakeholders to be engaged in the HMP update, including County Contacts, City Contacts, Township Contacts, Other Stakeholder Contacts, and Neighboring Jurisdiction Contacts. (A copy of the Jurisdictional Contact List can be found in Appendix F). The news release was additionally sent to local media contacts such as area newspapers, radio and television channels with a request to carry the news release.

Postings: Attached is documentation of the news release postings by Hubbard County, participating jurisdictions, and local media. Cities and townships were encouraged to help share the news release locally by posting it on their websites, social media, or community bulletin boards.

Public Input & Incorporation:

Following is a record of public responses to the Hubbard County news release and how the input will be incorporated into the plan update, and if not relevant to be addressed, why.

- No public input was received via the online feedback form, directly by Hubbard County or local jurisdictions.

From: [Nikolas Opsal](#)
To: [Nikolas Opsal](#); [Cory Aukes](#); [Jeffrey Cadwell](#); [Maria Shepherd](#); [Kay Rave](#); [Eric Buitenwerf](#); [Jack Bovee](#); [Jed Nordin](#); [Bobby Wilkins](#); [mark.lohmeier@co.hubbard.mn.us](#); [Aaron Funk](#); [Greg Hensel](#); [Brian Ophus](#); [Marlee.morrison@commonspirit.org](#); [Nicholas.johnson@co.hubbard.mn.us](#); [David De La Hunt](#); [Charlene Christenson](#); [Tom Krueger](#); [Ted Van Kempen](#); [akeleymn@arvig.net](#); [jimmyz802@yahoo.com](#); [cityclerklaporte@gmail.com](#); [laportecitytreasurer@hotmail.com](#); [neviscty@eot.com](#); [mayor@ci.park-rapids.mn.us](#); [city.info@ci.park-rapids.mn.us](#); [bramstadskoyle@arvig.net](#); [Jeffrey Appel](#); [hegg1@hotmail.com](#); [meganauzenne@gmail.com](#); [Badouraclerk@Gmail.com](#); [clerkclaytownship@gmail.com](#); [clovertownship@live.com](#); [cwlclerk@outlook.com](#); [schumme@paulbunyan.net](#); [frnkenberries@hotmail.com](#); [guthriet@paulbunyan.net](#); [char@paulbunyan.net](#); [clerk@helgatownship.com](#); [hendricksontownshipclerk@gmail.com](#); [henriettatown@unitelc.com](#); [lkkujawa@hotmail.com](#); [clerklakeallicetownship@gmail.com](#); [lakeemmatwp@outlook.com](#); [lgtwp@paulbunyan.net](#); [lakehattietownship@gmail.com](#); [akhadrava@msn.com](#); [mantrapclerk@gmail.com](#); [nevis township@outlook.com](#); [tjdiff@paulbunyan.net](#); [steevbooth@hotmail.com](#); [pinhurst@paulbunyan.net](#); [straightrivertownshipclerk@gmail.com](#); [cwlclerk@outlook.com](#); [cadreaubob@unitelc.com](#); [whiteoakclerk1@gmail.com](#); [Jennifer.Olson@state.mn.us](#); [Lisa.Villcheck@state.mn.us](#); [crystal.hcswcd@gmail.com](#); [daniel.pazdernik@mn.usda.gov](#); [angela.bokovoy@usda.gov](#); [j.t.anderson@state.mn.us](#); [Aaron.wunrow@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [lbagstad@parkrapids.k12.mn.us](#); [gparks@nevis308.org](#); [aj.dombeck@laporte.k12.mn.us](#); [ssnell@itasca-mantrap.com](#); [Owen.Fifield@redcross.org](#); [nated@nwmf.org](#); [dawng@nwmf.org](#); [Ljohnson@hcdac.org](#); [StephanieFairchild@ecumen.org](#); [lkuoppala@mahube.org](#); [bjandcj218@gmail.com](#); [Chris.muller@co.beltrami.mn.us](#); [chad.emery@casscountymn.gov](#); [Tyler.wheeler@wcmn.us](#); [Adam.douglas@co.becker.mn.us](#); [andy.anderson@co.clearwater.mn.us](#); [DuaneOothoudt@llpolice.org](#); [City.admin@ci.park-rapids.mn.us](#)
Cc: [hundrieserconsulting@outlook.com](#)
Subject: Hubbard County News Release #2 - Public Review Period
Date: Friday, November 8, 2024 8:38:23 AM
Attachments: [Hubbard County News Release HMP Public Review \(11-8-24\) PDF.pdf](#)

Good Afternoon,

The public review and comment period is now open for the Hubbard County Hazard Mitigation Plan. Please see the attached news release.

The public review period will run from **November 8 to November 22**, prior to submission of the plan to FEMA.

The cities of Akeley, Laporte, Nevis, and Park Rapids are requested to please post this locally. Townships and other related stakeholders involved in the plan update are also asked to share the news release. Please post the news release to areas such as your website, Facebook page, bulletin boards, or other locations.

In addition, if you have not already reviewed the plan during the government review period, you are strongly encouraged to do so. There are website links as well as a QR code in the news release that will take you to PDF of the plan, interactive website, and mitigation action charts. There is also an online feedback form where you are encouraged to provide any comments, questions, or other feedback. If you review the plan, please let me know.

Please email me to let me know the date and location(s) of where the news release was posted. Please respond no later than November 21st.

Thank you for your assistance on conducting this public outreach.

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office

301 Court Ave.

Park Rapids, MN 56470

218-732-2588 - Desk

218-252-3225 - Cell

nikolas.opsal@co.hubbard.mn.us

From: [Nikolas Opsal](#)
To: [Jeffrey Cadwell](#)
Cc: hundrieserconsulting@outlook.com
Subject: RE: hazard mitigation plan
Date: Friday, November 8, 2024 8:33:08 AM
Attachments: [Hubbard County News Release HMP Public Review \(11-8-24\) PDF.pdf](#)
[Hubbard County News Release HMP Public Review \(11-8-24\).docx](#)

Jeff,

Attached is our hazard mitigation plan public review news release. Please post this on the Hubbard County website at your convenience. I also included a Word copy. Feel free to edit it if necessary.

Thank you!

Nik Opsal
Deputy Sheriff & Emergency Manager
Hubbard County Sheriff's Office
301 Court Ave.
Park Rapids, MN 56470
218-732-2588 - Desk
218-252-3225 - Cell
nikolas.opsal@co.hubbard.mn.us

From: Jeffrey Cadwell <jeff.cadwell@co.hubbard.mn.us>
Sent: Tuesday, October 22, 2024 12:37 PM
To: Nikolas Opsal <nikolas.opsal@co.hubbard.mn.us>
Subject: hazard mitigation plan

Do you need help getting the planning and public review documents on the county website? Do we need time with the county board to review?

I'll have plenty of implementation questions as we go along. I don't think anyone on the current board and most of the department heads haven't had any training on emergency management.

Jeff Cadwell
Hubbard County Administrator
218-732-2336



**Hubbard County Sheriff's Office
Emergency Management**



301 Court Ave
Park Rapids, MN 56470
218-732-2588-Direct-or- Toll Free Number 1-888-732-3332
218-732-2550-Fax

HUBBARD COUNTY NEWS RELEASE

November 8, 2024

Public Comment Sought for Hubbard County's Hazard Mitigation Plan

Hubbard County has completed an updated draft of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Hubbard County is vulnerable to a variety of natural hazards such as tornadoes, windstorms, severe winter storms, flooding, drought, and extreme temperatures, which can threaten the loss of life and property in the county. Planning for natural disasters minimizes the impact of events that can cause vast economic loss and personal hardship.

All county residents, as well as other interested agency or organizational stakeholders are strongly encouraged to review and offer feedback on the interactive website, PDF of the draft plan, and proposed local mitigation actions. The review and comment period are open for a period of 15 days through November 22, 2024. The public can access the plan using the following hyperlinks:

[Hubbard County HMP Website Homepage](#) (feedback form at the bottom of page)

[Hubbard County Mitigation Action Charts](#) (feedback form at the bottom of page)

The Hubbard County HMP is a multi-jurisdictional plan that covers Hubbard County, including all cities and townships within the county. The Hubbard County HMP also incorporates the concerns and needs of other key stakeholders such as school districts and related agencies, organizations, or businesses participating in the planning process.

Update of the plan has been under direction of Hubbard County Emergency Management in cooperation with U-Spatial at the University of Minnesota Duluth and representatives from county departments, city and township governments and other participating stakeholders. Together, the planning team worked to identify cost-effective and sustainable actions to reduce or eliminate the long-term risk to human life or property from natural hazards. Examples include infrastructure projects for areas that experience repetitive flooding; construction of safe rooms in areas where residents and visitors are vulnerable to tornadoes and severe storm events; burying powerlines that

may fail due to heavy snow, ice, or wind storms; ensuring timely emergency communication to the public through warning sirens and mass notification systems; and conducting outreach to increase public awareness of severe weather and personal preparedness.

Hazard mitigation planning helps Hubbard County and other jurisdictions protect their residents. Working with local communities through the process helps identify vulnerabilities and develop strategies to reduce or eliminate the effects of a potential hazard. In addition, increasing public awareness of natural disasters and encouraging personal preparedness helps to create a community that is resilient to disaster, and breaks the cycle of response and recovery. Updating the plan further allows Hubbard County and its jurisdictions to be eligible to apply for future FEMA Hazard Mitigation Assistance grant program funding for projects that help to reduce or eliminate the impacts of future natural hazard events.

Community feedback is vital to the success of the plan. Hubbard County invites public review and feedback of the draft plan prior to submitting it to the State of Minnesota and the Federal Emergency Management Agency (FEMA) for review. Feedback may be provided via the online comment forms or directly to Hubbard County Emergency Management.

Contact:
Nikolas Opsal
Hubbard County Emergency Management Director
Phone: (218) 732-2588
Email: Nikolas.opsal@co.hubbard.mn.us

Please scan the following QR code to go directly to the Hubbard County Hazard Mitigation Plan interactive website:



Hubbard County HMP News Release #2 (11/8/24)
Chart Documentation of News Release Postings

Jurisdiction or Agency	Posting Representative	Date & Location of News Release Posting
Hubbard County	Nik Opsal, Hubbard County EMD	11/8/2024, Posted to Hubbard County Sheriff's Office Facebook page 11/12/2024, Posted to Hubbard County Website
City of Akeley	Kristi Kath, Clerk/Treasurer	11/13/2024, Posted at Akeley City Hall
City of Laporte	Maggie O'Connor, City Clerk	11/14/2024, Posted at Laporte City Hall
City of Nevis	Dawn Veit, City Clerk	11/12/2024, Posted at Nevis City Hall and to the City of Nevis website
City of Park Rapids	Jeffrey Appel, Chief of Police	11/13/2024, Posted at Park Rapids City Hall
Park Rapids Enterprise Newspaper	Shannon Geisen, Editor	11/11/2024, Article posted to online news

Appendix H – Mitigation Actions by Jurisdiction

CITY OF AKELEY

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2025-2030	City Admin / City EM	We post information on our city website and Campground Facebook page. We also post information on bulletin boards at the Senior Center and at the Post Office. We make announcements at City Council meetings and post flyers on our community bulletin board outside of City Hall. We will work to share information that we receive from Hubbard County Emergency Management during the NWS Severe Weather Awareness weeks.	City Funding
2	All-Hazards	Education & Awareness Programs	Encourage residents in our community to sign up for the county's emergency notification system.	Existing High 2025-2030	City Admin / City EM	We will work with Hubbard County Emergency Management to help us get a link to the county website for residents to sign up for the Everbridge emergency notification system. We will also include information on this on public flyers that we post.	City Funding
3	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Obtain a emergency backup generators for City Hall and the water plant.	In-Progress High 2025-2030	City Admin / City Public Works	The city is working on seeking matching funds and additional funding to secure the generator necessary to run the water plant. We will work to purchase another generator for City Hall as funding is available.	City Funding, Other Funding TBD
4	Severe Winter & Summer Storms	Natural Systems ProtectionS	Reduce the risk of downed trees on power lines or other structures from the impacts of heavy snow, ice, or high wind events.	In-Progress High 2025-2030	City Public Works in coord with Hubbard SWCD	In 2023 the city applied for and was rewarded a Department of Natural Resources Shade Tree Program Bonding Grant. These funds along with help from Hubbard County Soil and Water Conservation District we are working on locating and replacing some of the most vulnerable areas of the tree canopy. This work is scheduled to begin in 2024.	MN DNR Shade Tree Program Bonding GrantS

CITY OF AKELEY

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	Severe Summer Storms	Education & Awareness Programs	Ensure the city's outdoor warning siren is maintained and educate residents on what to do when the warning siren is activated.	Existing High 2025-2030	City EM	Our city is part of Hubbard County Tornado awareness program and has monthly siren testing.	City Funding
6	Severe Summer Storms	Structure & Infrastructure Projects	Assess the possibility to construct a storm shelter or tornado safe room for our municipal campground.	New Moderate 2025-2030	City EM	Our city Emergency Manager will work with the Hubbard County Emergency Management Director to assess if a possible application can be made to FEMA for grant funding to build a tornado safe room.	City Funding, Possible FEMA Grant Funding
7	Extreme Cold	Education & Awareness Programs	Conduct public outreach to residents on how to avoid frozen pipes during periods of extreme cold.	New High 2025-2030	City Admin / Public Works	We will use our city website to notify residents to avoid freezing pipes during sub-zero weather by running a stream of hot water. We can also include reminders in our utility billing.	City Funding
8	Extreme Cold	Structure & Infrastructure Projects	Install a recirculation pump or mixer for the city's water tower to avoid water freezing and tipping over during periods of extreme cold.	In-Progress High 2025-2030	City Admin / Public Works	The city's Public Works department is working with City Admin to look into purchase options and budgeting for this effort.	City Funding, Other TBD
9	Flooding	Structure & Infrastructure Projects	Address flood mitigation solutions for the city park and campground which are vulnerable to flooding and damages.	In-Progress High 2025-2030	City Public Works	Our public works department staff are working to assess and implement measures to reduce risk of localized flooding to the campground and city park. The city	City Funding
10	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2025-2030	City Admin	The city will establish watering restrictions as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF AKELEY**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
11	Wildfire	Education & Awareness Programs	Promote public awareness of the risk of wildfire when advised by Hubbard County Emergency Management.	Existing High 2025-2030	City Admin / City EM	When there are periods of high risk for wildfire, the city will work to share information we receive from Hubbard County Emergency Management by using our city website, posting flyers, or making announcements at city council meetings.	City Funding

CITY OF LAPORTE

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2025-2030	City Admin / City EM	We share information with residents by posting flyers at City Hall and making announcements at City Council meetings. We do not have a city website or Facebook page. We will work to share information that we receive from Hubbard County Emergency Management during the NWS Severe Weather Awareness weeks.	City Funding
2	All-Hazards	Education & Awareness Programs	Encourage residents in our community to sign up for the county's emergency notification system.	Existing High 2025-2030	City Admin / City EM	We will work with Hubbard County Emergency Management to help us get a link to the county website for residents to sign up for the Everbridge emergency notification system. We will also work to include information on public flyers that we post.	City Funding
3	Extreme Cold	Education & Awareness Programs	Conduct public outreach to residents on how to avoid frozen pipes during periods of extreme cold.	New High 2025-2030	City Admin / Public Works	During periods of extreme cold we will provide announcements at City Council meetings remind residents to avoid freezing pipes during sub-zero weather by running a stream of hot water.	City Funding
4	Severe Summer Storms	Education & Awareness Programs	Ensure the city's outdoor warning siren is maintained and educate residents on what to do when the warning siren is activated.	Existing High 2025-2030	City EM	Our city is part of Hubbard County Tornado awareness program and has monthly siren testing.	City Funding
5	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2025-2030	City Admin	The city will establish watering restrictions as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF LAPORTE**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
6	Wildfire	Education & Awareness Programs	Promote public awareness of the risk of wildfire when advised by Hubbard County Emergency Management.	Existing High 2025-2030	City Admin / City EM	When there are periods of high risk for wildfire, the city will work to share information we receive from Hubbard County Emergency Management by posting flyers or making announcements at city council meetings.	City Funding

CITY OF NEVIS

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2025-2030	City Admin / City EM	We post on our city website. We can also post flyers in public locations such as City Hall. We add the Spring/Winter Severe Weather Awareness Week link to our website along with our quarterly newsletters. Our local schools practice tornado drills annually.	City Funding
2	All-Hazards	Education & Awareness Programs	Encourage residents in our community to sign up for the county's emergency notification system.	Existing High 2025-2030	City Admin / City EM	We have placed a link to the Hubbard County Emergency Notification System on our new website so that residents can sign up. We will also work to include information on public flyers that we post.	City Funding
3	All-Hazards	Local Planning & Regulations	Incorporate mitigation strategies across the city's long-term plans and policies for future growth and development.	Existing High 2025-2030	City Admin	The city of Nevis Planning and Zoning Ordinance does enforce the MN State Building Code along with other zoning requirements for all new development and remodels. We have had a Comprehensive Land Use Plan in place since 1999.	City Funding
4	Extreme Cold	Education & Awareness Programs	Conduct public outreach to residents on how to avoid frozen pipes during periods of extreme cold.	New High 2025-2030	City Admin / Public Works	We will use our city website to notify residents to avoid freezing pipes during sub-zero weather by running a stream of hot water. We can also include reminders in our utility billing.	City Funding
5	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Obtain an emergency backup generator for city use.	New High 2025-2030	City Admin / Public Works	The city will work to purchase a portable generator as funding is available.	City Funding
6	Severe Winter & Summer Storms	Natural Systems Protection	Manage vegetation along roads and powerlines to reduce the risk of damages from severe winter or summer storms from downed trees or branches.	Existing Moderate 2025-2030	City Public Works	We trim and maintain trees along our roadways to help manage any damages that may result from high wind or other storm events.	City Funding

CITY OF NEVIS

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
7	Severe Summer Storms	Education & Awareness Programs	Ensure the city's outdoor warning siren is maintained and educate residents on what to do when the warning siren is activated.	Existing High 2025-2030	City EM	Our city is part of Hubbard County Tornado awareness program and has monthly siren testing.	City Funding
8	Severe Summer Storms	Structure & Infrastructure Projects	Work to assess/address the possibility to construct a designated storm shelter or tornado safe room for the community.	New Moderate 2025-2030	City Admin / City EM	The city will seek to work with Hubbard County Emergency Management to assess if we may have an opportunity to apply for FEMA grant funding to build a tornado safe room for those who are vulnerable to high wind and tornado events within our city.	City Funding, possible FEMA grant funding
9	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2025-2030	City Admin	The city will establish watering restrictions as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
10	Wildfire	Education & Awareness Programs	Promote public awareness of the risk of wildfire when advised by Hubbard County Emergency Management.	Existing High 2025-2030	City Admin / City EM	When there are periods of high risk for wildfire, the city will work to share information we receive from Hubbard County Emergency Management by using our city website, posting flyers, or making announcements at city council meetings.	City Funding

CITY OF PARK RAPIDS

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2025-2030	City Admin / City EM	We use our city website, city Facebook account, and local media to get information out to the public. We will work to share information that we receive from Hubbard County Emergency Management during the NWS Severe Weather Awareness weeks.	City Funding
2	All-Hazards	Education & Awareness Programs	Encourage residents in our community to sign up for the county's emergency notification system.	Existing High 2025-2030	City Admin / City EM	We will work with Hubbard County Emergency Management to help us get a link to the county website for residents to sign up for the Everbridge emergency notification system. We will also include information on this on public flyers that we post.	City Funding
3	All-Hazards	Local Planning & Regulations	Incorporate mitigation strategies across the city's long-term plans and policies for future growth and development.	Existing High 2025-2030	City Admin / Planning & Zoning	The city has a part-time building official to ensure owners applying for building permits are meeting the State Building codes to ensure as much safety as possible. The city has a comprehensive plan and is planning on updating it to accommodate the growth of the city to ensure best possible layout of environment. The city staff continuously looks for grant opportunities to upgrade equipment and systems to ensure best possible safety measures are available.	City Funding
4	Extreme Cold	Education & Awareness Programs	Conduct public outreach to residents on how to avoid frozen pipes during periods of extreme cold.	New High 2025-2030	City Admin / Public Works	We will use our city website and utility bills to notify residents to avoid freezing pipes during sub-zero weather by running a stream of hot water.	City Funding
5	Severe Summer Storms	Education & Awareness Programs	Ensure the city's outdoor warning siren is maintained and educate residents on what to do when the warning siren is activated.	Existing High 2025-2030	City EM	Our city is part of Hubbard County Tornado awareness program and has monthly siren testing.	City Funding

CITY OF PARK RAPIDS

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
6	Severe Summer Storms	Structure & Infrastructure Projects	Continue to convert overhead powerlines to underground where feasible to reduce risk of power failure from downed powerlines.	Existing Moderate 2025-2030	MN Power, Itasca-Mantrap Cooperative	Minnesota Power and the Itasca-Mantrap Cooperative provide electric utility services to the city of Park Rapids. These providers work with the city to address where powerline conversion projects are needed. In 2023 overhead electrical lines were converted from overhead to underground reducing the likelihood of power outages to the nursing home. Future conversion projects will continue under the directive of the electric utilities. The Coop may seek future FEMA grant funding if deemed appropriate, as they are eligible to apply for utility retrofit projects.	MN Power / Itasca-Mantrap Coop, possible FEMA grant funding
7	Extreme Cold	Structure & Infrastructure Projects	Work to reduce risk of frozen water lines during periods of new road construction.	Existing Moderate 2025-2030	City Public Works	In 2023 we completed a new road reconstruction on Fair Avenue and during that process water and sewer lines were insulated and lowered to accommodate colder temperatures. The city will continue to insulate additional water and sewer lines as future roads projects are planned.	City Funding
8	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2025-2030	City Admin	The city will establish watering restrictions as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City Funding

CITY OF PARK RAPIDS**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
9	Wildfire	Education & Awareness Programs	Promote public awareness of the risk of wildfire when advised by Hubbard County Emergency Management.	Existing High 2025-2030	City Admin / City EM	When there are periods of high risk for wildfire, the city will work to share information we receive from Hubbard County Emergency Management by using our city website, posing flyers, or making announcements at city council meetings.	City Funding
10	Wildfire	Education & Awareness Programs	Work to increase public awareness of creating defensible space in woodland areas.	Existing High 2025-2030	City Admin in coord with Hubbard County	This is an ongoing effort by the city's fire department in promoting Firewise defensible space for homes in woodland areas. Areas of new construction are encouraged to incorporate open space into building plans.	City Funding