

# Wabasha County 2024 Hazard Mitigation Plan



# Wabasha County Minnesota

## 2024 Hazard Mitigation Plan

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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).

Wabasha 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

[Wabasha 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 Wabasha County Emergency Management to facilitate an update to the 2017 Wabasha 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 Wabasha 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 Wabasha County, including the cities of Bellechester, Elgin, Hammond, Kellogg, Lake City, Mazeppa, Millville, Minneiska, Plainview, Wabasha, and Zumbro Falls. The Wabasha 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 Wabasha County after final approval by FEMA (see Appendix B).

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

- Include more recent data documenting the critical infrastructure and hazards faced by Wabasha 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 Wabasha 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 Wabasha County HMP planning team is headed by the Wabasha 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 that participated in virtual planning team meetings held during the plan update process. Note: Table 1 is not an exhaustive list of stakeholder participation in the HMP update; additional areas of documented participation by jurisdictional and other agency representatives can be found in Table 3, Section 3.4, Appendix C and Appendix G.

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

*Table 1. Hazard Mitigation Planning (HMP) Team*

| Name               | Agency/Organization                               | Participant Title  |
|--------------------|---|--|
| Brenda Tomlinson   | Wabasha County Emergency Management               | Emergency Management Director                              |
| Tisha Bergner      | Wabasha County Public Health                      | Emergency Preparedness Coordinator                         |
| Tammy Fiedler      | Wabasha County Public Health                      | Director of Public Health                                  |
| Dietrich Flesch    | Wabasha County Highway Dept.                      | County Engineer  |
| Joe Kaltenbach     | Wabasha County Planning & Zoning                  | Zoning Administrator                                       |
| Michael Plante     | Wabasha County                                    | County Administrator                                       |
| Bob Walkes         | Wabasha County                                    | County Commissioner  |
| Shawn Gertken      | Wabasha County                                    | GIS Coordinator  |
| Terri Peters       | Wabasha County Soil & Water Conservation District | District Manager   |
| Dustin Wehrs       | City of Elgin                                     | Fire Chief   |
| Kim McHugh         | City of Elgin                                     | Parks & Rec Director                                       |
| John Yorde         | City of Lake City                                 | Emergency Manager  |
| Scott Jensen       | City of Lake City                                 | Public Works Director                                      |
| Travis Dunn        | City of Lake City                                 | Assistant Public Works Director                            |
| Brian Quinn        | City of Lake City                                 | City Council Member  |
| Robert Benson      | City of Lake City / City of Zumbro Falls          | Assistant Ambulance Director/Fire Fighter & City Councilor |
| Cory Kubista       | Lake City Police Department                       | Police Chief   |
| Karl Nahrgang      | City of Mazeppa                                   | Administrator Clerk  |
| Mark Tibor         | City of Minneiska                                 | Mayor  |
| Michael Lyons      | City of Plainview                                 | Emergency Management Director/Asst Fire Chief              |
| Caroline Gregerson | City of Wabasha                                   | City Administrator   |
| Darren Sheely      | City of Wabasha                                   | Fire Chief   |
| Riley Costello     | City of Wabasha                                   | Emergency Manager  |
| Wendy Bush         | City of Wabasha                                   | Finance Director   |

| Name              | Agency/Organization              | Participant Title                       |
|-------------------|----------------------------------|---|
| Tony Johnson      | City of Wabasha                  | Public Works Director                   |
| Joe Stark         | City of Wabasha                  | Police Chief                            |
| Chuck Mayhew      | Minneiska Township               | Supervisor                              |
| Sharleen Klennert | West Albany Township             | Clerk                                   |
| Leland Schultz    | Lake Township                    | Supervisor                              |
| John Benjamin     | NRCS                             | District Conservationist                |
| Kyle Boelter      | USDA Rural Development           | Community Programs Loan Assistant       |
| Randi Callahan    | Three Rivers Community Action    | Director of Community Supports          |
| Michael Peterson  | MN HSEM                          | Region 1 Regional Program Coordinator   |
| Andrew Fischbach  | MnDOT District 6                 | Road Superintendent                     |
| Jeff Weiss        | MN DNR                           | Regional Clean Water Hydrologist        |
| Ariana Wright     | Lake City Public Schools ISD 813 | Superintendent                          |
| Cari McCann       | Great River Homes, Inc.          | Executive Director                      |
| Earl Merchlewitz  | Goodhue County                   | Emergency Management Director           |
| Lucas Teska       | Buffalo County, WI               | Emergency Management Director           |
| Jonathan Jacobson | Olmsted County                   | Captain - Emergency Management Director |

## 2.2 Review of Existing Plans, Capabilities & Vulnerabilities

Wabasha 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 Wabasha 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 Wabasha 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.

Building codes offer a way to incorporate geographically relevant and best available building science with policies and programs. The Cities of Bellchester (also Goodhue County), Elgin, Hammond, Kellogg, Lake City Mazeppa, Plainview, Wabasha, and Zumbro Falls have adopted the Minnesota Building Code. Townships that have adopted the Minnesota State Building Code include Chester, Elgin, Gillford, Glasgow, Greenfield, Highland, Hyde Park, Lake, Mazeppa, Minneiska, Mount Pleasant, Oakwood, Pepin, Plainview, Watopa, West Albany, and Zumbro. The cities of Millville and Minneiska noted that they use building permits and guidelines for additions and buildings to identify structures that will require additional inspections.

The 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 Wabasha 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 Wabasha County to support mitigation.

*Local Mitigation Surveys:* As part of Wabasha 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 updating the plan and to help inform the development of local-level mitigation actions for the next five-year planning cycle (for the full Wabasha County LMS report, see Appendix C).

## 2.3 Planning Process Timeline and Steps

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

### 2.3.1 Wabasha County Stakeholder Coordination

Two planning team meetings took place via Zoom video conference hosted by U-Spatial. Meeting participants included representatives from Wabasha 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 the opportunity for public input, Wabasha 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 15-day public feedback period for the draft plan was open from 11/18/24 to 12/2/24. Appendix G provides documentation of the public outreach for feedback on the draft plan by Wabasha County and jurisdictions. At the close of the public outreach period, the U-Spatial consultants worked with the Wabasha County Emergency Manager and planning team to incorporate public feedback into the HMP.

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

*Table 2. Wabasha County hazard mitigation update meetings and public outreach*

| Event                    | Date     | Appendix   |
|--------------------------|----------|--|
| Kickoff Webinar          | 5/3/23   | Appendix F, Planning Team Meetings                     |
| News Release #1          | 6/5/23   | Appendix G, Public Outreach & Engagement Documentation |
| Planning Team Meeting #1 | 12/4/23  | Appendix F, Planning Team Meetings                     |
| Planning Team Meeting #2 | 11/6/24  | Appendix F, Planning Team Meetings                     |
| News Release #2          | 11/18/24 | Appendix G, Public Outreach & Engagement Documentation |

### 2.3.2 Overview of Jurisdictional Participation

Throughout the planning process, Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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. Wabasha 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 Wabasha County HMP update planning process and a reference to supporting documentation.

*Table 3. Jurisdictional participation in planning process*

| Jurisdiction<br>(2022 Est. Population,<br>Esri) | News<br>Release<br>#1 | Planning<br>Team Mtg.<br>#1 | Local<br>Mitigation<br>Survey | Mitigation<br>Action<br>Charts | Planning<br>Team<br>Mtg. #2 | News<br>Release #2<br>& Plan<br>Review |
|---|-----------------------|-----------------------------|-------------------------------|--------------------------------|-----------------------------|--|
| Supporting<br>Documentation                     | App. G                | App. F                      | App. C                        | Sec. 5.3<br>App. H             | App. F                      | App. G                                 |
| Wabasha County (21,282)                         | X                     | X                           | X                             | X                              | X                           | X                                      |
| City of Bellechester (137)                      | X                     |                             | X                             | X                              |                             | X                                      |
| City of Elgin (1,006)                           | X                     | X                           | X                             | X                              | X                           |  |
| City of Hammond (133)                           | X                     |                             | X                             | X                              |                             | X                                      |
| City of Kellogg (431)                           | X                     |                             | X                             | X                              |                             | X                                      |
| City of Lake City (4,324)                       | X                     | X                           | X                             | X                              | X                           | X                                      |
| City of Mazeppa (868)                           | X                     | X                           |                               | X                              | X                           |  |
| City of Millville (150)                         | X                     |                             | X                             | X                              |                             |  |
| City of Minneiska (53)                          | X                     |                             | X                             | X                              | X                           |  |
| City of Plainview (3,462)                       | X                     | X                           | X                             | X                              | X                           | X                                      |
| City of Wabasha (2,549)                         | X                     |                             | X                             | X                              | X                           | X                                      |
| City of Zumbro Falls (158)                      | X                     | X                           | X                             | X                              |                             |  |
| <b>Neighboring Jurisdictions:</b>               |                       |                             |                               |                                |                             |  |
| Goodhue County                                  |                       |                             |                               |                                | X                           |  |
| Winona County                                   |                       |                             |                               |                                |                             |  |
| Olmsted County                                  |                       |                             |                               |                                |                             |  |
| Buffalo County, WI                              |                       |                             |                               |                                |                             |  |
| Pepin County, WI                                |                       |                             |                               |                                |                             |  |

# 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 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 Wabasha 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 this HMP focuses on natural hazards, planning took place with the understanding that many non-natural hazards could occur due to 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 Wabasha 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. In the review of 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 Wabasha County HMP Update*

| Natural Hazards | Current Priority |
|-----------------|------------------|
| Flooding        | High             |
| Winter Storms   | High             |
| Windstorms      | High             |
| Tornadoes       | Moderate         |
| Extreme Cold    | Moderate         |
| Extreme Heat    | Moderate         |
| Drought         | Moderate         |
| Lightning       | Low              |
| Hailstorms      | Low              |
| Wildfire        | 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, 15 federal disasters and two emergencies were declared in Wabasha County; see details on the [Wabasha 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). Wabasha County has been included in six State Disaster Declarations.

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 that 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 Wabasha County*

| Project Identifier | Sub-Grantee | Project Type   | Project Total | Federal Share |
|--------------------|-------------|--|---------------|---------------|
| DR-4442-0024-R     | Hammond     | 904.1: Advanced Assistance   | \$18,574      | \$13,930      |
| DR-1333-0016-R     | Wabasha     | 200.1: Acquisition of Private Real Property (Structures and Land) - Riverine | \$544,435     | \$408,326     |



| Project Identifier     | Sub-Grantee     | Project Type   | Project Total | Federal Share |
|------------------------|-----------------|--|---------------|---------------|
| DR-1717-0004-P         | Wabasha County  | 91.1: Local Multihazard Mitigation Plan                                      | \$96,684      | \$72,513      |
| PDMC-PL-05-MN-2005-004 | City of Wabasha | 91.1: Local Multihazard Mitigation Plan                                      |               |               |
| DR-1921-0003-R         | Hammond         | 200.3: Acquisition of Public Real Property (Structures and Land) - Riverine  | \$353,026     | \$264,770     |
| DR-1921-0002-R         | Zumbro Falls    | 200.1: Acquisition of Private Real Property (Structures and Land) - Riverine | \$1,300,100   | \$975,075     |
| DR-1921-0007-R         | Wabasha County  | 200.1: Acquisition of Private Real Property (Structures and Land) - Riverine | \$201,981     | \$151,486     |

SOURCE: (FEMA, 2024A)

### 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 Wabasha 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 21<sup>st</sup> 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 15<sup>th</sup>, 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 21<sup>st</sup> 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 Wabasha County website*

## 3.4 Jurisdictional Change in Risk or Vulnerability Assessment

Jurisdictions in Wabasha 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, Wabasha 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 preserved in Appendix C: Part A. Responses here are edited only for clarity.

### **Wabasha County**

*Flooding:* We have homes in the City of Wabasha that had flooding in their basements and some into the 1st floor of their homes. Some of these residents would be open to property acquisition.

*Flooding:* County highway infrastructure is at risk for damage from flooding. The following roads are considered to be of higher potential for damage: County Hwy 80 at two locations, County Hwy 1 at one location, County Hwy 19 at one location, County Hwy 54 at one location, County Hwy 79 at one location, and County Hwy 84 at one location. County Highways at many culvert locations are also subject to being blocked by ice and snow-pack causing flooding and infrastructure damage in isolated locations.

*Severe Storms:* None of the mobile home parks or campgrounds in Wabasha County have storm shelters making the residents and campers vulnerable to injuries during high wind and tornado events. Sand Prairie and some smaller towns don't have any outdoor warning sirens to warn them of tornadoes or large hail.

### **City of Bellechester**

*All Hazards:* We have a large population of senior citizens that do not use cell phones to receive emergency notifications.

*Flooding:* Manhole covers will be raised as part of our sewer lining project in 2024.

### **City of Elgin**

*All-Hazards:* We need generators for all our city buildings including City Hall, Fire Hall, Ambulance Building, well houses and lift stations. Elgin also has poor cell service throughout town. People may not be able to receive emergency alerts because of it.

*Flooding:* We have one lift station prone to flooding during high rain events. A couple of the storm sewers occasionally back up into town from the creeks flooding. And we have some homes in the 100-yr floodplain.

*Windstorms, Tornadoes:* We have mobile homes with residents who should be made aware of where the nearest shelter is located. We do have power lines in the older section of town that could go down in a storm, causing power outages. One siren on the west side could be installed to aid with warning the residents of a tornado.



*Extreme Cold, Ice storms, Blizzards:* Residents could be vulnerable to extreme cold from power outages during this time. Frozen water pipes could freeze or burst from extended cold weather.

*Drought:* Due to drought, our ball fields and parks get very dry. We also worry about potential fires. We burn the branches and leaves we get at our brush site which cannot be done in drought conditions. We also do not have water conservation plan, so some residents tend to water their lawns excessively during drought.

## City of Hammond

*All Hazards:* We have a moderate population of senior citizens and low-income residents who have a lack of or limited resources to mitigate housing and property damage or loss related to disaster events. The City of Hammond lacks property, infrastructure, and disposable finances to assist its residents with relocation/shelter if a major event were to occur. Many residents of Hammond have opted away from having traditional land-line telephone service, favoring cellular service which may compromise communication during power outages. The City of Hammond geographically located deep in the Zumbro River Valley, has inconsistent internet, satellite, and cellular services during weather events. The City of Hammond has lack of access to traditional local (Rochester) analog television services based on the fact that we are in the “Minneapolis” district in regards to satellite television services and lack the infrastructure and finances to provide sufficient antenna-based service to receive local signals. Because we are surrounded by limestone bluffs, traditional radio services are inconsistent, and satellite and analog radio services are often disrupted during weather events. Because of these circumstances, the residents of Hammond are vulnerable based on compromised emergency alert and notification systems. While we have a storm siren, this does not communicate the nature of the emergency, nor the actions that residents must take in the event that all other notification options are compromised.

*Flooding:* The City of Hammond is vulnerable to flooding as the Zumbro River flows through it. While river crest events have decreased over the last 13 years, the average crest continues to drive upward. In a major flood event, our city is split in half and separated into East and West sections which complicates evacuation/rescue efforts. In the event of major flooding, municipal and residential water, sewer, and electrical infrastructure is significantly at risk for catastrophic damage. With repeated flood events, debris impact to the bridge as well as continued riverbank/bed erosion creates a potential risk for bridge damage/failure which could impact movement/evacuation efforts within the city limits. Yearly river rises continue to have a contributory effect to riverbank erosion. Flood events exceeding 20 feet cause damage to the City/DNR canoe access, access and parking lot of the City Park. Events exceeding 25 feet cause significant land erosion of the City Ball Park, Park equipment damage, and damage to the Park Shelter/Bathroom facilities.

*Extreme Cold:* Municipal and residential water infrastructure has an assessed significant probability of compromise dependent on frost depth. The City as several residential properties that have sewer lines that are not buried or insulated sufficiently to prevent freezing. The city

requests that these residents trickle running water to prevent residential sewer lines freezing in an attempt to prevent damage to municipal and residential water infrastructure.

*Snow/Blizzard/Ice Events:* The residents of Hammond are isolated from food, fuel, medical, and emergency resources in the event of extreme blizzard, ice, and/or snow depth. The city does not have a fueling station, grocery store, or Fire/EMS facilities within the city limits and become cut off from such services when roads are impassable. The city does not own snow removal equipment and contracts services leaving the city vulnerable if the service provider cannot get into the city. Such an event occurred on February 24, 2019 when a 12.5-inch snowfall event closed all roads in and out of Hammond for 3 days. 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.

*Wildfire:* The City of Hammond is geographically located within the Richard Dorer Memorial Hardwood State Forest. The city is surrounded by wooded bluffs and is inherently at risk of forest fire based on the nature of its location. In the event of a forest fire, there is assessed risk that residents could become entrapped within the city without a viable escape route dependent on contributing factors such as wind, forest dryness, and access and/or abilities of Fire/Rescue services to mitigate a large forest fire event. Access to the city water tower could be compromised dependent on the location of the fire and rate of forest engulfment. The city does not have firefighting equipment to mitigate structural or forest fires, and is dependent on local communities to assist with services.

*Windstorms, Tornadoes:* Due to the geographical location of Hammond, wind and tornado risk is inherently low because of the protection provided by the surrounding bluffs. On rare occasion such as the wind event on September 24, 2019, Hammond does experience downed trees, and residential/municipal roof/structural damage which historically has been low impact. 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 during high winds that may bring down trees and branches. We have a 10-unit RV park west of the river that has the potential to have increased risk and vulnerability during wind/storm events. The city has a park shelter on the east side of the river that tenants can use for shelter, but a member of the City Council has to be present to unlock the facility. The tenants can also utilize the Rock Bottom Bar for shelter if the facility is open for business.

*Hail:* In the last 10 years there have been 31 hail reports in the Hammond and surrounding area ranging from 1.0 inch to 2.5 inches which has potential to cause residential/municipal structural and auto damage.

*Drought:* During drought seasons, the City of Hammond is at an elevated fire risk based on geographic location within the Richard Dorer Memorial Hardwood State Forest. Drought may also contribute to flash flood potential related to run-off rates with heavy rain events.

## City of Kellogg

*All Hazards:* We need a new generator to keep the lift station and wells going. We have just one, so we have to move it around during an outage.

*Flooding:* Our city lift station is prone to flooding during high rain events.

## City of Lake City

*All Hazards:* A generator would be beneficial for City Hall. City Hall houses the IT Server for the Public Safety Building along with other crucial departments. During power outages public safety is without internet service and electronic files needed for response. A generator would be beneficial for local public school. Local School are identified as a shelter in city EOP as in many cities due to size and accessibility.

*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. Mitigation for tree removal in these areas is critical to focus on.

*Windstorms and Tornadoes:* We have multiple mobile home parks and a campground within the city that have inadequate storm shelters and residents are vulnerable to high wind and tornado events. Our municipal campground and summer housing is active during summer and fall months with campers and storm shelters are inadequate for population covered along with distance between residents and the Shelters.

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.

Concerns towards all OH Elec Dist. system, especially towards: South prairie from Marion to Iowa, Marion from 8<sup>th</sup> to lakeshore, and Grant ST to 332<sup>nd</sup> St.

Hok Si LA Campground and Marina Point within the city that does not have a storm shelter and residents are vulnerable to high wind and tornado events.

We have experienced power outages from strong wind events that brought down power lines, Street Trees, loss in Boulevard areas.

*Flooding:* City lift station and electrical for City and Central point usually needs to be shut off when extreme flooding is involved especially during spring flooding.

HSL-Loss of upland / erosion and restoration needing to be completed.

Lift station occurrences: infiltration occurs at Sprague lift and central point lift (loss of electrical service to central point and marina point) Sanitary infiltration occurrences.

Marina Point: Emergency Move of Trailer homes, sanitary infiltration, and discharges. Electrical Equipment restoration

Ohuta Park: Retaining wall undermined due to flooding and loss of upland from erosion.

Roschen Park: Loss of upland from erosion

City owned shoreland is exposed to loss from erosion.

*Erosion/Run Off:* Upper Bluff land caused mass amount of sediment runoff from hilltop areas into Jewel subdivision (Oakhurst).

### **City of Mazeppa**

*No local vulnerabilities to report.*

### **City of Millville**

*All Hazards:* Need backup generator for well house in case of long power outage.

*Extreme Cold:* City has experienced frozen water services.

### **City of Minneiska**

*Ice Storms:* A variety of short-term power outages have occurred due to overhead power affected by ice storms.

### **City of Plainview**

*Windstorm, Tornado:* Our storm shelter is our high school, but there is no backup generator if the power goes out. We also have 2 private mobile home parks within the city; neither of them have storm shelters.

*Winter Storms, Wind Storms:* Most of the cities power lines are overhead so they could be downed by ice or high winds.

### **City of Wabasha**

*All Hazards:* St. Felix, Wabasha-Kellogg Schools, and St. Elizabeth's serve as emergency shelters. St. Elizabeth's is vulnerable to being cut off during a flood. We also have a large population of senior citizens that do not use cell phones to receive emergency notifications.

*Flooding:* The City of Wabasha is prone to river flooding since we border the Mississippi River. Our previous flood in 2023 left us with a lot of damage to our gravel roads, park assets, and lighting. During the recovery phase, it was identified that a section of riprap along the bank of Lawrence Blvd needed to be replaced. The bank is eroded and should be addressed in the next couple of years.

*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.

*Windstorms, Tornadoes:* We have 2 mobile home parks within the city that do not have a storm shelter and residents are vulnerable to high wind and tornado events. They can use the schools or bathrooms. Our municipal campground is active during summer and fall months with RVs and campers and does not have a storm shelter. We also have new development in the west end of the city that should have an outdoor warning siren installed. 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 city has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.

## City of Zumbro Falls

*No local vulnerabilities to report.*

### 3.4.2 Future Development

Because Wabasha 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. Wabasha 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 Wabasha 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.

**Wabasha County**

The age of the Lake Zumbro Dam, which is a high hazard dam because if it were to have a catastrophic failure, lives would be lost, is a concern as it is just over 100 years old. However, Rochester Public Utilities, which owns the dam, maintains and inspects it regularly.

**City of Bellechester**

*Nothing to report.*

**City of Elgin**

The city has added several small developments. We have increased our population and annexed more land into the city. This could add to our runoff.

**City of Hammond**

There are no new developments increasing vulnerability aside from naturally occurring changes in weather patterns, and naturally occurring changes to the Zumbro River.

**City of Kellogg**

*Nothing to report.*

**City of Lake City**

In the past few years, the city population has steadily increased the Jewell addition with new construction which has increased our population and damage to additional structures. With the new construction retention ponds have been mandated in the city planning. More homes have been built slab on grade, so residents do not have a basement/shelter for safety during high wind or tornado events. With the construction of a new affordable / high density housing there is a large concentration of residents during a disaster event.

We have seen slow growth in our community, roughly 12 new homes a year and a very small amount of commercial growth. There have been additional homes on the shoreland which does increase flooding concerns on central point road.

There has also been a small increase in use at Hok Si La Park (located in the Goodhue County portion of the city) which could lead to an increase in fire potential. Addition of cabins (9) expose greater risk to property loss.

**City of Mazeppa**

*Nothing to report.*

**City of Millville**

*Nothing to report.*

**City of Minneiska**

*Nothing to report.*

**City of Plainview**

Many new homes in the subdivisions are slab-on-grade. We're seeing a lot more water run off with new subdivisions plus it seems like the storms drop more measurable rains in a short period of time.

**City of Wabasha**

Wabasha's population is aging, and they are a more vulnerable population. Eagles Basin is growing, and we anticipate a future 44-unit apartment building.

The City of Wabasha is prone to river flooding since we border the Mississippi River. Our previous flood in 2023 left us with a lot of damage to our gravel roads, park assets, and lighting. During the recovery phase, it was identified that a section of riprap along the bank of Lawrence Blvd needed to be replaced. The bank is eroded and should be addressed in the next couple of years. We also need to remove/relocate city assets out of the floodplain (Malone Park Playground equipment, Warming House, Skate Park, Athletic Complex), as well as install a generator at the lift station.

**City of Zumbro Falls**

*Nothing 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 Wabasha 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 Wabasha 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](#)

The following hazard profiles address hazards that the Wabasha County Planning Team deemed moderate to high risk. Hazards that were determined to be low risk or without substantive mitigation actions are not required to be included.

### 4.1 Flooding

Flooding is the most significant and costly natural hazard in Minnesota. Flooding was the primary hazard in five of the 12 federal disaster declarations in Wabasha County.

After several years of drought and exceptionally mild winter, the first half of 2024 was extremely wet with frequent, heavy precipitation causing widespread flooding throughout Minnesota, resulting in a Federal Disaster Declaration affecting Wabasha County and 32 other counties (FEMA, 2024b).

#### 4.1.1 Probability of Occurrence

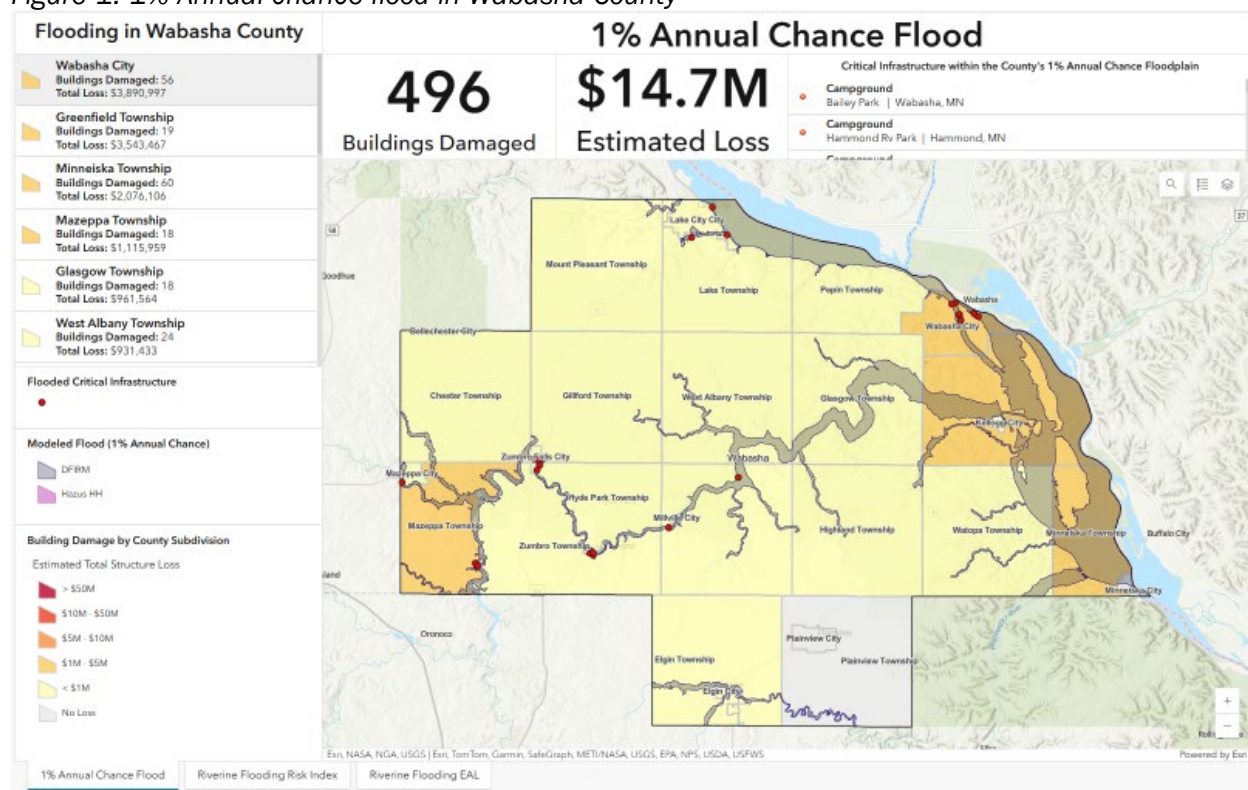
From 1997 through February 2024, the NCEI Storm Events Database has recorded 75 flood and flash flood events. Wabasha County has experienced one flash flood event every 1.6 years and 2.1 riverine flood events per year on average during this period.

[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. Wabasha County has unmodernized “Q3”, Flood Insurance Rate Maps (FIRM) that define the 1% annual chance flood boundary. The resulting Hazus 1% annual chance floodplain is shown in the Flood Vulnerability dashboard on the Wabasha County HMP website (Figure 1), where it is available in an interactive form.



Figure 1. 1% Annual chance flood in Wabasha County



#### 4.1.2 Vulnerability

Potential economic loss estimates were based on county-specific building data. Wabasha 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 Wabasha County](#)

Hazus reports the percent damage of each building in the floodplain, defined by the centroid of each building footprint. After formatting the tax and spatial data, 44,782 points were input to Hazus to represent buildings with a total estimated building plus contents value of \$10.5 billion. Approximately 36% of the buildings (and 22% of the building value) are associated with residential housing.

The estimated loss by occupancy class for the entire county is shown in Table 8.

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 1<sup>st</sup>-floor height, there may be 0% damage.

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       | 15946                  | \$2,333,995,192                    | 579                        | \$86,395,867                         | 188                   | \$10,741,134             |
| Commercial        | 771                    | \$190,721,400                      | 40                         | \$8,986,064                          | 16                    | \$843,237                |
| Other             | 9837                   | \$883,815,842                      | 265                        | \$29,757,515                         | 44                    | \$3,140,499              |
| Totals            | 44,782                 | \$10,526,824,652                   | 355                        | \$127,690,200                        | 181                   | \$14,902,729             |

SOURCE: (FEMA, 2023A)

### 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 Wabasha 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. The EMS/ fire stations in both Zumbro Falls and Wabasha were shown to fall within 1% annual chance floodplain. The local site should be reviewed to determine actual vulnerability.

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. In Wabasha County, three electric substations, four wastewater treatment facilities, one power plant, and three treatment storage or disposal facilities were found to be at risk in the 1% annual chance flood. The locations are mapped in the [Wabasha County HMP website](#). No other information is available.

Other vulnerable locations, including campgrounds, manufactured home parks, and National Registered Historical Places were determined to be in the 1% chance flood boundary using the available facility data.

All critical infrastructure and vulnerable places at risk of flooding in a 1% annual chance flood are summarized in Table 9.

Table 9. Critical infrastructure and vulnerable places at risk in 1% annual chance flood

| Category   | Name                      | Location  |
|------------|---------------------------|-----------|
| Campground | Beach Park                | Wabasha   |
| Campground | Hammond Rv Park           | Hammond   |
| Campground | Macs Dam Bar Llc          | Mazeppa   |
| Campground | Read's Park               | Millville |
| Campground | Wabasha Public Campground | Wabasha   |

| Category                               | Name                                       | Location         |
|--|--|------------------|
| Campground                             | Zumbro Valley Sportsmen's Club Campground  | Zumbro Falls     |
| Electric Transmission Substation       | Unknown129289                              | Wabasha          |
| Electric Transmission Substation       | Rochester Hydro                            | Mazeppa Township |
| Electric Transmission Substation       | Deadend170824                              | Lake City        |
| Emergency Medical Service (EMS)        | Zumbro Falls Fire Department               | Zumbro Falls     |
| Emergency Medical Service (EMS)        | Wabasha Ambulance Service                  | Wabasha          |
| Fire Station                           | Zumbro Falls Fire Department               | Zumbro Falls     |
| Fire Station                           | Wabasha Fire                               | Wabasha          |
| Manufactured Home Park                 | Beaver Point Park                          | Wabasha          |
| Manufactured Home Park                 | Lake City Marina                           | Lake City        |
| Manufactured Home Park                 | Zumbro Valley Mobile Home Park             | Hammond          |
| National Registered Historical Place   | Zumbro Parkway Bridge                      | Zumbro Falls     |
| National Registered Historical Place   | Lake Zumbro Hydroelectric Generating Plant | Mazeppa          |
| Power Plant                            | Rochester Hydro                            | Mazeppa Township |
| Shelter                                | VFW Post 1802                              | Zumbro Falls     |
| Treatment Storage or Disposal Facility | Millville Salvage                          | Millville        |
| Treatment Storage or Disposal Facility | Mississippi Parkside Marine                | Wabasha          |
| Treatment Storage or Disposal Facility | Valley Bodywerx                            | Zumbro Falls     |
| Wastewater Facility                    | MN DNR Lower Whitewater River Channel Rest | Lake City        |
| Wastewater Facility                    | Wabasha Wastewater Treatment Plant         | Wabasha          |
| Wastewater Facility                    | Mazeppa WWTP                               | Mazeppa          |
| Wastewater Facility                    | Hammond WWTP                               | Hammond          |

### Community Vulnerability

Potential economic losses were estimated by Census Minor Civil Division. The City of Wabasha and Greenfield, Minneiska, and Mazeppa Townships all would suffer significant estimated losses in the 1% annual chance flood. All jurisdictions with buildings identified in the 1% annual chance flood zone can also be viewed on the Wabasha County HMP website.

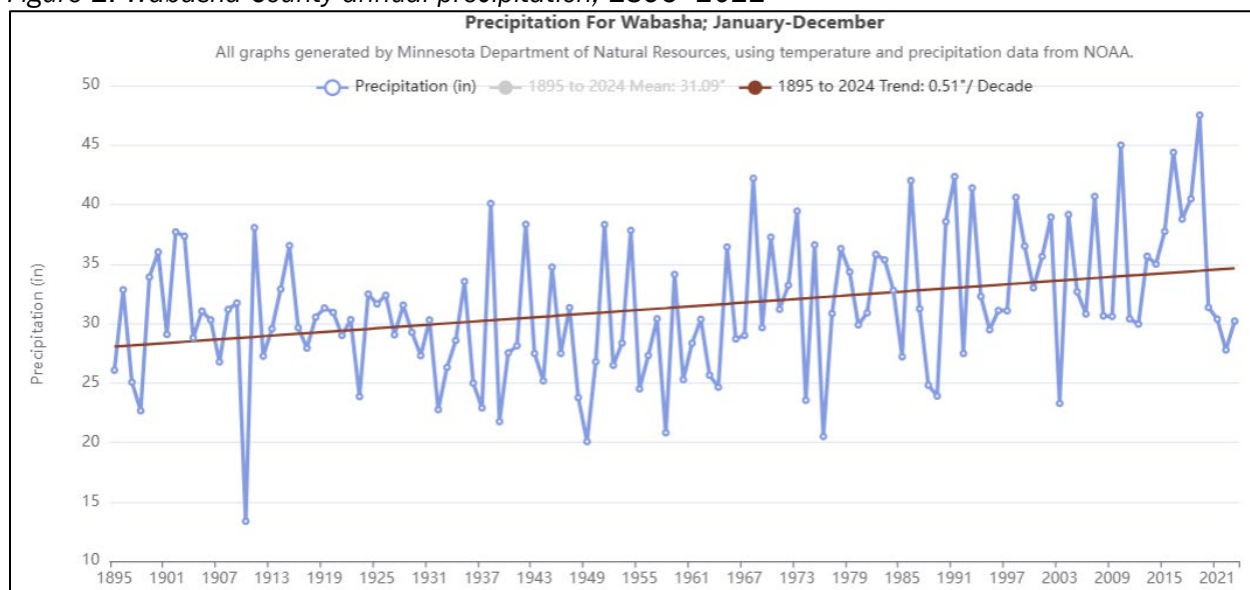
The status of jurisdictional participation in the National Flood Insurance Program and any repetitive loss properties are detailed in Section 5.1.1. National Flood Insurance Program (NFIP).

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

### 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 Wabasha County, the result has been increased precipitation, with annual totals increasing at an average rate of just over a half inch per decade since 1895 (see Figure 2).

Figure 2. Wabasha County 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

Wabasha 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 (e.g., culvert replacements, road repair) is an ongoing need. The county and many of our townships have limited funding for road



infrastructure. Wabasha County continues to provide assistance on road infrastructure mitigation projects to reduce the impacts of localized flooding.

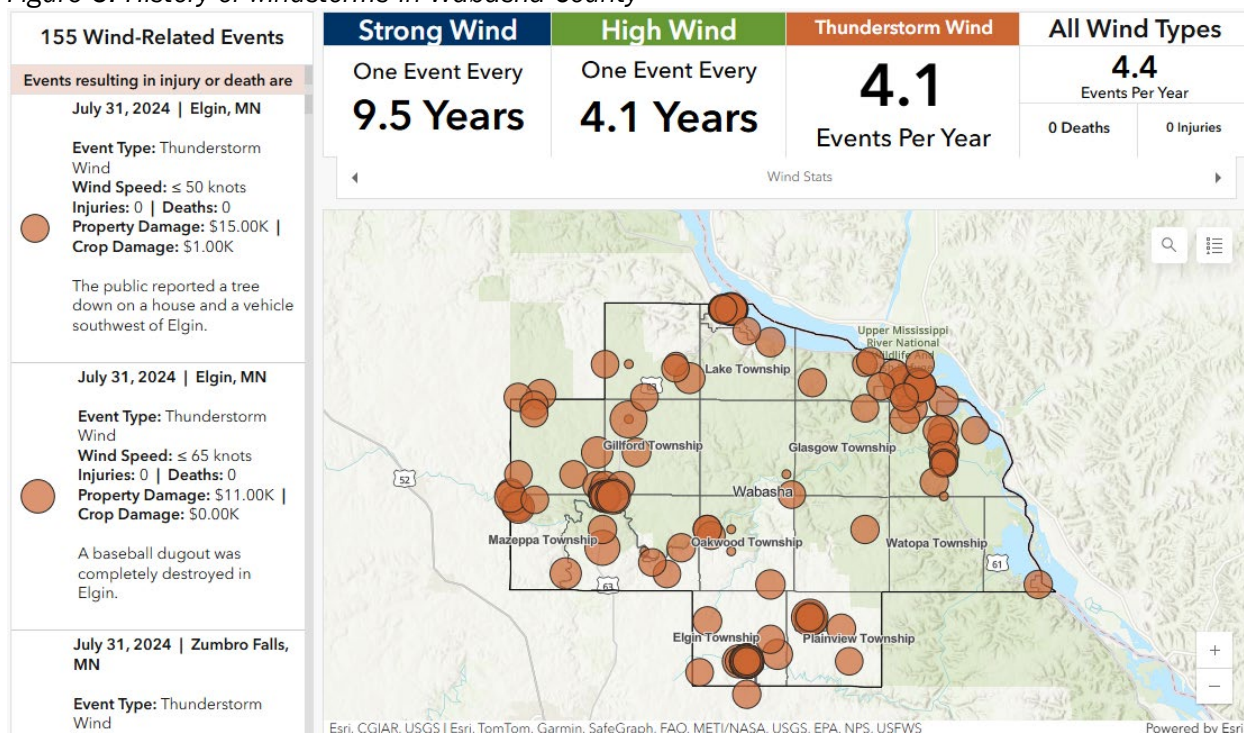
**Funding:** The county needs funding assistance to improve roads and culverts that experience repetitive flooding. Significant State and Federal funding is needed to construct infrastructure projects to prevent, reduce, and mitigate the impacts of high rain events and flooding.

## 4.2 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 Wabasha County is shown in Figure 3; an interactive version of this map can be found on the Wabasha County HMP website.

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

Figure 3. History of windstorms in Wabasha County



### 4.2.1 Probability of Occurrence

To determine the probability of future wind-related events in Wabasha County, records of previous wind-related events (strong wind, high wind, and thunderstorm wind) in Wabasha 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 4.4 per year. These relative frequencies can be used to infer the probability of these events occurring in the future.

#### 4.2.2 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.

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.

#### 4.2.3 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.

#### 4.2.4 Program Gaps and Deficiencies

Wabasha County Emergency Management identified 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 Wabasha 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. Wabasha

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.

**Outdoor Warning Sirens:** There are areas within Wabasha County that are more densely populated but are not designated cities and should have outdoor warning sirens to alert those outside of tornadoes or conditions that could likely produce a tornado.

**Storm Shelters and Tornado Safe Rooms:** There are areas throughout Wabasha 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.

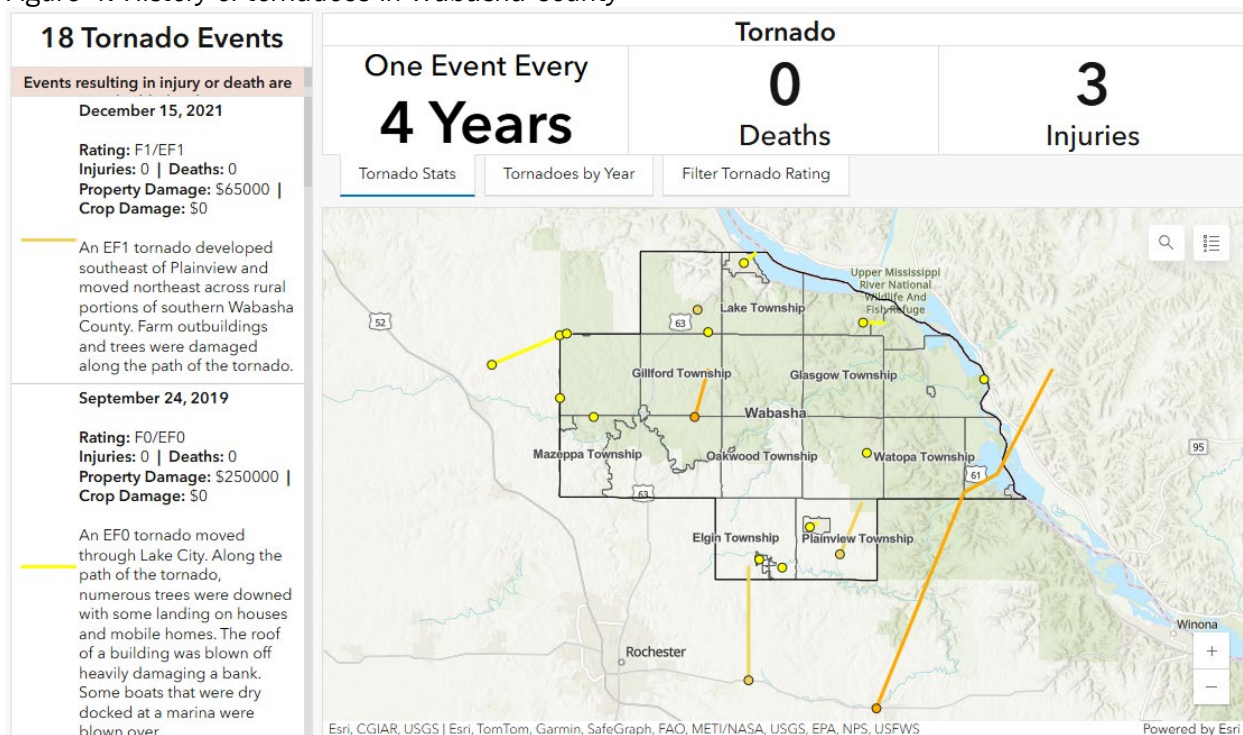
### 4.3 Tornadoes

With wind speeds reaching up to 300 mph, tornadoes are one of nature's most violent storms (Hogeback, 2020). The history of tornadoes in Wabasha County is shown in

Figure 4; an interactive version of this map can be found on the Wabasha County HMP website.

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

Figure 4. History of tornadoes in Wabasha County



### 4.3.1 Probability of Occurrence

Estimating the probability of future tornadoes in Wabasha 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 4.0 years in Wabasha County. These 18 tornadic events occurred in 14 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 Wabasha County, there was an annual frequency of 1.0–4.0 tornadoes within a 50-mile radius. The historical frequency was only higher in the west than the east. 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 tornado does not vary significantly across geography within Wabasha 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 Wabasha County](#)

People living in mobile homes are particularly vulnerable to tornadoes because they cannot 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).

### 4.3.3 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.

#### 4.3.4 Program Gaps and Deficiencies

Wabasha County Emergency Management identified 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 Wabasha 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. Wabasha 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.

**Outdoor Warning Sirens:** There are areas within Wabasha County that are more densely populated but are not designated cities and should have outdoor warning sirens to alert those outside of tornadoes or conditions that could likely produce a tornado.

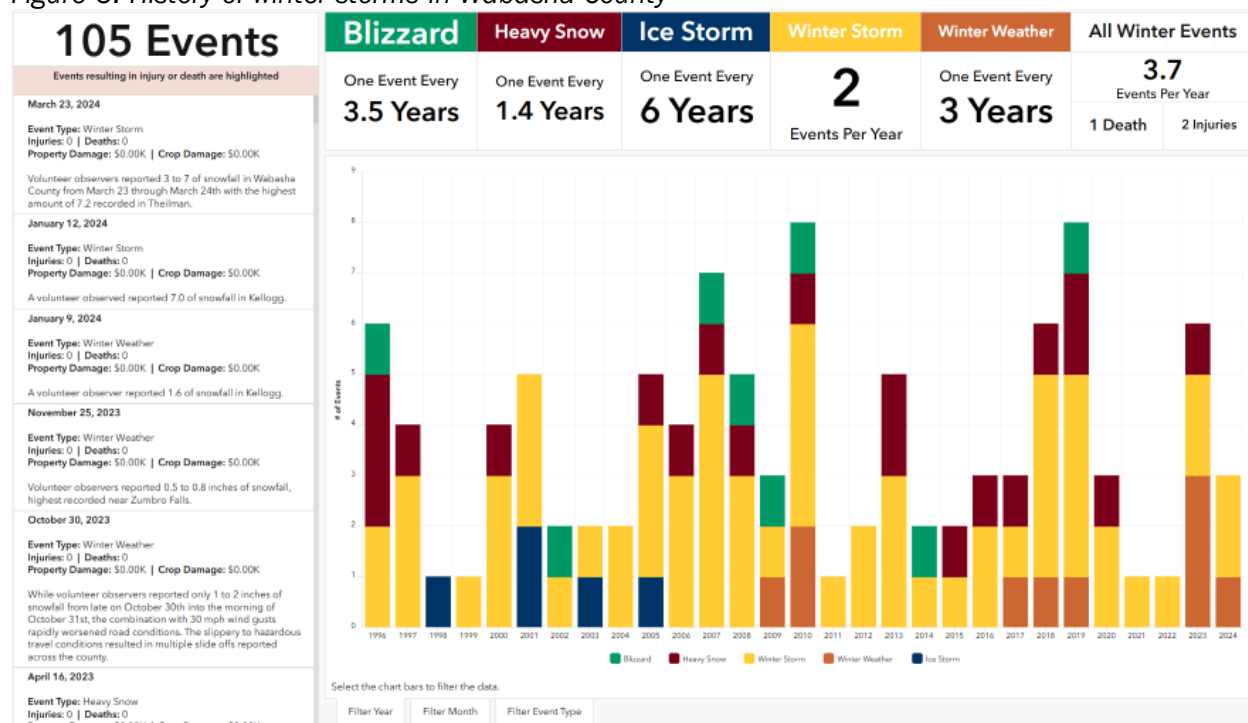
**Storm Shelters and Tornado Safe Rooms:** There are areas throughout Wabasha County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as mobile home parks and campgrounds. A coordinated approach is needed to identify where 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 Winter Storms

Winter storms encompass a number of winter weather events that the National Weather Service (NWS) organizes into the following categories: blizzards, heavy snows, ice storms, winter storms, 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 Wabasha County is shown in Figure 5; an interactive version of this map can be found on the Wabasha County HMP website.

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

Figure 5. History of winter storms in Wabasha County



#### 4.4.1 Probability of Occurrence

To determine the probability of future winter-related storm events in Wabasha 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 Wabasha County is 3.7 per year. This relative frequency can infer the probability of these events occurring in the future.

#### 4.4.2 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.

#### 4.4.3 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.

#### 4.4.4 Program Gaps and Deficiencies

Wabasha 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 Wabasha 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.

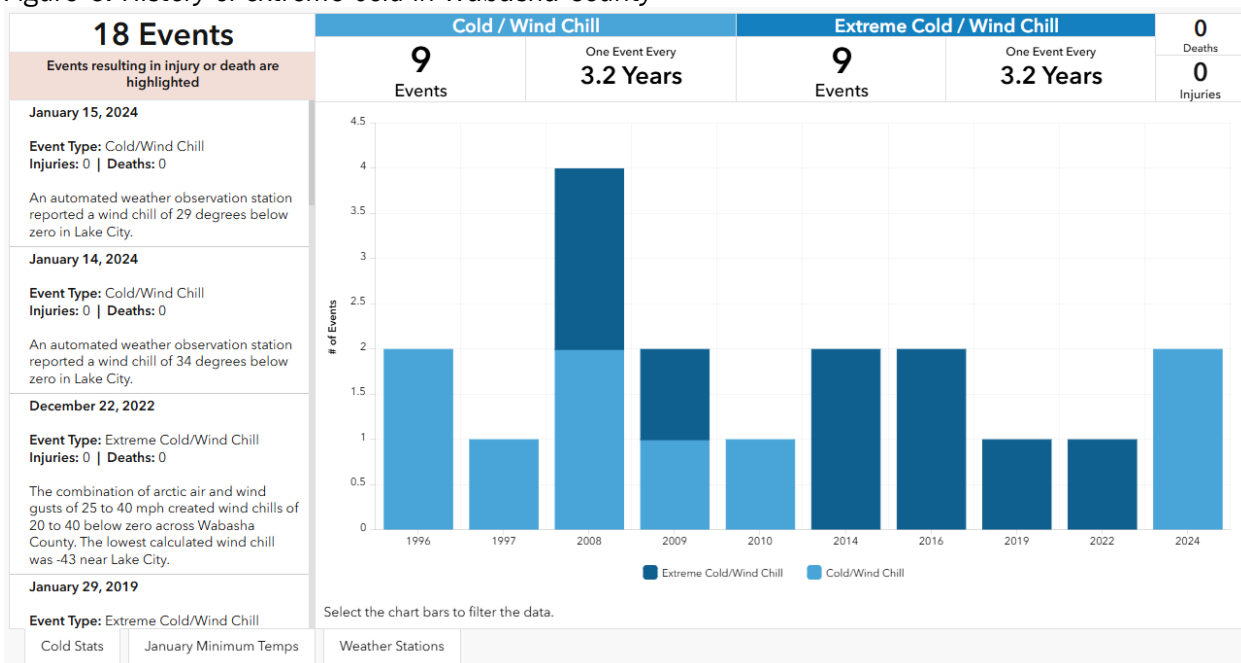
*Backup Power:* Not all designated shelter facilities have generator back-up power to provide the ability to care for residents if displaced during a severe winter event coupled with an extended power outage.

## 4.5 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 Wabasha County can be especially dangerous when low temperatures and wind create arctic-like wind chills. The history of extreme cold in Wabasha County is shown in Figure 6; an interactive version of this dashboard can be found on the Wabasha County HMP website.

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

Figure 6. History of extreme cold in Wabasha County



### 4.5.1 Probability of Occurrence

To determine the probability of future cold-related events in Wabasha 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 Wabasha County is one event every 3.2 years. (NCEI, 2023). This relative frequency can be used to infer the probability of these events occurring in the future.

### 4.5.2 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 Wabasha 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.

#### **4.5.3 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.**

#### **4.5.4 Program Gaps and Deficiencies**

Wabasha 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. Wabasha County Emergency Management continues to do public education through the local schools, senior and health care centers, and local government for severe weather awareness.

## 4.6 Extreme Heat

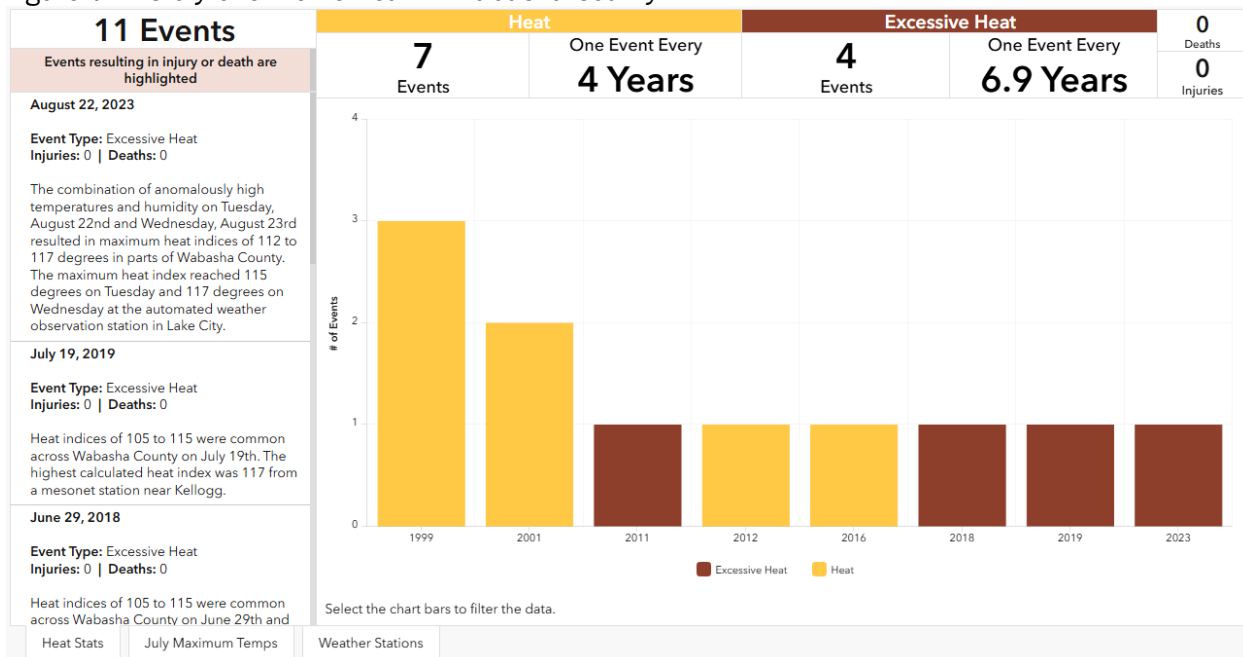
Extreme heat is the combination of very high temperatures and exceptionally humid conditions. Wabasha County's agricultural lands and structures are vulnerable to heat damage and its residents to injury, exacerbation of pre-existing chronic conditions, and even death (Moss, 2017). Medical costs related to extreme heat can be enormous, and with extreme heat estimated to create \$1 billion in health care-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. The history of extreme heat in Wabasha County is shown in Figure 7; an interactive version of this chart can be found on the Wabasha County HMP website.

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 55th among Minnesota counties in crop indemnity payments, heat-related losses for Wabasha County totaled over \$692,538.81 (2021 ADJ) for the period of record spanning 1989 to 2022 (CEMHS, 2023).

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

Figure 7. History of extreme heat in Wabasha County



#### 4.6.1 Probability of Occurrence

To determine the probability of future heat-related events in Wabasha 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 6.9 years. This relative frequency can infer the probability of these events occurring in the future. The nearest weather station to Wabasha County, Zumbrota Station in neighboring Goodhue County, reported daily maximum temperatures above 90 °F a total of 242 times, which is an average of eight days per year.

#### 4.6.2 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.

High temperatures can be exacerbated by the urban heat island effect in densely developed areas, an effect that amplifies higher temperatures in areas with a higher concentration of impervious and paved surfaces. These types of surfaces absorb more heat and hold it for longer than vegetation cover (EPA, 2019). Impervious surfaces cover 2.7% of Wabasha County (MDH & University of Minnesota, 2019). Impervious surfaces are not spread evenly throughout the county and attention should be given to cities or areas within the county that contain the largest amounts of this type of surface cover. Except for these areas, the risk of extreme heat does not vary geographically.

**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 Centers 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).

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.

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

#### 4.6.3 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 21<sup>st</sup> 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, Wabasha County may reach 14.96 days/year of temperature greater than 95 °F, an increase in 7.44 more days to the historical (1995–2014) simulations average of 7.52 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).

#### 4.6.4 Program Gaps and Deficiencies

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

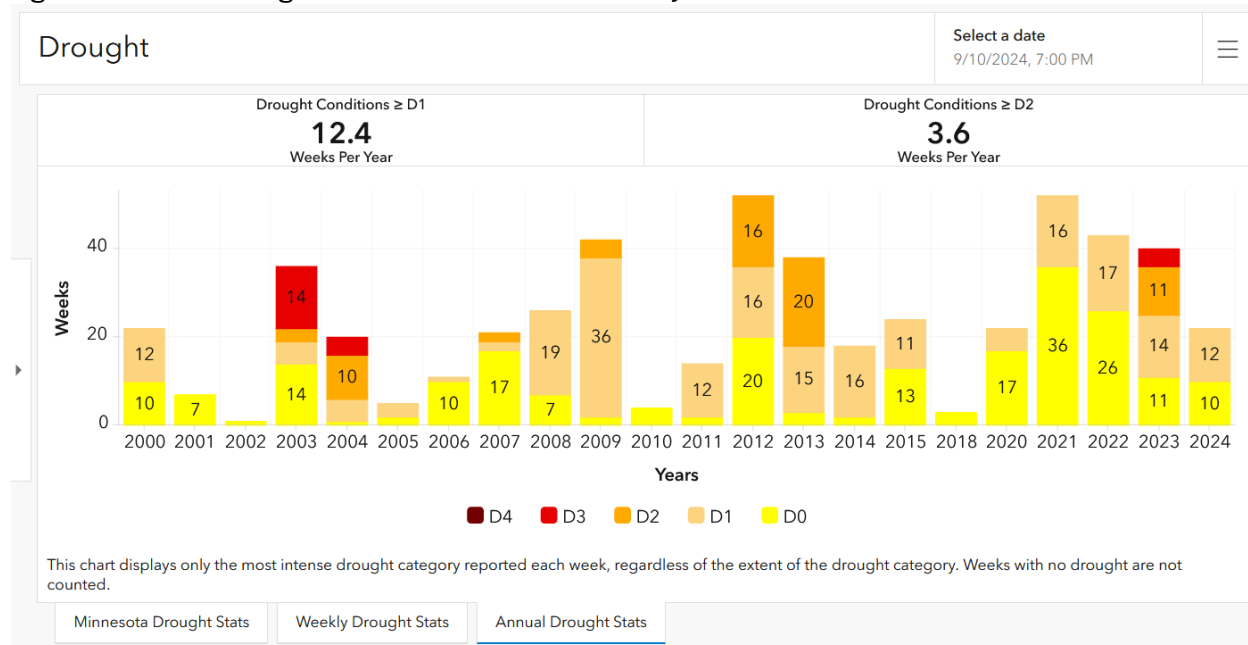
*Generators for Backup Power to Critical Facilities & Shelters:* Not all healthcare and other critical facilities utilized for the care of residents & visitors, including designated severe weather/emergency shelters (schools, churches, etc.) have backup power to run cooling systems in the event of a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

## 4.7 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 Wabasha County HMP website.

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

Figure 8. Annual drought statistics in Wabasha County since 2000



### 4.7.1 Probability of Occurrence

To determine the probability of future droughts in Wabasha 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 Wabasha 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 12.4 weeks per year, and the relative frequency of drought conditions  $\geq$  D2 is 3.6 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.

### 4.7.2 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 five reported drought incidents in Wabasha County between 2000 and 2023, impacting five sectors with greatest impacts to agriculture (NDMC, 2024). Since droughts are regional in nature, jurisdictions within Wabasha 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, 2021). 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, Wabasha County’s agriculture sector has been impacted by drought more than once, and with 45% of Wabasha 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, Wabasha County received \$13,831,884.55 (2021 ADJ) in crop indemnity payments due to drought, placing it as the 61st-highest-paid county in Minnesota (CEMHS, 2023).

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

#### 4.7.3 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).

#### 4.7.4 Program Gaps and Deficiencies

Wabasha County Emergency Management did not identify any program gaps or deficiencies that make its citizens more vulnerable to drought.

### 4.8 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 20 dams in Wabasha County. Dams are mapped on the [MN State 2024 HMP website](#). Wabasha County had one dam classified as a High Hazard Dam, two dams classified as Significant Hazard Dams, and 17 dams classified as Low Hazard Dams. The Minnesota Dam Safety Program office was consulted to identify dam incidents and concerns.

#### 4.8.1 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 no noted dam incidents in Wabasha County. Total dam failures are extremely unlikely if the dam is maintained in compliance with Minnesota's Dam Safety Program. The likelihood of failure in Wabasha County is low.

#### 4.8.2 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 10 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 10. 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).

There are two dams within Wabasha County that are classified as having significant hazard potential (Table 11). These dams are Sheehan-Stork Pond, which is privately owned, and Watopa Township No. 1, which is owned by the township. The Lake Zumbro Dam—owned by the City of Rochester, Olmsted County—is classified as having high hazard potential (USACE, 2024)..

*Table 11. High and Significant Hazard Dams in Wabasha County*

| Name                  | Nearest City | River or Stream Name | Height (Ft) | Year | Max Storage (Acre-Ft) | Drainage Area (Sq Miles) | Max Discharge (Cubic Ft/Sec) | Hazard Potential |
|-----------------------|--------------|----------------------|-------------|------|-----------------------|--------------------------|------------------------------|------------------|
| Lake Zumbro           | 10 miles     | Zumbro River         | 55          | 1919 | 35,000                | 845                      | 30,000                       | High             |
| Sheehan-Stork Pond    | 9 miles      | Snake Creek-TR       | 33          | 1973 | 20.4                  | 0.7                      | 565                          | Significant      |
| Watopa Township No. 1 | 11 miles     | Snake Creek          | 32          | 1976 | 57                    | 0.85                     | 1,500                        | Significant      |

The Lake Zumbro Hydroelectric Generating Plant, also known as the Lake Zumbro Dam, is a hydroelectric facility on the Zumbro River that consists of a gravity dam and a powerhouse. Construction of the facility began in 1917 and was completed in 1919 (Rochester Public Utilities, 2019). In 1991, the facility was listed in the National Register of Historic Places for its architectural and engineering significance (National Park Service, 1991).

The Lake Zumbro Dam remains economically and socially important. The facility generates an annual average of 12,800 megawatt-hours of electricity, an amount that can power around 1,800 homes. The dam's construction formed Zumbro Lake, a popular recreation destination in an area of Minnesota that has relatively few lakes (Zumbro Watershed Partnership, 2012). As a result of this amenity, several businesses and subdivisions exist within a mile downstream of the dam. Thus, proper maintenance and emergency planning are crucial.

The City of Rochester has an Emergency Action Plan (EAP) prepared for the Lake Zumbro Dam. This plan was last revised in 2022. The city has a dedicated flood control engineer and inspection staff to inspect and maintain flood control system. Annual reporting and inspections are done with the USACE and DNR Flood Safety. Standard operating procedures are developed for the operation of the infrastructure during flooding events (USACE, 2024).

#### **4.8.3 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.

#### **4.8.4 Program Gaps and Deficiencies**

Wabasha County Emergency Management did not identify any program gaps or deficiencies that make its citizens 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 Wabasha County as related to hazard mitigation.
- Appendix C: As part of the Wabasha 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 Wabasha 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 Wabasha County

| FEMA Plan Requirements<br>Plan Review Tool, Section C2   |  | Description |
|--|--|-------------|
| Name of Community  | Wabasha County   |             |
| Participation in the NFIP  | Participating – Entry date 02/18/1981  |             |
| FEMA Map   | FEMA-mapped high-risk areas  |             |
| Current Effective Map Date   | 06/20/2000   |             |
| Potential Buildings Damaged in Floodplain<br>(including all townships and cities)  | 248  |             |
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 07/17/2001   |             |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 5/2/2000   |             |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | Wabasha County enforces requirements of the NFIP through the county's floodplain ordinance (Wabasha County Floodplain Ordinance), adopted 07/17/2001 and made effective 5/10/2000 (date of publication). This ordinance establishes the floodplain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts of Name County. The Wabasha County Planning & Zoning Department maintains and enforces the floodplain management ordinance for the county. |             |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Joe Kaltenbach, Wabasha County Planning & Zoning Administrator<br>(651-565-3062 / <a href="mailto:jkaltenbach@co.wabasha.mn.us">jkaltenbach@co.wabasha.mn.us</a> )   |             |
| 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 Bellechester   |             |
| Participation in the NFIP  | Participating – Entry date 04/24/2020  |             |
| FEMA Map   | FEMA-mapped high-risk areas  |             |
| Current Effective Map Date   | 06/20/2000   |             |
| Potential Buildings Damaged in Floodplain  | 0  |             |

| FEMA Plan Requirements<br>Plan Review Tool, Section C2 |   | Description  |
|--|---|--|
| 1.   | Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 1/13/2020  |
| 2.   | Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 1/13/2020  |
| 3.   | Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Bellechester enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 1/13/2020 and made effective 2/5/2020 (date of publication). This ordinance regulates development in the flood hazard areas of the city.                             |
| 4.   | Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Lisa Redepenning, City Clerk   |
| 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 Elgin  |
| Participation in the NFIP                              |   | Participating – Entry date 06/17/1986  |
| FEMA Map   |   | FEMA-mapped high-risk areas  |
| Current Effective Map Date                             |   | 06/20/2000   |
| Potential Buildings Damaged in Floodplain              |   | 4  |
| 1.   | Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: Previous ordinance adopted 8/8/1990. Required to amend ordinance by June 20, 2000. No record of ordinance by MN DNR.   |
| 2.   | Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | Unknown  |
| 3.   | Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Elgin enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 8/8/1990. The date it was made effective (published publicly) is not on record with the MN DNR. This ordinance regulates development in the flood hazard areas of the city. |
| 4.   | Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Mary Laidlaw, Zoning Commission Chairperson  |

| FEMA Plan Requirements<br>Plan Review Tool, Section C2   | Description   |
|--|---|
| 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.                            |
| <b>Name of Community</b>   | <b>City of Hammond</b>  |
| Participation in the NFIP  | Participating – Entry date 11/19/1980   |
| FEMA Map   | FEMA-mapped high-risk areas   |
| Current Effective Map Date   | 06/20/2000  |
| Potential Buildings Damaged in Floodplain  | 1   |
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 6/13/2000   |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 6/13/2000   |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Hammond enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 6/13/2000. The date it was made effective (published publicly) is not on record with the MN DNR. This ordinance regulates development in the flood hazard areas of the city. |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Janice Domke, City Clerk  |
| 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.                            |
| <b>Name of Community</b>   | <b>City of Lake City</b>  |
| Participation in the NFIP  | Participating – Entry date 02/18/1981   |
| FEMA Map   | FEMA-mapped high-risk areas   |
| Current Effective Map Date   | 06/20/2000  |
| Potential Buildings Damaged in Floodplain  | 3   |

| FEMA Plan Requirements<br>Plan Review Tool, Section C2   |  | Description                           |
|--|--|---------------------------------------|
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 7/27/2009  |                                       |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 7/27/2009  |                                       |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Lake City enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 7/27/2009 and made effective 7/30/2009 (date of publication). This ordinance regulates development in the flood hazard areas of the city.       |                                       |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Kristi Gross, City Planner & Community Development   |                                       |
| 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 Mazeppa                       |
| Participation in the NFIP  |  | Participating – Entry date 02/12/1990 |
| FEMA Map   |  | FEMA-mapped high-risk areas           |
| Current Effective Map Date   |  | 06/20/2000                            |
| Potential Buildings Damaged in Floodplain  |  | 0                                     |
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 4/26/2000  |                                       |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 4/26/2000  |                                       |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Mazeppa enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 4/26/2000 and made effective 5/24/2000 (date of publication). This ordinance regulates development in the flood hazard areas of the city.         |                                       |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Karl Nahrgang, City Administrator  |                                       |

| FEMA Plan Requirements<br>Plan Review Tool, Section C2   | Description   |
|--|---|
| 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.            |
| <b>Name of Community</b>   | <b>City of Minneiska</b>  |
| Participation in the NFIP  | Participating – Entry date 06/23/2009   |
| FEMA Map   | FEMA-mapped high-risk areas   |
| Current Effective Map Date   | 06/20/2000  |
| Potential Buildings Damaged in Floodplain  | 0   |
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 4/6/2009  |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 4/6/2009  |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Minneiska enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 4/6/2009. The MN DNR does not have a record of when it was published publicly. This ordinance regulates development in the flood hazard areas of the city. |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Christine Hicks, City Clerk   |
| 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.            |
| <b>Name of Community</b>   | <b>City of Plainview</b>  |
| Participation in the NFIP  | Participating – Entry date 10/06/2006   |
| FEMA Map   | FEMA-mapped high-risk areas   |
| Current Effective Map Date   | 06/20/2000  |
| Potential Buildings Damaged in Floodplain  | 0   |

| FEMA Plan Requirements<br>Plan Review Tool, Section C2   |  | Description   |
|--|--|---|
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  |  | Adoption of current floodplain ordinance: 10/10/2005  |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   |  | N/A Community adopted state "No Map" model ordinance (i.e., no FIRM or no mapped SFHA), and in this case didn't adopt any FIRM panels.  |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   |  | The city of Plainview enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 10/10/2005. The MN DNR does not have a record of when it was published publicly. This ordinance regulates development in the flood hazard areas of the city. |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   |  | Floodplain Administrator: David Todd, City Administrator  |
| 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 Wabasha   |
| Participation in the NFIP  |  | Participating – Entry date 09/29/1978   |
| FEMA Map   |  | FEMA-mapped high-risk areas   |
| Current Effective Map Date   |  | 06/20/2000  |
| Potential Buildings Damaged in Floodplain  |  | 56  |
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  |  | Adoption of current floodplain ordinance: 5/16/2000   |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   |  | 5/16/2000   |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   |  | The city of Wabasha enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 5/16/2000. The date it was made effective (published publicly) is not on record. This ordinance regulates development in the flood hazard areas of the city.   |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   |  | Floodplain Administrator: Kristi Trisko, Planning & Zoning Director   |

| FEMA Plan Requirements<br>Plan Review Tool, Section C2   | Description   |
|--|---|
| 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.  |
| <b>Name of Community</b>   | <b>City of Zumbro Falls</b>   |
| Participation in the NFIP  | Participating – Entry date 11/04/1981   |
| FEMA Map   | FEMA-mapped high-risk areas   |
| Current Effective Map Date   | 06/20/2000  |
| Potential Buildings Damaged in Floodplain  | 7   |
| 1. Adoption of NFIP minimum floodplain management criteria via local regulation  | Adoption of current floodplain ordinance: 5/10/2000   |
| 2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable   | 5/10/2000   |
| 3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs   | The city of Zumbro Falls enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 5/10/2000. The date it was made effective (published publicly) is not on record. This ordinance regulates development in the flood hazard areas of the city.  |
| 4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP   | Floodplain Administrator: Susan Eischens, City Clerk  |
| 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.<br>The Buckoman waterway project was completed in 2011 for flood mitigation. There is currently no new development or expansion in the city. |
| <b>Name of Community</b>   | <b>City of Kellogg</b>  |
| Participation in the NFIP  | NOT Participating   |
| FEMA Map   | FEMA-mapped high-risk areas   |
| Current Effective Map Date   | 06/20/2000  |



| FEMA Plan Requirements<br>Plan Review Tool, Section C2                |   | Description   |
|---|---|---|
| Potential Buildings Damaged in Floodplain                             | 0 |   |
| <i>Description of why community does not participate in the NFIP.</i> |   | Uncertain - Participation in NFIP is voluntary, and reasons for non-participation vary, though DNR encourages enrollment.   |
| Name of Community   |   | City of Millville   |
| Participation in the NFIP   |   | NOT Participating   |
| FEMA Map  |   | FEMA-mapped high-risk areas   |
| Current Effective Map Date  |   | 06/20/2000  |
| Potential Buildings Damaged in Floodplain                             | 0 |   |
| <i>Description of why community does not participate in the NFIP.</i> |   | No structures were identified in the FEMA-mapped high-risk areas. Flooding is rare due to the high elevation of the city in proximity to the Zumbro River. There is no new development currently. |

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.

Wabasha County has eight RL properties and one SRL property. In the City of Wabasha, there are five single-family properties and one non-residential RL property, as well as the lone SRL property, which is also a single-family residence. The City of Hammond has the remaining three RL properties, all of which are single-family residences. Loss dates range from 2001 to 2023.

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

### 5.1.2 Plans and Ordinances

Wabasha 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, Floodplain Ordinance, Emergency Operations Plan, and Wellhead Protection Plan.

### 5.1.3 Plans and Programs in Place to Address Natural Hazards

Wabasha 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 Wabasha County to support mitigation for the hazards addressed in this plan.

#### All Hazards

*All Hazards Emergency Operations Plan:* Wabasha 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.

*CodeRED Emergency Notification System and IPAWS:* Wabasha County maintains the CodeRED 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 Wabasha County Emergency Management website page. Wabasha 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:* Wabasha County has a strong relationship with the La Crosse, WI 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:* Wabasha County Emergency Management utilizes the Wabasha County website, Public Health 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 Wabasha County Emergency Management website page provides emergency preparedness information and resource links for the public.

*Mass Care Sheltering:* In the event of a disaster where temporary sheltering is needed, Wabasha County Emergency Management works in coordination with Wabasha County Public Health, Wabasha 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:* Wabasha 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.

*Weather-Ready Nation Ambassador:* Wabasha County is a registered NOAA and NWS Weather-Ready Nation (WRN) Ambassador, supporting initiatives to improve readiness, responsiveness, and overall resilience to weather, water, and climate events. As an ambassador, the county promotes weather-ready messages and themes to our stakeholders, engages with NOAA personnel on collaborative opportunities, shares success stories of preparedness and resiliency, and educates employees, partners, and the public on preparedness actions.

*Backup Power:* Wabasha 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 former Courthouse Building, Criminal Justice Center, and the Services Building.

*Schools Support:* Wabasha 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:* Wabasha County Emergency Management works closely with the MN HSEM Region 1 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.

## Severe Winter Storms

*Winter Weather Statements (Watch, Advisory, Warning, etc.):* Wabasha 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:* Wabasha 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. Wabasha 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 Wabasha County Highway Department conducts winter road maintenance on county roads in accordance with the Wabasha County Snow & Ice Control 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.):* Wabasha 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 Wabasha County Sheriff's Office in coordination with local jurisdictions. Warning sirens are owned and maintained by the cities where they are located.

*Skywarn Program:* Wabasha 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:* Wabasha 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. Wabasha 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 Wabasha County Highway Department 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.

## Extreme Cold

*Emergency Notifications:* Extreme cold temperature warnings are issued by the National Weather Service. Wabasha County Emergency Management works to relay extreme cold temperature warnings from the NWS to help alert residents and visitors to hazardous conditions. The Wabasha 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:* Wabasha County Emergency Management, Wabasha County Sheriff's Office and Wabasha County Public Health promote public awareness of personal safety measure to take during periods of extreme cold, such as sharing information via Facebook and Twitter posts.

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

## Extreme Heat

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

*Public Education and Awareness:* Wabasha County Emergency Management, Wabasha County Sheriff's Office and Wabasha County Public Health promote public awareness of personal safety measure to take during periods of extreme heat, such as sharing information via Facebook and Twitter posts.

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

## Drought

*Public Awareness & Outreach:* In the event of extreme drought conditions, Wabasha County works in concert with the NWS, MN DNR, and local communities to raise public awareness of drought conditions and recommended water use restrictions as per MN DNR guidance.

*Precipitation Monitoring:* The Wabasha 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.

*Drought Impact to Ag Producers:* The Wabasha SWCD, along with USDA offices, is a point of contact for services related to drought impact on crops and livestock.

## Flooding

*National Flood Insurance Program (NFIP):* Wabasha County has FEMA Mapped High Risk Areas and participates in the NFIP. Initial entry date into the program was 02/18/1981.

*Floodplain Administrator:* The Wabasha County Planning & Zoning Administrator is the county's designated Floodplain Administrator, who is responsible to implement the requirements of the NFIP.

*Floodplain Ordinance:* Wabasha County Floodplain Ordinance, adopted 12/17/1991 establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts. The Wabasha County Planning & Zoning Office maintains and enforces the floodplain management ordinance for the county. The ordinance is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 Code of Federal Regulations Parts 59 -78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

*Floodplain Mapping:* Wabasha County's current effective FEMA flood map date is 06/20/2000. The county's Planning & Zoning Office is the repository for the floodplain maps for the county. The Zoning Office assists county residents in determining whether their property is affected by an officially mapped flood area.

*Shoreland Ordinance:* Wabasha County Shoreland Management Ordinance, adopted 05/05/1992, was superseded by Ordinance #48, Wabasha County Zoning Ordinance. The 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:* Wabasha County Subdivision Regulations, August 2002 is established to regulate the subdividing of land in Wabasha County.

*Transportation Plan:* The Wabasha County Highway Department maintains update of the county's 2023 – 2032 Road and Bridge Improvement Plan and schedules projects for implementation.

*Property Buyout Acquisitions:* Wabasha County conducted property buyouts for flood mitigation in 1997 and 2010. In 2001, the City of Wabasha conducted 5 property acquisitions with FEMA grant funding following DR-1333.

*Minnesota Buffer Law:* The Wabasha SWCD provides technical assistance to landowners to become compliant with Buffer Law. Wabasha County Planning and Zoning enforces the Buffer Law regulations. Buffers benefit bank stabilization and reduced erosion and sedimentation into ditches, streams, rivers, and lakes.

*Flooding Impact to Ag Producers:* The Wabasha SWCD, along with USDA offices, is a point of contact for services related to flooding or severe weather impact on crops and livestock.

*One-Watershed One Plan (1w1P):* Wabasha County along with Wabasha SWCD have participated in the Greater Zumbro 1W1P - Watershed Alliance for the Greater Zumbro 2022-2031 Comprehensive Watershed Management Plan Summary, Nov. 2021. The plan addresses regional watershed planning which include measures for flood mitigation. Implementation that includes addressing upland storage opportunities and floodplain management and connection is in progress. Similar implementation activities are identified in the WinLac Partnership 1W1P for the Mississippi River Winona/LaCrescent watersheds that would cover the remaining land in Wabasha County.

*Private Well Education and Testing* – The Wabasha SWCD has educational materials available to private well owners. If a well is submerged during flooding, testing for contamination should be done. Test kits are available at the SWCD.

*Minnesota Aquatic Invasive Species Prevention Aid:* The Wabasha County Environmental Resource Technician is tasked with the management and prevention of the spread of Aquatic Invasive Species (AIS)/Terrestrial Invasive Species/Noxious Weeds within Wabasha County. In the event of a flood, floodwaters can carry invasive wildlife and plant species into new locations resulting in environmental, economic, and potentially human health impacts. The Environmental Resource Technician monitors for and addresses any potential, and new infestations within the county through the Wabasha County AIS Prevention Plan and Rapid Response Plan. Often times monitoring and management of invasive species, both aquatic and terrestrial, within Wabasha County is done in collaboration with agencies such as the MN DNR, USFWS, and Wabasha County SWCD.

## **Dam/Levee Failure**

*Lake Zumbro Dam:* The Lake Zumbro Dam is owned by the City of Rochester and is classified as a high hazard dam. The City of Rochester maintains the Emergency Action Plan for the dam.

## **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 Wabasha County Plan. This framework, as outlined below, will allow for



integration of the mitigation actions that are listed by Wabasha 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"> <li>• Comprehensive plans</li> <li>• Land use ordinances</li> <li>• Planning and zoning</li> <li>• Building codes and enforcement</li> <li>• Floodplain ordinances</li> </ul> |

| Mitigation Strategy                   | Description  | Example Mitigation Actions  |
|---------------------------------------|--|---|
|                                       |  | <ul style="list-style-type: none"> <li>• NFIP Community Rating System</li> <li>• Capital improvement programs</li> <li>• Open space preservation</li> <li>• Shoreline codes</li> <li>• Stormwater management regulations and master plans</li> </ul>  |
| 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"> <li>• Acquisitions and elevations of structures in flood prone areas</li> <li>• Utility undergrounding</li> <li>• Structural retrofits</li> <li>• Floodwalls and retaining walls</li> <li>• Detention and retention structures</li> <li>• Culverts</li> <li>• Safe rooms</li> </ul>  |
| 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"> <li>• Sediment and erosion control</li> <li>• Stream corridor restoration</li> <li>• Forest management</li> <li>• Conservation easements</li> <li>• Wetland restoration and preservation</li> </ul>  |
| 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"> <li>• Radio or television spots</li> <li>• Websites with maps and information</li> <li>• Real estate disclosure</li> <li>• Presentations to school groups or neighborhood organizations</li> <li>• Mailings to residents in hazard-prone areas.</li> <li>• StormReady Certification</li> <li>• Firewise Communities</li> </ul> |
| 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"> <li>• Emergency operations plan</li> <li>• Flood fight plans and preparedness</li> <li>• Dam emergency action plans</li> <li>• Warning</li> <li>• Backup power</li> <li>• Emergency capabilities</li> </ul>  |

Local leaders work together with the Wabasha 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 Wabasha 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 Wabasha 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 Bellechester, Elgin, Hammond, Kellogg, Lake City, Mazeppa, Millville, Minneiska, Plainview, Wabasha, and Zumbro Falls.

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

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

### 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 Wabasha County Mitigation Action Chart**

The Wabasha 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. Wabasha 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<br>Encourage all county residents to sign-up for the county's CodeRED Emergency Notification System.  | Existing High Ongoing     | Wabasha County Emergency Management (WCEM) | Wabasha County maintains the CodeRED 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 Wabasha County Emergency Management website page. The county encourages residents, businesses, childcare providers, care facilities, campgrounds, resorts, and nursing facilities to enroll in the county's emergency notification system so they will be aware of hazard events.  | State Grant Funding and County Funding |
| 2 | All Hazards | Education & Awareness Programs | PUBLIC OUTREACH<br>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     | WCEM, WCPH                                 | Wabasha County Emergency Management utilizes the Wabasha County website, Emergency Management Twitter page, Public Health Facebook page, 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. WCEM participates in the NWS annual Severe Weather Awareness Weeks in April and November each year. Wabasha County receives all statements issued by the La Crosse, WI NWS and incorporates these into its community outreach and public education. | State Grant Funding                    |

| # | Hazard      | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility                         | Comments on Implementation<br>& Integration   | Possible<br>Funding |
|---|-------------|--|---|---------------------------------|--|---|---------------------|
| 3 | All Hazards | Mitigation Preparedness & Response Support | EOP PLANNING<br>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<br>High<br>Ongoing     | WCEM                                   | Wabasha 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.  | State Grant Funding |
| 4 | All Hazards | Local Planning & Regulations               | FUTURE DEVELOPMENT<br>Incorporate mitigation strategies across county and local government plans and policies that address future growth and new development.                                 | Existing<br>High<br>2025-2030   | WC Planning & Zoning, WC Highway Dept. | Wabasha County Planning & Zoning 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. Wabasha County uses its Floodplain Ordinance, Shoreland Ordinance, and Transportation plan to address long-term planning for future development. The Wabasha County Planning and Zoning Dept. enforces the state Buffer Law regulations. | County Funding      |



| # | Hazard      | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility  | Comments on Implementation & Integration  | Possible Funding                                 |
|---|-------------|--|---|---------------------------------|---|---|--|
| 5 | All-Hazards | Mitigation Preparedness & Response Support | VULNERABLE POPULATIONS<br>Address planning and outreach efforts for those considered to be more vulnerable to severe weather events.                                | Existing<br>High<br>Ongoing     | WCEM, WC Public Health, WC GIS, and Local Jurisdictions | Wabasha County Emergency Management, Public Health, and Social Services departments work together with local jurisdictions to provide outreach to and emergency planning assistance as needed to facilities such as schools and long-term care facilities and mobile home parks. Schools throughout the county participate annually in tornado drills annually. We work in coordination with agencies such as the Red Cross and Salvation Army. Wabasha County GIS department helps to maintain information on the location of key facilities such as hospitals, nursing homes, and day care facilities which is incorporated into emergency management preparedness & response planning. | County Funding<br>other agencies & organizations |
| 6 | All-Hazards | Mitigation Preparedness & Response Support | GENERATOR BACKUP POWER<br>Install generators at key county facilities to ensure continuity of operations and services in the event of loss of power.                | Existing<br>High<br>Ongoing     | WCEM, WC Highway Dept., Maintenance Dept.               | WCEM works with WC Highway Dept. and Maintenance to ensure that emergency generators are available for county-owned critical facilities. WCEM encourages local jurisdictions to obtain generators for emergency backup power.   | County Funding                                   |
| 7 | All-Hazards | Mitigation Preparedness & Response Support | MASS CARE SHELTERING<br>Ensure that plans and procedures are in place to provide temporary sheltering to those affected by severe weather or other disaster events. | Existing<br>High<br>2025-2030   | WCEM, WCPH  | In the event of a disaster where temporary sheltering is needed, Wabasha County Emergency Management works in coordination with Wabasha County Public Health, Wabasha 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. WCEM works with local governments on their plans for sheltering.   | County Funding                                   |

| #  | Hazard                  | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility                                | Comments on Implementation<br>& Integration  | Possible<br>Funding                    |
|----|-------------------------|--|---|---------------------------------|---|--|--|
| 8  | Extreme Cold/Heat Temps | Education & Awareness Programs             | EXTREME TEMPS<br>PUBLIC OUTREACH<br>Provide outreach and education to the public on personal safety measures to take during periods of extreme cold or extreme heat.                | In-Progress<br>High<br>2024     | WCEM, WCPH                                    | WCEM works to relay all extreme temperature statements received from the La Crosse, WI NWS to help alert residents and visitors to hazardous conditions. Public education regarding extreme temperatures also occurs during the two NWS Severe Weather Awareness weeks that occur in April and Winter Weather Awareness in November each year.   | State Grant Funding and County Funding |
| 9  | Extreme Cold/Heat Temps | Mitigation Preparedness & Response Support | WARMING/COOLING CENTERS<br>Ensure facilities and plans are in place for the operation of warming or cooling centers for those who are vulnerable during extreme temperature events. | New<br>High<br>2025-2030        | WCEM in coord with WCPH and local communities | This is an ongoing part of WCEM's program in developing greater capacity within communities to deal with extreme temperature or other severe weather events. Communities are encouraged 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. WCEM also coordinates with WC Public Health on these planning efforts. | County and Local Gov't Funding         |
| 10 | Severe Winter Storms    | Local Planning & Regulations               | SNOW & ICE CONTROL<br>Implement snow removal and ice control to ensure the safety of county roads impacted by winter storms.  | Existing<br>High<br>2025-2030   | WC Highway Dept.                              | The Wabasha County Highway Department conducts winter road maintenance on county roads in accordance with the Wabasha County Snow & Ice Control Policy.  | County Funding                         |

| #  | Hazard               | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility                               | Comments on Implementation<br>& Integration  | Possible<br>Funding   |
|----|----------------------|--|---|---------------------------------|--|--|---|
| 11 | Severe Summer Storms | Education & Awareness Programs             | SKYWARN TRAINING<br>Work with the National Weather Service to provide SkyWarn training and develop a network of trained Storm Spotters throughout the county.   | Existing<br>High<br>2025-2030   | WCEM in coord with NWS and local communities | WCEM works with the NWS on an annual basis to offer this training to local fire and law enforcement departments and residents that wish to be trained as spotters.   | National Weather Service  |
| 12 | Severe Summer Storms | Mitigation Preparedness & Response Support | OUTDOOR WARNING SIRENS/FUNDING<br>Address the need for the purchase and installation of new outdoor warning sirens where needed in the county to notify residents of dangerous high wind or tornado events. | New<br>High<br>2025-2030        | WCEM in coord with local jurisdictions       | WCEM is working to address gaps in warning siren coverage in the county. There are several small towns and unincorporated areas within the county that are more densely populated but are not designated cities and should have outdoor warning sirens. WCEM will seek to apply for FEMA grant funding (5% Initiative) to help the county to obtain new warning sirens.                        | County Funding,<br>Local Gov't Funding,<br>FEMA 5% Initiative Grant funding |
| 13 | Severe Summer Storms | Education & Awareness Programs             | TORNADO SAFETY<br>Conduct outreach and provide educational information to residents on tornado awareness and safety measures.   | Existing<br>High<br>2025-2030   | WCEM   | Each spring, WCEM has worked to increase information in area newspapers and social media outlets regarding the outdoor warning sirens and what the different tones mean and what to listen for. The WCEM website page also provides Weather Safety information specific to tornado awareness and safety. Local community governments are encouraged to share information with their residents. | State Grant Funding   |

| #  | Hazard                        | Mitigation Strategy                 | Mitigation Action  | Status<br>Priority<br>Timeframe   | Responsibility   | Comments on Implementation<br>& Integration   | Possible<br>Funding                                      |
|----|-------------------------------|-------------------------------------|--|-----------------------------------|--|---|--|
| 14 | 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 all mobile home parks and campgrounds within the county.  | Existing<br>High<br>2025-2030     | WCEM in coord with local jurisdictions                             | This project effort falls under the Wabasha County of Emergency Management, in coordination with local jurisdictions. WCEM will work to assess where new construction projects are needed and will search for supportive outside grant funding. WCEM will seek grant funding for tornado safe rooms from FEMA Hazard Mitigation grant program funding.  | County Funding, Local Gov't, Possible FEMA Grant Funding |
| 15 | 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<br>High<br>2025-2030     | WCEM, local jurisdictions in coord with electric utility providers | Severe storms in June 2019 and February 2022 resulted in downed power lines. Municipal and rural electric cooperatives continue to work with communities to address where risk reduction measures can be implemented. FEMA HMA grant funding may be a source for powerline infrastructure retrofits that eligible rural and municipal electric coops can apply for.   | Electric Coops, FEMA HMA                                 |
| 16 | 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<br>Moderate<br>2025-2030 | WC Planning & Zoning   | Wabasha County Planning & Zoning oversees permits for new development. Wabasha 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. Some local jurisdictions enforce their own building permits while others are overseen by Wabasha County Building Official. | County Funding   |

| #  | Hazard                        | Mitigation Strategy            | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility                                    | Comments on Implementation<br>& Integration   | Possible<br>Funding              |
|----|-------------------------------|--------------------------------|---|-----------------------------------|---|---|----------------------------------|
| 17 | Severe Winter & Summer Storms | Natural Systems Protection     | VEGETATION MANAGEMENT<br>Manage trees and other vegetation along roads from severe storm events to reduce risk to powerlines and passing motorists. | Existing<br>Moderate<br>2025-2030 | WC Hwy. Dept.,<br>Local Utility Providers         | The Wabasha 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 road authorities and utility providers also work to manage vegetation near power lines to reduce the risk of downed lines and power outages. | County Funding,<br>Utility Coops |
| 18 | Drought                       | Education & Awareness Programs | DROUGHT AWARENESS<br>Promote public awareness of drought conditions and water conservation measures.  | Existing<br>Moderate<br>2025-2030 | WCEM in coord with SWCD                           | WCEM and the SWCD provide public outreach and education to the public during severe periods of drought to be aware of watering restrictions, water conservation tips, and fire safety during periods of severe drought. Outreach is done using websites, social media, and interactions with communities.                                       | County Funding                   |
| 19 | Drought                       | Education & Awareness Programs | AGRICULTURAL SUPPORT<br>Provide technical services and resources to agricultural producers during periods of severe drought.                        | Existing<br>Moderate<br>2025-2030 | SWCD, USDA  | The Wabasha SWCD, along with USDA offices, is a point of contact for services related to drought impact on crops and livestock. They continue to work with ag producers throughout the county as needed during periods of heightened drought.   | SWCD, USDA                       |
| 20 | Drought                       | Local Planning & Regulations   | WATERING RESTRICTIONS<br>Enforce watering restrictions during periods of drought as per MN DNR guidance.  | Existing<br>High<br>2025-2030     | WCEM in coord with MN DNR and local jurisdictions | Wabasha County and local jurisdictions will enforce watering restrictions as per MN DNR guidelines during periods of severe drought.  | County Funding,<br>Local Gov'ts  |

| #  | Hazard   | Mitigation Strategy             | Mitigation Action  | Status<br>Priority<br>Timeframe       | Responsibility                 | Comments on Implementation<br>& Integration  | Possible<br>Funding                  |
|----|----------|---------------------------------|--|---------------------------------------|--------------------------------|--|--------------------------------------|
| 21 | Drought  | Local Planning<br>& Regulations | PRECIPITATION<br>MONITORING<br>Continue to gather<br>precipitation data to<br>support drought<br>monitoring for<br>Wabasha County.   | Existing<br>Moderate<br>2025-<br>2030 | SWCD                           | The Wabasha SWCD continues to participate 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.  | SWCD, State<br>Climatology<br>Office |
| 22 | Flooding | Local Planning<br>& Regulations | NATIONAL FLOOD<br>INSURANCE<br>PROGRAM<br>Participate in the<br>National Flood<br>Insurance Program<br>and enforce policies<br>that address<br>development in high-<br>risk flood areas. | Existing<br>High<br>2025-<br>2030     | WC Floodplain<br>Administrator | Wabasha County Zoning Ordinance, Section 21, Flood Plain District establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts. The Wabasha County Zoning Office maintains and enforces the floodplain management ordinance for the county. The ordinance is adopted to comply with the rules and regulations of the National Flood Insurance Program so as to maintain the county's eligibility in the program. | County<br>Funding                    |

| #  | Hazard   | Mitigation Strategy  | Mitigation Action  | Status<br>Priority<br>Timeframe   | Responsibility                            | Comments on Implementation<br>& Integration   | Possible<br>Funding                                      |
|----|----------|--|--|-----------------------------------|---|---|--|
| 23 | Flooding | Local Planning<br>& Regulations  | HIGHWAY<br>INFRASTRUCTURE<br>Identify and address<br>highway infrastructure<br>that is at high risk for<br>flood damages.  | Existing<br>High<br>2025-<br>2030 | WC Highway<br>Dept.                       | The Wabasha County Highway Department monitors and addresses county highway infrastructure that at risk for damage from flooding. The following county highways have identified locations that are considered to be of higher potential for damage due to flooding: Hwys 80, 1, 19, 54, 79, and 84. County Highways at many culvert locations are also subject to being blocked by ice and snow-pack causing flooding and infrastructure damage in isolated locations. The department schedules improvement projects on an annual basis and is addressing these areas. The county may consider future applications for grant funding to support localized flood risk reduction efforts. | County<br>Funding,<br>State or<br>other grant<br>funding |
| 24 | Flooding | Local Planning<br>& Regulations<br>/ Structure &<br>Infrastructure<br>Projects | CULVERT<br>REPLACEMENTS<br>Identify and address<br>culvert locations in<br>the county that need<br>to be upsized and<br>replaced to better<br>handle high rain or<br>flood events. | Existing<br>High<br>2025-<br>2030 | WC Highway<br>Dept. in coord<br>with SWCD | The Wabasha County Highway Department is working to upsize and replace culvert locations that have experienced flooding and are at higher risk for flood damage in specific locations on County Hwy 80, Hwy 1, Hwy 19, Hwy 54, Hwy 79, and Hwy 84.  | County or<br>other State<br>or Federal<br>grant funding  |



| #  | Hazard   | Mitigation Strategy          | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility          | Comments on Implementation & Integration   | Possible Funding                             |
|----|----------|------------------------------|---|-----------------------------------|-------------------------|--|--|
| 25 | Flooding | Local Planning & Regulations | WATERSHED PLANNING<br>Work with area watershed organizations to address mitigation plans and projects that address risk reduction for localized flooding and erosion. | Existing<br>Moderate<br>2025-2030 | WCEM in coord with SWCD | Wabasha County, along with Wabasha SWCD have participated in the Greater Zumbro 1W1P - Watershed Alliance for the Greater Zumbro 2022-2031 Comprehensive Watershed Management Plan Summary, Nov. 2021. The plan addresses regional watershed planning which include measures for flood mitigation. Implementation that includes addressing upland storage opportunities and floodplain management and connection is in progress. Similar implementation activities are identified in the WinLac Partnership 1W1P for the Mississippi River Winona/ La Crescent watersheds that would cover the remaining land in Wabasha County. | SWCD, Watershed District funding             |
| 26 | Flooding | Local Planning & Regulations | PROPERTY BUYOUTS<br>Work with homeowners to conduct property buyouts due to repetitive flooding.  | New<br>High<br>2025-2030          | WCEM                    | Wabasha County Emergency Management will work with homeowners in the cities and rural areas that have had flooding in their basements and some into the 1st floor of their homes due to river and/or rainwater flooding. If some of these residents would be open to property acquisition, WCEM will seek potential grant funding from FEMA HMA grant programs or MN DNR Flood Hazard Mitigation (FHM) Grant Assistance Program for funding to conduct buyouts.  | Wabasha County, FEMA HMA, MN DNR FHM Funding |

| #  | Hazard   | Mitigation Strategy             | Mitigation Action  | Status<br>Priority<br>Timeframe | Responsibility                                     | Comments on Implementation<br>& Integration   | Possible<br>Funding  |
|----|----------|---------------------------------|--|---------------------------------|--|---|--|
| 27 | Flooding | Local Planning<br>& Regulations | <p>LOWER ZUMBRO<br/>FLOOD &amp; EROSION<br/>MITIGATION</p> <p>Continue to work in partnership with key agencies and communities to advance outcomes identified under the 2023-2024 Lower Zumbro River Landowner Survey (FEMA BRIC Funded, 2023).</p> | New<br>High<br>2025-<br>2030    | Wabasha SWCD in coord with MN DNR, TNC, and others | <p>Wabasha County SWCD will continue to work in partnership with the MN DNR, The Nature Conservancy, and local communities to build on the outcomes of the 2023 FEMA-funded (BRIC grant) project Landowner Survey of the Lower Zumbro. Identified opportunities to reduce flood damage, build climate resilient lands, and support improved habitat and water quality include:</p> <ul style="list-style-type: none"> <li>• Work with private landowners to convert land (row crop to pasture), retire steep upland ag or frequently flooded land areas</li> <li>• Plant perennial vegetation in uplands to reduce runoff/infiltration</li> <li>• Implement soil stabilization for upland and streambank areas</li> <li>• Install rip-rap to reduce flood impacts</li> </ul> <p>Grant funding to implement these measures may be sought through sources such as MN DNR, FEMA HMA, SWCD Cost Share, or other private funding sources. Wabasha County Emergency Management and other county departments will provide support to these efforts as appropriate.</p> | <p>MN DNR, FEMA HMA grant funding, SWCD Cost Share, or other private funding sources</p> |

# Section 6 – Plan Maintenance

## 6.1 Monitoring, Evaluation, and Updating the Plan

The Wabasha 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 Wabasha County HMP.

The Wabasha 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 Wabasha 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 Bellechester, Elgin, Hammond, Kellogg, Lake City, Mazeppa, Millville, Minneiska, Plainview, Wabasha, and Zumbro Falls, 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 Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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 Wabasha County EMD so that progress notes may be maintained for the next plan update.

## 6.2 Implementation

Wabasha 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 Wabasha County and its jurisdictions (see Appendix H and Section 5.3). The cities of Bellechester, Elgin, Hammond, Kellogg, Lake City, Mazeppa, Millville, Minneiska, Plainview, Wabasha, and Zumbro Falls 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 Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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, Wabasha County will take the following measures:

- The Wabasha County HMP website link will be posted on the Wabasha 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, Wabasha 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 Wabasha County HMP website). Each respective jurisdiction will be required to report on the status of mitigation actions in their charts to the Wabasha County EMD.
- Wabasha 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.

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## **Appendix B – Adopting Resolutions**

## **Appendix C – Local Mitigation Survey Report**



# Wabasha County

## Local Mitigation Survey Report

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### Overview

As part of Wabasha 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

|                      |     |
|----------------------|-----|
| Wabasha County       | Yes |
| City of Bellechester | Yes |
| City of Elgin        | Yes |
| City of Hammond      | Yes |
| City of Kellogg      | Yes |
| City of Lake City    | Yes |
| City of Mazeppa      | No  |
| City of Millville    | Yes |
| City of Minneiska    | Yes |
| City of Plainview    | Yes |
| City of Wabasha      | Yes |
| City of Zumbro Falls | Yes |

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

# Wabasha 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:** WABASHA COUNTY

**Point of Contact:**

Name: Brenda Tomlinson  
Job Title: Emergency Management Director  
Phone: (651) 565-3069  
Email: [btomlinson@co.wabasha.mn.us](mailto:btomlinson@co.wabasha.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          | X  | High   | No change  |
| Winter Storms     | X  | High   | No change  |
| Tornadoes         | X  | Moderate   | No change  |
| Windstorms        | X  | High   | No change  |
| Lightning         |  | Low  | No change  |
| Hail              |  | Low  | No change  |
| Extreme Cold      | X  | Moderate   | No change  |
| Extreme Heat      | X  | Moderate   | Increased  |
| Drought           | X  | Moderate   | Increased  |
| Wildfire          |  | Low  | Increased  |
| 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.*

June 2019, we were part of federal disaster declaration FEMA DR 4442 – Severe Winter Storm, Straight Line Winds and Flooding from March and April of 2019. We had damaged power lines, trees and damage to buildings in Lake City.



February 2022, Wabasha County was part of state disaster declaration SD – 058 from the High Winds, Severe Storms and Tornadoes on December 15, 2021. We had a couple of brief tornado touch downs near Plainview and Wabasha. Downed power lines and tree damage.

July 19, 2023, Wabasha County was part of federal disaster declaration FEMA DR 4722 for Mississippi River flooding April 2023. The cities of Lake City and Wabasha had extensive flooding along the Mississippi River and Greenfield Township experienced flooding and damage to roads.

### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.   |
|---------------------------------|--|
| Flooding                        | We have homes in the City of Wabasha that had flooding in their basements and some into the 1 <sup>st</sup> floor of their homes. Some of these residents would be open to property acquisition.   |
| Flooding                        | County Highway infrastructure is at risk for damage from flooding. The following roads are considered to be of higher potential for damage: County Hwy 80 at two locations, County Hwy 1 at one location, County Hwy 19 at one location, County Hwy 54 at one location, County Hwy 79 at one location, and County Hwy 84 at one location. County Highways at many culvert locations are also subject to being blocked by ice and snow-pack causing flooding and infrastructure damage in isolated locations. |
| Severe Storms                   | None of the mobile home parks or campgrounds in Wabasha County have storm shelters making the residents and campers vulnerable to injuries during high wind and tornado events. Sand Prairie and some smaller towns don't have any outdoor warning sirens to warn them of tornadoes or large hail.   |

### 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 have increased information in area newspapers and social media outlets regarding the outdoor warning sirens and what the different tones mean and what to listen for.

The County has replaced many culverts and bridges, and sized those replacements for the appropriate weather event frequency which has reduced likelihood of localized flooding and infrastructure damage. The County has increased its maintenance of culverts and road ditches to remove accumulated sediment and debris to improve conveyance of storm events and provide for snow storage which has reduced the potential of storm damage. The County has also been proactive in clearing of highway right of ways which has reduced damage and hazard potential due to wind.

## 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 age of the Lake Zumbro Dam, which is a high hazard dam because if it were to have a catastrophic failure, lives would be lost, is a concern as it is just over 100 years old. However, Rochester Public Utilities, which owns the dam, maintains and inspects it regularly.

## **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.*

Wabasha County Emergency Management utilizes the Wabasha County website, Emergency Management Twitter page, Public Health Facebook page, 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 Wabasha County Emergency Management website page 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?*

Wabasha County maintains the CodeRED 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 Wabasha County website page.

### 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:* Wabasha 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, Wabasha County Emergency Management works in coordination with Wabasha County Public Health, Wabasha 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 Wabasha County Highway Department conducts winter road maintenance on county roads in accordance with the Wabasha County Snow & Ice Control Policy.

*Shoreland Ordinance:* Wabasha County Shoreland Management Ordinance, adopted 05/05/1992, was superseded by Ordinance #48, Wabasha County Zoning Ordinance. The 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.

*Floodplain Ordinance:* Wabasha County Floodplain Ordinance, adopted 12/17/1991 establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts. The Wabasha County Planning & Zoning Office maintains and enforces the floodplain management ordinance for the county. The ordinance is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 Code of Federal Regulations Parts 59 -78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program. This ordinance was superseded by Ordinance #48, Wabasha County Zoning Ordinance.

*Subdivision Ordinance:* Wabasha County Subdivision Regulations, August 2002 is established to regulate the subdividing of land in Wabasha County.

*Transportation Plan:* The Wabasha County Highway Department maintains and updates the County's Road and Bridge Improvement Plan and schedules projects for implementation.

*Minnesota Buffer Law:* The Wabasha SWCD provides technical assistance to landowners to become compliant with Buffer Law. Wabasha County Planning and Zoning enforces the Buffer Law regulations. Buffers benefit bank stabilization and reduced erosion and sedimentation into ditches, streams, rivers, and lakes.

*One-Watershed One Plan (1w1P):* Wabasha County along with Wabasha SWCD have participated in the Greater Zumbro 1W1P - Watershed Alliance for the Greater Zumbro 2022-2031 Comprehensive Watershed Management Plan Summary, Nov. 2021. The plan addresses regional watershed planning which include measures for flood mitigation. Implementation that includes addressing upland storage opportunities and floodplain management and connection is in progress. Similar implementation activities are identified in the WinLac Partnership 1W1P for the Mississippi River Winona/LaCrescent watersheds that would cover the remaining land in Wabasha County.

#### **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.*

Wabasha County departments work together to accomplish mitigation goals through integrated policies and programs. Key departments include Wabasha County Emergency Management, Wabasha County Sheriff's Office, Wabasha County Highway Department, Wabasha County Zoning, Wabasha County GIS, Wabasha County Environmental Resources, Wabasha County Public Health, Wabasha County

Administration, and Wabasha Soil and Water Conservation District. Wabasha County also works in partnership with area watershed districts.

The Wabasha SWCD, along with USDA offices, is a point of contact for services related to drought impact on crops and livestock. / The Wabasha SWCD, along with USDA offices, is a point of contact for services related to flooding, drought or severe weather impact on crops and livestock.

Wabasha County Emergency Management works closely with city emergency managers within the county on emergency preparedness and response capabilities.

Wabasha County Emergency Management works closely with the MN HSEM Region 1 regional program coordinator and neighboring county emergency managers on a monthly basis for joint planning, training, and exercises.

Wabasha 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.

Wabasha County has a strong relationship with the La Crosse, WI 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.):* Wabasha 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:* Wabasha 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:* Wabasha 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 week-long effort provides specific information each day covering the topics of severe weather winter weather, outdoor winter safety, indoor winter safety, and winter driving safety. Wabasha County Emergency Management promotes and shares information during the week via social media which 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 Wabasha County Sheriff's Office in coordination with local jurisdictions.

*Skywarn Program:* Wabasha 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 Wabasha 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 Wabasha 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.*

Wabasha County currently has limited resources for mitigation projects and would need to budget for them unless mitigations grant funds were 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.*

**Flooding** – Provide county support to the flood mitigation efforts under leadership of the Wabasha SWCD and MN DNR that result from the 2023-2024 Lower Zumbro River Landowner Survey and Floodplain Restoration BRIC funded project. One recommendation from the study was for the Wabasha SWCD Board to write a letter to the Wabasha County Board of Commissioners requesting removal of the county’s “No Net Gain Resolution”. The request is so private landowners can sell their land to whom they wish and where it makes sense (i.e., frequently flooded areas).

**Flooding** - Appropriately (up)size and replace culvert locations, or at lower elevation that have experienced flooding and are at higher risk for flood damage: County Hwy 80 at two locations, County Hwy 1 at one location, County Hwy 19 at one location, County Hwy 54 at one location, County Hwy 79 at one location, and County Hwy 84 at one location.

**Flooding** – Other flood mitigation projects to be considered, which were recommended by a county resident, include:

- Removal of structures within the floodplain including dikes, fences, abandoned dwellings (trailer homes) and junkyards

- In floodplains: convert tillable crop ground to pasture or permanently retire to become floodplain connectivity and storage
- Exclude allowances of more campsites or build campgrounds
- Enforcement of road right of ways (encroachment from ag fields)
- Eliminate the use of public right of ways as de facto drainage ditches (e.g. from culverts via drain tile or grassed waterways out-letting to tile)
- Focus on nonstructural upland runoff - better infiltration into soils, increase perennial cover
- Fine landowners grubbing out trees and perennial cover to convert to row crop ag (see increasing infiltration, reducing runoff) - upland areas and floodplains.
- Increase natural water storage capacity - floodplain connectivity
- Reduce hard-armoring (rip-rapped) banks and consider alternative option
- Retire ag lands in the floodplain - helps with floodplain connectivity, reduces costs to taxpayers and buffers infrastructure
- Assess taxes to landowners contributing more sediment and nutrient run-off affecting culverts, roadways and groundwater and surface water
- Increased row cropping has increased effects of wind damage, snow drifting, icing of roads - expand ROW and put in tree/shrub rows in furthest out edge

Note - The above are mitigation projects that may not fall within the realm of county implementation but fall to other agencies such as Wabasha SWCD, MN DNR, or watershed districts in coordination with private landowners.

**Windstorms/Tornadoes** - There are areas within Wabasha County that are more densely populated but are not designated cities and should have outdoor warning sirens to alert those outside of tornadoes or conditions that could likely produce a tornado.

## **2. GAPS OR DEFICIENCIES**

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

As noted earlier, Wabasha County could use outdoor warning sirens in a couple of our small towns and more populated unincorporated areas. We could also use storm shelters in all mobile home parks and campgrounds.

Lack of funding for improvements to culverts is a barrier to implementing mitigation measures.

## **PART D: SURVEY PARTICIPANTS**

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

Brenda Tomlinson, Wabasha County Emergency Management Director  
 Joe Kaltenbach, Wabasha County Zoning Administrator  
 Tammy Fiedler, Wabasha County Public Health Director  
 Tisha Bergner, Wabasha County PHEP Coordinator  
 Dietrich Flesch, Wabasha County Highway Engineer

# Wabasha 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 BELLECHESTER (partly in Goodhue County)

**Point of Contact:**

Name: Lisa Redepenning  
Job Title: City Clerk  
Phone: 651-923-4093  
Email: [bellechester@sleepyeyetel.net](mailto:bellechester@sleepyeyetel.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          |  |  |  |
| Winter Storms     | x  | L  | N  |
| Tornadoes         | x  | L  | N  |
| Windstorms        | x  | L  | N  |
| Lightning         | x  | L  | N  |
| Hail              | x  | L  | N  |
| Extreme Cold      | x  | L  | N  |
| Extreme Heat      | x  | L  | N  |
| Drought           | x  | M  | N  |
| Wildfire          | x  | L  | N  |
| 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.*

None.



### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events. |
|---------------------------------|--|
| All Hazards                     | We have a large population of senior citizens that do not use cell phones to receive emergency notifications.  |
| Flooding                        | Manhole covers will be raised as part of our sewer lining project in 2024.   |

### 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.

2024 our stormwater system improvements for the city over will be completed. We have worked with our mobile home park to establish evacuation plans to the City Hall for shelter if needed during inclement weather. 2020 a portable generator was purchased by the city.

### 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

## **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 utility bills. We also post information on bulletin boards at our local bank.

### 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 done this as of yet.

### 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.*

We utilize Goodhue County for administering the MN State Building Code and the City Code zoning requirements for all new development and upgrades.

#### **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.*

We contract out for Ambulance, Fire and Police protection.

#### **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.*

None.

### **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.*

None.

#### **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.*

Lisa Redepenning/City Clerk

# Wabasha 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 ELGIN

**Point of Contact:**

Name: Jessica Cartwright  
Job Title: City Clerk  
Phone: 507-876-2291  
Email: [cityclerk@elginmn.com](mailto:cityclerk@elginmn.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          | x  | moderate   | increased  |
| Winter Storms     | x  | low  | no change  |
| Tornadoes         | x  | moderate   | increased  |
| Windstorms        | x  | moderate   | increased  |
| Lightning         | x  | low  | no change  |
| Hail              | x  | low  | increased  |
| Extreme Cold      | x  | low  | no change  |
| Extreme Heat      | x  | low  | no change  |
| Drought           | x  | low  | increased  |
| 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.*

In Dec 2022 we experienced an unusual tornado passing through on the outskirts of town causing power lines to go down and a power outage to two different subdivisions. There was some tree damage. Also, a tree limb fell on park equipment which was replaced.

### 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<br>(please list)   | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.   |
|-----------------------------------|--|
| All hazards                       | We need generators for all our city buildings including City Hall, Fire Hall, Ambulance Building, well houses and lift stations. Elgin also has poor cell service throughout town. People may not be able to receive emergency alerts because of it.   |
| Flooding                          | We have one lift station prone to flooding during high rain events. A couple of the storm sewers occasionally back up into town from the creeks flooding. And we have some homes in the 100 yr floodplain.   |
| Windstorms/Tornados               | We have mobile homes that should be made aware of where the nearest shelter is located. We do have power lines in the older section of town that could go down in a storm, causing power outages. One siren on the west side could be installed to aid with warning the residents of a tornado                         |
| Extreme cold/Ice storms/Blizzards | Residents could be vulnerable to extreme cold from power outages during this time. Frozen water pipes could freeze or burst from extended cold weather.  |
| Extreme heat                      | Residents could be vulnerable to extreme heat from power outages.  |
| Drought                           | Due to drought, our ball fields and parks get very dry. We also worry about potential fires. We burn the branches and leaves we get at our brush site which cannot be done in drought conditions. We also do not have water conservation plan, so some residents tend to water their lawns excessively during drought. |

### 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.

Currently the city has a plan to buy a generator to power up a well for emergency purposes.

### 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 city has added several small developments. We have increased our population and annexed more land into the city. This could add to our runoff.

## **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 has a website, Facebook page, a few bulletin boards around town and our local newspaper that we can provide the community with needed information.

### **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 currently do not provide this information for our community. It is definitely something we can look into and possibly link to our webpage.

### **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's planning and zoning department enforces the MN State Building Code and the City Code zoning requirements for new development. We have a 10-year street plan that identifies areas that need improvements for water runoff and possible stormwater infrastructure.

### **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.*

An appointed city council member is the city's designated Emergency Management Director. Our city engineer and public works director address road maintenance issues for flood risks. The city is a member of MN WARN to aid if we would need assistance with our utilities during a crisis or natural disaster. Some of the city staff, fire department and ambulance staff have been trained on the FEMA NIMS courses and SkyWarn training.

### **5. PROGRAMS IN PLACE**

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

Currently we do not have any programs in place.

### **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 will use its own funding and a state awarded grant to help with the purchase of a generator for the city well that would be used in an emergency.

## **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/Tornados** – The city is looking into adding a warning siren to the westerly area of town. We need to work with the residents that are in mobile homes and establish a plan for them to get to a storm shelter or a tornado safe room if needed.

**Flooding** – Work with county and city engineers and to keep storm sewers from backing up into the city and cause flooding in basements.

**Drought** – Establish city ordinances and enforce watering use restrictions during periods of drought.

**Severe Winter / Summer Storms** – Post information on the city's website and local bulletin boards to encourage residents to sign up for the county's emergency notification system. Participate in the National Weather Service's – Severe Weather Awareness Weeks. Acquire generators for our storm shelter area and utility's that supply the city water.

**Extreme Cold** – Encourage residents to be prepared for periods of extreme cold and potential power outages. Use our city website and utility bills to notify residents to avoid freezing pipes during sub-zero weather. Work with the county and partner agencies to establish a warming center facility and program for those who are exposed to extreme cold.

### **2. GAPS OR DEFICIENCIES**

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

The city is in need of backup generators and currently does not have the funding for this. We are a small city and are limited financially. Also, the city should update some of the ordinances and update the website and Facebook page to help with where our storm shelters are for residences with no places to seek shelter.

## **PART D: SURVEY PARTICIPANTS**

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

Kim McHugh, Park and Recreation Director  
Jessica Cartwright, City Clerk  
Tyler Meyer, Public Works Director  
Craig Ziebell, Emergency Management Director

# Wabasha 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 HAMMOND

**Point of Contact:**

Name: Tina Mann  
Job Title: Councilperson / Emergency Manager  
Phone: 507-226-5415  
Email: [Tinamantmm@aol.com](mailto:Tinamantmm@aol.com) / [Tina.Mann@dodgecountymn.gov](mailto:Tina.Mann@dodgecountymn.gov)

### **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  | HIGH   | INCREASED  |
| Winter Storms     | X  | MODERATE   | NO CHANGE  |
| Tornadoes         |  | LOW  | NO CHANGE  |
| Windstorms        |  | LOW  | NO CHANGE  |
| Lightning         |  | LOW  | NO CHANGE  |
| Hail              | X  | MODERATE   | NO CHANGE  |
| Extreme Cold      | X  | HIGH   | INCREASED  |
| Extreme Heat      | X  | MODERATE   | NO CHANGE  |
| Drought           | X  | HIGH   | INCREASED  |
| Wildfire          | X  | HIGH   | INCREASED  |
| Landslides        |  | LOW  | NO CHANGE  |
| Dam/Levee Failure |  | LOW  | DECREASED  |

#### **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.*

##### **Flooding**

Flood Stage in Hammond is 18 feet with Minor Stage at 24 feet and Major Stage at 26 feet. Since the historic Zumbro River flood of 2010, we have seen 6 river elevations over flood stage ranging from 19.3



feet to 27.03 feet. The City of Hammond was able to file a disaster declaration for the September 24, 2010 flood with an estimated river rise of 35.82 feet which caused an upstream levy failure. The City of Hammond incurred catastrophic damage to municipal property and infrastructure. Many of the residential properties suffered catastrophic structural damage or total loss resulting in long term displacement. Since the 2010 flood event the City of Hammond has filed for regional joint disaster declaration for the June 29, 2019 River rise of 27. 03 feet which caused significant erosion damage to the City/DNR canoe access, the City Park access road and parking lot, erosion of the ballfield, destruction of the perimeter fencing and fly ball protection nets, and significant water damage to the municipal park shelter/bathroom facilities, and damage to park equipment. The City of Hammond was able to file claims to our insurance company and independently funded repairs for the damages incurred with the March 16, 2019 rise of 22.08 feet which created erosion damage to the City/DNR canoe landing and access to the City Park/Ballfield, and again for the September 23, 2016 rise of 22.22 feet which created erosion damage to the City/DNR canoe landing and access to the City Park/Ballfield. It is worthwhile to mention that any Zumbro River elevation in the City of Hammond that crests over 15 feet(approximately) contributes to a compounding effect to river bank erosion and continued loss of land mass within the city limits.

### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.   |
|---------------------------------|--|
| <b>All Hazards</b>              | We have a moderate population of senior citizens and low-income residents who have a lack of or limited resources to mitigate housing and property damage or loss related to disaster events. The City of Hammond lacks property, infrastructure, and disposable finances to assist its residents with relocation/shelter if a major event were to occur. Many residents of Hammond have opted away from having traditional land-line telephone service, favoring cellular service which may compromise communication during power outages. The City of Hammond geographically located deep in the Zumbro River Valley, has inconsistent internet, satellite, and cellular services during weather events. The City of Hammond has lack of access to traditional local (Rochester) analog television services based on the fact that we are in the “Minneapolis” district in regards to satellite television services and lack the infrastructure and finances to provide sufficient antenna-based service to receive local signals. Because we are surrounded by limestone bluffs, traditional radio services are inconsistent, and satellite and analog radio services are often disrupted during weather events. Because of these circumstances, the residents of Hammond are vulnerable based on compromised emergency alert and notification systems. While we have a storm siren, this dose not communicate the nature of the emergency, nor the actions that residents must take in the event that all other notification options are compromised |
| <b>Flooding</b>                 | The City of Hammond is vulnerable to flooding as the Zumbro River flows through it. While river crest events have decreased over the last 13 years, the average crest continues to drive upward. In a major flood event, our   |

|                                   |   |
|-----------------------------------|---|
|                                   | <p>city is split in half and separated into East and West sections which complicates evacuation/rescue efforts. In the event of major flooding, municipal and residential water, sewer, and electrical infrastructure is significantly at risk for catastrophic damage. With repeated flood events, debris impact to the bridge as well as continued river bank/bed erosion creates a potential risk for bridge damage/failure which could impact movement/evacuation efforts within the city limits. Yearly river rises continue to have a contributory effect to river bank erosion. Flood events exceeding 20 feet cause damage to the City/DNR canoe access, access and parking lot of the City Park. Events exceeding 25 feet cause significant land erosion of the City Ball Park, Park equipment damage, and damage to the Park Shelter/Bathroom facilities.</p>                   |
| <b>Extreme Cold</b>               | <p>Municipal and residential water infrastructure has an assessed significant probability of compromise dependent on frost depth. The City as several residential properties that have sewer lines that are not buried or insulated sufficiently to prevent freezing. The City requests that these residents trickle running water to prevent residential sewer lines freezing in an attempt to prevent damage to municipal and residential water infrastructure.</p>   |
| <b>Snow/Blizzard / Ice Events</b> | <p>The residents of Hammond are isolated from food, fuel, medical, and emergency resources in the event of extreme blizzard, ice, and/or snow depth. The city does not have a fueling station, grocery store, or Fire/EMS facilities within the city limits and become cut off from such services when roads are impassable. The city does not own snow removal equipment and contracts services leaving the city vulnerable if the service provider cannot get into the City. Such an event occurred on February 24, 2019 when a 12.5-inch snowfall event closed all roads in and out of Hammond for 3 days. 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> |
| <b>Wildfire</b>                   | <p>The City of Hammond is geographically located within the Richard Dorer Memorial Hardwood State Forest. The city is surrounded by wooded bluffs and is inherently at risk of forest fire based on the nature of its location. In the event of a forest fire, there is assessed risk that residents could become entrapped within the city without a viable escape route dependent on contributing factors such as wind, forest dryness, and access and/or abilities of Fire/Rescue services to mitigate a large forest fire event. Access to the city water tower could be compromised dependent on the location of the fire and rate of forest engulfment. The city does not have firefighting equipment to mitigate structural or forest fires, and is dependent on local communities to assist with services.</p>  |
| <b>Windstorms/Tornado</b>         | <p>Due to the geographical location of Hammond, wind and tornado risk is inherently low because of the protection provided by the surrounding bluffs. On rare occasion such as the wind event on September 24, 2019, Hammond does experience downed trees, and residential/municipal roof/structural damage which historically has been low impact. Much of the City's municipal electrical service consists of overhead power lines and</p>  |

|                |   |
|----------------|---|
|                | electrical poles. Those overhead lines and power poles are prone to failure during high winds that may bring down trees and branches. We have a 10-unit RV park west of the river that has the potential to have increased risk and vulnerability during wind/storm events. The city has a park shelter on the east side of the river that tenants can use for shelter, but a member of the City Council has to be present to unlock the facility. The tenants can also utilize the Rock Bottom Bar for shelter if the facility is open for business. |
| <b>Hail</b>    | In the last 10 years there have been 31 hail reports in the Hammond and surrounding area ranging from 1.0 inch to 2.5 inches which has potential to cause residential/municipal structural and auto damage.   |
| <b>Drought</b> | During drought seasons, the City of Hammond is at an elevated fire risk based on geographic location within the Richard Dorer Memorial Hardwood State Forest. Drought may also contribute to flash flood potential related to run-off rates with heavy rain events.   |

#### **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.*

The City of Hammond is working with WSB to secure CPL grant funds for canoe landing refurbishment and is pursuing engagement with HSEM for grand funding for a Rip-Rap River Bank stabilization/flow diversion project to preserve the river bank and reduce damage created by flood events. The city has completed the Feasibility Study and continues moving forward with the project.

In 2022 the city had the underside of the bridge repainted/sealed. Upon County inspection of the completion of the project the County Engineer identified compromised water pipe insulation under the bridge. The City had the issue assessed and utilized the city's budget to complete repairs to current standards.

#### **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.*

There are no new developments increasing vulnerability aside from naturally occurring changes in weather patterns, and naturally occurring changes to the Zumbro River.

### **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 typically send mailings communicating important information, both single mailings, and notices on the public utility billing notices. Legal public notices are printed in the local papers. The City of Hammond shares information on its Facebook page. We have a bulletin board hanging outside City Hall. We have a public notice board near the mailboxes, and an RV Park specific bulletin board at the RV park. We have permissions to post public information at the MinnWest Bank branch in Hammond as well.

## **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?*

The City of Hammond shares information about alternative access to emergency notification systems on its Facebook page and on the city bulletin board. Wabasha County and the City of Hammond alerts local TV and radio stations of emergency alerts. Interruptions in internet/satellite/cellular/analog service during weather events renders these options inadequate as the "storm" events approach the area and during the event. We heavily rely on our storm siren to alert residents of impending danger.

## **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 Hammond's ordinances reflect and enforce the MN State Building Code. The City does not have the land/capacity for new development, therefore does not have a planning/zoning department or plans for future development. The bridge is managed/maintained by Wabasha County as it is on a county road. The city engages with its residents to assist with maintaining fire hydrant access all year. The City encourages the RV park tenants to utilize the park shelter or Rock Bottom Bar for shelter during unfavorable weather conditions. The city encourages and educates residents to observe Red Flag warnings when there is an elevated fire potential. The city communicates with its residents on its FB page when there is forecasted river elevations or other predicted hazards and encourages them to have an emergency evacuation plan. The City reaches out individually to residents who are at risk for sewer line freezing during extreme cold weather and negotiates terms on their utility bill to negate water usage when running water to prevent freezing. The city has a plan to utilize FB, local TV and radio networks, phone chain, and house to house in person notification for immediate danger notifications.

## **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 of Hammond currently has a Councilperson acting as its local Emergency Manager, a councilperson employed as the Water Department Manager, a local resident employed as the Sewer Department Manager, a Councilperson employed as the Clerk/Treasurer, a Councilperson employed as the Clerk Assistant, and the Mayor is employed as the Municipal Property Manager. The Emergency Manager works directly with the Mayor and City Councilmembers concerning and during local emergencies. The city works in cooperation and collaboration with the County Emergency Manager concerning local and regional emergencies/disasters. We work with Xcel Energy Company concerning

electrical service issues. We contract Zumbro Falls Fire and Rescue for our Fire/rescue service provider and have been assigned to Elgin Ambulance service for emergency medical service. We are currently working with WSB for our Canoe Landing Refurbish/River Bank/River diversion project. We engage and cooperate with Wabasha County concerning road/transportation issues related to the County Roads within the city limits.

## **5. PROGRAMS IN PLACE**

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

The City of Hammond's warning siren is linked to Wabasha County's civil warning system and participates in the annual spring tornado siren activation test. Our siren is also tested monthly. We communicate alternate notification systems on our FB page and community bulletin boards and encourage residents to have multiple ways of staying updated with current conditions. We post community hazard warnings with local TV and radio stations and our Face Book page when the hazard is predicted and time allows. We share information for local storm-spotting training as well. The local schools participate in emergency response education for personal safety such as tornado warning response, fire drills, and active shooter training. Occasionally the city will host community clean up events with garbage/waste removal services at reduced cost to residents to assist them with removal of debris, waste, metals, and environmental hazards from their property. The city also enforces city ordinances that pertain to storage and accumulation of residential waste. The city requests residential assistance to help clear the roadside gutters from snow/ice/debris for water drainage during the annual snow melt with the City Councilpersons maintaining responsibility to respond to water accumulations. We also encourage and assist residents to keep fire hydrants accessible during the winter with the snow accumulations. In the winter during significant snow accumulations, we remind and encourage residents to ensure their home's exhaust ventilation remains clear of obstruction.

## **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 of Hammond primarily uses its own budget and in-kind donations from local donors to address mitigation projects such as road/park repairs from flood events, tree and debris clean up from wind events. Public utility funds are commonly used for mitigation of water/sewer infrastructure damage as budgeting affords depending on the scope of damage. The city has resourced FEMA and State Disaster aide for the 2010 and June 2019 flood events to repair municipal infrastructure damage. The residents of Hammond utilized assistance from State Disaster Relief Programs, Red Cross, Lutheran Services, Salvation Army, and other non-profit organizations for funding and disaster relief during the 2010 flood. We are currently working with WSB to resource grant funding for the Canoe Landing Refurbishing/Rip Rap Bank Reinforcement/River diversion project to mitigate future flood damage and bank erosion. We resourced a used storm siren from Wabasha County after the 2010 flood and was linked into their civil alert system. We work with the County of Wabasha concerning county road hazards and bridge maintenance as this fall under the County's jurisdiction. The City of Hammond has a contractual agreement with compensatory terms for Fire/EMS service provided by Zumbro Falls Fire and Rescue.

## **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.*

**Flooding:** The City of Hammond continues to actively pursue grant opportunities to fund the completion of the Canoe Landing Refurbishing/River Bank Rip-Rap/River Diversion project to minimize future bank and access erosion.

### **2. GAPS OR DEFICIENCIES**

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

The City of Hammond is small and has limited financial resources to engage in mitigation projects.

The city also is limited in buildable land to consider infrastructure or growth projects that could potentially support growth in resident population or new business/industry that could contribute to our future economy.

We continue to actively pursue grant opportunities for the Canoe Landing Refurbishing/River Bank Rip-Rap/River Flow Diversion project.

We lack sufficient sources of funding to repair city roads that have been damaged by repeat flood and snow/ice events.

The public utility accounts lack the financial capacity to fund utility projects to bury sewer lines and connections deeper to prevent damage from freezing, or unforeseen damage to the water/sewer utilities.

The premise that the City of Hammond is a “Minneapolis Service Area” as designated by satellite TV providers significantly impedes Hammond’s residents from notifications and real-time monitoring of local hazards and weather events. Interruption of Internet, cellular, satellite, and analog television, cellphone, and radio services during active weather events contributes to increased risk to residents due to inability to receive hazard alerts. Considering the geographical location and topography of the area, the scope of such a mitigation project is financially inconceivable.

## **PART D: SURVEY PARTICIPANTS**

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

Tina Mann, Councilperson / Emergency Manager

# Wabasha 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 KELLOGG

**Point of Contact:**

Name: Crystal Schouweiler  
Job Title: Clerk/Treasurer  
Phone: 507-767-4953  
Email: [cityclerk@cityofkellogg.org](mailto:cityclerk@cityofkellogg.org)

### **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  | moderate   | no change  |
| Winter Storms     | x  | moderate   | no change  |
| Tornadoes         |  |  |  |
| Windstorms        | x  | low  | no change  |
| Lightning         |  |  |  |
| Hail              | x  | low  | no change  |
| Extreme Cold      | x  | moderate   | no change  |
| Extreme Heat      |  |  |  |
| Drought           | x  | moderate   | increased  |
| 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.*

A couple years ago we had a bad storm that took down many trees and lots of damage to roofs.



### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events. |
|---------------------------------|--|
| All Hazards                     | We need a new generator to keep the lift station and wells going. We have just one, so we have to move it around during an outage.   |
| Flooding                        | Our city lift station is prone to flooding during high rain events   |

### 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.

Our last two street projects in 2020 and 2022 added more storm sewers and addressed the water issues, considering most of the water runs downhill during a rain. We built the roads and ditches to get the water to run towards the river.

### 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.

I don't really feel we have 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 have a Facebook page and post information on our 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?

We send out a resident letter every year in the spring and include the site for them to sign up for code red.

### 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.*

Our city is close to full capacity. We don't have a lot of options for growth. We do follow the MN state building code and City code zoning requirements.

#### **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.*

We don't have a designated Emergency Manager. Our public works person watches our lift station during flooding. We are in process of installing an emergency system that will go directly to a phone in emergencies.

#### **5. PROGRAMS IN PLACE**

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

No new programs at this time.

#### **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.*

Our city primarily uses our own budget to address projects.

### **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 need a new generator. Also to encourage residents to be prepared and sign up for CodeRED.

#### **2. GAPS OR DEFICIENCIES**

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

We are a small city with limited financial and staff resources to address mitigation projects.

### **PART D: SURVEY PARTICIPANTS**

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

Crystal Schouweiler, City Clerk

# Wabasha 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 LAKE CITY (partly in Goodhue County)

**Point of Contact:**

Name: John Yorde  
Job Title: City of Lake City Emergency Manager  
Phone: 651-345-3344  
Email: [jyorde@lakecitypd.org](mailto:jyorde@lakecitypd.org)

### **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  | Moderate   | No Change  |
| Winter Storms     | X  | Moderate   | No Change  |
| Tornadoes         | X  | Moderate   | Seems to have increased over past years                              |
| Windstorms        | X  | High   | Increased  |
| Lightning         | X  | Moderate   | No Change  |
| Hail              | X  | Moderate   | No Change  |
| Extreme Cold      | X  | Low  | No Change  |
| Extreme Heat      | X  | Low  | No Change  |
| Drought           | X  | Low  | Drought has increased over past couple of years                      |
| 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.*

- Flooding 2019

- September 24, 2019 (Wabasha County)

An EF-0 (verified by National Weather Service La Crosse) was on the ground for 3 minutes, traveled 1.1 miles, 35 yards wide through Lake City in Wabasha County. A number of buildings, and trees were damaged. A number of residents were without power for a number of days before the power was restored. The Marina was also hit hard damaging a number of boats and parts of the Marina Infrastructure. Local EOC Activated. 9-25-2019 Local Emergency was declared by City Council.

- December 2021 (Wabasha County)

Wind / Hail Storm leaving a lot of hail damage and tree and tree limb damage.

- April 17<sup>th</sup> 2023 (Goodhue County)

Flood Water crested April 25 2023 at 19.5 feet. Central point road having a number of houses which are elevated, were cut off from City services for a period of time (Water, Electric) severely damaging electrical transformers and other minor damage to lower parts of the homes. Road access was closed off. Lake City Marina Point water came close to cresting the rip rap and trailers were moved off the point. Local EOC Activated. April 21 2023 City Council declared a Local Emergency.

## 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.   |
|---------------------------------|--|
| 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. Mitigation from Tree removal in these areas is critical to focus on!   |
| Windstorms and Tornadoes        | <p>We have multiple mobile home parks and a campground within the city that have inadequate storm shelters and residents are vulnerable to high wind and tornado events. Our municipal campground and summer housing is active during summer and fall months with campers and storm shelter s are inadequate for population covered along with distance between residents and the Shelters.</p> <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>Concerns towards all OH Elec Dist. system, especially towards:</p> |

|                          |   |
|--------------------------|---|
|                          | <p>South prairie from Marion to Iowa<br/>Marion from 8<sup>th</sup> to lakeshore<br/>Grant ST to 332<sup>nd</sup> St.</p> <p>Hok Si LA Campground and Marina Point within the city that does not have a storm shelter and residents are vulnerable to high wind and tornado events.</p> <p>We have experienced power outages from strong wind events that brought down power lines, Street Trees, loss in Boulevard areas.</p>  |
| <b>Flooding</b>          | <p>City lift station and electrical for City and Central point usually needs to be shut off when extreme flooding is involved especially during spring flooding.</p> <p>HSL-Loss of upland / erosion and restoration needing to be completed.</p> <p>Lift station occurrences: infiltration occurs at Sprague lift and central point lift (loss of electrical service to central point and marina point) Sanitary infiltration occurrences.</p> <p>Marina Point: Emergency Move of Trailer homes, sanitary infiltration, and discharges. Electrical Equipment restoration</p> <p>Ohuta Park: Retaining wall undermined due to flooding and loss of upland from erosion.</p> <p>Roschen Park: Loss of upland from erosion</p> <p>City owned Shoreland is exposed to loss from erosion.</p> |
| <b>All Hazards</b>       | <p>A Generator would be beneficial for City Hall. City Hall houses the IT Server for the Public Safety Building along with other crucial departments. During power outages public safety is without internet service and electronic files needed for response.</p> <p>A Generator would be beneficial for local public school. Local School are identified as a shelter in city EOP as in many cities due to size and accessibility.</p>  |
| <b>Erosion / Run Off</b> | <p>Upper Bluff land caused mass amount of sediment runoff from hill top areas into Jewel subdivision (Oakhurst)</p>   |

#### 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.*

- Currently our city municipal electric dept has and is ongoing with converting overhead power lines to underground. Always renewing and updating city shelter plans and contacts with shelter agreements.

- After spring flooding in 2019, Mitigated flooding loss along shorelines and reinforced slopes with armoring at sportsman's area in 2021.
- Marina has been armoring inner harbor and looking towards outer harbor.
- Recently gained a stormwater resiliency grant and look forward to mapping and surface water modeling that will help control waters received and how it affects properties. Upgrades to Elec dist. have been occurring- poles, conductor modifications from OH to underground Areas included: So. Oak, Chickadee, Park St.

## **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.*

In the past few years, the city population has steadily increased the Jewell addition with new construction which has increased our population and damage to additional structures. With the new construction retention ponds have been mandated in the city planning. More homes have been built slab on grade, so residents do not have a basement/shelter for safety during high wind or tornado events. With the construction of a new affordable / high density housing there is a large concentration of residents during a disaster event.

We have seen slow growth in our community, roughly 12 new homes a year and a very small amount of commercial growth. There have been additional homes on the shoreland which does increase flooding concerns on central point road.

Small increase in use at Hok Si La Park (Goodhue County) which could lead to an increase in fire potential. Addition of cabins (9) expose greater risk to property loss.

## **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, Public Works and Police Dept Facebook pages as needed. Our city has access to a Public City informational page on out town TV provider. City webpage is used as needed with a General Information tab. City Hall also has a community Bulletin board for posting of information also.

### **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, Lake City does use CodeRED. We have a link from the City of Lake City web page with a link to the County CodeRED signup page. We include information twice annually in the local newspaper. When new

residents move into town a flyer is included with the Welcome wagon packet information. Annually information goes out in city wide utilities and information is available at the front counter of the Police Department. We have also in the past couple of years done a signup event for anyone who needs assistance, especially for seniors, anyone is welcome to come for assistance or ask questions.

### **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's planning and zoning department enforces the MN State Building Code and the City Code zoning requirements for new development. The current city Comprehensive Plan that is designated to plan for the future physical growth of the city and appropriate land uses. The city works with all mobile home parks and identified other high density housing locations.

### **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.*

Lake City has an Emergency Manager who works closely with the Police Chief, Fire Chief, Ambulance Director, Public works and multiple department heads. Emergency Management continuously trains with a volunteer group, outside city volunteers who are eager to work in the City EOC when requested to respond and assist. EM hosts a yearly City tabletop for city employees on how to work with the city EOC and response to Emergency situations, including phone and radio operations along with responsibilities of all city employees. Lake City is an AMEM, and MnWARN member.

### **5. PROGRAMS IN PLACE**

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

Our city works with the county to participate in the National Weather Service's annual Severe Winter/Spring Weather Awareness week by posting severe weather awareness information out on the dept Facebook page. Our local school practices tornado drills on an annual basis. The city does informational yearly as requested by local civic groups.

### **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 such as flood mitigation for identified areas. We are continuously working with our city electric crew, converting overhead powerlines to underground services.



The city is proactive with any disasters, often utilizing its general funds and having exceptionally skilled staff to find conservative solutions. Grant monies have been utilized in the past and we seek reinforcement now and, in the future, to help mitigate these disasters.

FEMA dollars for erosion repairs at sportsman area off of South Oak

Assistance is provided from other Electrical coops, i.e.. Goodhue County Electrical Coop.

## **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**
  - Work with educating local residents to be prepared for sheltering and building safe rooms.
  - Infrastructure inventory needs to be on hand especially with the extreme supply chain shortages we face.
- **Extreme Cold** - Encourage residents to be prepared for periods of extreme cold and potential power outages. Use our city website and utility bills to notify residents to avoid freezing pipes during sub-zero weather.
- **Severe Winter / Summer Storms** - Post information on the city's website and local bulletin boards to encourage residents to sign up for the county's emergency notification system. Participate in the National Weather Service's Severe Weather Awareness Weeks.
- **Flooding**
  - Prepare a comprehensive plan on needed proactive response to mitigate future damage. Increased floodwalls
  - Mccahill Park mitigate Flooding hazard
  - Pole replacement program, (attempt to gain grants towards resiliency projects)
  - HSL Shoreland armoring
  - Sportsmans Shoreland Armoring
- **Winter Storms**- Infrastructure inventory needs to be on hand especially with the extreme supply chain shortages we face.
- **Drought** - Infrastructure inventory needs to be on hand especially with the extreme supply chain shortages we face. Improvements to reservoirs needed
- **Landslide** - Example: Subdivision on west edge of town has had landslides due to improper buffering and storm water runoff. City to purchase affected properties in Oakhurst lots in subdivision to mitigate any future loss and engage with proper response to control bluff land

protection from private owners Mapping of infrastructure to help staff needs towards planning of improvements and be proactive towards stormwater mitigation

## **2. GAPS OR DEFICIENCIES**

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

Post Information out on City social media encouraging residents to sign up for the County Emergency Notification system also how to push out information on mitigation.

Constant communication / reinforcement, i.e. Radio use, Cell phone integration, cross training of Crews for inspection of infrastructure needs, increased safety training, cross training of safety needs with Fire/EMS/PD/County

Capital improvement budgeting: Increased generator capacity, Dewatering Pump upgrades, Bathhouse/storm shelter at HSL,

Reinforcing our city's development needs by cleaning up blight and hazardous structures is a clear priority. Adding Fire code official to fully support MN fire code is needed, along with updating public works standards and specifications to construction needs in an order to increase safeguarding our communities.

## **PART D: SURVEY PARTICIPANTS**

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

John Yorde, City of Lake City Emergency Manager  
Tom Brown, City of Lake City Emergency Management  
Robert Benson, City of Lake City Ambulance  
Scott Jensen, Public Works Director  
Travis Dunn, Public Works Assistant Director  
Bruce Wallerich, Streets/Parks Superintendent  
Travis Wetter, Electrical Foreman  
John McCormick, Water Foreman

# Wabasha 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 MILLVILLE

**Point of Contact:**

Name: Todd Cutting  
Job Title: Mayor  
Phone: (507) 798-2504  
Email: [Tcutting1@embarqmail.com](mailto:Tcutting1@embarqmail.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          |  | Low  | No change  |
| Winter Storms     |  | Moderate   | No change  |
| Tornadoes         | X  | Moderate   | No change  |
| Windstorms        |  | Moderate   | No change  |
| Lightning         |  | Moderate   | No change  |
| Hail              |  | Moderate   | No change  |
| Extreme Cold      | X  | High   | No change  |
| Extreme Heat      |  | Moderate   | No change  |
| Drought           | X  | High   | Increased  |
| Wildfire          |  | Low  | 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.*

None noted.

### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events. |
|---------------------------------|--|
| All Hazards                     | Need backup generator for well house in case of long power outage.   |
| Extreme Cold                    | City has experienced frozen water services.  |

### 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.

None.

### 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.

Flooding is rare due to the high elevation of the city in proximity to the Zumbro River and is not considered to pose an increase in vulnerability to the city. We have FEMA Mapped High Risk Areas, but are not participating in the NFIP since flooding does not pose risk to any structures. There is no new development currently.

## **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.

None.

### 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?

No, we have not but would like too.

### 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 Millville has not adopted the MN State Building Code, however, the city issues building permits and guidelines for additions and buildings.

#### **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.*

None

#### **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.*

City uses its own budget

### **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.*

None. The city installed a new siren. No other projects identified.

#### **2. GAPS OR DEFICIENCIES**

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

City does not have its own website.

### **PART D: SURVEY PARTICIPANTS**

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

Todd Cutting, Mayor

# Wabasha 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 MINNEISKA

**Point of Contact:**

Name: Mike Konkel  
Job Title: Emergency Manager  
Phone: 507-458-5160  
Email: [mdkonkel@hbc.com](mailto:mdkonkel@hbc.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          |  | Low  | No Change  |
| Winter Storms     |  | Low  | No Change  |
| Tornadoes         |  | Low  | No Change  |
| Windstorms        |  | Low  | No Change  |
| Lightning         |  | Low  | No Change  |
| Hail              |  | Low  | No Change  |
| Extreme Cold      | X  | Moderate   | No Change  |
| Extreme Heat      | X  | Moderate   | No Change  |
| Drought           |  | Low  | No Change  |
| Wildfire          |  | Low  | 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.*

No disaster declarations.

### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events. |
|---------------------------------|--|
| Train Derailments               | We have had 2 train derailments in the city in the last 10 years.  |
| Ice Storms                      | A variety of short term power outages have occurred due to overhead power affected by ice storms.  |

### 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.

There are no plans to improve vulnerabilities. We are small community of only 53 people.

### 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.

## **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.

Our city has a website but it is not set up to share information on weather events.

### 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?

Local emergency notifications were available through out network provider but is no longer available. Residents were encouraged to use cell phone apps.

### 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.

Currently our city is using the building permit process to identify structures that will require additional inspections.

#### **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 manager and relies on local fire departments.

#### **5. PROGRAMS IN PLACE**

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

Railroad derailments are our biggest exposure and concern at this point.

#### **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.*

Our city has very limited resources.

### **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.*

None. We do not have any mitigation actions that need to be addressed.

#### **2. GAPS OR DEFICIENCIES**

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

Funding

### **PART D: SURVEY PARTICIPANTS**

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

Mike Konkel, Emergency Manager



# Wabasha 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 PLAINVIEW

**Point of Contact:**

Name: Michael Lyons  
Job Title: Emergency Management Director/Fire Chief  
Phone: 507-951-5232  
Email: [mtac95@gmail.com](mailto:mtac95@gmail.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  | Moderate   | Decreased  |
| Tornadoes         | x  | High   | No Change  |
| Windstorms        | x  | High   | Increased  |
| Lightning         | x  | Moderate   | No Change  |
| Hail              | x  | Moderate   | Increased  |
| Extreme Cold      | x  | Low  | No change  |
| Extreme Heat      | x  | Low  | No Change  |
| 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.*

December 15th 2021 tornado just outside of the city power lines and some trees and branches down in town lots of buildings and trees down just outside of the city within a 1-2 mile radius to the west and south and east of town. Hail storm in April of 2022 damaged numerous homes roofs and siding.

### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.                           |
|---------------------------------|--|
| Windstorm/Tornado               | Our storm shelter is our high school. Problem is there is no back up generator if the power goes out. We also have 2 private mobile home parks within the city; neither of them have storm shelters. |
| Winter Storms / Wind Storms     | Most of the cities power lines are overhead so they could be downed by ice or high winds   |

### 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.

The City's Emergency Operation Center which is the fire station has a backup generator. All outdoor warning sirens have battery backup in case of power failure. Two out of three lift stations have backup generators. The city is looking at installing a generator for well for the city's water supply.

### 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.

Many new homes in the subdivisions are slab on grade. We're seeing a lot more water run off with new subdivisions plus it seems like the storms drop more measurable rains in a short period of time.

## **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 the city's website and Facebook page. We use our local newspaper and code red emergency alert system.

### 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, in the past, reached out to the public on signing up for the code red notification system.

### **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 put together emergency evacuation plans for both private mobile home parks. Work with school for sheltering.

### **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.*

As of right now the city's fire chief is also the emergency management director. We have a city engineer and a public works director to overlook the city's infrastructure. The city also follows the county hazard mitigation plan.

### **5. PROGRAMS IN PLACE**

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

The city participates in the state's severe weather awareness week in the spring. The fire department does storm spotter training annually. The power company keeps up on updating the electrical service in town and also trims trees and vegetation near the overhead power lines.

### **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 budgets for any upcoming projects.

## **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.*

Post information on the city's website and Facebook page encouraging residents to sign up for the code red emergency notification system. Encourage residents to be proactive and prepare for severe weather.

## **2. GAPS OR DEFICIENCIES**

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

N/A

## **PART D: SURVEY PARTICIPANTS**

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

Shane Loftus, Public Works Director

Michael Lyons, Emergency Management Director/Fire Chief

# Wabasha 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 WABASHA

**Point of Contact:**

Name: Riley Costello  
Job Title: Director of Emergency Management  
Phone: (507) 319-4001  
Email: [pwasst@wabasha.org](mailto:pwasst@wabasha.org)

### **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 on 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  | High   | Increased  |
| Winter Storms     | X  | High   | Increased  |
| Tornadoes         | X  | Moderate   | No Change  |
| Windstorms        | X  | High   | No Change  |
| Lightning         | X  | Moderate   | No Change  |
| Hail              |  | Low  | No Change  |
| Extreme Cold      | X  | Moderate   | No Change  |
| Extreme Heat      | X  | Moderate   | No Change  |
| Drought           | X  | Moderate   | Increased  |
| Wildfire          |  | Low  | 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 damage in your community or resulted in a disaster declaration.*

In the Spring of 2023, the city of Wabasha faced a flood that reached the 4<sup>th</sup> highest crest in the town's history. The flood increased workflow in all departments, especially Public Works. The flood caused quite a lot of damage to the city of Wabasha's Park buildings and gravel roads. There were high winds in

2022 and 2018. In 2018, there was a rail car that leaked some oil and the city had to work on clean up because it was in the wellhead protection area.

### 3. LOCAL VULNERABILITIES

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

| Natural Hazard<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.  |
|---------------------------------|---|
| All Hazards                     | St. Felix, Wabasha-Kellogg Schools, and St. Elizabeth's serve as emergency shelters. St. Elizabeth's is vulnerable to being cut off during a flood. We also have a large population of senior citizens that do not use cell phones to receive emergency notifications.  |
| Flooding                        | The City of Wabasha is prone to river flooding since we border the Mississippi River. Our previous flood in 2023 left us with a lot of damage to our gravel roads, park assets, and lighting. During the recovery phase, it was identified that a section of riprap along the bank of Lawrence Blvd needed to be replaced. The bank is eroded and should be addressed in the next couple of years.  |
| 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.   |
| Windstorms and Tornadoes        | We have 2 mobile home parks within the city that do not have a storm shelter and residents are vulnerable to high wind and tornado events. They can use the schools or bathrooms. Our municipal campground is active during summer and fall months with RVs and campers and does not have a storm shelter. We also have new development in the west end of the city that should have an outdoor warning siren installed. 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 also 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 city has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.   |

### 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.*

The City of Wabasha has seen a large reduction in vulnerability in the year 2023. The largest project that took place was getting our Athletic Field (Athletic Complex) out of the flood plain. The park was moved from our land off Bridge Street between Hiawatha Drive and 4<sup>th</sup> Grant Blvd to the land surrounding City Hall. Another project that took place and will continue throughout 2024 is the reconstruction of our

downtown area. Sanitary sewer and storm water was replaced along with the road surface on Main Street. The city will plan for infrastructure improvements to prevent future flooding with a grant from State of Minnesota. The city has more equipment to be prepared for incidents (trailers, air boat, generators, portable pumps). The fire station can activate sirens with a generator. The City of Wabasha raised manholes to provide access to wastewater system during flooding.

## **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.*

Railroad traffic continues to increase, with toxic chemicals. Any railroad accident or leaks could potentially damage the city's water supply because it runs through the wellhead protection area. The transportation of barge traffic continues to increase on the river and a potential spill could have a negative impact on the river. Wabasha's population is aging, and they are a more vulnerable population. Eagles Basin is growing, and we anticipate a future 44-unit apartment building.

## **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 of Wabasha has its own Facebook page, Website, and continues to use CodeRed and postings in the local newspaper. We release issues to the radio and TV.

### **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. Signup information for CodeRed gets shared on every storm watch we post on Facebook regarding storms.

### **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's planning and zoning department enforces the MN State Building Code, flood plain requirements, shoreland overlay, bluff land impact, and the City Code zoning requirements for new development. We have a 20-year Comprehensive Plan that is designed to plan physical growth of the city and appropriate land uses. We will have a resiliency plan to reduce repetitive flooding. The city will work with our 2 mobile home parks on emergency evacuation and sheltering of residents. We have a wellhead protection plan to prevent the water supply from being contaminated.

#### **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.*

Our Assistant Public Works Director is the city's designated Emergency Manager, with support by our Fire Chief, Police Chief, Ambulance Director, and Public Works Director. We have a contracted city engineer and a public works director that address road maintenance issues for flooding (culverts, repetitive flooding). We have worked with the SWCD to address bank stabilization issues. We worked with the county emergency manager to address the upgrade of our outdoor warning siren. We are a member of MnWARN. We are part of Minnesota Rural Water and provided us free pumps during the flood. We work with Rotary, school, Lion's Club on clean up efforts. The plant and public works department all have generators to keep the city running if power is out.

#### **5. PROGRAMS IN PLACE**

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

Our city works with the county to participate in the National Weather Service's annual Severe Winter/Spring Weather Awareness Week by posting severe weather awareness information out on our city Facebook page. Our local school practices tornado drills on an annual basis. Every spring and fall, we sweep streets to prevent clogging of storm sewers and gutters. Each year, we plan to do outreach to encourage residents to maintain their sump pumps to reduce the chances of basement flooding. We have a reception center program that would help us in a mass evacuation.

#### **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, such as replacement of culverts. We have also worked closely with the contracted engineer/FEMA on local flood mitigation projects for roads and the zoning department when we updated our local floodplain ordinance. In 2021, the city raised two manholes to prevent contamination of wastewater system during the flood. The city has also worked with the SWCD to address erosion issues. We have access to reception center funds.

### **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 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 could work to add a siren on Skyline Drive. Work with the local mobile home park owner to construct a storm shelter or tornado safe room. We need to develop an evacuation and sheltering plan with the mobile home park.



- **Flooding** – Educate homeowners about the benefits of flood insurance. Re-engineer the ditch near the wastewater treatment plant to keep flood waters from entering the plants. Implement new storm sewer upgrades as construction projects. Work with the city engineer on local flood reduction measures. Enforce the city’s sump pump ordinance to minimize impacts to the city’s stormwater system. Rip-rap needs to be added to the riverbank. Purchase our own pumps for flooding.
- **Severe Winter / Summer Storms** – Post information on the city’s website and local bulletin boards to encourage residents to sign up for the city’s emergency notification system. Participate in the National Weather Service’s – Severe Weather Awareness Weeks. Educate campers and boaters to seek shelter during a storm. Purchase additional generators to run wells during a severe storm.
- **Extreme Cold** – Encourage residents to be prepared for periods of extreme cold and potential power outages. Use our city website and utility bills to notify residents to avoid freezing pipes during sub-zero weather. Work with the local nursing home to prepare emergency plans for extended power outages. Our chances increase for frozen pipes and frozen water mains during extreme cold. As we continue to replace lines throughout the city, this will help. Educate homeowners about replacing their lines deeper.

## 2. GAPS OR DEFICIENCIES

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

Not all residents are signed up for the emergency notification system. We are a small city with limited financial and staff resources to address local mitigation projects. FEMA did not approve rip rap funding for the City of Wabasha, and we do not have funds available. We need a debris management plan if there was a tornado, we don’t know where all the debris would go.

## **PART D: SURVEY PARTICIPANTS**

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

Riley Costello, City Emergency Manager/Assistant Public Works Director  
 Wendy Busch, City Clerk  
 Pat Mueller, Water/Wastewater Superintendent  
 Joe Stark, Police Chief  
 Darren Sheeley, Fire Chief  
 Caroline Gregerson, City Administrator

# Wabasha 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 ZUMBRO FALLS

**Point of Contact:**

Name: Sue Eischens  
Job Title: City Clerk  
Phone: (507) 753-2423  
Email: [zumbrofallscityclerk@gmail.com](mailto:zumbrofallscityclerk@gmail.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          | X  | High   | No change  |
| Winter Storms     | X  | Moderate   | No change  |
| Tornadoes         |  |  |  |
| Windstorms        | X  | Moderate   | No change  |
| Lightning         |  |  |  |
| Hail              |  |  |  |
| Extreme Cold      | X  | Moderate   | No change  |
| Extreme Heat      |  |  |  |
| Drought           | X  | Moderate   | No change  |
| 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.*

We have had typical seasonal windstorms and winter weather.

### 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<br>(please list) | Vulnerability Assessment<br>Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events. |
|---------------------------------|--|
|                                 | Nothing to report for specific local vulnerabilities.  |

### 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.

The Buckoman waterway project was completed in 2011 for flood mitigation.

### 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.

We have not had any increase in vulnerability. There is currently no new development or expansion in the city.

## **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 uses our city website and city Facebook page to share information with residents and visitors. We also have community bulletin boards to post information such as at City Hall and local businesses.

### 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 done this to date. We will work with Wabasha County Emergency Management to help us put a link to the county's CodeRED sign up page on our city website and city Facebook page.

### 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 follows MN State Building Code and has a local zoning and permitting plan.

#### **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 clerk and city council. Our city council, maintenance department and Water/Sewer dept. work together to assess where there are any infrastructure project improvements needed. We work with Wabasha County Emergency Management as needed.

#### **5. PROGRAMS IN PLACE**

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

We don't have any programs in place.

#### **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.*

We use our city operating budget as needed to be allocated to different efforts.

### **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.*

Continue to work on public outreach and education for hazard conditions and preparedness.

Enforce watering restrictions during drought.

Continue to address any improvements for stormwater management and provide local flood stage information to our residents.

#### **2. GAPS OR DEFICIENCIES**

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

Nothing to report. We are a small city and have limited funds.

### **PART D: SURVEY PARTICIPANTS**

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

Sue Eischens, City Clerk

## **Appendix D – Plans & Programs in Place**

# Wabasha County

## HMP Plans & Programs in Place Form

| EMERGENCY PLANNING CAPABILITIES  | Yes/No | Comments  |
|--|--------|---|
| Emergency Mass Notification System   | Yes    | CodeRED   |
| Outdoor Warning Sirens (#'s and location)  | Yes    | Bellechester –<br>Elgin – 2<br>Hammond – 1<br>Kellogg – 1<br>Lake City – 7<br>Mazeppa – 2<br>Millville – 1<br>Minneiska – 0<br>Plainview – 3<br>Wabasha - 2<br>Zumbro Falls - 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  | Yes    | Wabasha County is a designated WRN Ambassador   |
| Coordination with Schools  | Yes    | Tornado Drills, other trainings   |
| Coordination with Neighboring County/Tribal Jurisdictions  | Yes    | Annual regional planning and training; statewide AMEM conference & Governor's EM 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> | Yes | Wabasha County Public Health has preparedness plans in place                        |

| PLANNING & REGULATORY CAPABILITIES                        | Yes/No | Comments   |
|---|--------|--|
| Comprehensive/Land Use Plan                               | No     |  |
| Capital Improvements Plan                                 | No     |  |
| Economic Development Plan                                 | No     |  |
| Climate Adaptation Plan                                   | No     |  |
| Continuity of Operations Plan (COOP)                      | Yes    | Wabasha County Emergency Management in coordination with other county departments  |
| Transportation Plan (Roads, Bridges, Culverts, Ditches)   | Yes    | Wabasha County Highway Department 2023 – 2032 Road and Bridge Improvement Plan   |
| Stormwater Management Plan / Drainage Plan                | No     |  |
| Burning Permits/Restrictions (Sheriff's Office or MN DNR) | Yes    | MN DNR   |
| Comprehensive Local Water Management Plan                 | Yes    | Wabasha County Comprehensive Local Water Plan 2015-2025 (with 2020 update)   |
| Watershed Plan (One Watershed, One Plan)                  | Yes    | Greater Zumbro 1W1P - Watershed Alliance for the Greater Zumbro 2022-2031 Comprehensive Watershed Management Plan Summary, Nov. 2021 |
| Wellhead Protection Plan                                  |        | Municipal level plans are done in coordination with MDH  |
| Forest Management Plan                                    | No     |  |
| Community Wildfire Protection Plan (CWPP)                 | No     |  |
| Participation in MN DNR Firewise Program                  | No     |  |



|                                      |    |  |
|--------------------------------------|----|--|
| Database of Dry Hydrants/Well Access | No | Local fire departments and MN DNR may have data on rural water sources |
| <i>Other (please describe)</i>       |    |  |

| LOCAL POLICY / PROGRAM CAPABILITIES           | Yes/No | Comments  |
|---|--------|---|
| Land Use, Planning, & Zoning Ordinance        | Yes    | Ordinance #48, Wabasha County Zoning Ordinance, amended 05/17/2023  |
| Subdivision Ordinance                         | Yes    | Wabasha County Subdivision Regulations, August 2002   |
| Building Codes                                | Yes    | Wabasha County Planning & Zoning is responsible for the administration of the Wabasha County Zoning Ordinance and the MN State Building Code. |
| National Flood Insurance Program (NFIP)       | Yes    | Wabasha County NFIP entry date 02/18/81   |
| Flood insurance rate maps                     | Yes    | Current effective map date 06/20/2000   |
| Floodplain Ordinance                          | Yes    | Wabasha County Floodplain Ordinance, adopted 12/17/1991   |
| Shoreland Ordinance                           | Yes    | Wabasha County Shoreland Management Ordinance, adopted 05/05/1992, superseded by Ordinance #48, Wabasha County Zoning Ordinance               |
| Minnesota Buffer Law / Soil Erosion Ordinance | Yes    | Wabasha SWCD oversees monitoring plan for buffer compliance tracking  |

|   |     |   |
|---|-----|---|
| Home Buyouts for flood or erosion mitigation                                      | Yes | Wabasha County conducted property buyouts in 1997 and 2010. |
| Other natural hazard specific ordinance (i.e., stormwater, steep slope, wildfire) | No  |   |
| Maintenance programs to reduce risk   | Yes | Highway Dept. ROW maintenance and drainage systems          |
| <i>Other (please describe)</i>  |     |   |

| ADMINISTRATIVE/TECHNICAL CAPABILITIES     | Yes/No | Comments  |
|---|--------|---|
| Emergency Management Director             | Yes    | Wabasha County Emergency Management Director  |
| Sheriff/Police Department                 | Yes    | Wabasha County Sheriff's Office   |
| Floodplain Administrator                  | Yes    | Wabasha County Planning & Zoning Director   |
| Chief Building Official                   | Yes    | Wabasha County Planning & Zoning Director   |
| County Engineer                           | Yes    | Wabasha County Highway Department – County Engineer   |
| Mapping Specialist (GIS)                  | Yes    | Wabasha County Wabasha County GIS/Rural Addressing Coordinator  |
| Public Health Coordinator/Department      | Yes    | Wabasha County Public Health Department / we also have a PHEP Coordinator                             |
| Planning Commission                       | Yes    | Wabasha County Planning Commission – residents appointed by the Wabasha County Board of Commissioners |
| Soil and Water Conservation District      | Yes    | Wabasha County SWCD   |
| Minnesota Department of Natural Resources | Yes    |   |
| Mitigation Planning Committee             | Yes    | 2023 HMP Update Planning Team   |

|                                |     |          |
|--------------------------------|-----|----------|
| Mutual Aid Agreements          | Yes | Regional |
| <i>Other (please describe)</i> |     |          |

| <b>EDUCATION &amp; OUTREACH CAPABILITIES</b> | <b><i>Yes/No</i></b> | <b><i>Comments</i></b>                      |
|--|----------------------|---|
| 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>               |                      |   |

## **Appendix E – Past Mitigation Action Review Status Report**

# Wabasha County

## Past Mitigation Action Review Status Report

Following is a report on the status of mitigation actions related to natural hazards included in the Wabasha 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 Wabasha County and by city jurisdictions, as applicable.

| Hazard      | Mitigation Action   | Jurisdiction                | Status    | Comments   |
|-------------|---|-----------------------------|-----------|--|
| All-Hazards | Work to ensure that all Wabasha County residents are aware of and sign-up for the CodeRed emergency notification system.  | Wabasha County & All Cities | Ongoing   | This is an ongoing effort of Wabasha County Emergency Management (WCEM) and local jurisdictions. |
| All-Hazards | Increase coordination and communication with HAM radio operators to support emergency communications capabilities within the County.  | Wabasha County              | Delete    | Not a necessary mitigation action.   |
| All-Hazards | Ensure plans are in place for temporary mass care sheltering, evacuation, and relay of information to the public in the event of a major storm, power outage, or other event that requires temporary relocation to protect life safety. | Wabasha County              | Ongoing   | Ongoing by Wabasha County Public Health and Emergency Management.                                |
| All-Hazards | Ensure facilities are designated throughout the County to serve as mass-care shelters through agreements with the American Red Cross. Ensure facilities are accessible for special populations.   | Wabasha County              | Ongoing   | Ongoing by Wabasha County Public Health and Emergency Management.                                |
| All-Hazards | Ensure there is access to real-time weather data such as temperature, wind speed, direction and storm conditions for emergency personnel.   | Wabasha County              | Completed | Wabasha County is now using DTN WeatherSentry for local emergency managers                       |

| Hazard                        | Mitigation Action  | Jurisdiction   | Status  | Comments   |
|-------------------------------|--|--|---------|--|
| Severe Winter / Summer Storms | Promote the use of NOAA weather radios as a key communications resource for residents, businesses, and facilities that house vulnerable populations.                                   | Wabasha County & All Cities  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions.   |
| Severe Winter / Summer Storms | Purchase additional NOAA weather radios and make them available for distribution to facilities that house vulnerable populations.  | Wabasha County   | Delete  | The county does not purchase NOAA weather radios.  |
| 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.                       | Wabasha County & All Cities  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions.   |
| Severe Winter / Summer Storms | Purchase and install generators or related equipment (e.g., generator hook-ups) for identified critical facilities that require backup power.  | Wabasha County & All Cities  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions.   |
| Severe Winter / Summer Storms | Work with public utilities to evaluate/implement mitigation projects such as hardening or burying of power lines that are vulnerable to failure from severe ice storms or wind storms. | Wabasha County & All Cities  | Ongoing | The rural and municipal utility coops continue to address a range of mitigation actions to reduce risk of power failure due to overhead power lines. |
| Severe Summer Storms          | Identify cities and rural areas within the County where there are gaps in warning siren coverage, and work to obtain funding to install new sirens.                                    | Wabasha County, City of Millville, City of Minneiska, City of Wabasha                  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions. Warning sirens are expensive and difficult to obtain funding for.                         |
| Severe Summer Storms          | Work to ensure that manufactured home parks (MHPs) meet Minnesota Department of Health Evacuation Plan & Storm Shelter Requirements.   | Wabasha County, City of Lake City, City of Plainview, City of Mazeppa, City of Wabasha | Ongoing | Ongoing by Wabasha County Public Health and MDH in coordination with mobile home park operators and city governments.                                |

| Hazard                        | Mitigation Action  | Jurisdiction   | Status  | Comments  |
|-------------------------------|--|--|---------|---|
| Severe Summer Storms          | Identify areas where vulnerable populations are susceptible to tornadoes or extreme wind events  | Wabasha County & All Cities  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions.  |
| Severe Summer Storms          | Implement construction or retrofit projects for safe rooms or storm shelters in identified vulnerable locations.   | Wabasha County & All Cities  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions. Funding for construction projects is a limitation. |
| Severe Summer Storms          | Post information in local campgrounds on safety precautions and protective measures for campers to take in the event of severe summer storms.  | Wabasha County City of Hammond<br>City of Lake City<br>City of Wabasha | Ongoing | Ongoing individually by campgrounds that have information posted for visitors.                                |
| Extreme Temps (Heat/Cold)     | Provide outreach & education to vulnerable populations in the community (i.e., senior citizens, young adults) on personal safety measures to take during periods of extreme heat / cold. | Wabasha County,<br>School Districts                                    | Ongoing | Ongoing by WCEM, WCPH, and school districts.  |
| Extreme Temps (Heat/Cold)     | Evaluate and address community capabilities to provide temporary warming or cooling centers to the public during periods of extreme hot or cold temperatures.                            | Wabasha County & All Cities  | Ongoing | This is an ongoing effort of WCEM and local jurisdictions.  |
| Severe Winter / Summer Storms | Work with MNDOT and local public safety to limit travel by the public during hazardous driving conditions that result from severe winter/summer storms.                                  | Wabasha County   | Delete  | Not a necessary mitigation action.  |
| Severe Winter Storms          | Evaluate and implement the planting of windbreaks to serve as a “living snow fence” to help prevent blowing and drifting snow onto key transportation routes.                            | Wabasha County   | Ongoing | This would fall under Wabasha SWCD program efforts.   |

| Hazard   | Mitigation Action  | Jurisdiction  | Status  | Comments  |
|----------|--|---|---------|---|
| Flooding | Promote “Turn Around, Don’t Drown” campaign materials in advance of and during periods of flooding.  | Wabasha County  | Delete  | Not needed as a mitigation action, WCEM, NWS, MnDOT and local media all share information with the public on hazardous road conditions during high rain/flood events. |
| Flooding | Identify and implement local flood-reduction measures to reduce flood impacts to transportation infrastructure, (i.e., armoring with riprap along streams adjacent to roads & bridges and at culvert outlets, and upsizing of culverts where repeated over- topping occurs or debris potential). | Wabasha County & All Cities   | Ongoing | Ongoing by Wabasha County Highway Dept. and local road authorities.   |
| Flooding | Identify and implement necessary improvements to the Zumbro River existing levee to reduce risk for 50-year designed levee.  | Wabasha County  | Ongoing | Ongoing as necessary by Wabasha County & Wabasha SWCD.  |
| Flooding | Reduce downstream flooding by creating upland stormwater storage in multiple watersheds (mostly Zumbro River).   | Wabasha County  | Ongoing | Ongoing as necessary by Wabasha County & Wabasha SWCD.  |
| Flooding | Continue participation in the National Flood Insurance Program (NFIP). (Jurisdictions with FEMA-mapped high risk areas.)   | Wabasha County City of Mazeppa, City of Wabasha, City of Minneiska City of Zumbro Falls | Ongoing | Wabasha County and cities enrolled in the NFIP continue to participate in the program and enforce the requirements of the NFIP program.                               |
| Flooding | Ensure all cities within Wabasha County have Shoreland and/or Floodplain Ordinances that meet state and federal regulations.   | Wabasha County & All Cities   | Ongoing | Wabasha County and cities that participate in the NFIP have floodplain ordinances in effect.  |
| Flooding | Encourage city and county participation in FEMA Community Rating System program.   | Wabasha County  | Ongoing | Ongoing.  |



| Hazard   | Mitigation Action  | Jurisdiction                | Status    | Comments  |
|----------|--|-----------------------------|-----------|---|
| Flooding | Complete a countywide flood mitigation plan that includes the identification of flood prone and repetitive loss structures and identification of flood mitigation projects.            | Wabasha County              | Ongoing   | The county continues to work with the SWCD and other watershed districts on 1W1P efforts that include projects that address flood mitigation. |
| Flooding | Adopt new DFIRM floodplain maps (Digital Floodplain Insurance Maps) once available and inform cities and the public of new flood plain boundaries.                                     | Wabasha County              | Completed | Current effective map date is 06/20/2000.   |
| Flooding | Provide information to property owners on ways to reduce local flood damage to properties, such as grading and landscaping, and green infrastructure.                                  | Wabasha County              | Ongoing   | Information is available to property owners by the county and SWCD.   |
| Flooding | Evaluate the locations and numbers of stream monitoring stations throughout the County, and coordinate and/or purchase additional monitoring equipment if necessary.                   | Wabasha County              | Ongoing   | This falls under USGS and SWCD programs.  |
| 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. | Wabasha County & All Cities | Ongoing   | Ongoing by Wabasha County Highway Dept. and local city public works depts.  |
| Flooding | Implement storm water management structure and infrastructure projects to assist with flood management throughout the County.  | Wabasha County & All Cities | Ongoing   | Same as above.  |
| Flooding | Ensure that wellhead protection plans are in place to address flooding that may lead to contaminated drinking water.   | Wabasha County & All Cities | Delete    | MDH works with local jurisdictions on developing WPP's.   |

| Hazard   | Mitigation Action   | Jurisdiction                | Status  | Comments  |
|----------|---|-----------------------------|---------|---|
| Drought  | Establish/identify monitoring in each of the county's major aquifers at appropriate locations and establish an ongoing program to monitor aquifer levels and water quality. Coordinate data with SWCD test wells. | Wabasha County              | Ongoing | This is ongoing by Wabasha SWCD. The county does not do this monitoring.  |
| Drought  | Educate the public on water conservation measures and fire safety awareness during periods of drought.  | Wabasha County & All Cities | Ongoing | Ongoing by the county and local jurisdictions during periods of severe drought.   |
| Drought  | Evaluate and implement the objectives and strategies outlined in the Wabasha County Comprehensive Water Management Plan.  | Wabasha County              | Ongoing | Ongoing in concert with SWCD.   |
| Wildfire | Coordinate with MN DNR on providing wildfire information and seasonal risk to the public.   | Wabasha County              | Ongoing | Ongoing in concert with MN DNR during periods of high risk for wildfire.  |
| Wildfire | Increase Firewise education and training for property owners that have properties at- risk for wildfire   | Wabasha County              | Ongoing | Ongoing by local fire departments as needed. There is a new Firewise Specialist for the central region of MN that can provide assistance. |
| Wildfire | Assess the need for dry hydrants in areas not served by a city water source and construct dry hydrants as needed.   | Wabasha County              | Ongoing | Same as above.  |
| Wildfire | Work with the Minnesota DNR to update countywide wildfire assessment of areas with significant wildfire potential, particularly high-risk areas with proximity to urban areas.                                    | Wabasha County              | Ongoing | Same as above.  |

| Hazard                    | Mitigation Action   | Jurisdiction   | Status  | Comments  |
|---------------------------|---|----------------|---------|---|
| Wildfire                  | Reduce the risk of wildfire to existing buildings and infrastructure in high-risk wildfire areas such as through fuel reduction measures and creating defensible space. This may include working with public or private property owners (such as residents, land owners, parks or campgrounds). | Wabasha County | Ongoing | Ongoing by MN DNR Forestry and locally by property owners.  |
| Karst & Land Subsidence   | Create overlay districts, land use regulations, or Karst-related ordinances to protect the area's groundwater.  | Wabasha County | Delete  | This is not an action the county would do.  |
| Karst & Land Subsidence   | Continue to update mapping of sinkholes, springsheds and other Karst features.  | Wabasha County | Delete  | This is not an action the county would do.  |
| Karst & Land Subsidence   | Provide awareness and education to the public on the hazard of karst and sinkholes.   | Wabasha County | Delete  | This is not an action the county would do.  |
| Landslides & Soil Erosion | Identify and implement projects to reduce risk to structures or infrastructure from erosion and landslides  | Wabasha County | Ongoing | Ongoing by Wabasha County Highway Dept. and SWCD for areas that may be at risk near county roads or other infrastructure. |
| Dam Failure               | Update data for residents living downstream of dam to support emergency notification in the event of dam failure.   | Wabasha County | Ongoing | The only dam with an Emergency Action Plan is the Zumbro Lake Dam (owner, City of Rochester).                             |

## **Appendix F – Planning Team Meetings**

## Wabasha 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 Wabasha 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

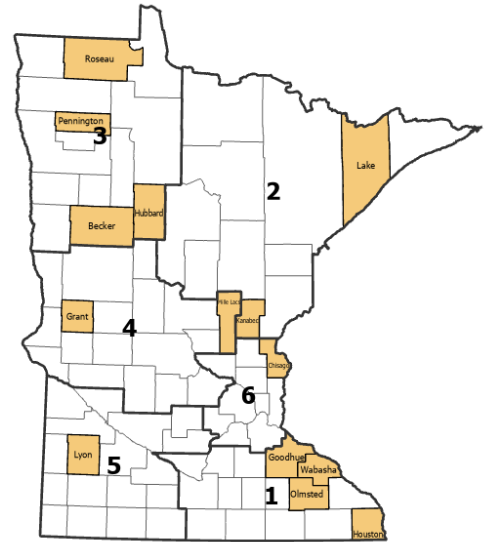
The U-Spatial@UMD team will coordinate with each Emergency Manager throughout the plan update process to engage participating jurisdictions and other stakeholders in the planning process. Following is an overview of key tasks that the U-Spatial@UMD team will facilitate to meet FEMA requirements in the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

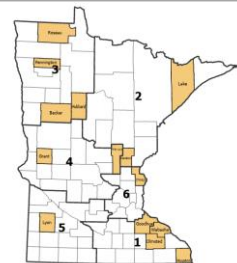
### Minnesota HSEM:

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

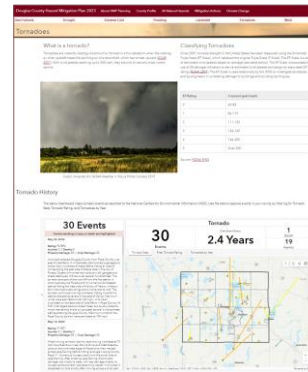
### ArcGIS Hub (website) companion

- 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

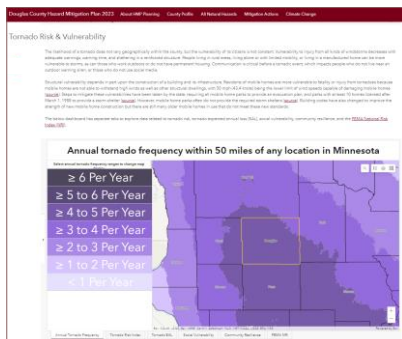
Stacey Stark



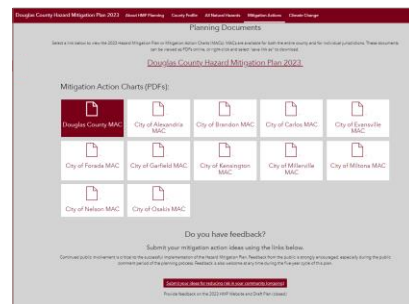
Example Web Site



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<br>(4-5 months)   | May – October 2023        | HMP kickoff meeting/webinar with U-Spatial@UMD<br>Develop jurisdictional contact list for MHMP planning team<br>Disseminate & document News Release #1<br>Hold & document Planning Team Meeting #1<br>Complete Plans & Programs in Place Checklist<br>Complete Capabilities Assessment to address natural hazards<br>Conduct a Past Mitigation Action Review from prior plan<br>Complete Local Mitigation Surveys<br>Revisit prioritization of natural hazards that pose risk<br>Assist U-Spatial@UMD with provision of key data<br>Complete inventory of Critical Infrastructure |
| Stage 2 Tasks<br>(4-6 months)   | November 2023 – May 2024  | Develop 5-year Jurisdictional Mitigation Action Charts<br>Hazus hazard risk assessment for flooding<br>Develop hazard profiles for each natural hazard<br>Complete county profile sections and maps<br>Complete Draft Plan  |
| Stage 3 Tasks<br>(2-3 months)   | June – August 2024        | EM review of Draft Plan<br>Hold & document Planning Team Meeting #2<br>Finalize Mitigation Action Charts<br>Disseminate & document News Release #2<br>EM coordination of plan review by stakeholders  |
| Stage 4 Tasks<br>(2-3 months)   | September - November 2024 | Post-public review revisions made to plan (as necessary)<br>Draft Plan sent to HSEM for review & approval<br>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](mailto:slstark@d.umn.edu)  
218-726-7438

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

# Wabasha County HMP Update

## JURISDICTIONAL CONTACT LIST

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### COUNTY CONTACTS

| Name              | Title                               | Phone          | Email  |
|-------------------|-------------------------------------|----------------|--|
| Brenda Tomlinson  | Emergency Management Director       | (651) 565-3069 | <a href="mailto:btomlinson@co.wabasha.mn.us">btomlinson@co.wabasha.mn.us</a>         |
| Tisha Bergner     | Deputy EM Director/PHEP Coordinator | (651) 565-5200 | <a href="mailto:tbergner@co.wabasha.mn.us">tbergner@co.wabasha.mn.us</a>             |
| Rodney L. Bartsh  | County Sheriff                      | (651) 565-3361 | <a href="mailto:rbartsh@co.wabasha.mn.us">rbartsh@co.wabasha.mn.us</a>               |
| Michael Plante    | County Administrator                | (651) 565-3051 |  |
| Jeff Wagner       | County Assessor                     | (651) 565-3669 | <a href="mailto:jwagner@co.wabasha.mn.us">jwagner@co.wabasha.mn.us</a>               |
| Rhonda Otto       | County Auditor/Treasurer            | (651) 565-2648 | <a href="mailto:rotto@co.wabasha.mn.us">rotto@co.wabasha.mn.us</a>                   |
| Shawn Gertken     | County GIS Coordinator              | (651) 565-5164 | <a href="mailto:sgertken@co.wabasha.mn.us">sgertken@co.wabasha.mn.us</a>             |
| Kyle Jerviss      | County IT Director                  | (651) 565-5184 | <a href="mailto:kjerviss@co.wabasha.mn.us">kjerviss@co.wabasha.mn.us</a>             |
| Dietrich Flesch   | County Engineer                     | (651) 565-3366 | <a href="mailto:dflesch@co.wabasha.mn.us">dflesch@co.wabasha.mn.us</a>               |
| Joseph Kaltenbach | Zoning Administrator                | (651) 565-3062 | <a href="mailto:jkaltenbach@co.wabasha.mn.us">jkaltenbach@co.wabasha.mn.us</a>       |
| Kayla Haberkorn   | Environmental Resources Tech.       | (651) 565-3068 | <a href="mailto:khhaberkorn@co.wabasha.mn.us">khhaberkorn@co.wabasha.mn.us</a>       |
| Tammy Fiedler     | Public Health Director              | (651) 565-5200 | <a href="mailto:tfiedler@co.wabasha.mn.us">tfiedler@co.wabasha.mn.us</a>             |
| John Dahlstrom    | Social Services Director            | (651) 565-3351 | <a href="mailto:socialservices@co.wabasha.mn.us">socialservices@co.wabasha.mn.us</a> |
| Bob Walkes        | District 1 Commissioner             | (507) 273-3216 | <a href="mailto:bwalkes@co.wabasha.mn.us">bwalkes@co.wabasha.mn.us</a>               |
| Rick O. Powers    | District 2 Commissioner             | (507) 250-2158 | <a href="mailto:rpowers@co.wabasha.mn.us">rpowers@co.wabasha.mn.us</a>               |
| Don Springer      | District 3 Commissioner             | (507) 259-2666 | <a href="mailto:dspringer@co.wabasha.mn.us">dspringer@co.wabasha.mn.us</a>           |
| Mike Wobbe        | District 4 Commissioner             | (651) 564-0175 | <a href="mailto:mwobbe@co.wabasha.mn.us">mwobbe@co.wabasha.mn.us</a>                 |
| Cheryl Key        | District 5 Commissioner             | (507) 271-3009 | <a href="mailto:ckey@co.wabasha.mn.us">ckey@co.wabasha.mn.us</a>                     |

### CITY CONTACTS

#### CITY OF BELLECHESTER (137)

| Name             | Title | Phone          | Email  |
|------------------|-------|----------------|--|
| Jody Gordon      | Mayor | (651) 923-4093 | <a href="mailto:bellechester@sleepyeyetel.net">bellechester@sleepyeyetel.net</a> |
| Lisa Redepenning | Clerk | (651) 923-4093 | <a href="mailto:bellechester@sleepyeyetel.net">bellechester@sleepyeyetel.net</a> |

#### CITY OF ELGIN (1,006)

| Name               | Title             | Phone          | Email  |
|--------------------|-------------------|----------------|--|
| Tom Boardman       | Mayor             | (507) 876-2291 | <a href="mailto:Boardman.mayor@gmail.com">Boardman.mayor@gmail.com</a> |
| Jessica Cartwright | Clerk             | (507) 876-2291 | <a href="mailto:cityclerk@elginmn.com">cityclerk@elginmn.com</a>       |
| Craig Ziebell      | Emergency Manager | (507) 208-1669 | <a href="mailto:Cziebell8@gmail.com">Cziebell8@gmail.com</a>           |
| Dusty Wehrs        | Fire Chief        | (507) 273-7775 | <a href="mailto:firechief@elginmn.com">firechief@elginmn.com</a>       |

#### CITY OF HAMMOND (133)

| Name         | Title             | Phone          | Email  |
|--------------|-------------------|----------------|--|
| Robert Mann  | Mayor             | (507) 753-2086 | <a href="mailto:bobmnn@aol.com">bobmnn@aol.com</a>                           |
| Janice Domke | Clerk             | (507) 753-2086 | <a href="mailto:Hammond.minnesota@gmail.com">Hammond.minnesota@gmail.com</a> |
| Tina Mann    | Emergency Manager | (507) 753-2166 | <a href="mailto:tinamanntmm@aol.com">tinamanntmm@aol.com</a>                 |

## CITY OF KELLOGG (431)

| Name              | Title      | Phone          | Email  |
|-------------------|------------|----------------|--|
| Jeff Tentis       | Mayor      | (507) 767-4953 | <a href="mailto:Jeff_tentis@hotmail.com">Jeff_tentis@hotmail.com</a>         |
| Chris Schouweiler | Clerk      | (507) 767-4953 | <a href="mailto:cityclerk@cityofkellogg.org">cityclerk@cityofkellogg.org</a> |
| Jeff Tentis       | Fire Chief | (507) 251-1877 | <a href="mailto:kfd@cityofkellogg.org">kfd@cityofkellogg.org</a>             |

## CITY OF LAKE CITY (4,324)

| Name          | Title             | Phone          | Email  |
|---------------|-------------------|----------------|--|
| Mark Nichols  | Mayor             | (612) 804-6098 | <a href="mailto:mnichols@ci.lake-city.mn.us">mnichols@ci.lake-city.mn.us</a>     |
| Robert Keehn  | Administrator     | (651) 345-6813 | <a href="mailto:rkeehn@ci.lake-city.mn.us">rkeehn@ci.lake-city.mn.us</a>         |
| John Yorde    | Emergency Manager | (651) 345-3344 | <a href="mailto:jyorde@ci.lake-city.mn.us">jyorde@ci.lake-city.mn.us</a>         |
| Cory Kubista  | Police Chief      | (651) 345-3344 | <a href="mailto:ckubista@ci.lake-city.mn.us">ckubista@ci.lake-city.mn.us</a>     |
| Dan Patterson | Fire Chief        | (651) 564-2627 | <a href="mailto:dpatterson@ci.lake-city.mn.us">dpatterson@ci.lake-city.mn.us</a> |

## CITY OF MAZEPPA (868)

| Name          | Title             | Phone          | Email  |
|---------------|-------------------|----------------|--|
| Chris Hagfors | Mayor             | (507) 843-3685 | <a href="mailto:cityadmin@mazeppamn.us">cityadmin@mazeppamn.us</a>   |
| Karl Nahrgang | Administrator     | (507) 843-3685 | <a href="mailto:cityadmin@mazeppamn.us">cityadmin@mazeppamn.us</a>   |
| Dan Nelson    | Emergency Manager | (507) 843-4931 | <a href="mailto:streets@mazeppamn.us">streets@mazeppamn.us</a>       |
| Bryce Dohrn   | Fire Chief        | (507) 251-4440 | <a href="mailto:mazeppafire@hotmail.com">mazeppafire@hotmail.com</a> |

## CITY OF MILLVILLE (150)

| Name         | Title             | Phone          | Email  |
|--------------|-------------------|----------------|--|
| Todd Cutting | Mayor             | (507) 798-2504 | <a href="mailto:Tcutting1@embarqmail.com">Tcutting1@embarqmail.com</a> |
| Pat Appel    | Clerk             | (507) 798-2409 | <a href="mailto:Pat.appel0304@gmail.com">Pat.appel0304@gmail.com</a>   |
| Dave Appel   | Emergency Manager | (507) 798-2409 | <a href="mailto:pappel@yahoo.com">pappel@yahoo.com</a>                 |

## CITY OF MINNEISKA (53)

| Name            | Title             | Phone          | Email  |
|-----------------|-------------------|----------------|--|
| Mark Tibor      | Mayor             | (507) 459-9465 | <a href="mailto:minneiskamayor@gmail.com">minneiskamayor@gmail.com</a>             |
| Christine Hicks | Clerk             | (507) 313-3400 | <a href="mailto:minneiskacityclerk@hotmail.com">minneiskacityclerk@hotmail.com</a> |
| Mike Konkell    | Emergency Manager | (507) 458-5160 | <a href="mailto:mdkonkel@hbc.com">mdkonkel@hbc.com</a>                             |

## CITY OF PLAINVIEW (3,462)

| Name            | Title             | Phone          | Email  |
|-----------------|-------------------|----------------|--|
| Aaron Luckstein | Mayor             | (507) 534-2229 | <a href="mailto:a.luckstein@plainviewmn.com">a.luckstein@plainviewmn.com</a> |
| David Todd      | Administrator     | (507) 534-2229 | <a href="mailto:d.todd@plainviewmn.com">d.todd@plainviewmn.com</a>           |
| Mike Lyons      | Emergency Manager | (507) 534-0104 | <a href="mailto:Mtac95@gmail.com">Mtac95@gmail.com</a>                       |
| Jason Timm      | Police Chief      | (507) 534-2441 | <a href="mailto:jtimm@plainviewpolice.com">jtimm@plainviewpolice.com</a>     |
| Ed Jacobs       | Fire Chief        | (507) 259-7348 | <a href="mailto:firedept@plainviewmn.com">firedept@plainviewmn.com</a>       |

## CITY OF WABASHA (2,549)

| Name               | Title         | Phone          | Email  |
|--------------------|---------------|----------------|--|
| Emily Durand       | Mayor         | (651) 565-4568 | <a href="mailto:mayor@wabasha.org">mayor@wabasha.org</a>         |
| Caroline Gregerson | Administrator | (651) 565-4568 | <a href="mailto:cityadmin@wabasha.org">cityadmin@wabasha.org</a> |

|                |                      |                |  |
|----------------|----------------------|----------------|--|
| Darren Sheeley | Emg Mgr & Fire Chief | (651) 564-0290 | <a href="mailto:fire@wabasha.org">fire@wabasha.org</a>               |
| Joe Stark      | Police Chief         | (651) 565-3361 | <a href="mailto:jstark@co.wabasha.mn.us">jstark@co.wabasha.mn.us</a> |

#### CITY OF ZUMBRO FALLS (158)

| Name          | Title                | Phone          | Email  |
|---------------|----------------------|----------------|--|
| Bruce Heitman | Mayor                | (507) 753-2423 | <a href="mailto:bheitfire@embarqmail.com">bheitfire@embarqmail.com</a>             |
| Sue Eischens  | Clerk                | (507) 753-2423 | <a href="mailto:zumbrofallscityclerk@gmail.com">zumbrofallscityclerk@gmail.com</a> |
| Scott Kennedy | Emg Mgr & Fire Chief | (507) 273-2819 | <a href="mailto:zumbrofallsfire@gmail.com">zumbrofallsfire@gmail.com</a>           |

### TOWNSHIP CONTACTS

| Name of Township        | Name & Title              | Phone          | Email  |
|-------------------------|---------------------------|----------------|--|
| Chester Township        | Jake Atkinson, Clerk      | (507) 251-8150 | <a href="mailto:jakecatkinson@gmail.com">jakecatkinson@gmail.com</a>                 |
| Elgin Township          | Ericka Hippe, Clerk       | (507) 273-8377 | <a href="mailto:erikahippe@aol.com">erikahippe@aol.com</a>                           |
| Gillford Township       | Kathy Heise, Clerk        | (612) 618-0114 | <a href="mailto:dkheise@gmail.com">dkheise@gmail.com</a>                             |
| Glasgow Township        | John Mundy, Clerk         | (651) 564-1356 | <a href="mailto:jmundy@riverland.org">jmundy@riverland.org</a>                       |
| Greenfield Township     | James O'Brien, Clerk      | (507) 517-4218 | <a href="mailto:greenfieldtwpclerk@gmail.com">greenfieldtwpclerk@gmail.com</a>       |
| Highland Township       | Heather Heddlesten, Clerk | (507) 534-6599 | <a href="mailto:highlandtownship@yahoo.com">highlandtownship@yahoo.com</a>           |
| Hyde Park Township      | David Stevenson, Clerk    | (507) 269-9601 | <a href="mailto:daveleestevenson@gmail.com">daveleestevenson@gmail.com</a>           |
| Lake Township           | Doris Ryan, Clerk         | (651) 764-1924 | <a href="mailto:dryan.lake@gmail.com">dryan.lake@gmail.com</a>                       |
| Mazeppa Township        | Kia Hackman, Clerk        | (507) 843-4024 | <a href="mailto:kiahackman@gmail.com">kiahackman@gmail.com</a>                       |
| Minneiska Township      | Denise Heublein, Clerk    | (507) 269-7614 | <a href="mailto:dand143@gmail.com">dand143@gmail.com</a>                             |
| Mount Pleasant Township | Jason Holst, Clerk        | (507) 398-6672 | <a href="mailto:jasonholst1@gmail.com">jasonholst1@gmail.com</a>                     |
| Oakwood Township        | Don Sexton, Clerk         | (507) 798-2467 | <a href="mailto:donlea5ls@gmail.com">donlea5ls@gmail.com</a>                         |
| Pepin Township          | Holly Olson, Clerk        | (651) 764-2098 | <a href="mailto:holidayholtan@hotmail.com">holidayholtan@hotmail.com</a>             |
| Plainview Township      | Ellen Miller, Clerk       | (507) 534-2637 | <a href="mailto:ellenmiller63@gmail.com">ellenmiller63@gmail.com</a>                 |
| Watopa Township         | Jerry Grabowski, Clerk    | (507) 767-3333 | <a href="mailto:watopa_township_clerk@yahoo.com">watopa_township_clerk@yahoo.com</a> |
| West Albany Township    | John Moechnig, Clerk      | (651) 380-2934 | <a href="mailto:clerk.westalbany@gmail.com">clerk.westalbany@gmail.com</a>           |
| Zumbro Township         | Marcia Dworschak, Clerk   | (507) 753-2625 | <a href="mailto:zumbrotwpclerk@gmail.com">zumbrotwpclerk@gmail.com</a>               |

### OTHER STAKEHOLDER CONTACTS

#### LOCAL & REGIONAL AGENCIES INVOLVED IN HAZARD MITIGATION

| Name of Agency / Organization                  | Name & Title                                  | Phone               | Email  |
|--|---|---------------------|--|
| MN Homeland Security & Emergency Management    | Mike Peterson, HSEM Region 1 RPC              | 612-505-1819        | <a href="mailto:Michael.R.Peterson@state.mn.us">Michael.R.Peterson@state.mn.us</a> |
| Wabasha Soil & Water Conservation District     | Terri Peters, District Manager                | 651-565-4673 ext. 3 | <a href="mailto:Terri.peters@mn.nacdnet.net">Terri.peters@mn.nacdnet.net</a>       |
| Natural Resources Conservation Service         | John Benjamin, District Conservationist       | 651-565-4673 ext. 3 | <a href="mailto:John.benjamin@usda.gov">John.benjamin@usda.gov</a>                 |
| USDA Rural Development Community Programs      | Laurie Balata, Area Specialist                | (507) 332-7418 x113 | <a href="mailto:laurie.balata@usda.gov">laurie.balata@usda.gov</a>                 |
| MnDOT District 6                               | Chad Hanson, Emergency Management Coordinator | (507) 286-7637      | <a href="mailto:chad.hanson@state.mn.us">chad.hanson@state.mn.us</a>               |
| MN DNR Ecological and Water Resources Division | Lucas Youngsma, Area Hydrologist              | (507) 206-2854      | <a href="mailto:lucas.youngsma@state.mn.us">lucas.youngsma@state.mn.us</a>         |
| Whitewater State Park                          | Dennis Reindl, Park Manager                   | 507-312-2301        | <a href="mailto:Dennis.reindl@state.mn.us">Dennis.reindl@state.mn.us</a>           |

### REPRESENTATIVES OF BUSINESSES, ACADEMIA, AND OTHER PRIVATE ORGANIZATIONS

| Name of Agency / Organization             | Name & Title                         | Phone        | Email  |
|---|--------------------------------------|--------------|--|
| Salvation Army Northern Division (MN/ND)  | Major Michele Heaver                 | 651-238-7783 | <a href="mailto:Michele.heaver@usc.salvationarmy.org">Michele.heaver@usc.salvationarmy.org</a> |
| American Red Cross                        | Eli Szydlo, Disaster Program Manager | 507-600-0470 | <a href="mailto:Eli.szydlo@redcross.org">Eli.szydlo@redcross.org</a>                           |
| Wabasha-Kellogg School District           | Nels Onstad, Superintendent          | 651-565-3559 | <a href="mailto:nonstad@wkfalcons.org">nonstad@wkfalcons.org</a>                               |
| Lake City School District                 | Ariana Wright, Superintendent        | 651-345-7002 | <a href="mailto:awright@lake-city.k12.mn.us">awright@lake-city.k12.mn.us</a>                   |
| Plainview-Elgin-Millville School District | Erick Enger, Superintendent          | 507-534-3651 | <a href="mailto:eeneger@isd2899.k12.mn.us">eeneger@isd2899.k12.mn.us</a>                       |
| Zumbrota-Mazeppa School District          | Ryan Barnick, Superintendent         | 507-732-1400 | <a href="mailto:ryanb@zmsch.k12.mn.us">ryanb@zmsch.k12.mn.us</a>                               |

### 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  |
|---|---|----------------------|--|
| Southern Minnesota Initiative Foundation        | Tim Penny, President                                | 507-214-7026         | <a href="mailto:timp@smifoundation.org">timp@smifoundation.org</a>             |
| Wabasha Developmental Achievement Center        | Ty Gaedtke, Executive Director                      | 651-565-3612         | <a href="mailto:tgaedtke@wabashacodac.org">tgaedtke@wabashacodac.org</a>       |
| Hope Coalition                                  | Sara Kern – Executive Director                      | 651-565-4112         | <a href="mailto:info@hope-coalition.org">info@hope-coalition.org</a>           |
| Three Rivers Community Action (Senior Services) | Randi Callahan, Family Advocacy Services Specialist | 800-277-8418 ext 112 | <a href="mailto:rcallahan@threeriverscap.org">rcallahan@threeriverscap.org</a> |
| Great River Homes (Dev. Disabled Adults)        | Cari McCann, Executive Director                     | 651-565-4884         | <a href="mailto:grhomes@greatriverhomes.org">grhomes@greatriverhomes.org</a>   |
| River Oaks Care Center (Adult Mental Health)    | Cori Barker   | 651-345-2713         | <a href="mailto:Cori.barker@riveroaksmn.com">Cori.barker@riveroaksmn.com</a>   |

### NEIGHBORING JURISDICTIONS

| Name of Jurisdiction | Name & Title           | Phone          | Email  |
|----------------------|------------------------|----------------|--|
| Goodhue County       | Earl Merchlewitz, EMD  | (651) 267-2640 | <a href="mailto:earl.merchlewitz@co.goodhue.mn.us">earl.merchlewitz@co.goodhue.mn.us</a>   |
| Winona County        | Ben Klinger, EMD       | (507) 457-6598 | <a href="mailto:BKlinger@co.winona.mn.us">BKlinger@co.winona.mn.us</a>                     |
| Olmsted County       | Jonathan Jacobson, EMD | (507) 328-6102 | <a href="mailto:jacobson.jonathan@co.olmsted.mn.us">jacobson.jonathan@co.olmsted.mn.us</a> |
| Buffalo County, WI   | Lucas Teska, EMD       | (608) 685-6298 | <a href="mailto:lucas.teska@buffalocountywi.gov">lucas.teska@buffalocountywi.gov</a>       |
| Pepin County, WI     | Maria Nelson, EMD      | (715) 672-8897 | <a href="mailto:pepza@co.pepin.wi.us">pepza@co.pepin.wi.us</a>                             |

### LOCAL MEDIA CONTACTS

| Name of Local Media   | Media Contact | Phone        | Email  | Deadline      |
|-----------------------|---------------|--------------|--|---------------|
| Plainview News        | Editor        | 507-534-3121 | <a href="mailto:editor@stumpfpublishing.net">editor@stumpfpublishing.net</a> | 10 am Monday  |
| Lake City Graphic     | Editor        | 651-345-3316 | <a href="mailto:news@lakecitygraphic.com">news@lakecitygraphic.com</a>       | 10 am Monday  |
| Wabasha County Herald | Editor        | 651-565-3368 | <a href="mailto:wherald@mywdo.com">wherald@mywdo.com</a>                     | Noon Thursday |
| Zumbrota News Record  | Editor        | 507-765-7617 | <a href="mailto:news@zumbrota.com">news@zumbrota.com</a>                     | Noon Monday   |



# Wabasha County HMP Planning Team

## Meeting #1 Presentation and Discussion

### 12/4/23 Meeting Summary & Documentation

**Summary:** On Monday, December 4, 2023 Wabasha County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 1<sup>st</sup> Planning Team Meeting for the update of the Wabasha County Hazard Mitigation Plan (HMP). The purpose of the meeting was to formally present information about the Wabasha 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:** Wabasha 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 **22** people attended the meeting. Representation included elected officials and departmental staff from Wabasha County and the cities of Elgin, Lake City, Mazeppa, Planview, and Zumbro Falls. Representatives from the cities of Bellechester, Hammond, Kellogg, Millville, Minneiska, and Wabasha 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  | Brenda Tomlinson | Wabasha County Emergency Management      | Emergency Management Director                                |
| 2  | Tisha Bergner    | Wabasha County Public Health             | Emergency Preparedness Coordinator                           |
| 3  | Tammy Fiedler    | Wabasha County Public Health             | Director of Public Health                                    |
| 4  | Dietrich Flesch  | Wabasha County Highway Dept.             | County Engineer  |
| 5  | Joe Kaltenbach   | Wabasha County Planning & Zoning         | Zoning Administrator   |
| 6  | Dustin Wehrs     | City of Elgin                            | Fire Chief   |
| 7  | John Yorde       | City of Lake City                        | Emergency Manager  |
| 8  | Scott Jensen     | City of Lake City                        | Public Works Director  |
| 9  | Travis Dunn      | City of Lake City                        | Assistant Public Works Director                              |
| 10 | Robert Benson    | City of Lake City / City of Zumbro Falls | Assistant Ambulance Director / Fire Fighter & City Councilor |

|    |                   |                               |   |
|----|-------------------|-------------------------------|---|
| 11 | Cory Kubista      | Lake City Police Department   | Police Chief                                  |
| 12 | Karl Nahrgang     | City of Mazeppa               | Administrator Clerk                           |
| 13 | Michael Lyons     | City of Plainview             | Emergency Management Director/Asst Fire Chief |
| 14 | Chuck Mayhew      | Minneiska Township            | Supervisor                                    |
| 15 | Leland Schultz    | Lake Township                 | Supervisor                                    |
| 16 | John Benjamin     | NRCS                          | District Conservationist                      |
| 17 | Kyle Boelter      | USDA Rural Development        | Community Programs Loan Assistant             |
| 18 | Randi Callahan    | Three Rivers Community Action | Director of Community Supports                |
| 19 | Michael Peterson  | MN HSEM                       | Region 1 Regional Program Coordinator         |
| 20 | Andrew Fischbach  | MnDOT District 6              | Road Superintendent                           |
| 21 | Lucas Teska       | Buffalo County, WI            | Emergency Management Director                 |
| 22 | Jonathan Jacobson | Olmsted County                | Captain - Emergency Management Director       |

**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

## WABASHA 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)***

- Flooding – 75%
- Wildfire – 6%
- Windstorms – 75%
- Tornadoes – 50%
- Hail – 25%
- Lightning – 0%
- Drought – 6%
- Extreme Heat – 13%
- Extreme Cold – 6%
- Winter Storms – 50%
- Landslide/Slope Failure – 13%

16 out of 22 people participated in the poll, with the top 3 hazards noted as Flooding, Winter Storms, and Windstorms.

**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)***

- Yes – 50%
- No – 21%
- Not Sure – 29%

***What hazard risk has changed, and in what jurisdiction?***

|  |  |
|--|--|
| Tisha Bergner, Wabasha County Public Health Emergency Preparedness Coordinator | Flooding is in the forefront of our brains just because we had some this spring. Drought seems to maybe be increasing. ?   |
| Chuck Mayhew, Minneiska Township Supervisor                                    | Flooding over adjacent county roads to Township roads  |
| Dietrich Flesch, Wabasha County Highway Dept. County Engineer                  | Flooding, and winter storms; increased severity of events.   |
| Tammy Fiedler, Wabasha County Director of Public Health                        | Flooding, extreme temps, wildfire-so many in other places with similar landscape/temp etc as ours.   |
| Karl Nahrgang, City of Mazeppa Administrator/Clerk                             | Riverine flooding and slope failure along the banks have been reduced to riverbank stabilization projects by the City of Mazeppa, WabCo SWCD, with funding from MN DNR |
| Scott Jensen, City of Lake City Public Works Director                          | Severity and frequency of storm events   |
| Joe Kaltenbach, Wabasha County Zoning Administrator                            | Flooding   |
| John Yorde, City of Lake City Emergency Manager                                | I think flooding is high risk  |
| Andrew Fischbach, MnDOT District 6 Road Superintendent                         | Higher volume of moisture in rain events.  |
| Travis Dunn, City of Lake City Assistant Public Works Director                 | Possibly development increases. What is important is to be properly prepared   |

**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 Wabasha County or within your own local jurisdiction? If so, are there any best outreach methods to provide an opportunity to participate?***

- Tammy Fiedler: We have a large population of seniors in our county. They are not always on social media, so we need to use our newspaper. Also need to use our nurses who are out seeing

these folks to keep them informed. In-home nurses also. There are also Spanish speaking pockets of residents

- Tisha Bergner: We have areas that have bad reception. There are also some Spanish speaking residents, as well as Hmong residents in Elgin and Lake City.

**DQ#2: *What do you feel should be recorded as the updated Hazard Prioritizations for the Wabasha County 2023 HMP? Why?*** Following are the updated hazard priorities noted by planning team members during the meeting, and follow up discussion with the Wabasha County EMD:

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

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

- Tisha Bergner: Safe Rooms for our campgrounds is something we should look at.
- Travis Dunn: Drinking and surface water protection during flooding or if pollution occurs how to mitigate.

### **ADDITIONAL QUESTIONS/COMMENTS**

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

Question: Karl Nahrgang - Would Streambanks/riverbanks be included in coastal erosion?

Response: Stacey Stark - High rain impacts to streambanks and riverbanks would be covered under flooding or landslides if the erosion poses risk to adjacent structures such as homes.

Question: Tisha Bergner: In regards to flooding overview on HMP website - What is the date range on this flooding?

Response: Stacey Stark – The flooding dashboard has a table over to the left that shows all the meta data. Flood data goes back to Jan. 1996 and the NCEI database provided as the source.

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

### **MEETING DOCUMENTATION**

Attached are additional documentation items for the Wabasha 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:** [Tomlinson, Brenda](#)  
**To:** [Tomlinson, Brenda](#); [Bergner, Tisha](#); [Bartsh, Rodney](#); [Plante, Michael](#); [Wagner, Jeff](#); [Otto, Rhonda](#); [Gertken, Shawn](#); [Jerviss, Kyle](#); [Flesch, Dietrich](#); [Kaltenbach, Joseph](#); [Stefanski, Joshua](#); [Fiedler, Tammy](#); [socialservices](#); [Walkes, Bob](#); [Powers, Rick](#); [Springer, Donald](#) - Commissioner; [Wobbe, Mike](#); [Key, Cheryl](#); [bellechester@sleepyeyetel.net](#); [Boardman.mayor@gmail.com](#); [cityclerk@elginmn.com](#); [Cziebell8@gmail.com](#); [firechief@elginmn.com](#); [bobmnn@aol.com](#); [Hammond.minnesota@gmail.com](#); [tinamanntmm@aol.com](#); [Jeff\\_tentis@hotmail.com](#); [cityclerk@cityofkellogg.org](#); [kfd@cityofkellogg.org](#); [mnichols@ci.lake-city.mn.us](#); [rkeehn@ci.lake-city.mn.us](#); [jyorde@ci.lake-city.mn.us](#); [ckubista@ci.lake-city.mn.us](#); [dpatterson@ci.lake-city.mn.us](#); [chmaz@sleepyeyetel.net](#); [bjhmhntz@sleepyeyetel.net](#); [mzeppafire@hotmail.com](#); [Tcutting1@embarqmail.com](#); [Pat.appel0304@gmail.com](#); [appelstireservice@yahoo.com](#); [minneiskamayor@gmail.com](#); [minneiskacityclerk@hotmail.com](#); [mdkonkel@hbc.com](#); [a.luckstein@plainviewmn.com](#); [d.todd@plainviewmn.com](#); [Mtac95@gmail.com](#); [Timm, Jason](#); [firedept@plainviewmn.com](#); [mayor@wabasha.org](#); [cityadmin@wabasha.org](#); [fire@wabasha.org](#); [Stark, Joseph](#); [bheitfire@embarqmail.com](#); [zumbrofallsclerk@gmail.com](#); [zumbrofallsfire@gmail.com](#); [jakecatkinson@gmail.com](#); [erikahippe@aol.com](#); [dkheise@gmail.com](#); [Jmundy@riverland.org](#); [greenfieldtwpclerk@gmail.com](#); [highlandtownship@yahoo.com](#); [daveleestevenson@gmail.com](#); [dryan.lake@gmail.com](#); [klahackman@gmail.com](#); [dand143@gmail.com](#); [jasonholst1@gmail.com](#); [donlea55@gmail.com](#); [holidayholtan@hotmail.com](#); [ellenmiller63@gmail.com](#); [watopa\\_township\\_clerk@yahoo.com](#); [jmoechnig@riverlandcom.net](#); [zumbrotwpcclerk@gmail.com](#); [Michael.R.Peterson@state.mn.us](#); [Terri.peters@mn.nacdn.net](#); [John.benjamin@usda.gov](#); [laurie.balata@usda.gov](#); [mark.schoenfelder@state.mn.us](#); [lucas.youngsma@state.mn.us](#); [Dennis.reindl@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [Eli.szydlo@redcross.org](#); [jfreihammer@wkfalcons.org](#); [eenger@lake-city.k12.mn.us](#); [dstrosahl@isd2899.k2.mn.us](#); [mikeh@zmsch.k12.mn.us](#); [timp@smifoundation.org](#); [tgaedtke@wabashacodac.org](#); [info@hope-coalition.org](#); [rcallahan@threeriverscap.org](#); [grhomes@greatriverhomes.org](#); [Cori.barker@riveroaksmn.com](#); [earl.merchlewitz@co.goodhue.mn.us](#); [BKlinger@co.winona.mn.us](#); [jacobson.jonathan@co.olmsted.mn.us](#); [lucas.teska@buffalocountywi.gov](#); [pepza@co.pepin.wi.us](#)  
**Cc:** [hundrieserconsulting@outlook.com](#); [slstark@d.umn.edu](#)  
**Subject:** Wabasha County Hazard Mitigation Plan Update - Meeting Invitation  
**Date:** Wednesday, October 18, 2023 10:42:54 AM

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Greetings,

Your presence is requested at a virtual Planning Team Meeting for the update of the **Wabasha 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: Monday, December 4, 2023

Time: 1:00 p.m. – 2:30 p.m.

Zoom Link: [https://umn-private.zoom.us/webinar/register/WN\\_F8zb9SCLRdWGGg-d6NYh6w](https://umn-private.zoom.us/webinar/register/WN_F8zb9SCLRdWGGg-d6NYh6w)

**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 Wabasha 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 Wabasha 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 Wabasha 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,

Brenda

**Brenda Tomlinson**

Wabasha Co Emergency Mgmt Director

651.565.3069



**From:** [Bonnie K Hundrieser](#)  
**To:** [btomlinson@co.wabasha.mn.us](#); [tbergner@co.wabasha.mn.us](#); [rbartsh@co.wabasha.mn.us](#); [mplante@co.wabasha.mn.us](#); [jwagner@co.wabasha.mn.us](#); [rotto@co.wabasha.mn.us](#); [sgertken@co.wabasha.mn.us](#); [kjierviss@co.wabasha.mn.us](#); [dflesch@co.wabasha.mn.us](#); [jkaltenbach@co.wabasha.mn.us](#); [jstefanski@co.wabasha.mn.us](#); [tfiedler@co.wabasha.mn.us](#); [socialservices@co.wabasha.mn.us](#); [bwalkes@co.wabasha.mn.us](#); [rpowers@co.wabasha.mn.us](#); [dspringer@co.wabasha.mn.us](#); [mwobbe@co.wabasha.mn.us](#); [ckey@co.wabasha.mn.us](#); [belleville@sleepyeyetel.net](#); [Boardman.mayor@gmail.com](#); [cityclerk@elginmn.com](#); [Cziebell8@gmail.com](#); [firechief@elginmn.com](#); [bobmnn@aol.com](#); [Hammond.minnesota@gmail.com](#); [tinamantmm@aol.com](#); [Jeff\\_tentis@hotmail.com](#); [cityclerk@cityofkellogg.org](#); [kfd@cityofkellogg.org](#); [mnichols@ci.lake-city.mn.us](#); [rkeehn@ci.lake-city.mn.us](#); [jyorde@ci.lake-city.mn.us](#); [ckubista@ci.lake-city.mn.us](#); [dpatterson@ci.lake-city.mn.us](#); [cityadmin@mazeppamn.us](#); [bjhmhentz@sleepyeyetel.net](#); [mazeppafire@hotmail.com](#); [Cutting1@embarqmail.com](#); [Pat.appel0304@gmail.com](#); [appelstireservice@yahoo.com](#); [minneiskamayor@gmail.com](#); [minneiskacityclerk@hotmail.com](#); [mdkonkel@hbc.com](#); [a.luckstein@plainviewmn.com](#); [d.todd@plainviewmn.com](#); [Mtac95@gmail.com](#); [jtimmm@plainviewpolice.com](#); [firedept@plainviewmn.com](#); [mayor@wabasha.org](#); [cityadmin@wabasha.org](#); [fire@wabasha.org](#); [jstark@co.wabasha.mn.us](#); [bheitfire@embarqmail.com](#); [zumbrofallsclerk@gmail.com](#); [zumbrofallsfire@gmail.com](#); [jakecatkinson@gmail.com](#); [erikahippe@aol.com](#); [dkheise@gmail.com](#); [Jmundy@riverland.org](#); [greenfieldtwpclerk@gmail.com](#); [highlandtownship@yahoo.com](#); [daveleestevenson@gmail.com](#); [dryan.lake@gmail.com](#); [kiahackman@gmail.com](#); [dand143@gmail.com](#); [jasonholst1@gmail.com](#); [donlea5ls@gmail.com](#); [holidayholtan@hotmail.com](#); [ellenmiller63@gmail.com](#); [watopa\\_township\\_clerk@yahoo.com](#); [jmoechnig@riverlandcom.net](#); [zumbrotwpcclerk@gmail.com](#); [Michael.R.Peterson@state.mn.us](#); [Terri.peters@mn.nacdn.net](#); [John.benjamin@usda.gov](#); [laurie.balata@usda.gov](#); [mark.schoenfelder@state.mn.us](#); [lucas.youngsma@state.mn.us](#); [Dennis.reindl@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [Eli.szydlo@redcross.org](#); [jfreihammer@wkfalcons.org](#); [eenger@lake-city.k12.mn.us](#); [dstrosahl@isd2899.k12.mn.us](#); [mikeh@zmsch.k12.mn.us](#); [timp@smifoundation.org](#); [tgaedtke@wabashacodac.org](#); [info@hope-coalition.org](#); [rcallahan@threeriverscap.org](#); [grhomes@greatriverhomes.org](#); [Cori.barker@riveroaksmn.com](#); [earl.merchlewitz@co.goodhue.mn.us](#); [BKlinger@co.winona.mn.us](#); [jacobson.jonathan@co.olmsted.mn.us](#); [lucas.teska@buffalocountywi.gov](#); [pepza@co.pepin.wi.us](#); [jen.landscapeconnections@gmail.com](#)  
**Cc:** [Stacey Stark](#)  
**Subject:** Wabasha County HMP Planning Team Meeting Materials – Please Review  
**Date:** Friday, December 1, 2023 12:56:00 PM  
**Attachments:** [Wabasha County 2023 HMP Overview handout.pdf](#)  
[Wabasha County HMP Mtg. #1 Discussion Questions.docx](#)  
[HSEM\\_HMA Grants Program Overview.pdf](#)  
**Importance:** High

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Greetings,

The Wabasha County Hazard Mitigation Plan (HMP) Update – Planning Team Meeting #1 will be held via Zoom on **Monday, December 4, 2023 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.

If you have not registered yet but wish to do so, please click on the following link: [https://umn-private.zoom.us/webinar/register/WN\\_F8zb9SCLRdWGGg-d6NYh6w](https://umn-private.zoom.us/webinar/register/WN_F8zb9SCLRdWGGg-d6NYh6w) (control+click)

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

1. **Wabasha County 2023-2024 Hazard Mitigation Plan Update Overview**
2. **Wabasha 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**

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*



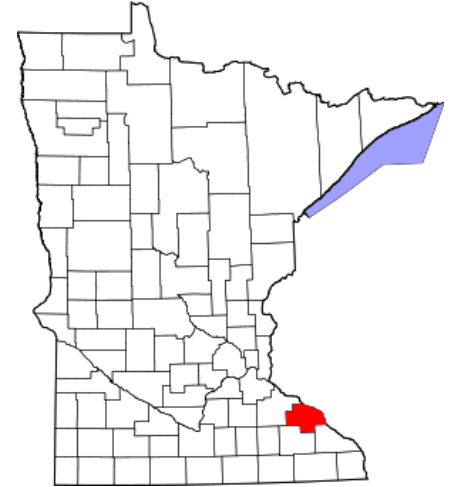
## Wabasha County 2023-2024 Hazard Mitigation Plan Update Overview

During 2023-2024, U-Spatial at the University of Minnesota Duluth (U-Spatial@UMD) will be working to update the **Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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](mailto:slstark@d.umn.edu)

# U-SPATIAL

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# Wabasha County Hazard Mitigation Plan Update

## Planning Team Meeting #1 Discussion Questions

As part of the Wabasha County 1<sup>st</sup> 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](mailto: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 Wabasha 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.

**WABASHA COUNTY 2017 HAZARD MITIGATION PLAN**

| Hazards   | Risk Priority |
|---|---------------|
| Severe Summer Storms<br>(Thunderstorms, Lightning,<br>Hailstorms, Windstorms,<br>Tornadoes) | High          |
| Severe Winter Storms  | High          |
| Extreme Heat/Extreme Cold   | Moderate      |
| Flash Flood/Riverine Flood  | Moderate      |

|  |          |
|--|----------|
| Drought                                | Moderate |
| Landslides/Soil Erosion                | Moderate |
| Wildfire                               | Low      |
| Dam Failure                            | Low      |
| Land Subsidence<br>(Sinkholes & Karst) | Low      |

**DISCUSSION QUESTION:** What do you feel should be recorded as the updated hazard prioritizations for the Wabasha 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.

#### WABASHA COUNTY 2023 HMP UPDATE - HAZARD RISK PRIORITIZATIONS

| Hazards  | Risk Priority<br>(Low, Moderate, or High) | Comments |
|--|---|----------|
| Flooding   |   |          |
| Windstorms   |   |          |
| Tornadoes  |   |          |
| Hail   |   |          |
| Lightning  |   |          |
| Winter Storms<br>(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 Wabasha 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>

# WABASHA COUNTY Hazard Mitigation Plan Update 2023

**Planning Team Meeting #1**  
Presentation & Discussion, 12/4/23



**U-SPATIAL**  
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## Welcome & Introductions

U-Spatial@UMD Project Leads



**Stacey Stark**  
Project Manager  
U-Spatial@UMD



**Bonnie Hurdieser**  
HM Planning Specialist  
Hurdieser Consulting LLC

**Wabasha County Project Lead**

- Brenda Tomlinson, Wabasha 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 Wabasha 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 **Wabasha 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

WABASHA COUNTY 2023 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.

### Wabasha County HMP Update 2023

- 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.



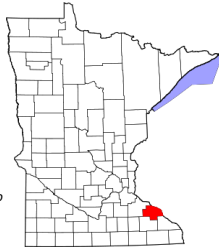
PRESENTER: BONNIE HURDIESER



## Who the Plan Covers

This is a **multi-jurisdictional plan** that covers Wabasha 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 Wabasha 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

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 Wabasha 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  
WABASHA COUNTY

## Wabasha County 2017 HMP Risk Rankings

|   |          |  |
|---|----------|--|
| Severe Summer Storms<br>(Thunderstorms, Lightning,<br>Hailstorms, Windstorms,<br>Tornadoes) | High     | <p><i>Has the level of priority for the following natural hazards changed for Wabasha County?</i></p> <p><i>Please consider:</i></p> <ul style="list-style-type: none"> <li>➤ Increase or decrease of events (probability)</li> <li>➤ Local vulnerabilities (impacts to people, systems, and infrastructure)</li> <li>➤ New development and population growth</li> </ul> |
| Severe Winter Storms  | High     |  |
| Extreme Heat/Extreme Cold   | Moderate |  |
| Flash Flood/Riverine Flood  | Moderate |  |
| Drought   | Moderate |  |
| Landslides/Soil Erosion   | Moderate |  |
| Wildfire  | Low      |  |
| Dam Failure   | Low      |  |
| Land Subsidence<br>(Sinkholes & Karst)  | Low      |  |

PRESENTER: STACEY STARK

## Discussion Question #2

What should be recorded as the updated Hazard Prioritizations for the Wabasha County 2023 HMP?

Please share your feedback as we go through the hazard risk assessment

PRESENTER: STACEY STARK

Natural Hazards Assessment on  
Website- Demo

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

## WABASHA COUNTY HMP UPDATE Review of hazard prioritizations

| Hazards   | 2023 Risk Priority<br>(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

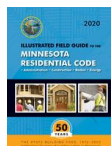
PRESENTER: BONNIE HUNDRIESER

## 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: STACEY STARK



## Following Planning Team Meeting #1

### Development of Local Mitigation Surveys

Representatives from Wabasha 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](mailto: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](mailto:hundrieserconsulting@outlook.com)

218-343-3468

  
**HUNDRIESER**  
**CONSULTING LLC**

PRESENTER: STACEY STARK

## Wabasha County HMP Planning Team Meeting #2

### 11/6/24 Meeting Summary & Documentation

**Summary:** On Wednesday, November 6, 2024, Wabasha County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 2<sup>nd</sup> and final Planning Team Meeting for the update of the Wabasha County Hazard Mitigation Plan (HMP). The purpose of the meeting was to formally convene the Wabasha 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:** Wabasha 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 **21** people attended the meeting. Representation included elected officials and departmental staff from Wabasha County and the cities of Elgin, Lake City, Mazeppa, Minneiska, Plainview, and Wabasha. The cities of Bellechester, Hammond, Kellogg, Millville, and Zumbro Falls were 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  | Brenda Tomlinson   | Wabasha County Emergency Management | Emergency Management Director         |
| 2  | Michael Plante     | Wabasha County                      | Administrator                         |
| 3  | Dietrich Flesch    | Wabasha County                      | County Engineer                       |
| 4  | Tisha Bergner      | Wabasha County Public Health        | PH Emergency Preparedness Coordinator |
| 5  | Tammy Fiedler      | Wabasha County Public Health        | Director of Public Health             |
| 6  | Shawn Gertken      | Wabasha County                      | GIS Coordinator                       |
| 7  | Joe Kaltenbach     | Wabasha County                      | Zoning Administrator                  |
| 8  | Terri Peters       | Wabasha SWCD                        | District Manager                      |
| 9  | Bob Walkes         | Wabasha County                      | County Commissioner                   |
| 10 | Kim McHugh         | City of Elgin                       | Parks & Rec Director                  |
| 11 | John Yorde         | City of Lake City                   | Emergency Manager                     |
| 12 | Brian Quinn        | City of Lake City                   | Council member                        |
| 13 | Karl Nahrgang      | City of Mazeppa                     | Administrator Clerk                   |
| 14 | Mark Tibor         | City of Minneiska                   | Mayor                                 |
| 15 | Mike Lyons         | City of Plainview                   | City EM / Fire Chief                  |
| 16 | Caroline Gregerson | City of Wabasha                     | City Administrator                    |
| 17 | Sharleen Klennert  | West Albany Township                | Clerk                                 |

|    |                  |                                  |                                  |
|----|------------------|----------------------------------|----------------------------------|
| 18 | Jeff Weiss       | Minnesota DNR                    | Regional Clean Water Hydrologist |
| 19 | Ariana Wright    | Lake City Public Schools ISD 813 | Superintendent                   |
| 20 | Cari McCann      | Great River Homes, Inc.          | Executive Director               |
| 21 | Earl Merchlewitz | Goodhue 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.

## WABASHA COUNTY HMP PLANNING TEAM MEETING #2 DISCUSSION NOTES

*Mark Tibor, Mayor of Minneiska:* Minneiska experienced a flooding event in July of 2024. Has this information been updated in the database? We do not see it reflected in the data. / *Stacey Stark response:* The storm events database is often several months behind, it is housed in NC where they were hit by extreme flooding, so they are a bit behind. We update the data quarterly, so I will be refreshing this in a few weeks to make sure we have the latest update.

**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 Wabasha 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:** [Tomlinson, Brenda](#)  
**To:** [Tomlinson, Brenda](#); [Bergner, Tisha](#); [Bartsh, Rodney](#); [Plante, Michael](#); [Wagner, Jeff](#); [Otto, Rhonda](#); [Gertken, Shawn](#); [Jerviss, Kyle](#); [Flesch, Dietrich](#); [Kaltenbach, Joseph](#); [Haberkorn, Kayla](#); [Fiedler, Tammy](#); [socialservices](#); [Walkes, Bob](#); [Powers, Rick](#); [Springer, Donald - Commissioner](#); [Wobbe, Mike](#); [Key, Cheryl](#); [bellechester@sleepyeyetel.net](#); [Boardman, mayor@gmail.com](#); [cityclerk@elginmn.com](#); [Cziebell8@gmail.com](#); [firechief@elginmn.com](#); [bobmnn@aol.com](#); [Hammond.minnesota@gmail.com](#); [tinamanntmm@aol.com](#); [Jeff\\_tentis@hotmail.com](#); [cityclerk@cityofkellogg.org](#); [kfd@cityofkellogg.org](#); [mnichols@ci.lake-city.mn.us](#); [rkeehn@ci.lake-city.mn.us](#); [jyorde@ci.lake-city.mn.us](#); [ckubista@ci.lake-city.mn.us](#); [dpatterson@ci.lake-city.mn.us](#); [cityadmin@mazeppamn.us](#); [streets@mazeppamn.us](#); [mazeppafire@hotmail.com](#); [Tcutting1@embarqmail.com](#); [Pat.appel0304@gmail.com](#); [minneiskamayor@gmail.com](#); [minneiskacityclerk@hotmail.com](#); [mdkonkel@hbci.com](#); [a.luckstein@plainviewmn.com](#); [d.todd@plainviewmn.com](#); [Mtac95@gmail.com](#); [Timm, Jason](#); [firedept@plainviewmn.com](#); [mayor@wabasha.org](#); [cityadmin@wabasha.org](#); [fire@wabasha.org](#); [Stark, Joseph](#); [bheitfire@embarqmail.com](#); [zumbrofallscityclerk@gmail.com](#); [zumbrofallsfire@gmail.com](#); [jakecatkinson@gmail.com](#); [erikahippe@aol.com](#); [dkheise@gmail.com](#); [Jmundy@riverland.org](#); [greenfieldtwpclerk@gmail.com](#); [highlandtownship@yahoo.com](#); [daveleestevenson@gmail.com](#); [dryan.lake@gmail.com](#); [kiahackman@gmail.com](#); [dand143@gmail.com](#); [jasonholst1@gmail.com](#); [donlea5ls@gmail.com](#); [holidayholtan@hotmail.com](#); [ellenmiller63@gmail.com](#); [watopa\\_township\\_clerk@yahoo.com](#); [clerk.westalbany@gmail.com](#); [zumbrotwpcclerk@gmail.com](#); [Michael.R.Peterson@state.mn.us](#); [Terri.peters@mn.nacdn.net](#); [John.benjamin@usda.gov](#); [laurie.balata@usda.gov](#); [chad.hanson@state.mn.us](#); [lucas.youngsma@state.mn.us](#); [Dennis.reindl@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [Eli.szydlo@redcross.org](#); [jfreihammer@wkfalcons.org](#); [eenger@lake-city.k12.mn.us](#); [dstrosahl@isd2899.k12.mn.us](#); [mikeh@zmsch.k12.mn.us](#); [timp@smifoundation.org](#); [tgaedtk@wabashacodac.org](#); [info@hope-coalition.org](#); [rcallahan@threeriverscap.org](#); [grhomes@greatriverhomes.org](#); [Cori.barker@riveroaksmn.com](#); [earl.merchlewitz@co.goodhue.mn.us](#); [BKlinger@co.winona.mn.us](#); [jacobson.jonathan@co.olmsted.mn.us](#); [lucas.teska@buffalocountywi.gov](#); [pepza@co.pepin.wi.us](#)  
**Cc:** [hundrieserconsulting@outlook.com](#); [slstark@d.umn.edu](#)  
**Subject:** Wabasha County Hazard Mitigation Planning Team Meeting #2 Invitation  
**Date:** Tuesday, September 17, 2024 9:44:22 AM

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## WABASHA COUNTY HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at the **2nd Planning Team Meeting** for the update of the **Wabasha 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: Wednesday, November 6, 2024

Time: 1:00 p.m. – 2:30 p.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 Wabasha 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



Wabasha 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,  
Brenda

**Brenda Tomlinson**  
Wabasha County EM Director  
651.565.3069



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

November 6, 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 Hundrieser**  
HMP Planning Specialist  
Hundrieser Consulting LLC

**Wabasha County Project Lead**

- Brenda Tomlinson, Wabasha County Emergency Management Director



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

PRESENTER: STACEY STARK

## Zoom Logistics

If you haven't yet, please type your Wabasha 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



This meeting formally convenes the **Wabasha 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

Wabasha 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.

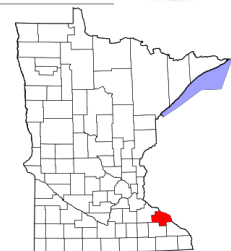
PRESENTER: BONNIE HUNDRIESER

## Who the Plan Covers



This is a **multi-jurisdictional plan** that covers Wabasha 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

## 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 Wabasha County

### NATURAL HAZARDS

Prioritization of hazards by the Wabasha 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 |
|-----------------|------------------|
| Flooding        | High             |
| Winter Storms   | High             |
| Windstorms      | High             |
| Tornadoes       | Moderate         |
| Extreme Cold    | Moderate         |
| Extreme Heat    | Moderate         |
| Drought         | Moderate         |
| Lightning       | Low              |
| Hailstorms      | Low              |
| Wildfire        | 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/WabashaHMP](https://z.umn.edu/WabashaHMP)

## 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



### 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)

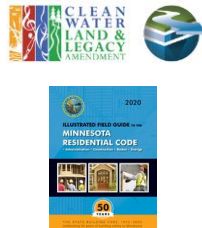
PRESENTER: BONNIE HUNDRIESER

## Local Planning & Regulations



### Wabasha County Examples:

- Enforcement of ordinances that reduce impacts of high rain events.
- Participation in regional watershed planning with SWCD and area WD's
- Enforcement of watering restrictions during periods of extreme drought.
- Encourage all new development to follow state building codes to help withstand impacts of severe weather to structures.



PRESENTER: BONNIE HUNDRIESER

## Structure & Infrastructure Projects

### Wabasha County Examples:

- Installation of new outdoor warning sirens (WCEM)
- Construction of tornado safe rooms
- Burying powerlines to reduce power failure
- Conducting property buyouts for flooding
- Stormwater management projects, Road and bridge improvements (WC Highway Dept)



PRESENTER: BONNIE HUNDRIESER

## Natural Systems Protection

### Wabasha County Examples:

- Conduct vegetation management along roads to reduce the risk of downed trees and branches resulting from heavy snow, ice, or high winds.
- Lower Zumbro Flood & Erosion Mitigation (Wabasha SWCD, TNC, MN DNR + property owners)
- Other examples:
  - Planting Living Snow Fences
  - Installing Rain Gardens



PRESENTER: BONNIE HUNDRIESER

## Education & Awareness Programs

### Wabasha County Examples:

- Promoting sign-up for the county's emergency notification system.
- Encouraging residents to be aware of and prepared for severe weather events, extreme temperatures, and extended power outages.
- Tornado Shelter in Place awareness
- Extreme Cold – avoiding frozen pipes
- Drought – water use restrictions / water conservation tips



PRESENTER: BONNIE HUNDRIESER

## Mitigation Preparedness & Response Support

### Wabasha County Examples:

- Acquire generators for backup power of critical infrastructure and key facilities
- Update of county EOP
- Planning for Warming/Cooling centers, local sheltering
- 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

## Comments and Questions?



### November, 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



### December, 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

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Bonnie Hundrieser, HM Planner

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**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   |
|--|---|--|
| <b>Local Planning and Regulations</b>        | 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"> <li>• Comprehensive plans</li> <li>• Land use ordinances</li> <li>• Planning and zoning</li> <li>• Building codes and enforcement</li> <li>• Floodplain ordinances</li> <li>• NFIP Community Rating System</li> <li>• Capital improvement programs</li> <li>• Open space preservation</li> <li>• Shoreline codes</li> <li>• Stormwater management regulations and master plans</li> <li>• Mobile home park compliance for storm shelters</li> </ul>   |
| <b>Structure and Infrastructure Projects</b> | <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"> <li>• Property Acquisitions and elevations of structures in flood prone areas</li> <li>• Utility undergrounding</li> <li>• Structural retrofits (i.e., metal roofs)</li> <li>• Floodwalls and retaining walls</li> <li>• Detention and retention structures</li> <li>• Culvert Installation/Modification</li> <li>• Roads &amp; Bridge risk reduction</li> <li>• Safe Room (New construction or facility retrofit)</li> <li>• Green Infrastructure Methods</li> </ul> <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   |
|---|--|--|
| <b>Natural Systems Protection</b>                   | <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"> <li>• Soil stabilization for sediment and erosion control</li> <li>• Floodplain and Stream corridor restoration</li> <li>• Slope management</li> <li>• Forest management (defensible space, fuels reduction, sprinkler systems)</li> <li>• Conservation easements</li> <li>• Wetland restoration and preservation</li> <li>• Aquifer Storage &amp; Recovery</li> <li>• Flood Diversion and Storage</li> </ul> <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>   |
| <b>Education and Awareness Programs</b>             | <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"> <li>• Radio or television spots</li> <li>• Websites with maps and information</li> <li>• Social media outreach</li> <li>• Promotion of sign-up for emergency warnings</li> <li>• Real estate disclosure</li> <li>• Promotion of NFIP insurance to property owners</li> <li>• Presentations to school groups or neighborhood organizations</li> <li>• Mailings to residents in hazard-prone areas.</li> <li>• NWS StormReady Program</li> <li>• Firewise Communities</li> </ul> <p><i>Some of these types of actions may be projects eligible for funding through the FEMA HMA "5 Percent Initiative Program".</i></p> |
| <b>Mitigation Preparedness and Response Support</b> | <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"> <li>• Emergency Operations Plan</li> <li>• Flood fight plans and preparedness measures</li> <li>• Dam emergency action plans</li> <li>• Emergency Warning Systems (i.e., CodeRed, warning sirens)</li> <li>• Generator backup power</li> <li>• NWS Storm Spotter Training</li> <li>• Training and education for local elected officials and key partners.</li> </ul>  |

## **Appendix G – Public Outreach & Engagement Documentation**

## **Wabasha County MHMP News Release #1**

### **Record of Public Input & Incorporation**

**Overview:** On **June 5, 2023**, Wabasha 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. Wabasha 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 Wabasha 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 Wabasha 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**

**6/14/23 Email to Wabasha EMD from Resident of Wabasha Mobile Home Park**

From: Larson, Pamela  
Sent: Wednesday, June 14, 2023 3:32 PM  
To: Tomlinson, Brenda <btomlinson@co.wabasha.mn.us>  
Subject: Emergency Plans

Hi Brenda,

I saw the article in the paper. I live in Wabasha Mobile Home Park (a.k.a. Hiawatha Trailer Court) and I sure would like something for tornados. Last time I drove to my sister's house about 1 mile away, maybe a little further, but I can't be guaranteed I'd have enough time for that. My management company told me when I first moved in there that I was to go to the Fire Station but that's not right. My neighbors told me to go to the nursing home but then COVID hit. I'm not a storm chaser, I'm a storm runner, so anything that can be done to make us safe would be great. Also I'm sure you'll have to say no pets as we all have them but they can't all be in there together. Sucks but I always see cats roaming around on the rubble on the news so I'm pretty sure mine would do better without me.

Thanks.

Pam L  
Wabasha County Social Services  
Eligibility Worker  
Long Term Care

**6/15/23 Email Response from Wabasha County EMD**

From: Tomlinson, Brenda  
Sent: Thursday, June 15, 2023 1:48 PM  
To: Larson, Pamela <plarson@co.wabasha.mn.us>  
Subject: RE: Emergency Plans

Thank you for your email Pam. I've wanted to get storm shelters in the trailer parks in the county for a long, long time.

Hopefully we can get some hazard mitigation funding for that by including this in the Hazard Mitigation Plan.

I appreciate you for reaching out with this information/request. Pets could come in if they were in pet carriers. People likely wouldn't be in a storm shelter for very long, so that would work for smaller animals.

Thank you, again, and please let me know if you have any other comments.

Brenda

Brenda Tomlinson, Director  
Wabasha Co. Emergency Mgmt  
651.565.3069

**Incorporation:** Identifying where tornado safe rooms or storm shelters are needed to protect vulnerable populations from high wind events or tornadoes will be included in the Wabasha County HMP update risk assessment and development of local mitigation actions.

**From:** [Tomlinson, Brenda](#)  
**To:** [Tomlinson, Brenda](#); [Bergner, Tisha](#); [Bartsh, Rodney](#); [Plante, Michael](#); [Wagner, Jeff](#); [Otto, Rhonda](#); [Gertken, Shawn](#); [Jerviss, Kyle](#); [Flesch, Dietrich](#); [Kaltenbach, Joseph](#); [Stefanski, Joshua](#); [Fiedler, Tammy](#); [socialservices](#); [Walkes, Bob](#); [Powers, Rick](#); [Springer, Donald - Commissioner](#); [Wobbe, Mike](#); [Key, Cheryl](#); [bellechester@sleepyeyetel.net](#); [Boardman.mayor@gmail.com](#); [cityclerk@elginmn.com](#); [Cziebell8@gmail.com](#); [firechief@elginmn.com](#); [bobmnn@aol.com](#); [Hammond.minnesota@gmail.com](#); [tinamanntmm@aol.com](#); [Jeff\\_tentis@hotmail.com](#); [cityclerk@cityofkellogg.org](#); [kfd@cityofkellogg.org](#); [mnichols@ci.lake-city.mn.us](#); [rkeehn@ci.lake-city.mn.us](#); [jyorde@ci.lake-city.mn.us](#); [ckubista@ci.lake-city.mn.us](#); [dpatterson@ci.lake-city.mn.us](#); [chmaz@sleepyeyetel.net](#); [bjhmhentz@sleepyeyetel.net](#); [mzeppafire@hotmail.com](#); [Tcutting1@embarqmail.com](#); [Pat.appel0304@gmail.com](#); [appelstireservice@yahoo.com](#); [minneiskamayor@gmail.com](#); [minneiskacityclerk@hotmail.com](#); [mdkonkel@hbc.com](#); [a.luckstein@plainviewmn.com](#); [d.todd@plainviewmn.com](#); [Mtac95@gmail.com](#); [Timm, Jason](#); [firedept@plainviewmn.com](#); [mayor@wabasha.org](#); [cityadmin@wabasha.org](#); [fire@wabasha.org](#); [Stark, Joseph](#); [bheitfire@embarqmail.com](#); [zumbrofallsclerk@gmail.com](#); [zumbrofallsfire@gmail.com](#); [jakecatkinson@gmail.com](#); [erikahippe@aol.com](#); [dkheise@gmail.com](#); [Jmundy@riverland.org](#); [greenfieldtwpclerk@gmail.com](#); [highlandtownship@yahoo.com](#); [daveleestevenson@gmail.com](#); [dryan.lake@gmail.com](#); [klahackman@gmail.com](#); [dand143@gmail.com](#); [jasonholst1@gmail.com](#); [donlea55@gmail.com](#); [holidayholtan@hotmail.com](#); [ellenmiller63@gmail.com](#); [watopa\\_township\\_clerk@yahoo.com](#); [jmoechnig@riverlandcom.net](#); [zumbrotwpcclerk@gmail.com](#); [Michael.R.Peterson@state.mn.us](#); [Terri.peters@mn.nacdnet.net](#); [John.benjamin@usda.gov](#); [laurie.balata@usda.gov](#); [mark.schoenfelder@state.mn.us](#); [lucas.youngsma@state.mn.us](#); [Dennis.reindl@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [Eli.szydlo@redcross.org](#); [jfreihammer@wkfalcons.org](#); [eenger@lake-city.k12.mn.us](#); [dstrosahl@isd2899.k2.mn.us](#); [mikeh@zmsch.k12.mn.us](#); [timp@smifoundation.org](#); [tgaedtke@wabashacodac.org](#); [info@hope-coalition.org](#); [rcallahan@threeriverscap.org](#); [grhomes@greatriverhomes.org](#); [Cori.barker@riveroaksmn.com](#); [earl.merchlewitz@co.goodhue.mn.us](#); [BKlinger@co.winona.mn.us](#); [jacobson.jonathan@co.olmsted.mn.us](#); [lucas.teska@buffalocountywi.gov](#); [pepza@co.pepin.wi.us](#)  
**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** Wabasha County Hazard Mitigation News Release  
**Date:** Monday, June 5, 2023 10:25:44 PM  
**Attachments:** [HazMitPlan News Release #1.pdf](#)

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Greetings,

Wabasha County Emergency Management is commencing work on the update of the Wabasha 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 Wabasha County HMP update.

If you have any questions, please let me know.

Thank you,

**Brenda Tomlinson, Director**  
**Wabasha Co. Emergency Mgmt**  
**651.565.3069**

[www.co.wabasha.mn.us/community/public\\_safety/emergency\\_management/index.php](http://www.co.wabasha.mn.us/community/public_safety/emergency_management/index.php)



# WABASHA COUNTY EMERGENCY MANAGEMENT

625 JEFFERSON AVENUE  
WABASHA, MN 55981  
PHONE (651) 565-3069  
FAX (651) 560-1049

Brenda K. Tomlinson  
Director  
[btomlinson@co.wabasha.mn.us](mailto:btomlinson@co.wabasha.mn.us)

## WABASHA COUNTY NEWS RELEASE

*June 5, 2023*

### **Public Input Wanted as County Updates Hazard Mitigation Plan**

Wabasha 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.

Wabasha County 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 Wabasha County HMP is a multi-jurisdictional plan that covers Wabasha County, including the cities of Bellechester, Elgin, Hammond, Kellogg, Lake City, Mazeppa, Millville, Minneiska, Plainview, Wabasha, and Zumbro Falls. The Wabasha 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 Brenda Tomlinson, Wabasha 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
- Using snow fences to limit blowing and drifting of snow over roads
- Constructing tornado safe rooms in vulnerable areas such as mobile home parks
- Burying overhead powerlines 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, Wabasha 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 Wabasha 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**

Brenda Tomlinson

Wabasha County Emergency Management Director

Phone: (651) 565-3069

Email: [btomlinson@co.wabasha.mn.us](mailto:btomlinson@co.wabasha.mn.us)





**Wabasha County HMP News Release #1 – June 5, 2023**  
**Chart Documentation of News Release Postings**

| <b>Jurisdiction or Agency</b>              | <b>Posting Representative</b>   | <b>Date &amp; Location of News Release Posting</b>   |
|--|---|--|
| Wabasha County                             | Brenda Tomlinson, Wabasha County EMD, Katie M. Streveler, Human Resources Coordinator | 6/5/23, Wabasha County website and Public Health Facebook page   |
| City of Bellechester                       | Lisa Redepenning, City Clerk  | 6/5/23, Bellechester Bank public notice board  |
| City of Elgin                              | Jessica Cartwright, City Clerk  | 6/22/23, City Hall bulletin board  |
| City of Hammond                            | Janice Domke, City Clerk  | 6/5/23, City website and City Hall public notice board   |
| City of Kellogg                            | Chris Schouweiler, City Clerk   | 6/6/23, Bank Bulletin board and City website   |
| City of Lake City                          | John Yorde, Emergency Manager   | 6/21/23, Public Safety Building and City Hall front lobby  |
| City of Mazeppa                            | Karl Nahrgang, City Administrator   | 6/5/23, City Hall bulletin board   |
| City of Millville                          | Pat Appel, City Clerk   | 6/5/23, Post Office bulletin board   |
| City of Minneiska                          | Christine Hicks, City Clerk   | 6/5/23, City Hall bulletin board   |
| City of Plainview                          | Carol Kujath, City Clerk  | 6/5/23, City website, City Facebook page, and City Hall bulletin board   |
| City of Wabasha                            | Wendy Busch, City Clerk   | 6/5/23, City Hall bulletin board in front entry  |
| City of Zumbro Falls                       | Sue Eischens, City Clerk  | 6/5/23, City Hall bulletin board, Post Office, and local business (Rod's Service Motel and Convenience Store). |
| Lake Township                              | Doris Ryan, Township Clerk  | 6/18/23, Town Hall bulletin board  |
| Plainview-Elgin-Millville Community School | Marcia Schultz, Executive Assistant to Supt.  | 6/6/23, Posted on the outside door of the school and on the PEM School Facebook page                           |
| MN DNR Lake City Office                    | Lucas Youngsma, Area Hydrologist  | 6/6/23, MN DNR service counter for the public  |

## **Wabasha County HMP News Release #2**

### **Record of Public Input & Incorporation**

**Overview:** On November 18, 2024 Wabasha County Emergency Management put out a news release titled **“Public Comment Sought for County’s Hazard Mitigation Plan”** to announce the completion of the draft Wabasha 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 11/18/24 – 12/2/24 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 Wabasha 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 Wabasha 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 Wabasha County or local jurisdictions.**

**From:** [Tomlinson, Brenda](#)  
**To:** [Tomlinson, Brenda](#); [Bergner, Tisha](#); [Bartsh, Rodney](#); [Plante, Michael](#); [Wagner, Jeff](#); [Otto, Rhonda](#); [Gertken, Shawn](#); [Jerviss, Kyle](#); [Flesch, Dietrich](#); [Kaltenbach, Joseph](#); [Haberkorn, Kayla](#); [Fiedler, Tammy](#); [socialservices](#); [Walkes, Bob](#); [Powers, Rick](#); [Springer, Donald - Commissioner](#); [Wobbe, Mike](#); [Key, Cheryl](#); [bellechester@sleepyeyetel.net](#); [Boardman.mayor@gmail.com](#); [cityclerk@elginmn.com](#); [Cziebell8@gmail.com](#); [firechief@elginmn.com](#); [bobmnn@aol.com](#); [Hammond.minnesota@gmail.com](#); [tinamanntmm@aol.com](#); [Jeff\\_tentis@hotmail.com](#); [cityclerk@cityofkellogg.org](#); [kfd@cityofkellogg.org](#); [mnichols@ci.lake-city.mn.us](#); [rkeehn@ci.lake-city.mn.us](#); [jyorde@ci.lake-city.mn.us](#); [ckubista@ci.lake-city.mn.us](#); [dpatterson@ci.lake-city.mn.us](#); [cityadmin@mazeppamn.us](#); [streets@mazeppamn.us](#); [mazeppafire@hotmail.com](#); [Tcutting1@embarqmail.com](#); [Pat.appel0304@gmail.com](#); [pappel@yahoo.com](#); [minneiskamayor@gmail.com](#); [minneiskacityclerk@hotmail.com](#); [mdkonkel@hbc.com](#); [a.luckstein@plainviewmn.com](#); [d.todd@plainviewmn.com](#); [Mtac95@gmail.com](#); [Timm, Jason](#); [firedept@plainviewmn.com](#); [mayor@wabasha.org](#); [cityadmin@wabasha.org](#); [fire@wabasha.org](#); [Stark, Joseph](#); [bheitfire@embarqmail.com](#); [zumbrofallscityclerk@gmail.com](#); [zumbrofallsfire@gmail.com](#); [jakecatkinson@gmail.com](#); [erikahippe@aol.com](#); [dkheise@gmail.com](#); [Jmundy@riverland.org](#); [greenfieldtwpclerk@gmail.com](#); [highlandtownship@yahoo.com](#); [daveleestevenson@gmail.com](#); [dryan.lake@gmail.com](#); [kiahackman@gmail.com](#); [dand143@gmail.com](#); [jasonholst1@gmail.com](#); [donlea5ls@gmail.com](#); [holidayholtan@hotmail.com](#); [ellenmiller63@gmail.com](#); [watopa\\_township\\_clerk@yahoo.com](#); [clerk.westalbany@gmail.com](#); [zumbrotwpcclerk@gmail.com](#); [Michael.R.Peterson@state.mn.us](#); [Terri.peters@mn.nacdn.net](#); [chad.hanson@state.mn.us](#); [lucas.youngsma@state.mn.us](#); [Dennis.reindl@state.mn.us](#); [Michele.heaver@usc.salvationarmy.org](#); [Eli.szydlo@redcross.org](#); [timp@smifoundation.org](#); [tgaedtke@wabashacodac.org](#); [info@hope-coalition.org](#); [rcallahan@threeriverscap.org](#); [grhomes@greatriverhomes.org](#); [Cori.barker@riveroaksmn.com](#); [earl.merchlewitz@co.goodhue.mn.us](#); [BKlinger@co.winona.mn.us](#); [jacobson.jonathan@co.olmsted.mn.us](#); [lucas.teska@buffalocountywi.gov](#); [pepza@co.pepin.wi.us](#); [ryanb@zmsch.k12.mn.us](#); [nonstad@wfkfalcons.org](#); [eenger@isd2899.k12.mn.us](#); [awright@lake-city.k12.mn.us](#); [PWAstt@wabasha.org](#)  
**Cc:** [hundrieserconsulting@outlook.com](#); [slstark@d.umn.edu](#)  
**Subject:** Wabasha County HMP News Release - Public Review Period  
**Date:** Monday, November 18, 2024 2:50:41 PM  
**Attachments:** [11-18-24 Wabasha County HMP News Release #2 Public Review Period.pdf](#)  
[11-18-24 Wabasha County HMP News Release #2 Public Review Period.docx](#)

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Greetings,

The public review and comment period is now open for the Wabasha County Hazard Mitigation Plan. Please see the attached news release.

The public review period will run from **November 18 to December 2**, prior to submission of the plan to FEMA.

**The cities of Bellechester, Elgin, Hammond, Kellogg, Lake City, Mazeppa, Millville, Minneiska, Plainview, Wabasha, and Zumbro Falls are requested to please post the release. Townships and other related stakeholders involved in the plan update are also encouraged to share the news release. Please post the news release to areas such as your website, Facebook page, bulletin boards, or other locations.**

**Please email me to let me know the date and location(s) of where the news release was posted.**

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.

As this is a 15-day public review period, your prompt attention to this is appreciated.

Thank you,

**Brenda Tomlinson**

Wabasha County EM Director

651.565.3069



**From:** [Tomlinson, Brenda](#)  
**To:** [Lake City Graphic](#); [Plainview News](#); [Wabasha Herald](#); [Zumbrota News Record](#)  
**Cc:** [hundrieserconsulting@outlook.com](mailto:hundrieserconsulting@outlook.com)  
**Subject:** Wabasha County HMP News Release #2 - Public Review Period  
**Date:** Monday, November 18, 2024 2:48:53 PM  
**Attachments:** [11-18-24 Wabasha County HMP News Release #2 Public Review Period.pdf](#)  
[11-18-24 Wabasha County HMP News Release #2 Public Review Period.docx](#)

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Good Afternoon,

Please include the attached news release in the next edition of your newspaper and also, please let me know you've received this email. This is the final public review of the draft County Hazard Mitigation Plan and is a FEMA requirement for completion of the Plan.

Please let me know if you have any questions.

Thank you,  
Brenda

**Brenda Tomlinson**  
Wabasha County EM Director  
651.565.3069





# WABASHA COUNTY EMERGENCY MANAGEMENT

625 JEFFERSON AVENUE  
WABASHA, MN 55981  
PHONE (651) 565-3069  
FAX (651) 560-1049

Brenda K. Tomlinson  
Director  
btomlinson@co.wabasha.mn.us

## WABASHA COUNTY NEWS RELEASE

*November 18, 2024*

### **Public Comment Sought for Wabasha County's Hazard Mitigation Plan**

Wabasha County has completed an updated draft of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Wabasha 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 is open for a period of 15 days through December 2, 2024. The public can access the plan using the following hyperlinks:

[Wabasha County HMP Website Homepage](#) (feedback form at the bottom of page)

[Wabasha County Mitigation Action Charts](#) (feedback form at the bottom of page)

The Wabasha County HMP is a multi-jurisdictional plan that covers Wabasha County, including all cities and townships within the county. The Wabasha 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 Wabasha 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 Wabasha 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 Wabasha 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. Wabasha 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 Wabasha County Emergency Management.

### **Contact**

Brenda Tomlinson  
Wabasha County Emergency Management Director  
Phone: (651) 565-3069  
Email: [btomlinson@co.wabasha.mn.us](mailto:btomlinson@co.wabasha.mn.us)

**Please scan the following QR code to go directly to the Wabasha County Hazard Mitigation Plan interactive website:**



**Wabasha County HMP News Release #2 (11-18-24)**  
**Chart Documentation of News Release Postings**

| <b>Jurisdiction or Agency</b> | <b>Posting Representative</b>   | <b>Date &amp; Location of News Release Posting</b>  |
|-------------------------------|---|---|
| Wabasha County                | Brenda Tomlinson,<br>Wabasha County EMD,<br><br>Shawn Gertken, GIS<br>Coordinator | 11/18/24 WCEM Twitter (X) page<br>11/18/24 WCSO Facebook page<br>11/18/24 WCPH Facebook page<br><br>11/18/24 Wabasha County website |
| City of Bellechester          | Lisa Redepenning, City<br>Clerk   | 11/20/24 – City Public Board  |
| City of Elgin                 | Jessica Cartwright, City<br>Clerk   | <i>No posting reported</i>  |
| City of Hammond               | Janice Domke, City Clerk  | 11/18/24 City Facebook page and Display Box at City<br>Hall   |
| City of Kellogg               | Chris Schouweiler, City<br>Clerk  | 11/19/24 – City Hall Bulletin Board, WNB Bank<br>Bulletin Board and City Post Office  |
| City of Lake City             | John Yorde, Emergency<br>Manager  | 11/18/24 – City Hall Bulletin Board and City website  |
| City of Mazeppa               | Karl Nahrgang, City<br>Administrator  | <i>No posting reported</i>  |
| City of Millville             | Pat Appel, City Clerk   | <i>No posting reported</i>  |
| City of Minneiska             | Christine Hicks, City Clerk   | <i>No posting reported</i>  |
| City of Plainview             | Carol Kujath, City Clerk  | 11/26/24, Posted at City Hall on community bulletin<br>board  |
| City of Wabasha               | Wendy Busch, City Clerk<br>Riley Costello, City EM                                | 11/18/24 City website and City Facebook Page<br>11/20/24 City Hall Bulletin Board   |
| City of Zumbro Falls          | Sue Eischens, City Clerk  | <i>No posting reported</i>  |
| Plainview News                | Richard Johnson   | 11/18/24 Plainview weekly newspaper   |
| Lake City Graphic             | Andrew Eggenberger  | 11/18/24 Lake City weekly newspaper   |
| Wabasha Herald                | Tracy Peterson  | 11/18/24 Wabasha weekly newspaper   |
| Lake Township                 | Doris Ryan, Clerk   | 11/19/24 Lake Town Hall Bulletin Board  |
| Lake City Schools             | Ariana Wright, Supt<br><br>Jackie Dunn, Admin Assist                              | 11/18/24 Public Notices Board at Superintendent's<br>office<br>11/21/24 Lincoln Jr./Sr. High Bulletin Board                         |



## **Appendix H – Mitigation Actions by Jurisdiction**

# CITY OF BELLECHESTER

## Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy   | Mitigation Action   | Status<br>Priority<br>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<br>High<br>2025-2030        | City Admin /<br>City EM          | We post information on our city website and utility bills. We also post information on bulletin boards at our local bank.   | City Funding     |
| 2 | All-Hazards                   | Education & Awareness Programs                                | Encourage residents in our community to sign up for the county's emergency notification system.   | Existing<br>High<br>2025-2030        | City Admin /<br>City EM          | We will work with Goodhue County Emergency Management to help us get a link to sign up for CodeRED on our city website. We can also post on our public area bulletin boards for residents that do not access our website. | City Funding     |
| 3 | Severe Winter & Summer Storms | Local Planning & Regulations                                  | Ensure new development is built to guidelines to reduce risk of damage or failure from extreme storm events.                            | Existing<br>High<br>2025-2030        | City Admin,<br>City Public Works | We utilize Goodhue County for administering the MN State Building Code and the City Code zoning requirements for all new development and upgrades.  | City Funding     |
| 4 | Flooding                      | Structure & Infrastructure Projects                           | Continue to address stormwater management improvements as needed to handle future high rain events.                                     | In-Progress<br>Moderate<br>2024-2025 | City Admin,<br>City Public Works | In 2025 our stormwater system improvements for the city over will be completed. Our Public Works Dept. will continue to address future improvements as necessary.   | City Funding     |
| 5 | Drought                       | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.          | New<br>Moderate<br>2025-2030         | City Admin                       | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.                           | City Funding     |

# CITY OF ELGIN

# Mitigation Action Chart

| # | Hazard      | Mitigation Strategy            | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030   | City Admin /<br>City EM                    | We use our city website, Facebook page, a few bulletin boards around town and our local newspaper to provide the community with needed information. The city will work with Wabasha County Emergency Management to participate in the National Weather Service's – Severe Weather Awareness Weeks and share information with our residents locally. | City<br>Funding  |
| 2 | All-Hazards | Education & Awareness Programs | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030   | City Admin /<br>City EM                    | The city has not previously done this, but we will work with Wabasha County Emergency Management to help us put a link on our website so residents can sign up. We can also post some flyers in public areas encouraging residents to sign up.  | City<br>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<br>High<br>2025-2030   | City Admin in<br>coord with city<br>depts. | The city's planning and zoning department enforces the MN State Building Code and the City Code zoning requirements for new development. We have a 10-year street plan that identifies areas that need improvements for water runoff and possible stormwater infrastructure.  | City<br>Funding  |

# CITY OF ELGIN

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe  | Responsibility                                | Comments on Implementation & Integration  | Possible Funding                    |
|---|-------------------------------|--|---|----------------------------------|---|---|-------------------------------------|
| 4 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support | Obtain generator backup power for the city to use in the event of extended power outages.   | In-Progress<br>High<br>2025-2030 | City Admin /<br>City EM, City<br>Public Works | The city desires to purchase backup generators for all our city buildings including City Hall, Fire Hall, Ambulance Building, well houses and lift stations. However, costs are prohibitive and we may seek to apply for future FEMA HMA grant funding for acquiring backup power. Currently the city will use its own funding and a state awarded grant to help with the purchase of a generator for the city well that would be used in an emergency. | City Funding,<br>FEMA grant funding |
| 5 | Extreme Temps (Heat/Cold)     | Education & Awareness Programs             | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. | New<br>Moderate<br>2025-2030     | City Admin /<br>City EM                       | The city will work to share important temperature safety information that comes to us from the county emergency manager and the NWS. We can use our city website, FB page, and city council meetings to encourage residents to be aware and prepared.   | City Funding                        |
| 6 | Extreme Cold                  | Education & Awareness Programs             | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.  | Existing<br>High<br>2025-2030    | City Admin,<br>Public Works                   | We use our website and utility billing to remind homeowners to run a stream of hot water to avoid frozen pipes during periods of extreme cold.  | City Funding                        |
| 7 | Extreme Cold                  | Education & Awareness Programs             | Work with the county and partner agencies to establish a warming center facility and program for those who are exposed to extreme cold.                                 | New<br>Moderate<br>2025-2030     | City Admin /<br>City EM, City<br>Public Works | The city will seek to work with Wabasha County Emergency Management and Wabasha County Public Health to help us develop a plan and establish a designated facility that can be used locally for temporary sheltering during periods of extreme cold if people need to relocate.   | City funding                        |

# CITY OF ELGIN

# Mitigation Action Chart

| #  | Hazard               | Mitigation Strategy  | Mitigation Action  | Status<br>Priority<br>Timeframe | Responsibility          | Comments on Implementation & Integration   | Possible Funding                     |
|----|----------------------|--|--|---------------------------------|-------------------------|--|--------------------------------------|
| 8  | Drought              | Local Planning & Regulations / Education & Awareness Programs        | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.         | New<br>Moderate<br>2025-2030    | City Admin              | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.  | City Funding                         |
| 9  | Flooding             | Structure & Infrastructure Projects                                  | Identify and address where high rain events are causing impacts to the city's stormwater system.                                       | Existing<br>High<br>2025-2030   | City Public Works Dept. | We have one lift station prone to flooding during high rain events. A couple of the storm sewers also occasionally back up into town from the creeks flooding. We work with Wabasha County and our city engineer and to keep storm sewers from backing up into the city and cause flooding in basements. Our City Engineer and Public Works Director continue to address stormwater system maintenance issues for flood risks. The city is a member of MN WARN to provide aid if we would need assistance with our utilities during a flooding crisis. | City Funding                         |
| 10 | Severe Summer Storms | Structure & Infrastructure Projects                                  | Purchase and install new outdoor warning sirens where needed in order to provide good coverage.  | New<br>High<br>2025-2030        | City Admin / City EM    | The city is looking into adding a warning siren to the westerly area of town. We will work with Wabasha County Emergency Management on this effort. We may decide to seek possible future FEMA grant funding for purchase of a warning siren.  | City Funding, FEMA grant funding     |
| 11 | Severe Summer Storms | Education & Awareness Programs / Structure & Infrastructure Projects | Work with residents that are in mobile homes and establish a plan for them to get to a storm shelter or a tornado safe room if needed. | New<br>High<br>2025-2030        | City Admin / City EM    | The city will work with the residents to make them aware of where the nearest shelter is located. We may also look for funding from FEMA for construction of a tornado safe room for the mobile home park.   | City Funding, FEMA HMA grant funding |

# CITY OF HAMMOND

# Mitigation Action Chart

| # | Hazard      | Mitigation Strategy            | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030   | City Admin /<br>City EM | We typically send mailings communicating important information, both single mailings, and notices on the public utility billing notices. Legal public notices are printed in the local papers. The City of Hammond shares information on its Facebook page. We have a bulletin board hanging outside City Hall. We have a public notice board near the mailboxes, and an RV Park specific bulletin board at the RV park. We have permissions to post public information at the MinnWest Bank branch in Hammond as well.   | City Funding     |
| 2 | All-Hazards | Education & Awareness Programs | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030   | City Admin /<br>City EM | The City of Hammond shares information about emergency notification systems on its Facebook page and on the city bulletin board. Wabasha County and the City of Hammond alerts local TV and radio stations of emergency alerts. Interruptions in internet/satellite/cellular/analog service during weather events renders these options inadequate as the "storm" events approach the area and during the event. The city has a plan to utilize FB, local TV and radio networks, phone chain, and house to house in person notification for immediate danger notifications. | City Funding     |

# CITY OF HAMMOND

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy   | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility               | Comments on Implementation & Integration  | Possible 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<br>Moderate<br>2025-2030 | City Admin                   | The City of Hammond's ordinances reflect and enforce the MN State Building Code. The City does not have the land/capacity for new development, therefore does not have a planning/zoning department or plans for future development.  | City Funding                            |
| 4 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support                    | Purchase a permanent generator so serve as emergency backup power to the city's water tower.  | New<br>High<br>2025-2030          | City Admin /<br>City EM      | City of Hammond is working to secure a MN Rural Water SWP Implementation Grant for a generator for the water tower pump to keep pump running during power failures.   | MN Rural Water SWP Implementation Grant |
| 5 | Extreme Temps (Heat/Cold)     | Education & Awareness Programs                                | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. | New<br>Moderate<br>2025-2030      | City Admin /<br>City EM      | The city will work to share important temperature safety information that comes to us from the county emergency manager and the NWS. We will use our city FB and other outreach means to provide information to residents.  | City Funding                            |
| 6 | Extreme Cold                  | Education & Awareness Programs                                | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.  | Existing<br>High<br>2025-2030     | City Admin /<br>Public Works | The City reaches out individually to residents who are at risk for sewer line freezing during extreme cold weather and negotiates terms on their utility bill to negate water usage when running water to prevent freezing. This helps to prevent damage to municipal and residential water infrastructure. | City Funding                            |
| 7 | Drought                       | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.  | New<br>Moderate<br>2025-2030      | City Admin                   | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.   | City Funding                            |

# CITY OF HAMMOND

# Mitigation Action Chart

| #  | Hazard             | Mitigation Strategy                 | Mitigation Action  | Status<br>Priority<br>Timeframe  | Responsibility                          | Comments on Implementation & Integration  | Possible Funding                          |
|----|--------------------|-------------------------------------|--|----------------------------------|---|---|---|
| 8  | Drought / Wildfire | Education & Awareness Programs      | Work to raise public awareness of drought conditions and wildfire safety.  | Existing<br>High<br>2025-2030    | City Admin / City EM, City FD           | The city encourages and educates residents to observe Red Flag warnings when there is an elevated fire potential.   | City Funding                              |
| 9  | Flooding           | Structure & Infrastructure Projects | Address where improvements are needed to improve the city's ability to handle flood damages from high rain events. | In-Progress<br>High<br>2025-2030 | City Admin / City EM, City Public Works | The City of Hammond is working with WSB to address local flood issues. WSB is a design and consulting firm specializing in engineering, community planning, environmental, and construction services. WSB is helping the city to secure CPL grant funds (MN DNR Conservation Partners Legacy Grant Fund) for canoe landing refurbishment and is pursuing engagement with HSEM for grant funding for a Rip-Rap River Bank stabilization/flow diversion project to preserve the river bank and reduce damage created by flood events. The city has completed the Feasibility Study and continues moving forward with the project. We continue to work with Wabasha County Highway Dept. concerning county road hazards and bridge maintenance as this fall under the county's jurisdiction. | City funding + CPL and FEMA grant funding |
| 10 | Flooding           | Education & Awareness Programs      | Conduct emergency outreach to residents in the event of approaching flood conditions.                              | Existing<br>High<br>2025-2030    | City Admin / City EM                    | The city communicates with its residents on its FB page when there is forecasted river elevations or other predicted hazards and encourages them to have an emergency evacuation plan.  | City Funding                              |



**CITY OF HAMMOND****Mitigation Action Chart**

| #  | Hazard               | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility                    | Comments on<br>Implementation<br>& Integration   | Possible<br>Funding |
|----|----------------------|--|---|-----------------------------------|-----------------------------------|--|---------------------|
| 11 | Flooding             | Education & Awareness Programs             | Work with residents to clear drainage ditches of debris during the spring melt to reduce localized flooding.                | Existing<br>High<br>2025-2030     | City Admin /<br>City Public Works | The city requests residential assistance to help clear the roadside gutters from snow/ice/debris for water drainage during the annual snow melt with the City Councilpersons maintaining responsibility to respond to water accumulations. | City Funding        |
| 12 | Severe Winter Storms | Education & Awareness Programs             | Conduct outreach to the public to be aware of and take action for personal safety measures due to heavy snow accumulations. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM           | In the winter during significant snow accumulations, we remind and encourage residents to ensure their home's exhaust ventilation remains clear of obstruction.  | City Funding        |
| 13 | Severe Summer Storms | Mitigation Preparedness & Response Support | Ensure the city's outdoor warning siren is functional and tested on a regular basis.  | Existing<br>Moderate<br>2025-2030 | City EM                           | The City of Hammond's warning siren is linked to Wabasha County's civil warning system and participates in the annual spring tornado siren activation test.  | City Funding        |

# CITY OF KELLOGG

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy                        | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM           | We have a Facebook page and post information on our website.   | City Funding                                  |
| 2 | All-Hazards                   | Education & Awareness Programs             | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030     | City Admin /<br>City EM           | We have a link for residents to sign up for CodeRED on the homepage of our city website. We also send out a resident letter every year in the spring and include the site for them to sign up for CodeRED.   | 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<br>Moderate<br>2025-2030 | City Admin                        | The city follows the MN state building code and enforces city code zoning requirements.  | City Funding                                  |
| 4 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support | Obtain additional generators for backup power for our lift station and wells.  | New<br>High<br>2025-2030          | City Admin /<br>City Public Works | The city will work to purchase additional generators as funding is available. This is something that we may seek future FEMA HMA grant funding for.  | City Funding,<br>FEMA<br>HMA<br>Grant funding |
| 5 | Extreme Temps (Heat/Cold)     | Education & Awareness Programs             | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.  | New<br>High<br>2025-2030          | City Admin /<br>City EM           | The city will use our city website and FB page to share important temperature safety information that comes to us from the county emergency manager and the NWS with our local residents. Residents are encouraged to use weather cell phone apps to receive timely information on dangerous temperatures. | City Funding                                  |
| 6 | Extreme Cold                  | Education & Awareness Programs             | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.   | Existing<br>High<br>2025-2030     | City Admin /<br>Public Works      | The city uses our city website, FB page, and utility billing to remind homeowners to run a stream of hot water to avoid frozen pipes during periods of extreme cold.   | City Funding                                  |

**CITY OF KELLOGG****Mitigation Action Chart**

| # | Hazard   | Mitigation Strategy   | Mitigation Action  | Status<br>Priority<br>Timeframe | Responsibility            | Comments on Implementation & Integration   | Possible Funding |
|---|----------|---|--|---------------------------------|---------------------------|--|------------------|
| 7 | Drought  | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures. | New<br>Moderate<br>2025-2030    | City Admin                | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also use our city website, FB page and city council announcements to help make residents aware of limitations on non-essential water use.   | City Funding     |
| 8 | Flooding | Structure & Infrastructure Projects                           | Address where improvements are needed to improve the city's ability to handle stormwater from high rain events.                | Existing<br>High<br>2025-2030   | City Admin / Public Works | Our public works department oversees monitoring, planning and projects for any stormwater improvement projects. Currently our city lift station is prone to flooding during high rain events. Our last two street projects in 2020 and 2022 added more storm sewers and addressed the water issues. Most water runs downhill during a heavy rain. We have built the roads and ditches to get the water to run towards the river. | City Funding     |

# CITY OF LAKE CITY

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy            | Mitigation Action   | Status<br>Priority<br>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<br>High<br>2025-2030   | City Admin /<br>City EM          | We post information on Our City, Public Works, and Police Dept Facebook pages as needed. Our city has access to a Public City informational page on out town TV provider. City webpage is used as needed with a General Information tab. City Hall also has a community Bulletin board for posting of information also.  | City Funding     |
| 2 | All-Hazards                   | Education & Awareness Programs | Encourage residents in our community to sign up for the county's emergency notification system.   | Existing<br>High<br>2025-2030   | City Admin /<br>City EM          | Lake City has a link on the city website to the Wabasha County CodeRED signup page. We include information twice annually in the local newspaper. When new residents move into town; a flyer is included with the Welcome Wagon packet information. Annually information goes out in city wide utilities and information in available at the front counter of the Police Department. In the past couple of years, we have also done a signup event for anyone who needs assistance, especially for seniors. Anyone is welcome to come for assistance or ask questions. | 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<br>High<br>2025-2030   | City Admin                       | The city maintains an updated Comprehensive Plan that is designated to plan for the future physical growth of the city and appropriate land uses.  | City             |
| 4 | Severe Winter & Summer Storms | Local Planning & Regulations   | Ensure new development is built to guidelines to reduce risk of damage or failure from extreme storm events.                            | Existing<br>High<br>2025-2030   | City Admin,<br>City Public Works | The city's planning and zoning department enforces the MN State Building Code and the City Code zoning requirements for new development.   | City Funding     |

# CITY OF LAKE CITY

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility                                | Comments on Implementation & Integration   | Possible Funding                             |
|---|-------------------------------|--|---|-----------------------------------|---|--|--|
| 5 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support | Obtain generators to install at City Hall and the local school that are in need of emergency backup power.                                | Existing<br>High<br>2025-2030     | City Admin /<br>City EM,<br>City Public Works | The city has identified that a generator would be beneficial for City Hall. City Hall houses the IT Server for the Public Safety Building along with other crucial departments. During power outages public safety is without internet service and electronic files needed for response. A generator would also be beneficial for our local public school. The school is identified as a shelter in city EOP. The city will work to purchase generators as funding is available. | City Funding,<br>Possible FEMA grant funding |
| 6 | Severe Winter & Summer Storms | Structure & Infrastructure Projects        | Reduce the risk of downed power lines and extended power outages from the impacts of heavy snow, ice, or high wind events.                | Existing<br>Moderate<br>2025-2030 | City Municipal Utility                        | Currently our city municipal electric dept has and is ongoing with converting overhead power lines to underground. In the future the city may seek FEMA grant funding to assist with implementation of retrofit projects to reduce areas of vulnerability (such as pole replacement program).  | City Funding,<br>Possible FEMA Grant Funding |
| 7 | Extreme Cold                  | Education & Awareness Programs             | Conduct public outreach to residents to avoid frozen pipes during periods of extreme cold and to be prepared for potential power outages. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                       | We will use our city website and utility bills to notify residents to avoid freezing pipes during sub-zero weather. During periods of severe weather winter or extreme cold we post reminders for public preparedness.   | City Funding                                 |
| 8 | Flooding                      | Structure & Infrastructure Projects        | Address flood mitigation projects planned for areas within the city identified with flood risk issues.                                    | In-Progress<br>High<br>2025-2030  | City Public Works                             | Lake City is currently working on planning and project implementation for flood risk mitigation at the following areas:<br>- McCahill Park<br>- Hok Si La Shoreland armoring<br>- Sportsman's shoreland armoring   | City Funding                                 |

# CITY OF LAKE CITY

# Mitigation Action Chart

| #  | Hazard    | Mitigation Strategy  | Mitigation Action  | Status<br>Priority<br>Timeframe  | Responsibility                | Comments on Implementation & Integration   | Possible Funding                              |
|----|-----------|--|--|----------------------------------|-------------------------------|--|---|
| 9  | Landslide | Structure & Infrastructure Projects                              | Repair the retaining wall at Ohuta Park which has been undermined due to flooding and loss of upland from erosion.             | In-Progress<br>High<br>2025-2030 | City Public Works             | This project is within the current scope of work for Lake City Public Works. The city coordinates with Goodhue SWCD as needed on this project.   | City Funding                                  |
| 10 | Landslide | Natural Systems Protection / Structure & Infrastructure Projects | Implement buffering and stormwater runoff measures to reduce risk of landslides in the Oakhurst subdivision area.              | In-Progress<br>High<br>2025-2030 | City Admin, City Public Works | The loss of tree cover along the top of the bluff along the city's western municipal boundary has created an issue where the infrastructure in these neighborhoods located at the toe of the bluff was not designed to handle the increased velocity and quantity of stormwater runoff coming down the bluff into the city limits. The city may seek to apply for future FEMA grant funding to support property buyouts if funding is available. | City Funding, Possible FEMA HMA grant funding |
| 11 | Drought   | Local Planning & Regulations / Education & Awareness Programs    | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures. | New<br>Moderate<br>2025-2030     | City Admin                    | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.  | City Funding                                  |

# CITY OF MAZEPPA

# Mitigation Action Chart

| # | Hazard               | Mitigation Strategy            | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                          | We have a city website which we use to share news and other emergency information with the public. There are also two Facebook pages to share information with the public (Mazeppa Happenings FB, Mazeppa Parks & Recreation. We further share information as needed at City Council meetings or by hanging informational flyers at City Hall and in the community. | City<br>Funding  |
| 2 | All-Hazards          | Education & Awareness Programs | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                          | We will work with Wabasha County Emergency Management to help us put a link on our city website for residents to sign up for CodeRED. We will also seek to encourage residents by posting occasional reminders on FB, announcements at City Council meetings, and by posting flyers.  | City<br>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<br>Moderate<br>2025-2030 | City Admin in<br>coord with other<br>city depts. | The city enforces Ordinance No. 04-1, Building and Construction Regulations. We have a Planning & Zoning Dept. that oversees enforcement of ordinances and planning for future growth.  | City<br>Funding  |
| 4 | Severe Winter Storms | Local Planning & Regulations   | Enforce the city ordinance for removal of snow and ice from city sidewalks following winter weather events to keep pedestrian walkways clear and safe.   | Existing<br>Moderate<br>2025-2030 | City Admin                                       | The city enforces Ordinance No. 14-1 which requires the removal of snow and ice from sidewalks and holds property owners accountable for doing so.  | City<br>Funding  |

## CITY OF MAZEPPA

## Mitigation Action Chart

| # | Hazard                    | Mitigation Strategy   | Mitigation Action   | Status Priority Timeframe   | Responsibility                       | Comments on Implementation & Integration  | Possible Funding |
|---|---------------------------|---|---|-----------------------------|--------------------------------------|---|------------------|
| 5 | Extreme Temps (Heat/Cold) | Education & Awareness Programs                                | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. | New High 2025-2030          | City Admin / City EM                 | The city will work to share important temperature safety information that comes to us from the county emergency manager and the NWS. Residents are encouraged to use cell phone apps to receive timely emergency information on extreme temperatures. | City Funding     |
| 6 | Extreme Cold              | Education & Awareness Programs                                | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.  | New High 2025-2030          | City Admin / City Public Works       | When we have periods of extreme cold in the we will do outreach to remind residents to be ready for possible power outages and to run a stream of hot water to avoid frozen pipes.  | City Funding     |
| 7 | Drought                   | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.  | New Moderate 2025-2030      | City Admin                           | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.   | City Funding     |
| 8 | Flooding                  | Structure & Infrastructure Projects                           | Continue to address where improvements are needed to improve the city's ability to handle stormwater from high rain events.   | New Moderate 2025-2030      | City Public Works Dept.              | The city has a Public Works Director and staff that oversee planning and projects for all maintenance and improvements city stormwater infrastructure and roads.  | City Funding     |
| 9 | Flooding                  | Local Planning & Regulations                                  | Enforce the city's floodplain ordinance to reduce risk of development in flood risk areas.  | Existing Moderate 2025-2030 | City Admin / City Public Works Dept. | The city enforces Ordinance No. 23-1, Floodplain Management Ordinance "Special Conversion"  | City Funding     |



# CITY OF MILLVILLE

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy                        | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030   | City Admin /<br>City EM                    | The city does not have a website or Facebook page. We share information with residents through posting flyers at City Hall or the Post Office, as well as making announcements at City Council meetings. We will work with Wabasha County Emergency Management to help us pass on important announcements to our residents regarding severe weather and emergency preparedness. | City<br>Funding  |
| 2 | All-Hazards                   | Education & Awareness Programs             | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030   | City Admin /<br>City EM                    | We will work with the Wabasha County Emergency Management Director to help us create an informational flyer that we can post about the county's CodeRED system and how to sign up.  | City<br>Funding  |
| 3 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support | Obtain a backup generator for our well house in case of a long-term power outage.  | New<br>Moderate<br>2025-2030    | City Admin /<br>City EM, City Public Works | The city will purchase a generator as funding is available.   | City<br>Funding  |
| 4 | Severe Summer Storms          | Mitigation Preparedness & Response Support | Ensure the functionality of our outdoor warning siren.   | New<br>Moderate<br>2025-2030    | City EM                                    | The city installed a new siren and we work with Wabasha County Sheriff's Office to test it monthly.   | City<br>Funding  |
| 5 | Extreme Temps (Heat/Cold)     | Education & Awareness Programs             | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.  | New<br>Moderate<br>2025-2030    | City EM                                    | The city will encourage residents to be ready for periods of extreme heat or cold. Residents are encouraged to download weather apps and to follow local news and radio for current conditions.   | City<br>Funding  |
| 6 | Extreme Cold                  | Education & Awareness Programs             | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.   | Existing<br>High<br>2025-2030   | City Admin /<br>City EM, City Public Works | During periods of extreme cold we work to remind homeowners to run a stream of hot water to avoid frozen pipes and avoid frozen water services.   | City<br>Funding  |

**CITY OF MILLVILLE****Mitigation Action Chart**

| # | Hazard   | Mitigation Strategy   | Mitigation Action  | Status<br>Priority<br>Timeframe   | Responsibility                      | Comments on Implementation<br>& Integration  | Possible<br>Funding |
|---|----------|---|--|-----------------------------------|-------------------------------------|--|---------------------|
| 7 | Drought  | Local Planning<br>& Regulations<br>/ Education &<br>Awareness<br>Programs | Enforce watering use restrictions<br>when in periods of severe<br>drought and raise public<br>awareness of water conservation<br>measures. | New<br>Moderate<br>2025-2030      | City Admin                          | The city will enforce emergency<br>water use restrictions as per<br>direction from the MN DNR. The<br>city will also do outreach to help<br>make residents aware of limitations<br>on non-essential water use. | City<br>Funding     |
| 8 | Flooding | Structure &<br>Infrastructure<br>Projects                                 | Address where improvements are<br>needed to improve the city's<br>ability to handle stormwater<br>from high rain events.                   | Existing<br>Moderate<br>2025-2030 | City Admin,<br>City Public<br>Works | Our city council works with our<br>public works staff to be aware of<br>and to address where any<br>stormwater improvements need to<br>be made in order to handle high<br>rain events.                         | City<br>Funding     |

# CITY OF MINNEISKA

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy            | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                     | We are a small community of only 53 people. We primarily share information with our residents and the public by posting information on our city website and at City Hall. We encourage residents to follow local news media and to have cell phone apps to help keep them aware of severe weather forecasts and safety information. | City<br>Funding                     |
| 2 | All-Hazards                   | Education & Awareness Programs | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                     | We will work with Wabasha County and Winona County emergency management to put a link to their CodeRED emergency notification systems on our website. The city of Minneiska is located in both counties and residents may choose to enroll in both notification systems.  | City<br>Funding                     |
| 3 | Severe Winter & Summer Storms | Natural Systems Protection     | Conduct vegetation management near power lines to reduce the risk of extended power outages due to downed trees and branches.  | Existing<br>Moderate<br>2025-2030 | City Public Works in coord with Xcel Energy | The city's public works dept. trims trees that are on city property in order to keep tree branches away from power lines. Xcel Energy does not trim trees on city property.   | City<br>Funding,<br>Xcel<br>Funding |
| 4 | Extreme Temps (Heat/Cold)     | Education & Awareness Programs | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.  | Existing<br>Moderate<br>2025-2030 | City Admin /<br>City EM                     | We encourage residents to follow local news media and to have cell phone apps to help keep them aware of severe weather forecasts and safety information.   | City<br>Funding                     |
| 5 | Extreme Cold                  | Education & Awareness Programs | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.   | Existing<br>High<br>2025-2030     | City Admin /<br>City EM, City Public Works  | During periods of extreme cold we work to remind homeowners to run a stream of hot water to avoid frozen pipes and avoid frozen water services.   | City<br>Funding                     |

# CITY OF MINNEISKA

# Mitigation Action Chart

| # | Hazard                | Mitigation Strategy   | Mitigation Action  | Status<br>Priority<br>Timeframe | Responsibility  | Comments on Implementation & Integration   | Possible Funding      |
|---|-----------------------|---|--|---------------------------------|---|--|-----------------------|
| 6 | Drought               | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures. | New<br>Moderate<br>2025-2030    | City Admin  | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.  | City Funding          |
| 7 | Flooding              | Structure & Infrastructure Projects                           | Address where improvements are needed to improve the city's ability to handle stormwater from high rain events.                | Existing<br>High<br>2025-2030   | City Public Works in coord with MN DNR                    | Our Public Works oversees monitoring and maintenance for culverts and roads. The city also continues to work with the MN DNR regarding flood mitigation improvements to our boat landing.  | City Funding, MN DNR  |
| 8 | Flooding / Landslides | Natural Systems Protection                                    | Work to reduce risk of erosion and landslides in vulnerable areas due to high rain events.                                     | New<br>High<br>2025-2030        | City Public Works in coord with Wabasha County Hwy. Dept. | In July 2024 our city Public Works staff worked with the Wabasha County highway department to clean up several mudslides due to frequent rains. Deering Excavating was brought in to help with additional maintenance needed. We will continue to address areas that require additional attention. | City / County Funding |

# CITY OF PLAINVIEW

# Mitigation Action Chart

| # | Hazard      | Mitigation Strategy            | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030   | City Admin /<br>City EM                         | We share information with the public by posting on the city's website, city Facebook page, and our local newspaper. The city also participates in the National Weather Service's severe weather awareness week in the spring. The fire department participates in storm spotter training annually. Our website can be translated into different languages in order to be accessible to any non-english speaking people. We also have an app for the City of Plainview website that people can download. | City<br>Funding  |
| 2 | All-Hazards | Education & Awareness Programs | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030   | City Admin /<br>City EM                         | We will work with Wabasha County Emergency Management to help us provide a link on the homepage of our website for the county's CodeRED system. We will help to promote it via our website, Facebook page, and local posted flyers.   | City<br>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<br>High<br>2025-2030   | City Admin in<br>coord with city<br>departments | The Plainview Comprehensive Plan 2018-2038 plans for future growth of the city. To achieve the goals and objectives of the Comprehensive Plan, the City of Plainview has adopted a Development Code to establish regulations for zoning, subdivision of land, and floodplain areas. Plainview's Development Code incorporates all land development regulations into a single code.  | City<br>Funding  |

# CITY OF PLAINVIEW

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy   | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility                                | Comments on Implementation & Integration   | Possible Funding                                 |
|---|-------------------------------|---|---|-----------------------------------|---|--|--|
| 4 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support                    | Obtain an emergency backup generator for the city's water supply and the city's public shelter.   | New<br>High<br>2025-2030          | City Admin /<br>City EM, City<br>Public Works | The city will work to purchase an emergency generator for our city's water supply and for our public shelter (the high school). We may seek to apply for FEMA grant funding to help with this.   | City<br>Funding,<br>FEMA<br>HMA grant<br>funding |
| 5 | Extreme Temps<br>(Heat/Cold)  | Education & Awareness Programs                                | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. | Existing<br>Moderate<br>2025-2030 | City Admin /<br>City EM                       | The city will work to share important temperature safety information that comes to us from the county emergency manager and the NWS. Residents and facilities that house vulnerable populations are encouraged to download cell phone weather apps to receive timely alerts. | City<br>Funding                                  |
| 6 | Extreme Cold                  | Education & Awareness Programs                                | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.  | New<br>High<br>2025-2030          | City Admin /<br>City EM, City<br>Public Works | The city will use different outreach methods to our residents and businesses such as our website, FB, and announcements at city council meetings to raise awareness to run a stream of hot water to avoid frozen pipes during periods of extreme cold.                       | City<br>Funding                                  |
| 7 | Drought                       | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.  | New<br>Moderate<br>2025-2030      | City Admin                                    | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.  | City<br>Funding                                  |
| 8 | Flooding                      | Structure & Infrastructure Projects                           | Address where improvements are needed to improve the city's ability to handle stormwater from high rain events.   | Existing<br>Moderate<br>2025-2030 | City Public<br>Works                          | We have a city engineer and a public works director to overlook the city's infrastructure. They oversee planning and project management for our stormwater system and roads as needed.   | City<br>Funding                                  |

**CITY OF PLAINVIEW****Mitigation Action Chart**

| # | Hazard               | Mitigation Strategy                 | Mitigation Action  | Status<br>Priority<br>Timeframe | Responsibility | Comments on Implementation & Integration   | Possible Funding                     |
|---|----------------------|-------------------------------------|--|---------------------------------|----------------|--|--------------------------------------|
| 9 | Severe Summer Storms | Structure & Infrastructure Projects | Work with the 2 private mobile home parks within the city to address the possibility of building on-site storm shelters or tornado safe rooms. | New<br>High<br>2025-2030        | City EM        | The city has put together emergency evacuation plans for both private mobile home parks. We will work with the MHP owner to see if construction of on-site storm shelters or tornado safe rooms may be something they want to work on. Outside grant funding from FEMA would be necessary for any safe room construction projects. | City Funding, FEMA HMA grant funding |

# CITY OF WABASHA

# Mitigation Action Chart

| # | Hazard      | Mitigation Strategy                        | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                    | The City of Wabasha shares information with the public by posting information on our city website, our city Facebook page, local bulletin boards, postings in the local newspaper, and releasing PSAs to the radio and TV. Our city works with Wabasha County Emergency Management to participate in the National Weather Service's annual Severe Winter/Spring Weather Awareness Week. Our local school practices tornado drills on an annual basis. We work to educate campers and boaters to seek shelter during a storm. | City<br>Funding  |
| 2 | All-Hazards | Education & Awareness Programs             | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030     | City Admin /<br>City EM                    | Signup information for CodeRed gets shared on every storm watch we post on Facebook regarding storms.  | City<br>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<br>Moderate<br>2025-2030 | City Admin in<br>coord with city<br>depts. | The city's planning and zoning department enforces the MN State Building Code, flood plain requirements, shoreland overlay, bluff land impact, and the City Code zoning requirements for new development. We have a 20-year Comprehensive Plan that is designed to plan physical growth of the city and appropriate land uses. We will have a resiliency plan to reduce repetitive flooding.   | City<br>Funding  |
| 4 | All-Hazards | Mitigation Preparedness & Response Support | Ensure plans and facilities are in place for the emergency evacuation and sheltering of residents due to disaster events.  | Existing<br>High<br>2025-2030     | City EM                                    | We have a reception center program that would help us in a mass evacuation situation.  | City<br>Funding  |



# CITY OF WABASHA

# Mitigation Action Chart

| # | Hazard                        | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility   | Comments on Implementation & Integration   | Possible Funding                                 |
|---|-------------------------------|--|---|---------------------------------|--|--|--|
| 5 | Severe Winter & Summer Storms | Mitigation Preparedness & Response Support | Purchase additional generators to run wells during a severe storm.  | New<br>High<br>2025-2030        | City Admin /<br>City EM, City<br>Public Works                                  | The city will work to purchase additional generators as funding is available. We may seek future grant funding from FEMA to support this effort.   | City<br>Funding,<br>FEMA<br>HMA grant<br>funding |
| 6 | Severe Summer Storms          | Structure & Infrastructure Projects        | Purchase and install a new outdoor warning siren to cover the new development in the west end of the city.                      | New<br>High<br>2025-2030        | City Admin /<br>City EM, City<br>Public Works                                  | The city will work with Wabasha County Emergency Management on this effort to obtain a siren that can be tied into the county's remote activation system. We may seek future grant funding from FEMA to support this effort.   | City<br>Funding,<br>FEMA<br>HMA grant<br>funding |
| 7 | Severe Summer Storms          | Structure & Infrastructure Projects        | Address the need for the construction of storm shelters or tornado safe rooms at our mobile home parks and municipal campground | New<br>High<br>2025-2030        | City Admin /<br>City EM, City<br>Public Works in<br>coord with MHP<br>operator | We have 2 mobile home parks within the city that do not have a storm shelter and residents are vulnerable to high wind and tornado events. Currently they can use the schools or bathrooms. Our municipal campground is active during summer and fall months with RVs and campers and also does not have a storm shelter. The city will work with Wabasha County Emergency Management to look into the possibility to apply for FEMA HMA grant funding to construct new tornado safe rooms at these locations. | City<br>Funding,<br>FEMA<br>HMA grant<br>funding |
| 8 | Severe Summer Storms          | Structure & Infrastructure Projects        | Purchase and install a new outdoor warning siren on Skyline Drive.  | New<br>High<br>2025-2030        | City Admin /<br>City EM  | The city may seek grant funding from the FEMA HMA program to assist with purchase of a siren.  | City<br>funding,<br>FEMA<br>grant<br>funding     |

# CITY OF WABASHA

# Mitigation Action Chart

| #  | Hazard                    | Mitigation Strategy   | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility                             | Comments on Implementation & Integration   | Possible Funding                                  |
|----|---------------------------|---|---|---------------------------------|--|--|---|
| 9  | Severe Summer Storms      | Structure & Infrastructure Projects                           | Work with the local mobile home park owner to develop an evacuation and sheltering plan for vulnerable park residents.  | New<br>High<br>2025-2030        | City Admin /<br>City EM in coord with MHPs | The city will work with Wabasha County Emergency Management and our 2 mobile home parks on planning for emergency evacuation and sheltering of residents. We will work with the MHP owners to evaluate if a new storm shelter or tornado safe room should be constructed. We may seek future grant funding from FEMA to support this effort. | City Funding, MHP funding, FEMA HMA grant funding |
| 10 | Extreme Temps (Heat/Cold) | Education & Awareness Programs                                | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. | New<br>Moderate<br>2025-2030    | City EM                                    | The city will encourage residents to be ready for periods of extreme heat or cold. Residents are encouraged to download weather apps and to follow local news and radio for current conditions.  | City Funding                                      |
| 11 | Extreme Cold              | Education & Awareness Programs                                | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.  | Existing<br>High<br>2025-2030   | City EM / City Public Works                | We use our city website and utility bills to notify residents to avoid freezing pipes during sub-zero weather. As we continue to replace water lines throughout the city, this will help. We will also work to educate homeowners about replacing their lines deeper.  | City Funding                                      |
| 12 | Drought                   | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.  | New<br>Moderate<br>2025-2030    | City Admin                                 | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also do outreach to help make residents aware of limitations on non-essential water use.  | City Funding                                      |

# CITY OF WABASHA

# Mitigation Action Chart

| #  | Hazard   | Mitigation Strategy                        | Mitigation Action   | Status<br>Priority<br>Timeframe  | Responsibility                                | Comments on Implementation & Integration   | Possible Funding   |
|----|----------|--|---|----------------------------------|---|--|--|
| 13 | Flooding | Structure & Infrastructure Projects        | Continue to address where improvements are needed to improve the city's ability to handle stormwater from high rain events. | Existing<br>High<br>2025 – 2030  | City Admin /<br>City EM, City<br>Public Works | <p>We have a contracted city engineer and a public works director that address road maintenance issues for flooding. Priority projects identified at this time include:</p> <ul style="list-style-type: none"> <li>- Re-engineer the ditch near the wastewater treatment plant to keep flood waters from entering the plants.</li> <li>- Implement new storm sewer upgrades as construction projects.</li> <li>- Work with the city engineer on local flood reduction measures.</li> <li>- Enforce the city's sump pump ordinance to minimize impacts to the city's stormwater system.</li> <li>- Rip-rap needs to be added to the riverbank.</li> </ul> | City<br>Funding,<br>MN DNR<br>Flood<br>Hazard<br>Mitigation<br>grant<br>funding,<br>FEMA<br>HMA grant<br>funding |
| 14 | Flooding | Structure & Infrastructure Projects        | Continue work on the city's downtown infrastructure improvements.   | In-Progress<br>High<br>2025-2030 | City Public<br>Works                          | In 2023 the city started on a reconstruction project of our downtown area. Sanitary sewer and storm water was replaced along with the road surface on Main Street. Work has continued in 2024. The city will plan for additional infrastructure improvements to prevent future flooding with a grant from State of Minnesota.  | City<br>Funding,<br>State<br>Funding   |
| 15 | Flooding | Mitigation Preparedness & Response Support | Ensure flood-fight equipment and agency support is available to the city to handle high rain and flooding events.           | New<br>High<br>2025-2030         | City EM / City<br>Public Works                | The city will work to purchase our own pumps for flooding. We are a member of MnWARN and also a part of Minnesota Rural Water who has provided us with free pumps during previous flood events.  | City<br>Funding  |

# CITY OF WABASHA

# Mitigation Action Chart

| #  | Hazard   | Mitigation Strategy                 | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility                                | Comments on Implementation & Integration   | Possible Funding  |
|----|----------|-------------------------------------|---|---------------------------------|---|--|---|
| 16 | Flooding | Education & Awareness Programs      | Educate homeowners about the benefits of flood insurance.   | New<br>High<br>2025-2030        | City Admin /<br>City EM                       | The city will continue to conduct outreach to residents who live in high-risk flood areas and encourage them to consider obtaining personal flood insurance if they have not done so already. We will work with the MN DNR Floodplain Management Program for help in providing informational resources to residents.   | City<br>Funding   |
| 17 | Flooding | Structure & Infrastructure Projects | Work to obtain funding to install a section of riprap along the bank of Lawrence Blvd that needs to be replaced in order to stop bank is erosion. | Existing<br>High<br>2025-2030   | City Admin /<br>City Public Works             | The city previously applied for FEMA grant funding for the riprap project but it was not approved. We will continue to seek outside grant funding from sources such as the MN DNR Flood Hazard Assistance grant program and the Wabasha SWCD.  | City<br>Funding,<br>MN DNR<br>FHM,<br>SWCD Cost<br>Share grant<br>funding |
| 18 | Flooding | Structure & Infrastructure Projects | Work with homeowners to conduct property buyouts due to repetitive flooding.  | New<br>High<br>2025-2030        | City Admin in<br>coord with<br>WCEM           | The city will work with WCEM to facilitate property acquisition projects with willing homeowners who have experienced repetitive flooding. Grant funding would be sought from the MN DNR Flood Hazard Assistance grant program or FEMA HMA grant programs.   | City, MN<br>DNR FHA,<br>FEMA<br>HMA                                       |
| 19 | Flooding | Structure & Infrastructure Projects | Implement stabilization measures for the riverbank along the Mississippi River to reduce erosion impacts from future flood events.                | New<br>High<br>2025-2030        | City Admin /<br>City EM, City<br>Public Works | The city of Wabasha will be working to implement bank stabilization measures that will include rip rap and other engineering approaches to reduce bank erosion from high-stage river flooding. The city will coordinate with the MN DNR and Army Corps of Engineers as needed. The city intends to submit a grant application to FEMA for HMA grant funding upon approval of the Wabasha County HMP 2024 update. | City<br>Funding,<br>FEMA<br>HMA grant<br>funding                          |

# CITY OF WABASHA

# Mitigation Action Chart

| #  | Hazard   | Mitigation Strategy                 | Mitigation Action   | Status<br>Priority<br>Timeframe | Responsibility                                | Comments on Implementation & Integration  | Possible Funding   |
|----|----------|-------------------------------------|---|---------------------------------|---|---|--|
| 20 | Flooding | Structure & Infrastructure Projects | Relocate park assets located within floodplain areas to stop repetitive flood damages.  | New<br>High<br>2025-2030        | City Admin /<br>City EM, City<br>Public Works | The city of Wabasha will work to relocate several community park assets, including the volleyball courts, Malone Playground, and skateboard park to areas within the city but outside of floodplain areas. The city may seek to apply for MN DNR Flood Hazard Mitigation grant assistance to support the city's the relocation of these flood prone structures. | City<br>Funding,<br>MN DNR<br>FHM grant<br>funding                             |
| 21 | Flooding | Structure & Infrastructure Projects | Implement infrastructure and electrical improvements for the city pump station system that will facilitate effective bypass of water during high rain/flood events. | New<br>High<br>2025-2030        | City Public<br>Works Dept. /<br>City EM       | The City of Wabasha Water Utility Department (under Public Works) is seeking to apply for FEMA Section 404 grant funding to implement this planned project. The project will avoid floodwaters overwhelming the city's water/wastewater plant and allow the city to quickly respond to and manage pump station functions during flooding events.                | City<br>Funding,<br>FEMA<br>Section<br>404 Grant<br>Funding<br>(BRIC,<br>HMGP) |

# CITY OF ZUMBRO FALLS

# Mitigation Action Chart

| # | Hazard                       | Mitigation Strategy   | Mitigation Action  | Status<br>Priority<br>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 such as blizzards, ice storms, windstorms, tornadoes, and flooding that can result in power outages, property damage, and risk to life safety. | Existing<br>High<br>2025-2030     | City Admin /<br>City EM           | The city uses our city website and city Facebook page to share information with residents and visitors. We also have community bulletin boards to post information such as at City Hall and local businesses. We will work with Wabasha County Emergency Management to help us participate in the National Weather Service's Severe Weather Awareness Weeks. | City Funding     |
| 2 | All-Hazards                  | Education & Awareness Programs                                | Encourage residents in our community to sign up for the county's CodeRED system to receive timely emergency notifications.   | Existing<br>High<br>2025-2030     | City Admin /<br>City EM           | We will work with Wabasha County Emergency Management to help us put a link to the county's CodeRED sign up page on our city website and city Facebook page.   | City Funding     |
| 3 | Extreme Temps<br>(Heat/Cold) | Education & Awareness Programs                                | Encourage residents to be aware of and prepared for periods of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.  | Existing<br>Moderate<br>2025-2030 | City Admin /<br>City EM           | The city will work to share important temperature safety information that comes to us from the county emergency manager and the NWS. During periods of extreme heat and extreme cold residents will be encouraged to be aware of safety considerations, and to be prepared for potential power outages.  | City Funding     |
| 4 | Extreme Cold                 | Education & Awareness Programs                                | Conduct outreach to property owners on how to avoid freezing pipes during periods of extreme cold.   | New<br>High<br>2025-2030          | City Admin /<br>City Public Works | We can use our city website and Water & Sewer utility billing to remind homeowners to run a stream of hot water to avoid frozen pipes during periods of extreme cold.  | City Funding     |
| 5 | Drought                      | Local Planning & Regulations / Education & Awareness Programs | Enforce watering use restrictions when in periods of severe drought and raise public awareness of water conservation measures.   | New<br>Moderate<br>2025-2030      | City Admin                        | The city will enforce emergency water use restrictions as per direction from the MN DNR. The city will also use our city website, FB, and local news to help make residents aware of limitations on non-essential water use.   | City Funding     |

**CITY OF ZUMBRO FALLS****Mitigation Action Chart**

| # | Hazard   | Mitigation Strategy                 | Mitigation Action   | Status<br>Priority<br>Timeframe   | Responsibility                    | Comments on Implementation & Integration   | Possible Funding      |
|---|----------|-------------------------------------|---|-----------------------------------|-----------------------------------|--|-----------------------|
| 6 | Flooding | Structure & Infrastructure Projects | Address where improvements are needed to improve the city's ability to handle stormwater from high rain events. | Existing<br>Moderate<br>2025-2030 | City Admin /<br>City Public Works | Our city council, maintenance department and Water/Sewer dept. work together to assess where there are any infrastructure project improvements needed in the community and we work to address them as city funding is available. | City Funding          |
| 7 | Flooding | Education & Awareness Programs      | Provide flood-level information to residents for the Zumbro River.  | Existing<br>High<br>2025-2030     | City Admin /<br>City EM           | The city provides a Flood Information link provided by the USGS on our website that provides a flood gage reading for the Zumbro River.  | City Funding,<br>USGS |