

# JACKSON COUNTY MINNESOTA



2023

Hazard Mitigation Plan



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# JACKSON COUNTY MINNESOTA

## HAZARD MITIGATION PLAN

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# Section 1 – Introduction

## 1.1 Introduction

Hazard mitigation is defined as any sustained action to reduce or eliminate long-term risk to human life and property from hazard events. 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, 2015).

Since 1980, damages due to natural disasters in the U.S. exceeded \$2.195 trillion. 2017 was the costliest year on record with \$306 billion in damage, and while the costliest disasters may occur in coastal states, in 2020, wildfires, hailstorms, drought, and tornadoes caused a record amount of billion-dollar disasters across the nation (Smith, 2022). 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 wellbeing 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. For communities to be eligible for future mitigation funds, they 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).

Jackson County is vulnerable to a variety of natural hazards that threaten the loss of life and property in the county. Hazards such as tornadoes, flooding, wildfires, blizzards, straight-line winds, and droughts have the potential for inflicting vast economic loss and personal hardship.

This HMP represents the efforts of Jackson County and its local governments to fulfill the responsibility of hazard mitigation planning. The intent of the plan is to limit the damages and losses caused by specific hazards.

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

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



*Jackson County HMP website*

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

### 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 Jackson County Emergency Management to facilitate an update to the 2016 Jackson 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 Jackson 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 Jackson County, including the cities of Alpha, Heron Lake, Jackson, Lakefield, Okabena, and Wilder. The Jackson 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 Jackson County after final approval by FEMA (see Appendix B).

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

- Include more recent data documenting the critical infrastructure and hazards faced by Jackson County.
- Reformat and reorganize the plan to reflect definitions of hazards as expressed in the 2019 Minnesota State Hazard Mitigation Plan.
- Reflect current hazard mitigation priorities in Jackson County.
- Encourage recipients and sub-recipients of hazard mitigation grants to consider climate change adaptation and resiliency 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 Jackson County HMP planning team is headed by the Jackson County emergency manager, who is the primary point of contact. Members of the Jackson County HMP planning team include representatives from the public and governmental sectors. Table 1 identifies the planning team individuals and the organizations they represent.

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

Jurisdictional representatives were contacted throughout the HMP process to help facilitate local participation and provide feedback on the hazards of concern to their communities. This feedback was used to develop local mitigation actions that they would seek to implement upon plan adoption (see Section 5.3 and Appendix H).

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

Name	Agency/Organization	Participant Title
Gary Reif	Jackson County Emergency Management	Emergency Management Director
Shawn Haken	Jackson County Sheriff's Office	County Sheriff
Kelly Mitchell	Jackson County Sheriff's Office	Chief Deputy
Dan Bartosh	Jackson County Land Management Dept.	Director
Valerie Cihak	Jackson County Land Management Dept.	Land Management Coordinator
Tim Stahl	Jackson County Public Works Dept.	Director
Wes Liepold	Jackson County Public Works Dept.	Assistant Director
Jared Baloun	Jackson County Public Works Dept. GIS	GIS Technician
Kevin Nordquist	Jackson County	Auditor
Karla Ambrose	Jackson County	Assessor
Jill Horn	Jackson County	Chief Deputy Auditor/Treasurer
Kelly Rasche	Jackson County	Drainage Coordinator
Ryan Krosch	Jackson County	County Administrator
Roger Pohlman	Jackson County	County Commissioner
Don Wachal	Jackson County	County Commissioner
Scott McClure	Jackson County	County Commissioner
Curtis Endreson	City of Alpha Fire Dept.	Assistant Fire Chief
Joe Liepold	City of Heron Lake EMS	Ambulance Director
Marlys Olson	City of Heron Lake	City Clerk
Matt Skaret	City of Jackson	City Administrator
Tony Oxborough	City of Jackson	Public Works Director
Stephen Condon	City of Lakefield	Mayor
Roger Pohlman	City of Lakefield – Police Dept.	Police Chief
Kyle Thaemlitz	Heron Lake Township	Township Supervisor
John Nauwerth	Rost Township	Chairman

Name	Agency/Organization	Participant Title
Paul Bang	Heron Lake-Okabena School	Superintendent
Mark Marcy	MN DPS/HSEM	HSEM Region 5 Regional Program Coordinator
Tom Kresko	MN Department of Natural Resources	Area Hydrologist
Rodney Byam	American Red Cross	Shelter Supervisor
Matt “George” Madden	Federated Rural Electrical Association	Operations Manager
Paul Johnson	Cottonwood County / Christiana Township	EM Director/Township Clerk
Ben Johnson	Martin County Emergency Management	Emergency Management Director
Tawn Hall	Nobles County Emergency Management	Emergency Management Director/Deputy County Administrator
Ryan Visher	Watonwan County Emergency Management	Emergency Management Director

## 2.2 Review of Existing Plans, Capabilities & Vulnerabilities

Jackson 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 2019 Minnesota All-Hazard Mitigation Plan was consulted.

In the development of the Jackson 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 Jackson County emergency management director and other key county staff and local city officials to collect feedback on local mitigation capabilities and vulnerabilities that either support or hinder the ability to mitigate against natural hazards countywide and at the local level. Following is a summary of the assessment tools used to gather information on local capabilities and vulnerabilities during the planning process:

*Capabilities Assessment (hazard-specific):* In this assessment, detailed information was collected from Jackson 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 Jackson County to support mitigation.

*Local Mitigation Surveys:* As part of Jackson County’s 2023 HMP update, participating jurisdictions and key county personnel were asked to fill out a Local Mitigation Survey (LMS) form. Questions in the LMS form addressed the following:

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

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

## 2.3 Planning Process Timeline and Steps

In order to update the 2016 Jackson County HMP, U-Spatial consultants worked in coordination with Jackson County Emergency Management and members of the planning team. The updated plan includes new data documenting the types of hazards faced by Jackson County residents and emergency planning officials as well as new thinking on how to address these hazards.

### 2.3.1 JACKSON COUNTY STAKEHOLDER COORDINATION

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

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

To provide opportunity for public input, Jackson 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. At the close of the public outreach period, the U-

Spatial consultants worked with the Jackson County Emergency Manager and members of the planning team to incorporate feedback from the public into the HMP. For more information on the planning process, see Sections 5 and 6.

Table 2 documents dates of Hazard Mitigation update meetings and public outreach. The public feedback period for the draft plan was open from 10/17/23 to 10/31/23, for a period of 15 days. Appendix G provides documentation of the public outreach for feedback on the draft plan by Jackson County and jurisdictions. At the close of the public outreach period, the U-Spatial consultants worked with the Jackson County Emergency Manager and members of the planning team to incorporate feedback from the public into the HMP. For more information on the planning process, see Sections 5 and 6.

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

Event	Date	Appendix
Kickoff Webinar	7/19/22	Appendix F, Planning Team Meetings
News Release #1	8/1/22	Appendix G, Public Outreach & Engagement Documentation
Planning Team Meeting #1	9/29/22	Appendix F, Planning Team Meetings
Planning Team Meeting #2	9/7/23	Appendix F, Planning Team Meetings
News Release #2	10/17/23	Appendix G, Public Outreach & Engagement Documentation

## 2.3.2 OVERVIEW OF JURISDICTIONAL PARTICIPATION

Throughout the planning process, Jackson 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 Jackson 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 Jackson 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 Jackson 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 Jackson 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. Jackson 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 the participation of each city that took part in the Jackson County HMP update planning process, with reference to the location of supporting documentation.

*Table 3. Jurisdictional participation in planning process*

Jurisdiction (2022 Est. Population, Esri)	News Release #1	Planning Team Mtg. #1	Local Mitigation Survey	Mitigation Action Charts	Planning Team Mtg. #2	News Release #2 & Plan Review
Supporting Documentation	App. G	App. F	App. C	Sec. 5.3 App. H	App. F	App. G
Jackson County (9,883)	X	X	X	X	X	X
City of Alpha (102)	X	X	X			X
City of Heron Lake (585)	X	X	X	X	X	X
City of Jackson (3,305)	X	X	X		X	X
City of Lakefield (1,692)	X	X	X		X	X
City of Okabena (199)	X		X			X
City of Wilder (63)	X		X	X		X
<b>Neighboring Jurisdictions:</b>						
Murray County						
Nobles County		X				
Cottonwood County		X			X	
Watonwan County					X	
Martin County		X			X	

# 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.

*[See a list of all natural hazards covered in the 2023 HMP](#)*

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.

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.

## 3.1 Hazard Identification and Prioritization

The cornerstone of the risk assessment is identification of the hazards that affect jurisdictions. Listed below are the natural hazards addressed in the 2019 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 Jackson County, updated the existing mitigation actions published in the 2016 HMP, and proposed new mitigation actions.

The team examined the hazards identified in the 2016 HMP and adjusted them to reflect the definitions of natural hazards used in the 2019 Minnesota State Hazard Mitigation Plan.

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

The prioritization of hazards for the Jackson 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 2023 Jackson County HMP Update*

Natural Hazards Addressed in the Last Plan	Current Priority
Winter Storms	High
Extreme Cold	High
Tornadoes	High
Windstorms	High
Flooding	High
Drought	Moderate
Lightning	Moderate
Hail	Moderate
Extreme Heat	Moderate
Dam/Levee Failure	Low
Wildfire	Low
Landslides	Low

### 3.1.2 FEMA- AND MINNESOTA-DECLARED DISASTERS AND ASSISTANCE

Another historical perspective is derived from FEMA-declared disasters. Fourteen major disasters and three emergency declarations in Jackson County have been made between 1957 and September 2023 for a total of 17; details of these can be viewed on the [Jackson 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). Jackson County has not been included in any 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 which provide funding for eligible mitigation planning and projects which 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 Jackson County

Project Identifier	Sub-Grantee	Project Type	Project Total	Federal Share
DR-4442-0004-F	Jackson County	601.1: Generators	\$70,406	\$54,055
DR-4113-0002-P	Jackson County	91.1: Local Multihazard Mitigation Plan	\$31,590	\$23,692
DR-1151-0008-R	Federated Rural Electric Assoc.	400.1: Utility Protective Measures (Electric, Gas, etc.)	\$93,751	\$45,572
DR-1419-0007-P	Southwest Regional Development Commission	91.1: Local Multihazard Mitigation Plan	\$53,334	\$40,001
DR-4442-0004-F	Jackson County	601.1: Generators	\$70,406	\$54,055
DR-4113-0002-P	Jackson County	91.1: Local Multihazard Mitigation Plan	\$31,590	\$23,692

SOURCE: (FEMA, 2023B)

### 3.2 Population 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)

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

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 who may need support in preparing for hazardous 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.

### 3.3 Climate Change

Minnesota's climate is currently changing in ways that are pushing us to adapt to weather patterns and extreme events that pose major threats to our health, homes, environment, and livelihoods. These events cost our state millions in property loss, damaged infrastructure, disrupted business, medical care, and support services, and put residents and responders at risk. Understanding how our weather is changing now and into the future will help planners and decision-makers in emergency management and supporting fields extend our progress in climate adaptation and lead to more resilient communities (MDH, 2018).



*Climate Change and Natural Hazards*

The National Climate Assessment suggests that infrastructure planning (particularly water resources infrastructure) should “be improved by incorporating climate change as a factor in new design standards and asset management and rehabilitation of critical and aging facilities, emphasizing flexibility, redundancy, and resiliency” (Georgakakos, et al., 2014).

Federal, state, and tribal governments are increasingly integrating climate change adaptation into existing decision-making, planning, or infrastructure-improvement processes (Georgakakos, et al., 2014). Definite predictions are difficult to make, as changes may vary depending on geographical location, even within Minnesota. Intense study of these topics is ongoing.

Rural communities are particularly vulnerable to climate change, due to their dependence upon natural resources, physical isolation, limited economic diversity, higher poverty rates and aging populations. According to *Climate Change Impacts in the United States: The Third National Climate Assessment*,

Warming trends, climate volatility, extreme weather events, and environmental change are already affecting the economies and cultures of rural areas. Many rural communities face considerable risk to their infrastructure, livelihoods, and quality of life from observed and projected climate shifts. These changes will progressively increase volatility in food commodity markets, shift the ranges of plant and animal species, and, depending on the region, increase water scarcity, exacerbate flooding and coastal erosion, and increase the intensity and frequency of wildfires across the rural landscape (Hales et al., 2014).

The Assessment also notes that transportation systems in rural areas are more vulnerable to risks such as flooding since there are typically fewer transportation options and infrastructure redundancies. In addition, power and communication outages due to severe weather events typically take longer to repair in rural areas, which can increase the vulnerability of elderly populations. Rural area populations are also more vulnerable since they typically have limited financial resources to deal with the effects of climate change.

The composition of the region's forests is expected to change as increasing temperatures shift tree habitats northward. While forests in the Midwest are currently acting as a net absorber of carbon, this could change in the future due to projected increases in insect outbreaks, forest fires, and drought, which will result in greater tree mortality and carbon emissions (Pryor et al., 2009).

### 3.4 Jurisdictional Change in Risk or Vulnerability Assessment

Jurisdictions in Jackson 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 5 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, Jackson 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. Following are examples of common responses related to noted local vulnerabilities (as preserved in Appendix C: Part A, Question 3) for each jurisdiction. 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.

#### **Jackson County**

*Blizzards, Ice Storms:* Much of the electrical service throughout Jackson County consists of overhead power lines and electrical poles which are prone to failure in ice storms and blizzards. Storms with heavy snowfall and high winds may bring down trees and branches.

Jackson County has US Hwy 71 and US Hwy 60 running through the county which can cause stranded motorists requiring rescue and emergency shelter.

*Windstorms, Tornadoes:* Jackson County manages 5 county parks that have both camper and tent camping sites available. We also have one State Park (Kilen Woods State Park) with both camper and tent sites available. We also have a racetrack (Jackson Motorplex) on county property adjacent to the city of Jackson with seating capacity of over 6,000, not including the campground and infield area. There is not enough sheltering in the area to hold this many people in the event of a severe wind or tornado event.

Our municipal campgrounds are active during summer and fall months with RVs and campers and does not have adequate storm shelters for that amount of people.

*Extreme Cold:* Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have a high population of senior citizens and also low-income residents who are more vulnerable during these events. Several cities also have nursing homes and assisted living facilities which can be affected by cold temperatures and power outages.

The county has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding and ice dams on the river can make flooding even more of an issue until the ice breaks up enough to pass under bridges.

*Flooding:* Sanitary sewer lift stations throughout the county are prone to flooding in low lying areas during high rain events or as the West Des Moines River and area creeks rise from rains further upstream. City and fire department personnel have sandbagged many areas in the past to prevent flooding into local lift stations. And portable pumps are set up to assist with keeping the sewer system functioning.

When flooding does occur, there are businesses and residences that could possibly be affected if the water rises high enough, resulting in sandbagging becoming necessary. The City of Jackson is in a low area of the West Fork of the Des Moines River.

### **City of Alpha**

*Severe Winter/Summer Storms:* Wind or ice storms present a concern for Alpha as we own the power poles and lines throughout the city. There is no insurance for this and it would be financially devastating to have to replace. Also, loss of power takes away the city water and sewer services.

### **City of Heron Lake**

*Ice Storms:* In 2013 the city experienced a major ice storm with downed power lines, fallen trees causing damage to personal property and causing obstruction to local streets.

*Windstorms:* In 2022 the city had heavy wind damage from a derecho resulting in damage to trees and property. Annually, strong thunderstorms impact the area, causing power outages on a partial or community wide scale.

*Flooding:* Residents have experienced localized street and yard flooding; some residents have had basement water due to heavy rains overwhelming the local storm sewer; and lift stations that remove water from system may fail.

### **City of Jackson**

*Blizzards, Ice Storms:* 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. However, with more and more electrical lines being converted to underground, this is becoming less of a risk. However, downed trees remain a risk in ice storms and blizzards.

*Tornadoes, Windstorms:* The city's municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure from windstorms and tornados. However, with more and more electrical lines being converted to underground, so this is becoming less of a risk. We do lack generation capability for our electrical system. If

transmission lines are down coming into town for an extended period of time, we could be at risk for sustained power outages.

Our community also lacks a true storm shelter. Thus, residents without basements or sturdy interior rooms are vulnerable during tornados.

*Extreme Cold:* Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have a high population of senior citizens and low-income residents who are more vulnerable during these events.

In the past we have also experienced frozen water services and some residential homes and businesses with shallow service lines. Staff monitors the frost depths and contacts residents and business owners if we believe their line is in danger of freezing and recommends they run a tiny stream of water to prevent freezing.

*Extreme Heat:* Residents are susceptible to dangers from extreme heat, especially if the power goes out during extreme heat. We have a high population of senior citizens and low-income residents who are more vulnerable during these events.

*Flooding:* Our sanitary sewer lift stations get inundated with excessive rain water during heavy rain events that will either cause sewer backups or the staff having to set up bypasses to discharge directly into the river. We also have low areas along the river with adjacent commercial and residential areas where we sandbag during high water events on the Des Moines River to protect against flooding.

## **City of Lakefield**

*Windstorms, Tornados:* We have one campground within the City of Lakefield, restrooms have windows and do not meet the requirements for a tornado shelter to my knowledge.

East side warning siren is inoperative and scheduled to be replaced in June 2023 [*Lakefield East Side Emergency warning siren was installed in September 2023 and is operational*].

Largest threat from these natural disasters is the potential for loss of power. Sewer system does have some lift stations that require power if outage occurs. Long term plan to bury overhead powerlines to aid in stabilization of power/electricity.

## **City of Okabena**

*All-Hazards:* We don't have any other city infrastructure of concern. We only have a City Hall, bar, bank, post office and school in town along with residential homes. None have been impacted by storm events.

## **City of Wilder**

*Windstorms, Winter Storms:* Wilder is vulnerable to windstorms/hail/tornadoes/ice storms/blizzards to homes and property. We don't have any specific infrastructure or segment of population of concern.

### **3.4.2 FUTURE DEVELOPMENT**

Because Jackson 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. Jackson 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 Jackson 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. Following is a compilation of common responses as noted in Appendix C: Part A, Question 5.

#### **Jackson County**

Jackson County has a vibrant business district which continues to grow and bring in more workers to meet the need. The influx of new employees brings additional communication issues due to the various languages within the community.

Our ageing population's mobility during emergencies is a big issue as we do not have enough buses to move everyone if needed.

#### **City of Heron Lake**

Homes in our community are aging and will become more vulnerable to wind and storm damage due to their condition. Ash borer mitigation began in 2022 to remove trees before they become damaged and susceptible to wind and weather damage. However, private homeowners with Ash trees will see increased damage to trees over the coming decade and will be at risk if causing damages when impacted by severe weather.

#### **City of Jackson**

We believe climate change has made us more vulnerable to floods due to more extreme heavy rain events and us being on a river. This was born out during the 2018 and 2019 floods.

#### **City of Okabena**

The only thing new in our community is a new city shop and some new grain bins. We have not had any increase in development.

## **City of Wilder**

Wilder has a need for assistance for senior residents during a disaster event.

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 Jackson 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 Jackson County will address the maintenance of this plan, including monitoring, evaluation, and update of the plan, as well as implementation and continued public involvement.

# Section 4 – Hazards

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

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

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

## 4.1 Flooding

Flooding is the most significant and costly natural hazard in Minnesota. Six of the 17 federal disaster declarations in Jackson County included flooding.

### 4.1.1 PROBABILITY OF OCCURRENCE

From 1997 to 2023, the NCEI Storm Events Database has recorded 50 flood and flash flood events. Jackson County has experienced one flash flood event every 1.7 years and one riverine flood event every 1.2 years on average during this period.

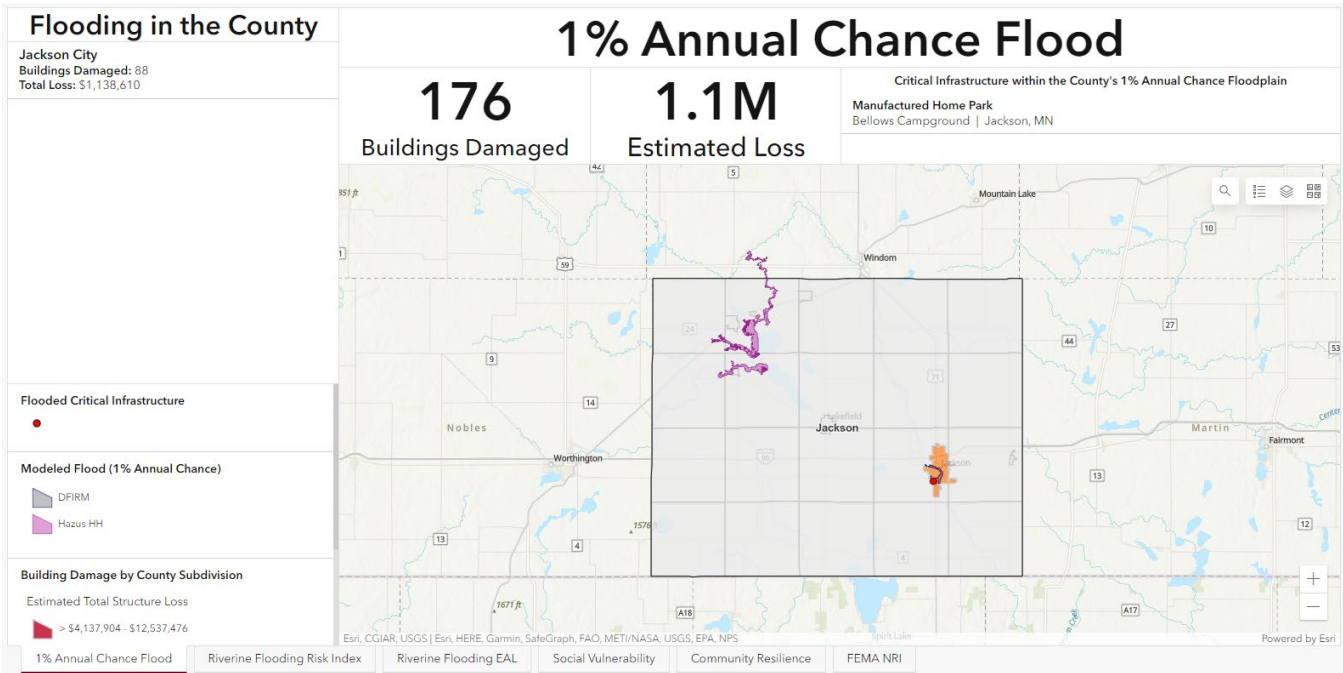
Minnesota HSEM has encouraged a potential risk and economic loss analysis for a 1% annual chance flood using the FEMA tool, Hazus for ArcGIS. A Digital Flood Insurance Rate Map (DFIRM) defined the

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

1% annual chance flood boundary. Flood cross-section and base flood elevation data were used to generate depth grids where available. The remainder of the county's depth grids were modeled in HAZUS using the EQL method. Areas where no DFIRM exists were analyzed using a hydraulics and hydrology model. The resulting Hazus 1% annual chance floodplain is shown in the Flood Vulnerability dashboard on the Jackson

County HMP website (Figure 1), where it is available in an interactive form.

Figure 1. 1% Annual chance flood in Jackson County



## 4.1.2 VULNERABILITY

Potential economic loss estimates were based on county-specific building data. Jackson 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 Jackson 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, 21,966 points were input to Hazus to represent buildings with a total estimated building plus contents value of \$1.6 billion. Approximately 43% of the buildings (and 39% of the building value) are associated with residential housing. The estimated loss by occupancy class for the entire county is shown in Table 6.

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 for the purposes of visualizing the loss (see map [here](#)). 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 6. 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	9,505	\$624,787,220	48	\$4,589,700	48	\$732,406
Commercial	645	\$104,148,000	30	\$3,251,200	30	\$129,085
Other	11,816	\$869,764,422	22	\$6,652,000	10	\$277,119
Totals	21,966	\$1,598,699,642	100	\$14,492,900	88	\$1,138,610

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 Jackson County.

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

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

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. While not critical infrastructure, one mobile home park was found to be within the 1% annual chance floodplain, which puts its residents at a higher level of vulnerability. This mobile home park is mapped in the [Jackson County HMP website](#). No other information is available.

### *Community Vulnerability*

Potential economic losses were estimated by Census Minor Civil Division. Jackson City 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 Jackson 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 of localized vulnerabilities to specific hazards.

### 4.1.3 PROGRAM GAPS AND DEFICIENCIES

Jackson County Emergency Management identified that there are 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:

**Increasing Culverts and Raising Roads:** Some roads, bridges, and culverts within Jackson County continue to need improvements as they are impacted by annual high rain events. The county needs funding assistance to improve roads and culverts that experience repetitive flooding.

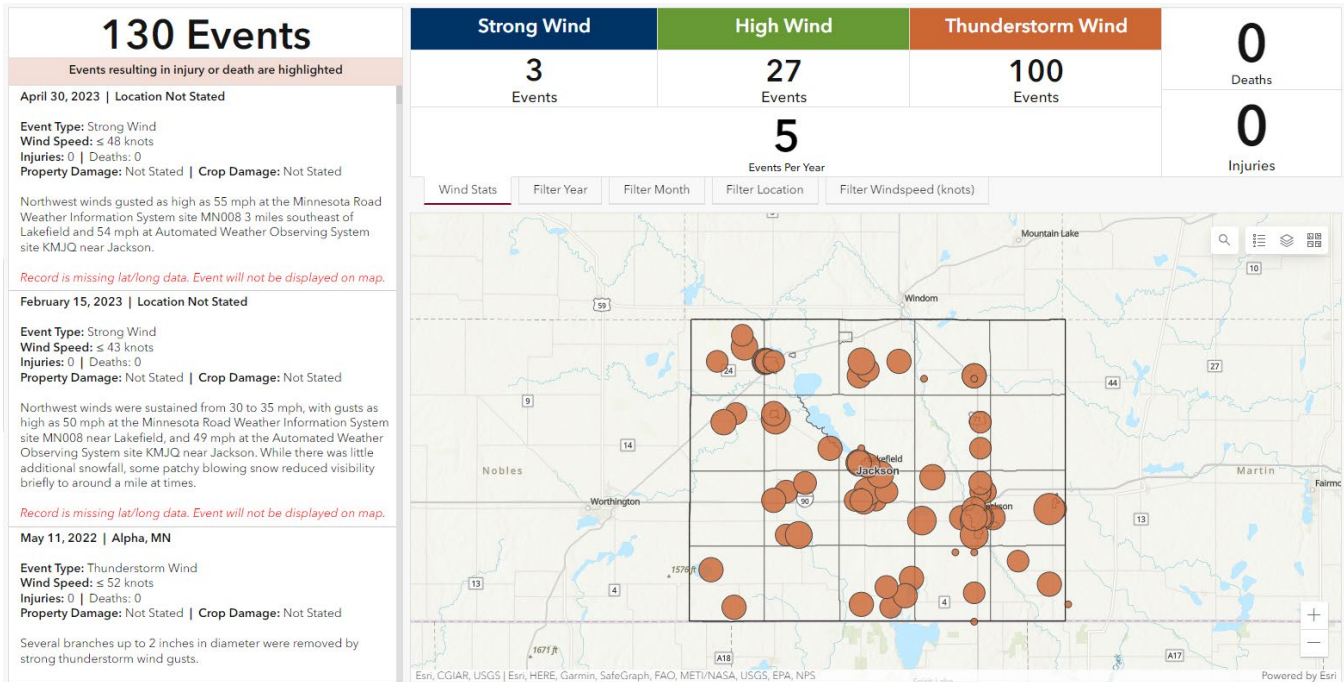
**Road Infrastructure:** Flood mitigation for county and township roads (i.e., culvert replacements, road repair) is an ongoing need. The county and many of our townships have limited funding for road infrastructure. Jackson County continues to provide assistance on road infrastructure mitigation projects to reduce the impacts of localized 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 Jackson County is shown in Figure 2; an interactive version of this map can be found on the Jackson County HMP website.

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

Figure 2. History of windstorms in Jackson County



### 4.2.1 PROBABILITY OF OCCURRENCE

To determine the probability of future wind-related events in Jackson County, records of previous wind-related events (strong wind, high wind, and thunderstorm wind) in Jackson County were examined since 1996, the period of record all wind events have in common. The relative frequency of all wind-related events since January of 1996 is five 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 of 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 of localized vulnerabilities to specific hazards.

### 4.2.3 PROGRAM GAPS AND DEFICIENCIES

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

*Above-Ground Power Lines:* Most powerlines throughout Jackson 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. Jackson County and local jurisdictions also need to continue to encourage residents to be aware of and ready for severe storm events that can lead to long-term power outages.

*Storm Shelters and Tornado Safe Rooms:* There are areas throughout Jackson County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm

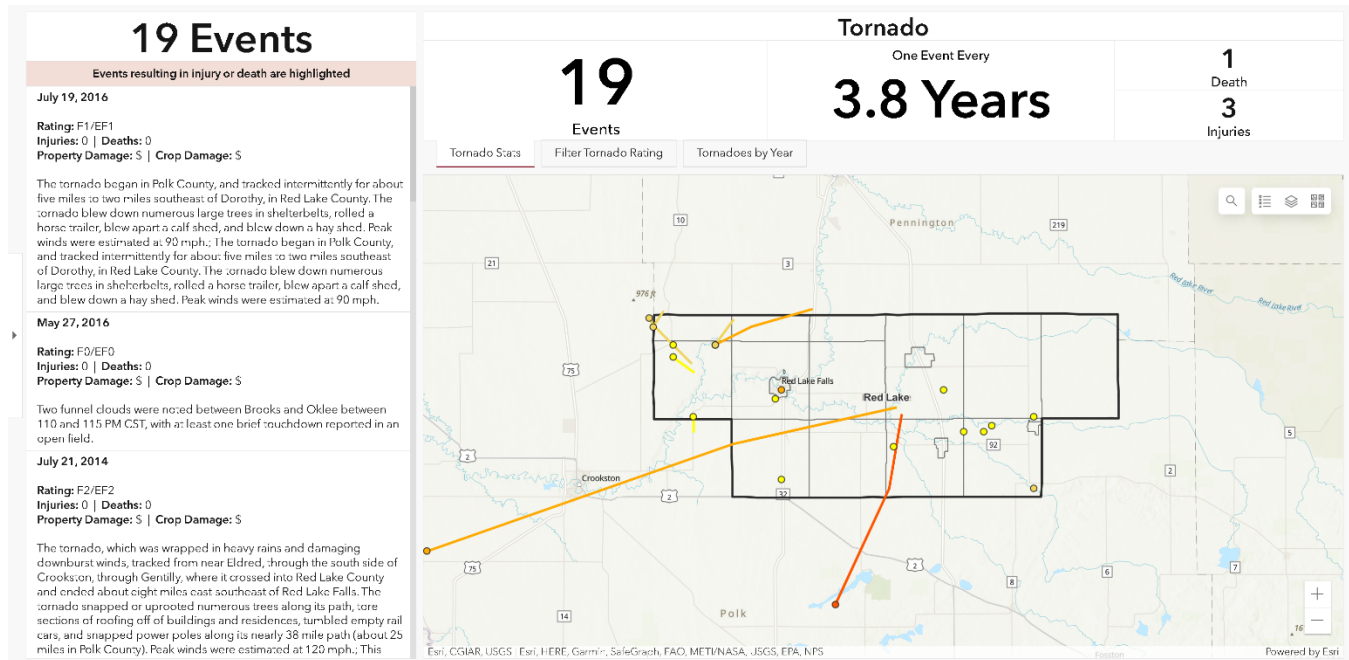
events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations. A coordinated approach is needed to identify where storm shelters or tornado safe rooms are needed and to evaluate whether new construction or a retrofit of facilities is appropriate. Finding funding 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 Jackson County is shown in Figure 3; an interactive version of this map can be found on the Jackson County HMP website.

*View interactive maps and see information about tornado history, risk, and vulnerability*

Figure 3. History of tornadoes in Jackson County



#### 4.3.1 PROBABILITY OF OCCURRENCE

Estimating the probability of future tornadoes in Jackson County was done using two methods. The first method summed the total number of tornadoes which 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 May 2023, there has been one tornado every 3.4 years in Jackson County. These 21 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 Jackson County, there was an annual frequency of 2–3 tornadoes within a 50-mile radius. The historical frequency did not vary across the county. 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 Jackson 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 of localized vulnerabilities to specific hazards.



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

### 4.3.3 PROGRAM GAPS AND DEFICIENCIES

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

*Above-Ground Power Lines:* Most powerlines throughout Jackson 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. Jackson County and local jurisdictions also need to continue to encourage residents to be aware of and ready for severe storm events that can lead to long-term power outages.

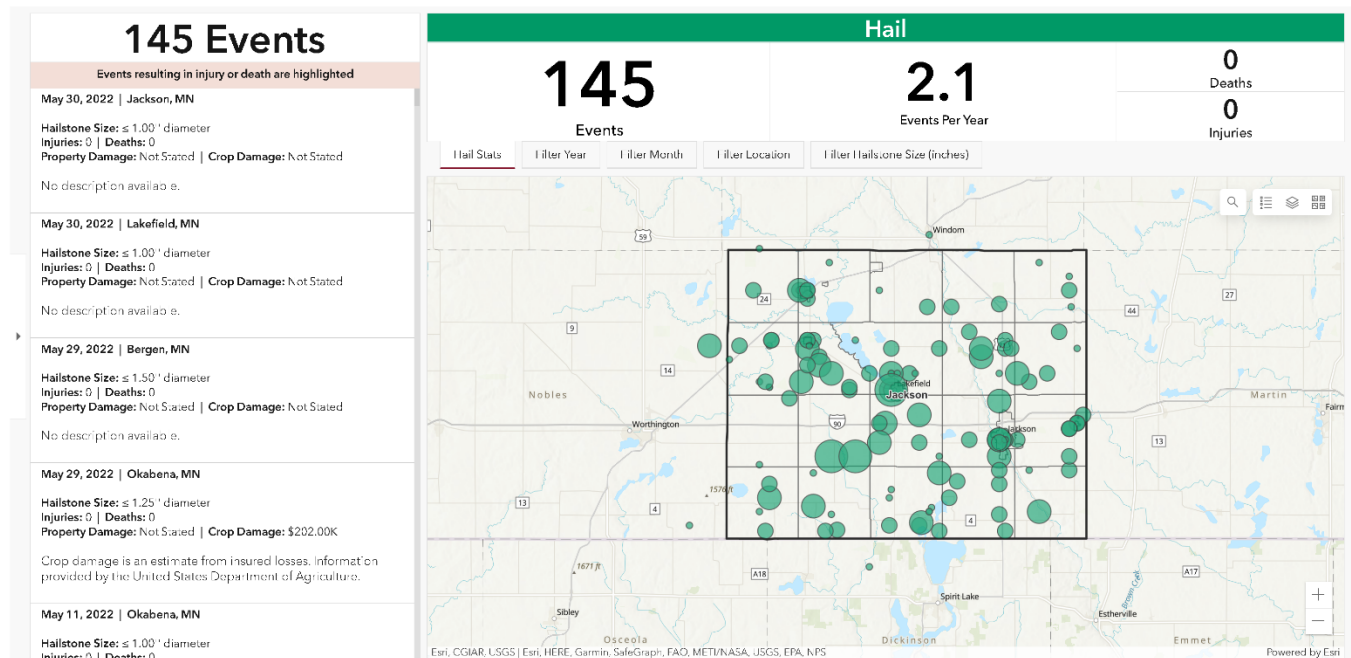
**Storm Shelters and Tornado Safe Rooms:** There are areas throughout Jackson County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations. 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 appropriate. Finding funding for the implementation of such construction projects is also a barrier.

## 4.4 Hail

Hailstorms occur throughout the year though are most frequent between May and August (NWS, 2020). Although hailstorms rarely cause injury or loss of life, they do cost Minnesota nearly \$16 million in property and crop damage each year (CEMHS, 2023). In 2017, 44% of properties in Minnesota were affected by damaging hail events (Samanta & Wu, 2017). The history of hail in Jackson County is shown in Figure 4; an interactive version of this map can be found on the Jackson County HMP website.

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

Figure 4. History of hail in Jackson County



### 4.4.1 PROBABILITY OF OCCURRENCE

To determine the probability of future hailstorms in Jackson County, records of previous hail events in the county were examined for the period of record. From January 1955 through May 2023, the relative frequency of hail events was 2.1 per year. This relative frequency can be used to infer the probability of hail events occurring in the future. Please note that public reports of hail are often secondary to those of thunderstorm winds or tornadoes because if either damaging winds or tornadoes occur, the damaging wind and/or tornado are more important to the reporter and may result in underreporting of hail events.

#### 4.4.2 VULNERABILITY

Jackson County’s agricultural lands and structures are vulnerable to hail damage and its residents to injury and possibly death. Data from the Spatial Hazard Events and Losses Database for the United States (SHELDUS) was examined to identify the county’s monetary losses due to hail damage to crops, property, injury, and death. From 1960 through 2022 Jackson County reported \$ \$24,651,902 in hail damages, ranking 16th among Minnesota counties in total hail damages. Jackson County’s losses are primarily due to crop damages reported at \$16,721,012, followed by \$7,930,890 in property damages. Crop indemnity payments due to hail totaled \$13,471,980 for the period of record spanning 1989–2022 (CEMHS, 2023).

Within Jackson County, the vulnerability of jurisdictions to hailstorms does not vary geographically. As with all summer storms, those who work outdoors or do not have permanent housing are at greater risk during hailstorms.

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

#### 4.4.3 PROGRAM GAPS AND DEFICIENCIES

Jackson County Emergency Management identified that there are several program gaps and deficiencies that make its citizens more vulnerable to summer storms, including hail. The following gaps and deficiencies should be addressed with new mitigation efforts to reduce that vulnerability:

*Above-Ground Power Lines:* Most powerlines throughout Jackson 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. Jackson County and local jurisdictions also need to continue to encourage residents to be aware of and ready for severe storm events that can lead to long-term power outages.

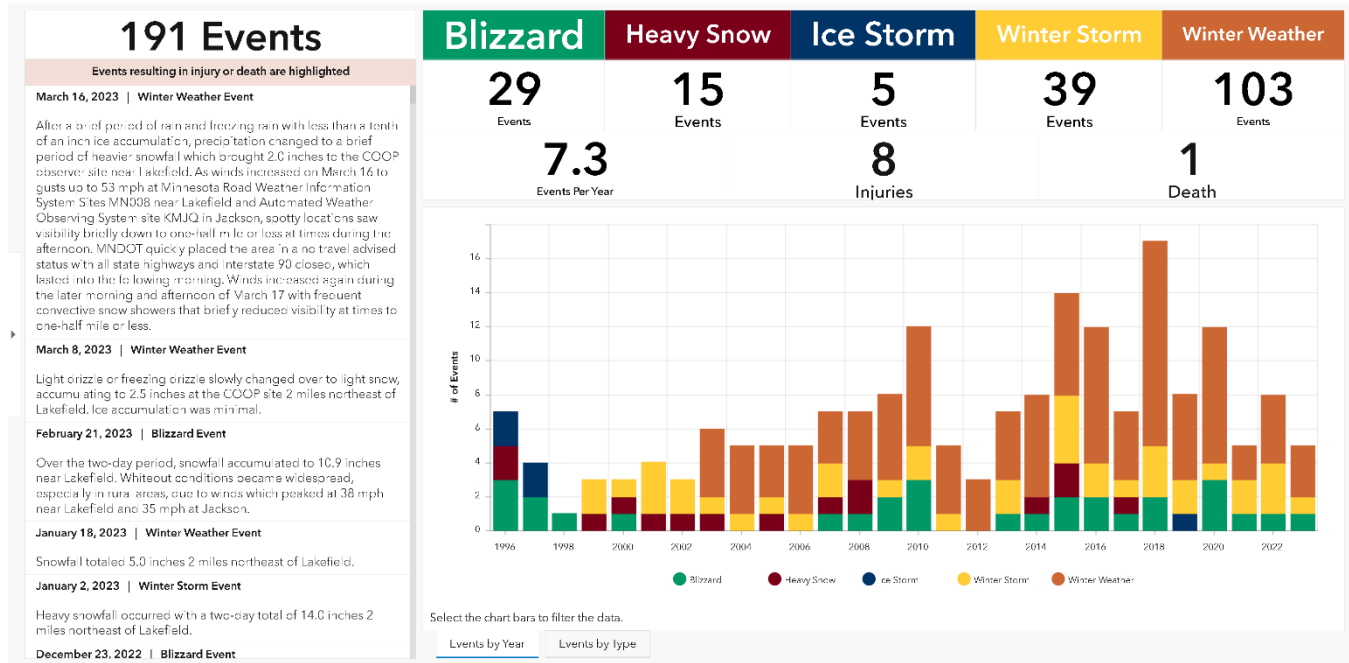
*Storm Shelters and Tornado Safe Rooms:* There are areas throughout Jackson County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations. 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 appropriate. Finding funding for the implementation of such construction projects is also a barrier.

## 4.5 Winter Storms

Winter storms encompass a number of winter weather events which the National Weather Service (NWS) organizes into the following categories: blizzard, heavy snow, ice storm, winter storm, and winter weather. Winter weather events are common in Minnesota and can be costly. According to the Spatial Hazard Events and Losses Database (SHELDUS), winter weather events in Minnesota have cost more than \$1.02 billion dollars in damages since 1960 (CEMHS, 2023). The history of winter storms in Jackson County is shown in Figure 5; an interactive version of this map can be found on the Jackson County HMP website.

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

Figure 5. History of winter storms in Jackson County



### 4.5.2 PROBABILITY OF OCCURRENCE

To determine the probability of future winter-related storm events in Jackson 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 May 2023, the relative frequency of winter-related storm events in Jackson County is 7.3 per year. This relative frequency can be used to infer the probability of these events occurring in the future.

### 4.5.3 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 of localized vulnerabilities to specific hazards.

### 4.5.4 PROGRAM GAPS AND DEFICIENCIES

Jackson 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 Jackson County are above ground, exposing them to impacts/damage from winter high wind and ice events, potentially leading to localized or extensive power outages.

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

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

## 4.6 Extreme Cold

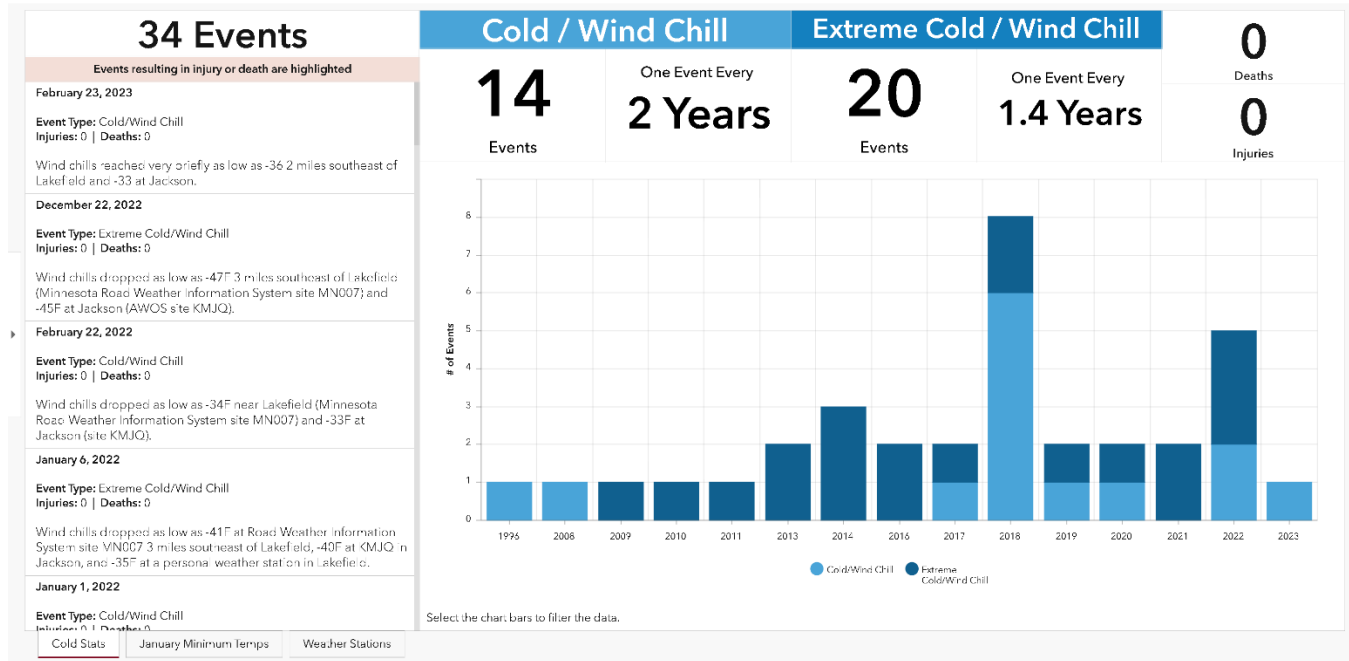
Due to Minnesota’s position in the middle of the continent and subsequent climate, the state may experience extremely frigid temperatures in winter. Winter in Jackson County can be especially dangerous when low temperatures and wind create arctic-like wind chills. The history of extreme cold in Jackson County is shown in Figure 6; an interactive version of this dashboard can be found on the Jackson County HMP website.

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

### 4.6.1 PROBABILITY OF OCCURRENCE

To determine the probability of future cold-related events in Jackson 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 May 2023, the relative frequency of extreme cold/wind chill events in Jackson County is 1.4 per year (NCEI, 2023). This relative frequency can be used to infer the probability of these events occurring in the future.

Figure 6. History of extreme cold in Jackson County



#### 4.6.2 VULNERABILITY

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



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 of localized vulnerabilities to extreme cold.

### 4.6.3 PROGRAM GAPS AND DEFICIENCIES

Jackson 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.

*Public Education:* Ongoing public education is needed to encourage residents to be prepared for extreme weather, including power outages during periods of extreme cold.

## 4.7 Extreme Heat

Extreme heat is the combination of very high temperatures and exceptionally humid conditions. Jackson 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 2020 in Minnesota, 613 people went to the emergency department and five died from heat-related illness (MDH, 2022).

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

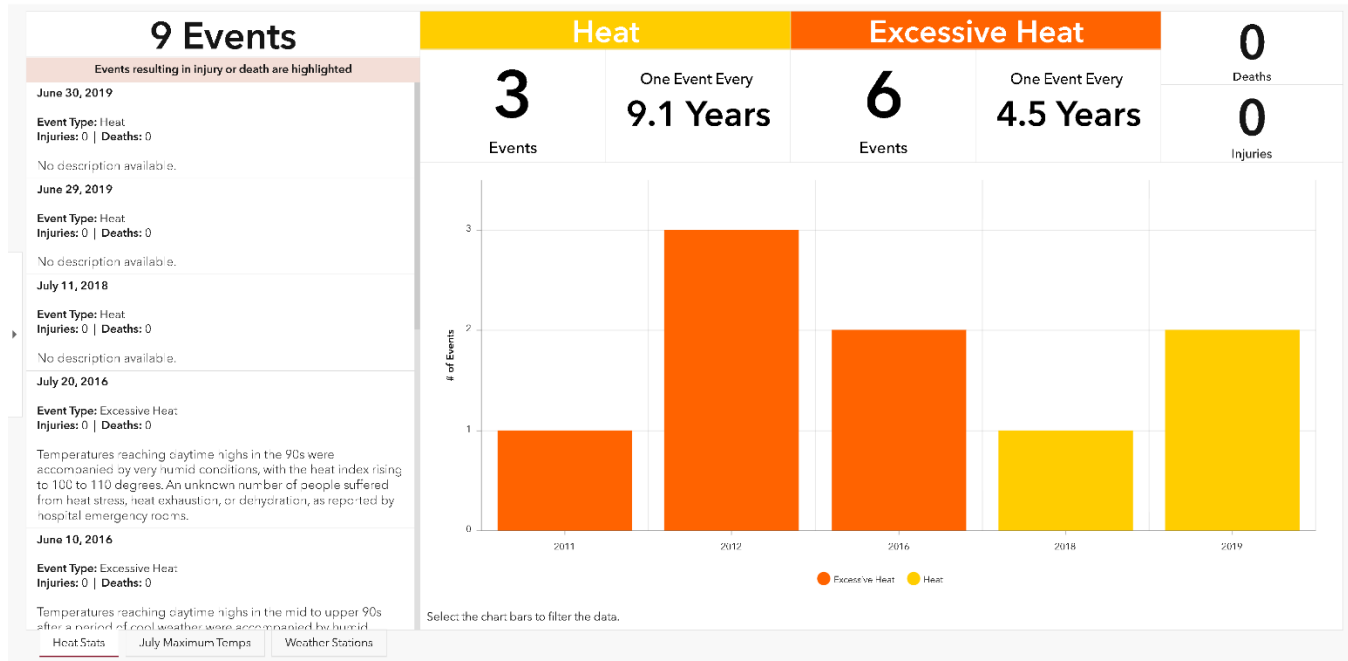
When the atmospheric moisture content is high, the rate of perspiration from the body decreases and the human body feels warmer (NWS, 2021). Heat stress can be indexed by combining the effects of temperature and humidity. The history of extreme heat in Jackson County is shown in Figure 7; an interactive version of this chart can be found on the Jackson 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 79th among Minnesota counties in total heat damages, Jackson county’s losses are primarily due to property damage reported at \$66,433 for the period of record spanning 1989–2022 (CEMHS, 2023).

### 4.7.1 PROBABILITY OF OCCURRENCE

To determine the probability of future heat-related events in Jackson 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 May 2023, the relative frequency of extreme heat events in the county is one event every 4.5 years. This relative frequency can be used to infer the probability of these events occurring in the future. The nearest weather station to Jackson County, Windom Station, reported daily maximum temperatures above 90 F a total of 407 times, which is an average of 55 days per year.

Figure 7. History of extreme heat in Jackson County



#### 4.7.1 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 2.4% of Jackson 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.

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

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

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

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

#### 4.7.2 PROGRAM GAPS AND DEFICIENCIES

Jackson 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:

*Emergency Notifications:* Extreme heat temperature warnings are issued by the National Weather Service. Jackson County Emergency Management assists with sharing this information with the public.

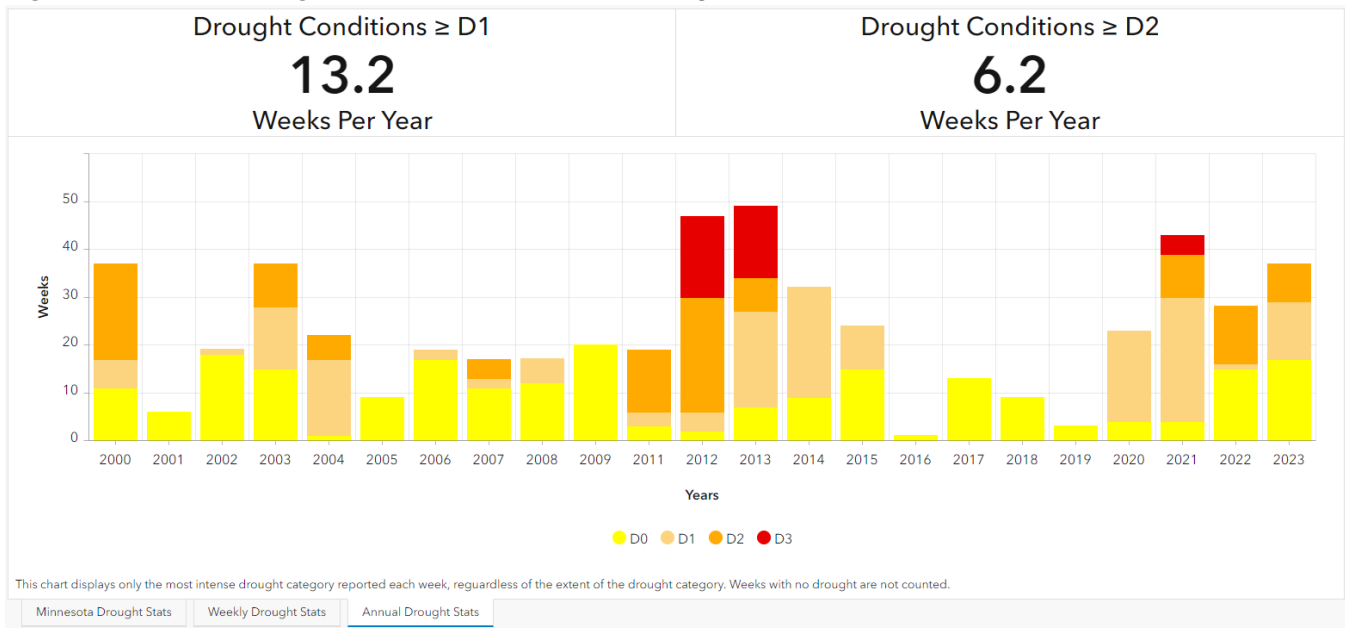
*Public Education and Awareness:* Jackson County Emergency Management and Jackson County Public Health help to share the message of personal safety and preparedness to stay safe during periods of extreme heat with county residents, utilizing communication platforms such as the county website, Facebook, and local news media.

### 4.8 Drought

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

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

Figure 8. Annual drought statistics in Jackson County since 2000



#### 4.8.1 PROBABILITY OF OCCURRENCE

To determine the probability of future droughts in Jackson 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 12, 2023 for any occurrence of drought ≥ D1 in Jackson County, regardless of the duration of the drought. According to the weekly reported data, the relative frequency of the county experiencing drought conditions ≥ D1 is 10.6 weeks per year, and the relative frequency of drought conditions ≥ D2 is 6.2 weeks per year (NDMC et al., 2021). The relative frequency of past droughts can be used to infer the probability of similar droughts occurring in the future.

#### 4.8.2 VULNERABILITY

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, Jackson County’s agriculture sector has been impacted by drought more than once, and with 81.4% of Jackson 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 1989–2012, Jackson County received \$17,526,374 (2018 ADJ) in crop indemnity payments due to drought, placing it as the

51<sup>st</sup>-highest-paid county in Minnesota (CEMHS, 2023). Section 3.4 provides jurisdictional responses of localized vulnerabilities to specific hazards.

### 4.8.3 PROGRAM GAPS AND DEFICIENCIES

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

## 4.9 Dam Failure

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

**Dam Inventory:** There are eight dams in Jackson County, two of which are classified as “significant hazard” dams. There are no “high hazard potential” dams in Jackson County.

### 4.9.1 PROBABILITY OF OCCURRENCE

Extreme precipitation is only one factor contributing to dam failure, and the possibility of failure is dam specific, relating to both environmental and structural conditions. There are few incidents of dam failure in Minnesota and the likelihood of a dam failure in Jackson County is very low. Dam failures are extremely unlikely if the dam is maintained in compliance with Minnesota’s Dam Safety Program. The likelihood of failure in Jackson County is also extremely low.

### 4.9.2 VULNERABILITY

Although dam regulatory authorities differ between various federal and state agencies, all authorities attempt to classify dams according to the potential impacts from a dam failure or mis-operation. In response to the numerous classification systems, FEMA’s Interagency Committee on Dam Safety created a downstream hazard potential classification system that is adaptable to any agency’s current system. Table 7 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 7. 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 which 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).

While there are no high hazard dams in Jackson County, there are two significant hazard dams. The first is the Christiania Township 5 Dam, located on the Watonwan River South Fork, which is an earthen dam built for recreational purposes. The nearest community downstream from the dam is Windom. The second significant hazard dam is the Gruhlke Dam located along the Des Moines River Trail, constructed for flood risk reduction. The nearest community downstream from the dam is Jackson City. This dam is regulated by the DNR Ecological and Water Resources Division, and an EAP is not required. (USACE, 2023)

### 4.9.3 PROGRAM GAPS AND DEFICIENCIES

Jackson 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 Jackson County as related to hazard mitigation.
- Appendix C: As part of the Jackson 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 Jackson 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 8 lists and describes jurisdictional participation in the National Flood Insurance Program (NFIP).

Table 8. NFIP participation in Jackson County

FEMA Plan Requirements Plan Review Tool, Section C2	Description
<b>JACKSON COUNTY</b>	
Participation in the NFIP	Participating – Entry date 01/02/81
FEMA Map	FEMA-mapped high-risk areas
Current Effective Map Date	1/2/1981
Total # of Buildings within Floodplain (including all townships and cities)	100
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: 4/12/93
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	1/2/1981
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	Jackson County enforces requirements of the NFIP through the county’s current floodplain ordinance (Section 609 – Floodplain District) adopted 4/12/93 and published publicly 4/22/93. This ordinance establishes the floodplain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts of Jackson County. The Planning & Zoning Office 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: Dan Bartosh, Director – Jackson County Land Management/Soil and Water Conservation District
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>CITY OF ALPHA</b>	
Participation in the NFIP	NOT Participating
FEMA Map	No FEMA-mapped high-risk areas
<b>CITY OF HERON LAKE</b>	
Participation in the NFIP	NOT Participating
FEMA Map	No FEMA-mapped high-risk areas

FEMA Plan Requirements Plan Review Tool, Section C2		Description
Name of Community		CITY OF JACKSON
Participation in the NFIP	Participating – Entry date 07/16/80	
FEMA Map	FEMA-mapped high-risk areas	
Current Effective Map Date	4/2/2004	
Total # of Buildings within Floodplain	100	
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: 3/16/04	
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	Adoption of effective FIRM: 3/16/04	
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	The city of Jackson enforces requirements of the NFIP through the city’s current floodplain ordinance, adopted 3/16/2004 and published publicly 3/18/04. 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: Dave Maschoff, City of Jackson Zoning 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 LAKEFIELD
Participation in the NFIP	Application submitted to FEMA 10/31/23	
FEMA Map	No FEMA Mapped High Risk Areas	
Current Effective Map Date	N/A	
Total # of Buildings within Floodplain	0	
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: 8/21/23 and effective 9/7/23	
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	N/A	

FEMA Plan Requirements Plan Review Tool, Section C2	Description
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	The city of Lakefield will enforce requirements of the NFIP through the city's floodplain ordinance, adopted 8/21/23 and published publicly 9/7/23. 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: Roger Pohlman, Police Chief & Emergency Manager
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 OKABENA
Participation in the NFIP	NOT Participating
FEMA Map	FEMA-mapped high-risk areas
Current Effective Map Date	12/27/1974
<i>Description of why community does not participate in the NFIP.</i>	We experience some drainage issues with high rain events, but the city has no knowledge of the NFIP or mapped floodplain area.

Name of Community	CITY OF WILDER
Participation in the NFIP	NOT Participating
FEMA Map	No FEMA-mapped high-risk areas

SOURCE: (CEIL STRAUSS, MN FLOODPLAIN MANAGER, PERSONAL COMMUNICATION, APRIL 6, 2020)

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.

Jackson County has no SRL properties but one RL property in Lakefield. The property is a single-family residence with the most-recent loss date in 2018.

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

## 5.1.2 PLANS AND ORDINANCES

Jackson 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

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

### **All Hazards**

*All Hazards Emergency Operations Plan:* Jackson 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.

*Regroup Emergency Notification System and IPAWS:* Jackson County maintains the Regroup 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 Jackson County “Helpful Links” website page. Jackson County also has 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:* Jackson County has a strong relationship with the Sioux Falls, SD 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:* Jackson County utilizes the Jackson County Emergency Management website page, Jackson County Emergency Management 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.

*Mass Care Sheltering:* In the event of a disaster or other hazardous situation where temporary housing and basic human services are needed, Jackson County Emergency Management works in coordination with local Fire and EMS, Jackson County Public Health, Des Moines Valley Health and Human Services, and the American Red Cross to provide mass care services as needed. The county EOP includes plans, procedures and resources available for mass care sheltering.

*NOAA Weather Radios:* Jackson County Emergency Management promotes the use of NOAA Weather Radios by local 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:* Jackson County Emergency Management is a registered NOAA Weather-Ready Nation 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:* Jackson County works to ensure the continuity of operations of county government services and critical infrastructure in the event of an extended power outage. Generator back-up power is in place for the Jackson County Court House, Law Enforcement Center, Human Services (DVHHS) and government campus buildings, the county/city public works building in the City of Jackson, the county public works building in the city of Lakefield, as well as the city of Jackson Fire/EMS building.

*Schools Support:* Jackson 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:* Jackson County Emergency Management works closely with the MN HSEM Region 5 regional program coordinator and 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.):* Jackson County works to relay winter weather statements received from the NWS via the Jackson County Emergency Management Facebook page and by Regroup emergency notifications as necessary to help alert residents and visitors to hazardous conditions.

*Winter Hazard Awareness Week:* Jackson 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. Jackson 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.

*Snow Removal & Ice Control:* The Jackson County Highway Department is responsible for the removal of snow and ice control for county roads, as well as some city and township roads based upon agreement. The department completes its snow removal process in accordance with the Jackson County Hwy Department Snow Removal Policy. MNDOT removes snow from State Highways as well as disperses salt/sand as needed.

## **Severe Summer Storms**

*Severe Weather Statements (Watch, Advisory, Warning, etc.):* Jackson County works to relay severe spring and summer weather statements (such as for thunderstorms, windstorms, or tornadoes) received from the NWS via the Jackson County Emergency Management Facebook page and by CodeRED emergency notifications as necessary to help alert residents and visitors to hazardous conditions.

*Outdoor Warning Sirens:* Outdoor warning sirens are located throughout Jackson County to help alert residents and visitors of dangerous high wind or tornado conditions. The following cities have warning sirens: Alpha (1), Heron Lake (2), Jackson (6), Lakefield (3), Okabena (1), and Wilder (1). Sirens are also located at Brown South Park, Fish Lake, and Clear Lake. An additional siren is planned for installation at Sandy Point Park by Jackson County Parks & Trails. All sirens are tested monthly by the Jackson County Sheriff's Office and follow up is done through the Regroup Mass Notification to the weather spotters to assure everyone is getting notifications. Warning sirens are owned and maintained by the cities where they are located.

*Skywarn Program:* Jackson 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 local 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:* Jackson 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. Jackson 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.

*Vegetation Management:* The Jackson County Public Works 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.

*Manufactured Home Parks Shelters & Evacuation Plans:* Jackson County Public Health works in coordination with the Minnesota Department of Health (MDH) to ensure that licensed manufactured home parks within the county meet the requirements of MN Statute 327.20 for shelters and evacuation plans. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to the Minnesota Department of Health.

## **Extreme Cold**

*Emergency Notifications:* Extreme cold temperature warnings are issued by the National Weather Service. Jackson County Emergency Management assists with sharing this information with the public.

*Extreme Cold Safety Awareness:* Jackson County Emergency Management and Jackson County Public Health promote public awareness of personal safety measure to take during periods of extreme cold, such as minimizing exposure and being prepared with survival kits in vehicles during winter.

*Extreme Cold Emergency Sheltering:* In the event of an extended power outage coupled with a period of extreme cold, Jackson County Emergency Management works with local Fire or EMS locations as needed to assist vulnerable residents such as the elderly who may need temporary sheltering. The Minnesota National Guard - Jackson Armory may also be opened up to act as a temporary shelter.

## **Extreme Heat**

*Emergency Notifications:* Extreme heat temperature warnings are issued by the National Weather Service. Jackson County Emergency Management assists with sharing this information with the public.

*Public Education and Awareness:* Jackson County Emergency Management and Jackson County Public Health help to share the message of personal safety and preparedness to stay safe during periods of extreme heat with county residents, utilizing communication platforms such as the county website, Facebook, and local news media.

## **Drought**

*Public Awareness & Outreach:* In the event of drought conditions, Jackson County works in concert with the NWS, MN DNR, and local communities to raise public awareness of dry conditions and increased danger of wildfire, and recommended water use restrictions, if needed.

*Jackson County Soil and Water Conservation District:* The Jackson County Soil & Water Conservation District is within the office of the Jackson County Land Management Office. The Jackson SWCD helps to connect agricultural landowners and local jurisdictions to educational and other technical resources for issues associated with managing drought.

## **Flooding**

*National Flood Insurance Program (NFIP):* Jackson County has FEMA-mapped high-risk areas and participates in the NFIP. Initial entry date into the program was 01/02/81.

*Floodplain Administrator:* The Jackson County Land Management Director is the county's designated Floodplain Administrator, who oversees implementation of the requirements of the NFIP.

*Floodplain Ordinance:* Section 609 - Floodplain District of the Jackson County Zoning Ordinance (Revised 4/19/2022) establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts. The Planning & Zoning Office maintains and enforces the floodplain management ordinance for the county.

*Floodplain Mapping:* Jackson County's current effective FEMA flood map date is 01/02/81. The county's Planning & Zoning Office is the repository for the floodplain maps for the county. The Planning and Zoning Office assists county residents in determining whether their property is affected by an officially mapped flood area.

*Shoreland Regulations:* Jackson County Zoning Ordinance, Section 610 - Shoreland Zoning District establishes regulations for land use near shorelands including stormwater management. Conditional uses allowable within shoreland areas are subject to review and approval procedures by Jackson County Planning & Zoning Office.

*Subdivision Ordinance:* Section 7 – Subdivision Design Standards is included in the Jackson County Zoning Ordinance. The performance standards established in this section are designed to encourage a high standard of development and are enforced by Jackson County Land Management. Section 7 includes standards for soil and erosion control and stormwater drainage systems to reduce peak flows and erosion damage.

*5-Year Transportation Plan:* The Jackson County Public Works - Engineering department is responsible for engineering, design, reconstruction and repair of roads, bridges, culverts, and trails throughout Jackson County. This department develops a 5-year road and bridge plan for

County Board consideration and implements the approved road and bridge plan. The plan identifies and schedules road improvement projects that include measures for flood mitigation.

*Jackson County Local Water Management Plan:* The Jackson County Land Management Department – Water Planning Office oversees update and implementation of the Jackson County Water Management Plan. The plan is prepared by the Jackson County Soil and Water Conservation District for the Jackson County Local Water Management Task Force. The purpose of the plan is to identify existing and potential water issues in the context of watershed units and groundwater systems, informing specific implementation actions to achieve goals for sound hydrological management of water and related resources. The plan identifies the primary water planning concerns, including soil erosion, stream bank and lakeshore development, drainage management, and flooding.

*Minnesota Buffer Law:* Jackson County has adopted the requirements of the Minnesota Buffer Law. The purpose and intent of the law is to protect state water resources from erosion and runoff pollution; to stabilize soils, shores and banks; and to protect or provide riparian corridors. The Buffer Law is enforced by the Jackson Soil and Water Conservation District in coordination with the Land Management Department.

*Missouri River Watershed One-Watershed One Plan:* Jackson County participates in the Missouri River Watershed 1W1P. The plan brings 6 counties, 6 Soil and Water Conservation Districts and 2 Watersheds together to develop a comprehensive plan that aligns the local water planning process on major watershed boundaries. The plan includes considerations for flood risk areas within the regional watershed planning area.

*Comprehensive Watershed Management Plans:* Jackson County participates in the Watonwan Comprehensive Watershed Management Plan and the Des Moines River Comprehensive Watershed Management Plan. Each plan brings together 6 counties and 6 Soil and Water Conservation Districts to not only plan for but implement multiple conservation efforts and practices on a watershed scale rather than being based on county boundaries. The plans include many considerations for flooding risks within the planning area.

## **Dam Failure**

No noted plans or programs in place.

## **5.2 Mitigation Goals**

The goals and strategies for natural hazards in the 2019 Minnesota State Hazard Mitigation Plan were adopted for use in the Jackson County Plan. This framework, as outlined below, will allow for integration of the mitigation actions that are listed by Jackson 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 9 below:

Table 9. 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> <li>• NFIP Community Rating System</li> <li>• Capital improvement programs</li> <li>• Open space preservation</li> </ul>

Mitigation Strategy	Description	Example Mitigation Actions
		<ul style="list-style-type: none"> <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. 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 Jackson 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 Jackson 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 Jackson 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 Alpha, Heron Lake, Jackson, Lakefield, Okabena, and Wilder.

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

### **Number (#)**

Each mitigation action is identified by a number.

### **Hazard**

Each mitigation action is identified by the natural hazard that it relates to. Actions that fall under “All-Hazards” relate to both natural and non-natural hazards.

### **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 9 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 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 2016 Jackson 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 10 provides criteria that were taken into consideration in the process.

*Table 10. 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.

**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.

The Jackson County Mitigation Action Chart is provided in Table 11.

Appendix H provides the mitigation action charts developed for each city participating in the HMP update.

Table 11. Jackson County Mitigation Action Chart (2023–2027)

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	EMERGENCY NOTIFICATION Encourage all county residents to sign-up for the county’s Regroup Emergency Notification System.	Existing High Ongoing	Jackson County Emergency Management (JCEM)	Jackson County maintains the Regroup 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 Jackson County website.	Jackson County
2	All-Hazards	Mitigation Preparedness & Response Support	EOP PLANNING Ensure the county’s Emergency Operations Plan (EOP) is updated and addresses policies & procedures needed to support EM functions prior to, during, and following a disaster.	Existing High Ongoing	JCEM	The Jackson County EOP is updated on a regular basis and addresses functions that dually support mitigation and response for natural disasters, including public information and warning, operational coordination, mass care sheltering, evacuation, and access to resources.	Jackson County
3	All-Hazards	Local Planning & Regulations	PLANS, POLICIES & CODES Adopt and enforce plans, policies, and building codes that reduce risk against future natural hazard events.	Existing High Ongoing	Jackson County Planning & Zoning, Land Management, SWCD, Public Works, County Board	Jackson County departments continue to implement and enforce plans, policies, and codes that address risk reduction for natural hazards, including the county’s floodplain ordinance, shoreland ordinance, 5-year transportation plan, local water management plan, building permits and codes for new development, and the Minnesota State Buffer Law.	Jackson County
4	All-Hazards	Local Planning & Regulations	REGIONAL PLANNING Participate in regional planning and project efforts that address risk reduction to natural hazard events and improve shared mitigation capabilities.	Existing High Ongoing	JCEM, other county depts.	Jackson County continues to work with key partners on shared efforts that help to mitigate damage from future hazard events, such as flood risk reduction projects, public outreach and education, and regional watershed planning. Long-term active partnerships are in place with the Sioux Falls, SD NWS, Jackson SWCD, NRCS, area watershed organizations, as well as MN HSEM Region 5 Emergency Managers.	Jackson County, other agencies & organizations

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	All-Hazards	Mitigation Preparedness & Response Support	<b>VULNERABLE POPULATIONS</b> Work in partnership with key partners on efforts to reduce risk to and benefit underserved communities or socially vulnerable populations within the county from the impacts of future natural hazard events.	Existing High Ongoing	JCEM, JC Public Health, JC GIS in coord with others	JCEM and other county departments continue to work with local governments, school districts, hospitals, mobile home park (MHP) operators, long-term care and childcare facilities, Des Moines Valley Health & Human Services, MN Dept. of Health, American Red Cross, and the Salvation Army on emergency preparedness efforts that benefit those considered to be more vulnerable in the county from severe weather or extreme temperature events. This includes the elderly, disabled, students, and low-income residents. Example efforts include provision of energy assistance programs during periods of extreme cold, evacuation & shelter planning for long-term care facilities and MHP's, and delivery of education and awareness information in different formats. Jackson County GIS maintains data on location of vulnerable facilities which is incorporated in EM planning. Jackson County utilizes the JCEM website page and JCEM Facebook page and local news media to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather conditions, and safety information throughout the year. Jackson County also participates in the NWS annual Winter Hazard Awareness Week and Severe Weather Awareness Week each November and April. Jackson County is a registered NOAA Weather-Ready Nation Ambassador.	Jackson County, other agencies & organizations
6	All-Hazards	Education & Awareness Programs	<b>OUTREACH &amp; EDUCATION</b> Inform and educate residents through outreach and education programs to increase awareness and preparedness for severe weather events, periods of extreme cold, and extended power outages.	Existing High Ongoing	JCEM		Jackson County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
7	Severe Winter Storms	Local Planning & Regulations	SNOW & ICE CONTROL Implement snow removal and ice control to ensure the safety of county roads impacted by winter storms.	Existing High Ongoing	Jackson County Public Works	Jackson County Public Works is responsible for the removal of snow and ice control for county roads, as well as some city and township roads based upon agreement. The department completes its snow removal process in accordance with the Jackson County Hwy Department Snow Removal Policy.	Jackson County
8	Severe Summer Storms	Education & Awareness Programs	SKYWARN TRAINING Work with the National Weather Service (NWS) to provide SkyWarn training and develop a network of trained Storm Spotters throughout the county.	Existing High Ongoing	JCEM in coord with NWS	JCEM works with the NWS to offer this training on an annual basis to local fire and law enforcement departments and local residents that wish to be trained as spotters.	National Weather Service
9	Severe Summer Storms	Mitigation Preparedness & Response Support	OUTDOOR WARNING SIRENS Ensure outdoor warning sirens are located where needed and functioning properly.	Existing High Ongoing	JCEM in coord with local jurisdictions, Jackson County Parks & Trails	The Jackson County Sheriff's Office conducts remote testing on sirens on a monthly basis. Jackson County Parks & Trails wishes to purchase and install a new outdoor warning siren for Sandy Point Park. JCEM will assist any communities in their effort to obtain a new outdoor warning sirens and connect them to the county system. Grant funding may be available for warning sirens from the USDA Rural Development Community Facilities Grant Program.	Jackson County & local jurisdictions
10	Severe Summer Storms	Structure & Infrastructure Projects	STORM SHELTERS / TORNADO SAFE ROOMS Coordinate with local jurisdictions to address the need for the construction of storm shelters or tornado safe rooms in areas where residents or visitors are vulnerable to high wind events, such as mobile home parks and campgrounds.	Existing High Ongoing	JCEM in coord with local jurisdictions	JCEM will assist any communities in their effort to assess and address the need for construction of a storm shelter or tornado safe room. Grant funding may be available for tornado safe rooms from FEMA Hazard Mitigation Assistance (HMA) grant program funding, based on application approval.	Jackson County, Local Gov't, FEMA HMA

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
11	Severe Summer Storms	Local Planning & Regulations / Structure & Infrastructure Projects	STORM SHELTERS / TORNADO SAFE ROOMS Assess and address storm shelter needs within the Jackson County Park system and other outdoor recreational areas where large amounts of people gather.	Existing High Ongoing	JCEM, Jackson County Parks & Trails	Jackson County manages 5 county parks that have both camper and tent camping sites available. Kilen Woods State Park (managed by MN DNR) is also located within the county and includes both camper and tent sites available. We also have a racetrack (Jackson Motorplex) on county property adjacent to the city of Jackson with seating capacity of over 6,000, not including the campground and infield area. Jackson County will work to assess these public areas in coordination with MN DNR and the Motorplex owner to determine the need and feasibility to construct new storm shelters or tornado safe rooms for public safety. FEMA HMA grant funding may be sought for tornado safe room projects.	Jackson County, Local Gov't, MN DNR, FEMA HMA, Motorplex
12	Severe Summer Storms	Local Planning & Regulations	MHP SAFTEY Ensure that licensed manufactured home parks (MHP's) within the county meet the requirements of MN Statute 327.20 for shelters and evacuation plans.	Existing High Ongoing	Jackson County Public Health	Jackson County Public Health works in coordination with the Minnesota Department of Health (MDH) on this effort. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to the MDH.	Jackson County, MDH
13	Severe Winter & Summer Storms	Structure & Infrastructure Projects	POWERLINE RETROFITS Encourage municipal and rural electric coops to address burying powerlines or strengthening power poles to avoid power outages from high wind events and storms.	Existing High Ongoing	JCEM, local jurisdictions in coord with electric utility providers	Over the last 5 years the Rural Electric Federation and municipal utilities have worked to convert overhead powerlines to underground. Jackson County works with the utility coops and local governments on these efforts as needed. FEMA HMA grant funding may be a source for powerline infrastructure retrofits that eligible rural and municipal electric coops can apply for.	Electric Coops, FEMA HMA
14	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	GENERATOR BACKUPS Work with county departments and local jurisdictions to obtain generator backup power where needed for extended power outages due to storms.	Existing Moderate Ongoing	JCEM in coord with county depts and local jurisdictions	JCEM continues to work with county departments and local jurisdictions to secure portable or permanent backup generators to power critical facilities during extended power outages. Where applicable, FEMA HMA grant funding may be applied for generators.	Jackson County, Local Gov't, FEMA HMA

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
15	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	SEVERE WEATHER PLANS Encourage schools and other facilities that house senior citizens or other vulnerable populations to have emergency plans in place to deal with severe weather, extreme temperatures, and extended power outages.	Existing Moderate Ongoing	JCEM in coord with local jurisdictions	JCEM continues to work with local jurisdictions provide outreach to and support to schools and other facilities on emergency planning. Schools and long-term care (LTC) facilities are required to have such plans in place. JCEM provides direct training or planning assistance as requested.	Jackson County, Schools, LTC Facilities
16	Extreme Heat/Cold Temps	Education & Awareness Programs	EXTREME TEMPERATURES PUBLIC OUTREACH Conduct public outreach and provide information to residents on safety measures when there are periods of extreme heat or extreme cold.	Existing High Ongoing	JCEM	JCEM works to share information received from the National Weather Service when periods of extreme heat or cold are forecast and occurring. JCEM utilizes the county EM website page, and EM Facebook. Local radio and TV stations also provide this information to the public. School Districts have plans and policies in place for delaying or closing school to protect students from extreme temps.	Jackson County
17	Severe Winter & Summer Storms	Local Planning & Regulations	BUILDING SAFETY Ensure that new development projects follow state building codes in order to withstand the impacts of severe weather events, including roof collapse from heavy snow or damages from high wind events.	Existing Moderate Ongoing	Jackson County Planning and Zoning	Jackson County Planning & Zoning oversees permits for new development. Jackson County recommends building to 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.	Jackson County
18	Severe Winter & Summer Storms	Natural Systems Protection	VEGETATION MANAGEMENT Manage trees and other vegetation along roads from severe storm events to reduce risk to passing motorists.	Existing Moderate Ongoing	JC Public Works, Local Utility Providers	Jackson County Public Works 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.	Jackson County, Utilities

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
19	Flooding	Local Planning & Regulations	NATIONAL FLOOD INSURANCE PROGRAM Participate in the National Flood Insurance Program and enforce policies that address development in high-risk flood areas.	Existing High Ongoing	Jackson County Planning & Zoning	Section 609 - Floodplain District of the Jackson County Zoning Ordinance (Revised 4/19/2022) establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts. Jackson County Planning & Zoning maintains and enforces the floodplain management ordinance for the county. Jackson County Public Works develops a 5-year road and bridge plan that includes measures for flood mitigation. Jackson County Public Works is in the process of implementing a culvert inspection procedure to ensure culverts are in good working condition and free of obstructions. Public Works is also in the process of replacing metal culverts with concrete culverts to extend the life expectancy of them. Public Works is additionally doing hydraulic analysis to ensure proper sizing of culverts to minimize water movement restrictions. The drainage ditches are being studied to ensure proper slope and design to minimize erosion during heavy water flow times.	Jackson County
20	Flooding	Local Planning & Regulations / Structure & Infrastructure Projects	LOCALIZED FLOOD RISK REDUCTION Plan for and implement measures to address localized flood reduction projects for roads, bridges, and culverts throughout the county.	Existing High Ongoing	Jackson County Public Works	Jackson County EM and Jackson County Land Management participate in the Missouri River Watershed 1W1P, the Watonwan Comprehensive Watershed Management Plan and the Des Moines River Comprehensive Watershed Management Plan. All of these plans include considerations for flood risk areas within the regional watershed planning areas.	Jackson County
21	Flooding	Local Planning & Regulations	WATERSHED PLANNING Work in partnership with the Jackson Soil & Water Conservation District and other watershed partners to address mitigation plans, policies, and projects that address risk reduction for localized flooding and erosion.	Existing High Ongoing	JCEM & JC Land Mgmt. in coord with watershed organizations		Jackson County, Watershed Orgs.

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
22	Flooding	Local Planning & Regulations	<p><b>WATERSHED PROJECTS</b> Assist townships within the county on local flood mitigation and watershed projects that reduce high rain event and flooding impacts to township roads and infrastructure.</p>	Existing High Ongoing	JC Public Works, JC Land Management	<p>Jackson County Public Works continues to work with local townships on projects that help to reduce flood and erosion impacts to township roads from high rain events. Jackson County Land Management has received some funding from the Board of Water and Soil Resources to assist in helping township with watershed projects.</p>	Jackson County, BWSR
23	Flooding	Local Planning & Regulations	<p><b>PROPERTY BUYOUTS</b> Conduct property buyouts to acquire homes affected by repetitive flooding and physically relocate or remove those homes to eliminate future flood damages.</p>	Existing Moderate Ongoing	JCEM, JC Planning & Zoning	<p>There are currently no potential property buyout projects identified by Jackson County. The county will continue to evaluate and assist with potential future property acquisition projects and application to FEMA or MN DNR for grant funding to conduct buyouts.</p>	Jackson County, FEMA HMA
24	Flooding	Natural Systems Protection	<p><b>RESTORATION PROJECTS</b> Conduct floodplain and stream corridor restoration in areas that are impacted by high rain events.</p>	Existing Moderate Ongoing	JC Public Works, JC Land Management in coord with SWCD and watershed orgs	<p>Jackson County continues to work with the Jackson SWCD and watershed districts on related floodplain or stream restoration projects as needed. Plans that address these efforts include the Jackson County Local Water Management Plan, Missouri River Watershed 1W1P, Watonwan Comprehensive Watershed Management Plan and the Des Moines River Comprehensive Watershed Plan. FEMA HMA grant funding may be sought for future eligible projects.</p>	Jackson County
25	Flooding	Structure & Infrastructure Projects	<p><b>FLOOD DIVERSION &amp; STORAGE PROJECTS</b> Construct flood diversion and storage projects where identified as needed to reduce the impacts of high rain events on streams, rivers, or drainage systems which may result in localized or downstream flooding.</p>	Existing Moderate Ongoing	JC Public Works, JC Land Management	<p>Jackson County Public Works and Land Management will consider and apply flood diversion and water storage projects as needed to reduce the impacts of high rain events. These efforts may be in coordination with the Jackson SWCD, watershed districts, townships, or private landowners. FEMA HMA grant funding may be sought for future eligible projects.</p>	Jackson County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
26	Drought	Education & Awareness Programs	DROUGHT OUTREACH & EDUCATION Provide outreach and education to residents to be aware of watering restrictions, water conservation tips, and fire safety during periods of severe drought.	Existing High Ongoing	JCEM	JCEM continues to provide public outreach and education during heightened drought periods using the county website and social media platforms. JCEM encourages city and townships to promote drought awareness to residents at the local level.	Jackson County
27	Drought	Local Planning & Regulations	WATERING RESTRICTIONS Implement watering restrictions during periods of drought as per MN DNR guidance.	Existing High Ongoing	JCEM in coord with MN DNR and local jurisdictions	Jackson County and local jurisdictions will establish and enforce watering restrictions as per MN DNR guidelines during periods of severe drought.	Jackson County, Local Gov'ts
28	Dam/Levee Failure	Structure & Infrastructure Projects	DAM & LEVEE SAFETY Work with the MN DNR Dam Safety program to address any dams or levees that require repair.	Existing Low Ongoing	MN DNR	Jackson County continues to be available to work with the MN DNR on any issues that may arise with these structures within the county. There are no high hazard potential dams within the county.	MN DNR

# Section 6 – Plan Maintenance

## 6.1 Monitoring, Evaluation, and Updating the Plan

The Jackson 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 Jackson County HMP.

The Jackson 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 Jackson 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 Alpha, Heron Lake, Jackson, Lakefield, Okabena, and Wilder, 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 Jackson 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 Jackson 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 Jackson 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 Jackson 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 Jackson County EMD so that progress notes may be maintained for the next plan update.

## 6.2 Implementation

Jackson County and its included municipalities share a common Hazard Mitigation Plan and work together closely to develop, revise, and implement it. This HMP provides a comprehensive chart of mitigation actions for Jackson County and its jurisdictions (see Appendix H and Section 5.3). The cities of Alpha, Heron Lake, Jackson, Lakefield, Okabena, and Wilder 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.

A number of implementation tools are available to address hazards. Many of these tools are below, however, in some cases additional discussion is needed in order to identify what strategies are most appropriate to use. This will be part of an ongoing discussion as Jackson 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 man-made 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 V and the MN Department of 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 Jackson County. Regulation plays a particularly important role for 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 Jackson 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 Jackson 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, Jackson County will take the following measures:

- The Jackson County HMP website link will be posted on the Jackson 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, Jackson 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 to keep their local government, schools and community members updated and engaged in the implementation of their respective mitigation action charts (see Appendix H). Each respective jurisdiction will be required to report on the status of mitigation actions in their charts to the Jackson County EMD.
- Jackson County and its jurisdictions will use numerous means of public outreach to engage new public stakeholders in providing input on mitigation concerns, including those from underserved communities or socially vulnerable populations. Outreach methods may include presentations at city council or township board meetings, sharing information at special events, working with local schools and partner organizations, and posting information in areas that are used to communicate with the public (bulletin boards, websites, social media, and local media sources that communities use to inform and engage the public). As mitigation projects are implemented, jurisdictions will work to keep the public updated and engaged in those local efforts.

# APPENDICES

**Appendix A – References**

**Appendix B – Adopting Resolutions**

**Appendix C – Local Mitigation Survey Report**

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

**Appendix F – Planning Team Meetings**

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

**Appendix H – Mitigation Actions by Jurisdiction**

## **Appendix A – References**

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## **Appendix B – Adopting Resolutions**

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



# Jackson County

## Local Mitigation Survey Report

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### Overview

As part of Jackson County's 2023 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

Jackson County	Yes
City of Alpha	Yes
City of Heron Lake	Yes
City of Jackson	Yes
City of Lakefield	Yes
City of Okabena	Yes
City of Wilder	Yes

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

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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: JACKSON COUNTY**

**Point of Contact:**

Name: Gary Reif  
 Job Title: Jackson County Emergency Management Director  
 Phone: 507-847-4774  
 Email: [gary.reif@co.jackson.mn.us](mailto:gary.reif@co.jackson.mn.us)

**PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

**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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	High	No change
Tornadoes	X	High	No change
Windstorms	X	High	No change
Lightning	X	Moderate	No change
Hail	X	Moderate	No change
Flooding	X	High	Increased
Extreme Cold	X	High	No change
Extreme Heat	X	Moderate	No change
Drought	X	Moderate	No change
Wildfire		Low	No change
Landslides		Low	No change
Dam Failure		N/A	

**RECENT HAZARD EVENTS**

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

June-July, 2018 - Jackson County had severe rain storms that caused significant damage to 16 drainage ditches throughout the county. This resulted in having to repair the drainage ditches over the next few years due to amount of damage done.

March, 2019 - Jackson County had spring floods that washed out or covered many of the gravel roads in the county. Many of the roads had to be closed and after the waters receded it showed roads needed to be rebuilt due to gravel being washed away and culverts being destroyed.

April, 2019 - Jackson County had an ice storm resulting in ¾ of an inch of ice coating everything in conjunction with winds up to 62 mph. The wind and ice caused over 300 electrical poles to snap or tip over. During the storm over 2,700 people in the county were without power. Many trees were lost and emergency radio communications were threatened as ice caused antennas on the towers to bend or break. As the ice began to fall the antennas and radio dishes were further damaged.

**LOCAL VULNERABILITIES**

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
<b>Flooding</b>	Sanitary sewer lift stations throughout the county are prone to flooding in low lying areas during high rain events or as the West Des Moines River and area creeks rise from rains further upstream. City and fire department personnel have sandbagged many areas in the past to prevent flooding into local lift stations. And portable pumps are set up to assist with keeping the sewer system functioning.  When flooding does occur, there are businesses and residences that could possibly be affected if the water rises high enough, resulting in sandbagging becoming necessary. The City of Jackson is in a low area of the West Fork of the Des Moines River.
<b>Ice Storms, Blizzards</b>	Much of the electrical service throughout Jackson County consists of overhead power lines and electrical poles which are prone to failure in ice storms and blizzards. Storms with heavy snowfall and high winds may bring down trees and branches.  Jackson County has US Hwy 71 and US Hwy 60 running through the county which can cause stranded motorists requiring rescuing and emergency shelter.
<b>Windstorms and Tornadoes</b>	Jackson County manages 5 county parks that have both camper and tent camping sites available. We also have one State Park (Kilen Woods State Park) with both camper and tent sites available. We also have a racetrack (Jackson Motorplex) on county property adjacent to the city of Jackson with seating capacity of over 6,000, not including the campground and infield area. There is not enough sheltering in the area to hold this many people in the event of a severe wind or tornado event.

	Our municipal campgrounds are active during summer and fall months with RVs and campers and does not have adequate storm shelters for that amount of people.
<b>Extreme Cold</b>	Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have a high population of senior citizens and also low-income residents who are more vulnerable during these events. Several cities also have nursing homes and assisted living facilities which can be affected by cold temperatures and power outages.  The county has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding and ice dams on the river can make flooding even more of an issue until the ice breaks up enough to pass under bridges.

**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 underway that reduces future risk.*

Jackson County Public Works is in the process of implementing a culvert inspection procedure to ensure culverts are in good working condition and free of obstructions. Public Works is also In the process of replacing metal culverts with concrete culverts to extend the life expectancy of them. Public Works is additionally doing hydraulic analysis to ensure proper sizing of culverts to minimize water movement restrictions. The drainage ditches are being studied to ensure proper slope and design to minimize erosion during heavy water flow times.

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

Over the last 5 years the Rural Electric Federation and municipal utilities have worked to convert overhead powerlines to underground.

**INCREASE IN VULNERABILITY**

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

Jackson County has a vibrant business district which continues to grow and bring in more workers to meet the need. The influx of new employees brings additional communication issues due to the various languages within the community.

Our aging populations mobility during emergencies is a big issue as we do not have enough buses to move everyone if needed.

The race track in Jackson continues to grow and have larger special events that can potentially bring over 8,000 additional people to the community. Shelter for that large of a group would be concern as they have their on camping area along with all the trucks and trailers bringing racecars and people.

## **PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

### **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.*

Jackson County utilizes the Jackson County Emergency Management website page, Jackson County Emergency Management 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.

### **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?*

Jackson County maintains the Regroup 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 Jackson County "Helpful Links" website page. Jackson County also has 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).

### **LOCAL PLANS & AUTHORITIES**

*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:* Jackson 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.

*Snow Removal & Ice Control:* The Jackson County Highway Department is responsible for the removal of snow and ice control for county roads, as well as some city and township roads based upon agreement. The department completes its snow removal process in accordance with the Jackson County Hwy Department Snow Removal Policy. MNDOT removes snow from State Highways as well as disperses salt/sand as needed.

*Manufactured Home Parks Shelters & Evacuation Plans:* Jackson County Public Health works in coordination with the Minnesota Department of Health (MDH) to ensure that licensed manufactured home parks within the county meet the requirements of MN Statute 327.20 for shelters and evacuation plans. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to the Minnesota Department of Health.

*Building Code Enforcement:* Jackson County Planning and Zoning adheres to the MN State Building Code.

*National Flood Insurance Program (NFIP):* Jackson County has FEMA Mapped High Risk Areas and participates in the NFIP. Initial entry date into the program was 01/02/81.

*Floodplain Ordinance:* Section 609 - Floodplain District of the Jackson County Zoning Ordinance (Revised 4/19/2022) establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts. The Planning & Zoning Office maintains and enforces the floodplain management ordinance for the county.

*Shoreland Regulations:* Jackson County Zoning Ordinance, Section 610 - Shoreland Zoning District establishes regulations for land use near shorelands including stormwater management. Conditional uses allowable within shoreland areas are subject to review and approval procedures by Jackson County Planning & Zoning Office.

*Subdivision Ordinance:* Section 7 – Subdivision Design Standards is included in the Jackson County Zoning Ordinance. The performance standards established in this section are designed to encourage a high standard of development and are enforced by Jackson County Land Management. Section 7 includes standards for soil and erosion control and stormwater drainage systems to reduce peak flows and erosion damage.

*5-Year Transportation Plan:* The Jackson County Public Works - Engineering department is responsible for engineering, design, reconstruction and repair of roads, bridges, culverts, and trails throughout Jackson County. This department develops a 5-year road and bridge plan for County Board consideration and implements the approved road and bridge plan. The plan identifies and schedules road improvement projects that include measures for flood mitigation.

*Jackson County Local Water Management Plan:* The Jackson County Land Management Department – Water Planning Office oversees update and implementation of the Jackson County Water Management Plan. The plan is prepared by the Jackson County Soil and Water Conservation District for the Jackson County Local Water Management Task Force. The purpose of the plan is to identify existing and potential water issues in the context of watershed units and groundwater systems, informing specific implementation actions to achieve goals for sound hydrological management of water and related resources. The plan identifies the primary water planning concerns, including soil erosion, stream bank and lakeshore development, drainage management, and flooding.

*Minnesota Buffer Law:* Jackson County has adopted the requirements of the Minnesota Buffer Law. The purpose and intent of the law is to protect state water resources from erosion and runoff pollution; to stabilize soils, shores and banks; and to protect or provide riparian corridors. The Buffer Law is enforced by the Jackson Soil and Water Conservation District in coordination with the Land Management Department.

*Missouri River Watershed One-Watershed One Plan:* Jackson County participates in the Missouri River Watershed 1W1P. The plan brings 6 counties, 6 Soil and Water Conservation Districts and 2 Watersheds together to develop a comprehensive plan that aligns the local water planning process on major watershed boundaries. The plan includes considerations for flood risk areas within the regional watershed planning area.

*Comprehensive Watershed Management Plans:* Jackson County participates in the Watonwan Comprehensive Watershed Management Plan and the Des Moines River Comprehensive Watershed Management Plan. Each plan brings together 6 counties and 6 Soil and Water Conservation Districts to not only plan for but implement multiple conservation efforts and practices on a watershed scale rather than being based on county boundaries. The plans include many considerations for flooding risks within the planning area.

## **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

Jackson County staff partner together to help accomplish mitigation goals, these staff include the Emergency Management Director, Sheriff's Office administrative staff, Jackson County Public Works, Jackson County Public Health, Jackson County Environmental Services, Land Management/SWCD, and Jackson County GIS.

Jackson County has a strong relationship with the Sioux Falls, SD 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.

Jackson County Emergency Management is a registered NOAA Weather-Ready Nation 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.

Jackson 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.

Jackson County Emergency Management works closely with the MN HSEM Region 5 regional program coordinator and county emergency managers on a range of planning, training, and exercises to support all-hazards preparedness, mitigation, response, and recovery capabilities.

In the event of a disaster or other hazardous situation where temporary housing and basic human services are needed, Jackson County Emergency Management works in coordination with local Fire and EMS, Jackson County Public Health, Des Moines Valley Health and Human Services, and the American Red Cross to provide mass care services as needed.

## **PROGRAMS IN PLACE**

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

*NOAA Weather Radios:* Jackson County Emergency Management promotes the use of NOAA Weather Radios by local 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:* Jackson County Emergency Management is a registered NOAA Weather-Ready Nation 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.

*National Weather Service – Severe Weather Awareness Weeks:* Jackson 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. Jackson 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.

*Skywarn Program:* Jackson 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 local 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 Jackson County Public Works 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.

## **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.*

Jackson County primarily uses its own budget for projects in the county. The county is attempting to do projects that will help with flooding by replacing culverts and enhancing drainage ditches as part of ongoing maintenance. When there is a disaster, FEMA grants are applied for to assist with rebuilding infrastructure. Jackson County Land Management does receive some funding from the Board of Water and Soil Resources to assist in helping township with watershed projects.

## **PART C: LOCAL MITIGATION PROJECTS**

### **LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future natural hazards events. The development of mitigation actions must emphasize activities that reduce risk to existing buildings, structures, and infrastructure as well as limit risk to new development and redevelopment. The range of actions should also include activities that benefit any underserved communities or socially vulnerable populations within your community.*

- Encourage all county residents to sign-up for the county's emergency notification alert system.
- Provide ongoing education and outreach to residents on personal preparedness for severe weather, extreme temperatures, and extended power outages. Coordinate with local jurisdictions to share information locally.
- Ensure the county's Emergency Operations Plan (EOP) is updated and addresses policies & procedures needed to support EM functions prior to, during, and following a disaster.
- Ensure designated facilities are in place and prepared for providing mass care sheltering and county staff are trained in sheltering operations.
- Work with municipalities / rural electric coops to encourage them to address burying powerlines or strengthening power poles to avoid power outages from high wind events and storms.
- Address the safety of county, city, and township roads in winter through snow removal and ice control.
- Ensure there is a network of trained Storm Spotters throughout the county to support situational awareness of and public notification for dangerous storms such as severe thunderstorms and tornadoes. Providing Weather Safety Classes to the Community to assure understanding of weather and safety measures to take in the event of severe weather.
- Work with county departments and local jurisdictions to acquire generator backup power to support critical infrastructure and delivery of essential services during an extended power outage due to storms.
- Encourage schools and long-term facilities that house senior citizens or other vulnerable populations to have emergency plans and generators in place to deal with severe weather, extreme temperatures and power outages.
- Work with local governments to ensure the functionality of outdoor warnings sirens to warn residents of dangerous high wind or tornado events.
- Purchase and install a new outdoor warning siren for Sandy Point Park (Jackson County Parks & Trails).

- Provide assistance to local jurisdictions that require purchase & installation of new outdoor warning sirens and ensure they are connected to the county's remote activation system.
- Work in coordination with local jurisdictions to address the need for the construction of storm shelters or tornado safe rooms in locations where residents and visitors are vulnerable to high wind events, such as mobile home parks, municipal campgrounds, and other public areas.
- Conduct outreach to residents to be aware of water restrictions, water conservation tips, and fire safety during periods of severe drought.
- Continue to participate in the National Flood Insurance Program and enforce policies that address development in high-risk flood areas.
- Plan for and implement measures to address localized flood reduction projects for roads, bridges, and culverts throughout the county such as hardening public roads, bridges, and installing high-flow culverts to mitigate recurring flood damages. Additional projects may include paving shoulders of roads, paving or adding rip-rap around culverts, and adding rip-rap to the banks of ditches and streams. These projects may be in coordination between the county, SWCD, and other area watershed districts and in accordance with other existing plans.
- Continue to work in partnership with the Soil & Water Conservation District and other watershed partners to address mitigation plans, policies, and projects that address risk reduction for localized flooding and erosion.
- Continue to address shoreland zoning regulations and stormwater management to mitigate impacts from high rain events, especially for areas of new development and population growth within the county.
- Conduct property buyouts to acquire homes affected by repetitive flooding and physically relocate or remove those homes to eliminate future flood damages.
- Conduct soil stabilization and slope management projects in unstable areas for sediment and erosion control resulting from high rain events.
- Conduct floodplain and stream corridor restoration in areas that are impacted by high rain events.
- Construct flood diversion and storage projects where identified as needed to reduce the impacts of high rain events on streams, rivers, or drainage systems which may result in localized or downstream flooding.

### **GAPS OR DEFICIENCIES**

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

*Communications:* Not all Jackson County residents are signed up for our Regroup Emergency Notification System, have NOAA weather radios, or use social media to follow our EM Facebook page to

receive important messages. Ongoing continued public education needs to be done to encourage people to utilize these resources.

*Backup Power:* Not all county, city, and other incident support facilities (e.g., public safety/emergency services stations, designated mass care shelters, etc.) have generator backup power in the event of extended power outages. County and local government funding to purchase generators is limited and obtaining generators can be a slow process.

*Project Funding:* Finding funding for the implementation of mitigation projects is a barrier. The county, townships, and cities have limited funding for mitigation activities such as infrastructure improvements for flood mitigation, updating outdoor warning sirens, or constructing storm shelter or tornado safe rooms in areas where people are vulnerable to high wind events. Outside grant funding is necessary and can be difficult to obtain.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM**

### **Does your community participate in the NFIP?**

Yes, Jackson County participates in the NFIP.

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.** N/A

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

#### **1. NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**

- Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

April 12, 1993

- Provide the adoption date of your **current** floodplain ordinance.

April 19, 2022

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

April 19, 2022

#### **2. Contacts. Please provide names and emails for your:**

- Floodplain Administrator – Dan Bartosh, [Daniel.bartosh@co.jackson.mn.us](mailto:Daniel.bartosh@co.jackson.mn.us)
- Engineering Contact (optional)

- Additional Floodplain Contact (optional)

**3. As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.**

- Do you know of any existing buildings in the FEMA mapped floodplain?

No

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in **the DNR sample form**) -please attach or link the form.

No

- Have you reviewed the **Local Official Playbook** substantial improvement/substantial damage ?

Yes

### **PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Gary Reif, Jackson County Emergency Management Director, 15 hours

Wesley Liepold, Jackson County Assistant County Engineer, 1 hour

Ryan Krosch, County Coordinator, 1 hour

Dan Bartosh, Land Management Director, 3 hours

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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 ALPHA

**Point of Contact:**

Name: Cassie Westfall  
 Job Title: City Clerk/Treasurer  
 Phone: (507) 847-3557  
 Email: [alphacity@yourstarnet.net](mailto:alphacity@yourstarnet.net)

**PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

**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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	High	No change
Tornadoes	X	Moderate	No change
Windstorms	X	Moderate	No change
Lightning			
Hail			
Flooding			
Extreme Cold	X	Moderate	No change
Extreme Heat			
Drought	X	Moderate	No change
Wildfire			
Landslides			
Dam Failure			

**RECENT HAZARD EVENTS**

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

In the last 5 years we have experienced standard winter weather (winter storms, extreme cold) and summer storms (thunderstorms, windstorms). We had some trees come down during a big ice storm in 2019.

**LOCAL VULNERABILITIES**

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
<b>Severe Winter / Summer Storms</b>	Wind or ice storms present a concern for Alpha as they own the power poles and lines throughout the City. There is no insurance for this and would be financially devastating to have to replace. Also, loss of power takes away the city water and sewer services.

**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 underway that reduces future risk.*

We put up a new outdoor warning siren about 8-10 years ago.

**INCREASE IN VULNERABILITY**

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

We have not had any increase in vulnerability.

**PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

**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 are a very small city with no website or social media. We communicate with our residents by posting flyers at City Hall and by sharing announcements at City Council meetings as needed.

**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 anything with this to date but we could post a flyer about it if Jackson County can provide us with the information. Overall, we look to Jackson County Emergency Management to do outreach to residents to encourage them to sign up for the emergency notification system.

### **LOCAL PLANS & AUTHORITIES**

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

Nothing to note here, we are a small city with our local zoning ordinances. We are not experiencing any new development but any new construction would fall under the recommended state building codes.

### **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

We have our Mayor, City Council, City Clerk and Volunteer Fire Chief/City Emergency Manager. We work with Jackson County as needed.

### **PROGRAMS IN PLACE**

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

We maintain our outdoor warning siren and test it on a regular basis.

### **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 have a limited city budget for operations and maintenance. For any major projects we would look to Jackson County for guidance on obtaining funding.

## **PART C: LOCAL MITIGATION PROJECTS**

### **LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address the local vulnerabilities you have identified.*

Work with Jackson County do promote residents to sign up for the emergency notification system and to be ready for severe weather (post flyers, provide occasional reminders at City Council meetings).

During periods of severe drought, work with MN DNR and Jackson County to establish watering restrictions locally.

## 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 staff and funding.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION**

### **Does your community participate in the NFIP?**

No. The city does not have FEMA mapped high-risk areas and does not participate in the NFIP.

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.**

N/A

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

#### **1. NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**

- Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

N/A

- Provide the adoption date of your **current** floodplain ordinance.

N/A

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

N/A

#### **2. Contacts. Please provide names and emails for your:**

- Floodplain Administrator - N/A
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

3. As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.

- Do you know of any existing buildings in the FEMA mapped floodplain?

N/A

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in [the DNR sample form](#)) -please attach or link the form.

N/A

- Have you reviewed the [Local Official Playbook](#) substantial improvement/substantial damage ?

N/A

**PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Cassie Westfall, City Clerk/Treasurer, 1 hr.

John Ingebriktson, Fire Chief/City Emergency Manager, 1 hr.

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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 HERON LAKE

**Point of Contact:**

Name: Anthony Fauglid  
 Job Title: Chief of Police  
 Phone: 507 920 3516 or 507 793 2813  
 Email: [heronlakepolice@gmail.com](mailto:heronlakepolice@gmail.com)

### **PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

#### **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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	High	No Change
Tornadoes	X	Moderate	No Change
Windstorms	X	Low	No Change
Lightning	X	Low	No Change
Hail	X	Low	No Change
Flooding	X	Moderate	Increased
Extreme Cold	X	High	Increased
Extreme Heat	X	High	No Change
Drought	X	Moderate	No Change
Wildfire		Low	NA
Landslides		Low	NA
Dam Failure	X	Low	No Change

## RECENT HAZARD EVENTS

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

In 2013 the city experienced a severe ice storm with electric lines down, electricity out, trees down with some road closures. In 2022 we experienced a strong windstorm causing tree damage, uprooted trees, house damage and some electric outages.

## LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Flooding	Residents have experienced localized street and yard flooding; some residents have had basement water due to heavy rains overwhelming the local storm sewer; and lift stations that remove water from system. (Nearly an Annual Event); localized.
Ice Storm	In 2013 the city experienced a major ice storm with downed power lines, fallen trees causing damage to personal property and causing obstruction to local streets.
Windstorm	In 2022 the city had heavy wind damage from a derecho resulting in damage to trees and property. Annually, strong thunderstorms impact the area, causing power outages on a partial or community wide scale.

## 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 underway that reduces future risk.*

Due to historic ice storm in 2013, the city has conducted city-wide tree removal and city park trees removed due to damages. The city has also made improvements in to the city lift station within the last 5 years to assist in moving water through storm and sewer system.

## INCREASE IN VULNERABILITY

*Please describe any current conditions or changes you feel have increased your community's vulnerability to future severe weather or disaster events. Consider factors such as recent population growth or new development. On going assessment and improvements in storm drain access and storm sewer on going by the City Streets Department.*

Homes in our community are aging and will become more vulnerable to wind and storm damage due to their condition. Ash borer mitigation began in 2022 to remove trees before they become damaged and susceptible to wind and weather damage. However private homeowners with Ash trees will see increased damage to trees over the coming decade and will be at risk if causing damages when impacted by severe weather.

## **PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

### **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 city Facebook page and the County's Civic Ready system that we use to reach residents with emergency information.

### **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 encourage Civic Ready enrollment; we also have a main tornado siren that was replaced over the last decade. We have a 2<sup>nd</sup> auxiliary siren, but its in need of repair and will need to be replaced in the next 4-5 years.

### **LOCAL PLANS & AUTHORITIES**

*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 Heron Lake does not have the MN State Building Code and local repairs and improvements are taken up on an as-needed basis. The city recently entered into an agreement with the local nursing home to use the community center as emergency housing in case of severe weather or other catastrophic events. Otherwise, there are no comprehensive plans. Zoning ordinances are enforced and new construction must meet approval of local zoning board and city council before building. The city does have a standardized zoning code.

### **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

Chief of Police is the designated Emergency Manager, and works closely with the fire chief and other city and county emergency services. The EM works with the city streets department during times of crisis. The mayor is also an important part of the emergency management team for the city.

### **PROGRAMS IN PLACE**

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

At this time, we have no formatl programs in place. The city cleans curbs and gutters in the spring and throughout the summer months to prevent localized street flooding.

## **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 is current performing Ash Borer removal with assistance-based monies from the state and the project is overseen by the City Council. The Police Department works closely with the local electrical utility to assist with power outages situations.

## **PART C: LOCAL MITIGATION PROJECTS**

### **LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address the local vulnerabilities you have identified.*

The city would like up upgrade the current auxiliary storm siren, located near Ice Road and 16<sup>th</sup> Street. This is a priority. We would also like to continue encouraging local participation in the CivicReady system via posting advertisements on the city FB and Police Dept. FB pages.

### **GAPS OR DEFICIENCIES**

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

As a small community, limited resources of personnel and equipment is our biggest gap. Manpower to assist with searches. Manpower and heavy equipment to remove trees and other road obstructions.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION**

### **Does your community participate in the NFIP?**

No. The city does not have FEMA mapped high risk areas.

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.**

N/A

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

- **NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**
  - Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

N/A

- Provide the adoption date of your **current** floodplain ordinance.

N/A

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

N/A

- **Contacts. Please provide names and emails for your:**

- Floodplain Administrator – N/A
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

- **As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.**

- Do you know of any existing buildings in the FEMA mapped floodplain?

N/A

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in [the DNR sample form](#)) -please attach or link the form.

N/A

- Have you reviewed the [Local Official Playbook](#) substantial improvement/substantial damage?

N/A

## **PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Anthony Fauglid, Chief of Police and Emergency Manager, 2 hrs.

Marlys J. Olson, City Clerk/Treasurer, 2 hrs.

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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 JACKSON

**Point of Contact:**

Name: Matt Skaret  
 Job Title: City Administrator  
 Phone: 507-847-4410  
 Email: [mskaret@cityofjacksonmn.com](mailto:mskaret@cityofjacksonmn.com)

**PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

**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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	Moderate	Decreased due to more of our electrical lines being converted from OH to UG
Tornadoes	X	Moderate	No Change
Windstorms	X	Moderate	Same as #1
Lightning	X	Moderate	No Change
Hail	X	Moderate	No Change
Flooding	X	High	Increased due to more frequent heavy rain events.
Extreme Cold	X	Moderate	Increased
Extreme Heat	X	Moderate	Same as extreme cold
Drought		Low	No Change
Wildfire		Low	No Change
Landslides		Low	No Change
Dam Failure		N/A	No Change

## RECENT HAZARD EVENTS

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

In 2018 and 2019 we experienced extreme flooding of the Des Moines River due to heavy rain events, especially further upstream. This resulted in flooding over two parks, baseball fields, and sandbagging efforts along certain low line areas to help protect commercial and residential properties from the floodwaters. We also had to bypass our sanitary sewer lift stations several times due to inundation of rain water into the sanitary sewer system which can cause sewer backups.

We have also had several windstorms (both thunderstorm and non-thunderstorm related) over the past 5 years that have resulted in downed trees and isolated downed powerlines.

## LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
<b>Flooding</b>	Our sanitary sewer lift stations get inundated with excessive rain water during heavy rain events that will either cause sewer backups or the staff having to set up bypasses to discharge directly into the river. We also have low areas along the river with adjacent commercial and residential areas where we sandbag during high water events on the Des Moines River to protect against flooding.
<b>Ice Storms, Blizzards</b>	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. However, with more and more electrical lines being converted to underground this is becoming less of a risk. However, downed trees remain a risk in ice storms and blizzards
<b>Windstorms and Tornadoes</b>	The city’s municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure from windstorms and tornados. However, with more and more electrical lines being converted to underground this is becoming less of a risk. We do lack generation capability for our electrical system. If transmission lines are down coming into town for an extended period of time, we could be at risk for sustained power outages.  Our community also lacks a true storm shelter. Thus, residents without basements or sturdy interior rooms are vulnerable during tornados.
<b>Extreme Cold</b>	Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have a high population of senior citizens and also low-income residents who are more vulnerable during these events.

	<p>In the past we have also experienced frozen water services and some residential homes and businesses with shallow service lines. Staff monitors the frost depths and contacts residents and business owners if we believe their line is in danger of freezing and recommends they run a tiny stream of water to prevent freezing.</p> <p>Due to electric grid capacity issues nationwide and the possibility of rolling blackouts, this is an increased hazard.</p>
<b>Extreme Heat</b>	<p>Residents are susceptible to dangers from extreme heat, especially if the power goes out during extreme heat. We have a high population of senior citizens and also low-income residents who are more vulnerable during these events.</p> <p>Due to electric grid capacity issues nationwide and the possibility of rolling blackouts, this is an increased hazard.</p> <p>Fortunately, if we have rolling blackouts this should only be for a few hours at a time, thus, the likelihood of this causing people to overheat is very small.</p>

**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 underway that reduces future risk.*

Over the past several years staff has been actively looking for sources of I & I into our sanitary sewer system and making fixes where we can. We have purchased a sewer camera to televise sanitary sewer service lines during street reconstruction projects and requiring replacement if it is determined the line is bad.

Our vulnerability has also decreased due to converting much of our overhead electric system to underground.

The city has multiple generators for our water plant and sanitary sewer lift stations and performed extensive testing of them over the past year.

We have also installed a gate to that can be closed during high water events to plug a storm sewer outlet without having to send someone into the water to manually put the plug in. This will better enable us to prevent the river water from flooding storm sewers that serve the downtown area during high water events.

In 2018-2019 The city upgraded its ground water storage tank increasing our capacity to 500,000 gallons from 300,000 gallons. This helps increase water pressure which is critical when fighting fires, which is why our fire rating was upgraded the last time it was evaluated. Moreover, the water storage tank proved its worth when Burger King burned down in November 2020. While the structure was destroyed, the added water pressure helped contain and put the fire out faster. The shorter time crews have to be on the scene fighting fires the safer it is for all.

## **INCREASE IN VULNERABILITY**

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

We believe climate change has made us more vulnerable to floods due to more extreme heavy rain events and us being on a river. This was born out during the 2018 and 2019 floods.

Due to electric grid capacity issues nationwide and the possibility of rolling blackouts, our residents are more vulnerable during peak electric usage times which typically occur during extreme heat and extreme cold.

## **PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

### **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 Facebook page. Jackson County has an Emergency Notification system that we encourage people to sign up for where they can get messages about Severe Weather warnings and advisories. The city also recently launched a mobile app that people can download on their smart phones where they can get notifications from the city. We also have a Public Cable Access Channel and Community Message Board where messages can be posted.

### **EMERGENCY NOTIFICATION SYSTEM**

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

Yes. We have a place on the homepage of our city website with a link to the county's Emergency Notification system sign-up page.

### **LOCAL PLANS & AUTHORITIES**

*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 adopted the MN State Building Code and followings our City Code zoning requirements for new development. The City contracts with a building inspector to approve building permits and enforce codes.

### **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

The City’s Public Works Director is the designated Emergency Manager. The city has always had strong working relationships with the Fire Department, County Emergency Management, and County Sheriff’s Office. Our Fire Department has built strong relationships with other Fire Departments in the county who have given a helping hand during previous emergencies and helped with sandbagging efforts.

**PROGRAMS IN PLACE**

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

Our Fire Department participates in the National Weather Service’s annual storm spotter training, promotes MN Severe Weather Awareness Week, and helps spread the word about “Red Flag” alerts pertaining to Fire Danger. The Fire Department also does a number of community events and promotion during National Fire Prevention Week. The County Sheriff’s Office also tests our community’s 4 civil defense sirens monthly and works with us on any recommendations for repairs.

**FUNDING & OTHER RESOURCES**

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

The city primarily uses its own budget to address mitigation projects. We have used our own equipment and manpower to improve and extend a small levy to better protect our trail and the restroom facility from floodwaters. We also have mutual aid agreements with our rural electric cooperative and all surrounding fire and EMS services. The city has kept all of our Fire Department Equipment up to date and is in the midst of purchasing a new Aerial Platform Fire Truck that can be used in to better fight fires on taller structures.

**PART C: LOCAL MITIGATION PROJECTS**

**LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address the local vulnerabilities you have identified.*

Natural Hazard	Possible Mitigation Measures
<b>Winter Storms (Blizzards, Ice Storms)</b>	Finish converting overhead electrical poles and wiring to underground. Continue encouraging people to sign up for City notification system and follow us on Facebook for notifications on when to conserve power to reduce the threat of rolling blackouts.
<b>Tornadoes</b>	Explore funding and sites for Community Storm Shelter
<b>Windstorms</b>	Finish converting overhead electrical poles and wiring to underground
<b>Flooding</b>	Continue to enforce the City’s floodplain ordinance. Continue to make sure our storm sewers are properly sized during street projects. Continue to tackle I & I problems with rainwater coming into the sanitary sewer system.
<b>Extreme heat and extreme Cold</b>	Continue encouraging people to sign up for City notification system and follow us on Facebook for notifications on when to conserve power to reduce the threat of rolling blackouts.

## GAPS OR DEFICIENCIES

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

It is getting increasingly difficult to reach people. The radio station and newspaper used to be the “go to” sources, but not as much anymore. People live in their own silos and everyone has a different way of getting their news. We are also a small city with limited financial and staff resources to address local mitigation projects.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION**

**Does your community participate in the NFIP?**

Yes

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.**

N/A

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

**1. NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**

- Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

3/16/2004

- Provide the adoption date of your **current** floodplain ordinance.

3/24/2004

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

3/24/2004

**2. Contacts. Please provide names and emails for your:**

- Floodplain Administrator - Dave Maschoff- [dmaschoff@cityofjacksonmn.com](mailto:dmaschoff@cityofjacksonmn.com)
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

3. As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.

- Do you know of any existing buildings in the FEMA mapped floodplain?

Yes

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in [the DNR sample form](#)) -please attach or link the form.

No

- Have you reviewed the [Local Official Playbook](#) substantial improvement/substantial damage ?

No

### **PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Matt Skaret, City Administrator, 5 hours

Tony Oxborough, Public Works Director/Emergency Management Director, 1 hour

Tony Nitchals, Electric Supervisor, 1 hour

Neal Carlson, Parks Coordinator, 1 hour

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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 LAKEFIELD

**Point of Contact:**

Name: Roger D. Pohlman  
 Job Title: Police Chief | Emergency Manager  
 Phone: 507-662-5353 | 507-822-8866  
 Email: [pdchief@lakefieldmn.com](mailto:pdchief@lakefieldmn.com)

### **PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

#### **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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	High	No change
Tornadoes	X	High	No Change
Windstorms	X	Moderate	No Change
Lightning		Moderate	No Change
Hail		Moderate	No Change
Flooding		Low	No Change
Extreme Cold		Moderate	No Change
Extreme Heat		Moderate	No Change
Drought		Low	No Change
Wildfire		Low	No Change
Landslides		Low	No Change
Dam Failure		Low	No Change

## RECENT HAZARD EVENTS

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

I am not aware of any major events that resulted in State or Federal Disaster declaration for our city. 2021, we did have a wind event that left numerous branches and some trees down in the city of Lakefield, some blocking streets. Clean-up was completed by the city /individuals with no outside help to my knowledge.

## 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.*

<b>Natural Hazard (please list)</b>	<b>Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.</b>
<b>Windstorms, Tornados, ice storms and blizzards</b>	<ul style="list-style-type: none"><li>- We have one campground within the City of Lakefield, restrooms have windows and do not meet the requirements for a tornado shelter to my knowledge.</li> <li>- East side warning siren is inoperative and scheduled to be replaced in June 2023.</li> <li>- Largest threat from these natural disasters is the potential for loss of power. Sewer system does have some lift stations that require power if outage occurs. Long term plan to bury overhead powerlines to aid in stabilization of power/electricity.</li></ul>

## 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 underway that reduces future risk.*

The city of Lakefield has just completed a project with the State of Minnesota that buried overhead powerlines along Highway 86, reducing the potential for downed power lines and outages.

In 2022 a new siren (DC) was purchased and will be installed June 2023 on the east side of Lakefield.

In 2022 the south end siren had a new motor installed and screening installed to prevent bird nests from clogging the siren.

Our Police Department has a monthly newsletter that consistently includes “Do One Thing” emergency management tips and practices.

## **INCREASE IN VULNERABILITY**

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

None Known.

## **PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

### **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.*

City of Lakefield uses social media and local television channel to get information out. Monthly Police newsletter contains emergency management tips from "Do One Thing".

### **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, community bulletin boards contain information to sign up for CIVICREADY through the Jackson County Emergency Management office/website.

### **LOCAL PLANS & AUTHORITIES**

*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.*

Zoning Ordinances are enforced, new construction must meet approval of our Planning & Zoning Board.

### **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

Our Police Chief is the city's designated emergency manager. We own Lakefield Public Utilities which can provide emergency power if needed for the City of Lakefield. Street Department with heavy equipment for clean-up and street maintenance. Zoning and Police Advisory Committees to provide community input and guidance.

## **PROGRAMS IN PLACE**

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

Our city works with Jackson County on emergency planning and participates in the Annual severe weather Winter/Spring awareness Week, by posting weather awareness on social media and newsletters.

## **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 utilizes its own budget to maintain and update emergency warning sirens within the community. City employees are posted near warning sirens during the monthly test to ensure proper activation and functionality.

## **PART C: LOCAL MITIGATION PROJECTS**

### **LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address the local vulnerabilities you have identified.*

The city has an on-going plan to bury overhead powerlines, during infrastructure improvements, road replacements/updates.

We also conduct a constant review of low lying flooding areas for any drainage improvements.

### **GAPS OR DEFICIENCIES**

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

The City does not have its own reverse 911 call out capability to notify community members of upcoming issues or existing crisis/concerns.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION**

### **Does your community participate in the NFIP?**

No. The city does not participate in the NFIP and does not have mapped flood areas.

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.**

N/A

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

**1. NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**

- Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

N/A

- Provide the adoption date of your **current** floodplain ordinance.

N/A

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

N/A

**2. Contacts. Please provide names and emails for your:**

- Floodplain Administrator – N/A
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

**3. As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.**

- Do you know of any existing buildings in the FEMA mapped floodplain?

N/A

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in [the DNR sample form](#)) -please attach or link the form.

N/A

- Have you reviewed the [Local Official Playbook](#) substantial improvement/substantial damage ?

N/A

**PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Roger Pohlman, Police Chief/Emergency Manager, 4 hrs.

Stacy J. Anderson, City Clerk, 3 hrs.

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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 OKABENA

**Point of Contact:**

Name: Tamara Vortherms  
 Job Title: City Clerk  
 Phone: (507) 853-4500  
 Email: [okabenacity@gmail.com](mailto:okabenacity@gmail.com)

**PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

**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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	Moderate	No change
Tornadoes	X	Moderate	No change
Windstorms	X	High	No change
Lightning			
Hail	X	Moderate	No change
Flooding			
Extreme Cold	X	Moderate	No change
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure			

## RECENT HAZARD EVENTS

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

In the last 5 years we haven't experienced any major storm damage.

## 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.*

<b>Natural Hazard (please list)</b>	<b>Vulnerability Assessment</b> 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 only have a City Hall, bar, bank, post office and school in town along with residential homes. None have been impacted by storm events. We don't have any other city infrastructure of concern.

## 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 underway that reduces future risk.*

City maintenance works to trim trees and keep them away from powerlines. The city is also going to be updating our 2 outdoor warning sirens (located on the water tower and on a light pole by the bar). Both need repairs to ensure they are functioning.

## INCREASE IN VULNERABILITY

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

The only thing new in our community is a new city shop and some new grain bins. We have not had any increase in development.

## **PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

### 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 send out a newsletter on a monthly basis.

### 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?*

As of right now we have not done anything with this, but it is something we could include in our city newsletter.

### **LOCAL PLANS & AUTHORITIES**

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

The city has a sump pump ordinance that we enforce to reduce stress on the city's stormwater system.

### **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

We are a small city of about 200. We have a city clerk, city council, mayor, maintenance supervisor and a volunteer fire dept. We work with Jackson County as needed. We are also looking at working with Bollig Engineering in the next year (2024) to start replacing sewers and water lines, stormwater infrastructure for the city.

### **PROGRAMS IN PLACE**

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

The city's volunteer fire dept. tests our warning siren on a regular basis every month. We also take care of snow removal for city streets.

### **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 uses its own funding for projects such as stormwater management. We are working on obtaining outside grant funding to work with Bollig Engineering.

## **PART C: LOCAL MITIGATION PROJECTS**

### **LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address the local vulnerabilities you have identified.*

Continue to maintain the city's outdoor warning sirens and do an upgrade if necessary.

Proceed with work with Bollig Engineering to address upgrades to the city's sewer and water lines.

Use the city newsletter to encourages to sign for the county emergency notifications system and to be prepared for severe events.

Follow up with Jackson County and the MN DNR about the city's NFIP status and getting enrolled and developing a floodplain ordinance.

### **GAPS OR DEFICIENCIES**

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

We are small city with a limited budget and staff.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION**

### **Does your community participate in the NFIP?**

No, the city does not participate in the NFIP but we are noted as having FEMA mapped high risk areas.

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.**

We experience some drainage issues with high rain events, but the city has no knowledge of the NFIP or mapped floodplain area.

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

#### **1. NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**

- Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

N/A

- Provide the adoption date of your **current** floodplain ordinance.

N/A

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

N/A

#### **2. Contacts. Please provide names and emails for your:**

- Floodplain Administrator – N/A
- Engineering Contact (optional)

- Additional Floodplain Contact (optional)

**3. As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.**

- Do you know of any existing buildings in the FEMA mapped floodplain?

No

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in [the DNR sample form](#)) -please attach or link the form.

No

- Have you reviewed the [Local Official Playbook](#) substantial improvement/substantial damage ?

No

### **PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Tamara Vortherms, City Clerk, 1 hr.

# Jackson County

## LOCAL MITIGATION SURVEY

Please fill out the Jurisdiction and Point of Contact information and Parts A, B, C, D, and E of this survey. Please be as specific as possible 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 WILDER

**Point of Contact:**

Name: Ms. Lou Masters  
 Job Title: City Clerk  
 Phone: 507-831-2032  
 Email: [lou.masters2012@gmail.com](mailto:lou.masters2012@gmail.com)

**PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS**

**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 natural hazards that pose the greatest risk to your jurisdiction.	Please indicate if the hazard is of high, moderate, or low priority.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	High	No change
Tornadoes	X	High	No change
Windstorms	X	High	No change
Lightning	X	High	No change
Hail	X	High	No change
Flooding			
Extreme Cold			
Extreme Heat			
Drought	X	Moderate	No change
Wildfire			
Landslides			
Dam Failure			

**RECENT HAZARD EVENTS**

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

It has been over 5 years since our last disaster. We have nothing of significance to report since that time outside of standard winter storms and summer storms.

**LOCAL VULNERABILITIES**

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Windstorms, Winter Storms	Wilder is vulnerable to windstorms/hail/tornadoes/ice storms/blizzards to homes and property.

**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 underway that reduces future risk.*

Wilder is in the process of applying for funding for a sewer system desperately needed for our city. We have residents where their septic systems don't function and their property does not have enough area for new construction of a septic system.

**INCREASE IN VULNERABILITY**

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

Wilder has a need for assistance for senior residents during a disaster event.

**PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT**

**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.*

Wilder posts information on our city bulletin board.

**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?*

Wilder will post emergency notifications and also Jackson County Sheriff's Office makes contact.

## **LOCAL PLANS & AUTHORITIES**

*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.*

Wilder enforces a building code. We have limited funds for growth.

## **STAFF & PARTNERSHIPS**

*Please describe what staff or 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.*

Wilder contracts with the City of Windom (5 miles east) for fire protection. Jackson County emergency manager assists Wilder as needed.

## **PROGRAMS IN PLACE**

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

Wilder receives contact from Jackson County Sheriff's Office on weather alerts.

## **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 Wilder operates on minimal funding available to maintain throughout the city.

## **PART C: LOCAL MITIGATION PROJECTS**

### **LOCAL MITIGATION PROJECTS**

*Please describe mitigation actions that would help to reduce risk to your community from future hazard events. Please consider mitigation activities that address the local vulnerabilities you have identified.*

Wilder is in the process of seeking a siren upgrade.

### **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 local mitigation projects.

## **PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION**

**Does your community participate in the NFIP?**

No. The city does not have FEMA mapped high risk areas.

**If NO, and your community is in a FEMA mapped area, please describe why the community does not participate in the NFIP.**

N/A.

**If YES (your community participates NFIP), please provide descriptive information on how your community works to meet NFIP requirements below:**

**1. NFIP. Adoption of NFIP minimum floodplain management criteria via local regulation.**

- Provide the **original date of a floodplain ordinance adoption** for NFIP enrollment. [for implementation and enforcement of local floodplain management regulations to regulate and permit development in Special Flood Hazard Areas]

N/A

- Provide the adoption date of your **current** floodplain ordinance.

N/A

- Provide the effective date of your **current** floodplain ordinance (usually when it has been published publicly).

N/A

**2. Contacts. Please provide names and emails for your:**

- Floodplain Administrator – N/A
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

**3. As part of the new hazard mitigation plan requirements, your community must demonstrate that you know the process to implement substantial improvement/substantial damage provisions of their floodplain management regulations after an event. These questions will help us meet those requirements.**

- Do you know of any existing buildings in the FEMA mapped floodplain?

No

- Does your community use a form to track cumulative improvements and repetitive losses in the floodplain (for example see Evaluating Cumulative Improvements and Cumulative Damages section in [the DNR sample form](#)) -please attach or link the form.

No

- Have you reviewed the [Local Official Playbook](#) substantial improvement/substantial damage ?

No

### **PART E: SURVEY PARTICIPANTS**

*Please list the names & titles of all persons that contributed information to this survey. Also provide an approximate amount of time of their participation.*

Lou Masters, City Clerk, 1 hour

Mayor Myrvold, 1 hour

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

# Jackson County

## HMP Plans & Programs in Place Form

EMERGENCY PLANNING CAPABILITIES	Yes/No	Comments
Emergency Mass Notification System	Yes	Regroup Emergency Notification System and IPAWS
Outdoor Warning Sirens	Yes	Alpha (1), Heron Lake (2), Jackson (6), Lakefield (3), Okabena (1), and Wilder (1). Sirens are also located at Brown South Park, Fish Lake, and Clear Lake.
Emergency Operations Plan (EOP)	Yes	County EOP is updated annually
Mass Care Sheltering Plan / List of Shelter Facilities	Yes	Addressed in EOP
Tornado Safe Rooms / Storm Shelters	No	Local vulnerabilities are addressed in coordination with schools & jurisdictions
NWS Weather Ready Nation / StormReady Certification	Yes	Jackson County is a registered NOAA Weather Ready Ambassador
Coordination with Schools	Yes	Tornado Drills, other trainings
Coordination with Neighboring County/Tribal Jurisdictions	Yes	HSEM Region 5 regional planning & exercises annually
Coordination with Local / Regional Agencies involved in mitigation	Yes	SWCD, MN DNR, MnDOT, Rural and Municipal Electric Cooperatives
Coordination with organizations or agencies addressing disaster related issues and vulnerable populations, emergency preparedness, access and functional needs populations	Yes	Des Moines Valley Health and Human Services (DVHHS), American Red Cross, Salvation Army
Hazard data and information	Yes	Damage information on file from past storm events and disaster declarations

<i>Other (please describe)</i>	Yes	DVHHS has preparedness plans in place
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<b>PLANNING &amp; REGULATORY CAPABILITIES</b>	<b>Yes/No</b>	<b>Comments</b>
Comprehensive/Land Use Plan	Yes	Jackson County Comprehensive Plan (2010)
Capital Improvements Plan	Yes	Jackson County CIP (2021-2025)
Economic Development Plan	No	
Climate Adaptation Plan	No	
Continuity of Operations Plan (COOP)	Yes	Jackson County Emergency Management (lead)
Transportation Plan (Roads, Bridges, Culverts, Ditches)	Yes	5-year Transportation Plan, Public Works Dept.
Stormwater Management Plan / Drainage Plan	Yes	Section 721 of the development code includes a small section dealing with stormwater standards. Drainage planning is under the Jackson County Drainage Authority
Burning Permits/Restrictions	Yes	Jackson County Sheriff's Office
Comprehensive Local Water Management Plan	Yes	Jackson County participates in the Watonwan Watershed Management Plan and the Des Moines River Comprehensive Watershed Management Plan
Watershed Plan (One Watershed, One Plan)	Yes	Jackson County participates in the Missouri River Watershed 1W1P

Wellhead Protection Plan	No	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	
<i>Other (please describe)</i>		

<b>LOCAL POLICY / PROGRAM CAPABILITIES</b>	<b>Yes/No</b>	<b>Comments</b>
Land Use, Planning, & Zoning Ordinance	Yes	Jackson County Code of Ordinances
Subdivision Ordinance	Yes	Jackson County Code of Ordinances – Subdivision Regulations
Building Codes	Yes	Jackson County Planning and Zoning adheres to the MN State Building Code
National Flood Insurance Program (NFIP)	Yes	Jackson County NFIP entry date 01/02/81
Flood insurance rate maps	Yes	Existing FIRM maps. Jackson County is not on the long term list for digital map updates.
Floodplain Ordinance	Yes	Jackson County Zoning Ordinance, Section 609 - Floodplain District
Shoreland Ordinance	Yes	Jackson County Zoning Ordinance, Section 610 - Shoreland Zoning District
Minnesota Buffer Law / Soil Erosion Ordinance	Yes	Buffer Law is enforced by Jackson SWCD in coordination with Jackson County Land Management Dept.
Home Buyouts for flood or erosion mitigation	No	
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>		

<b>ADMINISTRATIVE/TECHNICAL CAPABILITIES</b>	<b>Yes/No</b>	<b>Comments</b>
Emergency Management Director	Yes	Jackson County Emergency Management Dept.
Sheriff/Police Department	Yes	Jackson County Sheriff's Office
Floodplain Administrator	Yes	Jackson County Land Management
Chief Building Official	No	
County Engineer	Yes	Jackson County Public Works Dept.
Mapping Specialist (GIS)	Yes	Jackson County GIS Dept.
Public Health Coordinator/Department	Yes	Jackson County Public Health Dept.
Planning Commission	Yes	Jackson County Planning and Zoning Commission
Soil and Water Conservation District	Yes	Jackson SWCD
Minnesota Department of Natural Resources	Yes	MN DNR coordination as needed
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>Yes/No</b>	<b>Comments</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**

# Jackson County

## Past Mitigation Action Review Status Report

Following is a report on the status of mitigation actions related to natural hazards included in the Jackson County 2016 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 future implementation. This report covers the mitigation actions that were listed for implementation by the county and by city jurisdictions, as applicable.

Hazard	Mitigation Action	Responsibility	Status	Comments
Severe Storms & Extreme Temperatures	Educate county residents on the importance and need of adequate supply of emergency shelters and safe rooms.	EM, LAW, All Cities, JCPW, Sch	Ongoing	JCEM and local government continue to educate residents on severe weather awareness safety including information shelters/safe rooms as needed.
Severe Storms & Extreme Temperatures	Educate county residents on where emergency shelters are located.	EM, All Cities, JCA, RC, JCPW	Delete	This falls under emergency response – public information in the event emergency shelters need to be activated.
Severe Storms & Extreme Temperatures	Have staff at the schools, hospitals, and nursing homes trained for severe weather emergency response.	EM, Sch, Hosp, All Cities, LAW	Ongoing	JCEM conducts this outreach as part of the NWS severe weather awareness weeks.
Severe Storms & Extreme Temperatures	Have county citizens become better notified of severe weather conditions and precautions they should take.	EM, DVHHS, LAW, All Cities, Sch	Ongoing	JCEM and local jurisdictions continue to encourage residents to sign up for Jackson County’s ReGroup Emergency Notification System and JCEM Facebook page.
Severe Storms & Extreme Temperatures	Have designated tornado and winter storm shelters and safe rooms in town for people with no appropriate shelter.	EM, LMO, LAW, All Cities	Ongoing	JCEM continues to work with local jurisdictions to identify where storm shelters or tornado safe rooms are needed. JCEM continues to address shelter planning in the event of an extended power outage with severe cold from a winter storm.

Hazard	Mitigation Action	Responsibility	Status	Comments
Severe Storms & Extreme Temperatures	Have a backup generator for winter electric failure to insure proper heating of designated shelters, safe rooms, and homes.	EM, LAW, EMT, Fire, All Cities, JCPW, PU	Ongoing	JCEM and local jurisdictions continue to identify and address where backup power is needed to support critical infrastructure and services. Local residents are encouraged to have their own backup generators in place.
Severe Storms & Extreme Temperatures	Ensure all severe weather sirens have a back-up power source.	EM, All Cities, JCPW, LAW	Ongoing	Local jurisdictions that own their warning sirens are responsible to ensure backup power is in place.
Severe Storms & Extreme Temperatures	Ensure proper siren coverage within Jackson County.	EM, All Cities, JCPW, LAW	Ongoing	JCEM continues to work with local jurisdictions to evaluate where new sirens may be needed. JCEM tests all sirens connected to the county system on a monthly basis to ensure they are functioning.
Drought	Ensure accurate inventories of the recharge rates and capacities of Jackson County's aquifers are recorded.	LMO, SWCD, BWSR, ALL Cities, RWS	Delete	Not an activity under the responsibility of Jackson County. The MN DNR issues the pumping permits for wells. They also have the right to suspend the permit during drought.
Drought	Educate the public and private leaders of the importance of wellhead protection and water conservation in times of low rainfall.	EM, AL, OK, WD, LMO	Ongoing	Jackson County continues to encourage all cities to work with MPCA on the development of wellhead protection plans. During periods of drought JCEM and local jurisdictions promote public awareness of drought conditions and water conservation measures as per MN DNR guidelines.
Drought	Ensure all cities within Jackson County have the capability to restrict water use.	All cities	Ongoing	Jackson County and local jurisdictions follow MN DNR guidelines on establishing an ordinance establishing watering restrictions
Wildfire	Partnership between landowners that limits the potential for wildfires to spread through the establishment of fire breaks.	EM, JCPW, Fire, Townships	Delete	Wildfire deemed a low priority for Jackson County and not included in HMP update.

Hazard	Mitigation Action	Responsibility	Status	Comments
Wildfire	Maintain existing mutual aid agreements.	EM, Fire, LAW, All Cities	Delete	Wildfire deemed a low priority for Jackson County and not included in HMP update.
Wildfire	Ensure water access in rural areas is faster and efficient. / Install dry hydrant at Clear Lake and Loon Lake	EM, Fire, DNR	Delete	Wildfire deemed a low priority for Jackson County and not included in HMP update.
Flooding	Ensure that any future developments constructed within Jackson County and each city within the county are located outside of 100-year flood plains.	LMO, EM, CJ, FEMA	Ongoing	Jackson County and jurisdictions with mapped flood risk hazard areas are encouraged to participate in the NFIP and establish floodplain ordinances to regulate where development can occur.
Flooding	Work with cities to implement best practices in regards to inflow and infiltration	All Cities, MPCA, FEMA	Ongoing	Local level mitigation action for jurisdictions.
Flooding	Update the Flood Insurance Rate Maps covering Jackson County.	DNR, OK, CJ, JCPW, LMA	Ongoing	Jackson County works with the MN DNR floodplain program on ensuring DFIRM maps are up to date.
Flooding	Structures in floodplains should be identified for inclusion in acquisition, relocation, or elevation projects to reduce flooding risk.	LMO, CJ, OK, DNR, EM, LMO	Ongoing	Jackson County and local jurisdictions will continue to address mitigation projects such as buyouts for properties that suffer repetitive flood damages.
Flooding	Ensure developments in the flood hazard areas follow best practices to minimize risk.	LMO, CJ, OK, DNR, EM	Ongoing	Jackson County and local jurisdictions address this through local planning & zoning and ordinances.
Flooding	Promote a buffer system along creeks and streams that are prone to flooding (Grass Strips, CRP, RIM, etc.).	LMO, SWCD, BWSR, MPCA	Ongoing	This work primarily falls under the work of the Jackson SWCD, which works in concert with the county and local communities as needed.
Flooding	Determine the risk of flooding along the Des Moines River in Jackson County.	CJ, DNR, LMO	Ongoing	During periods of high rain the Des Moines River continues to be monitored for risk of flooding.
Flooding	Have communities within the one percent floodplain participate in the NFIP.	All Cities	Ongoing	Jackson County and cities with mapped flood risk areas participate in the NFIP.
Flooding	Discourage development in the flood hazard areas.	LMO, CJ, OK, DNR	Ongoing	This falls under the county and local floodplain & shoreland ordinances.

Hazard	Mitigation Action	Responsibility	Status	Comments
<p>All-Hazards (Utility Failure)</p>	<p>Eliminate or reduce the effect of utility failures that occur within Jackson County.</p> <p>Ensure critical facilities have redundant service in case of utility failure.</p> <p>Ensure that citizens living in their own home dependent on oxygen or respiration assistance have access to backup power or alternative life support.</p>	<p>EM, All Cities, PU, JCPW, DVHHS</p>	<p>Ongoing</p>	<p>Rural and electric cooperatives continue to determine to identify and address mitigation measures for reducing power outages, such as converting OH powerlines to UG where feasible.</p> <p>The county and local jurisdictions continue to address where backup power is needed to supply power to critical facilities and to purchase generators.</p> <p>JCEM and local jurisdictions work to conduct outreach to residents on severe weather preparedness. Residents who are more vulnerable to a power outage are responsible to address securing their own backup power supply.</p>

# **Appendix F – Planning Team Meetings**

## Jackson County HMP Update

### **Appendix F – Kickoff Meeting Documentation**

#### **Overview:**

On July 19, 2022, U-Spatial@UMD hosted a kickoff meeting online that was attended by the Jackson 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 2022-2023 Multi-Hazard Mitigation Plan Update Project Overview"
- **Webinar Slides:** "Minnesota 2022-2023 Multi-Hazard Mitigation Plan Update Project Kickoff Orientation Webinar"

# Minnesota 2022-2023 Multi-Hazard Mitigation Plan Update Project Overview

During 2022-2023, U-Spatial at the University of Minnesota Duluth (U-Spatial@UMD) will be working to update Multi-Hazard Mitigation Plans (MHMPs) for 5 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

Jackson, Kittson, Marshall, Pope, and Red Lake counties. Cities within each county are required to participate in the planning process.

## Overview of Update Process

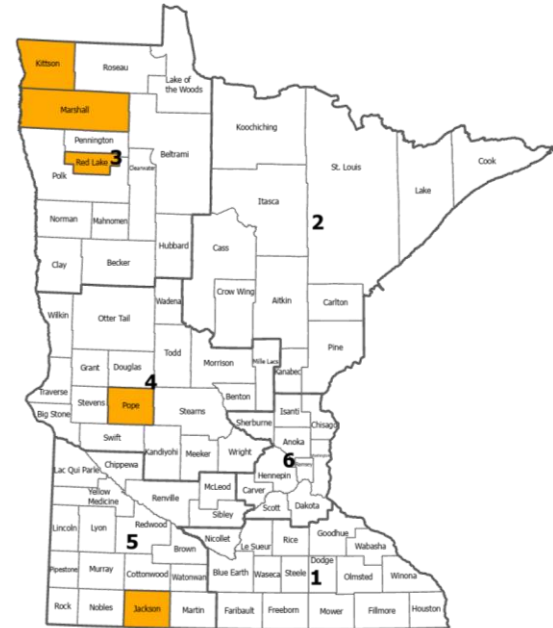
The U-Spatial@UMD team will coordinate with each Emergency Manager throughout the plan update process to engage participating jurisdictions and other stakeholders in the planning process. Following is an overview of key tasks that the U-Spatial@UMD team will facilitate to meet FEMA requirements in the 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 that meets FEMA MHMP 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 MHMP 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, EM's are required to submit quarterly reports to HSEM on their local 25% match accrued through MHMP activities during that quarter.

# Minnesota 2022-2023 Multi-Hazard Mitigation Plan Update Project Kick-off Orientation Webinar



## Webinar Purpose & Goals

The purpose of this webinar is to provide an orientation for Emergency Managers participating in 2022-2023 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 Lindelof  
Project Coordinator, Communications Specialist  
U-Spatial@UMD

### Emergency Managers:

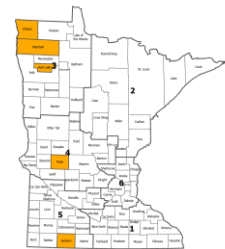
- Name, Title, and Jurisdiction
- Past Experience with MHMP?

### Minnesota HSEM:

Jennifer Davis, MN HSEM  
State Hazard Mitigation Officer

## Project Overview

- 5 Counties:**  
**Jackson**  
**Kittson**  
**Marshall**  
**Pope**  
**Red Lake**



## Why U-Spatial@UMD?

### ➤ Proven experience

Our updates of 30+ 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

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

- 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

## Timeline Overview

- 18-Month total timeline (June 2022 – December 2023)
- 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
<b>Stage 1 Tasks (4-5 months)</b>	June – November 2022	HMP Kickoff meeting/webinar with U-Spatial@UMD Develop jurisdictional contact list for MHMP planning team Disseminate & document News Release #1 Hold & document Planning Team Meeting #1 Complete Plans & Programs in Place Checklist Complete Capabilities Assessment to address natural hazards Conduct a Past Mitigation Action Review from prior plan Complete Local Mitigation Surveys Revisit prioritization of natural hazards that pose risk Assist U-Spatial@UMD with provision of key data Complete inventory of Critical Infrastructure
<b>Stage 2 Tasks (4-6 months)</b>	December 2022 – May 2023	Develop 5-year Jurisdictional Mitigation Action Charts Hazus hazard risk assessment for flooding Develop hazard profiles for each natural hazard Complete county profile sections and maps Complete Draft Plan
<b>Stage 3 Tasks (2-3 months)</b>	June – August 2023	EM review of Draft Plan Hold & document Planning Team Meeting #2 Finalize Mitigation Action Charts Disseminate & document News Release #2 EM coordination of plan review by stakeholders
<b>Stage 4 Tasks (2-3 months)</b>	September - November 2023	Post-public review revisions made to plan (as necessary) Draft Plan sent to HSEM for review & approval Draft Plan sent to FEMA for review & approval

## Next Steps

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

**Notes:**

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

## Questions?

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

## Contact Information

Stacey Stark, MS, GISP

**U-Spatial@UMD**

[slstark@d.umn.edu](mailto:slstark@d.umn.edu)

218-726-7438

Example Plans:

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

# Jackson County HMP Update

## JURISDICTIONAL CONTACT LIST

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### COUNTY CONTACTS

Name	Title	Phone	Email
Gary Reif	Emergency Management Director	507-847-4420	<a href="mailto:gary.reif@co.jackson.mn.us">gary.reif@co.jackson.mn.us</a>
Shawn Haken	Sheriff	507-847-4420	<a href="mailto:Shawn.haken@co.jackson.mn.us">Shawn.haken@co.jackson.mn.us</a>
Dan Bartosh	Director – Environmental Services, Land Management/SWCD	507-662-6682, ext. 4	<a href="mailto:LMO@co.jackson.mn.us">LMO@co.jackson.mn.us</a>
Tim Stahl	Public Works Dept., County Engineer/Parks	(507) 847-2525	<a href="mailto:engineer@co.jackson.mn.us">engineer@co.jackson.mn.us</a>
Karla Abrose	County Assessor	507-847-4033	<a href="mailto:assessor@co.jackson.mn.us">assessor@co.jackson.mn.us</a>
Kevin Nordquist	County Auditor/Treasurer	(507) 847-2763	<a href="mailto:auditor@co.jackson.mn.us">auditor@co.jackson.mn.us</a>
Jeremy Bartosh	Parks & Trails Supervisor	507-849-7251	<a href="mailto:JCP@co.jackson.mn.us">JCP@co.jackson.mn.us</a>
Ryan Krosch	County Administrator	507-847-4182	<a href="mailto:ryan.krosch@co.jackson.mn.us">ryan.krosch@co.jackson.mn.us</a>
Jared Baloun	GIS Director	507-847-7253	<a href="mailto:jared.baloun@co.jackson.mn.us">jared.baloun@co.jackson.mn.us</a>
Scott McClure	District 1, County Commissioner	712-330-4576	<a href="mailto:Scott.McClure@co.jackson.mn.us">Scott.McClure@co.jackson.mn.us</a>
Don Wachal	District 2, County Commissioner	507-841-1827	<a href="mailto:Don.Wachal@co.jackson.mn.us">Don.Wachal@co.jackson.mn.us</a>
Roger Pohlman	District 3, County Commissioner	507-822-8866	<a href="mailto:Roger.pohlman@co.jackson.mn.us">Roger.pohlman@co.jackson.mn.us</a>
Phil Nasby	District 4, County Commissioner	507-841-2336	<a href="mailto:Phil.Nasby@co.jackson.mn.us">Phil.Nasby@co.jackson.mn.us</a>
James Eigenberg	District 5, County Commissioner	507-360-5331	<a href="mailto:James.Eigenberg@co.jackson.mn.us">James.Eigenberg@co.jackson.mn.us</a>

### CITY CONTACTS

#### CITY OF ALPHA (102)

Name	Title	Phone	Email
Cassie Westfall	City Clerk/Treasurer	(507) 847-3557	<a href="mailto:alphacity@yourstarnet.net">alphacity@yourstarnet.net</a>
Tim Cain	Mayor	(507) 840-1783	
John Ingebrigtsen	Fire Chief	(507) 841-0483	<a href="mailto:curtisendreson81@gmail.com">curtisendreson81@gmail.com</a>

#### CITY OF HERON LAKE (585)

Name	Title	Phone	Email
Stacy Grube	City Clerk/Treasurer	(507) 793-2826	<a href="mailto:cityoffice@heronlakecity.org">cityoffice@heronlakecity.org</a>
Andrew Rasche	Mayor	(507) 793-0006	<a href="mailto:cityoffice@heronlakecity.org">cityoffice@heronlakecity.org</a>
Chad Diemer	Fire Chief	(507) 220- 3405	<a href="mailto:diemcd@swwnet.com">diemcd@swwnet.com</a>
Joe Liepold	Ambulance Director	(507)822-0554	<a href="mailto:Joe.liepold@gmail.com">Joe.liepold@gmail.com</a>

CITY OF JACKSON (3,305)

Name	Title	Phone	Email
Matt Skaret	City Administrator	(507) 847-4410	<a href="mailto:mskaret@cityofjacksonmn.com">mskaret@cityofjacksonmn.com</a>
Marcus Polz	Mayor	(507) 841-2348	<a href="mailto:mayor@cityofjacksonmn.com">mayor@cityofjacksonmn.com</a>
Dave Bond	Fire Chief	507-236-7804	<a href="mailto:jfd@cityofjacksonmn.com">jfd@cityofjacksonmn.com</a>

CITY OF LAKEFIELD (1,692)

Name	Title	Phone	Email
Stacy Anderson	City Clerk	(507) 662-5457	<a href="mailto:clerk@lakefieldmn.com">clerk@lakefieldmn.com</a>
Steve Condon	Mayor	(507) 840-0986	<a href="mailto:mayor@lakefieldmn.com">mayor@lakefieldmn.com</a>
Tim Bauman	Fire Chief	(507) 840-0630	<a href="mailto:tim@kozyheat.com">tim@kozyheat.com</a>
Roger Pohlman	Police Chief	(507) 662-5353	<a href="mailto:pdchief@lakefieldmn.com">pdchief@lakefieldmn.com</a>
Jeremy Fricke	Ambulance Director	(507) 605- 6818	<a href="mailto:jfricke@frontiernet.net">jfricke@frontiernet.net</a>

CITY OF OKABENA (199)

Name	Title	Phone	Email
Tamara Vortherms	City Clerk	(507) 853-4500	<a href="mailto:okabenacity@gmail.com">okabenacity@gmail.com</a>
Brent Groen	Mayor	(507) 360-5644	

CITY OF WILDER (63)

Name	Title	Phone	Email
Louetta Masters	City Clerk/Treasurer	(507) 831-2032	<a href="mailto:lou.masters2012@gmail.com">lou.masters2012@gmail.com</a>
Tom Myrvold	Mayor	(507) 822-1165	

TOWNSHIP CONTACTS

Name of Township	Name & Title	Phone	Email
Alba Township	Dale Bartosh	(507) 360-7778	<a href="mailto:jcriverrat@yahoo.com">jcriverrat@yahoo.com</a>
Belmont Township	Andy Peterson	(507) 840-1623	<a href="mailto:peterman52@gmail.com">peterman52@gmail.com</a>
Christiania Township	Paul Johnson	(507) 822-2976	<a href="mailto:paul.johnson@co.jackson.mn.us">paul.johnson@co.jackson.mn.us</a>
Delafield Township	Rick Nelson	(507) 830-0725	<a href="mailto:rbnelson55@icloud.com">rbnelson55@icloud.com</a>
Des Moines Township	Paul Cihak	(507) 920-7538	<a href="mailto:paccihak@frontiernet.net">paccihak@frontiernet.net</a>
Enterprise Township	Gary Beseke	(507) 840-0527	<a href="mailto:beseke@trucking@yahoo.com">beseke@trucking@yahoo.com</a>
Ewington Township	Tim Baumgard	(507) 360-2166	<a href="mailto:tbaumgard@hotmail.com">tbaumgard@hotmail.com</a>
Heron Lake Township	Kyle Thaemlitz	(507) 840-0550	<a href="mailto:kylethaemlitz@gmail.com">kylethaemlitz@gmail.com</a>
Hunter Township	Craig Rubis	(507) 840-0254	<a href="mailto:rubis@frontiernet.net">rubis@frontiernet.net</a>
Kimball Township	Richard Peterson	(952) 237-9813	<a href="mailto:mrcorn61@gmail.com">mrcorn61@gmail.com</a>
La Crosse Township	Jeremy Bartosh	(507) 841-1611	<a href="mailto:jeremy.bartosh@co.jackson.mn.us">jeremy.bartosh@co.jackson.mn.us</a>
Middletown Township	Mark Edlin	(507) 841-1225	<a href="mailto:mpedlin@gmail.com">mpedlin@gmail.com</a>
Minneota Township	Mike Bisailon	(605) 659-5768	<a href="mailto:bighillfarms@gmail.com">bighillfarms@gmail.com</a>
Petersburg Township	Tom Morton	(507) 841-1816	<a href="mailto:tmorton9660@gmail.com">tmorton9660@gmail.com</a>
Rost Township	John Nauwerth III	(507) 841-0085	<a href="mailto:proplock@federatedwildblue.com">proplock@federatedwildblue.com</a>
Round Lake Township	Bruce Ihnen	(712) 330-3858	<a href="mailto:brru82@gmail.com">brru82@gmail.com</a>
Sioux Valley Township	Kevin Place	(507) 841-2640	<a href="mailto:kevincindyplace@gmail.com">kevincindyplace@gmail.com</a>
Weimer Township	Jason Diemer	(507) 360-1077	<a href="mailto:jadiemer@outlook.com">jadiemer@outlook.com</a>
West Heron Lake Township	Regan Lueck	(507) 360-4894	<a href="mailto:klueck@frontiernet.net">klueck@frontiernet.net</a>
Wisconsin Township	Neal Perkins	(507) 841-0928	<a href="mailto:neal_perkins@msn.com">neal_perkins@msn.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	Mark Marcy, HSEM Region 5 Regional Program Coordinator	612-619-6115	<a href="mailto:Mark.Marcy@state.mn.us">Mark.Marcy@state.mn.us</a>
Natural Resources Conservation Service (NRCS)	Catherine Wegehaupt, Soil Conservationist	507-662-6682 ext 3	<a href="mailto:Catherine.wegehaupt@usda.gov">Catherine.wegehaupt@usda.gov</a>
USDA Rural Development Community Programs	Edward Gilmore, Area Specialist	507-332-7418, ext. 115	<a href="mailto:edward.gilmore@usda.gov">edward.gilmore@usda.gov</a>
MnDOT District 7	Greg Ous, District 7 Engineer	507-304-6101	<a href="mailto:greg.ous@state.mn.us">greg.ous@state.mn.us</a>
MN DNR Ecological and Water Resources Division	Tom Kresko, Region 4 South Area Hydrologist	507-832-6045	<a href="mailto:Tom.Kresko@state.mn.us">Tom.Kresko@state.mn.us</a>

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

Name of Agency / Organization	Name & Title	Phone	Email
Salvation Army	Kim Schwich, Service Representative, SW MN	507-258-3923 (office) 320- 212-8885 (Cell)	<a href="mailto:Kim.schwich@usc.salvationarmy.org">Kim.schwich@usc.salvationarmy.org</a>
American Red Cross	Rod Byam, Mass Care Supervisor, SW MN	507-822-3882	<a href="mailto:rdbyam@yahoo.com">rdbyam@yahoo.com</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
Southwest Initiative Foundation	Khou Lor, Rural Equity Specialist	(320) 583-6579	<a href="mailto:khoul@swifoundation.org">khoul@swifoundation.org</a>
Federated Rural Electric	Matt (George) Madden, Assistant Operations Manager	507-236-6170	<a href="mailto:madden@federatedrea.coop">madden@federatedrea.coop</a>
Southwest Regional Development Commission	Jayme Trusty, Executive Director	507-836-1636	<a href="mailto:execdir@swrdc.org">execdir@swrdc.org</a>
Minnesota West College	Tammy Ling, Business Office Contact	507-853-4507	<a href="mailto:Tammy.ling@mnwest.edu">Tammy.ling@mnwest.edu</a>
Jackson County Central Schools	Barry Schmidt, Superintendent	507-847-3608	<a href="mailto:Barry.schmidt@jccschools.net">Barry.schmidt@jccschools.net</a>
Heron Lake-Okabena Schools	Paul Bang, Superintendent	507-853-4507	<a href="mailto:Paul.bang@isd330.org">Paul.bang@isd330.org</a>

**NEIGHBORING JURISDICTIONS**

<b>Name of Jurisdiction</b>	<b>Name &amp; Title</b>	<b>Phone</b>	<b>Email</b>
Murray County	Carl Nyquist, Emergency Management Director	(507) 836-1111	<a href="mailto:cnyquist@co.murray.mn.us">cnyquist@co.murray.mn.us</a>
Nobles County	Tawn Hall, Emergency Management Director	(507) 295-5212	<a href="mailto:thall@co.nobles.mn.us">thall@co.nobles.mn.us</a>
Cottonwood County	Paul Johnson, Emergency Management Director	(507) 832-8255	<a href="mailto:paul.johnson@co.cottonwood.mn.us">paul.johnson@co.cottonwood.mn.us</a>
Watonwan County	Ryan Visher, Emergency Management Director	(507) 375-5841	<a href="mailto:ryan.visher@co.watonwan.mn.us">ryan.visher@co.watonwan.mn.us</a>
Martin County	Ben Johnson, Emergency Management Director	(507) 238-3193	<a href="mailto:Ben.johnson@co.martin.mn.us">Ben.johnson@co.martin.mn.us</a>

**LOCAL MEDIA CONTACTS**

<b>Name of Local Media</b>	<b>Media Contact</b>	<b>Phone</b>	<b>Email</b>
Jackson County Pilot	Justin R. Lessman, Publisher	(507) 847-3771	<a href="mailto:justinl@livewireprinting.com">justinl@livewireprinting.com</a>
KKOJ Radio	Main Office	(507) 847-5400	<a href="mailto:contact@exploreokoboji.com">contact@exploreokoboji.com</a>

# Jackson County MHMP Planning Team Meeting #1

## 9/29/2022 - Meeting Summary & Documentation

**Summary:** On Thursday, September 29, 2022 Jackson 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 Jackson County Multi-Hazard Mitigation Plan (MHMP). The purpose of the meeting was to formally present information about the Jackson County MHMP 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:** Jackson County Emergency Management invited all stakeholders included on the county's MHMP 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*.

**Meeting Participants:** A total of **27** people attended the meeting. Representation included elected officials and departmental staff from Jackson County and the cities of Alpha, Heron Lake, Jackson, and Lakefield. The cities of Okabena and Wilder were unable to attend due to staff capacity. Other stakeholders, including neighboring jurisdictions, participated in the meeting. A participant list is included with this meeting summary.

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

- Overview of Hazard Mitigation & the MHMP Update
- Who the Plan Covers & Role of the Planning Team
- Review of Hazards + Overview of Risk Assessment and Vulnerability Analysis
- Update of Risk Priorities
- Review of Mitigation Strategies & Example Actions
- Overview of FEMA HMA grant program
- Discussion of local mitigation ideas
- Discussion of next steps & answer your questions.

**Participant Poll:** At the start of the meeting participants were presented with an interactive poll asking "Have you participated in Hazard Mitigation Planning previously?" Following are the poll results:

- Yes, I have previously participated in in a hazard mitigation planning process. **(8/22) 36%**
- No, but I am familiar with hazard mitigation planning. **(7/22) 32%**
- No, and this is all new to me. **(7/22) 32%**

**Prioritization of Natural Hazards:** The planning team was presented with an overview of each of the natural hazards that were covered in the county's last plan and the risk prioritization at that time. Considerations for the current risk prioritization since the last plan was presented for each hazard, such as events recorded since the last plan, NCEI Storm Data, or known existing local vulnerabilities (i.e., number of mobile home parks). It was noted to participants that:

- Hazards deemed to be of high or moderate risk must result in mitigation actions to address them for the jurisdictions that are affected.
- Hazard prioritization may vary for jurisdictions or may not differ countywide.
- Hazards deemed to be low risk and without significant mitigation actions may be dropped from the plan. This excludes the hazard of Dam/Levee failure, which must be addressed per new FEMA guidelines, even if risk is deemed low.

Following is a chart reflecting the 2016 risk priorities for Jackson County and any changes to the current risk prioritization for the plan update. This discussion served as an introduction to updating the risk prioritization and will be followed up with further information gathered from the county and local jurisdictions during the planning process. Changes to risk prioritizations are noted in bold.

Hazard	2016 Plan	2022 Plan
Winter Storms	High	High
Extreme Cold	High	High
Tornadoes	High	High
Windstorms	High	High
Drought	Moderate	Moderate
Flooding	Moderate	<b>High</b>
Lightning	Moderate	Low
Hail	Moderate	Moderate
Extreme Heat	Moderate	Moderate
Dam Failure	Low	Low
Wildfire	Low	Low
Landslides	<i>Not Addressed</i>	Low

**Comments, Questions or Mitigation Ideas** – Following are the questions, comments or mitigation ideas that were shared by participants and how they will be addressed for the plan update.

Meeting Participant	Comment, Question or Mitigation Idea Submitted	Facilitator Feedback / How to be Addressed in Plan Update
Roger Pohlman, City of Lakefield Police Chief/EM	<i>Regarding Review of Wildfire Risk:</i> Should wildfire be considered as a sub-category of drought?	Stacey Stark: Wildfire/Wildland Fire is prioritized as a low-risk hazard for Jackson County, however drought is prioritized as moderate. But will include information on the increased risk of wildland fire under the hazard profile on drought.
Shawn Haken, Jackson County Sheriff's Office, County Sheriff	<i>Regarding Review of Wildfire Risk:</i> The MN DNR wildfire data includes those that were intentionally set (arson).	Stacey Stark: Noted; and recapped review of wildfire data remains low for Jackson County and will not need to be included as a hazard profile.
Matt Skaret, City of Jackson City Administrator	<i>Regarding Review of Flooding Risk:</i> We think that flooding should be moved from moderate (2016 plan) to high. This is based on the experiences in 2018-2019 in the city of Jackson and across the county.	Stacey Stark: Noted that the city of Jackson felt the priority of flood risk should be increased for the plan update. This was agreed upon by Gary Reif, Jackson County EMD, noting that flooding is the top priority hazard for the county.

Meeting Participant	Comment, Question or Mitigation Idea Submitted	Facilitator Feedback / How to be Addressed in Plan Update
Paul Johnson, Cottonwood County Emergency Management Director / Christiana Township Clerk	<i>Regarding Review of Flooding Risk:</i> Does the hazard profile for flooding include Flash Flooding? Noted that in Cottonwood County they recently had several flash flooding events that washed out culverts.	Stacey Stark: Yes, the risk assessment for flooding looks at riverine flooding and flash flooding, and also takes into consideration other types of flooding such as localized flooding resulting from an increase in impervious surfaces (i.e., new development).
Roger Pohlman, City of Lakefield Police Chief/EM	<i>Regarding Mitigation Strategy "Structure and Infrastructure Projects":</i> Will sirens fit under the infrastructure retrofit?	Bonnie Hundrieser: The activity of replacing outdoor warning sirens does fit under this strategy, however they are not eligible under the FEMA HMA grant program. A possible alternative funding source in Minnesota is through the USDA Rural Development Community Facilities Grant Program.
Matt Skaret, City of Jackson City Administrator	<i>Regarding FEMA HMA Grant Program Funding and Eligible Activities:</i> How about generators for critical infrastructure like water plants and lift stations? Do they qualify for grants?	Tawn Hall, Nobles County Emergency Management Director: Yes, generators for critical infrastructure qualify.

Following the discussion, participants were encouraged to fill out and return the "Mitigation Ideas" worksheet that they were provided with to Jackson County Emergency Management to submit any specific local concerns and related mitigation ideas. The meeting concluded with an overview of next steps and estimated timeline for completion.

**Attached are the following documentation items for the Jackson County MHMP Meeting #1:**

- 9-29-22 Mtg. #1 Email Invitation
- 9-29-22 Mtg. #1 List of Participants
- 9-29-22 Mtg. #1 Power Point Slides
- 9-29-22 Mtg. #1 Handouts

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

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**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** Jackson County Multi-Hazard Mitigation Plan Update - Meeting Invitation  
**Date:** Monday, August 15, 2022 1:08:16 PM

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## JACKSON COUNTY

### MULTI-HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at a virtual Planning Team Meeting for the update of the **Jackson County Multi-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:** Thursday, September 29, 2022

**Time:** 9:00 a.m. – 11:00 a.m.

**Zoom Link:** [https://umn-private.zoom.us/webinar/register/WN\\_zOu-OjLjQLu6LHQuPzeTlw](https://umn-private.zoom.us/webinar/register/WN_zOu-OjLjQLu6LHQuPzeTlw)

**Please Note:** 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. Please be sure to include the name, title and representation (jurisdiction/agency) for all persons planning to

attend the meeting.

### **About the Plan**

The update of the Jackson County Multi-Hazard Mitigation Plan (MHMP) 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 Jackson County and will result in the identification of mitigation actions 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 projects 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 Jackson 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,

--

*Gary Reif*

Emergency Management Director

Jackson County

507-847-4774

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**From:** [Gary Reif](#)  
**To:** [Gary Reif](#); [Shawn Haken](#); [LMO@co.jackson.mn.us](mailto:LMO@co.jackson.mn.us); [engineer@co.jackson.mn.us](mailto:engineer@co.jackson.mn.us); [assessor@co.jackson.mn.us](mailto:assessor@co.jackson.mn.us); [auditor@co.jackson.mn.us](mailto:auditor@co.jackson.mn.us); [JCP@co.jackson.mn.us](mailto:JCP@co.jackson.mn.us); [Ryan Krosch](#); [Jared Baloun](#); [Scott McClure](#); [Don Wachal](#); [Cathy Hohenstein](#); [Phil Nasby](#); [James Eigenberg](#); [alphacity@yourstarnet.net](mailto:alphacity@yourstarnet.net); [curtisendreson81@gmail.com](mailto:curtisendreson81@gmail.com); [cityoffice@heronlakecity.org](mailto:cityoffice@heronlakecity.org); [Chad Diemer](#); [Joe.liepold@gmail.com](mailto:Joe.liepold@gmail.com); [Matthew Skaret](#); [mayor@cityofjacksonmn.com](mailto:mayor@cityofjacksonmn.com); [jfd@cityofjacksonmn.com](mailto:jfd@cityofjacksonmn.com); [Jackson Ambulance](#); [Kelly Rasche](#); [mayor@lakefieldmn.com](mailto:mayor@lakefieldmn.com); [Tim Baumann](#); [Roger Pohlman](#); [f.j.](#); [okabenacity@gmail.com](mailto:okabenacity@gmail.com); [Lou Masters](#); [jcriverrat@yahoo.com](mailto:jcriverrat@yahoo.com); [peterman52@gmail.com](mailto:peterman52@gmail.com); [rbnelson55@icloud.com](mailto:rbnelson55@icloud.com); [rjmbbezdicek@live.com](mailto:rjmbbezdicek@live.com); [besekestrucking@yahoo.com](mailto:besekestrucking@yahoo.com); [tbaumgard@hotmail.com](mailto:tbaumgard@hotmail.com); [kylethaemlitz@gmail.com](mailto:kylethaemlitz@gmail.com); [rubis@frontiernet.net](mailto:rubis@frontiernet.net); [mrcorn61@gmail.com](mailto:mrcorn61@gmail.com); [Jeremy Bartosh](#); [mpedlin@gmail.com](mailto:mpedlin@gmail.com); [bighillfarms@gmail.com](mailto:bighillfarms@gmail.com); [tmorton9660@gmail.com](mailto:tmorton9660@gmail.com); [proplock@federatedwildblue.com](mailto:proplock@federatedwildblue.com); [brru82@gmail.com](mailto:brru82@gmail.com); [kevincindyplace@gmail.com](mailto:kevincindyplace@gmail.com); [jadiemer@outlook.com](mailto:jadiemer@outlook.com); [klueck@frontiernet.net](mailto:klueck@frontiernet.net); [neal\\_perkins@msn.com](mailto:neal_perkins@msn.com); [Marcy, Mark \(DPS\)](#); [Catherine.wegehaupt@usda.gov](mailto:Catherine.wegehaupt@usda.gov); [edward.gilmore@usda.gov](mailto:edward.gilmore@usda.gov); [greg.ous@state.mn.us](mailto:greg.ous@state.mn.us); [Tom.Kresko@state.mn.us](mailto:Tom.Kresko@state.mn.us); [Kim.schwich@usc.salvationarmy.org](mailto:Kim.schwich@usc.salvationarmy.org); [rdbyam@yahoo.com](mailto:rdbyam@yahoo.com); [khoul@swifoundation.org](mailto:khoul@swifoundation.org); [Bstutzman@uwjackson.org](mailto:Bstutzman@uwjackson.org); [madden@federatedrea.coop](mailto:madden@federatedrea.coop); [execdir@swrdc.org](mailto:execdir@swrdc.org); [Tammy.ling@mnwest.edu](mailto:Tammy.ling@mnwest.edu); [Barry.schmidt@jccschools.net](mailto:Barry.schmidt@jccschools.net); [Paul.bang@isd330.org](mailto:Paul.bang@isd330.org); [Carl Nyquist](#); [Tawn Hall](#); [Paul Johnson](#); [Mark Neilsen](#); [Ben Johnson](#)  
**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** Jackson County Mitigation Planning Meeting Reminder  
**Date:** Friday, September 16, 2022 2:19:26 PM

---

**Greetings,**

**This is an important reminder to please register for the upcoming Jackson County hazard mitigation planning meeting coming up on Thursday, Sept. 29<sup>th</sup>. Information on how to register is provided below. Your community / organization's representation and feedback during this meeting is critical to our plan update and meeting FEMA requirements. If you have not registered already, we hope you will do so.**

**Date: Thursday, September 29, 2022**

**Time: 9:00 a.m. – 11:00 a.m.**

**Zoom Link:** [https://umn-private.zoom.us/webinar/register/WN\\_zOu-OjLjQLu6LHQQuPzeTlw](https://umn-private.zoom.us/webinar/register/WN_zOu-OjLjQLu6LHQQuPzeTlw)

**Please Note: 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. Please be sure to include the name, title and representation (jurisdiction/agency) for all persons planning to attend the meeting.

**Thank you,**

--

*Gary Reif*

Emergency Management Director

Jackson County

## Jackson County

9/29/22 MHMP Planning Team Meeting #1

List of Participants (27)

	<b>First Name</b>	<b>Last Name</b>	<b>Organization</b>	<b>Job Title</b>
1	Gary	Reif	Jackson County Emergency Management	Emergency Management Director
2	Shawn	Haken	Jackson County Sheriff's Office	Sheriff
3	Kelly	Mitchell	Jackson County Sheriff's Office	Chief Deputy
4	Andy	Geiger	Jackson County Land Management	Land Management Director
5	Tim	Stahl	Jackson County Public Works	Public Works Director
6	Wes	Liepold	Jackson County Public Works	Assistant Engineer
7	Jared	Balooun	Jackson Co Public Works GIS	GIS technician
8	Kevin	Nordquist	Jackson County	Auditor
9	Jill	Horn	Jackson County	Chief Deputy Auditor/Treasurer
10	Kelly	Rasche	Jackson County	Drainage Coordinator
11	Ryan	Krosch	Jackson County	County Administrator
12	Cathy	Hohenstein	Jackson County	County Commissioner
13	Don	Wachal	Jackson County	County Commissioner
14	Curtis	Endreson	City of Alpha - Fire Department	Assistant Fire Chief
15	Joe	Liepold	City of Heron Lake - EMS	Ambulance Director
16	Marlys	Olson	City of Heron Lake	City Clerk
17	Matt	Skaret	City of Jackson	City Administrator
18	Chris	Burban	City of Jackson - Ambulance Service	Director
19	Doug	Busch	City of Lakefield	Mayor
20	Roger	Pohlman	City of Lakefield - Police Department	Police Chief
21	John	Nauerth	Rost Township	Chairman
22	Mark	Marcy	MN DPS/HSEM	HSEM Region 5 Regional Program Coordinator
23	Rodney	Byam	American Red Cross	Shelter Supervisor
24	George	Madden	Federated Rural Electric Association	Operations Manager
25	Paul	Johnson	Cottonwood County/Christiania Township	EM Director/Township Clerk
26	Ben	Johnson	Martin County Emergency Management	Emergency Management Director
27	Tawn	Hall	Nobles County Emergency Management	EM Director/ Deputy Administrator

# JACKSON COUNTY Multi-Hazard Mitigation Plan Update 2022 Planning Team Meeting #1

September 29, 2022



## Welcome & Introductions

### U-Spatial@UMD Project Leads



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



**Bonnie Hundrieser**  
HM Planning Specialist  
Hundrieser Consulting LLC

### Jackson County Project Lead

- Gary Reif, Jackson 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 name 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



2018 Jackson ballfield flooded

The purpose of this meeting is to formally convene the **Jackson County MHMP Planning Team** for a presentation of the plan update and discussion of key items.

### Agenda:

- Overview of Hazard Mitigation & the MHMP Update
- Who the Plan Covers & Role of the Planning Team
- Review of Hazards + Overview of Risk Assessment and Vulnerability Analysis
- Review of Hazard Risk Prioritization
- Review of Mitigation Strategies & Actions
- Overview of FEMA HMA grant program
- Discuss local mitigation ideas
- Discuss next steps & answer your questions.

PRESENTER: STACEY STARK

## About your Project Team



**U-Spatial at the University of Minnesota Duluth** was contracted by MN HSEM to facilitate the development of this plan and to conduct spatial analysis, mapping and research for the plan.

Working with U-Spatial@UMD is **Bonnie Hundrieser**, who specializes in hazard mitigation planning.

### We Bring:

- **Proven experience** in county/tribal plan updates and State MHMP
- **Advanced capabilities** in GIS, HAZUS, and research
- **Ability to expedite** plan development and approval through consistent & proven approach

PRESENTER: STACEY STARK

## What is Hazard Mitigation?

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



### Hazard Mitigation Planning:

- identifies risks and vulnerabilities
- develops a plan of action built on capabilities and partnerships.
- breaks the cycle of disaster and reconstruction.
- builds stronger & more resilient communities.

PRESENTER: BONNIE HUNDRIESER

# MHMP Overview & Timeline



2018 Ice Storm

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

- ✓ The development of a local government plan is required in order to maintain eligibility for FEMA hazard mitigation grant programs.
- ✓ Plans must be updated every 5 years.
- ✓ Must address all jurisdictions and engage key stakeholders.
- ✓ Planning process must give an opportunity to the public to provide feedback.

## Jackson County MHMP Update 2022

- Last plan adopted in 2016.
- The updated plan will cover a 5-year window for implementation.
- Documentation of county and local-level government participation is required for plan approval.

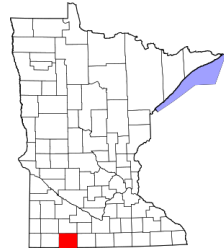
PRESENTER : BONNIE HUNDRIESER

# Who the Plan Covers



The Jackson County MHMP is a multi-jurisdictional plan that covers the county as well as all city & townships within the county.

- ✓ County and city governments are required to adopt the plan.
- ✓ Townships are covered under the umbrella of the county but may elect to adopt.
- ✓ City-level participation in the plan update must be documented for local adoptions to be approved.



PRESENTER : BONNIE HUNDRIESER

# MHMP Planning Team



## Jackson County Planning Team

- Jackson County Emergency Management
- Key County Officials & Staff
- City & Township Officials & Staff
- Neighboring Jurisdictions
- Other Related Agency or Organizational Stakeholders

- Participate in 2 planning team meetings.
- Assist with public outreach (2 news releases) using websites, social media & bulletin boards.
- Provide information to inform plan update.
- Help develop & review local mitigation action charts.
- Review the draft plan.
- Facilitate local-level adoptions.

PRESENTER : BONNIE HUNDRIESER

# What Hazards are Addressed in the Plan?



- 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 for Minnesota MHMPs.

PRESENTER : BONNIE HUNDRIESER

# Comments and Questions?

## PDF document

- Contains almost all FEMA required elements
- Limited Figures and Images
- Summary of Hazard Identification
- Local mitigation survey report
- Plans and Programs in Place
- Past Mitigation Action Review Status Report
- Planning Team Meetings
- Public Outreach and Engagement Documentation
- Mitigation Actions by Jurisdiction

## Website companion

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



PRESENTER : BONNIE HUNDRIESER

# Hazard Risk Assessment and 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 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)



# Jackson County Review of Hazard Risk Prioritization

Hazard	2016 Priority
Winter Storms	High
Extreme Cold	High
Tornadoes	High
Windstorms	High
Drought	Moderate
Flooding	Moderate
Lightning	Moderate
Hail	Moderate
Extreme Heat	Moderate
Dam Failure	Low
Wildfire	Low
Landslides	Not Addressed

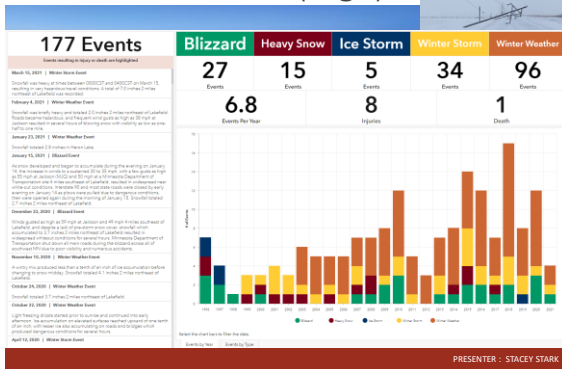
Considerations for changes in hazard prioritizations since last plan:

- Increase or decrease in risk over the last 5 years (probability + severity)
- Local vulnerabilities (people, systems, infrastructure)
- New development

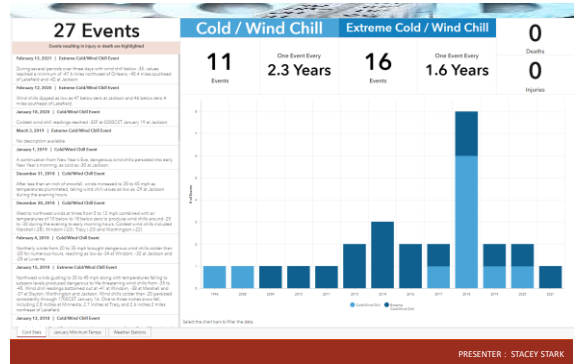
PRESENTER : STACEY STARK

PRESENTER : STACEY STARK

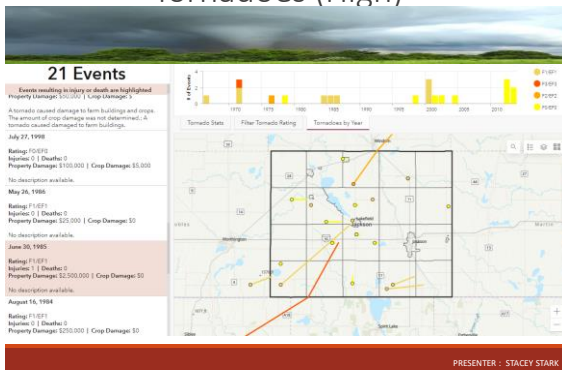
## Winter Storms (High)



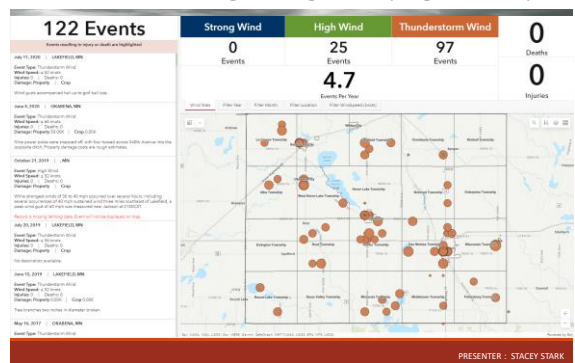
## Extreme Cold (High)



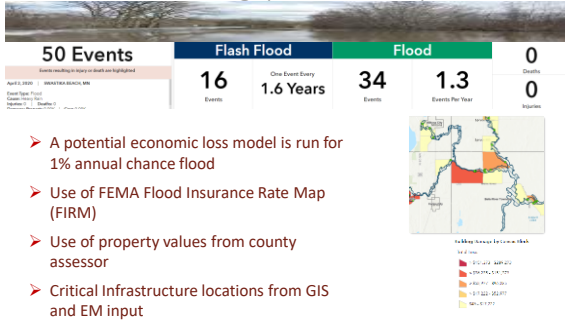
## Tornadoes (High)



## Windstorms, Lightning, Hail (High-Mod.)

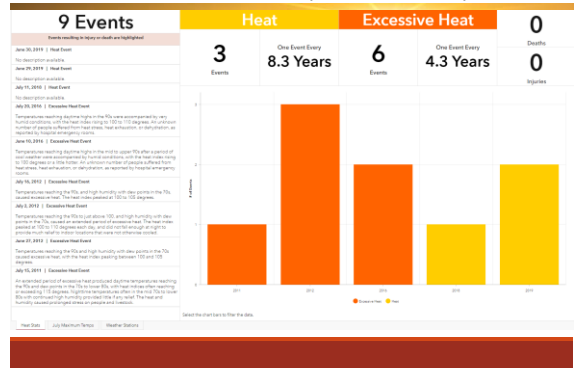


## Flooding (Moderate)

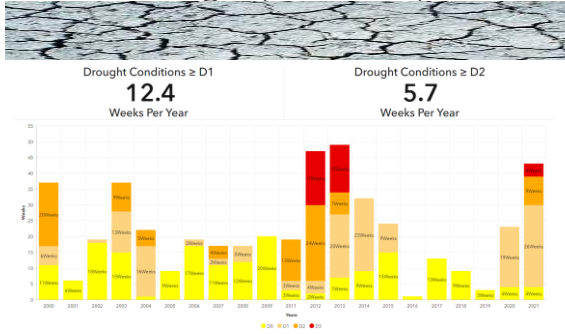


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## Extreme Heat (Moderate)

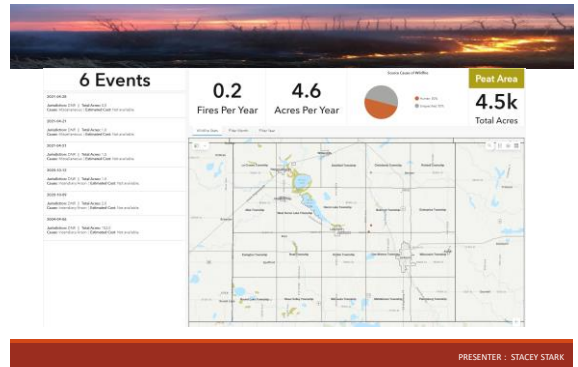


## Drought (Moderate)



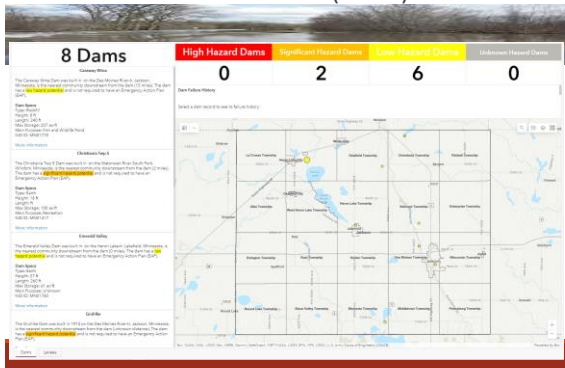
PRESENTER : STACEY STARK

## Wildfire/Wildland Fire (Low)



PRESENTER : STACEY STARK

## Dam Failure (Low)



PRESENTER : STACEY STARK

## Jackson County Review of Hazard Risk Prioritization

Hazard	2016 Plan	2022 Plan
Winter Storms	High	High
Extreme Cold	High	High
Tornadoes	High	High
Windstorms	High	High
Drought	Moderate	Moderate
Flooding	Moderate	Moderate
Lightning	Moderate	Moderate
Hail	Moderate	Moderate
Extreme Heat	Moderate	Moderate
Dam Failure	Low	Low
Wildfire	Low	Low
Landslides	Not Addressed	Not Addressed

High to moderate priority hazards will be addressed in the 2022 plan update and will require mitigation actions.

PRESENTER : STACEY STARK

## Mitigation Strategies & Example Actions



See Handout: Mitigation Strategies & Action Types

PRESENTER : BONNIE HUNDRIESER

## #1 - Local Planning & Regulations



These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.

**EXAMPLES:**

- Establishing & enforcing floodplain & shoreland ordinances
- Participating in the NFIP
- Developing stormwater management plans
- Long-term planning for infrastructure improvements
- Working with MHP operators to be in compliance with State statutes for storm shelters & evacuation plans.



PRESENTER : BONNIE HUNDRIESER

## #2 – Structure and Infrastructure Projects



These actions involve modifying existing structures to protect them from a hazard or remove them from a hazard area. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.

**EXAMPLES:**

- Property acquisitions (repetitive flooding/erosion risk)
- Structural elevations (flooding)
- Constructing floodwalls & retaining walls
- Improving culverts, roads & bridges
- Green infrastructure projects
- Tornado Safe Rooms
- Utility undergrounding



PRESENTER : BONNIE HUNDRIESER

## Tornado Safe Rooms

- Are eligible for FEMA HMA grant funding
- Include new construction or retrofit of existing facilities
- Should be considered for vulnerable areas such as MHPs, schools, parks, and campgrounds



1998 Tornado damage to MHP in Le Center, MN.



Warba, MN mobile home park tornado safe room, FEMA grant funded



1<sup>st</sup> School-based tornado safe room, Wadena, MN (2012) following June 17, 2010 tornado damage

PRESENTER : BONNIE HUNDRIESER

## Utility Undergrounding



- Converting vulnerable overhead powerlines to underground is eligible for FEMA HMA grant funding.
- Include municipal and rural electric cooperatives in the planning process to document participation and establish eligibility for potential future project applications.



PRESENTER : BONNIE HUNDRIESER

## #3 – Natural Systems Protection



These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.

**EXAMPLES:**

- Slope management for soil stabilization
- Shoreland restoration
- "Living Fences" for wind/erosion reduction or snow buffer
- Forest management for wildfire mitigation (fuels reduction)
- Flood diversion and storage



PRESENTER : BONNIE HUNDRIESER

## #4 – Education & Awareness Programs

These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

**EXAMPLES:**

- Promoting sign-up for emergency notifications
- Educate on use of outdoor warning sirens and response
- Participation in the NWS Severe Weather Awareness Weeks
- SKYWARN Storm Spotter Training
- Turn Around Don't Drown
- Promoting personal & family emergency preparedness (i.e. Ready.gov)



PRESENTER : BONNIE HUNDRIESER

## #5 – Mitigation Preparedness & Response Support

These are actions that help to protect life and property prior to, during, and immediately after a disaster or hazard event.

**EXAMPLES:**

- Emergency Operations Plans
- Outdoor warning sirens
- Shelter Planning
- Flood fight plans & equipment
- Training local elected officials in EM responsibilities
- Obtaining backup generators for critical facilities

These activities are typically not considered mitigation, but support reduction of the effects of damaging events.



PRESENTER : BONNIE HUNDRIESER

## FEMA HMA Grant Program

See Handout: HSEM HMA Grants Program Overview

- ✓ All applicants must have or be covered under an approved MHMP.
- ✓ Eligible applicants: State & local governments, Tribal Communities, and certain private non-profit organizations or institutions.
- ✓ Cost Share: Federal 75%/ Applicant 25%
- ✓ Eligible projects must be identified in the local MHMP.

**Examples of Eligible Activities**

- Property Acquisition/Relocation
- Tornado Safe Room Construction
- Minor Localized Flood Risk Reduction
- Green Infrastructure
- Infrastructure Retrofits
- Soil Stabilization
- Wildfire Mitigation
- 5% Initiative Projects

PRESENTER : BONNIE HUNDRIESER

## Mitigation Ideas

See Handout: Mitigation Ideas Worksheet

Do you have questions or ideas to share about local hazards, vulnerabilities and proposed mitigation actions?

PRESENTER : BONNIE HUNDRIESER



Oct. 2022 – Feb., 2023

### Completion of EM Tasks and Local Mitigation Survey (LMS) Forms

Lead: Bonnie Hundrieser

- **EM Tasks:** Plans in Place Form, Capabilities Assessment, and Past Mitigation Action Review
- **LMS Forms (County/City)**
  - Local hazard identification & risk prioritization.
  - Local vulnerabilities (critical infrastructure, populations or assets)
  - Local-level capabilities (programs, polices, staff, funding)
  - Identify local mitigation projects.

PRESENTER : BONNIE HUNDRIESER



(Concurrent)  
Oct. 2022 – Feb., 2023

### Critical Infrastructure Inventory, Risk Assessment and Vulnerability Analysis

Lead: U-Spatial

- Updated risk assessment & vulnerability analysis
- Update of CI inventory
- Development of hazard profiles (history, probability, impacts of climate change)
- GIS mapping
- HAZUS analysis

PRESENTER : BONNIE HUNDRIESER



## March – May, 2023

### Development of Local Mitigation Action Charts

Lead: *Bonnie Hundrieser*

- County and City-Specific MACs
- 5-year window
- Mitigation actions must address high and moderate risk hazards.
- Mitigation actions must incorporate local capabilities & planning mechanisms.
- Include projects eligible for FEMA HMA grant funding.

PRESENTER : BONNIE HUNDRIESER



## June – July, 2023

### Hold Planning Team Meeting #2

Lead: *U-Spatial & Bonnie Hundrieser*

- **Planning Team Mtg. #2**
  - Outreach to stakeholders
  - Presentation of risk assessment & vulnerability analysis, hazards prioritizations
  - Overview of Mitigation Action Charts and FEMA grant funding.
  - Finalize draft MACs

PRESENTER : BONNIE HUNDRIESER



## Aug. – Sept., 2023

### EM review of Draft Plan + Public Review & Comment Period

Lead: *U-Spatial & Bonnie Hundrieser*

- EM initial review of draft plan
- **News Release #2**
  - Disseminate & document news release by county and jurisdictions.
  - Document and incorporate feedback as appropriate.

PRESENTER : BONNIE HUNDRIESER



## Oct. – Dec., 2023

### Draft Plan Submission to HSEM & FEMA for Approval

Lead: *U-Spatial*

- 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 and submission to HSEM
- Final Letter of Approval

PRESENTER : BONNIE HUNDRIESER

## Questions?

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

PRESENTER : STACEY STARK

## Contact Information

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 218-726-7438

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 218-343-3468

**U-SPATIAL**  
 UNIVERSITY OF MINNESOTA DULUTH  
 Driven to Discover

  
**HUNDRIESER CONSULTING LLC**

PRESENTER : STACEY STARK

# 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
<p><b>Natural Systems Protection</b></p>	<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>
<p><b>Education and Awareness Programs</b></p>	<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>
<p><b>Mitigation Preparedness and Response Support</b></p>	<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>



**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 IDEAS WORKSHEET

Please use the following worksheet to list your ideas for mitigation actions that you feel will help reduce the impact of future natural hazard events to the county or to your jurisdiction. Following the MHMP planning team meeting, please return this form via email to your county Emergency Manager to submit your feedback.

**NAME OF JURISDICTION:**

**CONTACT INFORMATION**

**Name:**

**Phone:**

**Email:**

Hazard	Description of Concern or Proposed Mitigation Action

## Jackson County HMP Planning Team Meeting #2 September 7, 2023 - Meeting Summary & Documentation

**Summary:** On Thursday, September 7, 2023, Jackson 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 Jackson County Hazard Mitigation Plan (HMP). The purpose of the meeting was to formally convene the Jackson 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:** Jackson 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 **25** people attended the meeting. Representation included elected officials and departmental staff from Jackson County and the cities of Heron Lake, Jackson, and Lakefield. The cities of Alpha, Okabena, and Wilder were not able to be in attendance. Other stakeholders, including neighboring jurisdictions, participated in the meeting. A participant list is included with this meeting summary.

**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.

**Discussion Notes:** Following is an overview of key discussion points, questions, or mitigation ideas that were shared during the presentation and how they will be incorporated into the plan update.

Meeting Participant	Comment, Question or Mitigation Idea Submitted	Facilitator Feedback / How to be Addressed in Plan Update
Roger Pohlman, City of Lakefield – Chief of Police	<i>Regarding the feedback form on the Jackson County HMP website:</i> This is for recommended risk mitigation or also for current mitigation plans/ideals in the works?	Bonnie Hundrieser: We are looking to capture both in your current draft mitigation action chart. The form will remain open on the website for ongoing feedback.
Matt Skaret, City of Jackson – City Administrator	<i>Regarding the location of weather monitoring stations:</i> Jackson does have a weather station out at our airport. / Also, the gauge for Jackson is not correct. When they took out the dam back in 2010 it changed the flow of the river. So, when comparing past elevations pre-2010 it is not comparing apples to apples.  We've done battle with NGS on this. We've noticed we flood at a lower elevation now than we used to according to the gauge. NGS only changed their color code indicating low, medium, high, and extreme level of flooding.	Stacey Stark: Thank you for letting me know. I'm not sure why a NOAA gauge didn't show up on our data set. We can certainly include it. / I will definitely address that in the written plan. Do you have a source for more information?  Cross response from Tom Kresko, MN DNR Area Hydrologist: Thanks Matt, the flow rating curves for the "new" gage are constantly being updated. The riveflow numbers are very accurate.
Tom Kresko, MN DNR Area Hydrologist	<i>Regarding location of NOAA weather gauges:</i> NOAA has a gage at the City of Jackson to predict flooding and predictions for a few days out when we are in a flood.	Thanks, Tom. I'm looking at that station now. It is included on our map - our link just doesn't go to the probability graph that you are speaking of. We are looking into incorporating near-future probability data in future plans.

**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 Jackson County HMP Meeting #2:**

- Meeting Invitation to Stakeholders
- List of Meeting Participants
- PowerPoint Presentation Slides
- Information Handouts

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

**From:** [Gary Reif](#)  
**To:** [Gary Reif](#); [Shawn Haken](#); [LMO@co.jackson.mn.us](mailto:LMO@co.jackson.mn.us); [engineer@co.jackson.mn.us](mailto:engineer@co.jackson.mn.us); [assessor@co.jackson.mn.us](mailto:assessor@co.jackson.mn.us); [auditor@co.jackson.mn.us](mailto:auditor@co.jackson.mn.us); [JCP@co.jackson.mn.us](mailto:JCP@co.jackson.mn.us); [Ryan Krosch](#); [Jared Baloun](#); [Scott McClure](#); [Don Wachal](#); [Roger Pohlman](#); [Phil Nasby](#); [James Eigenberg](#); [alphacity@yourstarnet.net](mailto:alphacity@yourstarnet.net); [curtisendreson81@gmail.com](mailto:curtisendreson81@gmail.com); [cityoffice@heronlakecity.org](mailto:cityoffice@heronlakecity.org); [Chad Diemer](#); [Joe.liepold@gmail.com](mailto:Joe.liepold@gmail.com); [Matthew Skaret](#); [mayor@cityofjacksonmn.com](mailto:mayor@cityofjacksonmn.com); [jfd@cityofjacksonmn.com](mailto:jfd@cityofjacksonmn.com); [Jackson Ambulance](#); [Kelly Rasche](#); [mayor@lakefieldmn.com](mailto:mayor@lakefieldmn.com); [Tim Baumann](#); [Roger Pohlman](#); [f.j.](#); [okabenacity@gmail.com](mailto:okabenacity@gmail.com); [Lou Masters](#); [jcriverrat@yahoo.com](mailto:jcriverrat@yahoo.com); [peterman52@gmail.com](mailto:peterman52@gmail.com); [rbnelson55@icloud.com](mailto:rbnelson55@icloud.com); [rjmbbezdicek@live.com](mailto:rjmbbezdicek@live.com); [besekestrucking@yahoo.com](mailto:besekestrucking@yahoo.com); [tbaumgard@hotmail.com](mailto:tbaumgard@hotmail.com); [kylethaemlitz@gmail.com](mailto:kylethaemlitz@gmail.com); [rubis@frontiernet.net](mailto:rubis@frontiernet.net); [mrcorn61@gmail.com](mailto:mrcorn61@gmail.com); [Jeremy Bartosh](#); [mpedlin@gmail.com](mailto:mpedlin@gmail.com); [bighillfarms@gmail.com](mailto:bighillfarms@gmail.com); [tmorton9660@gmail.com](mailto:tmorton9660@gmail.com); [proplock@federatedwildblue.com](mailto:proplock@federatedwildblue.com); [brru82@gmail.com](mailto:brru82@gmail.com); [kevincindyplace@gmail.com](mailto:kevincindyplace@gmail.com); [jadiemer@outlook.com](mailto:jadiemer@outlook.com); [klueck@frontiernet.net](mailto:klueck@frontiernet.net); [neal\\_perkins@msn.com](mailto:neal_perkins@msn.com); [Marcy, Mark \(DPS\)](#); [Catherine.wegehaupt@usda.gov](mailto:Catherine.wegehaupt@usda.gov); [edward.gilmore@usda.gov](mailto:edward.gilmore@usda.gov); [greg.ous@state.mn.us](mailto:greg.ous@state.mn.us); [Tom.Kresko@state.mn.us](mailto:Tom.Kresko@state.mn.us); [Kim.schwich@usc.salvationarmy.org](mailto:Kim.schwich@usc.salvationarmy.org); [rdbyam@yahoo.com](mailto:rdbyam@yahoo.com); [khoul@swifoundation.org](mailto:khoul@swifoundation.org); [madden@federatedrea.coop](mailto:madden@federatedrea.coop); [execdir@swrdc.org](mailto:execdir@swrdc.org); [Tammy.ling@mnwest.edu](mailto:Tammy.ling@mnwest.edu); [Barry Schmidt](#); [Paul.bang@isd330.org](mailto:Paul.bang@isd330.org); [Carl Nyquist](#); [Tawn Hall](#); [Paul Johnson](#); [Mark Neilsen](#); [Ben Johnson](#)  
**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** Hazard Mitigation Plan Update  
**Date:** Friday, August 18, 2023 1:18:42 PM

---

## JACKSON COUNTY

### HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at the **2nd Planning Team Meeting** for the update of the **Jackson 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: Thursday, September 7, 2023

Time: 9:00 a.m. – 10:30 a.m.

Zoom Link: [https://umn-private.zoom.us/webinar/register/WN\\_XdwkhFGSRuiOFTQQ\\_mNFUQ](https://umn-private.zoom.us/webinar/register/WN_XdwkhFGSRuiOFTQQ_mNFUQ)

**Please click on the link above to register. (Ctrl + click to follow link)**

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 Jackson County and each city, as well as funding opportunities available under the FEMA Hazard Mitigation Assistance grant program.

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

**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,

--

*Gary Reif*

Emergency Management Director

Jackson County

507-847-4774

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## Jackson County

9/7/23 HMP Planning Team Meeting #2

List of Meeting Participants (25)

	<b>Name</b>	<b>Organization</b>	<b>Job Title</b>
1	Gary Reif	Jackson County Emergency Management	Emergency Management Director
2	Shawn Haken	Jackson County Sheriff's Office	Sheriff
3	Kevin Nordquist	Jackson County	Auditor
4	Ryan Krosch	Jackson County	County Administrator
5	Valere Cihak	Jackson County Land Management	Coordinator
6	Kelly Rasche	Jackson County	Drainage Coordinator
7	Karla Ambrose	Jackson County	Assessor
8	Jill Horn	Jackson County	Chief Deputy Auditor/Treasurer
9	Scott McClure	Jackson County	Commissioner
10	Wes Liepold	Jackson County Public Works	Assistant Engineer
11	Jared Baloun	Jackson County Public Works GIS	GIS Technician
12	Marlys Olson	City of Heron Lake	City Clerk
13	Joe Liepold	Heron Lake EMS	Director
14	Matt Skaret	City of Jackson	City Administrator
15	Tony Oxborough	City of Jackson	Public Works Director
16	Roger Pohlman	Lakefield Police Dept. & Emergency Management	Police Chief
17	Kyle Thaemlitz	Heron Lake Township	Supervisor
18	John Nauerth III	Rost Township	chairman
19	Paul Bang	Heron Lake - Okabena School	Superintendent
20	Matt Madden	Federated Rural Electric	Operations Manager
21	Mark Marcy	MN HSEM	Regional Program Coordinator
22	Tom Kresko	MN DNR	Area Hydrologist
23	Ben Johnson	Martin County Emergency Management	Emergency Management Director
24	Paul Johnson	Cottonwood County Emergency Management	EM Director
25	Ryan Visher	Watsonwan County Emergency Management	Director

# JACKSON COUNTY Hazard Mitigation Plan Update 2023 Planning Team Meeting #2

September 7, 2023



**U-SPATIAL**  
UNIVERSITY OF MINNESOTA DULUTH  
Driven to Discover

## Welcome & Introductions

U-Spatial@UMD Project Leads



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

Jackson County Project Lead

- Gary Reif, Jackson County Emergency Management Director



**Bonnie Hundrieser**  
HMP Planning Specialist  
Hundrieser Consulting LLC

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 name 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 **Jackson 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
- > Review of Website and Hazard Analysis
- > Overview of FEMA HMA Funding and Mitigation Action Charts
- > Review & Feedback
- > Next Steps

PRESENTER: STACEY STARK

## Overview of Plan Update

Jackson 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 2016.

The purpose of the plan is to identify & assess natural hazards that pose risk to the county and it's 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.

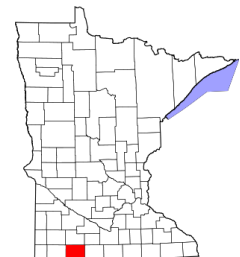
PRESENTER: BONNIE HUNDRIESER

## Who the Plan Covers



This is a **multi-jurisdictional plan** that covers Jackson 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 Needs to Participate



### Key Stakeholders

It is required to provide an opportunity for local county & municipal government, related agency stakeholders and neighboring jurisdictions to participate in the plan update.

- 2 Planning Team Meetings
- Local Mitigation Survey
- Provision of key data
- MAC Review & Feedback
- Review of Draft Plan

### The Public

It is required to provide an opportunity for the public to learn about the plan update, ask questions and provide input that may be incorporated into the plan update.

- 2 News Releases
- Outreach conducted via websites, social media, bulletin boards, and local media
- Online public review & comment period for draft plan

PRESENTER: BONNIE HUNDRIEER

## The structure of the HMP

### PDF Document:

- FEMA required elements
- Limited figures & Images
- Summary of Hazard Risk and Vulnerability Assessment
- 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:

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

PRESENTER: STACEY STARK

## Demo

<https://z.umn.edu/JacksonHMP> (same!)  
<https://jackson-county-hmp-umn.hub.arcgis.com/>

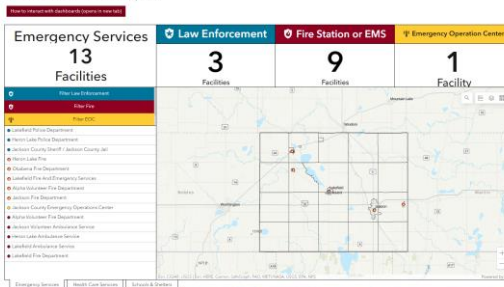


PRESENTER: BONNIE HUNDRIEER

## All Hazards - Critical Infrastructure

### Critical Infrastructure

These structures enable the continuous operation of critical government and business functions and is essential for human health and safety or economic security. The locations shown below are not intended to be used in a way that would discriminate against any race or ethnicity.



PRESENTER: STACEY STARK

## All Hazards - Critical Infrastructure

### Other County Assets

Significant county assets include buildings housing government services deemed to be significant, and cultural or historic assets that are important to a community. Other features, such as mobile home parks are significant features of their community being highlighted.

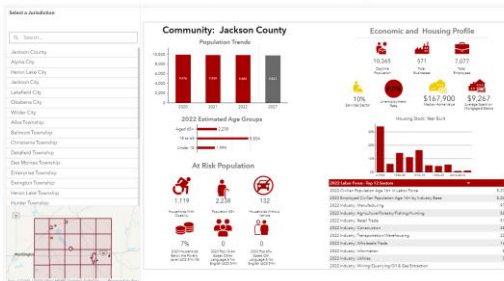


PRESENTER: STACEY STARK

## All Hazards – Population Vulnerability

### County Demographics and Economy

There are 6 cities, and 20 townships in Jackson. The county seat, Jackson, had a 2021 population of 5,732. For more information about the county, visit the county's website. Jackson County is 718 square miles in size or approximately 460,140 acres. The county encompasses portions of six major watersheds: Little Sioux River in the southeast, Lower Fork Des Moines in the southeast, Upper Fork Des Moines in the east, Blue Earth River in the northwest, Park Des Moines - Headwaters in the northwest, and a dry canyon of Madison River in the northwest.



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

# Prioritization of Hazards for Jackson County



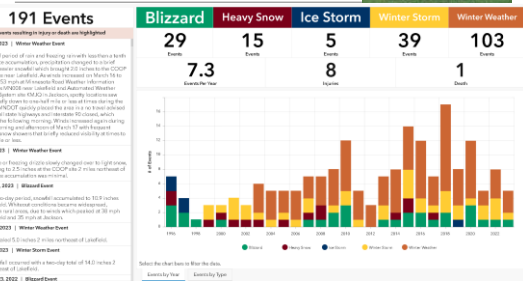
Prioritization of hazards by the Jackson County planning team included consideration of:

- 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)

Hazard	2023 Priority
Winter Storms	High
Extreme Cold	High
Tornadoes	High
Windstorms	High
Flooding	High
Drought	Moderate
Extreme Heat	Moderate
Hail	Moderate
Lightning	Low
Wildfire	Low
Landslides	Low
Dam Failure	Low

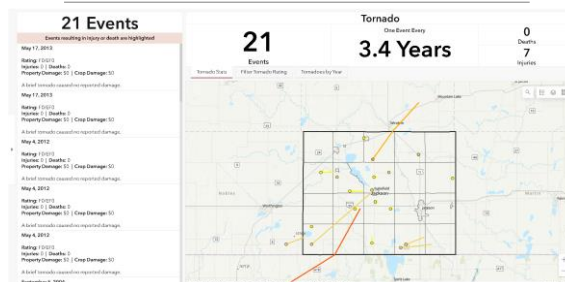
PRESENTER: STACEY STARK

## JACKSON COUNTY: Winter Storms (High)



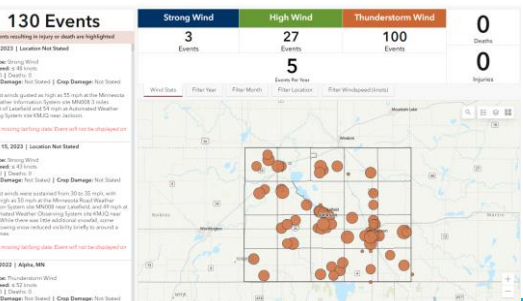
PRESENTER: STACEY STARK

## JACKSON COUNTY: Tornadoes (High)



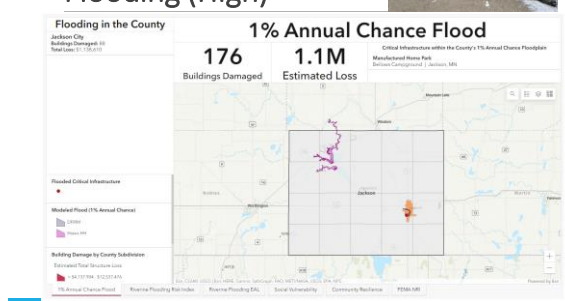
PRESENTER: STACEY STARK

## JACKSON COUNTY: Windstorms (High)



PRESENTER: STACEY STARK

## JACKSON COUNTY: Flooding (High)

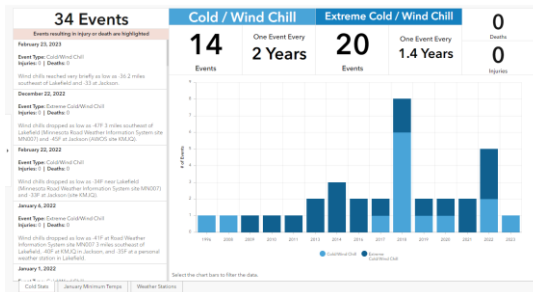


PRESENTER: STACEY STARK

## JACKSON COUNTY: Extreme Cold (High)

**Windom Station | Cottonwood County**  
 \*A daily minimum temperature < -18°F was reported 60 times, an average of 11 days per year.

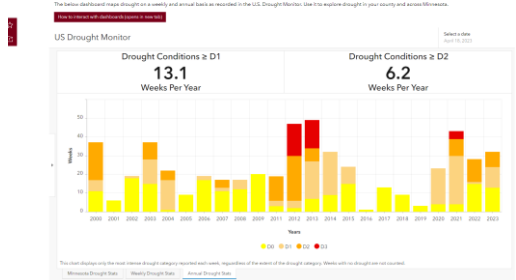
\*The coldest reported temperature was -31°F, which happened on: 1996-02-02



PRESENTER: STACEY STARK

## JACKSON COUNTY: Drought (Moderate)

History of Drought in Jackson County



PRESENTER: STACEY STARK

## Comments and Questions?

## Overview of Mitigation Action Charts



Mitigation Action Charts identify activities to reduce future risk to natural hazard events. MAC's include:

- Hazard of Priority
- Mitigation Strategy
- Mitigation Action
- Status/Priority/Timeframe
- Responsibility
- Comments on Implementation and Integration
- Possible Funding

**Mitigation Action Charts are the end product of the HMP.**

Mitigation actions are specific.

Mitigation actions address known vulnerabilities.

Mitigation actions utilize capabilities to reduce risk.

★ **Eligible project activities must be identified for future FEMA HMA Grants!**

## FEMA HMA Grant Funding



- 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.

- Example Eligible Activities:**
- 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



- Jackson County 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

### Jackson County 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, WWTPs, Fire Halls



PRESENTER: BONNIE HUNDRIESER

## Natural Systems Protection

### Jackson County Examples:

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



PRESENTER: BONNIE HUNDRIESER

## Education & Awareness Programs

### Jackson County 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

### Jackson County 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

## Comments and Questions?



## Fall 2023

### MAC Review, EM Review of Draft Plan and Public Review & Comment Period



#### Following Planning Team Mtg. #2

- Jurisdictional MAC Review
- EM review of draft plan
- Public review & comment period (News Release #2)
- Document public outreach
- Incorporate public feedback as appropriate.

PRESENTER: BONNIE HUNDRIESER



## Winter 2023

### 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.

PRESENTER: BONNIE HUNDRIESER

## Questions?

What questions do you have for U-Spatial@UMD about the draft 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



Bonnie Hundrieser, HM Planner

**Hundrieser Consulting LLC**

[hundrieserconsulting@outlook.com](mailto:hundrieserconsulting@outlook.com)

218-343-3468



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
<p><b>Natural Systems Protection</b></p>	<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>
<p><b>Education and Awareness Programs</b></p>	<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>
<p><b>Mitigation Preparedness and Response Support</b></p>	<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**

## **Jackson County MHMP News Release #1 Record of Public Input & Incorporation**

**Overview:** On **August 1, 2022**, Jackson 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 Multi-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. Jackson 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 Jackson 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 MHMP Jurisdictional Contact List, which includes the names, titles, phone numbers, and email addresses of key stakeholders to be engaged in the MHMP 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 with a request to carry the news release.

**Postings:** Attached is documentation of the news release postings by Jackson 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.

**No Public Input:** Jackson County Emergency Management and local jurisdictions did not receive any public input following News Release #1.

**From:** [Gary Reif](#)  
**To:** [Gary Reif](#); [Shawn Haken](#); [LMO@co.jackson.mn.us](mailto:LMO@co.jackson.mn.us); [engineer@co.jackson.mn.us](mailto:engineer@co.jackson.mn.us); [assessor@co.jackson.mn.us](mailto:assessor@co.jackson.mn.us); [auditor@co.jackson.mn.us](mailto:auditor@co.jackson.mn.us); [JCP@co.jackson.mn.us](mailto:JCP@co.jackson.mn.us); [Ryan Krosch](#); [Jared Baloun](#); [Scott McClure](#); [Don Wachal](#); [Cathy Hohenstein](#); [Phil Nasby](#); [James Eigenberg](#); [alphacity@yourstarnet.net](mailto:alphacity@yourstarnet.net); [curtisendreson81@gmail.com](mailto:curtisendreson81@gmail.com); [cityoffice@heronlakecity.org](mailto:cityoffice@heronlakecity.org); [Chad Diemer](mailto:Chad.Diemer@gmail.com); [Joe.liepold@gmail.com](mailto:Joe.liepold@gmail.com); [Matthew Skaret](#); [mayor@cityofjacksonmn.com](mailto:mayor@cityofjacksonmn.com); [jfd@cityofjacksonmn.com](mailto:jfd@cityofjacksonmn.com); [Jackson Ambulance](#); [Kelly Rasche](#); [mayor@lakefieldmn.com](mailto:mayor@lakefieldmn.com); [Tim Baumann](#); [Roger Pohlman](#); [f.j.](#); [okabenacity@gmail.com](mailto:okabenacity@gmail.com); [Lou Masters](#); [jcriverrat@yahoo.com](mailto:jcriverrat@yahoo.com); [peterman52@gmail.com](mailto:peterman52@gmail.com); [paul.johnson@co.jackson.mn.us](mailto:paul.johnson@co.jackson.mn.us); [rbnelson55@icloud.com](mailto:rbnelson55@icloud.com); [rjmbbezdicsek@live.com](mailto:rjmbbezdicsek@live.com); [besekestrucking@yahoo.com](mailto:besekestrucking@yahoo.com); [tbaumgard@hotmail.com](mailto:tbaumgard@hotmail.com); [kylethaemlitz@gmail.com](mailto:kylethaemlitz@gmail.com); [rubis@frontiernet.net](mailto:rubis@frontiernet.net); [mrcorn61@gmail.com](mailto:mrcorn61@gmail.com); [Jeremy Bartosh](#); [mpedlin@gmail.com](mailto:mpedlin@gmail.com); [bighillfarms@gmail.com](mailto:bighillfarms@gmail.com); [tmorton9660@gmail.com](mailto:tmorton9660@gmail.com); [proplock@federatedwildblue.com](mailto:proplock@federatedwildblue.com); [brru82@gmail.com](mailto:brru82@gmail.com); [kevincindyplace@gmail.com](mailto:kevincindyplace@gmail.com); [jadiemer@outlook.com](mailto:jadiemer@outlook.com); [klueck@frontiernet.net](mailto:klueck@frontiernet.net); [neal\\_perkins@msn.com](mailto:neal_perkins@msn.com); [Marcy, Mark \(DPS\)](#); [Catherine.wegehaupt@usda.gov](mailto:Catherine.wegehaupt@usda.gov); [edward.gilmore@usda.gov](mailto:edward.gilmore@usda.gov); [greg.ous@state.mn.us](mailto:greg.ous@state.mn.us); [Tom.Kresko@state.mn.us](mailto:Tom.Kresko@state.mn.us); [Kim.schwich@usc.salvationarmy.org](mailto:Kim.schwich@usc.salvationarmy.org); [rdbyam@yahoo.com](mailto:rdbyam@yahoo.com); [khoul@swifoundation.org](mailto:khoul@swifoundation.org); [Bstutzman@uwjackson.org](mailto:Bstutzman@uwjackson.org); [madden@federatedrea.coop](mailto:madden@federatedrea.coop); [execdir@swrdc.org](mailto:execdir@swrdc.org); [Tammy.ling@mnwest.edu](mailto:Tammy.ling@mnwest.edu); [Barry.schmidt@jccschools.net](mailto:Barry.schmidt@jccschools.net); [Paul.bang@isd330.org](mailto:Paul.bang@isd330.org); [Carl Nyquist](#); [Tawn Hall](#); [Paul Johnson](#); [Mark Neilsen](#); [Ben Johnson](#)  
**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** News Release  
**Date:** Monday, August 1, 2022 2:23:53 PM  
**Attachments:** [Jackson County HM Plan News Release #1 \(2\) \(1\).docx](#)

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## Jackson County News Release

Greetings,

Jackson County Emergency Management is commencing work on the update of the Jackson County Multi-Hazard Mitigation Plan (MHMP). Attached is a news release for your information.

Your assistance is requested to post this news release in order to help notify the public about the plan update and have an opportunity to provide feedback:

**Participation by all cities is required in order to help fulfill required documentation to FEMA for the plan update.** Townships, businesses, and other agencies or organizations are also encouraged to participate to help reach out to the public.

### INSTRUCTIONS:

Please post this news release using the outreach methods best available to you (your website, Facebook, community bulletin boards). We welcome as many of ways of posting that you can cover.

- **Electronic Postings** - If you are posting to a website and/or Facebook page, please send me an

email with information on the [date, location, and website link](#) of the posting. We will need to get a screenshot of the posting for documentation.

- **Hardcopy Postings** - If you are posting it as a printed hardcopy in a visible location such as City Hall, Post Office or a Community Center, please send me the [date and location](#) of the posting. No photo is required.

The timely return of your posting documentation is appreciated. We will be working to wrap this up before the end of August.

I look forward to your participation in the Jackson County MHMP update.

If you have any questions, please let me know.

Thank you,

--

*Gary Reif*

Emergency Management Director

Jackson County

507-847-4774

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## JACKSON COUNTY NEWS RELEASE

August 1, 2022

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

Jackson County residents, business owners, nonprofit members, and community leaders now have an organized 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 the impact in the future.

The Jackson County Office of Emergency Management is working with U-Spatial at the University of Minnesota Duluth to update the county's Multi-Hazard Mitigation Plan (MHMP). 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 Jackson County MHMP is a multi-jurisdictional plan that covers Jackson County, including the cities of Alpha, Heron Lake, Jackson, Lakefield, Okabena, and Wilder. The Jackson County MHMP 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.

“Hazard mitigation planning is a central part of our emergency management program,” said Gary Reif, Jackson 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:

- improvement of roads and culverts that experience repetitive flooding
- construction of safe rooms at campgrounds, public parks, mobile home parks or schools to protect lives in the event of tornados or severe wind events
- burying powerlines that may fail due to heavy snow, ice, or windstorms
- ensuring timely emergency communication to the public through warning sirens and mass notification systems
- conducting public awareness and education campaigns to help people be prepared to take safe action before, during, or following a hazard event.

Some mitigation activities may be eligible for future FEMA Hazard Mitigation Assistance grant funding.

T: (507) 847-4774 | [www.co.jackson.mn.us](http://www.co.jackson.mn.us)  
402 White Street Jackson, MN 56143

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Public input is an essential part of the plan update. As part of the planning process, Jackson 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 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?

Comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update process should be submitted to Jackson County Emergency Management by phone or email. Comments may also be submitted on the Jackson County Emergency Management Facebook page where this news release will be posted.

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**

Gary Reif

Jackson County Emergency Management Director

Phone: 507-847-4774

Email: [gary.reif@co.jackson.mn.us](mailto:gary.reif@co.jackson.mn.us)

**Jackson County HMP News Release #1 – August 1, 2022**  
**Chart Documentation of News Release Postings**

<b>Jurisdiction or Agency</b>	<b>Posting Representative</b>	<b>Date &amp; Location of News Release Posting</b>
Jackson County	Gary Reif, Jackson County EM Director	8/1/22, Jackson County Website Jackson County Emergency Management Facebook Page
City of Alpha	Tim Cain, Mayor	8/8/22, Alpha City Hall bulletin board Alpha Fire Department Facebook
City of Heron Lake	Andrew Rasche, Mayor	8/8/22, Heron Lake City Hall bulletin board
City of Jackson	Matt Skaret, City Administrator	8/1/22, Jackson Fire Hall entrance window City of Jackson website City of Jackson Facebook
City of Lakefield	City of Lakefield Police Chief	8/1/22, Lakefield City Hall bulletin board Lakefield Police Department Facebook
City of Okabena	Brent Groen, Mayor	8/8/22, Okabena City Hall bulletin board
City of Wilder	Louetta Masters, City Clerk	8/3/22, Wilder City Hall bulletin board
Christiana Township	Paul Johnson, Township Rep	8/9/22, Christiana Town Hall bulletin board
Kimball Township	Richard Peterson, Township Rep.	8/9/22, Kimball Town Hall bulletin board
Livewire Printing	Justin R. Lessman, Editor	8/3/22, Livewire Printing printed newspaper article

## Jackson County MHMP News Release #2 Record of Public Input & Incorporation

**Overview:** On October 17, 2023 Jackson 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 Jackson 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 10/17/23 to 10/31/23 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 Jackson 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 Jackson County news release and how the input will be incorporated into the plan update, and if not relevant to be addressed, why.

Submitted By	Comment	How Incorporated into the Plan
City of Wilder, Lou Masters, City Clerk	Online Survey Response <i>“Wilder contacts Jackson County for guidance with the Hazard Mitigation Plan.”</i>	No incorporation needed.
City of Lakefield, Roger R. Pohlman, Chief of Police	Online Survey Response <i>“Page 15, Lakefield East Side Emergency warning siren was installed in September 2023 and is operational.”</i>	This comment is in reference to a local vulnerability noted in Section 3.4.1 “East side warning siren is inoperative and scheduled to be replaced in June 2023.” An update to this information was included to note that the warning siren was installed in 2023 and is in operational. The original wording was left to demonstrate that the city had earlier identified this as a local vulnerability.

<p>City of Lakefield, Roger R. Pohlman, Chief of Police</p>	<p>Survey Response: <i>“Page 38, Lakefield submitted paperwork for participation in the NFIP program. We are approved for participation in the NFIP Program.”</i></p>	<p>The information for the City of Lakefield was updated in the NFIP status chart to reflect the city is undergoing enrollment in the NFIP. The MN DNR Floodplain Manager provided information to support the update of this information in the plan.</p>
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**From:** [Gary Reif](#)  
**To:** [Gary Reif](#); [Shawn Haken](#); [LMO@co.jackson.mn.us](mailto:LMO@co.jackson.mn.us); [engineer@co.jackson.mn.us](mailto:engineer@co.jackson.mn.us); [assessor@co.jackson.mn.us](mailto:assessor@co.jackson.mn.us); [auditor@co.jackson.mn.us](mailto:auditor@co.jackson.mn.us); [JCP@co.jackson.mn.us](mailto:JCP@co.jackson.mn.us); [Ryan Krosch](#); [Jared Baloun](#); [Scott McClure](#); [Don Wachal](#); [Roger Pohlman](#); [Phil Nasby](#); [James Eigenberg](#); [alphacity@yourstarnet.net](mailto:alphacity@yourstarnet.net); [curtisendreson81@gmail.com](mailto:curtisendreson81@gmail.com); [cityoffice@heronlakecity.org](mailto:cityoffice@heronlakecity.org); [Chad Diemer](#); [Joe.liepold@gmail.com](mailto:Joe.liepold@gmail.com); [Matthew Skaret](#); [mayor@cityofjacksonmn.com](mailto:mayor@cityofjacksonmn.com); [jfd@cityofjacksonmn.com](mailto:jfd@cityofjacksonmn.com); [Jackson Ambulance](#); [Kelly Rasche](#); [mayor@lakefieldmn.com](mailto:mayor@lakefieldmn.com); [Tim Baumann](#); [Roger Pohlman](#); [f.j.](#); [okabenacity@gmail.com](mailto:okabenacity@gmail.com); [Lou Masters](#); [jcriverrat@yahoo.com](mailto:jcriverrat@yahoo.com); [peterman52@gmail.com](mailto:peterman52@gmail.com); [rbnelson55@icloud.com](mailto:rbnelson55@icloud.com); [paccihak@frontiernet.net](mailto:paccihak@frontiernet.net); [besekestrucking@yahoo.com](mailto:besekestrucking@yahoo.com); [tbaumgard@hotmail.com](mailto:tbaumgard@hotmail.com); [kylethaemlitz@gmail.com](mailto:kylethaemlitz@gmail.com); [rubis@frontiernet.net](mailto:rubis@frontiernet.net); [mrcorn61@gmail.com](mailto:mrcorn61@gmail.com); [Jeremy Bartosh](#); [mpedlin@gmail.com](mailto:mpedlin@gmail.com); [bighillfarms@gmail.com](mailto:bighillfarms@gmail.com); [tmorton9660@gmail.com](mailto:tmorton9660@gmail.com); [proplock@federatedwildblue.com](mailto:proplock@federatedwildblue.com); [brru82@gmail.com](mailto:brru82@gmail.com); [kevincindyplace@gmail.com](mailto:kevincindyplace@gmail.com); [jadiemer@outlook.com](mailto:jadiemer@outlook.com); [klueck@frontiernet.net](mailto:klueck@frontiernet.net); [neal\\_perkins@msn.com](mailto:neal_perkins@msn.com); [Marcy, Mark \(DPS\)](#); [Catherine.wegehaupt@usda.gov](mailto:Catherine.wegehaupt@usda.gov); [edward.gilmore@usda.gov](mailto:edward.gilmore@usda.gov); [greg.ous@state.mn.us](mailto:greg.ous@state.mn.us); [Tom.Kresko@state.mn.us](mailto:Tom.Kresko@state.mn.us); [Kim.schwich@usc.salvationarmy.org](mailto:Kim.schwich@usc.salvationarmy.org); [rdbyam@yahoo.com](mailto:rdbyam@yahoo.com); [khoul@swifoundation.org](mailto:khoul@swifoundation.org); [madden@federatedrea.coop](mailto:madden@federatedrea.coop); [exccdir@swrdc.org](mailto:exccdir@swrdc.org); [Tammy Ling@mnwest.edu](#); [Barry Schmidt](#); [Paul.bang@isd330.org](mailto:Paul.bang@isd330.org); [Carl Nyquist](#); [Tawn Hall](#); [Paul Johnson](#); [ryan.visher@co.watonwan.mn.us](mailto:ryan.visher@co.watonwan.mn.us); [Ben.johnson@co.martin.mn.us](mailto:Ben.johnson@co.martin.mn.us)  
**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** Jackson County News Release - Public Comment Sought for Hazard Mitigation Plan  
**Date:** Monday, October 16, 2023 2:08:26 PM  
**Attachments:** [10-17-23 Jackson County News Release - Hazard Mitigation Plan Public Review.docx](#)

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Greetings,

Attached is a news release announcing the public review and comment period is open for the Jackson County Hazard Mitigation Plan from **October 17 – October 31** prior to submission of the plan to FEMA. As a jurisdiction, related agency, or neighboring jurisdiction involved in the Jackson County plan update, your assistance is requested to help post the news release and also to review the draft plan. Your assistance requested on the following items below in order to document to FEMA your participation in this important public outreach process:

- **PLEASE POST THE NEWS RELEASE**

Each city jurisdiction within the county is requested to post the news release. Townships and other agency stakeholders are also encouraged to participate in posting the news release. Please post to areas such as your website, Facebook page, public bulletin boards, or other locations. Please note that photos or screenshots are not necessary. **Please email me to notify me of when and where you posted the news release.**

- **PLEASE REVIEW THE PLAN**

All recipients of this notice are encouraged to review the plan and provide comment. Please also share with your local governments or agency partners to review. There are website links as well as QR codes 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. **Please email me the names & titles of who reviewed the plan.**

- **PLEASE RESPOND BY OCT. 31<sup>st</sup>**

As this is a 15-day review period, your timeliness to post the news release and review the plan is very important. Please respond to me with the requested information above no later than October 31, which will be the end of the public review and comment period.

Everyone's participation in posting the news release and reviewing the plan will help to count towards the county's 25% local match.

If you have any questions or comments, please let me know.

Thank you,

--

*Gary Reif*

Emergency Management Director

Jackson County

507-847-4774

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**From:** [Gary Reif](#)  
**To:** [justin@livewireprinting.com](mailto:justin@livewireprinting.com); [KKOJ News](#)  
**Cc:** [Bonnie K Hundrieser](#)  
**Subject:** Jackson County News Release - Public Comment Sought for Hazard Mitigation Plan  
**Date:** Monday, October 16, 2023 2:06:54 PM  
**Attachments:** [10-17-23 Jackson County News Release - Hazard Mitigation Plan Public Review.docx](#)

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Can you please put out this news release for the Jackson County Hazard Mitigation Plan?

If you have any questions or comments, please let me know.

--

*Gary Reif*

Emergency Management Director

Jackson County

507-847-4774

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**From:** [Stacey Stark, U-Spatial](#)  
**To:** [hundrieserconsulting@outlook.com](mailto:hundrieserconsulting@outlook.com)  
**Subject:** Your input is requested for the Jackson County Hazard Mitigation Plan!  
**Date:** Thursday, November 2, 2023 7:37:58 AM

---

Dear Bonnie,

I am writing to let you know that **Jackson County has an updated draft of its Hazard Mitigation Plan (HMP)** available for review.

These plans are required by FEMA in order for county governments to mitigate damage and injury due to natural disasters, as well as be able to apply for certain funding programs from the federal government. The plans are updated every five years, so this is the county's last opportunity to make changes before the next update in 2028.

Planning team and stakeholder input is vital to the success of the plan, but thus far the plan has received very little feedback. If you have not yet had time to do so, please take some time to review the Jackson HMP Update. Opportunities for review and feedback are required prior to submitting the plan to the State of Minnesota and the Federal Emergency Management Agency (FEMA).

Your feedback may be provided via the online comment forms or directly to Jackson County Emergency Management.

Please find the draft plan on the County Hazard Mitigation Plan website here:  
<https://z.umn.edu/JacksonHMP>

Use the Public Comment Feedback Form to submit feedback:  
[https://z.umn.edu/CountyHMP\\_Feedback](https://z.umn.edu/CountyHMP_Feedback)

Feedback may be also be provided directly to the County HMP Contact:

Gary Reif  
Jackson County Emergency Management Director  
Phone: (507) 847-4774  
Email: [gary.reif@co.jackson.mn.us](mailto:gary.reif@co.jackson.mn.us)

Thank you for your attention.

Stacey Stark  
U-Spatial, UMN  
County Hazard Mitigation Plan Project Manager

--

Stacey Stark, MS, GISP  
Associate Director | U-Spatial | [uspatial.umn.edu](https://uspatial.umn.edu)  
Research Computing | Office of the Vice President for Research  
389 Kirby Plaza  
University of Minnesota Duluth | [d.umn.edu](https://d.umn.edu)  
[slstark@d.umn.edu](mailto:slstark@d.umn.edu) | 218-726-7438



## JACKSON COUNTY NEWS RELEASE

October 17, 2023

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

Jackson County has completed an updated draft of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Jackson 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 Tuesday, October 31, 2023. The public can access the plan using the following links:

[Jackson County HMP Website \(z.umn.edu/JacksonHMP\)](https://z.umn.edu/JacksonHMP)

[Mitigation Action Charts \(https://Jackson-county-hmp-umn.hub.arcgis.com/pages/mitigation-actions\)](https://Jackson-county-hmp-umn.hub.arcgis.com/pages/mitigation-actions)

[Public Comment Feedback Form \(https://z.umn.edu/HMPfeedback\)](https://z.umn.edu/HMPfeedback)

The Jackson County HMP is a multi-jurisdictional plan that covers Jackson County, including the cities of Alpha, Heron Lake, Jackson, Lakefield, Okabena, and Wilder. The Jackson County HMP also incorporates the concerns and needs of townships, school districts, and other stakeholders participating in the plan.

Update of the plan has been under direction of Jackson County Emergency Management in cooperation with U-Spatial at the University of Minnesota Duluth and representatives from county departments, city and township governments, school districts, and other key 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 improvement of roads and culverts 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 Jackson 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

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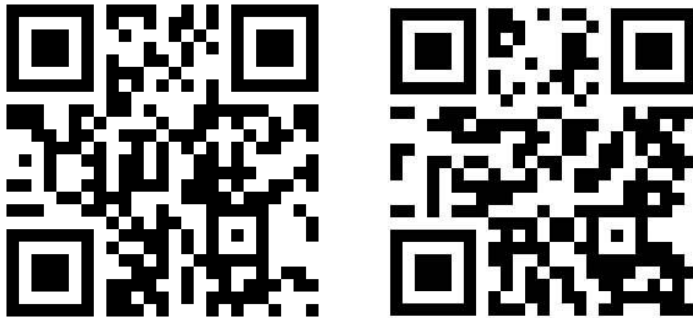
the cycle of response and recovery. Updating the plan further allows Jackson County and its jurisdictions to be eligible to apply for future FEMA Hazard Mitigation Assistance grant program funding for projects that help to reduce or eliminate the impacts of future natural hazard events.

Community feedback is vital to the success of the plan. Jackson 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 Jackson County Emergency Management.

**Contact**

Gary Reif  
Jackson County Emergency Management Director  
Phone: 507-847-4774  
Email: [gary.reif@co.jackson.mn.us](mailto:gary.reif@co.jackson.mn.us)

**Please scan the following QR codes to go directly to the Jackson County Hazard Mitigation Plan interactive website and online feedback form:**



**Jackson County HMP News Release #2 – October 17, 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>
Jackson County	Gary Reif, Jackson County EM Director	10-16-23 County website and EM Facebook page.
City of Alpha	Cassie Westfall, City Clerk/Treasurer	10-17-2023 City Hall building
City of Heron Lake	Stacy Grube, City Clerk/Treasurer	10-17-2023 posted at Community Ctr and on website
City of Jackson	Matt Skaret, City Administrator	10-17-2023 On City website and in front entry of City hall
City of Lakefield	Stacy Anderson, City Clerk	10-18-2023 posted in City Hall
City of Okabena	Tamara Vortherms, City Clerk	10-17-2023 posted at City Hall
City of Wilder	Louetta Masters, City Clerk/Treasurer	10-18-23 posted in City Hall on bulletin board
City of Jackson	Fire and Ambulance Gary Reif	10-17-2023 Posted on window of Fire-Ambulance building
Jackson County	Public Works Building Jared Baloun	10-17-2023 Posted on message board in lobby.
Lakefield Police	Chief Roger Pohlman	Facebook for Police Dept 10-18-2023
KKOJ Radio	Staff	10-18-23 on Radio and website
Jackson County Pilot	Editor	10-18-23 on website and in local newspapers

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

# CITY OF ALPHA

# Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We communicate with our residents by posting flyers at City Hall and by sharing announcements at City Council meetings as needed. Overall, we look to Jackson County Emergency Management to do outreach to residents to encourage them to sign up for the county's Regroup emergency notification system.	City
2	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 High 2024-2029	City of Alpha Utility	The City of Alpha owns and maintains the power poles and lines for the city. Vegetation is managed near powerlines on a regular basis. The city utility evaluates where it may be feasible to put powerlines underground. If the city utility were to advance such a project, FEMA grant funding may be applied for to support the project.	City, FEMA HMA
3	Extreme Temps	Mitigation Preparedness & Response Support	Be prepared to provide emergency sheltering to vulnerable residents during extreme temperature events.	Existing High 2024-2029	City Admin, City EM	In the event of an extreme temperature event coupled with an extended power outage, the city will work with our fire department and Jackson County Emergency Management to address assistance such as evacuation or temporary sheltering for the elderly or other vulnerable residents.	City, Jackson County
4	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning siren for high wind events.	Existing High 2024-2029	City EM	The city installed a new outdoor warning siren about 8-10 years ago. We maintain our outdoor warning siren and test it on a regular basis.	City

**CITY OF ALPHA****Mitigation Action Chart**

<b>#</b>	<b>Hazard</b>	<b>Mitigation Strategy</b>	<b>Mitigation Action</b>	<b>Status Priority Timeframe</b>	<b>Responsibility</b>	<b>Comments on Implementation &amp; Integration</b>	<b>Possible Funding</b>
5	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

# CITY OF HERON LAKE

# Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We have a city Facebook page and a Police Dept. Facebook page that we use to share information with residents. We promote residents to sign up for the county's Regroup emergency notification system. We are working on a new website that will also have an option for the resident to receive a text notification for emergency announcements.	City
2	All-Hazards	Mitigation Preparedness & Response Support	Be prepared to provide emergency sheltering to vulnerable residents during extreme storm or temperature events.	Existing High 2024-2029	City Admin, City EM	The city recently entered into an agreement with the local nursing home to use the community center as emergency housing in case of severe weather or other catastrophic events. We are looking to get a generator for the Community Center in order to support that location for backup power if needed during an emergency. If possible, we would seek to apply to FEMA for supportive grant funding for this.	City, Jackson County, FEMA HMA grant funding
3	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 High 2024-2029	City Public Works	Due to historic ice storm in 2013, the city has conducted city-wide tree removal and city park trees removed due to damages. Our public works department continues to conduct vegetation management as needed to avoid damages to power lines.	City, FEMA HMA
4	Severe Summer Storms	Structure & Infrastructure Projects	Upgrade the outdoor warning siren for tornado and other high wind event warnings.	Existing High 2024-2029	City Admin, City EM	The city would like up upgrade the current auxiliary storm siren, located near Ice Road and 16th Street. Outside grant funding may be sought from the USDA Community Facilities grant program for this project.	City, USDA CF Grant Program

**CITY OF HERON LAKE**

**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvement to reduce the risk of localized flooding to homes and the city storm sewer system.	Existing High 2024-2029	City Admin, City Public Works	The city cleans curbs and gutters in the spring and throughout the summer months to prevent localized street flooding. The city has made improvements in to the city lift station within the last 5 years to assist in moving water through storm and sewer system and continues to evaluate and plan for any needed future improvements. Residents are encouraged to maintain their sump pumps to avoid basement flooding.	City
6	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

**CITY OF JACKSON**

**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	The city of Jackson posts information on our city website and Facebook page. We encourage residents to sign up for the county's emergency notification system and a link to the sign-up page is located on the city website. The city also recently launched a mobile app that people can download on their smart phones where they can get notifications from the city. We additionally have a Public Cable Access Channel and Community Message Board where messages can be posted. Our Fire Department participates in the National Weather Service's annual storm spotter training, promotes MN Severe Weather Awareness Week, and helps spread the word about "Red Flag" alerts pertaining to Fire Danger.	City
2	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 High 2024-2029	City Admin, City Public Works	The city has adopted the MN State Building Code and followings our City Code zoning requirements for new development. The City contracts with a building inspector to approve building permits and enforce codes.	City
3	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 High 2024-2029	City Utility	The city's municipal utility has worked over the last several years to convert our electrical lines from overhead to underground and will continue to covert OH to UG where possible. FEMA grant funding may be considered for future conversation projects. We also have mutual aid agreements with our rural electric cooperative and all surrounding fire and EMS services.	City, FEMA HMA

**CITY OF JACKSON**

**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
4	Extreme Cold	Education & Awareness Programs	Conduct outreach to businesses and residents on measures to avoid frozen pipes in winter.	Existing Moderate 2024-2029	City Admin, City Utility	Each winter city staff monitor the frost depths and contact residents and business owners if we believe their line is in danger of freezing and recommends they run a tiny stream of water to prevent freezing.	City
5	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning sirens for high wind events.	Existing High 2024-2029	City EM in coord with JC Sheriff's Office	The Jackson County Sheriff's Office tests our community's 4 civil defense sirens monthly and works with us on any recommendations for repairs.	City, County
6	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
7	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvement to reduce the risk of localized flooding to homes and the city storm sewer system.	Existing High 2024-2029	City Public Works	The city public works dept. continues to make sure our storm sewers are properly sized during street projects. Over the past several years staff has been actively looking for sources of I&I into our sanitary sewer system and making fixes where we can. We have purchased a sewer camera to televise sanitary sewer service lines during street reconstruction projects and requiring replacement if it is determined the line is bad. The city has multiple generators for our water plant and sanitary sewer lift stations and performed extensive testing of them over the past year.	City

**CITY OF JACKSON****Mitigation Action Chart**

<b>#</b>	<b>Hazard</b>	<b>Mitigation Strategy</b>	<b>Mitigation Action</b>	<b>Status Priority Timeframe</b>	<b>Responsibility</b>	<b>Comments on Implementation &amp; Integration</b>	<b>Possible Funding</b>
8	Flooding	Local Planning & Regulations	Enforce city ordinances that reduce the impacts of high rain events and risk of flooding to areas of new development.	Existing Moderate 2024-2029	City Admin	The city of Jackson continues to enforce our floodplain ordinance, adopted 3/16/2004 and published publicly 3/24/2004. This ordinance regulates development in the flood hazard areas of the city. The city Zoning Administrator is our Floodplain Administrator.	City

**CITY OF LAKEFIELD**

**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	City of Lakefield uses social media and local television channel to get information out. Our city works with Jackson County on emergency planning and participates in the Annual severe weather Winter/Spring awareness Week, by posting weather awareness on social media and newsletters. Our community bulletin boards contain information to sign up for emergency notification system provided through the Jackson County Emergency Management office/website.	City
2	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 High 2024-2029	Lakefield Public Utilities	The city of Lakefield Public Utilities has recently completed a project with the State of Minnesota that buried overhead powerlines along Highway 86, reducing the potential for downed power lines and outages. The city has an on-going plan to bury overhead powerlines, during infrastructure improvements or road replacements/updates. FEMA HMA grant funding may be applied for in the future to assist in this effort.	City, FEMA HMA
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 High 2024-2029	City Admin	The city's zoning ordinances are enforced and new construction must meet approval of our Planning & Zoning Board.	City

**CITY OF LAKEFIELD**

**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
4	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning sirens for high wind events.	In-Progress High 2024-2029	City EM, City Public Works	In 2022 a new siren was purchased and will be installed June 2023 on the east side of Lakefield. In 2022 the south end siren had a new motor installed and screening installed to prevent bird nests from clogging the siren. The city utilizes its own budget to maintain and update emergency warning sirens within the community. City employees are posted near warning sirens during the monthly test to ensure proper activation and functionality.	City
5	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvements to reduce the risk of localized flooding.	Existing Moderate 2024-2029	City Public Works	The city conducts a constant review of low-lying flooding areas for any drainage improvements and addresses them as needed.	City
6	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

# CITY OF OKABENA

# Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We send out a newsletter on a monthly basis and will seek to include information on weather awareness and to sign up for the county's emergency notification system.	City
2	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 High 2024-2029	City Maintenance	Our city maintenance department works to trim trees and keep them away from powerlines on a regular basis.	City
3	Severe Summer Storms	Structure & Infrastructure Projects	Update the city's existing outdoor warning sirens.	In-Progress High 2024-2029	City Admin, City Maint.	The city planning to update our 2 outdoor warning sirens (located on the water tower and on a light pole by the bar). Both need repairs to ensure they are functioning. The city may seek supportive funding from the USDA Community Facilities grant program to assist with this effort.	City, USDA CF Grant Program
4	Extreme Temps	Mitigation Preparedness & Response Support	Be prepared to provide emergency sheltering to vulnerable residents during extreme temperature events.	Existing High 2024-2029	City Admin, City EM	In the event of an extreme temperature event coupled with an extended power outage, the city will work with our fire department and Jackson County Emergency Management to address assistance such as evacuation or temporary sheltering for the elderly or other vulnerable residents.	City, Jackson County
5	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

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6	Flooding	Local Planning & Regulations	Enroll the city of Okabena in the National Flood Insurance Program and establish a floodplain ordinance.	New High 2024-2029	City Admin	The MN DNR notes that the city has mapped high risk floodplain areas but we are not enrolled in the NFIP. We experience some drainage issues with high rain events but are not aware of a mapped floodplain area. The city plans to follow up with Jackson County and the MN DNR about the city's NFIP status and getting enrolled and developing a floodplain ordinance.	City, MN DNR
7	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvements and the city's sump pump ordinance to reduce the impacts from high rain events.	In-Progress High 2024-2029	City Admin, City Maint.in coord with Bollig Engineering	The city has a sump pump ordinance that we enforce to reduce stress on the city's stormwater system. The city uses its own funding for projects such as stormwater management, however we are working on obtaining outside grant funding to work with Bollig Engineering to address upgrades to the city's sewer and water lines.	City, Other grant funding

# CITY OF WILDER

# Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	The city of Wilder posts information for residents on our city bulletin board. We will encourage residents to go to the county website to sign up for the emergency notification system.	City
2	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 High 2024-2029	City Admin, City Public Works	Wilder enforces a building code for new development.	City
3	Extreme Temps	Mitigation Preparedness & Response Support	Be prepared to provide emergency sheltering to vulnerable residents during extreme temperature events.	Existing High 2024-2029	City Admin, City EM	In the event of an extreme temperature event or other disaster, the city will work with our fire department and Jackson County Emergency Management to address assistance such as evacuation or temporary sheltering for the elderly or other vulnerable residents.	City, Jackson County
4	Severe Summer Storms	Structure & Infrastructure Projects	Upgrade the city's outdoor warning siren.	In-Progress High 2024-2029	City Admin, City EM	Wilder is in the process of seeking a siren upgrade. We will look at possible funding from the USDA Community Facilities Grant Program to assist in this effort.	City, USDA CF Grant Program
5	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
6	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvements to reduce the risk of localized flooding to homes and the city storm sewer system.	In-Progress High 2024-2029	City Admin, City Public Works	Wilder is in the process of applying for funding for a sewer system desperately needed for our city. We have residents where their septic systems don't function and their property does not have enough area for new construction of a septic system.	City