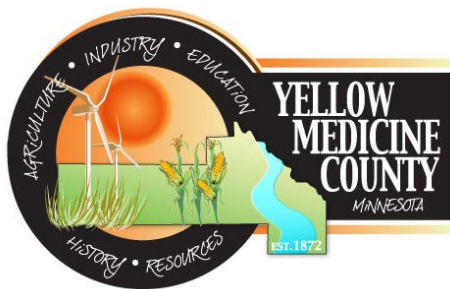


YELLOW MEDICINE COUNTY, MINNESOTA



2023

Hazard Mitigation Plan



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Driven to Discover

YELLOW MEDICINE 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 \$2.295 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).

Yellow Medicine 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 Yellow Medicine 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.

[Yellow Medicine HMP website](#)

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

- 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 Yellow Medicine County Emergency Management to facilitate an update to the 2015 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine County, including the cities of Canby, Clarkfield, Echo, Granite Falls, Hanely Falls, Hazel Run, Porter, St. Leo, and Wood Lake. The Yellow Medicine 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 Yellow Medicine County after final approval by FEMA (see Appendix B).

Yellow Medicine County has specified the following goals for this plan update:

- Include more recent data documenting the critical infrastructure and hazards faced by Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine County HMP planning team is headed by the Yellow Medicine County emergency manager, who is the primary point of contact. Members of the Yellow Medicine 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 Yellow Medicine 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
Casey Namken	Yellow Medicine County Sheriff’s Office	Emergency Management Director
Wayne DeBlieck	Yellow Medicine County Sheriff’s Office	Chief Deputy
Bill Flaten	Yellow Medicine County Sheriff’s Office	County Sheriff
Dana Homan	Yellow Medicine County	Finance Manager
Daniel Moravetz	Yellow Medicine County	Assistant Engineer
John Berends	Yellow Medicine County	County Commissioner
Janel Timm	Yellow Medicine County	Property and Public Services Director
Jolene Johnson	Yellow Medicine County	Zoning Coordinator
Gary Johnson	Yellow Medicine County	County Commissioner
Angie Steinbach	Yellow Medicine County	County Administrator
Ashlie Wubben	Countryside Public Health	Yellow Medicine County Emergency Preparedness Coordinator
Thalia Sik	City of Canby	Administrative Secretary
Nancy Bormann	City of Canby	Mayor
Eric Diekmann	City of Canby Police Department	Chief of Police
Chris Webb	City of Clarkfield	City Administrator
Troy Bruflat	City of Clarkfield	Public Works Director
Raymond Sweetman	City of Echo	Mayor
Brian Pitzl	City of Echo	City Clerk/Treasurer
David Smiglewski	City of Granite Falls	Mayor
Crystal Johnson	City of Granite Falls	City Manager
Brian Struffert	City of Granite Falls Police Department	Police Chief
Patrick Vlaminck	City of Porter	City Councilor
Brenda Drager	City of Wood Lake	City Clerk/Treasurer
Randy Jacobson	Hammer Township	Township Chair

Name	Agency/Organization	Participant Title
Jennifer Hinz	Posen Township	Township Clerk
Brian Doom	Town of Omro	Township Clerk
Jay Stensrud	Swede Prairie Township	Township Supervisor
Rich Schneider	Yellow Medicine East Schools	Superintendent
Mark Marcy	MN Department of Homeland Security and Emergency Management	HSEM Region 5 Regional Program Coordinator
Tyler Knutson	Yellow Medicine Soil and Water Conservation District	Director
Jeff Berens	USDA – NRCS	District Conservationist
Kristi Fernholz	Upper Minnesota Valley Regional Development Commission (UMVRDC)	Planning Director
Kevin Ketelsen	UMVRDC	Community Development Specialist
Stephanie Weick	Chippewa County Sheriff's Office	Emergency Management Director
Amber Scholten	Lincoln County / Lyon County Emergency Management	Emergency Management Director
Mike Hennen	Renville County Emergency Management	Emergency Management Director
Daniel DeSmet	Upper Sioux Community	Emergency Manager

2.2 Review of Existing Plans, Capabilities & Vulnerabilities

Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine County to support mitigation.

Local Mitigation Surveys: As part of Yellow Medicine 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 Yellow Medicine County LMS report, see Appendix C).

2.3 Planning Process Timeline and Steps

In order to update the 2015 Yellow Medicine County HMP, U-Spatial consultants worked in coordination with Yellow Medicine County Emergency Management and members of the planning team. The updated plan includes new data documenting the types of hazards faced by Yellow Medicine County residents and emergency planning officials as well as new thinking on how to address these hazards.

2.3.1 YELLOW MEDICINE COUNTY STAKEHOLDER COORDINATION

Two planning team meetings took place via Zoom video conference hosted by U-Spatial. Meeting participants included representatives from Yellow Medicine 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, Yellow Medicine County issued two news releases announcing the plan update and inviting public review and feedback on the draft plan. The news release provided information on where to view the plan and submit comments. The County HMP website, hosted by U-Spatial, and the feedback and mitigation action ideas survey will remain available through the five-year planning period to foster public engagement.

Table 2 documents dates of Hazard Mitigation update meetings and public outreach; The public feedback period for the draft plan was open from 2/9/23 to 2/23/23, for a period of 15 days. Appendix G provides documentation of the public outreach for feedback on the draft plan by Yellow Medicine County and jurisdictions.

Table 2. Yellow Medicine County hazard mitigation update meetings and public outreach

Event	Date	Appendix
Kickoff Webinar	7/29/21	Appendix F, Planning Team Meetings
News Release #1	9/7/21	Appendix G, Public Outreach & Engagement Documentation
Planning Team Meeting #1	1/18/22	Appendix F, Planning Team Meetings
Planning Team Meeting #2	11/22/22	Appendix F, Planning Team Meetings
News Release #2	2/9/23	Appendix G, Public Outreach & Engagement Documentation

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

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

2.3.2 OVERVIEW OF JURISDICTIONAL PARTICIPATION

Throughout the planning process, Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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. Yellow Medicine 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 Yellow Medicine 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
Yellow Medicine County (9,347)	X	X	X	X	X	X
City of Canby (1,669)	X	X	X	X	X	X
City of Clarkfield (833)	X	X	X		X	
City of Echo (238)	X	X	X	X	X	X
City of Granite Falls (2,798)	X	X	X	X	X	X
City of Hanley Falls (235)	X		X			X
City of Hazel Run (50)	X		X			
City of Porter (159)	X	X	X	X	X	X
City of St. Leo (93)	X		X			
City of Wood Lake (379)	X	X	X		X	X
Neighboring Jurisdictions:						
Lac qui Parle County						
Chippewa County		X				
Renville County					X	
Redwood County						
Lyon County		X				
Lincoln County		X				
Upper Sioux Tribal Community		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 Yellow Medicine County, updated the existing mitigation actions published in the 2015 HMP, and proposed new mitigation actions.

The team examined the hazards identified in the 2014 HMP and adjusted 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 Yellow Medicine 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 Yellow Medicine County HMP Update

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

3.1.2 FEMA- AND MINNESOTA-DECLARED DISASTERS AND ASSISTANCE

Another historical perspective is derived from FEMA-declared disasters. Twenty major disasters and four emergency declarations in Yellow Medicine County have been made between 1957 and December 2022, for a total of 24; details of these can be viewed on the [Yellow Medicine 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). Yellow Medicine County was included in two 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, 2021a). Table 5 lists the projects in the county funded by a hazard mitigation assistance program.

Table 5. Historical hazard mitigation funding awarded in Yellow Medicine County

Project Identifier	Sub-Grantee	Project Type	Federal Share (%75)
PDMC-PL-05-MN-2009-005	Upper Minnesota Valley Regional Development Commission	Tribal Multihazard Mitigation Plan	\$29,141
PDMC-PL-05-MNIT001-2013-001	Upper Sioux Community (Indian Reservation)	Tribal (Local) Multihazard Mitigation Plan	\$33,711
DR-1921-0010-F	Granite Falls	Warning Systems (as a Component of a Planned, Adopted, and Exercised Risk Reduction Plan)	\$18,694
DR-1175-0010-R	Yellow Medicine County	Acquisition of Private Real Property (Structures and Land) - Riverine	\$172,006
DR-1622-0004-R	Lyon-Lincoln Electric Cooperative, Inc.	Utility Protective Measures (Electric, Gas, etc.)	\$311,877
DR-1370-0002-R	Yellow Medicine (County)	Acquisition of Private Real Property (Structures and Land) - Riverine; 203.1: Wet Floodproofing Pr	\$95,026
DR-1175-0034-R	Yellow Medicine Soil & Water Conservation District	Vegetation Management - Wind	\$47,004
DR-1370-0004-R	Granite Falls	Acquisition of Private Real Property (Structures and Land) - Riverine	\$912,225

SOURCE: (MN HSEM, 2022)

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 Yellow Medicine 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.

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 Yellow Medicine 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, Yellow Medicine 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.

Yellow Medicine County

Flooding: County and township road structures were greatly impacted in 2019 with millions of damages being recorded. We also have homes along the Minnesota River that have experienced repetitive flooding. There have been mitigation efforts in the past, but there are still homes that experienced flooding in 2019 which led to first responders having to rescue homeowners.

Ice Storms, Blizzards: Yellow Medicine County has two power companies in the county that in past disasters have had major damage to the power infrastructure.

Yellow Medicine County is very susceptible to winter weather due to it being an agriculture county that sit on the east side of the Buffalo Ridge on the Minnesota/ South Dakota border. In the past years there has been multiple blizzard warnings issued for the county with no travel advised.

Windstorms, Tornadoes: We have an increase of camping spots in two campgrounds owned by Yellow Medicine County (Wood Lake County Park and Orass Park). These two locations do not have storm shelters to house people during severe storm events.

Yellow Medicine County has two power companies in the county that in past disasters have had major damage to the power infrastructure.

Extreme Cold: Rural 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. The county has also

experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.

Extreme Heat: There are several homes, businesses, and gathering spots in Yellow Medicine County that do not have air conditioning available. Yellow Medicine County has a significant older population that live in rural settings so that can lead to a heat emergency for those residents.

City of Canby

Flooding: With the creek in town, we are prone to flooding. We have had flooding issues from the ditches. Our areas that are most affected come off of the holding ponds and over to our lift station. With the dams that have been built around Canby, our flooding has been mitigated some. We have had flooding in the city in recent past due to fast and excessive rains.

Windstorms, Tornadoes: We have had 2 windstorms in the past 2 years. Each event has led to numerous trees falling down. Our campgrounds do not have storm shelters.

Winter Storms, Extreme Cold: We have experienced frozen water lines in the past because of extreme cold weather. As we look at extending a housing development area, there is caution on the effects of cold and the freezing of sewage lines.

Dam Failure: We have 4 dams surrounding the city of Canby. If any or all of the dams were to fail, there would be extreme flooding throughout the city. We work with the watershed district on our emergency plan in the event of an emergency. They do monitor the dams regularly and address any issues.

City of Clarkfield

Flooding: Backup generator is needed for sanitary sewer lift stations.

Windstorms: Storm shelter signage needs to be put back up at the community center.

City of Echo

Windstorms: Trees, power poles and elevator would be affected.

City of Granite Falls

Flooding: The city has completed multiple flood mitigation efforts. There are still a few areas that require sandbagging during a flood including over by the Legion. There are a few homes located adjacent to the river that in times of very high flooding are at risk and may require sandbagging in a severe flooding event. Flooding also deteriorates the rip rap that was recently repaired in 2019.

Any sanitary and wastewater infrastructure that are located in the 100-year floodplain are susceptible to flooding as well as any structures in the same areas. The city further continues to address I & I concerns. During times of high-water events, it places stress on the sanitary system to treat the inflow of water.

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

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

In the past we have experienced significant damage to our municipal owned airport. In 2016 airport hangars were destroyed from a windstorm.

In 2020, the city had a significant number of trees that were uprooted damaging powerlines and homes.

Dam Failure: The city has a hydroelectric plant/dam. The city completes annual inspections and makes appropriate repairs as needed. The city also has an emergency dam failure plan that is reviewed on an annual basis. We view a dam failure as a low risk, but still a risk to be prepared for. The city has never experienced a dam failure event to date.

City of Hanley Falls

Flooding: The storm sewer backs up, flooding the streets and sewer manholes. We also have some combined sewer-storm sewer connections. The city utilities and fire department work together pumping water and doing what we need to do.

Windstorms: Severe windstorms seem to be more intense and more frequent. With all overhead lines, the power goes out more often. We definitely have a need for more pumps, generators, and transfer switches.

Winter storms: The ice load on the power lines makes it just a matter of time before the entire town is without power.

City of Porter

Snowstorm: We do not have a city employee or snow crew, so we rely on YMC and the State of Minnesota Highway for snow removal along the county and state road. We need to hire a private contractor for city streets, parking lots, and Fire Hall emergency doors. During a blizzard it isn't always possible for the contractor to get to the city to keep the Fire Hall emergency doors cleared of snow. We worry that emergency response time will be severely affected. Lack of timely emergency response can jeopardize citizen's life and property.

Windstorm: With the increases in high winds, we are finding that we have more power outages. Porter is in a low area with a high-water table. With power outages, sump pumps are not removing water infiltration in basements causing basement flooding. The sanitary sewer system also relies on electric pumps to move sewage to the lagoon. Failure of these systems affect citizens well-being and their property.

Flooding: Porter does not have a storm sewer system and all rainwater drains along street curbs and boulevards. Pooling water infiltrates into our sanitary sewer system causing more water than the sanitary sewer pumps can move to the lagoon. When the pumps cannot keep up, water backs up into basements. We need to pump flooding water into a ditch to keep water out of basements. This work is accomplished by volunteers. High water and potential dike damage would flood the city filling basements and damaging property. Lack of a storm sewer system will cause water to not be moved out of town quickly enough. This increased water infiltration in basements and the sanitary sewer system causing property damage, mold potential, and health hazards to citizens.

City of St. Leo

Flooding: One of our sanitary sewer lift stations is prone to flooding during high rain events. City and fire department personnel have sandbagged the area in the past to prevent flooding into the lift station.

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

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.

In the past we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold.

The city has also experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.

City of Wood Lake

Flooding: One of our sanitary sewer lift stations is prone to flooding during high rain events. The city has pumps to bypass lift stations in flooding events.

Windstorms: The city has many old Ash trees infected with the emerald ash borer. These trees are at high risk of damaging life and property during heavy windstorms.

Winter Storms: Winter storms bring ice and high winds that can compromise our electrical infrastructure and lead to power outages.

3.4.2 FUTURE DEVELOPMENT

Because Yellow Medicine 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. Yellow Medicine 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 Yellow Medicine 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.

Yellow Medicine County

Yellow Medicine County has recently put in more camping location in Wood Lake County Park bringing the total up to 30 camping spots with possible more location in the future. Yellow Medicine County also has put in six new camping spots in Orass Park located in a rural area of Yellow Medicine County. This park is not equipped with storm shelters at this time.

City of Canby

In the past 5 years, we have added 3 new single-family homes, 2 twin homes, and a grain bin. In the event of a natural disaster, there is an increase in cost. We have worked hard to update our infrastructure but have seen an increase in the timing of stormwater running through the system and discharging into the ponds and ditches. This has brought some flooding at times.

City of Clarkfield

New development with slab for foundations should have a storm shelter.

City of Granite Falls

Our population has slightly declined. We are however seeing more commercial growth in our Industrial Park that is subjected to future wind events.

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 Yellow Medicine 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 Yellow Medicine 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 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 Yellow Medicine 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. Seventeen of the 24 federal disaster declarations in Yellow Medicine County included flooding.

4.1.1 PROBABILITY OF OCCURRENCE

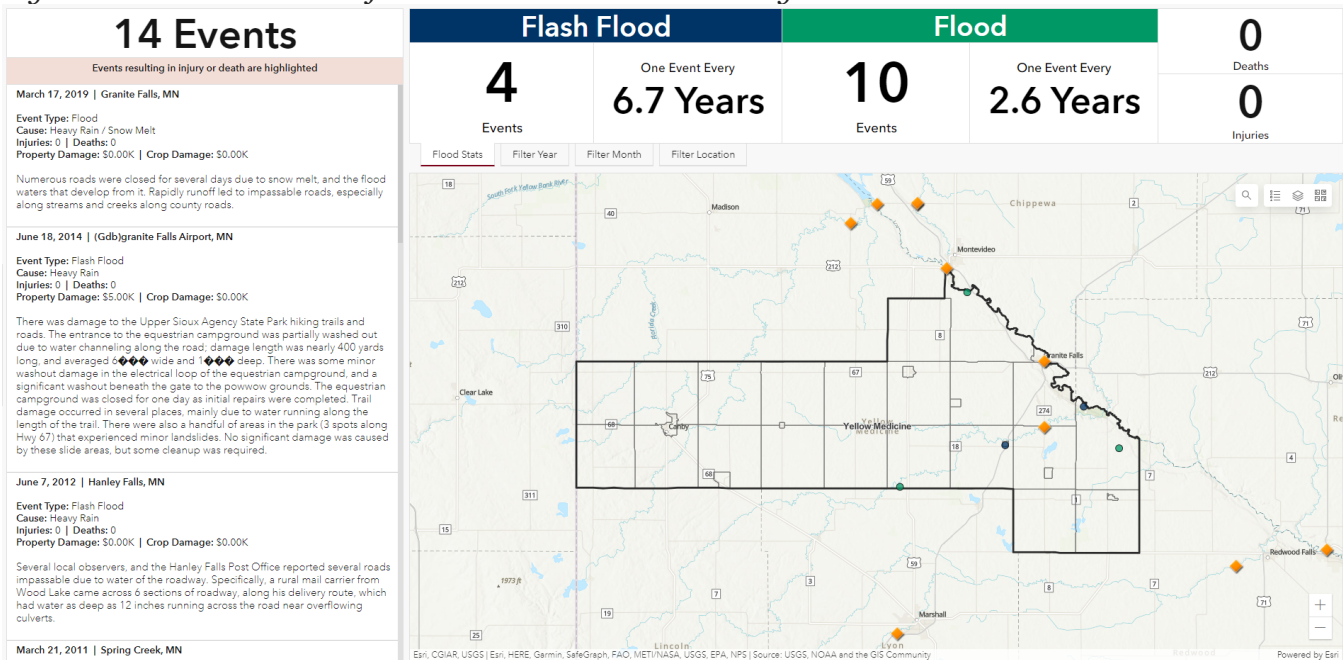
From 1997 to 2022, the NCEI Storm Events Database has recorded 14 flood and flash flood events. Yellow Medicine County has experienced one flash flood event every 6.7 years and one riverine flood event every 2.6 years on average during this period.

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

Minnesota HSEM has encouraged a potential risk and economic loss analysis for a 1% annual chance flood using the FEMA tool, Hazus for ArcGIS. A Digital Flood Insurance Rate Map (DFIRM) defined the 1% annual chance flood boundary. Where available, stream base flow elevation and cross-section data were used to generate a depth grid with a 10-meter horizontal resolution. The remainder of the county's depth grids were modeled in HAZUS using the EQL method. The resulting Hazus 1% annual chance

floodplain is shown in the Flood Vulnerability dashboard on the Yellow Medicine HMP website (Figure 1), where it is available in an interactive form.

Figure 1. 1% Annual chance flood in Yellow Medicine County



4.1.2 VULNERABILITY

Potential economic loss estimates were based on county-specific building data. Yellow Medicine 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 Yellow Medicine 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, 13,194 points were input to Hazus to represent buildings with a total estimated building

plus contents value of \$1.35 billion. Approximately 54% of the buildings (and 44% of the building value) are associated with residential housing.

The estimated loss by occupancy class for the entire county is shown in Table 6.

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	7,141	\$595,540,758	125	\$36,182,550	120	\$13,803,234
Commercial	479	\$112,549,488	10	\$1,503,200	9	\$334,043
Other	5,574	\$649,199,400	161	\$14,573,400	157	\$1,863,909
Totals	13,194	\$1,357,289,646	296	\$52,259,150	286	\$16,001,186

SOURCE: (FEMA, 2021B)

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 1st-floor height, there may be 0% damage.

Hazus Critical Infrastructure Loss Analysis

Critical facilities and infrastructure are vital to the public and their incapacitation or destruction would have a significant negative impact on the community. These facilities and infrastructure were identified on the [HMP website](#) and verified by Yellow Medicine 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 Yellow Medicine 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. None of Yellow Medicine County's critical infrastructure was determined to be in the 1% chance flood boundary using the available facility data.

Community Vulnerability

Potential economic losses were estimated by Census Minor Civil Division. Twelve structures in the City of Granite Falls would be damaged in the 1% annual chance flood. Minnesota Falls and Normania Townships would suffer the most significant 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 Yellow Medicine 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

Yellow Medicine County Emergency Management identified several 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 Yellow Medicine 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 (e.g., culvert replacements, road repair) is an ongoing need. The county and many of our townships have limited funding for road infrastructure. Yellow Medicine County continues to provide assistance on road infrastructure mitigation projects to reduce the impacts of localized flooding.

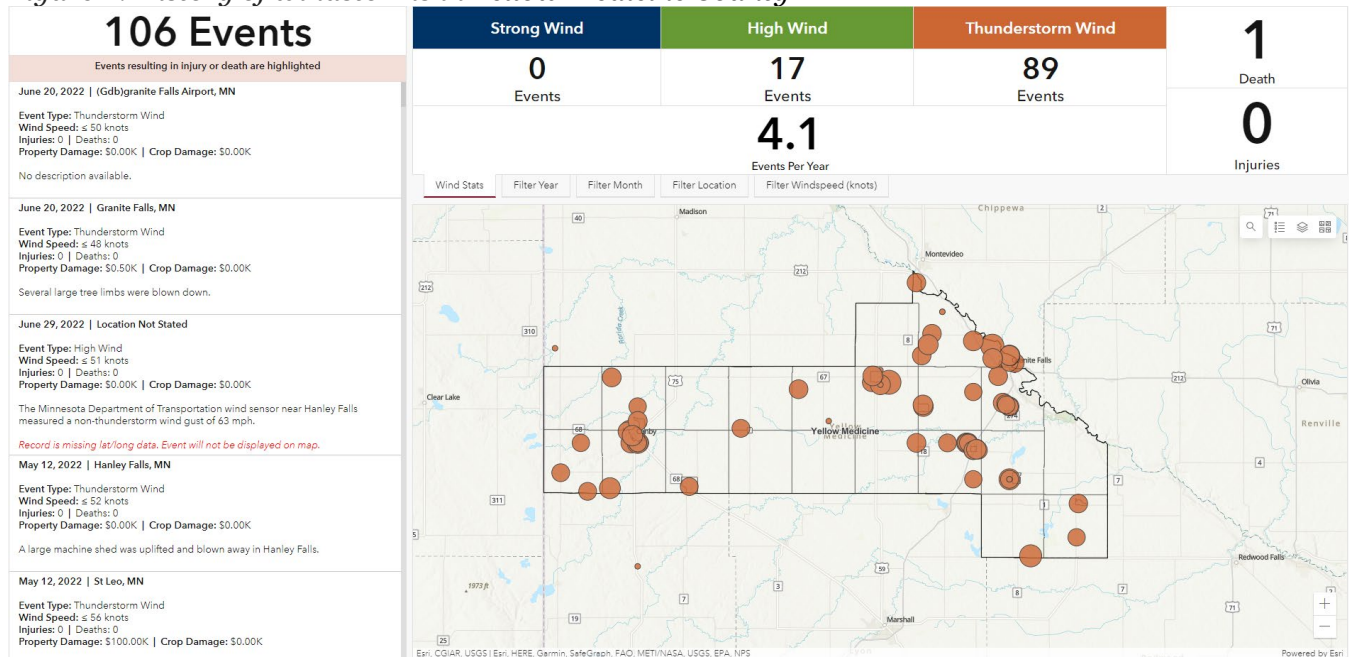
Yellow Medicine County Comprehensive Water Plan: The Yellow Medicine County Comprehensive Water Plan (January 2017–December 2021) is under the YMC Planning & Zoning Department has a 5-year implementation plan. The plan identifies the primary water planning issues and action items addressing: Groundwater Protection; Erosion and Sediment Control; Reducing Priority Pollutants; and Surface Water, Drainage Management, and Flooding. For each of the Priority Issues, Objectives and Action Items have been developed to form the implementation plan. In 2022 the YMC Comprehensive Water Plan is on a one-year extension and will likely sunset except for a <5% portion of the county included in the Redwood River watershed. The county will have the opportunity to adopt Comprehensive Watershed Management Plans (One Watershed One Plan) for all major watersheds including Yellow Medicine (adopted late 2016) and Lac qui Parle (early 2023), and eventually the Redwood River (TBD).

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 Yellow Medicine County is shown in Figure 2; an interactive version of this map can be found on the Yellow Medicine County HMP website.

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

Figure 2. History of windstorms in Yellow Medicine County



4.2.1 PROBABILITY OF OCCURRENCE

To determine the probability of future wind-related events in Yellow Medicine County, records of previous wind-related events (strong wind, high wind, and thunderstorm wind) in Yellow Medicine 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 4.1 per year. These relative frequencies can be used to infer the probability of these events occurring in the future.

4.2.2 VULNERABILITY

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

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

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

4.2.3 PROGRAM GAPS AND DEFICIENCIES

Yellow Medicine 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 Yellow Medicine County are above ground, exposing them to impacts/damage from high wind events, potentially leading to localized or extensive power outages.

Public Education: Continued public education needs to be conducted during tornado season to inform the public on what is a tornado watch/warning and what to do when outdoor warning sirens are activated. Ongoing public education is also needed to encourage residents to be ready for long-term power outages during dangerous spring and summer storm events such as thunderstorms or high wind events.

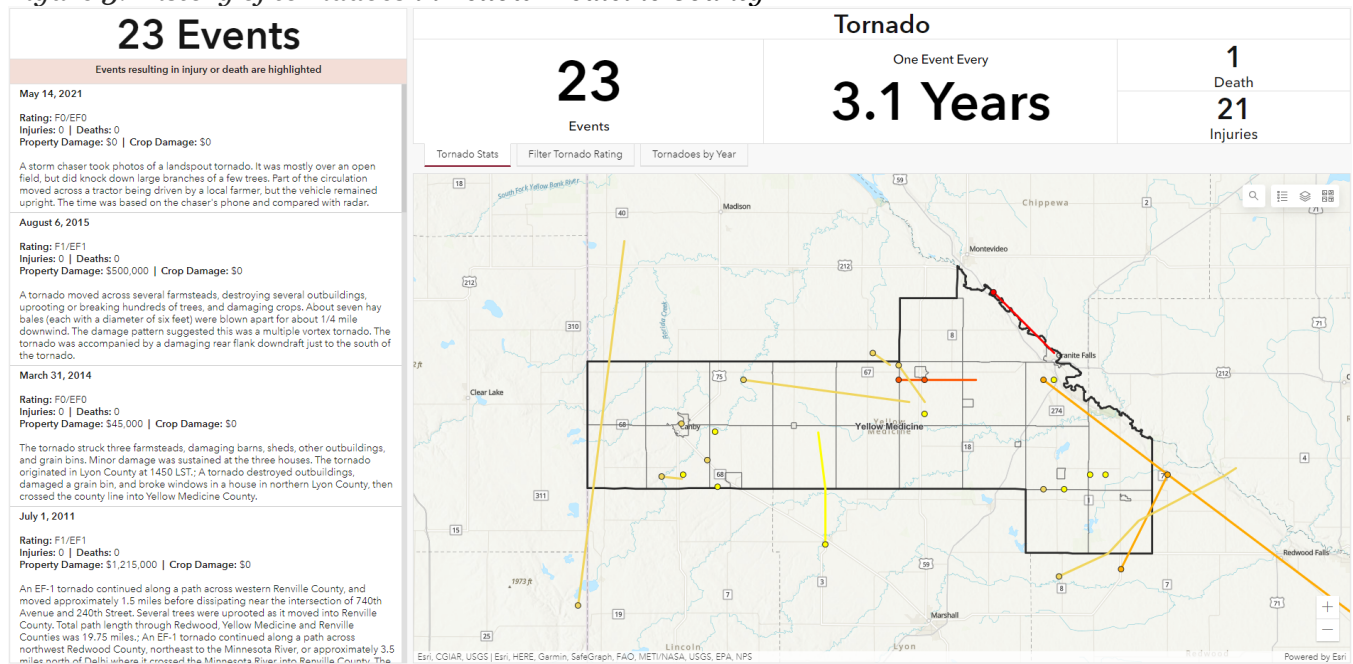
Storm Shelters and Tornado Safe Rooms: There are areas throughout the county without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations such as the county fairgrounds and county parks that offer camping. 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.

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

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

Figure 3. History of tornadoes in Yellow Medicine County



4.3.1 PROBABILITY OF OCCURRENCE

Estimating the probability of future tornadoes in Yellow Medicine 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 February 2020, there has been one tornado every 3.1 years in Yellow Medicine County. These 23 tornadic events occurred in 15 of the 70 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 Yellow Medicine County, there was an annual frequency of 2-5 tornadoes within a 50-mile radius. The frequency was greater in the eastern half of the county. The historical frequency was only slightly higher in the southeast than the northwest. 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 Yellow Medicine 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.

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

People living in mobile homes are particularly vulnerable to tornadoes due to them not being able to withstand the strong winds produced by a tornado. According to NOAA's Storm Prediction Center, from 1985–2002, 49% of tornado fatalities in the United States were people who remained within or attempted to flee from mobile homes (AMS, 2004). While Minnesota law requires most mobile home parks to have storm shelters, many do not (Sepic, 2017).

4.3.3 PROGRAM GAPS AND DEFICIENCIES

Yellow Medicine 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 Yellow Medicine County are above ground, exposing them to impacts/damage from high wind events, potentially leading to localized or extensive power outages.

Public Education: Continued public education needs to be conducted during tornado season to inform the public on what is a tornado watch/warning and what to do when outdoor warning sirens are activated. Ongoing public education is also needed to encourage residents to be ready for long-term power outages during dangerous spring and summer storm events such as thunderstorms or high wind events.

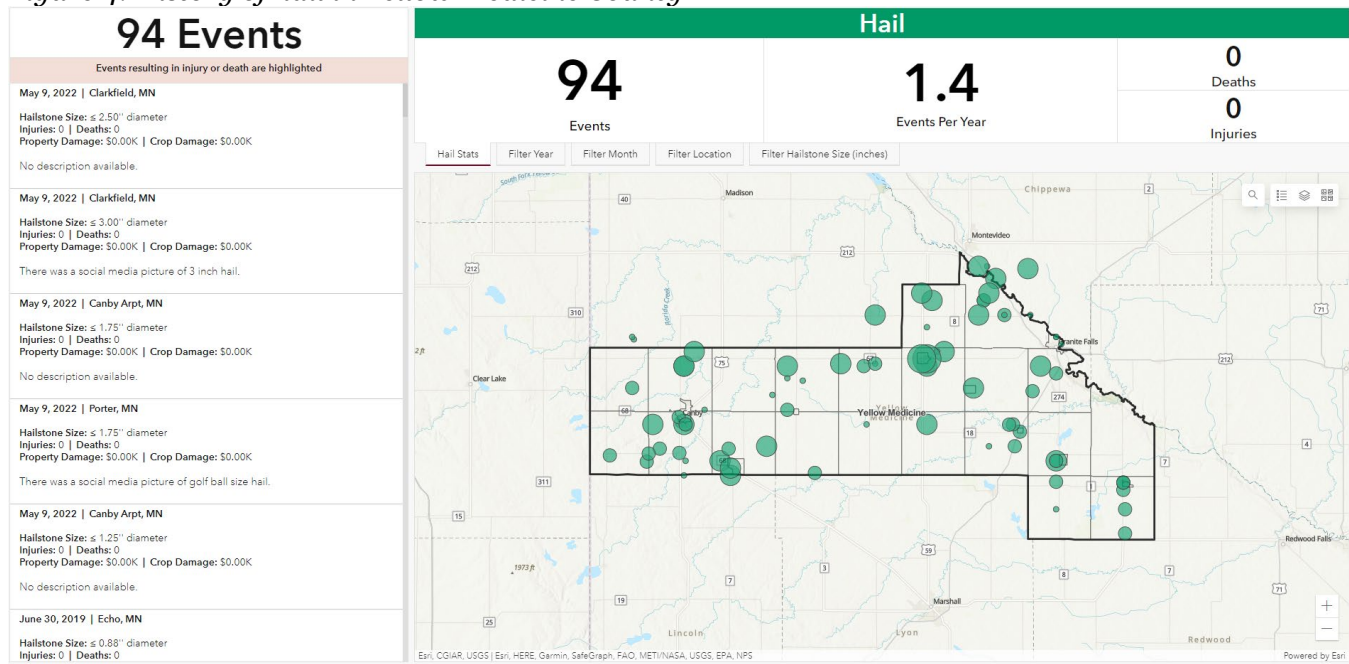
Storm Shelters and Tornado Safe Rooms: There are areas throughout the county without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations such as the county fairgrounds and county parks that offer camping. 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.

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, 2019). In 2017, 44% of properties in Minnesota were affected by damaging hail events (Samanta & Wu, 2017). The history of hail in Yellow Medicine County is shown in Figure 4; an interactive version of this map can be found on the Yellow Medicine County HMP website.

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

Figure 4. History of hail in Yellow Medicine County



4.4.1 PROBABILITY OF OCCURRENCE

To determine the probability of future hailstorms in Yellow Medicine County, records of previous hail events in the county were examined for the period of record. From January 1955 through January 2020, the relative frequency of hail events was 1.4 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

Yellow Medicine 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 2018 Yellow Medicine County reported \$9.5 million in hail damages, ranking 27th among Minnesota counties in total hail damages. Yellow Medicine County's losses are primarily due to crop damages reported at \$9.3 million followed by \$142 thousand in property damages. Crop indemnity payments due to hail totaled \$16.4 million for the period of record spanning 1989–2018 (CEMHS, 2019).

Within Yellow Medicine 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

Yellow Medicine 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 Yellow Medicine County are above ground, exposing them to impacts/damage from high wind events, potentially leading to localized or extensive power outages.

Public Education: Continued public education needs to be conducted during tornado season to inform the public on what is a tornado watch/warning and what to do when outdoor warning sirens are activated. Ongoing public education is also needed to encourage residents to be ready for long-term power outages during dangerous spring and summer storm events such as thunderstorms or high wind events.

Storm Shelters and Tornado Safe Rooms: There are areas throughout the 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 such as the county fairgrounds and county parks that offer camping. 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.

4.5 Winter Storms

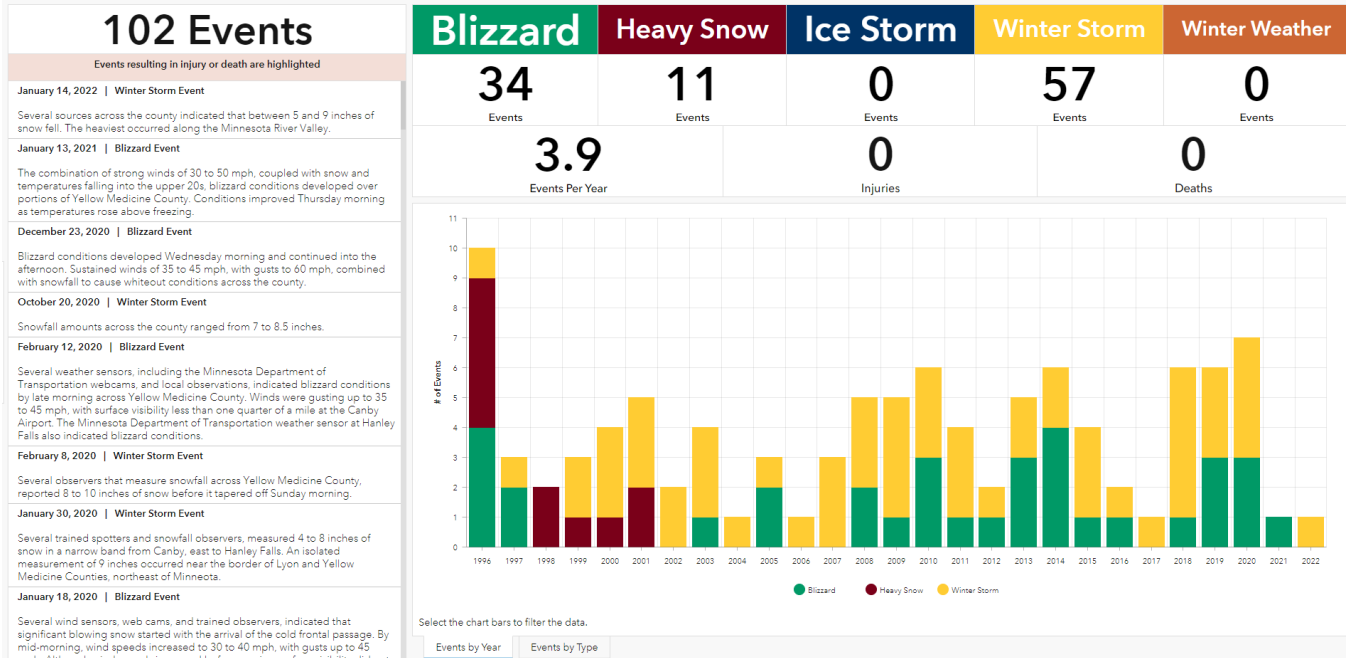
Winter storms encompass a number of winter weather events which the National Weather Service (NWS) organizes into the following categories: blizzard, heavy snow, ice storm, winter storm, and winter

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

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 \$957 million dollars in damages since 1960 (CEMHS, 2019). The history of winter storms in Yellow Medicine County is shown in Figure 5; an interactive version of

this map can be found on the Yellow Medicine County HMP website.

Figure 5. History of winter storms in Yellow Medicine County



4.5.1 PROBABILITY OF OCCURRENCE

To determine the probability of future winter-related storm events in Yellow Medicine County, records of previous events (blizzard, heavy snow, ice storm, winter storm, and winter weather) were summed and divided by the dataset’s period of record, resulting in the annual relative frequency of winter-related storms. Based on records in the NCEI Storm Events Database through January 2020, the relative frequency of winter-related storm events in Yellow Medicine County is 3.9 per year. This relative frequency can be used to infer the probability of these events occurring in the future.

4.5.2 VULNERABILITY

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

4.5.3 PROGRAM GAPS AND DEFICIENCIES

Yellow Medicine 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 Yellow Medicine 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.

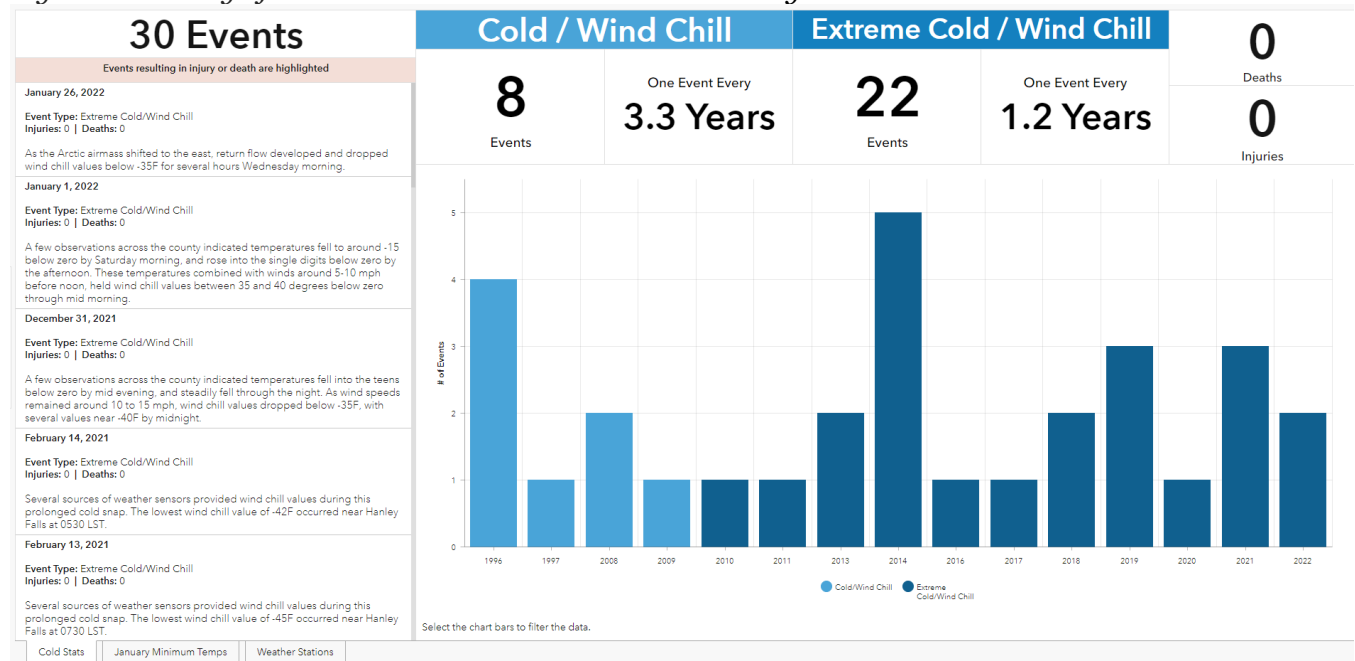
Backup Power: Not all designated shelter facilities have generator back-up power to provide the ability to care for residents if displaced during a severe winter event coupled with an extended power outage.

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

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

Figure 6. History of extreme cold in Yellow Medicine County



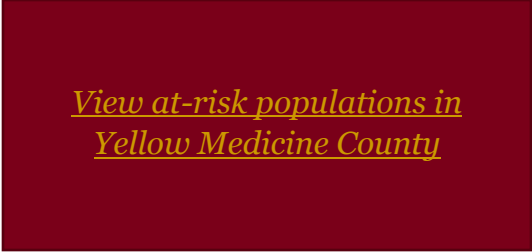
4.6.1 PROBABILITY OF OCCURRENCE

To determine the probability of future cold-related events in Yellow Medicine County, records of previous cold/wind chill and extreme cold/wind chill events were summed and divided by the dataset’s period of record, resulting in the annual relative frequency. Based on records in the NCEI Storm Events Database through January 2020, the relative frequency of extreme cold/wind chill events in Yellow Medicine

County is .8 per year or one every 1.2 years. (NCEI, 2021). This relative frequency can be used to infer the probability of these events occurring in the future.

4.6.2 VULNERABILITY

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



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

Yellow Medicine 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.

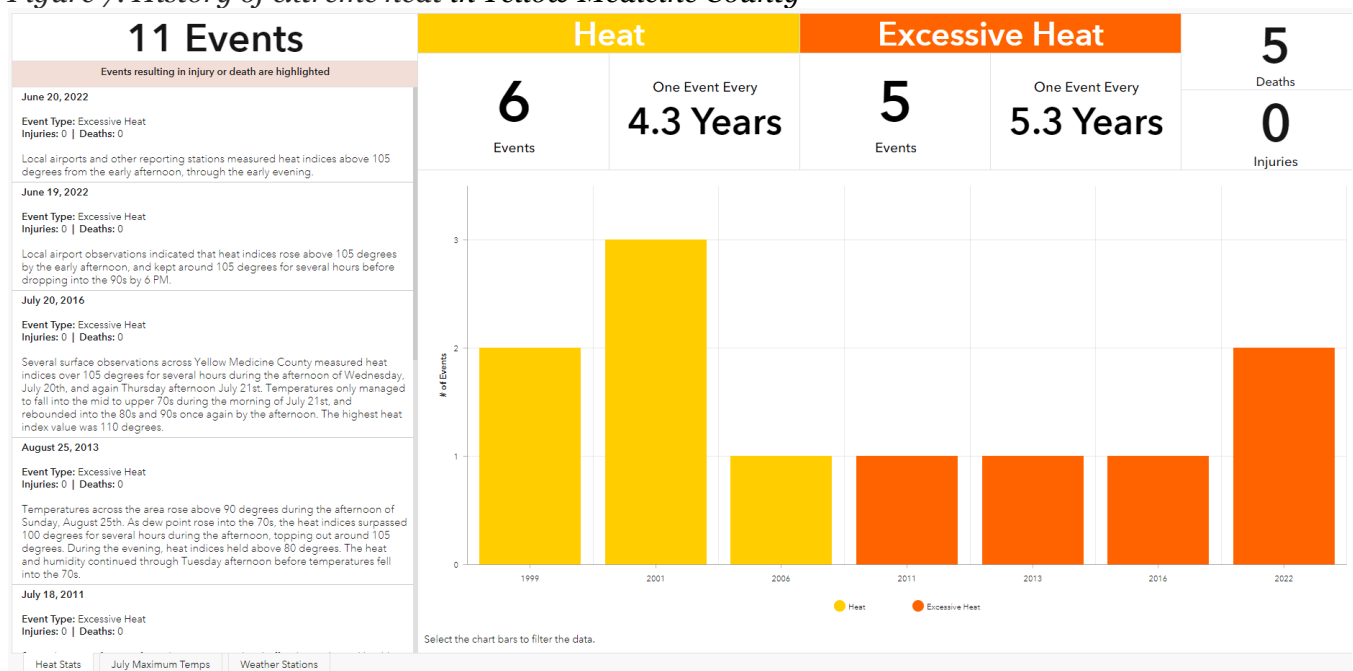
Public Education: Ongoing public education is needed to encourage residents to be prepared for extreme weather, including power outages during periods of extreme cold.

4.7 Extreme Heat

Extreme heat is the combination of very high temperatures and exceptionally humid conditions. 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 Yellow Medicine County is shown in Figure 7; an interactive version of this chart can be found on the Yellow Medicine County HMP website.

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

Figure 7. History of extreme heat in Yellow Medicine County



Extreme heat events are linked to a range of illnesses, even death, and can exacerbate pre-existing chronic conditions (Moss, 2017). Medical costs related to extreme heat can be enormous: in 2005, the total was \$1.5 billion nationwide, or more than \$16,000 per patient (Union of Concerned Scientists, 2009). Heat-related hazards have cost Yellow Medicine County over \$63,000 in property damages since 1960 (CEMHS, 2019).

4.7.1 PROBABILITY OF OCCURRENCE

To determine the probability of future heat-related events in Yellow Medicine County records of previous heat and excessive heat events were summed and divided by the dataset’s period of record, resulting in the annual relative frequency of heat-related events. Based on records in the NCEI Storm Events Database through January 2020, the relative frequency of extreme heat events in the county is .2 per year or one every 5.3 years. This relative frequency can be used to infer the probability of these events occurring in the future.

4.7.2 VULNERABILITY

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

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).



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.

4.7.3 PROGRAM GAPS AND DEFICIENCIES

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

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

4.8 Landslides

[See interactive information about landslides, including history, on the Yellow Medicine County HMP website](#)

The movement of a mass of rock, debris, or earth down a slope by the force of gravity is considered a landslide. They occur when the slope or soil stability changes from stable to unstable, which may be caused by earthquakes, storms, erosion, fire, or additional human-induced activities. Floods and landslides are closely related, and both involve precipitation, runoff, and ground saturation that may be the result of severe thunderstorms; however, landslides also take place over time and often take place

when no natural disaster is evident.

Comprehensive data for historical landslide events are not available but there is a concern for some localized threats. A USGS inventory of landslides includes four landslide scarps and deposits in Sioux Agency Township, and area that sees recurring slope failure along the Minnesota River. There are also two different areas of homes endangered by slope failures in recent years: in Canby a house was moved and in Granite Falls there is a slight increasing risk after recent flooding events.

4.8.1 PROBABILITY OF OCCURRENCE

To determine the frequency of landslides in Yellow Medicine County, we require records of previous landslides and the period in which they occurred. Comprehensive data for historical landslide events are not available. Statewide and national maps suggest that landslide risk in Yellow Medicine County is relatively low; however, anecdotal evidence does indicate that there is a risk of landslides in certain limited locations within the county, particularly in the Minnesota river valley. There is a documented increase in frequency of the heaviest 1% of extreme precipitation events (Climate Adaptation Partnerships, 2022). These extreme rain events are the most likely to cause landslides. Although the risk to infrastructure and property in Yellow Medicine County is low, landslides remain a concern to Yellow Medicine County Emergency Management in localized areas.

4.8.2 VULNERABILITY

Human life and safety, structures, and infrastructure are all vulnerable to landslides. Streambank erosion and slope failure put structures and property at risk. Properties at risk include primarily residential structures on river bluffs and Highway 67 along the Minnesota River.

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

4.8.3 PROGRAM GAPS AND DEFICIENCIES

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

Slope Failure Dangers to Highways & Homes: The ongoing failure on the slope of Highway 67 in Sioux Agency Township has a landslide danger possibility in certain limited locations within the county, particularly in river valleys and near rivers. We have also seen two different areas within the county of homes being endangered by slope failures in last couple years: In Canby a house was moved and in Granite it has become more of a moderate risk especially after the last flooding incident. The county should continue to evaluate and address areas that may be prone to slope failure to protect roads and other structures.

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).

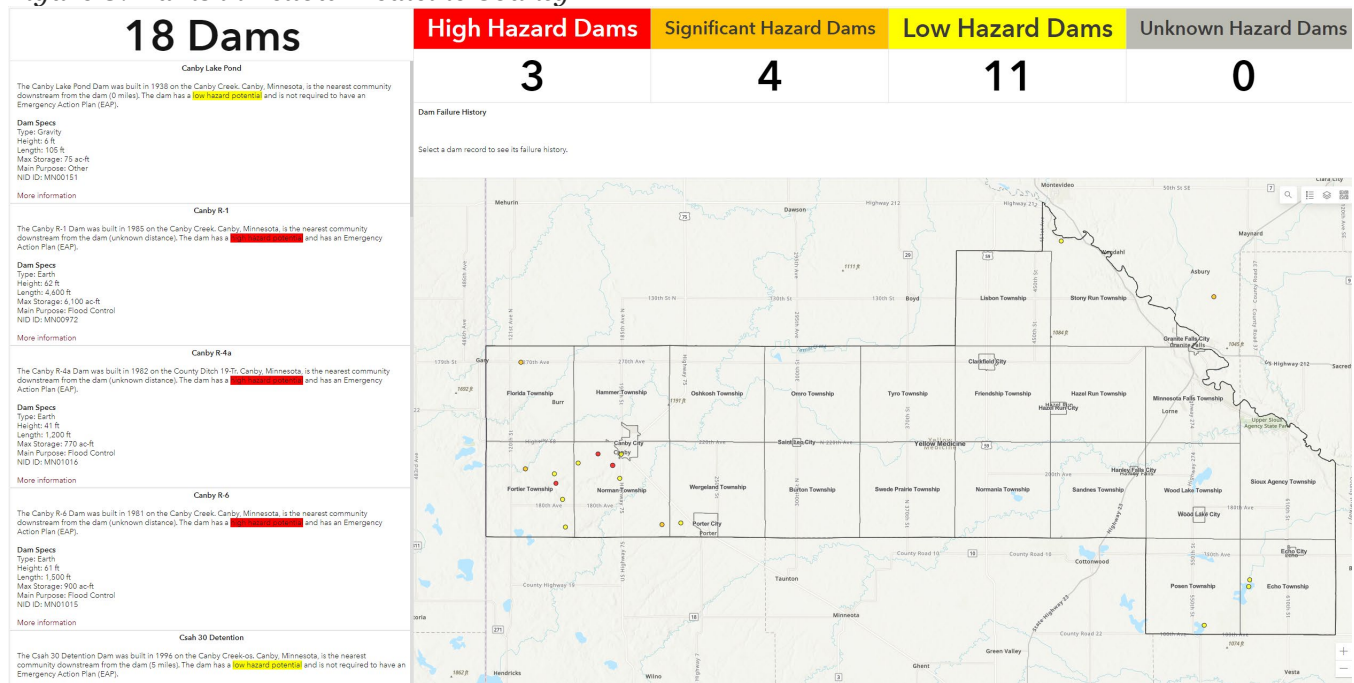
Dam Inventory: There are 18 dams and no levees in Yellow Medicine County. Dams are mapped in Figure 8; an interactive version of this map is available on the Yellow Medicine County HMP website.

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

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, none in Yellow Medicine County, and the likelihood of a dam failure in the county is very low. Dam failures are extremely unlikely if the dam is maintained in compliance with Minnesota's Dam Safety Program. There is no record of any dam failures in Yellow Medicine County.

Figure 8. Dams in Yellow Medicine County



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)

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).

There are four significant hazard dams and three high hazard dams in Yellow Medicine County. The high hazard dams are known as Canby R-1, Canby R-6, and Canby R-4A and are all owned by the Watershed

District of Lac Qui Parle-Yellow Bank. The last inspection for these dams was in 2022 and the EAPs were last updated in 2016. The three are earthen dams built for flood risk reduction. The Emergency Management Director has the Emergency Action Plans available for review.

The Canby R-1 Dam was built to protect the Canby community (population 1,692) in 1985 on Canby Creek. Canby, Minnesota, is one mile downstream. This dam has a height of 62 feet with a maximum storage of 6,100 acre feet. The dam condition reported in the NID is “satisfactory”. If Canby R-1 Dam would fail it would take out critical structure and life-saving locations in the City of Canby. Some of the locations include Canby Fire Department, Canby Ambulance Garage, Sanford Hospital/Clinic and Canby School System. Approximately half of the homes in the City of Canby would be affected by this failure. The EAP contains a map of the breach inundation area in a probable maximum flood.

The Canby R-4a Dam was built in 1982 for flood control on County Ditch 19-Tr. This dam has a height of 41 feet and a maximum storage of 770 acre feet. The City of Canby is 2 miles downstream. The dam condition reported in the NID is “satisfactory”. If Canby R-4 would fail it would take out vital routes into Canby including Highway 68 and Yellow Medicine County Road 3 which are the two access roads from the west to the City of Canby. It would also affect Minnesota West Community College which had multiple living buildings on location. Approximately half of the homes in the City of Canby would be affected by this failure. The EAP contains a map of the breach inundation area in a probable maximum flood.

The Canby R-6 dam was built in 1981 on Canby Creek. Canby is five miles downstream of this dam. The height is 61 feet and the maximum storage is 900 acre feet. The dam condition reported in the NID is “fair.” If Canby R-6 would fail it would flood local cropland that has sporadic residence along the creek system. This failure could potentially affect the R-1 and R-4 structure downstream which could ultimately flood the whole community of Canby.

4.9.3 PROGRAM GAPS AND DEFICIENCIES

Yellow Medicine 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 the communities:

- Appendix D: Lists the plans and programs in place in Yellow Medicine County as related to hazard mitigation.
- Appendix C: As part of the Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine County

Community Name	Participation in the NFIP	FEMA Map	Description of Participation
Yellow Medicine County	Participating	FEMA-mapped high-risk areas	<p>Yellow Medicine County’s Planning & Zoning Department maintains the floodplain management ordinance (Section II, YMC Land & Related Resource Management Ordinance) and floodplain maps for the county. The Planning and Zoning Dept. is the repository for the NFIP’s Digital Flood Insurance Rate Maps (DFIRM), as well as flood boundary and floodway maps for rural Yellow Medicine County. The Planning and Zoning Office can assist county residents in determining whether their property is affected by an officially mapped flood area. By enforcing floodplain regulations, county residents are able to participate in the Federal Flood Insurance Program.</p>
Canby	Participating	FEMA-mapped high-risk areas	<p>The city enforces requirements of the NFIP through Ordinance #245 “Floodplain Ordinance, Amended 2021” in the city’s code of ordinances. This chapter regulates development in the flood hazard areas of the city.</p>
Clarkfield	Participating	No FEMA-mapped high-risk areas	<p>The city was entered into the NFIP program on 02/28/97(E) under emergency (E) status and was not required to have an ordinance in place upon entry into the program. The city noted they are not aware of any floodplain ordinance in place for the city. The city has been put in touch with the state NFIP coordinator to learn how to develop an ordinance as part of their participation in the NFIP.</p>
Echo	Not Participating	No FEMA-mapped high-risk areas	<p>The city does not have a FEMA map and is not participating.</p>
Granite Falls	Participating	FEMA-mapped high-risk areas	<p>The city enforces requirements of the NFIP through Chapter 151, Floodplain Management in the city’s code of ordinances. This chapter regulates development in the flood hazard areas of the city.</p>
Hanley Falls	Not Participating	No FEMA-mapped high-risk areas	<p>The city does not have a FEMA map and is not participating.</p>

Community Name	Participation in the NFIP	FEMA Map	Description of Participation
Hazel Run	Not Participating	No FEMA-mapped high-risk areas	The city does not have a FEMA map and is not participating. The city was entered into the NFIP program on 03/20/74(E) under emergency (E) status and was not required to have an ordinance in place upon entry into the program. The city noted they are not aware of any current floodplain ordinance in place for the city. The city has been put in touch with the state NFIP coordinator to learn how to develop an ordinance as part of their participation in the NFIP.
Porter	Participating	FEMA-mapped high-risk areas	The city does not have a FEMA map and is not participating. The city has not participated in the NFIP as per the decision of the City Council not to enroll in the NFIP. The mapped high risk flood risk area within the city limits is in farm fields with no structures.
St. Leo	Not Participating	No FEMA-mapped high-risk areas	The city does not have a FEMA map and is not participating. The city has not participated in the NFIP as per the decision of the City Council not to enroll in the NFIP. The mapped high risk flood risk area within the city limits is in farm fields with no structures.
Wood Lake	Not Participating	FEMA-mapped high-risk areas	The city does not have a FEMA map and is not participating. The city has not participated in the NFIP as per the decision of the City Council not to enroll in the NFIP. The mapped high risk flood risk area within the city limits is in farm fields with no structures.

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.

As of January 2023, Yellow Medicine County has 12 properties listed as NFIP RL properties. The properties are primarily single-family residences, with three listed as “other non-residence” and one as a business. Nine properties are in the city of Granite falls, but one property has a Hanley Falls address, and two have a Montevideo address. There are no SRL properties in Yellow Medicine County.

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

5.1.2 PLANS AND ORDINANCES

Yellow Medicine 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

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

All Hazards

All Hazards Emergency Operations Plan: Yellow Medicine County Emergency Management maintains an all-hazards Emergency Operations Plan 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.

Emergency Notification Systems: Yellow Medicine County maintains the CodeRED Emergency Notification System which allows residents and visitors to sign up (“opt-in”) to receive severe weather alerts targeted to their location, along with other local emergency alerts. A link to sign up for the system is located on the Yellow Medicine County website.

Relationship with National Weather Service: Yellow Medicine County has a strong relationship with the National Weather Service – Sioux Falls, SD 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: Yellow Medicine County utilizes the Yellow Medicine County – Emergency Management website page, Yellow Medicine County Sheriff’s Office Facebook page, and local news media to communicate with residents and visitors on emergency preparedness.

Mass Care Shelter Facilities: In partnership with the American Red Cross, Yellow Medicine County has designated facilities throughout the county that could be utilized to provide mass care services to support an evacuation or other incident where temporary housing and basic human services are needed. Yellow Medicine County Emergency Management maintains a list of shelters within the county and has trained staff prepared for shelter operations.

NOAA Weather Radios: Yellow Medicine County actively 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 to encourage their use & functionality.

Weather-Ready Nation Ambassador: Yellow Medicine County Sheriff's Office is a 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: Generator back-up power is in place for the Yellow Medicine County Administration building.

School Closings: Schools throughout Yellow Medicine County have 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.

Severe Winter Storms

Winter Weather Statements (Watch, Advisory, Warning, etc.): Yellow Medicine County relays all winter weather statements received from the National Weather Service via social media platforms and our community partners.

Public Education: Yellow Medicine County participates annually in the Winter Hazard Awareness Week campaign sponsored by the National Weather Service and MN Homeland Security and Emergency Management each November. Throughout the week, the county shares information on winter storms, outdoor & indoor winter safety, winter fire safety, and winter driving.

Snow Removal & Ice Control: The Yellow Medicine 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 Yellow Medicine County Hwy Department Snow Removal Policy. MNDOT removes snow from State Highways as well as disperses salt/sand as needed.

Severe Summer Storms

Emergency Notifications: Severe spring and summer storm warnings are initiated by the National Weather Service. Residents receive warnings by NOAA weather radio, local media, CodeRED Emergency Notification System, cell phone apps, and the outdoor warning siren system. Yellow Medicine County redistributes all outlook, watch, advisory, and warning statements issued by the NWS.

Outdoor Warning Sirens: There are outdoor warning sirens located in the cities of Canby, Porter, Granite Falls, Hanley Falls, Wood Lake, St. Leo, Hazel Run, Clarkfield, Echo and the Upper Sioux Community which are tested on a monthly basis by the Yellow Medicine County Sheriff's Office. Sirens are activated when the National Weather Service notifies Dispatch of high winds or tornado conditions that pose a risk to the public. Warning sirens are owned and maintained by the jurisdictions where they are located. All sirens are remotely activated by the Yellow Medicine County Sheriff's Office.

Skywarn Program: Yellow Medicine 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.

Public Education: Yellow Medicine County participates in the annual Severe Weather Awareness Week campaign sponsored by the National Weather Service and Minnesota Homeland Security and Emergency Management each April. Throughout the week the county shares information on severe weather alerts and warnings, lightning, hail, floods, tornadoes, and extreme heat.

Right of Way Clearance: Yellow Medicine County Highway Department and local utility providers regularly maintain and clear their right of ways of trees, vegetation, and debris to prevent the creation of additional hazards or blocking road/site access resulting from severe spring and summer storm events.

Manufactured Home Parks Shelters & Evacuation Plans: Countryside Public Health works with licensed manufactured home parks to ensure the requirements of MN Statute 327.20 relating to shelters and evacuation plans are met. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to Countryside Public Health.

Flooding

National Flood Insurance Program (NFIP): Yellow Medicine County has FEMA Mapped High Risk Areas and participates in the NFIP.

Floodplain Ordinance and Mapping: Yellow Medicine County's Planning & Zoning Department maintains the floodplain management ordinance (Section II, YMC Land & Related Resource Management Ordinance) and floodplain maps for the county. The Planning and Zoning Dept. is the repository for the National Flood Insurance Program's Digital Flood Insurance Rate Maps (DFIRM), as well as flood boundary and floodway maps for rural Yellow Medicine County. The Planning and Zoning Office can assist county residents in determining whether their property is affected by an officially mapped flood area. By enforcing floodplain regulations, county residents are able to participate in the Federal Flood Insurance Program.

Shoreland Regulations: YMC Land & Related Resource Management Ordinance - Section III, Shoreland Management establishes regulations for the control the density and location of developments in the shorelands of the public waters of the county in order to preserve the water quality and the natural characteristics of the shorelands and public waters in the county.

Transportation Improvement Plan: Yellow Medicine County Highway Department maintains a 5-year Transportation Improvement Plan that identifies and schedules road improvement projects that include measures for flood mitigation. The current TIP for construction projects is from 2019 – 2023.

Buffer Law: Yellow Medicine County adopts and enforces the State Buffer Law with the county’s “Ordinance for the Implementation of Enforcement of the 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.

Yellow Medicine One Watershed One Plan: The Yellow Medicine One Watershed One Plan (1W1P) was developed as one of five pilot “One Watershed One Plan” projects in Minnesota as a result of legislation passed in 2012 that authorized the Minnesota Board of Water and Soil Resources (BWSR) to align local planning on watershed boundaries. Ten local governments entered into a Memorandum of Agreement (MOA) to develop the YM1W1P and include representatives from Area II, Lincoln County and SWCD, Lac qui Parle County and SWCD, Lyon County and SWCD, Yellow Medicine County and SWCD, and the Yellow Medicine River Watershed District (YMRWD). The mission of these organizations, along with the state agencies that cooperated in developing this plan, is to work together with citizens to restore and protect the water resources of the Yellow Medicine Watershed.

Extreme Cold

Emergency Notifications: Extreme cold temperature warnings are issued by the National Weather Service (NWS). Yellow Medicine County Emergency Management assists with sharing this information with the public.

Extreme Cold Safety Awareness: Yellow Medicine County Emergency Management and Countryside 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 Heat

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

Public Education and Awareness: Yellow Medicine County Emergency Management and Countryside 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.

Landslides

Bluff Setback Ordinance: Yellow Medicine Land and Zoning Department has an ordinance in place that states the setback for construction by bluff areas is 30 feet and an increased setback can be imposed if construction is near an actively eroding bluff.

Dam Failure

Canby Dam Management: Lac Qui Parle Yellow Bank Watershed District owns and manages three high-hazard potential dams in Yellow Medicine County, all located in the city of Canby. Plans are maintained for these dams including identification of potential inundation areas in the event of a dam failure.

Granite Falls Dam – The Granite Falls Dam is under the ownership and maintenance of the city of Granite Falls. Yellow Medicine County has worked in cooperation with the city on past post-flood mitigation measures to reduce risk associated with high rain events as well as emergency public notification and information during flood events.

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 Yellow Medicine County Plan. This framework, as outlined below, will allow for integration of the mitigation actions that are listed by Yellow Medicine 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"> • Comprehensive plans • Land use ordinances • Planning and zoning • Building codes and enforcement • Floodplain ordinances • NFIP Community Rating System • Capital improvement programs • Open space preservation • Shoreline codes • Stormwater management regulations and master plans
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p>	<ul style="list-style-type: none"> • Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits • Floodwalls and retaining walls • Detention and retention structures • Culverts • Safe rooms

Mitigation Strategy	Description	Example Mitigation Actions
	Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.	
Natural Systems Protection	These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.	<ul style="list-style-type: none"> • Sediment and erosion control • Stream corridor restoration • Forest management • Conservation easements • Wetland restoration and preservation
Education and Awareness Programs	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.	<ul style="list-style-type: none"> • Radio or television spots • Websites with maps and information • Real estate disclosure • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • StormReady Certification • Firewise Communities
Mitigation Preparedness and Response	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.	<ul style="list-style-type: none"> • Emergency operations plan • Flood fight plans and preparedness • Dam emergency action plans • Warning • Backup power • Emergency capabilities

Local leaders work together with the Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 Canby, Clarkfield, Echo, Granite Falls, Hanely Falls, Hazel Run, Porter, St. Leo, and Wood Lake.

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 2015 Yellow Medicine 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"> • Methods for reducing risk from the hazard are technically reliable. • The County has experience in implementing mitigation measures. • Mitigation measures are eligible under federal grant programs. • There are multiple mitigation measures for the hazard. • The mitigation measure(s) are known to be cost effective. • The mitigation measures protect lives and property for a long period of time, or are permanent risk reduction solutions.
Moderate Priority	<ul style="list-style-type: none"> • Mitigation methods are established. • The County has limited experience with the kinds of measures that may be appropriate to mitigate the hazard. • Some mitigation measures are eligible for federal grants. • There is a limited range of effective mitigation measures for the hazard. • Mitigation measures are cost-effective only in limited circumstances. • Mitigation measures are effective for a reasonable period of time.
Low Priority	<ul style="list-style-type: none"> • Methods for reducing risk from the hazard are not well-established, are not proven reliable, or are experimental. • The State or Counties have little or no experience in implementing mitigation measures, and/or no technical knowledge of them. • Mitigation measures are ineligible under federal grant programs. • There is a very limited range of mitigation measures for the hazard, usually only one feasible alternative. • The mitigation measure(s) have not been proven cost effective and are likely to be very expensive compared to the magnitude of the hazard. • The long-term effectiveness of the measure is not known or is known to be relatively poor.

Time frame

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

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

Responsibility

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

Comments on Implementation & Integration

Each mitigation action provides a description of how the jurisdiction will work to implement the mitigation action and incorporate the activity into other existing planning mechanisms.

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 Yellow Medicine 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. Yellow Medicine 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	Encourage all county residents to sign-up for the county’s CodeRED emergency notification alert system.	Existing High 2023-2028	Yellow Medicine County Emergency Management (YMCEM)	A link to sign up for the system is located on the Yellow Medicine County website. YMCEM uses the county website and Facebook pages to promote residents to sign up for the system.	County
2	All-Hazards	Mitigation Preparedness & Response Support	Ensure the Yellow Medicine County Emergency Operations Plan (EOP) is updated and addresses policies & procedures needed to support EM functions prior to, during, and following a disaster.	Existing Moderate 2023-2028	YMCEM	YMCEM maintains an all-hazards Emergency Operations Plan which lays out concepts and operating guidelines for all incident management and support functions that may be needed to ensure life safety, incident stabilization, and property preservation during an incident and the transition to recovery.	County
3	All-Hazards	Mitigation Preparedness & Response Support	Ensure designated facilities are in place and prepared for providing mass care sheltering and county staff are trained in sheltering operations.	Existing Moderate 2023-2028	YMCEM in coord with Red Cross	In partnership with the American Red Cross, Yellow Medicine County has designated facilities throughout the county that could be utilized to provide mass care services to support an evacuation or other incident where temporary housing and basic human services are needed. YMCEM maintains a list of shelters within the county and has trained staff prepared for shelter operations. Yellow Medicine County utilizes the Yellow Medicine County – Emergency Management website page, Yellow Medicine County Sheriff’s Office Facebook page, and local news media to communicate with residents and visitors on emergency preparedness.	County
4	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, extreme temperatures, and extended power outages.	Existing High 2023-2028	YMCEM in coord with Countryside Public Health and Local Gov’t	YMCEM participates in and promotes the NWS Severe Weather Awareness Weeks in spring and fall each year and promotes the use of NOAA weather radios by local residents, businesses, schools, long term care facilities, government buildings and visitors to receive information from the NWS. YMCEM shares information with local governments and encourages them to use their communication platforms to keep residents informed.	County, CPH

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	Severe Winter & Summer Storms	Structure & Infrastructure Systems	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.	Existing High 2023-2028	YMCEM in coord with Local Gov't and Rural & Municipal Utility Coops	Countryside Public Health (CPH) also communicates messages for education and outreach in partnership with YMCEM. In addition, the CPH School Health Prevention Nurses offer severe weather education in all of our schools, including YM County, for the month of May with K-2nd graders. Ottertail Power, Minnesota Valley Light and Power, East River Electric Power, Xcel Energy, Lyon -Lincoln Electric Coop, H-D Electric Coop, City of Granite Falls continue to address where power lines can be strengthened or buried underground. YMCEM will assist as needed with future applications to FEMA for eligible projects to reduce risk of power outages by these coops.	Electric Coops, FEMA HMA grant
6	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	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.	Existing Moderate 2023-2028	YMCEM in coord with Local Gov't	YMCEM continues to work with the county to be ready to deploy generators to county-critical facilities. YMCEM also continues to provide assistance to local jurisdictions that need to acquire portable generators to power infrastructure such as lift stations and other key facilities such as City Hall /community shelters in the event of a power outage. In some cases, this may include helping to identify where used portable generators may be obtained or helping to prepare a funding application.	County, Local Gov't
7	Severe Winter & Summer Storms	Natural Systems Protection	Conduct vegetation management along county-owned roads to reduce the risk of downed trees and branches resulting from severe storms.	Existing Moderate 2023-2028	YMC Highway Dept.	YMC Highway Department and local utility providers regularly maintain and clear their right of ways of trees, vegetation, and debris to prevent the creation of additional hazards or blocking road/site access resulting from severe spring and summer storm events.	County
8	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	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.	Existing High 2023-2028	YMCEM, in coord with Schools & Other Facilities	YMCEM continues to encourage long-term care facilities that house senior citizens or other vulnerable populations to have emergency plans and generators in place to deal with severe weather, power outages, and extreme temperatures.	County, Local Facilities

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
9	Severe Winter Storms	Mitigation Preparedness & Response Support	Address the safety of county, city, and township roads in winter through snow removal and ice control.	Existing High 2023-2028	YMC Highway Dept. in coord with Local Gov'ts and MnDOT	YMCEM and local city emergency managers are available resources for these facilities in their preparedness efforts. YMCEM encourages business and area nursing homes to enroll in the county's emergency notification system so they will be aware of dangerous storm events. The YMC 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 YMC Hwy Department Snow Removal Policy. MNDOT removes snow from State Highways as well as disperses salt/sand as needed.	County
10	Severe Summer Storms	Local Planning & Regulations	Work with owners of mobile home parks (MHP's) to ensure they are in compliance with Minnesota Department of Health (MDH) requirements for evacuation plans and storm shelters. 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.	Existing High 2023-2028	Yellow Medicine County Public Health in coord with Local Gov't and MHP's	Countryside Public Health works with licensed manufactured home parks in Yellow Medicine County to ensure the requirements of MN Statute 327.20 relating to shelters and evacuation plans are met. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to Countryside Public Health for MDH.	MCPH, MHP Owners
11	Severe Summer Storms	Mitigation Preparedness & Response Support	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.	Existing Moderate 2023-2028	YMCEM in coord with NWS & Local Gov't	YMCEM 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.	County, NWS
12	Severe Summer Storms	Mitigation Preparedness & Response Support	Work with local governments to ensure the functionality of outdoor warnings sirens to warn residents of dangerous high wind or tornado events.	Existing High 2023-2028	YMC Sheriff's Office in coord with Local Gov'ts	There are outdoor warning sirens located in the cities of Canby, Porter, Granite Falls, Hanley Falls, Wood Lake, St. Leo, Hazel Run, Clarkfield, Echo and the Upper Sioux Community which are tested on a monthly basis by the YMC Sheriff's Office. Warning sirens are owned and maintained by the jurisdictions where they are located. All sirens are remotely activated by the Yellow Medicine County Sheriff's Office.	County, Local Gov'ts

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
13	Severe Summer Storms	Local Planning & Regulations / Structure & Infrastructure Projects	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.	Existing High 2023-2028	YMCEM in coord with Local Gov't	YMCEM will assist communities as needed with applying for funding to the USDA Community Facilities Grant Program which is a source for funding outdoor warning sirens. All new sirens will be connected to the county's remote activation system.	County, Local Gov't, USDA CF Grant Program
14	Severe Summer Storms	Structure & Infrastructure Projects	Address the need for construction of tornado safe rooms or storm shelters at the two Yellow Medicine County parks that have seen an increase in campground sites. (Timm Park and Orass Park).	New High 2023-2028	YMCEM in coord with YMC Parks Dept.	YMC Parks Dept. maintains two county parks that are open seasonally, Timm Park and Orass Park. Both offer camping for RV's and tents. YMCEM will work with the YMC Parks Dept. to assess and plan for the potential construction of sturdy dual-facilities to serve as storm shelters or the construction of tornado safe rooms. FEMA HMA grant funding would be explored if tornado safe rooms are the preferred route for protecting campers.	County, FEMA HMA grant funding
15	Severe Summer Storms	Structure & Infrastructure Projects	Provide assistance to communities in addressing the need for the construction of storm shelters or tornado safe rooms in areas where people are vulnerable to high wind or tornadic events.	Existing Moderate 2023-2028	YMCEM in coord with Local Gov't	YMCEM will work to provide assistance to communities to help assess need, possible construction options, and assist in applying for possible FEMA grant funding to address tornado safe rooms where needed, such as at campgrounds, resorts, mobile home parks, and schools. YMCEM will work with local city and townships to identify where storm shelters or tornado safe rooms are needed and to evaluate whether new construction or a retrofit of facilities is appropriate.	County, FEMA HMA, Other (TBD)
16	Flooding	Local Planning & Regulations	Participate in the National Flood Insurance Program and enforce county policies that address development in high-risk flood areas.	Existing High 2023-2028	YMC Planning & Zoning Dept.	YMC's Planning & Zoning Dept. maintains the floodplain management ordinance (Section II, YMC Land & Related Resource Management Ordinance) and floodplain maps for the county. The Planning and Zoning Dept. is the repository for the NFIP's Digital Flood Insurance Rate Maps (DFIRM), as well as flood boundary and floodway maps for rural Yellow Medicine County. YMC also enforces the county's Shoreland Management ordinance, establishes regulations for the control the density and location of developments in the shorelands of the public waters of the county.	County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
17	Flooding	Local Planning & Regulations / Structure & Infrastructure Projects	Plan for and implement measures to address minor localized flood reduction projects for roads, bridges, and culverts throughout the county.	In-Progress High 2023-2028	YMC Highway Dept.	YMC Highway Department maintains a 5-year Transportation Improvement Plan that identifies and schedules road improvement projects that include measures for flood mitigation. The current TIP for construction projects is from 2019 – 2023. The Highway Dept. works with townships and the Drainage Inspector to address road improvements, ditch maintenance, and bank stabilization projects needed to mitigate against high rain events.	County, State, Federal
18	Flooding	Local Planning & Regulations / Structure & Infrastructure Projects	Work in partnership with regional Soil & Water Conservation Districts (SWCD's) and other watershed partners to address planning, policies, and projects that reduce future erosion and flooding.	In-Progress Moderate 2023-2028	YMCEM, YMC Land & Resource Mgmt. Office	YMC partners with regional SWCD's in the Yellow Medicine One Watershed One Plan (1W1P). Ten local governments entered into a Memorandum of Agreement (MOA) to develop the YM1W1P and include representatives from Area II, Lincoln County and SWCD, Lac qui Parle County and SWCD, Lyon County and SWCD, Yellow Medicine County and SWCD, and the Yellow Medicine River Watershed District (YMRWD). Together this group works to plan for the protection of water resources of the Yellow Medicine Watershed, including flood and erosion concerns.	County, Local Gov't, SWCD Cost Share Grant Funding
19	Flooding	Local Planning & Regulations	Provide assistance to local jurisdictions in the county with high flood risk in to review flood risk and plan for necessary flood mitigation measures.	In-Progress High 2023-2028	YMCEM in coord with Local Gov't's	YMCEM meets with the city of Granite Falls on an annual basis to review the flood risk annually to the city.	County, City of GF
20	Flooding	Local Planning & Regulations / Structure & Infrastructure Projects	Conduct property buyouts to acquire 2 homes along the Minnesota River affected by repetitive flooding and physically relocate or remove those homes to eliminate future flood damages.	In-Progress High 2023-2028	YMCEM in coord with Local Gov't's	YMC is working to obtain funding to offer buyouts for two residences along the Minnesota River that have experienced repetitive flooding. YMCEM will assist with a possible property acquisition application to FEMA or MN DNR for grant funding to conduct buyouts. Yellow Medicine County was awarded extensive FEMA mitigation funds from 1996 through 2001 for the Minnesota River area to remove numerous flood prone residences.	County, MN DNR, FEMA HMA, Local Gov't

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
21	Landslides	Local Planning & Regulations	Enforce the Yellow Medicine County Bluff Setback Ordinance to restrict development in areas that may be prone to erosion and future slope failure.	Existing High 2023-2028	YMC Planning & Zoning Dept.	Yellow Medicine Planning and Zoning Department has an ordinance in place that states the setback for construction by bluff areas is 30 feet and an increased setback can be imposed if construction is near an actively eroding bluff. YMC Land & Resource Management Department continue to monitor and address the stability of the slope along Hwy. 67 in Sioux Agency Township to protect against landslides. The county also continues to work with communities to monitor risk of slope failure to homes (Canby and Granite Falls). YMC will pursue slope stabilization projects and potential property buyouts for future at-risk homes from slope failure. FEMA HMA grant funding is a potential source of funding that YMC may seek to apply for in the future for buyouts and soil stabilization projects.	County
22	Landslides	Structure & Infrastructure Projects	Evaluate and address areas that may be prone to slope failure to protect roads and other structures.	Existing High 2023-2028	YMCEM, YMC Land & Resource Mgmt. Office	The high hazard dams located upstream of Canby are Canby R-1, Canby R-6, and Canby R-4A. Each of the earthen dams was built for flood risk reduction and are inspected annually by the Lac Qui Parle Yellow Bank Watershed District. Emergency Action Plans (EAP's) also have contact information updated annually. Yellow Medicine County Emergency Management continues to work with the LQP Yellow Bank Watershed District and the City of Canby to review the EAP's when they undergo an update, which address response measures such as emergency public notification and evacuation in the event of a dam breach as well as inundation maps to identify the affected public and assets in the event.	County, FEMA HMA grant funding
23	Dam Failure	Mitigation Preparedness & Response Support	Continue to work with the Lac Qui Parle-Yellow Bank Watershed District and the City of Canby to review and update the Emergency Action Plans for the high hazard dams located upstream from the city of Canby.	Existing High 2023-2028	LQP Yellow Bank Watershed District in coord with YMCEM and City of Canby		LQP Watershed District

Section 6 – Plan Maintenance

6.1 Monitoring, Evaluation, and Updating the Plan

The Yellow Medicine County Hazard Mitigation Plan 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 Yellow Medicine County HMP.

The Yellow Medicine 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 Yellow Medicine County EMD will work with an emergency managers group to help monitor, review, evaluate, and update the Hazard Mitigation Plan. The group will include township representatives and designated city emergency managers from the cities of Canby, Clarkfield, Echo, Granite Falls, Hanely Falls, Hazel Run, Porter, St. Leo, and Wood Lakeas well as other city elected officials or staff as needed. The Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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 committee deems appropriate and necessary, and as approved by county commissioners.

Throughout the five-year window of the plan, Yellow Medicine County EMD will request updates from county departments and jurisdictions on that status of mitigation efforts so that progress notes may be maintained for the next plan update.

6.2 Implementation

Yellow Medicine 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 Yellow Medicine County and its jurisdictions (see Appendix H and Section 5.3). The cities of Canby, Clarkfield, Echo, Granite Falls, Hanely Falls, Hazel Run, Porter, St. Leo, and Wood Lake 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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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.

In order to seek continued public participation after the plan has been approved and during the five-year window of implementation for this plan, Yellow Medicine County will take the following measures:

- The plan will be posted on the Yellow Medicine County Emergency Management website for the public to read and provide 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, Yellow Medicine 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 Yellow Medicine County Emergency Management Director.
- Jurisdictions will use numerous means of public outreach to engage new public stakeholders in providing input on mitigation efforts or concerns on hazards by sharing information at city council/township board meetings, sharing information at special events, working with local schools and partner organizations, and posting information on relevant local or social media that their 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.

*The Yellow Medicine County
HMP website provides
opportunities for continued
public involvement and
feedback*

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

Yellow Medicine County Local Mitigation Survey Report

Overview

As part of Yellow Medicine County’s Multi-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 are the responses from the county and jurisdictions that participated in the survey.

LMS Forms

Yellow Medicine County	Page 2
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YELLOW MEDICINE COUNTY

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

- Hazard Identification & Risk Prioritization:** Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low, Moderate, or High</u>. Consider past events, likelihood of future events, and impacts to community assets.	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	Increasing
Tornadoes	X	Moderate	No change
Windstorms	X	Moderate	Increasing
Lightning		Low	No change
Hail	X	Moderate	No change
Flooding	X	Moderate	Increasing
Extreme Cold		Moderate	No change
Extreme Heat		Moderate	No change
Drought		Low	No change
Wildfire		Low	No change
Landslides		Low to Moderate	No change
Dam Failure		Low	No change

- Recent Hazard Events:** Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community

Yellow Medicine County has been involved in one Federal Disaster Declaration in 2019 from spring flooding that caused over a million dollars to the road structures in Yellow Medicine County.

In July of 2020, Yellow Medicine County had a severe wind event that took down multiple trees across the county. This caused enough in damages that a State Declaration was declared.

On December 24, 2020, Yellow Medicine County experienced a major wind/snow event that shut down the roadways throughout the county. First Responders had to rescue people that were stranded and temporarily house them in the three major communities in Yellow Medicine County.

3. **Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Flooding	County and township road structures were greatly impacted in 2019 with millions of damages being recorded. We also have homes along the Minnesota River that have experienced repetitive flooding. There have been mitigation efforts in the past, but there are still homes that experienced flooding in 2019 which led to first responders having to rescue homeowners.
Ice Storms, Blizzards	Yellow Medicine County has two power companies in the county that in past disasters have had major damage to the power infrastructure. Yellow Medicine County is very susceptible to winter weather due to it being an agriculture county that sit on the east side of the Buffalo Ridge on the Minnesota/ South Dakota border. In the past years there has been multiple blizzard warnings issued for the county with no travel advised.
Windstorms and Tornadoes	We have an increase of camping spots in two campgrounds owned by Yellow Medicine County (Wood Lake County Park and Orass Park) These two locations do not have storm shelters to house people during severe storm events. Yellow Medicine County has two power companies in the county that in past disasters have had major damage to the power infrastructure.
Extreme Cold	Rural 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. The county has also experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.
Extreme Heat	There are several homes, businesses, and gathering spots in Yellow Medicine County that do not have air conditioning available. Yellow Medicine County has a significant older population that live in rural settings so that can lead to a heat emergency for those residents.

4. **Reduction in Vulnerability - 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.**

Yellow Medicine County Public Works has upgraded several culverts over the last several years.

Since 1996 Yellow Medicine County has had multiple mitigation efforts near the Minnesota River. Multiple homes have been moved to mitigate future damages.

We have encouraged residents and businesses sign up for CodeRED and the CodeRED Weather Warning to get emergency notifications. Several agencies in the county have used social media outlets to relay information to the citizens.

- 5. Increase in Vulnerability – 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.**

Yellow Medicine County has recently put in more camping location in Wood Lake County Park bringing the total up to 30 camping spots with possible more location in the future.

Yellow Medicine County also has put in six new camping spots in Orass Park located in a rural area of Yellow Medicine County. This park is not equipped with storm shelters at this time.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

- 1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

Yellow Medicine County holds two different Facebook accounts. (Yellow Medicine County and Yellow Medicine Sheriff’s Office) These accounts are used to supply information to citizens.

CodeRed is also used along with IPAWS for notifications.

Yellow Medicine County also keeps a list of local radio stations and newspaper in the area to get notices out to the public.

- 2. Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?**

Yellow Medicine County promotes the sign up of the CodeRed System through events and website/Facebook sites.

- 3. Does your community participate in the National Flood Insurance Program?**

Yes. Yellow Medicine County’s Planning & Zoning Department maintains the floodplain management ordinance (Section II, YMC Land & Related Resource Management Ordinance) and floodplain maps for the county. The Planning and Zoning Dept. is the repository for the NFIP’s Digital Flood Insurance Rate Maps (DFIRM), as well as flood boundary and floodway maps for rural Yellow Medicine County. The Planning and Zoning Office can assist county residents in determining whether their property is affected by an officially mapped flood area. By enforcing floodplain regulations, county residents are able to participate in the Federal Flood Insurance Program.

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

Yellow Medicine has a Comprehensive/Master Plan in place and Capital Improvements Plan (Public Works Construction Plan) that plan for future development within the county.

Yellow Medicine County Highway Department maintains a 5-year Transportation Improvement Plan that identifies and schedules road improvement projects that include measures for flood mitigation. The current TIP for construction projects is from 2019 – 2023.

Yellow Medicine County adopts and enforces the State Buffer Law with the county's "Ordinance for the Implementation of Enforcement of the 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.

Yellow Medicine County Emergency Management has an Emergency Operations Plan that is updated on a regular basis which helps the county be ready to respond to disasters across a range of EM functions. This includes plans in place for sheltering and pet sheltering in the event that people are displaced from their homes following a disaster.

Countryside Public Health works with licensed manufactured home parks to ensure the requirements of MN Statute 327.20 relating to shelters and evacuation plans are met. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to Countryside Public Health.

Yellow Medicine County participate in the National Flood Insurance Program (NFIP). Yellow Medicine County's Planning & Zoning Department maintains the floodplain management ordinance (Section II, YMC Land & Related Resource Management Ordinance) and floodplain maps for the county.

The Yellow Medicine Local Water Plan (2016) was developed to supplement drainage projects with methods aimed at reducing peak flows and erosion, trapping sediment, reducing nutrient loading, and improving water quality throughout the watershed districts located in Yellow Medicine County. The plan includes practices that can be incorporated by individual landowners that can contribute towards higher water quality through erosion control, soil stability, and nutrient management.

Yellow Medicine Land and Zoning Department has an ordinance in place that states the setback for construction by bluff areas is 30 feet and an increased setback can be imposed if construction is near an actively eroding bluff.

5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.

Yellow Medicine County staff related to mitigation efforts include the Emergency Management Director, Yellow Medicine County Building Maintenance, Yellow Medicine County Public Works Maintenance Superintendent, Yellow Medicine County Drainage Systems Manager, Yellow Medicine County GIS Director, Yellow Medicine County Planning and Zoning Director, and Countryside Public Health.

We partner with the American Red Cross to establish MOU's with facilities in the county to serve as official shelter locations that meet ARC shelter requirements for space and accessibility.

The Yellow Medicine One Watershed One Plan (1W1P) was developed as one of five pilot “One Watershed One Plan” projects in Minnesota as a result of legislation passed in 2012 that authorized the Minnesota Board of Water and Soil Resources (BWSR) to align local planning on watershed boundaries. Ten local governments entered into a Memorandum of Agreement (MOA) to develop the YM1W1P and include representatives from Area II, Lincoln County and SWCD, Lac qui Parle County and SWCD, Lyon County and SWCD, Yellow Medicine County and SWCD, and the Yellow Medicine River Watershed District (YMRWD). The mission of these organizations, along with the state agencies that cooperated in developing this plan, is to work together with citizens to restore and protect the water resources of the Yellow Medicine Watershed.

6. Describe any programs in place that to help accomplish mitigation in your community.

Yellow Medicine County Emergency Management participates in and promotes the NWS Severe Weather Awareness Weeks in spring and fall each year and also works with the NWS to provide SKYWARN storm spotter training on an annual basis.

Yellow Medicine County Emergency Management promotes the use of NOAA weather radios by schools, long-term care facilities, county buildings, residents, and visitors to receive information broadcast from the National Weather Service. We promote use of these radios in advance of and during our severe weather months using our Yellow Medicine County social media outlets and during the NWS severe weather awareness weeks.

We utilize the Yellow Medicine County Sheriff’s Office and Yellow Medicine County Facebook pages and local news media to communicate with residents and visitors on emergency preparedness. A link for the CodeRED emergency notification system is located on the homepage of the Yellow Medicine County website.

Yellow Medicine County Emergency Management meets with the City of Granite Falls on an annual basis to review the flood risk annually to the city.

Yellow Medicine County Emergency Management participates in regional emergency management exercises for HSEM Region 5.

7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.

Yellow Medicine County was awarded extensive FEMA mitigation funds from 1996 through 2001 for the Minnesota River area to remove numerous flood prone residences. Yellow Medicine County along with townships within the county use the annual budget for mitigations projects.

8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.

No

9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)

Ottertail Power, Minnesota Valley Light and Power, East River Electric Power, Xcel Energy, Lyon - Lincoln Electric Coop, H-D Electric Coop, City of Granite Falls

10. Do you need back-up generators for specific critical facilities? Please identify them.

The Yellow Medicine County Detention Center currently runs a backup power source. Additional county facilities may need emergency backup generators.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

Identify where generator back-up power is needed for Yellow County critical facilities and shelter facilities and acquire backup power (i.e., permanent or portable generators)

Continue to promote residents to be prepared for emergencies, to have NOAA weather radios, and to sign up for the county's CodeRED system and Sheriff's Office Facebook page to receive emergency notifications and other information.

Work with municipal and 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 need for construction of tornado safe rooms or storm shelters at the two Yellow Medicine County parks that have seen an increase in campground sites. (Wood Lake County Park and Orass Park).

Obtain funding to offer buyouts for two residences along the Minnesota River that have experienced repetitive flooding. There have been mitigation efforts in the past but there are still homes that experienced flooding in 2019 which led to first responders having to rescue homeowners.

Encourage long-term care facilities that house senior citizens or other vulnerable populations to have emergency plans and generators in place to deal with severe weather, power outages, and extreme temperatures.

Address road improvements, ditch maintenance, and bank stabilization projects needed to mitigate against high rain events as identified by the Yellow Medicine Public Works Engineer and feedback from townships and the Yellow Medicine SWCD.

Provide support to cities to update stormwater management plans and identify where critical public infrastructure needs to be protected for future high rain events.

Provide support to communities to identify where storm shelters or tornado safe rooms are needed and assist in applying for grant funding (i.e., USDA, FEMA HMA)

Review list of Past Mitigation Actions from our last plan and update those actions deemed as “Ongoing” for continued implementation.

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

Yellow Medicine County needs funding to offer mitigation buyouts for two residences along the Minnesota River. With the removal of these two residences would allow the removal of a township road that has incurred costly repairs in the 2019 disaster along with past disasters.

Funding for tornado safe rooms or storm shelters in two county parks to assist in mitigation from severe weather.

Controlling runoff from various sources continues to be a challenge and priority to control what runs downstream.

Some roads, bridges, and culverts within Yellow Medicine 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. Continued culvert replacement to prevent road flooding is a strain on our smaller townships that have limited funding for road infrastructure.

Continued efforts are needed to stabilize vulnerable shoreline along our two creeks that is eroding due to sluffing from alternate high rain events and dry periods.

PART D: SURVEY PARTICIPANTS

Casey Namken, YMC Emergency Management Director
 Bill Flaten, YMC Sheriff
 Angie Steinbach, YMC Administrator
 Chief Deputy DeBlieck

CITY OF CANBY

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. Hazard Identification & Risk Prioritization: Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an “X” to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	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			
Flooding	X	Moderate	No Change
Extreme Cold			
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure	X	low	No Change

2. Recent Hazard Events: Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

In 2019 we had flooding that occurred. This ended up being a FEMA event. In 2020 there was a wind storm that received State money.

3. Local Vulnerabilities: Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Flooding	With the creek in town, we are prone to flooding. We have had flooding issues from the ditches. Our areas that are most affected come off of the holding ponds and over to our lift station. With the dams that have been built around Canby, our flooding has been mitigated some. We have had flooding in the city in recent past due to fast and excessive rains.
Windstorms/Tornadoes	We have had 2 wind storms in the past 2 years. Each event has led to numerous trees falling down. Our campgrounds do not have storm shelters.
Winter Storms/Extreme Cold	We have experienced frozen water lines in the past because of extreme cold weather. As we look at extending a housing development area, there is caution on the effects of cold and the freezing of sewage lines.
Dam Failure	We have 4 dams surrounding the city of Canby. If any or all of the dams were to fail, there would be extreme flooding throughout the city. We work with the watershed district on our emergency plan in the event of an emergency. They do monitor the dams regularly and address any issues.

- 4. Reduction in Vulnerability - 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 have put in new water and sewer lines throughout most of the city. After the last project, our main areas that had water lines freezing has been mitigated.

We work closely with the watershed district with the dams that surround the city.

As boulevard trees come down in wind events, the city will not replace. The homeowner can if they wish.

- 5. Increase in Vulnerability – 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.**

In the past 5 years, we have added 3 new single-family homes, 2 twin homes, and a grain bin. In the event of a natural disaster, there is an increase in cost. We have worked hard to update our infrastructure, but have seen an increase in the timing of stormwater running through the system and discharging into the ponds and ditches. This has brought some flooding at times. We also feel there has been an increase in wind storm events in the past 5 years.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

- 1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

We use the radio station, the city Facebook page, the Canby Police Department Facebook page, and have utilized the county’s CodeRed system to get information out.

- 2. Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?**

Same as above.

- 3. Does your community participate in the National Flood Insurance Program? yes**

Yes, the city participates in the NFIP and has a floodplain ordinance.

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

We have an ordinance that doesn’t allow sump pumps to be put down the sanitary sewer.

5. **Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

We have worked in partnership with the Watershed District on our dam breaches assessments. We work in partnership with Yellow Medicine County Emergency Management to run messages with the CodeRed system. Our public works staff tries to in their downtime cut down boulevard trees that could be a hazard.

6. **Describe any programs in place that to help accomplish mitigation in your community.**

N/A

7. **Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.**

The Watershed District received a grant to put together our dam breach policy.

8. **Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.**

No

9. **Who is your local electric provider? (i.e., municipal / rural electric coop / other)**

Ottertail Power

10. **Do you need back-up generators for specific critical facilities? Please identify them.**

We don't need any. We have one for our water plant and one for our wastewater plant.

PART C: LOCAL MITIGATION PROJECTS

1. **Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.**

Public education is needed on why it is important to not put your sump pumps down your sanitary sewer. Help in taking down trees that could be a problem in the past.

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

We are in need to update our Comprehensive Plan. As we look at this for the next year's budget, the cost is quite high. We are looking to a new area for homes with our HRA, the homes would have to be built on slab on grade.

PART D: SURVEY PARTICIPANTS

Rebecca Schrupp, city Administrator
Chris Husby, Public Works Director

CITY OF CLARKFIELD

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

- Hazard Identification & Risk Prioritization:** Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	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	Increased
Tornadoes			
Windstorms	X	Moderate	Increased
Lightning	X	Moderate	No Change
Hail	X	Moderate	Increased
Flooding			
Extreme Cold			
Extreme Heat			
Drought	X	High	Increased
Wildfire			
Landslides			
Dam Failure			

- Recent Hazard Events:** Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

High wind causing trees to topple. Flooding of streets.

- Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Flooding	Backup generator is needed for sanitary sewer lift stations.
Windstorms	Storm shelter signage needs to be put back up at the community center.

- 4. Reduction in Vulnerability - 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 Clarkfield is updating its storm sewer system. We also require all new housing development to have powerlines underground.

- 5. Increase in Vulnerability – Describe any current conditions or changes you feel have increased your community’s vulnerability to future severe weather or disaster events. Consider factors such as recent population growth or new development.**

New development with slab for foundations should have a storm shelter.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

- 1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

We use our city website and Facebook page. We also post information on bulletin boards at the Community Center and at the Post Office. We also make announcements at city council meetings to the public during severe weather season. Phone calls also go to land lines and cell phones.

- 2. Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?**

City website and Facebook page as well as local postings.

- 3. Does your community participate in the National Flood Insurance Program?**

The city participates in the NFIP but does not have any FEMA mapped high risk areas.

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

Sump pump ordinance.

- 5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

City Council, Public Works, Fire Department.

- 6. Describe any programs in place that to help accomplish mitigation in your community.**

We participate in the NWS severe weather awareness weeks and encourage the spring and fall cleanup of leaves and debris. Xcel Energy clears the right of way for powerlines.

7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.

We work with Yellow Medicine County.

8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.

Not that I am aware of.

9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)

Xcel Energy.

10. Do you need back-up generators for specific critical facilities? Please identify them.

Yes – City Hall, Fire Hall, City Garage, Pumping Stations, Water Tower, Sanitary System.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

Obtain generators for City Hall, Fire Hall, City Garage, Pumping Stations, Water Tower, Sanitary System. The government has surplus generators let's apply for them.

Storm shelter signage needs to be put back up at the community center.

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

Yes, we need to update our plans.

PART D: SURVEY PARTICIPANTS

Paul Anspach, City Councilor

CITY OF ECHO

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. Hazard Identification & Risk Prioritization: Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past	Note if you feel the risk has increased, decreased, or had no
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	feel pose risk to your jurisdiction.	events, likelihood of future events, and impacts to community assets.	change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	Low	No Change
Tornadoes	X	Low	No Change
Windstorms	X	Low	No Change
Lightning			
Hail	X	Low	No Change
Flooding			
Extreme Cold			
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure			

2. **Recent Hazard Events:** Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

In 2019 the City of Echo had a wind storm hit the town with trees and branches down.

3. **Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Windstorms	Trees, power poles and elevator would be affected.

4. **Reduction in Vulnerability -** 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.

None noted.

5. **Increase in Vulnerability –** 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 noted.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.

The city gets warnings from the county about severe weather.

- 2. Do you encourage residents to sign up for the county's emergency notification system and/or a local emergency alert system? If so, how?**

Nothing noted.

- 3. Does your community participate in the National Flood Insurance Program?**

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

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

Nothing noted.

- 5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

Nothing noted.

- 6. Describe any programs in place that to help accomplish mitigation in your community.**

Nothing noted.

- 7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.**

Nothing noted.

- 8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.**

No

- 9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)**

Excel Energy

- 10. Do you need back-up generators for specific critical facilities? Please identify them.**

No.

PART C: LOCAL MITIGATION PROJECTS

- 1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.**

Nothing noted.

- 2. Gaps or Deficiencies: Please describe any specific gaps or deficiencies that are a barrier to implementing local mitigation measures.**

Nothing noted.

PART D: SURVEY PARTICIPANTS

Brian Bitzl, City Clerk

CITY OF GRANITE FALLS

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

- 1. Hazard Identification & Risk Prioritization: Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.**

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	Low	No Change
Tornadoes			
Windstorms	X	High	No Change
Lightning			
Hail			
Flooding	X	High	No Change
Extreme Cold			
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure	X	Low	No Change

- 2. Recent Hazard Events: Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.**

In August of 2020 and July of 2016 high wind events resulted in significant damage to many trees, powerlines, and resulted in damage to homes and airport hangars.

In 2019, we experienced major rain events that resulted in high flooding water levels, as a result, there was road damage, and flooding in homes and business basements.

3. **Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (Please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Flooding	<p>The city has completed multiple flood mitigation efforts. There are still a few areas that require sandbagging during a flood including over by the Legion. There are a few homes located adjacent to the river that in times of very high flooding are at risk may require sandbagging in a severe flooding event. Flooding also deteriorates the rip rap that was recently repaired in 2019.</p> <p>Any sanitary and wastewater infrastructure that are located in the 100-year floodplain are susceptible to flooding as well as any structures in the same areas. The city further continues to address I & I concerns. During times of high-water events, it places stress on the sanitary system to treat the inflow of water.</p>
Ice Storms, Blizzards	<p>A fair amount of the city's municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches. The city has experienced power outages during ice storms and blizzards.</p>
Windstorms	<p>Our municipal campground is active during summer and fall months with RVs and campers and does not have a storm shelter.</p> <p>In the past we have experienced significant damage to our municipal owned airport. In 2016 airport hangars were destroyed from a windstorm.</p> <p>In 2020, the city had a significant number of trees that were uprooted damaging powerlines and homes.</p>
Dam Failure	<p>The city has a hydroelectric plant/dam. The city completes annual inspections and makes appropriate repairs as needed. The city also has an emergency dam failure plan that is reviewed on an annual basis. We view a dam failure as a low risk, but still a risk to be prepared for. The city has never experienced a dam failure event to date.</p>

4. **Reduction in Vulnerability - 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 has completed significant flood mitigation efforts over the years including adding flood walls, levees, and buying out homes in flooding areas. The city places electrical lines underground where we can. Due to land topography/rock, some places do not allow underground lines and must remain overhead.

- 5. Increase in Vulnerability – 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 noticed an increase in more frequent high-rain events in the last 5 years. Outside this, population has slightly declined. We are however seeing more commercial growth in our Industrial Park that is subjected to future wind events.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

- 1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

We use our city website and recently created a Facebook page that will be utilized in the future. We further will use the radio, channel 8 our local broadcasting station, and the county’s CodeRED system. We also make announcements at city council meetings to the public during severe weather season.

- 2. Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?**

Yes, we have informational flyers located at City Hall and offer to assist residents signing up. With our new Facebook page, we also can now promote the emergency notification system.

- 3. Does your community participate in the National Flood Insurance Program?**

Yes, the city has a floodplain ordinance in place that is enforced. Chapter 151 Floodplain Management.

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

Our city recently updated our local Comprehensive Plan that is designed to plan for the future physical growth of the city and appropriate land uses. The city is also working on implementing a new sump pump inspection ordinance with continued efforts to mitigate against overload of the city’s I&I system. The city has an emergency flood plan specifically tied to failure with our dam.

- 5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

We have a city engineer and a public works department that address road maintenance issues for flooding (culverts, repetitive flooding). We have our own municipal electrical utility that is responsible for mitigating against power outages. We have worked with MN DNR and Army Corps of Engineers in the past to assist with flood mitigation design efforts. We have worked YMC county emergency manager utilizing the code red system.

6. Describe any programs in place that to help accomplish mitigation in your community.

Our local school practices tornado drills on an annual basis. Each spring and winter we do outreach to encourage residents to maintain their sump pumps to reduce the chances of basement flooding. The city has an annual vegetation removal near powerlines to reduce risk of power outages during storms. Our fire department completes multiple trainings a year to be prepared for various emergency events.

7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.

The city now primarily uses its own budget to address mitigation projects. Historically, the city has utilized both state and federal grant assistance for flood mitigation efforts.

8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change?

At this time, we do not.

9. Who is your local electric provider? (i.e., municipal / rural electric coop / other).

The city is a municipal electric provider.

10. Do you need back-up generators for specific critical facilities?

The city has large generators to run/feed into the system in times of a power outage.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

We are in the process of drafting a sump pump inspection ordinance, which will help with I & I/the sewer system during times of flooding events. Our municipal campground also needs construction of a storm shelter to protect campers during dangerous storm events.

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

Not all residents are signed up for the CodeRED system. We are small city with limited financial and staff resources for addressing any future needed mitigation efforts.

PART D: SURVEY PARTICIPANTS

Crystal Johnson, City Manager
Chris Anderson, Hydro/water/wastewater Superintendent
John Aus, Public Works Director
Ryan Haar, Fire Chief
Brian Struffert, Police Chief

CITY OF HANELY FALLS

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

- Hazard Identification & Risk Prioritization:** Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low, Moderate, or High</u> . Consider past events, likelihood of future events, and impacts to community assets.	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	Increased
Tornadoes			
Windstorms	X	Moderate	increased
Lightning			
Hail			
Flooding	X	High	increased
Extreme Cold			
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure			

- Recent Hazard Events:** Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

In July of 2019, we had 7" of rain. Twenty-two homes had flooded basements. Our sewer was flooded. It took a week of pumping into the river to catch up. Power lines and trees were laying in the streets. In 2022 we had 5" rain strong winds and had roofs torn off buildings and the sewer flooded again.

- Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Flooding	The storm sewer backs up, flooding the streets and sewer man holes. We also have some combined sewer-storm sewer connections. The city utilities and fire department work together pumping water and doing what we need to do.

Windstorms	Severe windstorms seem to be more intense and more frequent. With all overhead lines, the power goes out more often. We definitely have a need for more pumps, generators, and transfer switches.
Winter storms	The ice load on the power lines makes it just a matter of time before the entire town is without power.

- 4. Reduction in Vulnerability - 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 are waiting to get a storm sewer project going. Hopefully it will go out for bids this fall.

- 5. Increase in Vulnerability – 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 a very old system, Water mains that are more than one hundred years old. The storm sewer is not large enough to handle such weather.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

- 1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

We do post things on our summer recreation website and post things around town. We also send out information with the water bills.

- 2. Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?**

No.

- 3. Does your community participate in the National Flood Insurance Program?**

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

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

We are doing what we can to update our community. We do have a sump pump ordinance and are working on our I&I.

- 5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

Our Street and Utility Superintendent is our City Emergency Manager and we do have a Public Safety Committee. We discuss issues at our council meetings.

6. Describe any programs in place that to help accomplish mitigation in your community.

The Fire Dept has Operation Edith (fire safety program for children) and we do put things in the monthly minutes.

7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.

Currently it is paid for out of the budget.

8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.

We are working on it.

9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)

Xcel Energy

10. Do you need back-up generators for specific critical facilities? Please identify them.

The generator for one of the lift stations needs to be replaced. We also need one at the City Office and the Municipal Liquor Store. That is the only place in town to get food.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

We should get a siren with battery backup. Even with the project we plan on doing we will only be replacing a portion of our watermains, sewer mains and storm sewers.

The generator for one of the lift stations needs to be replaced. We also need one at the City Office and the Municipal Liquor Store.

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

We do not have a city website. We are not sure how many people have signed up for the county's emergency notification system.

PART D: SURVEY PARTICIPANTS

Michael Dahl, City Emergency Manager
Patty Savoie, City Clerk

CITY OF HAZEL RUN

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

- Hazard Identification & Risk Prioritization:** Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	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 Changes
Tornadoes			
Windstorms	X	Moderate	No Changes
Lightning			
Hail			
Flooding			
Extreme Cold			
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure			

- Recent Hazard Events:** Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

None. We have not had any big storm events.

- Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
N/A	None. We are a very small city with no infrastructure of concern.

- Reduction in Vulnerability -** 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.

None

5. **Increase in Vulnerability – 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

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. **Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

We have a bulletin board at City Hall.

2. **Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?**

We do not do anything for this.

3. **Does your community participate in the National Flood Insurance Program?**

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

4. **Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

None

5. **Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

We are a small city of 55 people. We only have our City Council as staff. We would look to work with Yellow Medicine County on any important projects.

6. **Describe any programs in place that to help accomplish mitigation in your community.**

None

7. **Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.**

We have a small city budget. We would look to work with Yellow Medicine County on any important projects.

8. **Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.**

No

9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)

Xcel Energy

10. Do you need back-up generators for specific critical facilities? Please identify them.

We don't have one for City Hall. Local residents have their own.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

See if we can get a generator for City Hall.

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

None.

PART D: SURVEY PARTICIPANTS

Doris Martin, City Clerk

CITY OF PORTER

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. Hazard Identification & Risk Prioritization: Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	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			
Windstorms	X	High	Increased
Lightning			
Hail			
Flooding	X	High	No Change
Extreme Cold			
Extreme Heat			
Drought			

Wildfire			
Landslides			
Dam Failure			

2. Recent Hazard Events: Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

Snowstorms - Snow and ice storms have occurred that damage overhead power lines and blocks roads. This has been an ongoing problem as we do not have city crews and need to hire contractors for assistance.

Windstorms - There has been an increase in wind and windstorms over the last few years. Numerous times we have had trees and branches blocking streets. With the lack of city crew, we need to rely on contractors and volunteers for cleaning streets. This takes more time and hinders response time to emergency calls. This is a safety concern for our residents.

Flooding - There seems to be torrential rains with large amounts of rain in a short period of time. Porter does not have a storm sewer system and all rainwater drains along street curbs and boulevards. Pooling water infiltrates into our sanitary sewer system causing more water than the sanitary sewer pumps can move to the lagoon. When the pumps cannot keep up, water backs up into basements. We need to pump flooding water into a ditch to keep water out of basements. This work is accomplished by volunteers. During a recent heavy rain there was damage to the dike along the East side of Porter. The damage has been repaired but does bring into question the integrity of the dike to prevent flood control if the dike were to fail. Flood waters could damage most of the houses in Porter.

3. Local Vulnerabilities: Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Snowstorm	We do not have a city employee or snow crew, so we rely on YMC and the State of Minnesota Highway for snow removal along the county and State road. We need to hire a private contractor for city streets, parking lots, and Fire Hall emergency doors. During a blizzard it isn't always possible for the contractor to get to the city to keep the Fire Hall emergency doors cleared of snow. We worry that emergency response time will be severely affected. Lack of timely emergency response can jeopardize citizen's life and property.
Windstorm	With the increases in high winds, we are finding that we have more power outages. Porter is in a low area with a high-water table. With power outages, sump pumps are not removing water infiltration in basements causing basement flooding. The sanitary sewer system also relies on electric pumps to move sewage to the lagoon. Failure of these systems affect citizens well-being and their property.
Flooding	Porter does not have a storm sewer system and all rainwater drains along street curbs and boulevards. Pooling water infiltrates into our sanitary sewer

	<p>system causing more water than the sanitary sewer pumps can move to the lagoon. When the pumps cannot keep up, water backs up into basements. We need to pump flooding water into a ditch to keep water out of basements. This work is accomplished by volunteers. High water and potential dike damage would flood the city filling basements and damaging property. Lack of a storm sewer system will cause water to not be moved out of town quickly enough. This increased water infiltration in basements and the sanitary sewer system causing property damage, mold potential, and health hazards to citizens.</p>
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4. Reduction in Vulnerability - 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 has contracted with Bollig Engineering to assess our city infrastructure. We are waiting for their assessment.

5. Increase in Vulnerability – 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.

Due to the age of our blacktop streets and years of silting in culverts, drainage of storm surge water is taking longer to recede. This causes more water backups during heavy rains.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.

We post notices on the city website, hang fliers around town, and include information on the resident’s monthly water bills.

2. Do you encourage residents to sign up for the county’s emergency notification system and/or a local emergency alert system? If so, how?

Yes, we encourage the use of the CodeRED App. All our firefighters and first responders are signed up for this app. We encourage everyone to sign up for this app by posting it on our city website.

3. Does your community participate in the National Flood Insurance Program? If so, describe how (i.e. reference city floodplain ordinance).

The city noted they were looking into the NFIP at the time of submitting this LMS form. The MN DNR NFIP information shows that the city of Porter is participating in the NFIP and has FEMA mapped high risk areas. The city has been put in touch with the MN DNR Floodplain Manager to obtain information on their participation in the program. Their original entry date was 1974.

4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.

The city has a sump pump ordinance concerning the disposal of water from sump pumps. Building permits are required including set-back rules.

5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.

The City Council makes decisions with input from the Planning and Zoning Committee. Citizens are encouraged to bring their concerns and ideas to the Council.

6. Describe any programs in place that to help accomplish mitigation in your community.

The city and Fire Department work together to accomplish cleanup of blocked streets and flooded basements. We have contacts for regularly used contractors to be hired as necessary. When we have need sandbags, Yellow Medicine County has helped with supplying sand and sandbags.

7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.

It is usually paid by the city. Dike repair and some road repair was paid by FEMA for the last repairs.

8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.

No

9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)

Ottertail Power

10. Do you need back-up generators for specific critical facilities? Please identify them.

We have a backup generator for the city office and Fire Hall. The portable generator for use at the Sanitary Sewer Lift Station needs repair. We need a new auto-start and transfer generator for the Sewer Lift Station.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

Regrading of streets and boulevards and installation of curb and gutter. Installation of Storm Sewer System. The city has contracted with Bollig Engineering to assess our city infrastructure. We are waiting for their assessment.

Our siren is very old and needs to be replaced as it is on the roof of the Fire Hall and cannot be heard from all areas of the city.

The portable generator for use at the Sanitary Sewer Lift Station needs repair. We need a new auto-start and transfer generator for the Sewer Lift Station.

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

Funding is an issue/problematic as our tax base is small.

PART D: SURVEY PARTICIPANTS

Pat Vlaminc, Council member/Assistant Fire Chief
 Kim Jelen, Clerk
 Don Verschelde, Mayor
 Josh Sumption, Council member
 Craig Petersen, Council member

CITY OF ST. LEO

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. Hazard Identification & Risk Prioritization: Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an "X" to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	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	Moderate	Increased
Lightning	X	Moderate	No Change
Hail			
Flooding			
Extreme Cold	X	Moderate	No Change
Extreme Heat			
Drought			
Wildfire			
Landslides			
Dam Failure			

2. **Recent Hazard Events:** Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

Power outages due to high winds and older power infrastructure.

3. **Local Vulnerabilities:** Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific community assets</u> are susceptible to damage or loss from hazard events.
Flooding	One of our sanitary sewer lift stations is prone to flooding during high rain events. City and fire department personnel have sandbagged the area in the past to prevent flooding into the lift station.
Ice Storms, Blizzards	Much of the city’s municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.
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. In the past we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold. The city has also experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.

4. **Reduction in Vulnerability -** 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 have just completed a sanitary sewer upgrade, including a larger forced main, new pump, and a generator for the lift station in case of power outages.

5. **Increase in Vulnerability –** 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 had no population growth and no new development within the last 5 years.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

- 1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.**

Fire Dept. Facebook page, bulletin board at community center.

- 2. Do you encourage residents to sign up for the county's emergency notification system and/or a local emergency alert system? If so, how?**

Yes, CodeRED information has been posted online.

- 3. Does your community participate in the National Flood Insurance Program?**

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

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

Yellow Medicine County tests civil defense siren first Wednesday of the month.

- 5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

City council, fire chief and public works employee meet to address flooding, sewer backups or any other needs that arise.

- 6. Describe any programs in place that to help accomplish mitigation in your community.**

Clean gutters and storm sewers on an annual basis or more often if needed.

- 7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.**

City uses its own budget for the few city roads. We have received financing from USDA Rural development for upgrades to our sewer system and sewer ponds.

- 8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.**

No

- 9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)**

Ottertail Power

10. Do you need back-up generators for specific critical facilities? Please identify them.

Yes, portable generator at fire hall, fixed generator at sewer lift station.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

Upgrade city warning siren. It is hard to hear on edge of town.

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

Not all residents signed up for county’s code red system

PART D: SURVEY PARTICIPANTS

Jonathan Hoffman, Fire Chief/Councilman
 Bubba Gorecki, Mayor
 Jared Phillip, Councilman
 Annie Berghorst, Councilwoman

CITY OF WOOD LAKE

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

1. Hazard Identification & Risk Prioritization: Please fill out the chart below as you feel it relates for your jurisdiction. Please note that hazards that are considered as significant (moderate to high priority) will need to have at least one mitigation action associated with it.

Natural Hazard	Use an “X” to Select 3-5 of the top hazards you feel pose risk to your jurisdiction.	Indicate your priority level of each hazard to your community as <u>Low</u> , <u>Moderate</u> , or <u>High</u> . Consider past events, likelihood of future events, and impacts to community assets.	Note if you feel the risk has increased, decreased, or had no change over the last 5 years.
Winter Storms (Blizzards, Ice Storms)	X	Low	Decreased
Tornadoes			
Windstorms	X	Moderate	Increased
Lightning			
Hail			
Flooding	X	High	Increased
Extreme Cold			
Extreme Heat			
Drought			
Wildfire			

Landslides			
Dam Failure			

2. Recent Hazard Events: Describe any severe weather or disaster events that have occurred over the last 5 years that caused damages in your community.

2014 major flooding, 2018 major flooding, 2022 major flooding all backed up sanitary sewer system.

3. Local Vulnerabilities: Use the chart below to identify what specific community assets (i.e., infrastructure, systems, populations) are vulnerable to damages or loss from the hazards that pose risk to your community. Use the blank rows to enter in your answers as they relate to your community.

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets are susceptible to damage or loss from hazard events.
Flooding	One of our sanitary sewer lift stations is prone to flooding during high rain events. The City has pumps to bypass lift stations in flooding events
Windstorms	The city has many old Ash trees with emerald ash borer. These trees are at high risk of damaging life and property during heavy windstorms.
Winter Storms	Winter storms bring ice and high winds that can compromise our electrical infrastructure and lead to power outages.

4. Reduction in Vulnerability - 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.

In 2021 the city completed a street reconstruction project which included adding more storm sewer and catch basins.

5. Increase in Vulnerability – 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.

In years past, rain showers have turned into rain events causing more and more frequent flooding.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

The purpose of the questions in Part B is to identify what local-level capabilities (strengths or gaps) exist for implementing mitigation in the community.

1. Describe what methods you use to provide information to residents on emergencies or personal preparedness for severe weather.

We use our city website and Facebook page. We also post information on bulletin boards at the Community Center and at the Post Office.

- 2. Do you encourage residents to sign up for the county's emergency notification system and/or a local emergency alert system? If so, how?**

No, our city does not do this currently.

- 3. Does your community participate in the National Flood Insurance Program?**

No, we do not as per city council. // The MN DNR NFIP database shows that the city does not participate but does have FEMA-mapped high-risk areas. The city is working with the MN DNR to discuss flood risk for the city and getting enrolled in the NFIP. According to the MN DNR Floodplain Manager, the mapped high flood risk area is in farm fields. Since that bit of mapped high-risk floodplain is within the city limits, that officially puts the city on FEMA's list of cities with mapped high risk that are not participating in the National Flood Insurance Program (NFIP). For your situation, we still encourage the city to consider enrolling, but we won't prod you as much since the mapped area is not near structures. But, when we have big rain events almost any community can have flood damage. With that in mind the city of Wood Lake is encouraged to enroll in the NFIP.

- 4. Describe any plans, authorities or policies in place that help to reduce risk from natural hazards in your community.**

We have a sump pump ordinance and are currently improving our storm sewer system.

- 5. Please describe what staff or partnerships are in place to help accomplish mitigation in your community.**

The city's emergency manager is the public works director, he works closely with other area emergency management officials.

- 6. Describe any programs in place that to help accomplish mitigation in your community.**

We provide reminders throughout the year about our sump pump ordinances, street gutters and storm catch basins are swept clean several times a year

- 7. Please describe any agency partnerships, funding or other resources to help accomplish mitigation in your community.**

The city primarily uses its own budget to address mitigation, we could use more help with storm sewer funding.

- 8. Does your jurisdiction have any plans or policies in place related to resilience and adaptation for climate change? If yes, please describe.**

No

- 9. Who is your local electric provider? (i.e., municipal / rural electric coop / other)**

Xcel Energy

10. Do you need back-up generators for specific critical facilities? Please identify them.

Yes, we need backup generators for the city office/ community center and for the public works building.

PART C: LOCAL MITIGATION PROJECTS

1. Local Mitigation Projects: Describe any specific mitigation activities you think would help to address local vulnerabilities and reduce risk against future hazard events in your community.

The city has a need for additional storm sewer upgrades and purchase of additional pumps in the event of flooding.

We need a standby generator for our City Hall and Community Center, which is our designated community mass care shelter.

The city also needs to work with the MN DNR to get enrolled in the NFIP and create a floodplain ordinance.

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

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

PART D: SURVEY PARTICIPANTS

Allen Chrisman, Public Works Director

Appendix D – Plans & Programs in Place

Yellow Medicine County

MHMP Plans in Place Form

Planning & Regulatory

<i>Plans/Programs</i>	<i>Yes/No</i>	<i>Comments</i>
Comprehensive/Master Plan	Yes	Updated 2015
Capital Improvements Plan	Yes	Updated 2015
Economic Development Plan	Yes	Updated 2015
Emergency Operations Plan	Yes	Updated annually
Climate Adaptation Plan	No	
Continuity of Operations Plan	Yes	Updated Annually
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	MN DNR notes no CWPP for Yellow Medicine County
FireWise Program	No	
Comprehensive Water Management Plan	Yes	YMC Local Water Plan (2016) – under Land and Resources Office
One Watershed, One Plan (1W1P)	Yes	Yellow Medicine River Watershed/Land and Resource Management
Wellhead Protection Plan	Yes	Municipal plans are with State of MN
Database of dry hydrants/well access	Yes	Kept with local fire
Burning permits/restrictions	Yes	YMC Sheriff's Office
Zoning ordinance	Yes	Land and Resource Management
Subdivision ordinance	Yes	Land and Resource Management
Floodplain ordinance	Yes	Section II, Floodplain Management - Land and Related Resource Management Ordinance
Natural hazard specific ordinance (i.e., stormwater, steep slope, wildfire)	Yes	Section III, Shoreland Management - Land and Related Resource Management Ordinance
Flood insurance rate maps	Yes	Under Land and Resource Management

Acquisition of homes (buyouts) due to repetitive flood damage or imminent risk of failure from erosion	Yes	1996-2001 multiple homes were bought
School closing policy/communications plan in event of inclement weather/temperatures	Yes	Schools maintain their own polices.
Mass Care Sheltering Plan	Yes	In County Emergency Operations Plan
Designated Mass Care Sheltering Facilities (list available)	Yes	In County Emergency Operations Plan
Tornado Safe Rooms/Outdoor Storm Shelters (list available)	No	
Outdoor Warning sirens (list all locations)	Yes	Canby, Porter, Granite Falls, Hanley Falls, Wood Lake, St. Leo, Hazel Run, Clarkfield, Upper Sioux Community, Echo
SKYWARN Program	Yes	Annual training from NWS
Emergency Mass Notification System (provide type, i.e., CodeRED)	Yes	CodeRED
Severe Weather Awareness Week	Yes	Annual Participation (April)
Winter Weather Awareness Week	Yes	Annual Participation (November)
NOAA Weather Radios	No	
THIRA	Yes	Past THIRA but no longer required
<i>Other *please describe</i>		

Administrative & Technical

<i>Administration</i>	<i>Yes/No</i>	<i>Comments</i>
Planning Commission	Yes	YMC Administration
Mitigation Planning Committee	Yes	MHMP Update Planning Team
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Yes	Highway Dept. ROW maintenance and drainage systems
Mutual aid agreements	Yes	
<i>Staff</i>	<i>Yes/No</i>	<i>Comments</i>
Chief Building Official	Yes	Administrator
Floodplain Administrator	yes	Land and resource mgmt.
Emergency Manager	Yes	EM director at the time
County Coordinator	No	
Civil Engineer	Yes	County Highway Dept.
GIS Coordinator	Yes	County Highway Dept.

<i>Technical</i>	<i>Yes/No</i>	<i>Comments</i>
Hazard data and information	Yes	Damage information on file from past storm events
Hazus analysis	No	Will be conducted as part of MHMP update.

Education & Outreach

<i>Program/Organization</i>	<i>Yes/No</i>	<i>Comments</i>
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	Nonprofits that assist in times of need. (Red Cross, Salvation Army, Prairie Five)
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Ongoing media releases and public outreach that focus on preparedness
Natural disaster or safety related school programs	No	
StormReady certification	No	
Firewise Communities certification	No	
Public-private partnership initiatives addressing disaster-related issues	No	
<i>Other *please list & describe</i>	Yes	5-County Public Health collaborative

Appendix E – Past Mitigation Action Review Status Report

Yellow Medicine County

Past Mitigation Action Review Status Report

Following is a report on the status of mitigation actions related to natural hazards listed in *Section 5: Goals, Objectives, Strategies – Natural Hazards* of the Yellow Medicine County 2015 Hazard Mitigation Plan. This report identifies those actions that have been completed, are being deleted, or are ongoing. Mitigation actions that are noted as “ongoing” will be reviewed & revised as necessary based on the updated risk assessment and local input. This report covers the mitigation actions that were listed for implementation by the county and by city jurisdictions, as applicable.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Violent Storms & Extreme Temperatures	Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	All Cities and County	Ongoing	Yellow Medicine County Emergency Management (YMCEM) and local cities continue to encourage residents to be aware of and prepared for violent storms.
Violent Storms & Extreme Temperatures	Ensure that all hospitals, schools and nursing home facilities have a severe storm plan in place to protect patients and students.	All Cities and County	Ongoing	Revise - It is the legal responsibility of facilities that house vulnerable populations to have emergency plans in place. YMCEM is available as a resource to these facilities in their planning.
Violent Storms & Extreme Temperatures	Educate residents of safe rooms in community.	Cities of Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Porter, and St. Leo	Ongoing	This is part of ongoing public outreach and education on storm awareness by YMCEM and local jurisdictions.
Violent Storms & Extreme Temperatures	Continue to address safe room needs in the county.	All Cities and County	Ongoing	YMCEM and all cities continue to identify and work to address where storm shelters or tornado safe rooms are needed, such as mobile home parks or municipal parks.
Violent Storms & Extreme Temperatures	Assess adequacy of existing civil defense sirens.	County	Ongoing	Warning sirens are located in Canby, Porter, Granite Falls, Hanley Falls, Wood Lake, St. Leo, Hazel Run, Clarkfield, Upper Sioux Community, Echo. YMC and communities continue to identify if any additional warning sirens are needed or if upgrades are necessary.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Violent Storms & Extreme Temperatures	Ensure that all communities and rural areas of the county have immediate access to severe weather warnings and communications.	County	Ongoing	YMCEM utilizes the Yellow Medicine County – Emergency Management website page, Yellow Medicine County Sheriff’s Office Facebook page, and local news media to communicate with residents and visitors on emergency preparedness.
Violent Storms & Extreme Temperatures	Assess Yellow Medicine County’s current warning system: how the county is notified; who and how people and organizations within the county are notified.	County	Ongoing	YMC Sheriff’s Office continues to maintain and promote the county’s CodeRED emergency notification system.
Violent Storms & Extreme Temperatures	Encourage that all new local electrical distribution lines be placed underground when applicable.	County, All Cities, MN Valley Cooperative, Xcel	Ongoing	Rural and municipal utilities continue to assess and address where powerlines can be put underground to reduce power failure resulting from severe storms.
Violent Storms & Extreme Temperatures	Keep tree plantings away from power lines.	Power Companies, local cities	Ongoing	Vegetation management near powerlines is ongoing by rural and municipal utilities as well as county & municipal public works for roads within the right of way.
Violent Storms & Extreme Temperatures	Establish an emergency operations center that is equipped with necessary tools and provide a backup location to this center. These locations should also have a backup power source.	Cities of Clarkfield, Canby, Echo, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake	Delete	YMC has an official EOC to support the county in the event of a major disaster.
Violent Storms & Extreme Temperatures	Ensure that County and City Emergency Operations Plans are kept up-to-date.	County and All Cities	Ongoing	YMCEM maintains an all-hazards Emergency Operations Plan.
Flooding	Eliminate existing nonconforming private and public structures in identified 100-year floodplains in Granite Falls.	City of Granite Falls, FEMA, Fire Association	Ongoing	The City of Granite Falls continues to address local flood mitigation measures including potential property buyouts and removal.
Flooding	Address flooding issues of the Yellow Medicine County Museum in Granite Falls.	County, City of Granite Falls, Yellow Medicine Historical Society, DNR	Ongoing	The City of Granite Falls continues to address flood mitigation issues for the museum area and other areas vulnerable to high rain events.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Flooding	Encourage cities to adopt Floodplain Ordinances if they have 100-year floodplains.	City of Porter	Ongoing	YMC and the cities of Canby, Clarkfield, Porter, and the Upper Sioux Community all have FEMA Mapped High Risk Areas and participate in the NFIP and have floodplain management ordinances in place.
Flooding	Protect the Sanitary Sewer Treatment Plant in Granite Falls from future flooding.	City of Granite Falls	Ongoing	The City of Granite Falls continues to conduct flood mitigation measures to protect the SSTP and other critical infrastructure from flooding.
Flooding	Prevent sanitary sewer line from becoming inundated with spring flooding.	City of Granite Falls	Ongoing	The City of Granite Falls continues to implement stormwater management policies and mitigation measures.
Flooding	Address flooding issues as a region.	County Emergency Manager, Cities of Canby, Clarkfield, Granite Falls, and Porter	Ongoing	YMC and all communities continue to address planning and project measures for future high rain and flooding events.
Flooding	Establish a plan of action to address flood emergencies.	County Emergency Manager, Cities of Canby, Clarkfield, Granite Falls, and Porter	Ongoing	YMCEM works with local jurisdictions to be prepared for flood emergencies.
Flooding	Evaluate flood risks for the floodplains of Canby Creek and the confluence of Spring Creek and the Yellow Medicine River.	Watershed Districts, DNR, SWCD	Ongoing	YMC continues to work with our watershed partners and MN DNR.
Flooding	Educate the public on "sanitation cutting" that is allowed on RIM land which allows timber to be removed on land prone to flooding.	County, Watershed Districts	Delete	Not done by YMC.
Flooding	Flood proof buildings that are repeatedly flooded.	City of Granite Falls	Ongoing	The City of Granite Falls continues to evaluate and pursue, as appropriate, potential private property buyouts.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Flooding	Reduce inflow and infiltration into municipal sewer systems.	Yellow Medicine County Watersheds and Zoning, All Cities	Ongoing	Local stormwater management planning continues by local jurisdictions to reduce high rain event impacts on city sewer systems.
Flooding	Minimize development within floodplains.	County Zoning Administrator, Porter	Ongoing	YMC and all cities that participate in the NFIP have floodplain ordinances in place that regulate where future development can take place.
Erosion	Limit the potential loss of property and economic impact from river and ravine erosion, landslides, and slope failure.	County	Ongoing	Yellow Medicine Planning and Zoning, YM SWCD and local jurisdictions continue to monitor and address any issues associated with potential for serious erosion that may threaten property.
Erosion	Prevent possibility of damage from river and ravine erosion, landslides, and slope failure.	County and All Cities	Ongoing	Same as above
Erosion	Educate the public on possible effects of erosion, landslides, and slope failure.	County	Ongoing	Addressed as needed by YMCEM and locally.
Wildfire	Minimize the amount of fuel (dry/dead grasses) in areas prone to fire damage.	County SWCD, FSA, DNR	Delete	Not addressed in MHMP update. Wildfire deemed a low-priority risk for YMC.
Wildfire	Minimize wildfire risks within the county.	DNR (lead agency) County	Delete	Not addressed in MHMP update. Wildfire deemed a low-priority risk for YMC.
Wildfire	Make sure the railroad keeps grass mowed along the tracks.	Cities of Clarkfield, Granite Falls, Hanley Falls, Hazel Run, Wood Lake	Delete	Not addressed in MHMP update. Wildfire deemed a low-priority risk for YMC.
Wildfire	Provide education to the public about wildfire prevention.	County, All City Fire Departments	Delete	Not addressed in MHMP update. Wildfire deemed a low-priority risk for YMC.
Wildfire	Promote training programs between the DNR and local firefighters.	DNR, All City Fire Departments	Delete	Not addressed in MHMP update. Wildfire deemed a low-priority risk for YMC.
Wildfire	Increase access to equipment suitable to fighting wildfires.	All City Fire Departments	Delete	Not addressed in MHMP update. Wildfire deemed a low-priority risk for YMC.

Hazard	Mitigation Action	Jurisdiction	Status	Comments
Dam Failure	Ensure dams are maintained and function properly.	City of Granite Falls, Lac qui Parle Watershed District, ACOE, DNR	Ongoing	Lac Qui Parle Yellow Bank Watershed District owns and manages three high-hazard potential dams in Yellow Medicine County, all located in the city of Canby. Plans are maintained for these dams including identification of potential inundation areas in the event of a dam failure.
Dam Failure	Warn residents of danger if dam failure occurs.	Canby, Granite Falls, Watershed Districts, DNR, ACOE	Ongoing	Ongoing – plans are in place with the City of Canby and Granite Falls to alert residents in the event of dam failure.

Appendix F – Planning Team Meetings

Yellow Medicine County MHMP Update

Appendix F-Kickoff Meeting Documentation

Overview:

On July 29, 2021, U-Spatial@UMD hosted a kickoff meeting online that was attended by the Yellow Medicine 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 Multi-Hazard Mitigation Plan, the planning process, and the projected timeline of the project

Attached Documentation:

- **Project Handout:** "Minnesota 2021-2022 Multi-Hazard Mitigation Plan Update Project Overview".
- **Webinar Slides:** "Minnesota 2021-2022 Multi-Hazard Mitigation Plan Update Project Kickoff Orientation Webinar"

Minnesota 2021-2022 Multi-Hazard Mitigation Plan Update Project Overview

During 2021-2022, U-Spatial from the University of Minnesota Duluth (U-Spatial@UMD) will be working to update Multi-Hazard Mitigation Plans (MHMPs) for 9 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

Big Stone, Douglas, Isanti, Meeker, Morrison, Polk, Wadena, Wright, and Yellow Medicine counties. Cities within each county are required to participate in the planning process.

Overview of Update Process

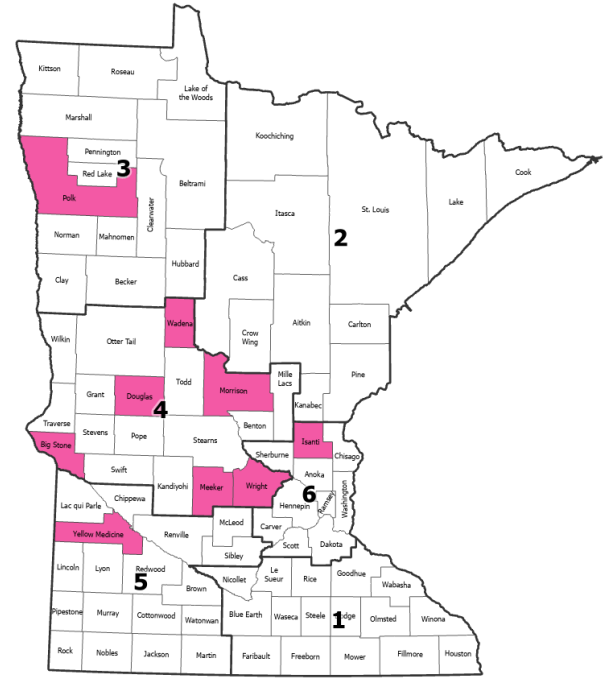
The U-Spatial@UMD team will coordinate with each Emergency Manager throughout the plan update process to engage participating jurisdictions and other stakeholders in the planning process. Following is an overview of key tasks that the U-Spatial@UMD team will facilitate to meet FEMA requirements in the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

- Conduct 2 planning team meetings
- Conduct 2 periods of 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)
- Develop 5-year jurisdictional Mitigation Action Charts

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

Contact

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



Overview of the 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 county profile sections and maps
- 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 2021-2022 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 2021-2022 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.

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?

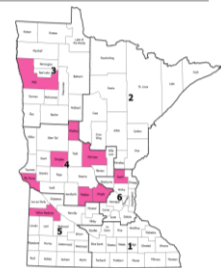
Minnesota HSEM:

Jennifer Davis, MN HSEM
State Hazard Mitigation Officer

Project Overview

9 Counties:

- Big Stone
- Douglas
- Isanti
- Meeker
- Morrison
- Polk
- Wadena
- Wright
- Yellow Medicine



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.

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.

Overview of MHMP Update Process

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.

MHMP Planning Team

The MHMP planning team must include representation from local government, related stakeholders and neighboring jurisdictions.

- County Government key officials and staff
- Cities – required; Townships – optional
- Other Related Stakeholders (i.e., SWCD, USDA, Schools, Rural & Municipal Electric Coops, MN DNR, etc.)
- Neighboring county/tribal jurisdictions

Key Tasks

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

Key Tasks

- Distribute & document News Release #1.
- Distribute & document News Release #2.
- Conduct other public outreach (optional).

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.

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.

Timeline Overview

- 22-Month total timeline (July 2021 – May 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
Stage 1 Tasks (4-5 months)	July – November 2021	HMP Kickoff meeting/webinar with U-Spatial@UMD Develop jurisdictional contact list for MHMP planning team Disseminate & document News Release #1 Hold & document Planning Team Meeting #1 Complete Plans & Programs in Place Checklist Complete Capabilities Assessment to address natural hazards Conduct a Past Mitigation Action Review from prior plan Complete Local Mitigation Surveys Revisit prioritization of natural hazards that pose risk Assist U-Spatial@UMD with provision of key data Complete inventory of Critical Infrastructure
Stage 2 Tasks (4-6 months)	December 2021 – May 2022	Develop 5-year Jurisdictional Mitigation Action Charts Hazus hazard risk assessment for flooding Develop hazard profiles for each natural hazard Complete county profile sections and maps Complete Draft Plan
Stage 3 Tasks (2-3 months)	June – August 2022	EM review of Draft Plan Hold & document Planning Team Meeting #2 Finalize Mitigation Action Charts Disseminate & document News Release #2 EM coordination of plan review by stakeholders
Stage 4 Tasks (2-3 months)	September - November 2022	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

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.

Next Steps

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

Notes:

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

Questions?

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

Contact Information

Stacey Stark, MS, GISP
U-Spatial@UMD
slstark@d.umn.edu
 218-726-7438

Example Plans:

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

Yellow Medicine County MHMP Update

JURISDICTIONAL CONTACT LIST

County Contacts

Name	Title	Phone	Email
Casey Namken	Emergency Management Director	320-313-3093	casey.namken@co.ym.mn.gov
Bill Flaten	County Sheriff / Deputy EM Director	320-564-2130	bill.flaten@co.ym.mn.gov
Dan Moravetz	County Engineer	320-313-3002	dan.moravetz@co.ym.mn.gov
Chris Balfany	Planning & Zoning Administrator/Ditch Inspector	320-669-7524	christopher.balfany@co.ym.mn.gov
Jolene Johnson	Planning & Zoning Coordinator	320-669-7524	jolene.johnson@co.ym.mn.gov
Janel Timm	Property & Public Services Director	320-564-3132	janel.timm@co.ym.mn.gov
Ashlie Wubbun, Emergency Preparedness for Yellow Medicine County	Countryside Public Health (Yellow Medicine County Office)	320-564-3010	ashlie@countryside.co.swift.mn.us
Angie Steinbach	County Administrator	320-564-3132	Angie.steinbach@co.ym.mn.gov

City Contacts

CITY OF CANBY

Name	Title	Phone	Email
Nancy Borman	Mayor	507-223-7295	mayor@canbymn.gov
Rebecca Schrupp	City Administrator	507-223-7295	cityadm@canbymn.gov
Eric Diekmann	Police Chief	507-223-7211	eric.diekmann@co.ym.mn.gov

CITY OF CLARKFIELD

Name	Title	Phone	Email
Dale Stringer	Mayor	320-669-4815	dstringer@clarkfield.org
Chris Webb	City Administrator	320-669-4815	cwebb@clarkfield.org
Tammy Thostenson	Deputy Clerk	320-669-4435	tthostenson@clarkfield.org

CITY OF ECHO

Name	Title	Phone	Email
Ray Sweetman	Mayor	507-925-4190	raysweetman@wcsanitation.com
Brian Pitzl	Clerk/Treasurer	507-925-4190	cityofecho@outlook.com

CITY OF GRANITE FALLS

Name	Title	Phone	Email
Dave Smiglewski	Mayor	320-564-4223	smiglewski@mchsi.com
Crystal Johnson	City Manager	320-564-3011	crystal.johnson@granitefalls.com
Brian Struffert	Police Chief	320-564-2129	bstruffert@granitefallspolice.com

CITY OF HANLEY FALLS

Name	Title	Phone	Email
Richard Hagen	Mayor	507-768-3570	fibhanley@hcinet.net
Patricia Savoie	City Clerk	507-768-3570	hanleyfalls@hcinet.net

CITY OF HAZEL RUN

Name	Title	Phone	Email
David Lang	Mayor	320-226-6696	
Doris Martin	City Clerk	320-383-2284	martintrucking@hotmail.com

CITY OF PORTER

Name	Title	Phone	Email
Don Vershelde	Mayor	507-296-4454	don.vershelde@zieglercat.com
Kim Jelen	City Clerk	507-296-4454	Kim.Jelen@co.ym.mn.gov

CITY OF ST. LEO

Name	Title	Phone	Email
David Gorecki	Mayor	507-530-2501	Bubba.gorecki@gmail.com
Shirley Jelen	City Clerk	507-224-2164	nmbcpa@hotmail.com

CITY OF WOOD LAKE

Name	Title	Phone	Email
David Stelter	Mayor	507-476-5971	woodlake@redred.com
Brenda Drager	City Clerk/Treasurer	507-485-3476	woodlake@redred.com

Township Contacts

Name of Township	Name & Title	Phone	Email
Burton Township	Chairperson Jeffrey Claeys	507-296-4688	lynncitrowske@hotmail.com
Echo Township	Chairperson Robert Borning	507-925-4350	m_l_k@mvtvwireless.com
Florida Township	Chairperson Wade Depestel	507-223-7479	melby@itctel.com
Fortier Township	Chairperson Allan Winter	507-223-7139	kaleb_steele@hotmail.com
Friendship Township	Chairperson Mitch Brusven	320-669-4654 Cell#320-226- 7746	jalbvold@yahoo.com
Hammer Township	Chairperson Randy Jacobson	320-305-2719	adsaltee@gmail.com
Hazel Run Township	Chairperson Chuck Cole	320-981-0239	sljohnson@mvtvwireless.com
Lisbon Township	Chairperson Matthew Danielson	320-269-7033	crosbyroad@mvtv.wireless.com

Minnesota Falls Township	Chairperson Wesley Erickson	320-564-3571	canderson@csgmail.com
Norman Township	Chairperson William Briggs	507-223-5342	johny44@hotmail.com
Normania Township	Chairperson Gary Geihl	507-828-3719	ldanielson@frontiernet.net
Omro Township	Chairperson Austin Citrowske	507-531-0508	jimdeannaelli@gmail.com delta91102000@yahoo.com
Oshkosh Township	Chairperson Ralph Peterson	507-223-5445	wsa@frontiernet.net
Posen Township	Chairperson Paul Frank	507-828-1010	jbhinz@redred.com
Sandnes Township	Chairperson Charles Timm	507-423-6330	helliopete@hotmail.com julievoldstad@gmail.com
Sioux Agency Township	Chairperson David Pederson	507-925-4313	j.hoepner@hotmail.com
Stoney Run Township	Chairperson Mitch Kling	320-894-5037	richterabbey@gmail.com
Swede Prairie Township	Chairperson Rodney Abraham	320-872-6285	swedeprairie@hotmail.com
Tyro Township	Chairperson Stanley Homan	320-669-7292	koep@mvtvwireless.com
Wergelend Township	Chairperson Mark Pesek	507-296-4439	vmerrill50@gmail.com
Wood Lake Township	Chairperson Kenneth Bahn	507-485-3130 Cell#507-828-9684	dlpete@redred.com

Other Stakeholder Contacts

Name of Agency/Org.	Name & Title	Phone	Email
USDA Rural Development Community Programs	Jeff Van Buren, Area Specialist	320-235-5612 x126	jeff.vanburen@usda.gov
MN Homeland Security & Emergency Management	Mark Marcy, HSEM Region 5 Regional Program Coordinator	612-619-6115	Mark.Marcy@state.mn.us
Yellow Medicine Soil & Water Conservation District	Tyler Knutson, Director	320-669-4442, ext. 3	tyler.knutson@co.ym.mn.gov
NRCS Minnesota	Kelly Heather, NRCS District Conservationist, Team Lead	320-669-4442	kelly.heather@usda.gov
Canby Public School	Ryan Nielson, Superintendent	507-223-2002	ryan.nielson@canbylancers.org
Yellow Medicine East (YME) Schools	Rich Schneider, Superintendent	320-564-4081	rschneider@isd2190.org
MN Valley Co Op	Pat Carruth, General Manager	320-269-2163	mnvalley@mnvalleyrec.com
Clarkfield Charter	Kathy Koetter, Director	320-669-1995	kkoetter@clarkfieldareacharter.org
Echo Charter School	Helen Blue-Redner	507-925-4143	Hblue.redner@isd4026.org

Neighboring Jurisdiction Contacts

Name of Jurisdiction	Name & Title	Phone	Email
Lac Qui Parle County	Blain Johnson, Emergency Management Director	320-598-7171	blain.johnson@lqpc.com
Chippewa County	Stephanie Weick, Emergency Management Director	320-269-2621	sweick@co.chippewa.mn.us
Renville County	Mike Hennen, Emergency Management Director	320-523-3838	mikehe@renvillecountymn.com
Redwood County	Jim Sandgren, Emergency Management Director	507-637-4035	jim_s@co.redwood.mn.us
Lyon County	Emily Coequyt, Emergency Management Director	507-706-1276	emilycoequyt@co.lyon.mn.us
Lincoln County	Amber Scholten, Emergency Management Director	507-694-1463	ascholten@co.lincoln.mn.us
Upper Sioux Tribal Community	Dan DeSmet, EM Contact Chris Lee, EM Contact	320-564-6359 320-564-6359	dand@uppersiouxpolice-nsn.gov chrisl@uppersiouxcommunity-nsn.gov

Yellow Medicine County MHMP Planning Team Meeting #1

January 18, 2022 - Meeting Summary & Documentation

Summary: On Tuesday, January 18, 2022, Yellow Medicine County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 1st Planning Team Meeting for the update of the Yellow Medicine County Multi-Hazard Mitigation Plan (MHMP). The purpose of the meeting was to formally present information about the Yellow Medicine 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: Yellow Medicine 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 Steering Committee Meetings*.

Meeting Participants: A total of **28** people attended the meeting. Representation included elected officials and departmental staff from Yellow Medicine County and the following cities: Canby, Echo, Granite Falls, Porter, and Wood Lake. The cities of Clarkfield, Hanley Falls, Hazen Run and St. Leo were unable to attend. 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. **(12/24) 50%**
- No, but I am familiar with hazard mitigation planning. **(4/24) 17%**
- No, and this is all new to me. **(8/24) 33%**

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 2015 risk priorities for Yellow Medicine 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. Any changes to the risk prioritizations will be noted.

HAZARD	EXISTING PLAN	2022 PLAN
Winter Storms	Moderate	High
Flooding	Moderate	Moderate
Tornadoes	Moderate	Moderate
Windstorms	Moderate	Moderate
Hail	Moderate	Moderate
Extreme Cold	Moderate	Moderate
Extreme Heat	Moderate	Moderate
Lightning	Moderate	Low
Wildfire	Low	Low
Drought	Low	Low
Dam/Levee Failure	Low	Low
Landslides	N/A	Low to Moderate (county-wide low, but with a few specific areas of concern)

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
Kristi Fernholz, Director Upper Minnesota Valley Regional Development Commission	<i>In regarding to FEMA HMA grant funding:</i> “Do you mean that man-made hazard mitigation efforts are not eligible for FEMA funds?”	Bonnie Hundrieser: Correct. The HMA grant programs provide funding with the aim to reduce or eliminate risk to property and loss of life from future natural disasters. Please reference the FEMA HMA Grant Program handout provided for this meeting.
David Smiglewski, Mayor City of Granite Falls	<i>Regarding Landslides:</i> The ongoing failure on the slope of Highway 67 in Sioux Agency Township brings to mind a landslide danger possibility in certain limited locations within the county, particularly in river valleys and near rivers. <i>Regarding landslide risk countywide vs. localized:</i> The landslide areas seem more likely in river valley areas, rather than the entire county.	Stacey Stark: Information was noted for jurisdictional variability for the risk of landslides in Yellow Medicine County.
Casey Namken, YMC Emergency Management Director	<i>Regarding landslide risk countywide vs. localized:</i> We have seen two different areas of homes being endangered by slope failures in last couple years also: In Canby a house was moved and in Granite it has become more of a moderate risk especially after the last flooding incident.	Stacey Stark: Information was noted for jurisdictional variability for the risk of landslides in Yellow Medicine County.
Tyler Knutson, Director Yellow Medicine County Soil and Water Conservation District	<i>Regarding landslide risk and associated flooding:</i> Especially along stream banks. Rivers, creeks, etc. are especially prone to in stream and stream bank erosion.	Stacey Stark: Information noted for erosion concerns; a discussion was shared on the focus of landslides/erosion risk to structures such as roads and buildings vs. general erosion issues.
David Smiglewski, Mayor City of Granite Falls	<i>Regarding Dam Failure:</i> I believe that the Granite Falls dam has been placed into a lower risk category because of past mitigation measures removing buildings from the downstream floodway. We can work with you on the GF Dam. City manager Crystal Johnson would be the best contact on that and I will help too.	Stacey Stark: Information was noted for follow up with the City of Granite Falls regarding further information on the Granite Falls Dam.

Meeting Participant	Comment, Question or Mitigation Idea Submitted	Facilitator Feedback / How to be Addressed in Plan Update
David Smiglewski, Mayor City of Granite Falls	Regarding Flooding: Flooding is always a concern in Granite Falls but we have addressed a lot of that risk with past mitigation. However, it remains a yearly concern because we continue to have properties and public infrastructure (utilities, streets, parks, etc. that are close to the Minnesota River and a couple of small tributaries.	Bonnie Hundrieser: Information was noted for follow up regarding local vulnerabilities to flooding and associated mitigation actions for the City of Granite Falls.
Patrick Vlaminck, City Councilor, City of Porter	Regarding Flooding: There is a levee along the east side of Porter that we had to sand bag on several years ago. If it were to break the creek would flood Porter. A small area of it was repaired two years ago with FEMA funds.	Bonnie Hundrieser: Information was noted for follow up regarding local vulnerabilities to flooding and associated mitigation actions for the City of Granite Falls.

Following the discussion, participants were encouraged to fill out and return the “Mitigation Ideas” worksheet that they were provided with to Yellow Medicine 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 Yellow Medicine County MHMP Meeting #1:

- 1-18-22 Mtg. #1 Email Invitation
- 1-18-22 Mtg. #1 List of Participants
- 1-18-22 Mtg. #1 Power Point Slides
- 1-18-22 Mtg. #1 Handouts

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

From: [Casey Namken](#)
To: [Bill Flaten](#); [Wayne Deblieck](#); [Andy Sander](#); [Dan Moravetz](#); [Christopher Balfany](#); [Jolene Johnson](#); [Janel Timm](#); [Angie Steinbach](#); [Dana Homan](#); [mayor@canbymn.gov](#); [Rebecca Schrupp](#); [Eric Diekmann](#); [dstringer@clarkfield.org](#); [City of Clarkfield \(cwebb@clarkfield.org\)](#); [raysweetman@wcsanitation.com](#); [Dave Smiglewski](#); [Crystal Johnson \(crystal.johnson@granitefalls.com\)](#); [Brian Struffert](#); [fibhanley@hcinet.net](#); [David Lang](#); [don.verschelde@zieglercat.com](#); [Bubba.gorecki@gmail.com](#); [Jon Hoffman](#); [Brenda Drager](#); [jeff.vanburen@usda.gov](#); [Mark.marcy@state.mn.us](#); [Tyler Knutson](#); [Ryan Nielsen \(ryan.nielsen@canbylancers.org\)](#); [Rich Schneider \(rschneider@isd2190.org\)](#); [mnvalley@mnvalleyrec.com](#); [Kathy Koetter](#); [Hblue.redner@isd4026.org](#); [140 Christopher Lee](#); [Dan DeSmet](#); [Blain Johnson](#); [sweick@co.chippewa.mn.us](#); [Mike Hennen](#); [Jim Sandgren](#); [mattewhoekstra@co.lyon.mn.us](#); [Amber Scholten](#); [Burton Township](#); [Curt Melby Florida Tws](#); [Echo Township](#); [Fortier](#); [Hammer](#); [Hazel Run](#); [Minnesota Falls](#); [Norman \(Johny44@hotmail.com\)](#); [Normania](#); [Omro](#); [Oshkosh](#); [Posen](#); [Sandes](#); [Sioux Agency](#); [Stony Run](#); [Swede Prairie](#); [Tyrö](#); [Wergleland](#); [Wood Lake](#); [Gary Johnson](#); [Glen Kack](#); [Greg Renneke](#); [John Berends](#); [Ron Antony](#)
Cc: [Bonnie K Hundrieser](#)
Subject: MHMP Update Meeting
Date: Monday, December 6, 2021 2:43:32 PM

YELLOW MEDICINE COUNTY

MULTI-HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at a Planning Team Meeting for the update of the **Yellow Medicine 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: Tuesday, January 18, 2022

Time: 1:00 – 3:00 p.m.

Zoom Link: https://umn-private.zoom.us/webinar/register/WN_MUqYXfjOTH2LAm2ZqQKWFA

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 Yellow Medicine 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 Yellow Medicine 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 Yellow Medicine 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,

Investigator/Emergency Management

Casey Namken

Yellow Medicine County Sheriff

415 9th Ave, Suite 103

Granite Falls, MN 56241

(320) 564-2130

www.ymcsheriff.com



"Keepers of the County"

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Yellow Medicine County

1/18/22 MHMP Planning Team Meeting #1

List of Participants (28)

	First Name	Last Name	Organization	Job Title
1	Casey	Namken	Yellow Medicine County Sheriff's Office	Emergency Management Director
2	Wayne	DeBlieck	Yellow Medicine County Sheriff's Office	Chief Deputy
3	Dana	Homan	Yellow Medicine County	Finance Manager
4	Daniel	Moravetz	Yellow Medicine County	Assistant Engineer
5	John	Berends	Yellow Medicine County	Commissioner
6	Janel	Timm	Yellow Medicine County	Property & Public Services Director
7	Jolene	Johnson	Yellow Medicine County	Zoning Coordinator
8	Bill	Flaten	Yellow Medicine County	County Sheriff
9	Gary	Johnson	Yellow Medicine County	Commissioner
10	Angie	Steinbach	Yellow Medicine County	Administrator
11	Chris	Webb	City of Clarkfield	City Administrator
12	Raymond	Sweetman	City of Echo	Mayor
13	David	Smiglewski	City of Granite Falls	Mayor
14	Eric	Diekmann	City of Canby Police Dept.	Chief of Police
15	Crystal	Johnson	City of Granite Falls	City Manager
16	Brian	Struffert	City of Granite Falls Police Dept.	Police Chief
17	Patrick	Vlaminck	City of Porter	Council
18	Brenda	Drager	City of Wood Lake	Clerk/Treasurer
19	Randy	Jacobson	Hammer township	Chair
20	Jennifer	Hinz	Posen Township	Clerk
21	Brian	Doom	Town of Omro	Clerk
22	Jay	Stensrud	Swede Prairie Township	Supervisor
23	Mark	Marcy	MN DPS/HSEM	Regional Coordinator
24	Kristi	Fernholz	UMVRDC	Planning Director
25	Tyler	Knutson	Yellow Medicine SWCD	Director
26	Stephanie	Weick	Chippewa County Sheriff's Office	Emergency Management Director
27	Amber	Scholten	Lincoln/Lyon County	Emergency Management Director
28	Daniel	DeSmet	Upper Sioux Community	Emergency Management

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

January 18, 2022



Welcome & Introductions

U-Spatial@UMD Project Leads



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hundrieser
HM Planning Specialist
Hundrieser Consulting LLC

Yellow Medicine County Project Lead

- Casey Namken, Yellow Medicine County Emergency Management Director – Sheriff's Office



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



August 8, 2020 wind storm damage

The purpose of this meeting is to formally convene the Yellow Medicine 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



2019 Granite Falls Flooding

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.

Yellow Medicine County MHMP Update 2022

- Last plan adopted in 2015.
- The updated plan will cover a 5-year window for implementation.
- Documentation of county and local-level government participation is required for plan approval.

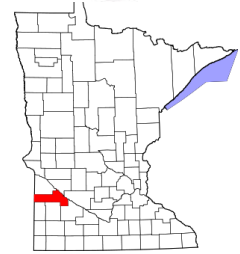
PRESENTER: BONNIE HUNDRIESER

Who the Plan Covers



The Yellow Medicine 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



Yellow Medicine County Planning Team

- Yellow Medicine 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?

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



Spring 2019 flooding



August 8, 2020 windstorm damage

PRESENTER: STACEY STARK

Yellow Medicine County Review of Existing Hazard Risk Prioritization

HAZARD	EXISTING PLAN	2022 PLAN
Winter Storms	Moderate	
Flooding	Moderate	<p>Please consider any changes for these priorities in 2022 based on:</p> <ul style="list-style-type: none"> Increase or decrease in risk over the last 5 years (probability + severity) Local vulnerabilities (people, systems, infrastructure) New development
Tornadoes	Moderate	
Windstorms	Moderate	
Hail	Moderate	
Extreme Cold	Moderate	
Extreme Heat	Moderate	
Lightning	Moderate	
Wildfire	Low	
Drought	Low	
Dam/Levee Failure	Low	
Landslides	N/A	

Updated hazard priorities for 2022 should seek to be clearly identified as High, Moderate or Low.

Winter Storms (Moderate)

- 40 winter weather related events (blizzards, heavy snows, ice storms, winter storms, and winter weather) have occurred since January 2012 (4 year)
- Based on all records in the NCEI Storm Events Database, the relative frequency of winter-related storm events is 3.5 per year.



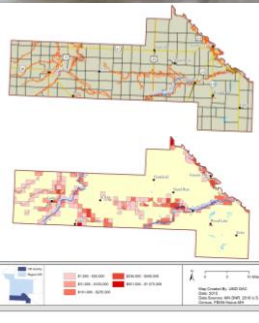
2019 Regional Winter Storm

PRESENTER: STACEY STARK

Flooding (Moderate)



- A potential economic loss model is run for 1% annual chance flood
- Use of FEMA Flood Insurance Rate Map (FIRM)
- Use of property values from county assessor
- Critical Infrastructure locations from GIS and EM input



Tornadoes (Moderate)



- Based NCEI Storm Events Database, the relative frequency of tornados is .32 per year (23 total)
- Tornadoes occurred in 2021 (EF0) and 2015 (EF1)and 2014 (EF0)
- Identify mobile home locations



Wikipedia tornado image

PRESENTER: STACEY STARK

Windstorms, Lightning, Hail (Moderate)



- Each addressed individually
- The relative frequency of all wind-related events since January of 1996 is 3.5 per year.
- There were 13 hailstorms with hail greater or equal to 1-inch since 2012. The relative frequency of all hail events is 3.5 per year.
- Hazards deemed low risk and without significant mitigation actions, can be dropped from the plan.



August 8, 2020 windstorm damage

PRESENTER: STACEY STARK

Extreme Cold (Moderate)



- From 2012 - 2021, daily low temperatures $\leq -18^{\circ}\text{F}$ were recorded 48 times at Granite Falls station. Yellow Medicine County experiences an average of 4-5 extreme cold days each year.
- -36°F recorded by the Granite Falls station on January 31, 2019
- The relative frequency of cold-related events (NWS Warning issued due to wind chill of -35°F or colder) in Yellow Medicine County is 1.7 per year

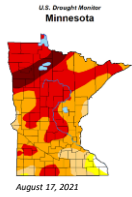
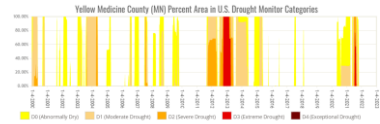
PRESENTER: STACEY STARK

Extreme Heat (Moderate)

- From 2012 - 2021, daily high temperatures $\geq 90^{\circ}\text{F}$ were recorded 175 times at Granite Falls station. Yellow Medicine County experiences an average of 17-18 extreme heat days each year.
- 104°F recorded by the Granite Falls station on June 5, 2021
- The relative frequency of heat-related events (NWS Excessive Heat Advisory issued due to heat index 100°F or higher) in Yellow Medicine County is 0.2 per year. This has happened two times in the last 10 years.

Drought (Low)

- From 2000 – 2018, Yellow Medicine County was in at least Moderate (D1) Drought 22 - 25% of the time.



PRESENTER: STACEY STARK

Dam Failure (Low)

- Three dams in Canby, owned by the Lac Qui Parle Watershed District, are high hazard potential dams
- Canby R-1, R-6, and R-4A
- Must state any mitigation actions if the county wishes to be eligible for the High Hazard Potential Dam Rehabilitation Grant Program
- Granite Falls Dam from previous plan?

Wildfire/Wildland Fire (Low)

Landslides (not addressed previously)

- Hazards deemed low risk and without significant mitigation actions, can be dropped from the plan.

PRESENTER: STACEY STARK

Yellow Medicine County Review of Hazard Risk Prioritization

HAZARD	EXISTING PLAN	2022 PLAN
Winter Storms	Moderate	
Flooding	Moderate	
Tornadoes	Moderate	
Windstorms	Moderate	
Hail	Moderate	
Extreme Cold	Moderate	
Extreme Heat	Moderate	
Lightning	Moderate	
Wildfire	Low	
Drought	Low	
Dam/Levee Failure	Low	
Landslides	N/A	

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.



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



1st 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.

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

EXAMPLES:

- Emergency Notification Systems
- 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



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

Historical Projects in Yellow Medicine County Resulting from HMA Funding

Program FY Project Type	Subgrantee	Project Amt	Federal Share
93.1: Tribal (Local) Multihazard Mitigation 2013 Plan	Upper Sioux Community (Indian Reservation)	\$ 50,000.00	\$ 33,711.11
600.1: Warning Systems (as a Component of a Planned, Adopted, and Exercised Risk 2010 Reduction Plan)	Granite Falls	\$ 24,925.00	\$ 18,694.00
2009-94.1: Tribal Multihazard Mitigation Plan	Upper Minnesota Valley Regional Development Commission	\$ 38,855.00	\$ 29,141.25
400.1: Utility Protective Measures (Electric, 2006 Gas, etc.)	LYON-LINCOLN ELECTRIC COOPERATIVE, INC.	\$ 460,248.00	\$ 311,877.00
200.1: Acquisition of Private Real Property (Structures and Land) - Riverine: 203.1: Wet Floodproofing Private Structures - 2001 Riverine	Yellow Medicine (County)	\$ 126,701.00	\$ 95,026.00
200.1: Acquisition of Private Real Property 2001 (Structures and Land) - Riverine	Granite Falls	\$ 1,216,300.00	\$ 912,225.00
200.1: Acquisition of Private Real Property 1997 (Structures and Land) - Riverine	YELLOW MEDICINE COUNTY	\$ 229,341.00	\$ 172,006.00
1997 300.3: Vegetation Management - Wind	Yellow Medicine Soil & Water Conservation District	\$ 62,672.00	\$ 47,004.00

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



January – April, 2022

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) January – June, 2022

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



April – June, 2022

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



July – August, 2022

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



Sept. – Oct., 2022

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



Nov. – Dec., 2022 to Spring, 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 (Spring, 2023)
- 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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Bonnie Hundrieser, Consultant

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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
Local Planning and Regulations	These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> • Comprehensive plans • Land use ordinances • Planning and zoning • Building codes and enforcement • Floodplain ordinances • NFIP Community Rating System • Capital improvement programs • Open space preservation • Shoreline codes • Stormwater management regulations and master plans • Mobile home park compliance for storm shelters
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p>	<ul style="list-style-type: none"> • Property Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits (i.e., metal roofs) • Floodwalls and retaining walls • Detention and retention structures • Culvert Installation/Modification • Roads & Bridge risk reduction • Safe Room (New construction or facility retrofit) • Green Infrastructure Methods <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>

Mitigation Strategy	Description	Example Mitigation Actions
Natural Systems Protection	<p>These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.</p>	<ul style="list-style-type: none"> • Soil stabilization for sediment and erosion control • Floodplain and Stream corridor restoration • Slope management • Forest management (defensible space, fuels reduction, sprinkler systems) • Conservation easements • Wetland restoration and preservation • Aquifer Storage & Recovery • Flood Diversion and Storage <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>
Education and Awareness Programs	<p>These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions that support life safety and lessen property damage.</p>	<ul style="list-style-type: none"> • Radio or television spots • Websites with maps and information • Social media outreach • Promotion of sign-up for emergency warnings • Real estate disclosure • Promotion of NFIP insurance to property owners • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • NWS StormReady Program • Firewise Communities <p><i>Some of these types of actions may be projects eligible for funding through the FEMA HMA "5 Percent Initiative Program".</i></p>
Mitigation Preparedness and Response Support	<p>This is a State of Minnesota mitigation strategy with the intent of covering emergency preparedness actions that protect life and property prior to, during, and immediately after a disaster or hazard event. These activities are typically not considered mitigation, but support reduction of the effects of damaging events.</p>	<ul style="list-style-type: none"> • Emergency Operations Plan • Flood fight plans and preparedness measures • Dam emergency action plans • Emergency Warning Systems (i.e., CodeRed, warning sirens) • Generator backup power • NWS Storm Spotter Training • Training and education for local elected officials and key partners.



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

Yellow Medicine County MHMP Planning Team Meeting #2

November 22, 2022 - Meeting Summary & Documentation

Summary: On Tuesday, November 22, 2022, Yellow Medicine County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 2nd and final Planning Team Meeting for the update of the Yellow Medicine County Multi-Hazard Mitigation Plan (MHMP). The purpose of the meeting was to formally convene the Yellow Medicine County MHMP 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: Yellow Medicine 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 Steering Committee Meetings*.

Meeting Participants: A total of 19 people attended the meeting. Representation included elected officials and departmental staff from Yellow Medicine County and the cities of Canby, Clarkfield, Echo, Granite Falls, Porter, and Wood Lake. The cities of Hanley Falls, Hazel Run, and St. Leo were not available to participate. 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
- Prioritization of Hazards
- Hazards Risk Assessment (Critical Infrastructure, Population Vulnerability Factors, and Review of High/Moderate Priority Natural Hazards)
- Development of Mitigation Actions
- FEMA HMA Grant Funding
- Overview of Mitigation Action Charts and Discussion
- 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
Nancy Bormann, Mayor, City of Canby	In regards to the interactive map for tornadoes showing the locations of vulnerable mobile home parks: Should the campgrounds at Del Clark Lake be included on the interactive mapping?	Stacey Stark - Campgrounds that have longer term residents (not just seasonal) or are very large should be considered vulnerable to summer storms. They aren't included in the licensed mobile home park data we have, but some counties chose to include them on the map, and we can do that for YM too. Casey Namken, YMC EM Director also noted he thought this would be a good addition of information as relevant for the map.

There were no other comments or questions during or following the presentation.

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

Attached are the following documentation items for the Yellow Medicine County MHMP Meeting #2:

- 11-22-22 Mtg. #2 Email Invitation
- 11-22-22 Mtg. #2 List of Participants
- 11-22-22 Mtg. #2 Power Point Slides
- 11-22-22 Mtg. #2 Handouts

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

From: [Casey Namken](#)
To: [Bill Flaten](#); [Andy Sander](#); [Dan Moravetz](#); [Christopher Balfany](#); [Jolene Johnson](#); [Janel Timm](#); [ashlie@countyside.co.swift.mn.us](#); [Angie Steinbach](#); [mayor@canbymn.gov](#); [cityadm@canbymn.gov](#); [Eric Diekmann](#); [dstinger@clarkfield.org](#); [cwebb@clarkfield.org](#); [tthostenson@clarkfield.org](#); [raysweetman@wcsanitation.com](#); [cityclerk@echomn.com](#); [smiglewski@mchsi.com](#); [crystal.johnson@granitefalls.com](#); [Brian Struffert](#); [fibhanley@hcinet.net](#); [hanleyfalls@hcinet.net](#); [martintrucking@hotmail.com](#); [don.verschelde@zieglercat.com](#); [Bubba.gorecki@gmail.com](#); [nmbcpa@hotmail.com](#); [woodlake@redred.com](#); [lynncitrowske@hotmail.com](#); [m.l.k@mvtwireless.com](#); [melby@itctel.com](#); [kaleb_steele@hotmail.com](#); [jalbvoid@yahoo.com](#); [adsaltee@gmail.com](#); [sljohnson@mvtwireless.com](#); [crosbyroad@mvtv_wireless.com](#); [canderson@csgmail.com](#); [johny44@hotmail.com](#); [ldanielson@frontiernet.net](#); [jimdeannaellien@gmail.com](#); [delta91102000@yahoo.com](#); [wsa@frontiernet.net](#); [jbhinz@redred.com](#); [hellipete@hotmail.com](#); [julievoldstad@gmail.com](#); [j.hoepner@hotmail.com](#); [richterabbey@gmail.com](#); [swedepairie@hotmail.com](#); [koepp@mvtwireless.com](#); [rvmerrill50@gmail.com](#); [dlpete@redred.com](#); [jeff.vanburen@usda.gov](#); [Mark.Marcy@state.mn.us](#); [Tyler Knutson](#); [kelly.heather@usda.gov](#); [ryan.nielsen@canbylancers.org](#); [rschneider@isd2190.org](#); [mnvalley@mnvalleyrec.com](#); [kkoetter@clarkfieldareacharter.org](#); [Hblue.redner@isd4026.org](#); [blain.johnson@lqpc.com](#); [sweick@co.chippewa.mn.us](#); [mikehe@renvillecountymn.com](#); [jim_s@co.redwood.mn.us](#); [mattewhoekstra@co.lyon.mn.us](#); [ascholten@co.lincoln.mn.us](#); [chrisl@uppersiouxcommunity-nsn.gov](#); [Dan Desmet](#)
Cc: [Bonnie K Hundrieser](#)
Subject: 2nd MHMP Meeting
Date: Thursday, September 22, 2022 10:36:51 AM
Attachments: [image001.png](#)

YELLOW MEDICINE COUNTY

MULTI-HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at the 2nd Planning Team Meeting for the update of the Yellow Medicine County Multi-Hazard Mitigation Plan (MHMP). This meeting will be the final planning meeting for the hazard mitigation planning process for the county, city jurisdictions, and other stakeholders.

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 webinar:

Date: Tuesday, November 22, 2022

Time: 9:00 a.m. – 11:00 a.m.

Zoom Link: https://umn-private.zoom.us/webinar/register/WN_DrhEB7uMTToS02WXMf0752w

You must click on the link above to register. (Ctrl + click to follow link)

The purpose of this meeting is to provide a final overview of the plan, including a review of the updated risk assessment for natural hazards that affect the county (history, local vulnerabilities, and future trends). We will also discuss the Mitigation Action Charts that have been developed for Yellow Medicine County and each city, as well as funding opportunities for eligible projects 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 Yellow Medicine County MHMP is underway and will be ready for review by planning team members and the public following this meeting.

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,

Casey

Investigator/Emergency Management

Casey Namken

Yellow Medicine County Sheriff

415 9th Ave, Suite 103

Granite Falls, MN 56241

(320) 564-2130

www.ymcsheriff.com



"Keepers of the County"

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From: [Bonnie K Hundrieser](#)
To: [Casey Namken](#); Bill.Flaten@co.ym.mn.gov; [Andy Sander](#); [Dan Moravetz](#); [Christopher Balfany](#); [Jolene Johnson](#); [Janel Timm](#); ashlie@countyside.co.swift.mn.us; [Angie Steinbach](#); mayor@canbymn.gov; cityadm@canbymn.gov; [Eric Diekmann](#); dstringer@clarkfield.org; cwebb@clarkfield.org; tthostenson@clarkfield.org; raysweetman@wcsanitation.com; cityclerk@echomn.com; smiglewski@mchsi.com; crystal.johnson@granitefalls.com; [Brian Struffert](#); fibhanley@hcinet.net; hanleyfalls@hcinet.net; martintrucking@hotmail.com; don.verschelde@zieglercat.com; Bubba.gorecki@gmail.com; nmbcpa@hotmail.com; woodlake@redred.com; lynncitrowske@hotmail.com; m.l.k@mtvwireless.com; melby@itctel.com; kaleb_steele@hotmail.com; jalbvold@yahoo.com; adsaltee@gmail.com; sljohnson@mtvwireless.com; crosbyroad@mtv.wireless.com; canderson@csgmail.com; johny44@hotmail.com; ldanielson@frontiernet.net; jimdeannaellien@gmail.com; delta91102000@yahoo.com; wsa@frontiernet.net; jbhinz@redred.com; helliopete@hotmail.com; julievoldstad@gmail.com; j.hoepner@hotmail.com; richterabbey@gmail.com; swedeprairie@hotmail.com; koepp@mtvwireless.com; rvmerrill50@gmail.com; dlpete@redred.com; jeff.vanburen@usda.gov; Mark.Marcy@state.mn.us; [Tyler Knutson](#); kelly.heather@usda.gov; ryan.nielsen@canbylancers.org; rschneider@isd2190.org; mnvalley@mnvalleyrec.com; kkoetter@clarkfieldareacharter.org; Hblue.redner@isd4026.org; blain.johnson@lqpc.com; sweick@co.chippewa.mn.us; mikehe@renvillecountymn.com; jim_s@co.redwood.mn.us; mattewhoekstra@co.lyon.mn.us; ascholten@co.lincoln.mn.us; christ@upperxiouxcommunity-nsn.gov; [Dan Desmet](#)
Subject: Reminder - Yellow Medicine County MHMP Planning Team Meeting 11/22/22
Date: Thursday, November 17, 2022 8:49:00 AM
Attachments: [image001.png](#)
Importance: High

This is a kind reminder that the 2nd and last planning team meeting for the **Yellow Medicine County Multi-Hazard Mitigation Plan Update** is coming up next week. If you have not registered already, please be sure to do so by clicking on the link below. Your participation is critical to the planning update and will help to ensure meeting FEMA requirements for jurisdictional and additional stakeholder representation.

We will be holding the meeting virtually using Zoom webinar:

Date: **Tuesday, November 22, 2022**

Time: **9:00 a.m. – 11:00 a.m.**

Zoom Link: https://umn-private.zoom.us/webinar/register/WN_DrhEB7uMToS02WXMfO752w

You must click on the link above to register. (Ctrl + click to follow link)

Thank you!

Bonnie Hundrieser

Bonnie K. Hundrieser, CEM

Hazard Mitigation Planning Specialist

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

Hundrieser Consulting LLC

Phone: 218-343-3468

From: Casey Namken <Casey.Namken@co.ym.mn.gov>

Sent: Thursday, September 22, 2022 10:37 AM

To: Bill.Flaten@co.ym.mn.gov; [Andy Sander <Andy.Sander@co.ym.mn.gov>](mailto:Andy.Sander@co.ym.mn.gov); [Dan Moravetz <Dan.Moravetz@co.ym.mn.gov>](#); [Christopher Balfany <Christopher.Balfany@co.ym.mn.gov>](mailto:Christopher.Balfany@co.ym.mn.gov); [Jolene Johnson <Jolene.Johnson@co.ym.mn.gov>](mailto:Jolene.Johnson@co.ym.mn.gov); [Janel Timm <Janel.Timm@co.ym.mn.gov>](mailto:Janel.Timm@co.ym.mn.gov); ashlie@countyside.co.swift.mn.us; [Angie Steinbach <Angie.Steinbach@co.ym.mn.gov>](mailto:Angie.Steinbach@co.ym.mn.gov); mayor@canbymn.gov; cityadm@canbymn.gov; [Eric Diekmann <Eric.Diekman@co.ym.mn.gov>](mailto:Eric.Diekman@co.ym.mn.gov); dstringer@clarkfield.org; cwebb@clarkfield.org; tthostenson@clarkfield.org;

Yellow Medicine County

11/22/22 MHMP Planning Team Meeting #2

List of Participants (19)

	First Name	Last Name	Organization	Job Title
1	Casey	Namken	Yellow Medicine County Sheriff's Office	Emergency Management Director
2	Bill	Flaten	Yellow Medicine County Sheriff's Office	County Sheriff
3	Ashlie	Wubben	Countryside Public Health	Yellow Medicine County Emergency Preparedness Coordinator
4	Thalia	Sik	City of Canby	Administrative Secretary
5	Nancy	Bormann	City of Canby	Mayor
6	Eric	Diekmann	City of Canby	Chief of Police
7	Troy	Bruflat	City of Clarkfield	Public Works Director
8	Brian	Pitzl	City of Echo	City Clerk/Treasurer
9	Crystal	Johnson	City of Granite Falls	City Manager
10	Brian	Struffert	City of Granite Falls Police Dept.	Chief of Police
11	Patrick	Vlaminck	City of Porter	City Councilor
12	Brenda	Drager	City of Wood Lake	City Clerk/Treasurer
13	Rich	Schneider	Yellow Medicine East Schools	Superintendent
14	Mark	Marcy	MN Dept. of Public Safety – Homeland Security and Emergency Management	HSEM Region 5 Regional Program Coordinator
15	Jeff	Berens	USDA-NRCS	District Conservationist
16	Mike	Hennen	Renville County Emergency Management	Emergency Management Director
17	Dan	DeSmet	Upper Sioux Community	Emergency Manager
18	Kristi	Fernholz	Upper Minnesota Valley Regional Development Commission (UMVRDC)	Planning Director
19	Kevin	Ketelsen	UMVRDC on behalf of Upper Sioux Community	Community Development Specialist

YELLOW MEDICINE COUNTY Multi-Hazard Mitigation Plan Update 2022 Planning Team Meeting #2

November 22, 2022



Welcome & Introductions

U-Spatial@UMD Project Leads



Stacey Stark
Project Manager
U-Spatial@UMD

Yellow Medicine County Project Lead

* Casey Namken, Yellow Medicine County Emergency Management Director



Bonnie Hundrieser
HM Planning Specialist
Hundrieser Consulting LLC



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



August 8, 2020 wind storm damage

The purpose of this meeting is to formally convene the **Yellow Medicine County MHMP 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 MHMP Points
- > Review of Risk Assessment & Vulnerability Analysis
- > Overview of FEMA HMA Funding and Mitigation Action Charts
- > Review & Feedback
- > Next Steps

PRESENTER: STACEY STARK

Overview of Plan Update

Yellow Medicine County is updating its **Multi-Hazard Mitigation Plan (MHMP)** to fulfill a state & federal requirement. The plan must be updated every 5 years. The last plan was adopted in 2015.

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.

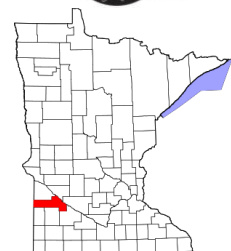
PRESENTER: BONNIE HUNDRIESER

Who the Plan Covers



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

The plan also takes into consideration the needs and concerns of other stakeholders participating in the plan update.



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 and local media
- Online public review & comment period for draft plan

PRESENTER: BONNIE HUNDRIESER

The structure of the HMP

PDF document

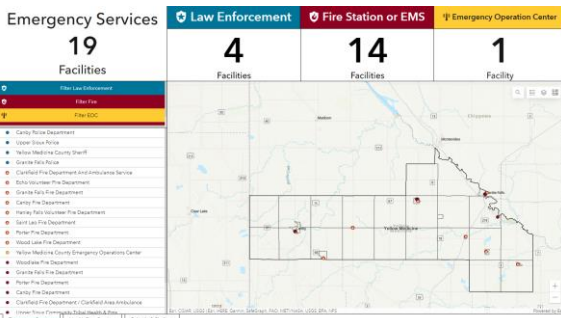
- Contains almost all FEMA required elements
- Limited Figures and Images
- Summary of Hazard Identification
- Local mitigation survey report
- Plans and Programs in Place
- Past Mitigation Action Review Status Report
- Planning Team Meetings
- Public Outreach and Engagement Documentation
- Mitigation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

Website companion

- Interactive maps and content
- Simple, concise explanations
- Links to PDF documents and document
- Public input form on site

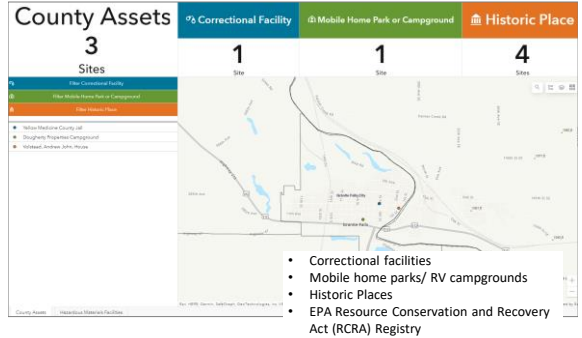


All Hazards - Critical Infrastructure



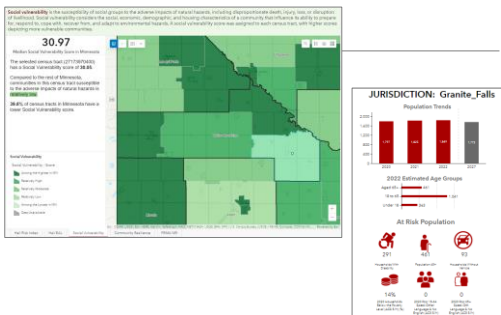
PRESENTER: STACEY STARK

All Hazards - Critical Infrastructure



PRESENTER: STACEY STARK

All Hazards – Population Vulnerability



PRESENTER: STACEY STARK

Hazards Risk Assessment

- Validate prioritization
- Provide probability and severity of future events as possible
- Identify vulnerable populations and structures at risk as possible
- Consider variable jurisdictional vulnerability
- Inform Mitigation Actions in the HMP



2019 City of Granite Falls Flooding

PRESENTER: STACEY STARK

Prioritization of Hazards for Yellow Medicine County



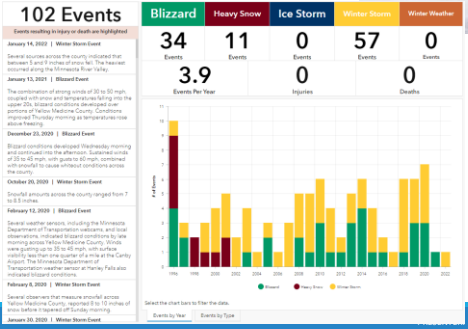
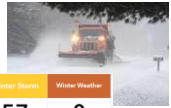
Prioritization of hazards by the Yellow Medicine County planning team included consideration of:

- Probability and Severity of natural hazard events (risk)
- Observed increase or decrease in risk since 2015
- Jurisdictional variations in risk (i.e., local vulnerabilities, changes in development)

Hazard	2022 Priority
Winter Storms	High
Flooding	Moderate
Tornadoes	Moderate
Windstorms	Moderate
Hail	Moderate
Extreme Cold	Moderate
Extreme Heat	Moderate
Landslides	Low to Moderate
Dam/Levee Failure	Low – but included
Wildfire	Low
Drought	Low
Lightning	Low

PRESENTER: BONNIE HUNDRIESE

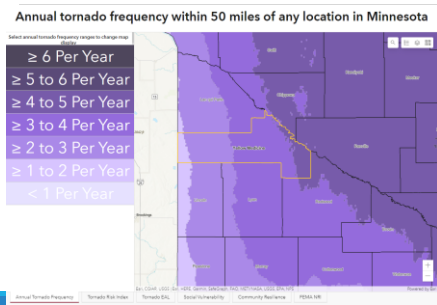
YELLOW MEDICINE COUNTY: Winter Storms (High)



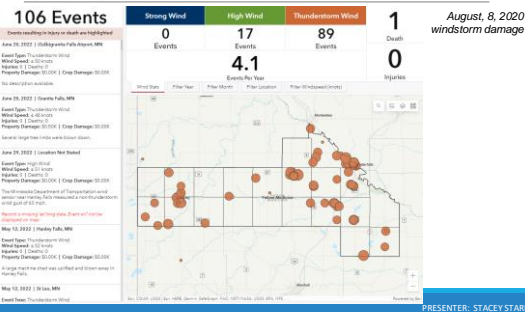
YELLOW MEDICINE COUNTY: Tornadoes (Moderate)



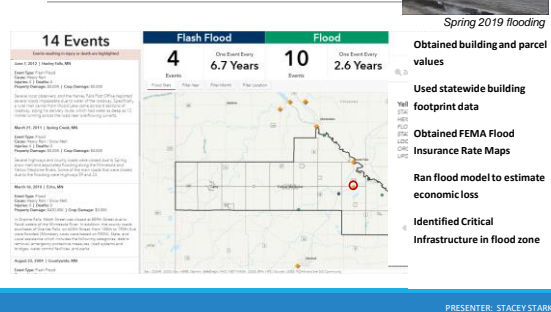
YELLOW MEDICINE COUNTY: Tornadoes (Moderate)



YELLOW MEDICINE COUNTY: Windstorms, Hail (Moderate)



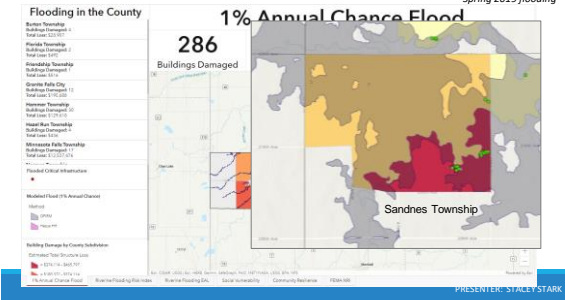
YELLOW MEDICINE COUNTY: Flooding (Moderate)



YELLOW MEDICINE COUNTY: Flooding (Moderate)

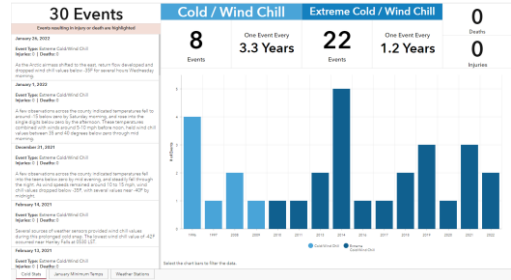


Spring 2019 flooding



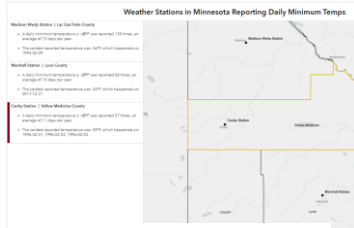
PRESENTER: STACEY STARK

YELLOW MEDICINE COUNTY: Extreme Cold (Moderate)



PRESENTER: STACEY STARK

YELLOW MEDICINE COUNTY: Extreme Cold (Moderate)



Program Gaps and Deficiencies:
Obtaining generators for backup power to healthcare facilities and designated shelter facilities.

Plans and Programs in Place:
Emergency Notifications – NWS & YM County Emergency Management
School Closings – policy and communication plans
NWS Winter Hazard Awareness Week – public education & awareness

PRESENTER: STACEY STARK

Comments and Questions?

Development of Mitigation Actions

- Must address hazards of moderate to high risk
- Must be jurisdictionally-specific
- Should address local vulnerabilities & reduce risk
- Should incorporate existing planning mechanisms and capabilities



Important

Eligible FEMA HMA project activities must be identified to support a future grant application.

FEMA HMA Grant Funding



Example Eligible Activities:

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

PRESENTER: BONNIE HUNDRIESER

Overview of 5-year Jurisdictional Mitigation Action Charts

Each MAC is organized to address:

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



Local Planning & Regulations

YMC Examples:

- Participating in the NFIP
- Review flood risk and plan for necessary flood mitigation measures in local communities (i.e. Granite Falls)
- Collaborating with YM SWCD and other regional watershed districts to address flooding and erosion. (1W1P)
- Working with MHP operators to be in compliance with Minnesota State statutes for storm shelters & evacuation plans.
- YMC Highway Dept. & Drainage Inspector planning for transportation projects to reduce risk of localized flood damages



PRESENTER: BONNIE HUNDRIESER

Structure & Infrastructure Projects

YMC Examples:

- Installation of new outdoor warning sirens.
- Construction of safe rooms / storm shelters in county parks (Timm Park, Orass Park) and local areas of vulnerability
- Burying powerlines to reduce power failure
- Implementing stormwater improvement projects for high rain and snow melt (i.e. drainage improvements, culvert upsizing)
- Address areas that may be prone to slope failure to protect roads and other structures. (Land & Resource Mgmt. Dept.)
- Conducting property buyouts of homes at risk from repetitive flooding or landslides (Canby, Granite Falls).



PRESENTER: BONNIE HUNDRIESER

Natural Systems Protection

YMC Examples:

- Conduct vegetation management along roads to reduce the risk of downed trees and branches resulting from severe storms.
 - County Highway Dept.
 - Utility Providers
 - Local road authorities



PRESENTER: BONNIE HUNDRIESER

Education & Awareness Programs

YMC Examples:

- Promoting sign-up for the County's CodeRED emergency notification system.
- Promoting residents to be aware of and prepared for severe weather and extended power outages. (YMCCEM & Countryside Public Health)
- Encouraging residents to maintain sump pumps and to clear street drains of debris.
- Participation in the NWS Sever Weather Awareness Weeks



PRESENTER: BONNIE HUNDRIESER

Mitigation Preparedness & Response Support

YMC County Examples:

- Work with local jurisdictions to acquire generator backup power (i.e., lift stations, City Hall, Fire Hall, community centers).
- Updating County/Local EOPs
- Mass Care Shelter Planning
- Working with long-term care facilities to be prepared for power outages or evacuation.
- Annual SKYWARN Storm Spotter Training with National Weather Services



PRESENTER: BONNIE HUNDRIESER

Comments and Questions?



Fall/Winter 2022

EM Review of Draft Plan and Public Review & Comment Period



Following Planning Team Mtg. #2

- > EM review of draft plan
- > Conduct public review & comment period (News Release #2)
- > Document public outreach
- > Incorporate public feedback into the plan as appropriate.

PRESENTER: BONNIE HUNDRIESER



Winter 2022-2023

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

PRESENTER: BONNIE HUNDRIESER

Questions?

What questions do you have for U-Spatial@UMD about the draft MHMP or next steps ?

PRESENTER: STACEY STARK

Contact Information

Stacey Stark, MS, GISP

U-Spatial@UMD

slstark@d.umn.edu

218-726-7438

Bonnie Hundrieser, HM Planner

Hundrieser Consulting LLC

hundrieserconsulting@outlook.com

218-343-3468



PRESENTER: STACEY STARK



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

HAZARD MITIGATION ASSISTANCE

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

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

Who is eligible for grant funding?

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

What types of projects can be funded?

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

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

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

How do I apply?

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

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

Where can I obtain further information?

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

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

Mitigation Strategies & Action Types

Following are the five types of mitigation strategies that will be used in the update of the Multi-Hazard Mitigation Plan with examples of related mitigation actions. Minnesota HSEM recommends the use of these mitigation strategies to be in alignment with the State plan and those recommended by FEMA. The first four strategies listed are taken from the FEMA publications *Local Mitigation Planning Handbook* (2013) and *Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards* (2013). The fifth strategy type was determined by Minnesota HSEM for use within the state.

These strategies will provide the framework for identification of new jurisdictional-level mitigation actions for implementation over the next 5-year planning cycle.

Mitigation Strategy	Description	Example Mitigation Actions
Local Planning and Regulations	These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> • Comprehensive plans • Land use ordinances • Planning and zoning • Building codes and enforcement • Floodplain ordinances • NFIP Community Rating System • Capital improvement programs • Open space preservation • Shoreline codes • Stormwater management regulations and master plans • Mobile home park compliance for storm shelters
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p>	<ul style="list-style-type: none"> • Property Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits (i.e., metal roofs) • Floodwalls and retaining walls • Detention and retention structures • Culvert Installation/Modification • Roads & Bridge risk reduction • Safe Room (New construction or facility retrofit) • Green Infrastructure Methods <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>

Mitigation Strategy	Description	Example Mitigation Actions
<p>Natural Systems Protection</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"> • Soil stabilization for sediment and erosion control • Floodplain and Stream corridor restoration • Slope management • Forest management (defensible space, fuels reduction, sprinkler systems) • Conservation easements • Wetland restoration and preservation • Aquifer Storage & Recovery • Flood Diversion and Storage <p><i>Many of these types of actions are projects eligible for funding through FEMA HMA grant programs.</i></p>
<p>Education and Awareness Programs</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"> • Radio or television spots • Websites with maps and information • Social media outreach • Promotion of sign-up for emergency warnings • Real estate disclosure • Promotion of NFIP insurance to property owners • Presentations to school groups or neighborhood organizations • Mailings to residents in hazard-prone areas. • NWS StormReady Program • Firewise Communities <p><i>Some of these types of actions may be projects eligible for funding through the FEMA HMA "5 Percent Initiative Program".</i></p>
<p>Mitigation Preparedness and Response Support</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"> • Emergency Operations Plan • Flood fight plans and preparedness measures • Dam emergency action plans • Emergency Warning Systems (i.e., CodeRed, warning sirens) • Generator backup power • NWS Storm Spotter Training • Training and education for local elected officials and key partners.

Appendix G – Public Outreach & Engagement Documentation

Yellow Medicine County MHMP News Release #1 Record of Public Input & Incorporation

Overview: On September 7, 2021, Yellow Medicine 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. Yellow Medicine 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?
- Have you experienced a previous disaster event?
- 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 Yellow Medicine 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 Yellow Medicine 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 news release and how their input will be incorporated into the plan update, and if not relevant to be addressed, why.

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

From: [Casey Namken](#)
To: [Bill Flaten](#); [Andy Sander](#); [Dan Moravetz](#); [Christopher Balfany](#); [Jolene Johnson](#); [Janel Timm](#); [Angie Steinbach](#); [mayor@canbymn.gov](#); [Rebecca Schrupp](#); [Eric Diekmann](#); [dstringer@clarkfield.org](#); [City of Clarkfield \(cwebb@clarkfield.org\)](#); [raysweetman@wcsanitation.com](#); [smiglewski@mchsi.com](#); [Crystal Johnson \(crystal.johnson@granitefalls.com\)](#); [Brian Struffert](#); [fibhanley@hcinet.net](#); [don.verschelde@zieglercat.com](#); [Bubba gorecki@gmail.com](#); [Brenda Drager](#); [jeff.vanburen@usda.gov](#); [Mark.marcy@state.mn.us](#); [Tyler Knutson](#); [Ryan Nielsen \(ryan.nielsen@canbylancers.org\)](#); [Rich Schneider \(rschneider@isd2190.org\)](#); [mnvalley@mnvalleyrec.com](#); [Kathy Koetter](#); [Blain Johnson](#); [sweick@co.chippewa.mn.us](#); [Mike Hennen](#); [Jim Sandgren](#); [mattewhoekstra@co.lyon.mn.us](#); [Amber Scholten](#); [140 Christopher Lee](#); [Dan DeSmet](#); [Gary Johnson](#); [Glen Kack](#); [Greg Renneke](#); [John Berends](#); [Ron Antony](#); [Burton Township](#); [Curt Melby Florida Tws](#); [Echo Township](#); [Fortier](#); [Hammer](#); [Hazel Run](#); [Minnesota Falls](#); [Norman \(Johnny44@hotmail.com\)](#); [Normania](#); [Omro](#); [Oshkosh](#); [Posen](#); [Sandes](#); [Sioux Agency](#); [Stony Run](#); [Swede Prairie](#); [Tyro](#); [Wergleland](#); [Wood Lake](#)
Cc: [Bonnie K Hundrieser](#)
Subject: Yellow Medicine County MHMP Update release
Date: Tuesday, September 7, 2021 1:44:40 PM
Attachments: [Yellow Medicine County MHMP News Release #1.pdf](#)

Yellow Medicine County Multi-Hazard Mitigation Plan Update

Greetings,

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

Cities and Townships: In order to reach the greater public, we request your assistance to post this news release for your community. We will be documenting local outreach which is a requirement of the planning process. Participation by all cities is requested in order to help fulfill required documentation to FEMA for the plan update. The participation by townships is optional.

Instructions:

- Post the News Release Electronically and/or as a Hardcopy: Please post this news release locally using the outreach methods best available to you (your website and/or Facebook page, Post Office or community center bulletin board, or taped physically to a facility such as the City Hall or Town Hall door for public view.) We welcome as many ways of posting that you can cover.
- If posting this news release electronically, please email me a link to the posting (i.e. website or Facebook page).
- If posting it as a hardcopy, please email me a picture of it hung up and let me know the location (i.e., City Hall, Township Hall, Post Office, local community center).

The timely return of your posting documentation is appreciated. We will be working to wrap this up within the month of September.

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

If you have any questions, please let me know.

Thank you,

Investigator/Emergency Management

Casey Namken

Yellow Medicine County Sheriff

415 9th Ave, Suite 103

Granite Falls, MN 56241

(320) 564-2130

www.ymcsheriff.com



“Keepers of the County”

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Yellow Medicine County Press Release

September 7, 2021

Public Input Wanted as County Updates Multi-Hazard Mitigation Plan

The Yellow Medicine 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 Yellow Medicine County MHMP is a multi-jurisdictional plan that covers Yellow Medicine County, including the cities of Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake. The Yellow Medicine County MHMP also incorporates the concerns and needs of townships, school districts, and other stakeholders 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 Casey Namken, Yellow Medicine 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 actions 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 wind storms; ensuring timely emergency communication to the public through warning sirens and mass notification systems, and conducting public awareness and education campaigns to help people to 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.

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

- Have you experienced a previous disaster event?
- 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?

Comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update process should be submitted to Yellow Medicine County Emergency Management by phone or email. Public comments may also be submitted on the Yellow Medicine County Sheriff's Office 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 posted on the county website 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

Investigator/Emergency Management

Casey Namken

Yellow Medicine County Sheriff

415 9th Ave, Suite 103

Granite Falls, MN 56241

(320) 564-2130

www.ymcsheriff.com



"Keepers of the County"

Yellow Medicine County MHMP News Release #1 Documentation of News Release Postings

COUNTY POSTINGS

Yellow Medicine County Sheriff's Office Facebook Page, September 7, 2021



Yellow Medicine County Website, September 9, 2021



News and Information...

[Public Input Wanted as County Updates Multi-Hazard Mitigation Plan](#)
Thursday, September 9, 2021 at 8:30 AM

[Notice of Public Hearing - Land Use and Related Resource Management Ordinance Amendments](#)
Wednesday, August 25, 2021 at 9:50 AM

[Hay Land Bids](#)
Monday, July 19, 2021 at 8:40 AM

[Low Interest Loans Available for Well Replacement and Septic System Installation](#)
Tuesday, April 13, 2021 at 2:50 PM

[Read All](#)

Yellow Medicine County

Thank you for visiting our website. Our goal is to provide a number of online capabilities and to give you an overview of the services provided by Yellow Medicine County governmental units. We hope you will contact us if you would like information not presented here or have any suggestions to improve your online experience.

- #### Quick Links
- [About the County](#)
 - [Census Data](#)
 - [Community Links](#)
 - [Election Information](#)
 - [Reports](#)
 - [In Custody](#)

LOCAL MEDIA POSTINGS

Canby Newspaper September 28, 2021

Public input wanted as county updates multi-hazard mitigation plan

The Yellow Medicine 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.

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Examples of hazard mitigation actions 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 tornadoes or severe wind events; burying power lines 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 public awareness and education campaigns to help people to 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. Public input is an essential part of the plan update. As part of the planning process, Yellow Medicine 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?
• Have you experienced a previous disaster event?
• 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?
• Comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update process should be submitted to Yellow Medicine County Emergency Management by phone or email. Public comments may also be submitted on the Yellow Medicine County Sheriff's Office Facebook page.

There will be additional opportunities for public feedback throughout the planning process. A draft of the plan will be posted on the county website for public review prior to submission of the plan to the state of Minnesota. The Federal Disaster Mitigation Act of 2000 requires counties to update their plan every five years to maintain eligibility for FEMA's Hazard Mitigation Assistance grant programs.

For more information, visit www.sanfordhealth.org to see how you're protected.

Call (507) 223-7221 to schedule your mammogram.

edith.sanfordhealth.org

THE HAZARD MITIGATION UNIT SPURNS THE MINNESOTA RIVER TO DRINK HOT CHOCOLATE AND TO WITNESS A DANCING PERFORMANCE ON THE FOOTBRIDGE STARTING AT 7 P.M. FROM 7-8 P.M., AN OUTDOOR FILM

AT MOUNTAIN, APPROXIMATELY, MOUNTAIN, MILAN, DAWSON, DANVERS, MOUNTAINDO AND GRANITE FALLS. A FREE BROCHURE DETAILING THE LOCATIONS OF MEANDER ART STUDIO AND EVENTS CAN BE OBTAINED AT THE MEANDER ART STUDIO.

BEARS AND ADULT DEER TO ESCAPE WHEN THE STARE DISASSEMBLES UNDER HIGH TENSION. SMALLER TARGET ANIMALS, SUCH AS COYOTES, BOBCATS, AND FOXES, ARE NOT ABLE TO BREAK THE STARE BY PULLING.

Make your health matter.
3D Mammography Screening

Get the most from your yearly breast exam with a 3D mammogram through our mobile screening unit. 3D technology offers a clearer picture of your breast health, meaning earlier detection and fewer false alarms.

UPCOMING DATES
Oct. 6 and Nov. 3
9:30 a.m.-noon

LOCATIONS
Sanford Canby Medical Center
112 St. Olaf Ave S.

Call (507) 223-7221 to schedule your mammogram.

edith.sanfordhealth.org

HEALTH CARE SAFETY COMMITMENT
www.sanfordhealth.org to see how you're protected.

SANFORD Edith Sanford BREAST CENTER

ADVERTISE WITH THE CANBY NEWS
Gets you seen \$75 three ways!
1. AD IN THE CANBY NEWS
2. AD ON FACEBOOK PAGE
3. POPUP AD ON OUR WEBSITE

CITY POSTINGS

City of Canby City website blog page, September 8, 2021

CITY OF CANBY

HOME ABOUT GOVERNMENT BUSINESS DIRECTORY EVENTS COMMUNITY CONTACT

Public Input Wanted as County Updates Multi-Hazard Mitigation Plan

by MAS Media | Sep 7, 2021 | Articles | 0 comments

Yellow Medicine County Press Release

September 7, 2021

Public Input Wanted as County Updates Multi-Hazard Mitigation Plan

The Yellow Medicine 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 Yellow Medicine County MHMP is a multi-jurisdictional plan that covers Yellow Medicine County, including the cities of Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake. The Yellow Medicine County MHMP also incorporates the concerns and needs of townships, school districts, and other stakeholders participating in the

Search

Archives
September 2021
January 2021

City of Canby
City Facebook Page, September 8, 2021



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Posts

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1 hr · 🌐

Yellow Medicine County Sheriff's Office
September 7 at 12:16 PM

Yellow Medicine County Press Release
September 7, 2021
Public Input Wanted as County Updates ...
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City of Canby
Police Department Facebook posting, September 13, 2021



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View 1 more comment

Canby, MN Police Department
September 13 at 7:25 PM · 🌐

Yellow Medicine County Press Release
September 7, 2021
Public Input Wanted as County Updates
Multi-Hazard Mitigation Plan...
[Continue Reading](#)

City of Clarkfield
City Facebook Page, September 8, 2021



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City of Clarkfield
23 hrs · 🌐

YMC is updating their Multi-Hazard Mitigation Plan. They are requesting public input as they update their plan. Please read the attached press release for more information.

Yellow Medicine County Press Release
September 7, 2021

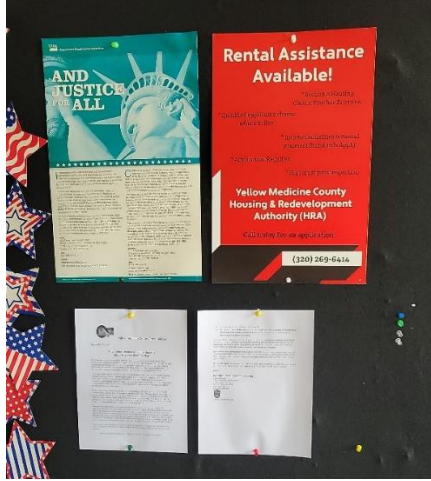
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"Hazard mitigation planning is a central part of our emergency management program," said Casey

City of Clarkfield
City Hall Bulletin Board, September 8, 2021



City of Echo
City Website, September 8, 2021

page.

ECHO NEWSLETTERS - Current Newsletter located at bottom of Welcome to Echo page.

SEASONAL- Winter is coming and with that the SNOW! Please be aware of City Maintenance plowing City Streets and do not park vehicles on the street during snow events. Thank you.

DRINKING WATER CONSUMER CONFIDENCE REPORT

2019 Drinking Water Report located under Welcome to Echo page.

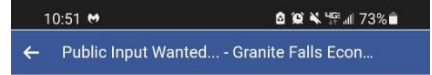
TOWNSHIP MEETINGS

- [City of Echo COVID-19 Preparedness Plan](#)
- [City of Echo Coronavirus Advisory Cancellations.pdf](#) City of Echo Coronavirus & Cancellations
- [COVID19 Signs and Spread Flyer English.pdf](#) COVID19 Signs and Spread
- [Covid Stress.pdf](#) COVID19 Stress
- [Coronavirus Infographic final.pdf](#) COVID19 - Break The Chain of Infection
- [2020 WEST CENTRAL SANITATION RECYCLING CALENDAR](#)
- [Congregate Meal Program Registration Form](#)
- [West Central Sanitation/Yellow Medicine County Single Stream Recycling Guide 2019](#)
- [Echo 2019 Drinking Water Report](#)
- [ECHO FEES AND CITY RATES 2020](#)
- [Echo Days 2021.pdf](#)
- [Raffle winners2021.pdf](#)
- [Multi-Hazard Mitigation Plan Input.pdf](#)

City of Granite Falls
City Hall front door, September 27, 2021



City of Granite Falls City Facebook Page, September 27, 2021



Granite Falls Economic Development Authority
15 mins · 🌐

Public Input Wanted as YMC Updates Multi-Hazard Mitigation Plan

The Yellow Medicine 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.

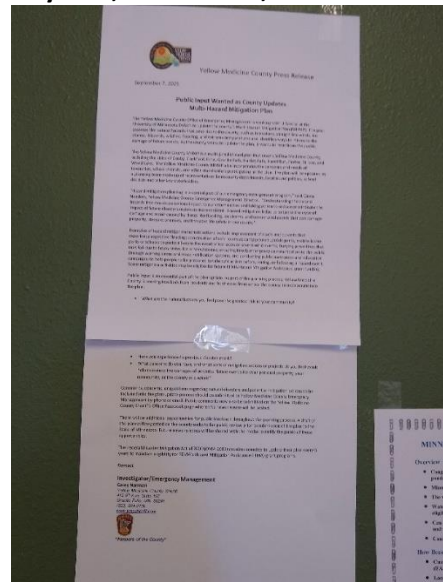
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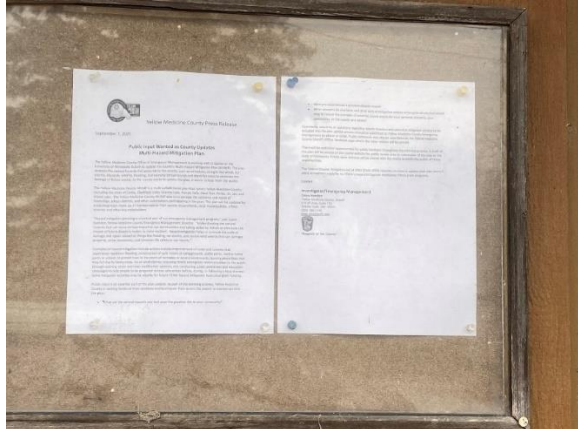
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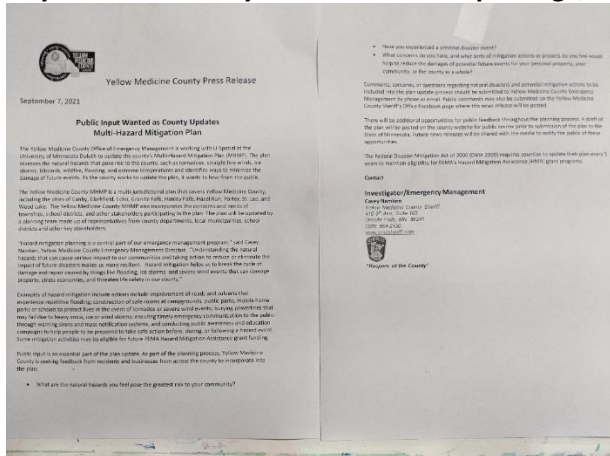
City of Hanley Falls City Hall, October 18, 2021



City of Hazel Run City Hall Bulletin Board, October 29, 2021



City of Porter City Firehall and City Council Chamber postings, September 8, 2021



City of Porter City Website, September 8, 2021

- Removal of plumbing, capping of sewer line and water line
- Removal of concrete pad under the building and all sidewalks on the east, north and west side of the building. Removal of concrete between the edge of the building and cut parallel with the north edge of the city sidewalk.

Bids are to be submitted to a member of the city council, dropped in the city payment box, at the Porter Fire Hall, delivered in-person at the November 1 City Council Meeting, or mailed to:

City of Porter
PO Box 130
Porter, MN 56280

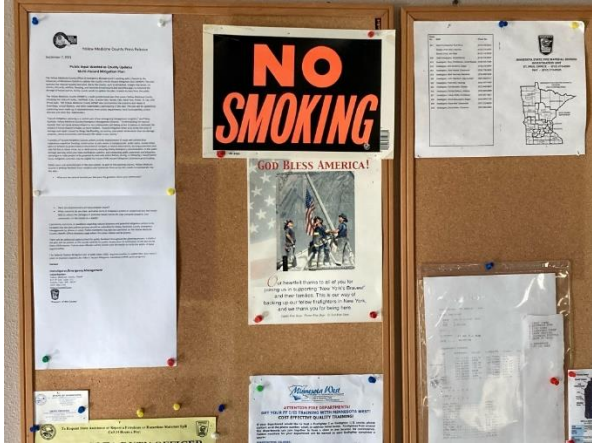
Bids must be received no later than the beginning of the City Council meeting at 6:30 PM, November 1, 2021, during which time all bids will be opened, and an award will be made. The City Council shall award the bid that is the most financially favorable to the city.

Yellow Medicine County Comprehensive Multi-Hazard Mitigation Plan
The Yellow Medicine 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.

[Please review the County's press release for complete information](#)



**City of St. Leo
City Hall Community Bulletin Board, October 23, 2021**

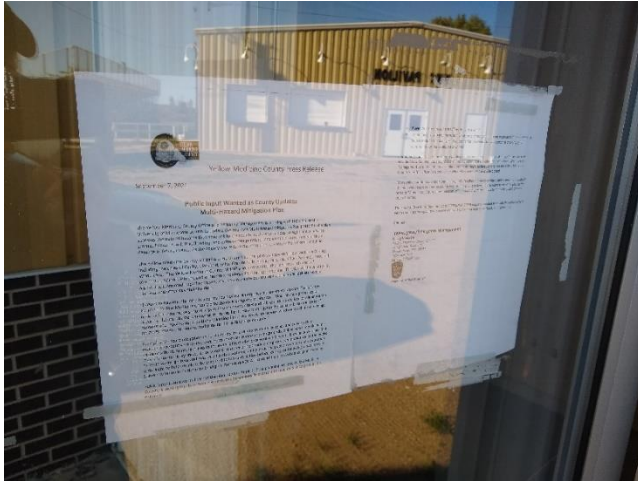


**City of Wood Lake
City Hall Posting, October 27, 2021**



TOWNSHIP POSTINGS

Florida Township Townhall Window, September 8, 2021



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

Overview: On February 9, 2023 Yellow Medicine County Emergency Management put out a news release titled “**Public Comment Sought for County’s Multi-Hazard Mitigation Plan**” to announce the completion of the draft Yellow Medicine County Multi-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 2/9/23 to 2/23/23, for a total of 15 days.

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 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 Yellow Medicine 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 Yellow Medicine County news release and how the input will be incorporated into the plan update, and if not relevant to be addressed, why.

- No public input was received by Yellow Medicine County Emergency Management, local jurisdictions, or via the online comment form.

From: [Bonnie K Hundrieser](#) on behalf of hundrieserconsulting@outlook.com
To: ["bill.flaten@co.ym.mn.gov"](mailto:bill.flaten@co.ym.mn.gov); ["dan.moravetz@co.ym.mn.gov"](mailto:dan.moravetz@co.ym.mn.gov); ["dan.moravetz@co.ym.mn.gov"](mailto:dan.moravetz@co.ym.mn.gov); ["christopher.balfany@co.ym.mn.gov"](mailto:christopher.balfany@co.ym.mn.gov); ["jolene.johnson@co.ym.mn.gov"](mailto:jolene.johnson@co.ym.mn.gov); ["janel.timm@co.ym.mn.gov"](mailto:janel.timm@co.ym.mn.gov); ["ashlie@countyside.co.swift.mn.us"](mailto:ashlie@countyside.co.swift.mn.us); ["Angie.steinbach@co.ym.mn.gov"](mailto:Angie.steinbach@co.ym.mn.gov); ["mayor@canbymn.gov"](mailto:mayor@canbymn.gov); ["cityadm@canbymn.gov"](mailto:cityadm@canbymn.gov); ["eric.diekmann@co.ym.mn.gov"](mailto:eric.diekmann@co.ym.mn.gov); ["dstringer@clarkfield.org"](mailto:dstringer@clarkfield.org); ["cwebb@clarkfield.org"](mailto:cwebb@clarkfield.org); ["tthostenson@clarkfield.org"](mailto:tthostenson@clarkfield.org); ["raysweetman@wcsanitation.com"](mailto:raysweetman@wcsanitation.com); ["cityclerk@echomn.com"](mailto:cityclerk@echomn.com); ["smiglewski@mchsi.com"](mailto:smiglewski@mchsi.com); ["crystal.johnson@granitefalls.com"](mailto:crystal.johnson@granitefalls.com); ["bstruffert@granitefallspolice.com"](mailto:bstruffert@granitefallspolice.com); ["fibhanley@hcinet.net"](mailto:fibhanley@hcinet.net); ["hanleyfalls@hcinet.net"](mailto:hanleyfalls@hcinet.net); ["martintrucking@hotmail.com"](mailto:martintrucking@hotmail.com); ["don.vershelde@zieglercat.com"](mailto:don.vershelde@zieglercat.com); ["Bubba.gorecki@gmail.com"](mailto:Bubba.gorecki@gmail.com); ["nmbcpa@hotmail.com"](mailto:nmbcpa@hotmail.com); ["woodlake@redred.com"](mailto:woodlake@redred.com); ["lynncitrowske@hotmail.com"](mailto:lynncitrowske@hotmail.com); ["m.l.k@mvtvwireless.com"](mailto:m.l.k@mvtvwireless.com); ["melby@itctel.com"](mailto:melby@itctel.com); ["kaleb_steele@hotmail.com"](mailto:kaleb_steele@hotmail.com); ["jalbvold@yahoo.com"](mailto:jalbvold@yahoo.com); ["adsaltee@gmail.com"](mailto:adsaltee@gmail.com); ["sjohnson@mvtvwireless.com"](mailto:sjohnson@mvtvwireless.com); ["crosbyroad@mvtv.wireless.com"](mailto:crosbyroad@mvtv.wireless.com); ["canderson@csgmail.com"](mailto:canderson@csgmail.com); ["johny44@hotmail.com"](mailto:johny44@hotmail.com); ["ldanielson@frontiernet.net"](mailto:ldanielson@frontiernet.net); ["jimdeannaellen@gmail.com"](mailto:jimdeannaellen@gmail.com); ["delta91102000@yahoo.com"](mailto:delta91102000@yahoo.com); ["wsa@frontiernet.net"](mailto:wsa@frontiernet.net); ["jbhinz@redred.com"](mailto:jbhinz@redred.com); ["helliepete@hotmail.com"](mailto:helliepete@hotmail.com); ["julievoldstad@gmail.com"](mailto:julievoldstad@gmail.com); ["j.hoepner@hotmail.com"](mailto:j.hoepner@hotmail.com); ["richterabbey@gmail.com"](mailto:richterabbey@gmail.com); ["swedeprairie@hotmail.com"](mailto:swedeprairie@hotmail.com); ["koopp@mvtvwireless.com"](mailto:koopp@mvtvwireless.com); ["rvmerrill50@gmail.com"](mailto:rvmerrill50@gmail.com); ["dipete@redred.com"](mailto:dipete@redred.com); ["jeff.vanburen@usda.gov"](mailto:jeff.vanburen@usda.gov); ["Mark.Marcy@state.mn.us"](mailto:Mark.Marcy@state.mn.us); ["tyler.knutson@co.ym.mn.gov"](mailto:tyler.knutson@co.ym.mn.gov); ["kelly.heather@usda.gov"](mailto:kelly.heather@usda.gov); ["ryan.nielsen@canbylancers.org"](mailto:ryan.nielsen@canbylancers.org); ["rschneider@isd2190.org"](mailto:rschneider@isd2190.org); ["mnvalley@mnvalleyrec.com"](mailto:mnvalley@mnvalleyrec.com); ["kkoetter@clarkfieldareacharter.org"](mailto:kkoetter@clarkfieldareacharter.org); ["Hblue.redner@isd4026.org"](mailto:Hblue.redner@isd4026.org); ["blain.johnson@lqpc.com"](mailto:blain.johnson@lqpc.com); ["sweick@co.chippewa.mn.us"](mailto:sweick@co.chippewa.mn.us); ["mikehe@renvillecountymn.com"](mailto:mikehe@renvillecountymn.com); ["jim_s@co.redwood.mn.us"](mailto:jim_s@co.redwood.mn.us); ["emilycoequyt@co.lyon.mn.us"](mailto:emilycoequyt@co.lyon.mn.us); ["ascholten@co.lincoln.mn.us"](mailto:ascholten@co.lincoln.mn.us); ["christ@uppergiouxcommunity-nsn.gov"](mailto:christ@uppergiouxcommunity-nsn.gov); ["dand@uppergiouxpolice-nsn.gov"](mailto:dand@uppergiouxpolice-nsn.gov)
Cc: ["Casey Namken"](#)
Subject: News Release - Public Comment Sought for Yellow Medicine County Hazard Mitigation Plan
Date: Thursday, February 9, 2023 10:20:00 AM
Attachments: [Yellow Medicine County Hazard Mitigation Plan News Release \(2-9-23\).pdf](#)
Importance: High

Greetings,

Attached is a news release announcing the public review and comment period is open for the Yellow Medicine County Hazard Mitigation Plan from **February 9 – February 23** prior to submission of the plan to FEMA. As a jurisdiction, related agency, or neighboring jurisdiction involved in the Yellow Medicine County plan update, your assistance is requested to help post the news release and also to review the plan. Please see the following directions and links to the plan below:

PLEASE POST THE NEWS RELEASE

All cities within the county are requested to post the news release for their community. As a multi-jurisdictional plan, we are required to document the participation of cities helping to conduct this local outreach. Townships and other agency stakeholders are also encouraged to participate in posting the news release. You can post the news release in any of the ways below:

- *Posting Online:* Please post the news release to your respective website and/or social media and provide me with the name of your jurisdiction/agency, along with a direct website link to your posting(s) or a screenshot of the posting online.
- *Posting a Hardcopy:* If posting a printed copy of the news release, please provide me with the name of your jurisdiction/agency, date & location of where it was posted (i.e., City Hall, Post Office, Community Center).
- *Posting to Local Papers:* If you are a jurisdiction with a local paper, you are also encouraged to run this as a printed or online story and notify me of where it was submitted.

Please email me your documentation of your electronic or hardcopy posting of the news release within the next few days to make sure the public has had an opportunity to be notified and review

the plan.

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. The county and city mitigation action charts are available in the online website to review. Following are links for the interactive website, PDF plan document, jurisdictional mitigation action charts, and online public feedback form. Use Control +Click to follow links:

[Yellow Medicine County HMP Website](#)

[Mitigation Action Charts](#)

[Public Comment Feedback Form](#)

Please email me the names & titles of who reviewed the plan, as well as approximate time spent. All participants' time counts towards the county's 25% local match on this project.

As this is a 15-day review period, your timeliness to post the news release and review the plan is very important. This is our final step in completing the update of the Yellow Medicine County Hazard Mitigation Plan. We thank you for your assistance and participation.

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

Thank you!

Bonnie Hundrieser

Bonnie K. Hundrieser, CEM

Hazard Mitigation Planning Specialist

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

Hundrieser Consulting LLC

Phone: 218-343-3468



YELLOW MEDICINE COUNTY SHERIFF'S OFFICE

415 9TH AVE SUITE 103
GRANITE FALLS, MN 56241
PHONE # 320 (564) 2130
EMERGENCY DIAL 911

February 9, 2022

Public Comment Sought for County's Hazard Mitigation Plan

Yellow Medicine County has completed an updated draft of the of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Yellow Medicine County is vulnerable to a variety of potential natural disasters, such as tornadoes, windstorms, severe winter storms, flooding, drought, and extreme temperatures, which threaten the loss of life and property in the county. Planning for natural disasters minimizes the impact of these events that can cause vast economic loss and personal hardship.

All county residents, as well as other interested stakeholders (those in neighboring counties, tribal nations, or working with affected agencies) 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 February 23, 2023. The public can access the plan using the following links:

[Yellow Medicine County HMP Website](https://z.umn.edu/YellowMedicineHMP) (z.umn.edu/YellowMedicineHMP)

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

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

The Yellow Medicine County HMP is a multi-jurisdictional plan that covers Yellow Medicine County, including the cities of Canby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake. The Yellow Medicine 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 Yellow Medicine 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 public awareness and education campaigns to help people be prepared to take safe action before, during, or following a hazard event.

Hazard mitigation planning helps Yellow Medicine County and other jurisdictions protect their residents. Working with local communities through the process helps identify vulnerabilities and develop strategies to reduce or eliminate the effects of a potential hazard. In addition, increasing public awareness of natural disasters and encouraging personal preparedness helps to create a community that is resilient to disaster, and breaks the cycle of response and recovery. Updating the plan further allows Yellow Medicine 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. Yellow Medicine 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 Yellow Medicine County Emergency Management.

Contact:

Casey Namken

Yellow Medicine County Emergency Management Director

Phone: 320-313-3093

Email: casey.namken@co.ym.mn.gov

Yellow Medicine County 2023 Hazard Mitigation Plan Online Public Review Website & Comment Forms

Yellow Medicine County Hazard Mitigation Plan 2023 About HMP Planning County Profile All Natural Hazards Climate Change Mitigation Actions

Yellow Medicine County Minnesota Hazard Mitigation Planning



Welcome to the Yellow Medicine County 2023 Hazard Mitigation Plan! Hazard mitigation planning is the process of preparing for natural disasters to reduce the loss of life and property in communities of all sizes. By developing long-term strategies for protecting people and property, hazard mitigation plans are key to breaking the cycle of disaster damage and reconstruction (EFMA 2022).

This website provides 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.

[Link to 2023 Hazard Mitigation Plan \(HMP\)](#)
(PDF companion)

The Yellow Medicine County 2023 Hazard Mitigation Plan was made available for public review online with a website hosted by U-Spatial@UMD ([Yellow Medicine County HMP Website](#)). The website provided an interactive experience for the public to understand the planning process, learn about the natural hazards that affect the county and where county-specific vulnerabilities lie, review jurisdictional mitigation action charts, as well as a chance to submit feedback. Website content included:

- **About HMP Planning**
Description of what hazard mitigation, purpose of the HMP update, overview of the planning process, and members of the planning team.
- **County Profile**
County-specific information on demographics, economy, critical infrastructure, utility & transportation infrastructure, other county assets (significant buildings, cultural or historic assets, and mobile home park locations).
- **Hazard Profiles for each natural hazard covered by the plan**
 - Definition of hazard and supporting information
 - Hazard History of Events
 - Hazard Risk & Vulnerability
 - Relationship to Climate Change
- **Mitigation Actions**
Overview of the development of mitigation actions and PDFs of draft jurisdictional mitigation action charts for the county and each participating city.
- **Climate Change and Adaptation**
Overview of climate change in Minnesota, information on building climate resilience, and interactive data to explore Minnesota climate data.
- **Public Feedback Forms**
Survey links provided for feedback on the 2023 HMP website and draft plan (during public comment period) or submission of mitigation actions (ongoing survey). Following are the detailed questions provided in each survey.

Mitigation Plan Feedback Survey

Fill in this survey to provide feedback on the Hazard Mitigation Draft Plan.

What section(s) of the Plan would you like to comment on? Select all that apply.

- | | |
|---|--|
| <input type="checkbox"/> Planning Process | <input type="checkbox"/> Mitigation Strategy |
| <input type="checkbox"/> Risk Assessment | <input type="checkbox"/> Implementation Plan |

Please provide comments about the Plan. (Comment box provided)

Upload document (optional)

Would you like to be contacted by the Planning Team? (Yes / No)

County – Enter the county you live in or represent (drop down menu)

Jurisdictional Check-box – Select your jurisdictional representation

Hazard Mitigation Ideas Survey

This survey will be used to capture mitigation ideas for a county hazard mitigation plan. Please be as specific as possible. Thank you for your participation!

Name (First Name, Last Name)

Email

Job Title or Organization (enter job title or organization. If a resident, type “community resident”)

County – Enter the county you live in or represent (drop down menu)

Jurisdictional Check-box – Select your jurisdictional representation

New Action Idea - Please describe in detail any mitigation action ideas you have for your jurisdiction.

Is the mitigation action site-specific, or for the whole jurisdiction? (select answer)

What hazards will this action address?

- | | |
|--|--|
| <input type="checkbox"/> Winter Storms | <input type="checkbox"/> Extreme Cold |
| <input type="checkbox"/> Windstorms | <input type="checkbox"/> Extreme Heat |
| <input type="checkbox"/> Tornadoes | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Hail | <input type="checkbox"/> Landslides |
| <input type="checkbox"/> Lightning | <input type="checkbox"/> Drought |
| <input type="checkbox"/> Flooding | <input type="checkbox"/> Dam/Levee Failure |

What mitigation strategy best describes this action? Select all that apply

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

Yellow Medicine County MHMP News Release #2 Documentation of News Release Postings

COUNTY POSTINGS

2/9/23 Yellow Medicine County Website



Yellow Medicine County Hazard Mitigation Plan News Release

[Yellow Medicine County Hazard Mitigation Plan News Release](#)

2/9/23 Yellow Medicine County Sheriff's Office Facebook



LOCAL MEDIA POSTINGS

2/14/23, The Canby News

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Public input wanted as county updates multi-hazard mitigation plan

Tue, 09/28/2021 - 3:48pm

The Yellow Medicine 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 (MHP). The plan assesses the natural hazards that pose risk to the county, such as tornadoes, straight-line winds, ice storms, blizzards, wildfires, 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 Yellow Medicine County MHP is a multi-jurisdictional plan that covers Yellow Medicine County, including the cities of Canby, Clarfield, Echo, Granite Falls, Haney Falls, Hazel Run, Pomer, St. Leo, and Wood Lake. The Yellow Medicine County MHP also incorporates the concerns and needs of townships, school districts, and other stakeholders 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 Casey Namken, Yellow Medicine 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 economics, and threaten life safety in our county."

Examples of hazard mitigation actions include improvements of roads and culverts that experience repetitive flooding, construction of bath rooms at campgrounds, public parks, mobile home parks or schools to protect lives in the event of tornadoes or severe wind events, burying power lines that may fall due to heavy snow, ice or wind storms, ensuring timely emergency communication to the public through warning sirens and mass notification systems; and conducting public awareness and education campaigns to help people to 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.

Public input is an essential part of the plan update. As part of the planning process, Yellow Medicine 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?
- Have you experienced a previous disaster event?
- 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?

Comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update process should be submitted to Yellow Medicine County Emergency Management by phone or email. Public comments may also be submitted on the Yellow Medicine County Sheriff's Office Facebook page.

There will be additional opportunities for public feedback throughout the planning process. A draft of the plan will be posted on the county website for public review prior to submission of the plan to the state of Minnesota.

The Federal Disaster Mitigation Act of 2000 requires counties to update their plan every five years to maintain eligibility for FEMA's Hazard Mitigation Assistance grant programs.

YES, WE ARE HIRING!



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LAC QUI PAROLE COUNTY
FARMLAND AUCTION

TUESDAY, MARCH 28th, 2023 @ 11 A.M.

\$47.91+/- TITILLABLE ACRES, CP#-P1-3;
DEFERRED ACRES TO BE DETERMINED BY SURVEY
LOCATED IN LAKE SHORE SOUTH TWP

LEGAL DESCRIPTION: The Southwest Quarter of Section 15, T18S, R10E, S10W, 4th Range 14

LAND ACQUISITION from Yellow Medicine County Parcel ID's 1488-34-168 & 488-34-169 will be auctioned at

AUCTION LOCATION: 5162 E. 234th St. S., Hudson, MN

- Selling Interest: Yellow Medicine
- Real estate being conveyed: 1st and 2nd mortgages

Click Here to view the County's online listing of all available land.

Madison County has a public website to view the land and produce form in our web site. Go to: www.madisoncounty.com and click on the "Public Information" link. For a complete listing of available land, visit our website at www.madisoncounty.com and click on the "Public Information" link. For a complete listing of available land, visit our website at www.madisoncounty.com and click on the "Public Information" link.

Questions Contact: Scott Fendley by phone at 320-225-4394 or by email at scott.fendley@madisoncounty.com

FLAHERTY LAND

2/16/23 Granite Falls Advocate Tribune



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Public comment sought for county's hazard mitigation plan

February 16, 2023 in News

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Yellow Medicine County has completed an updated draft of the its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Yellow Medicine County is vulnerable to a variety of potential natural disasters, such as tornadoes, windstorms, severe winter storms, flooding, drought, and extreme temperatures, which threaten the loss of life and property in the county. Planning for natural disasters minimizes the impact of these events that can cause vast economic loss and personal hardship.

CHAMPS EDITION GET IT TODAY!



CLICK HERE to Order Your Copy

Latest Stories

Notes from the Granite Area Arts Council
February 16, 2023

CITY POSTINGS

City of Canby 2/17/23, City of Canby Website

The screenshot shows the City of Canby website with a search bar and navigation menu. The main content area is titled "Public Comment Sought for County's Hazard Mitigation Plan" and includes a sub-header "February 9, 2023". The text explains that the Yellow Medicine County Hazard Mitigation Plan (HMP) is being updated and that public feedback is being sought. It lists several links for more information, including the HMP website, the mitigation action chart, and the public comment feedback page. A sidebar on the right shows a calendar for the month of February 2023.


City of Echo 2/14/23, City of Echo Website

The screenshot shows the City of Echo website with a "City Information" section. It includes links for "City Water/Sewer Account", "West Central Sanitation", and "2022 Animal License". A "2022 City Fees & City Rates" document is also mentioned. To the right, there is a quote about the community and a list of links for "ECHO FEES AND CITY RATES 2020", "Multi-Hazard Mitigation Plan Input.pdf", "2023 Recycling Schedule.pdf", and "Yellow Medicine County Hazard Mitigation Plan News Release 9-23).pdf".

2/14/23, Hardcopy Posting
A printed copy of the news release was posted at the Echo City Office.

City of Granite Falls 2/9/23, City of Granite Falls Facebook Page

City of Granite Falls Minnesota
Published by Crystal Johnson · 2m ·



YELLOW MEDICINE COUNTY SHERIFF'S OFFICE
415 W. Ave. Suite 103
Granite Falls, MN 56041
Phone # 202.544.2130
Email: sheriff@ymn.mn.gov

February 9, 2023

Public Comment Sought for County's Hazard Mitigation Plan

Yellow Medicine County has completed an updated draft of the of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Yellow Medicine County is vulnerable to a variety of potential natural disasters, such as tornadoes, windstorms, severe winter storms, flooding, drought, and extreme temperatures, which threaten the loss of life and property in the county. Planning for natural disasters minimizes the impact of these events that can cause vast economic loss and personal hardship.

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[Yellow Medicine County HMP Website](https://www.ymn.edu/YellowMedicineHMP) (<https://www.ymn.edu/YellowMedicineHMP>)
[Mitigation Action Charts](https://www.ymn.edu/InteractiveWebsite) (<https://www.ymn.edu/InteractiveWebsite>)
[Public Comment Feedback Form](https://www.ymn.edu/InteractiveWebsite) (<https://www.ymn.edu/InteractiveWebsite>)

The Yellow Medicine County HMP is a multi-jurisdictional plan that covers Yellow Medicine County, including the cities of Carby, Clarkfield, Echo, Granite Falls, Hanley Falls, Hazel Run, Porter, St. Leo, and Wood Lake. The Yellow Medicine County HMP also incorporates the concerns and needs of townships, school districts, and other stakeholders participating in the process.

Planning helps Yellow Medicine County and other jurisdiction with local communities through the process helps identify vulnerabilities to reduce or eliminate the effects of a potential hazard. Awareness of natural disasters and encouraging personal preparedness helps build a community that is resilient to disaster, and breaks the cycle of the plan further allows Yellow Medicine County and its jurisdiction to apply for future FEMA Hazard Mitigation Assistance grant program funds to reduce or eliminate the impacts of future natural hazard events.

Feedback is vital to the success of the plan. Yellow Medicine County encourages the public to provide input on the draft plan prior to submitting it to the State of Minnesota Department of Emergency Management Agency (FEMA) for review. Feedback may be provided in written form or directly to Yellow Medicine County Emergency Management Director.

Crystal Johnson
Emergency Management Director
2023
crystal@co.ym.mn.gov

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City of Granite Falls Minnesota allows profiles and Pages it mentions to comment on this post.

Write a comment...

2/9/23 Hardcopy Posting

A printed copy of the news release was posted at the City of Granite Falls City Hall.

City of Hanley Falls

2/9/23, Hardcopy Posting

A printed copy of the news release was posted on the bulletin board at the Hanley Falls City Office.

City of Porter

2/13/23, City of Porter Website



Porter Minnesota
WELCOME TO PORTER 1881

COVID-19

Welcome Your Government City Services Our History Organizations Commerce Events Make Porter Home

Welcome to Porter, Minnesota
Since its founding in 1881, Porter has been a small town with big ambitions, a place its residents are proud to call home! The goal of your local government is to utilize our website to communication and maintain transparency with citizens and promote our community and all that it offers to visitors.

In the know...

Public Comment Sought for County's Hazard Mitigation Plan
[Please review this document](#) from the Yellow Medicine County Sheriff's Department regarding a review and comment opportunity for the County's Hazard Mitigation Plan.

Property Available for Development
The City of Porter is offering two residential properties that are shovel-ready for development. The properties can be purchased individually as quarter-acre lots, or as a single half-acre lot. These properties are located just half a block from the park and are an ideal location to raise your family, or spend your retirement!

City of Porter, Minnesota
592 likes

City of Porter, Minnesota
about a month ago

2023 Porter Easter Egg Hunt
SAT, APR 8 AT 10:00 AM CDT

City of Wood Lake 2/10/23, City of Wood Lake Facebook

City of Wood Lake
3h · 🌐

Sharing for Yellow Medicine County

YELLOW MEDICINE COUNTY SHERIFF'S OFFICE
415 S. 4TH STREET
PO BOX 100
DUNDAS, SD 57015

February 9, 2022

Public Comment Sought for County's Hazard Mitigation Plan

Yellow Medicine County has completed an updated draft of the of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Yellow Medicine County is vulnerable to a variety of potential natural disasters, such as tornadoes, wildfires, severe winter storms, flooding, drought, and extreme temperatures, which threaten the loss of life and property in the county. Planning for natural disasters minimizes the impact of these events that can cause vast economic loss and personal hardship.

All county residents, as well as other interested stakeholders (those in neighboring counties, tribal nations, or working with affected agencies) 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 February 23, 2023. The public can access the plan using the following link:

[Yellow Medicine County HMP Website](https://www.ymc.org/comm/hazmitigation) (www.ymc.org/comm/hazmitigation)
[Mitigation Action Cards](https://www.haz.org/comm/hazmitigation) (<https://www.haz.org/comm/hazmitigation>)
[Public Comment Feedback Form](https://www.ymc.org/comm/hazmitigation) (<https://www.ymc.org/comm/hazmitigation>)

The Yellow Medicine County HMP is a multi-jurisdictional plan that covers Yellow Medicine County, including the cities of Cherry, Central, Central Falls, Hendon Park, Hendon, County, and the cities of Wood Lake, Wood Lake, and Wood Lake. The Yellow Medicine County HMP also encompasses the counties and seats of township, school districts, and other stakeholders participating in the plan.

Updates of the plan has been under direction of Yellow Medicine County Emergency Management in cooperation with a panel of the County of Minnesota County and representatives from county agencies, as well as local government, tribal nations, and other key stakeholders. Together, the planning team worked to identify cost-effective and

Hazard mitigation planning helps Yellow Medicine County and other jurisdictions protect their residents. Working with local contractors through the process helps identify vulnerabilities and develop strategies to reduce or eliminate the effects of a potential hazard. In addition, reviewing plans, assessing potential risks, and encouraging general participation helps to create a community that is resistant to disaster, and breaks the cycle of response and recovery. Working together, Yellow Medicine County and its jurisdictions are the eligible to apply for State 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. Yellow Medicine 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 form or directly to Yellow Medicine County Emergency Management.

Contact:
 Yellow Medicine County Emergency Management Director
 Phone: 336-315-3333
 Email: yellow.sheriff@ymc.gov

👍 Like 💬 Comment

2/10/23, City of Wood Lake Website

Wood Lake

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Brenda Drayton · 3 hours ago

YMC Public Comment Sought

Yellow Medicine County seeking public comment on County's Hazard Mitigation Plan

YELLOW MEDICINE COUNTY SHERIFF'S OFFICE
415 S. 4TH STREET
PO BOX 100
DUNDAS, SD 57015

February 9, 2022

Public Comment Sought for County's Hazard Mitigation Plan

Yellow Medicine County has completed an updated draft of the of its Hazard Mitigation Plan (HMP) and is now seeking public feedback. Like all Minnesota counties, Yellow Medicine County is vulnerable to a variety of potential natural disasters, such as tornadoes, wildfires, severe winter storms, flooding, drought, and extreme temperatures, which threaten the loss of life and property in the county. Planning for natural disasters minimizes the impact of these events that can cause vast economic loss and personal hardship.

All county residents, as well as other interested stakeholders (those in neighboring counties, tribal nations, or working with affected agencies) 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 February 23, 2023. The public can access the plan using the following link:

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[Public Comment Feedback Form](https://www.ymc.org/comm/hazmitigation) (<https://www.ymc.org/comm/hazmitigation>)

2/10/23, Hardcopy Postings

Printed copies of the new release were posted at the Wood Lake Community Center, First Independent Bank, and Wood Lake Post Office.

Appendix H – Mitigation Actions by Jurisdiction

CITY OF CANBY

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 all city residents to sign-up for the county’s CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	The city uses our website to encourage residents to sign up by going to the county website.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We share information from YMC Emergency Management with the public through posting information on the city Facebook page, the Canby Police Department Facebook page, and announcements on the radio station.	City
3	Severe Winter & Summer Storms	Structure & Infrastructure Projects	Manage vegetation near powerlines to reduce the power outages due to downed power lines.	Existing Moderate 2023-2028	City Public Works	Our public works staff continues to manage boulevard trees that could be a hazard during high wind events.	City
4	Severe Summer Storms	Structure & Infrastructure Projects	Work to address the need to construct storm shelters at the city’s two campgrounds.	New Moderate 2023-2028	City Admin, City EM, City Public Works	The city will work with YMC Emergency Management to explore if it may be possible to construct storm shelters at our 2 city parks where campers are vulnerable to high wind events. Outside grant funding would be necessary for the city to pursue this project.	City, Other (TBD)
5	Flooding	Local Planning & Regulations	Enforce city ordinances and develop plans that reduce the impacts of high rain events and risk of flooding to areas of new development.	Existing High 2023-2028	City Admin	The city enforces requirements of the NFIP through Ordinance #245 “Floodplain Ordinance, Amended 2021” in the city’s code of ordinances. This chapter regulates development in the flood hazard areas of the city. This city also has an ordinance that doesn’t allow sump pumps to be put down the sanitary sewer.	City

CITY OF CANBY

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
6	Flooding	Structure & Infrastructure Projects	Work to address the reduction of localized flooding following high rain events.	Existing High 2023-2028	City Public Works in coord with YMC Public Works	This is an ongoing effort of the city's Public Works Dept. in coordination with Yellow Medicine County Public Works and Drainage systems, as well as the watershed district. With the creek in town, we are prone to flooding. We have had flooding issues from the ditches. Our areas that are most affected come off of the holding ponds and over to our lift station.	City
7	Flooding / Dam Failure	Local Planning & Regulations	Work with the Lac Qui Parle Yellow Bank Watershed District to monitor area dams surrounding the city and ensure emergency plans are in place for dam failure.	Existing Moderate 2023-2028	City Public Works in coord with LQP Yellow Bank Watershed District	The city continues to work in partnership the LQP Yellow Bank Watershed District on our dam breaches assessments and emergency plan in the event of any dam failure. The watershed district monitors the dams regularly and should see any issues. There is also an Emergency Action Plan for Canby Creek Watershed. It was revised in 2016. Yellow Medicine County, the Watershed District, and the City of Canby were all partnered on this.	City, Watershed District

CITY OF CLARKFIELD

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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	We promote residents to sign up for the county CodeRED system by posting on our city website and Facebook page. We also hang local postings.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We participate in the NWS severe weather awareness weeks and encourage the spring and fall cleanup of leaves and debris. We use our city website and Facebook page, and also post information on bulletin boards at the Community Center and at the Post Office. We additionally make announcements at city council meetings to the public during severe weather season.	City
3	Severe Winter & Summer Storms	Local Planning & Regulations	Enforce building restrictions for new development that reduce risk to future power outages.	Existing Moderate 2023-2028	City Admin	The city requires that all new housing development to have powerlines underground.	City
4	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Acquire generators for City Hall, Fire Hall, City Garage, Pumping Stations, Water Tower, and the city's Sanitary System.	New Moderate 2023-2028	City Admin, City Public Works	The city desires to acquire several new portable generators, however funding is limited to do so. The city will seek to purchase generators in the coming years if funding allows.	City
5	Flooding	Local Planning & Regulations	Work with the MN DNR Floodplain Manager to develop a floodplain ordinance for the city.	New Moderate 2023-2028	City Admin in coord with MN DNR	The city was entered into the NFIP program on 02/28/97(E) under emergency (E) status and was not required to have an ordinance in place upon entry into the program. The city does not have any current floodplain ordinance in place for the city. The city has been put in touch with the state NFIP coordinator to learn how to develop an ordinance as part of their participation in the NFIP.	City, MN DNR

CITY OF CLARKFIELD**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
6	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish a water conservation ordinance and conduct outreach to residents to be aware of drought conditions and watering restrictions.	New Moderate 2023-2028	City Admin	When recommended by the MN DNR, the city will follow guidelines to establish and enforce a water conservation ordinance during periods of severe drought. The city would conduct outreach to make residents aware.	City

CITY OF ECHO**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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	The city provides a link to Yellow Medicine County on our city website where residents are directed to go to sign up.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We utilize our city website, City Council meetings, and posting information locally at the Community Center to share emergency information with our residents.	City

CITY OF GRANITE FALLS

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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Manager, City EM	The city provides informational flyers on CodeRED at City Hall and offers to assist residents signing up. With our new Facebook page, we also can now promote the emergency notification system.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Manager, City EM	We use our city website and recently created a Facebook page that will be utilized in the future. We further will use the radio and Channel 8, our local broadcasting station. We also make announcements at city council meetings to the public during severe weather season. Each spring and winter we do outreach to encourage residents to maintain their sump pumps to reduce the chances of basement flooding.	City
3	Severe Winter & Summer Storms	Structure & Infrastructure Projects	Manage vegetation near powerlines to reduce the risk of power outages from downed limbs or trees during severe storm events.	Existing High 2023-2028	Municipal Electric	We have our own municipal electrical utility that is responsible for mitigating against power outages. The city has an annual vegetation removal near powerlines to reduce risk of power outages during storms.	City (utility)
4	Severe Summer Storms	Structure & Infrastructure Projects	Construct a storm shelter at the municipal campground to protect campers during dangerous storm events.	Existing Moderate 2023-2028	City Manager, City EM, City Public Works	City staff will work with YMC Emergency Management to assess the need and feasibility of constructing a storm shelter or tornado safe room for our municipal campground. If a tornado shelter is deemed the best option, the city may work to develop a grant application to FEMA for HMA grant funding.	City, FEMA HMA grant funding

CITY OF GRANITE FALLS

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	Flooding	Local Planning & Regulations	Enforce city ordinances and develop plans that reduce the impacts of high rain events and risk of flooding to areas of new development.	Existing High 2023-2028	City Manager	The city participates in the NFIP and enforces Chapter 151, Floodplain Management in the city's code of ordinances. This chapter regulates development in the flood hazard areas of the city. The city has also implemented a new sump pump inspection ordinance with continued efforts to mitigate against overload of the city's I&I system.	City
6	Flooding	Structure & Infrastructure Projects	Continue to plan for and implement projects that reduce damages from high rain events to city roads and culverts, and minimize risk to homes.	Existing High 2023-2028	City Engineer, City Public Works Dept.	We have a city engineer and a public works department that continue to address road maintenance issues for flooding (culverts, repetitive flooding). The city has completed multiple flood mitigation efforts. There are still however a few areas that require sandbagging during a flood including over by the Legion. There are a few homes located adjacent to the river that in times of very high flooding are at risk and further may require sandbagging in a severe flooding event.	City
7	Dam Failure	Local Planning & Regulations	Continue to monitor the condition of the city's hydroelectric plant/dam and ensure the emergency dam failure plan is kept up-to-date.	Existing High 2023-2028	City Engineer, City Public Works Dept.	The city completes annual inspections of the dam and makes appropriate repairs as needed. The city further has an emergency dam failure plan that is reviewed on an annual basis. We view a dam failure as a low risk, but still a risk to be prepared for. The city has never experienced a dam failure event to date.	City

CITY OF HANEY FALLS

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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	We can work to encourage residents sign up by making occasional announcements at City Council meetings or hanging informational flyers.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We are able to post things on our summer recreation website and post things around town. We also send out information with the water bills.	City
3	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Acquire generator backup power for city-critical infrastructure and facilities.	New High 2023-2028	City Admin, City EM, City Public Works	The city wishes to obtain backup generators for one of the lift stations that needs to be replaced, the City Office and the Municipal Liquor Store, which is the only place in town to get food. The city will work to purchase generators if funding as available in the coming years.	City
4	Severe Summer Storms	Structure & Infrastructure Projects	Upgrade the city's outdoor warning siren to include battery backup power.	New Moderate 2023-2028	City Admin, City EM, City Public Works	The city will work with YMC Emergency Management to see if we may be eligible to apply for USDA Rural Development Community Facilities Grant Program to help to fund this siren upgrade.	City, USDA CF Grant Program
5	Flooding	Structure & Infrastructure Projects	Continue to plan for and address policies and stormwater infrastructure improvements to help the city handle high rain events.	In-Progress High 2023-2028	Street and Utility Superintendent	The city is working to replace a portion of our water mains, sewer mains and storm sewers after bids go out in the fall of 2022. We do have a sump pump ordinance and are working on our I&I.	City

CITY OF HAZEL RUN**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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	The city does not have a website, but we can post information for residents on bulletin board at City Hall to direct residents to sign up on the county website.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	Same as above. We will work to post information we receive from Yellow Medicine County Emergency Management to help keep residents informed of and prepared for severe storm events.	City
3	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Acquire a generator for City Hall.	New Moderate 2023-2028	City Admin, City EM in coord with YMCEM	The city wishes to obtain a portable backup generator for City Hall. We have a small city budget and would need assistance on this effort. We would look to work with Yellow Medicine County Emergency Management.	City

CITY OF PORTER

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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	We encourage residents to sign up for the county's CodeRED system by posting information on our city website.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We share information with residents by posting notices on our city website, hanging fliers around town, and including information in the resident's monthly water bills.	City
3	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Ensure generator backup power is in place for the Sanitary Sewer Lift Station and Sewer Lift Station.	Existing High 2023-2028	City Admin, City EM, City Public Works	The portable generator for use at the Sanitary Sewer Lift Station needs repair. We need a new auto-start and transfer generator for the Sewer Lift Station. The city will work to address the necessary repair and purchase of a new generator as funding allows in the coming years.	City
4	Severe Summer Storms	Structure & Infrastructure Projects	Upgrade the city's existing warning siren in order to effectively warn residents of impending dangerous high wind events.	New Moderate 2023-2028	City Admin, City EM, City Public Works in coord with YMCEM	The city wishes to upgrade our current siren which is very old and needs to be replaced. It is located on the roof of the Fire Hall and cannot be heard from all areas of the city. The city will work with YMC Emergency Management to see if we may be eligible to apply for USDA Rural Development Community Facilities Grant Program to purchase a new siren.	City, USDA RD CF Grant Program

CITY OF PORTER

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	Severe Summer Storms	Structure & Infrastructure Projects	Evaluate a possible construction upgrade for the public restrooms/concession stands facility in the city park to serve as a storm shelter or tornado safe room to protect visitors during dangerous storm and severe wind events.	In-Progress High 2023-2028	City Admin, City EM, City Public Works	The city has been planning to construct this as a wood frame structure, but would like to evaluate the possibility to upgrade this facility to serve as a storm shelter or tornado safe room. Outside grant funding would be necessary to upgrade to higher levels of construction. If we decide to pursue a tornado safe room, the city would seek potential grant funding from FEMA to make this possible.	City, FEMA HMA grant funding
6	Flooding	Local Planning & Regulations	Develop and enforce city ordinances that reduce the impacts of high rain events and risk of flooding to areas of existing or new development.	In-Progress Moderate 2023-2028	City Admin	The city was entered into the NFIP program on 03/20/74(E) under emergency (E) status and was not required to have an ordinance in place upon entry into the program. The city noted they are not aware of any current floodplain ordinance in place for the city. The city has been put in touch with the state NFIP coordinator to learn how to develop an ordinance as part of their participation in the NFIP. The city also has a sump pump ordinance concerning the disposal of water from sump pumps. Building permits are also required including set-back rules.	City

CITY OF PORTER**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
7	Flooding	Structure & Infrastructure Projects	Plan for and implement projects to implement stormwater management infrastructure in the city to reduce flooding.	In-Progress High 2023-2028	City Admin, City Public Works in coord with Bollig Engineering	City Public Works Dept. is working on plans for the regrading of streets and boulevards and installation of curb and gutter, as well as the installation of a Storm Sewer System. The city has contracted with Bollig Engineering to assess our city infrastructure. We are waiting for their assessment. If FEMA HMA grant funding is something we may be eligible for to support our flood mitigation, the city may seek to work with YMC Emergency Management to develop an application.	City

CITY OF ST. LEO

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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	The city does not have a website, but we post information on our Fire Dept Facebook page to encourage residents to sign up on the county website.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We share information from YMC Emergency Management with our residents by posting to our Fire Department Facebook page and bulletin board at our community center.	City
3	Severe Summer Storms	Structure & Infrastructure Projects	Upgrade the city's existing warning siren in order to effectively warn residents of impending dangerous high wind events.	New High 2023-2028	City Admin, City EM, City Public Works in coord with YMCEM	The existing siren is hard to hear on the edge of town. The city will work with YMC Emergency Management to see if we may be eligible to apply for USDA Rural Development Community Facilities Grant Program to purchase a new siren.	City, USDA RD CF Grant Program
4	Flooding	Mitigation Preparedness & Response Support	Have equipment in place for emergency sandbagging of the city's sanitary sewer lift station that is prone to flooding during high rain events.	Existing High 2023-2028	City Public Works, City Fire Dept.	City and fire department personnel have sandbagged the area in the past to prevent flooding into the lift station. City Public Works monitors the risk of flooding to the lift station during high rain events and will activate sandbagging procedures with the FD as needed.	City

CITY OF WOOD 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 all city residents to sign-up for the county's CodeRED emergency notification alert system.	Existing High 2023-2028	City Admin, City EM	This is something the city has not done to date; however, we will seek to make better use of our city website, Facebook, and local postings to encourage residents to go to the Yellow Medicine County website to sign up for CodeRED.	City
2	Severe Winter & Summer Storms	Education & Awareness Programs	Provide education and outreach to residents on personal preparedness for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2023-2028	City Admin, City EM	We use our city website and Facebook page to share emergency information electronically with our residents. We also post information on bulletin boards at the Community Center and at the Post Office.	City
3	Severe Winter & Summer Storms	Natural Systems Protection	Conduct vegetation management to reduce the chances of downed branches or trees on powerlines, people, or structures.	Existing Moderate 2023-2028	City Public Works Dept.	The city has many old ash trees that are infected with the Emerald Ash Borer, these trees are at high risk of damaging life and property during heavy windstorms. The city Public Works continues to trim or remove old ash trees that may pose risk during severe storm events.	City
4	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	Acquire a standby portable generator for our City Hall and Community Center, which is our designated community mass care shelter.	New High 2023-2028	City Admin, City EM	The city will work to purchase a new portable generator as funding is available to do so.	City
5	Flooding	Structure & Infrastructure Projects	Address the need for additional storm sewer upgrades and purchase of additional pumps in the event of flooding.	New High 2023-2028	City Public Works	One of our sanitary sewer lift stations is prone to flooding during high rain events. City has pumps to bypass lift stations in flooding events. The city PW department continues to work to address where storm sewer upgrades need to be made and to obtain additional pumps for emergency flood events.	City

CITY OF WOOD LAKE**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
6	Flooding	Education & Awareness Programs	Conduct public outreach to remind residents of the sump pump ordinance and continue to improve our storm sewer system to handle increased volumes of water from high rain events.	Existing Moderate 2023-2028	City Admin, City Public Works	The city provides reminders throughout the year to residents about our sump pump ordinances. Our public works department works to ensure that street gutters and storm catch basins are swept clean several times a year	City