

POPE COUNTY MINNESOTA



2023

Hazard Mitigation Plan



POPECOUNTY
MINNESOTA

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POPE COUNTY MINNESOTA

HAZARD MITIGATION PLAN

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Section 1 – Introduction

1.1 Introduction

Hazard mitigation is defined as any sustained action to reduce or eliminate long-term risk to human life and property from hazard events. The Federal Emergency Management Agency (FEMA) has made reducing hazards one of its primary goals, and a primary mechanism in achieving this goal is both the hazard mitigation planning process and the subsequent implementation of resulting projects, measures, and policies (FEMA, 2015).

Since 1980, damages due to natural disasters in the U.S. exceeded \$2.195 trillion. 2017 was the costliest year on record with \$306 billion in damage, and while the costliest disasters may occur in coastal states, in 2020, wildfires, hailstorms, drought, and tornadoes caused a record amount of billion-dollar disasters across the nation (Smith, 2022). Hazard mitigation planning is an effective process to prepare communities and lessen the impact of loss of life and property from future disasters. Although mitigation efforts will not eliminate all disasters, government at all levels should strive to be as prepared as possible for a disaster for the wellbeing of its residents.

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

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

Pope 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 Pope County and its local governments to fulfill the responsibility of hazard mitigation planning. The intent of the plan is to limit the damage and losses caused by specific hazards.

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

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



Pope County HMP website

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

1.1.1 SCOPE

U-Spatial, University of Minnesota, was contracted by Minnesota Homeland Security and Emergency Management using FEMA Pre-Disaster Mitigation (PDM) grant funds to work with Pope County Emergency Management to facilitate an update to the 2016 Pope 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 Pope 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 Pope County, including the cities of Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, Villard, and Westport. The Pope 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 Pope County after final approval by FEMA (see Appendix B).

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

- Include more recent data documenting the critical infrastructure and hazards faced by Pope 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 Pope 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 Pope County HMP planning team is headed by the Pope County emergency manager, who is the primary point of contact. Members of the Pope 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 Pope 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
Kim Joos	Pope County Sheriff's Office	Deputy Emergency Management Director
David Green	Pope County Land & Resource Management Dept.	Director
Bryan Gates	Pope County Information Technology Dept.	Director
Brad Pierce	Pope County Facility Maintenance	Director
Brian Giese	Pope County Highway Dept.	County Engineer
Michael Wacker	Pope County Assessor's Office	County Assessor
Stephanie Rust	Pope County Auditor's Office	County Auditor/Treasurer
Dave Orlowski	Pope County Drainage Dept.	Drainage Inspector
Kersten Kappmeyer	Pope County	County Administrator
Larry Lindor	Pope County	Commissioner
Nan Haggerty	Pope County	Commissioner
Paul Gerde	Pope County	Commissioner
Gordy Wagner	Pope County	Commissioner
Shelly Svec	Horizon Public Health	PHEP Coordinator/Health Educator
Betsey Alessi	City of Cyrus	City Clerk
Jeff Anderson	City of Cyrus Fire Dept.	Fire Chief
Jannel Brockopp	City of Farwell	City Clerk
Bruce Cerney	City of Glenwood Fire Dept.	Fire Chief
Bill Mills	City of Long Beach	City Councilor
Daniel Sutton	City of Lowry	Mayor
Julie Lloyd	City of Sedan	City Clerk
Joan Kerkvliet	City of Starbuck	City Clerk-Treasurer
Sally Kirckof	City of Westport	City Clerk

Name	Agency/Organization	Participant Title
Richard Hollermann	Ben Wade Township	Township Supervisor
Vernon Hedlin	Ben Wade Township	Township Clerk
Joanna Rustad	Hoff Township	Township Clerk
Kerri Mattson	Nora Township	Township Clerk
Lisa Villcheck	MN HSEM	HSEM Region 4 Regional Program Coordinator
Donna Ortendahl	Salvation Army of Pope & Douglas County	Field Representative
Holly Kovarik	Pope Soil and Water Conservation District	District Manager
Mark Kaelke	West Central Initiative	Assistant Community Planner
Alex Fellbaum	USDA Farm Service Agency	County Executive Director
Jeff Hellermann	USDA NRCS	District Conservationist
Emily Siira	MN DNR Hydrology	Area Hydrologist
Colton Henjum	North Fork Crow River Watershed District	Program Coordinator
Jon Roeschlein	Sauk River Watershed District	Administrator
Charles Rankin	Minnewaska School District	Superintendent
Dona Greiner	Stevens County Sheriff's Office	Emergency Management Director
Stephanie Felt	Kandiyohi County Emergency Management	Emergency Management Director

2.2 Review of Existing Plans, Capabilities & Vulnerabilities

Pope 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 Pope 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 Pope 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 Pope 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 Pope County to support mitigation.

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

2.3 Planning Process Timeline and Steps

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

2.3.1 POPE COUNTY STAKEHOLDER COORDINATION

Two planning team meetings took place via Zoom video conference hosted by U-Spatial. Meeting participants included representatives from Pope 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, Pope 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 10/30/23 to 11/13/23, for a period of 15 days. Appendix G provides documentation of the public outreach for feedback on the draft plan by Pope County and jurisdictions.

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

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

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

Event	Date	Appendix
Kickoff Webinar	7/19/22	Appendix F, Planning Team Meetings
News Release #1	8/8/22	Appendix G, Public Outreach & Engagement Documentation
Planning Team Meeting #1	9/30/22	Appendix F, Planning Team Meetings
Planning Team Meeting #2	10/3/23	Appendix F, Planning Team Meetings
News Release #2	10/20/23	Appendix G, Public Outreach & Engagement Documentation

2.3.2 OVERVIEW OF JURISDICTIONAL PARTICIPATION

Throughout the planning process, Pope 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 Pope 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 Pope 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 Pope 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 Pope 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. Pope 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 Pope 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
Pope County (11,288)	X	X	X	X	X	X
City of Cyrus (300)	X	X	X	X	X	X
City of Farwell (55)	X	X	X	X		X
City of Glenwood (2,619)	X	X	X	X	X	X
City of Long Beach (331)	X	X	X	X		X
City of Lowry (343)	X	X	X	X	X	X
City of Sedan (40)	X	X	X	X	X	X
City of Starbuck (1,462)	X	X	X	X	X	X
City of Villard (202)	X		X	X		X
City of Westport (40)	X	X	X	X		X
Neighboring Jurisdictions:						
Stevens County		X				
Grant County						
Douglas County						
Stearns County						
Swift County						
Kandiyohi County					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 Pope County, updated the existing mitigation actions published in the 2016 HMP, and proposed new mitigation actions.

The team examined the hazards identified in the 2016 HMP and adjusted 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 Pope 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 Pope County HMP Update

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

3.1.2 FEMA- AND MINNESOTA-DECLARED DISASTERS AND ASSISTANCE

Another historical perspective is derived from FEMA-declared disasters. Twelve major disasters and three emergency declarations in Pope County have been made between 1957 and December 2022 for a total of fifteen; details of these can be viewed on the [Pope 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). Pope County was included in one State Disaster Declaration.

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

Table 5. Historical hazard mitigation funding awarded in Pope County

Project Identifier	Sub-Grantee	Project Type	Project Total	Federal Share
DR-1419-0004-P	Pope County	91.1: Local Multihazard Mitigation Plan	\$31,500	\$23,625
DR-4069-0006-P	Pope County	91.1: Local Multihazard Mitigation Plan	\$40,000	\$30,000

SOURCE: (FEMA, 2023c)

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 Pope County HMP Website](#)

Agency for Toxic Substances & Disease Registry (ATSDR) defines social vulnerability as “...the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks” (ATSDR, 2020). Exacerbating these stressors are the increasing number of extreme weather events attributed to Minnesota’s changing climate (MPCA, 2018).

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

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

3.3 Climate Change

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

[Climate Change and Natural Hazards](#)

The National Climate Assessment suggests that infrastructure planning (particularly water resources infrastructure) should “be improved by incorporating climate change as a factor in new design standards

and asset management and rehabilitation of critical and aging facilities, emphasizing flexibility, redundancy, and resiliency” (Georgakakos, et al., 2014).

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

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

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

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

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

3.4 Jurisdictional Change in Risk or Vulnerability Assessment

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

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

3.4.1 JURISDICTIONAL RESPONSES

As part of the Local Mitigation Survey form, Pope 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.

Pope County

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

Tornadoes, Windstorms: We are very busy in the summer months because of high recreation and vacationers which makes Pope County's storm shelters inadequate for the influx of people.

Most of our sirens in the county have no battery backup which leaves our residents vulnerable to no warning if there is a loss of power.

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

In the past we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold. In extreme temperatures we have had LP customers experience lack of pressure and lost heating due to frozen regulators and loss of pressure in the LP tank.

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

Flooding: One of our city's lift stations is prone to flooding during high rain events. Spring overland flooding and road wash outs from fast snow melt and heavy rains.

Drought: Drought in recent years has caused local aquifers to reach record lows imposing water restrictions county-wide. This puts major stress on our agricultural community.

City of Cyrus

Blizzards, Ice Storms: We are a rural community and can become isolated during these events. There is no gas station or grocery store in town and as a result basic needs can become threatened.

Tornadoes, Windstorms: The city and residents are vulnerable during these events due to many old mature trees and aging homes.

We have a number of slab-on-grade new residential construction primarily for 55+ residents, a small mobile home park, and three apartment buildings. None of these residents have storm shelters.

Extreme Cold: Cyrus does experience power outages during these storms with residents and businesses having potential for losing heat causing freezing damage and a need to relocate.

City of Farwell

None to report. We are a small city of 55 people and have limited infrastructure. All residents have their own wells and the city only has our sewer system for infrastructure, which is connected with the City of Kensington who runs that.

City of Glenwood

Blizzards, Ice Storms: 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.

Tornadoes, Windstorms: We have municipal campground where campers are more vulnerable to high wind events. We do have an evac plan for campers to go to the lower level of the Pope County Courthouse if they need to take shelter.

We also have a mobile home park just outside the edge of city limits that is more vulnerable to severe windstorm events.

We have a need for an additional outdoor warning sirens. We have 3 but they are spread out. In a few areas we have some new developments on the fringe of town where the sirens may not adequately cover the area.

Severe Rain Events, Windstorms: With the amount of public lakeshore, we can get some severe lakeshore erosion during high rain and wind events. This could eventually pose problems to nearby city utilities. We have a road that runs next to the lake, and ongoing lakeshore erosion could undermine the roadway and underground utilities.

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 experienced damages to roads from spring frost heaves.

Flooding: The city is in a steep area with some ravines with a steep drop coming into the city. All the watershed water migrates down to the lake from high rain events and surface water discharge to our area. As a result, we get enormous infiltration into our sanitary storm sewer system and it can get overloaded. When the system gets backed up it results in flooding of storms sewer systems on some streets and some residential basements experience backup.

City of Long Beach

We have no local vulnerabilities to report on.

City of Lowry

Blizzards, Ice Storms: The overhead lines and power poles can be prone to failure in ice storms/blizzards with heavy snowfall.

Tornadoes, Windstorms: Our overhead power lines are in danger of coming down to potential high wind or trees/branches falling on them.

Extreme Cold: Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have senior citizens and families with children who are more vulnerable during these events.

City of Sedan

We have no local vulnerabilities to report. We are a small city of 40 people.

City of Starbuck

Blizzards, Ice Storms: 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.

Tornadoes, Windstorms: Our city campgrounds are susceptible to high wind events. There are both RV and tents campers that would need to evacuate to a safe location due to the wind itself or the possibility of large trees/branches being blown down.

Overhead power lines are also in danger of coming down due to trees/branches or the wind itself.

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 experienced damages to roads from spring frost heaves.

Flooding: One of our sanitary sewer lift stations could flood during high rain events. City staff do frequent maintenance to the lift station to try and prevent this. Our gravel roads are also susceptible to high rain events.

City of Villard

We have no local vulnerabilities to report. We are a small community of 202.

City of Westport

No local vulnerabilities identified for the city. We have a small population of 40 people and limited infrastructure.

3.4.2 FUTURE DEVELOPMENT

Because Pope 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. Pope 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 Pope 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.

Pope County

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

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

City of Glenwood

With the increase in residential and commercial property in Glenwood, this would increase the cost of recovery due to natural hazard events. In general, we have noticed an increase in more frequent high-rain events in the last 5 years. Increasing stormwater runoff and discharge to the city system seems to be increased per rain event. As we create areas of new development, we try to limit these impacts by holding water in stormwater ponds.

City of Lowry

We rely on Minneapolis and Aberdeen for our accurate tornado tracking system but are right on the edge of both so we might not be getting accurate up to date information on possible tornadoes.

City of Starbuck

A new campground opened in the last 5 years which adds additional population vulnerable to high wind events. In general, we have noticed an increase in more frequent high-wind events in the last 5 years.

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

Section 4 – Hazards

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

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

Hazards that were deemed by Pope 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. Five of the 15 federal disaster declarations in Pope County included flooding.

On July 21, 2022, Governor Tim Walz requested a major disaster declaration due to severe storms, straight-line winds, tornadoes, and flooding during the period of May 29–30, 2022 in Minnesota, including Pope County. A federal disaster (FEMA-4666-DR) was declared by President Biden on August 9, 2022 (FEMA, 2023b).

4.1.1 PROBABILITY OF OCCURRENCE

From 1997 to 2023, the NCEI Storm Events Database has recorded 17 flood and flash flood events. Pope County has experienced one flash flood event every 2.5 years and one riverine flood event every 4.5 years on average during this period.

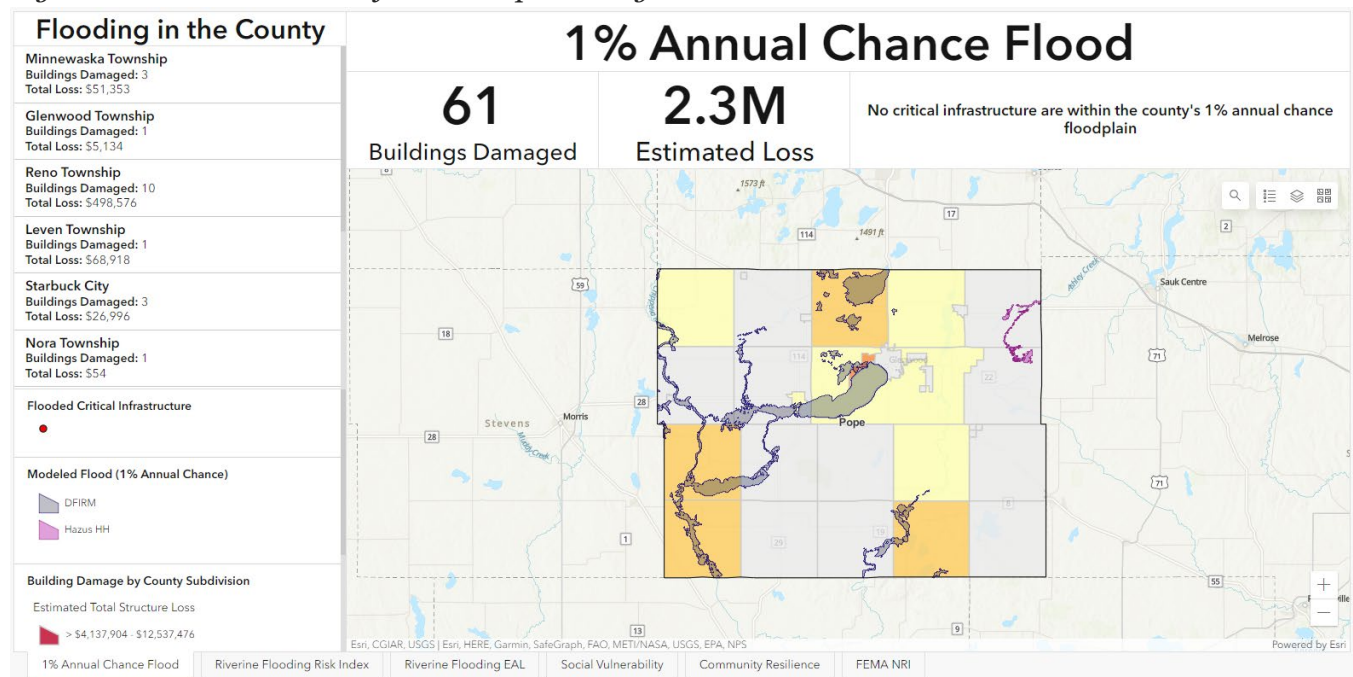
Minnesota HSEM has encouraged a potential risk and economic loss analysis for a 1% annual chance flood using the FEMA tool, Hazus for ArcGIS. A Digital Flood Insurance Rate Map (DFIRM) defined the

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

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

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

Figure 1. 1% Annual chance flood in Pope County



4.1.2 VULNERABILITY

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

Hazus reports the percent damage of each building in the floodplain, defined by the centroid of each building footprint. After formatting the tax and spatial data, 21,147 points were input to Hazus to represent buildings with a total estimated building plus contents value of over \$4.1 billion. Approximately 63% of the buildings (and 45% of the building value) are associated with residential housing. The estimated loss by occupancy class for the entire county is shown in Table 6.

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

Table 6. Summary of 1% annual chance flood loss estimation by occupancy class

General Occupancy	County Total Buildings	County Building and Contents Value	Floodplain Total Buildings	Floodplain Building + Contents Value	Buildings with damage	Building + Contents Loss
Residential	13,251	\$1,853,723,418	102	\$17,324,100	42	\$1,463,827
Commercial	605	\$654,954,630	20	\$1,543,200	16	\$505,140
Other	7,291	\$1,638,391,262	10	\$3,079,400	3	\$296,472
Totals	21,147	\$4,147,069,310	132	\$21,946,700	61	\$2,265,439

SOURCE: (FEMA, 2023A)

Hazus Critical Infrastructure Loss Analysis

Critical facilities and infrastructure are vital to the public and their incapacitation or destruction would have a significant negative impact on the community. These facilities and infrastructure were identified on the [HMP website](#) and verified by Pope 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 Pope 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 Pope 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. The Cities of Long Beach and the Township of Reno would suffer significant estimated losses in the 1% annual chance flood. All jurisdictions with buildings identified in the 1% annual chance flood zone can also be viewed on the Pope 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

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

Increasing Culverts and Raising Roads: Some roads, bridges, and culverts within Pope 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. Pope County continues to provide assistance on road infrastructure mitigation projects to reduce the impacts of localized flooding.

Additional Drainage Projects: There is a need for runoff storage projects as well as channel restoration techniques to reduce the impacts of flooding. These efforts are under investigation by the Sauk River Drainage Authority.

4.2 Windstorms

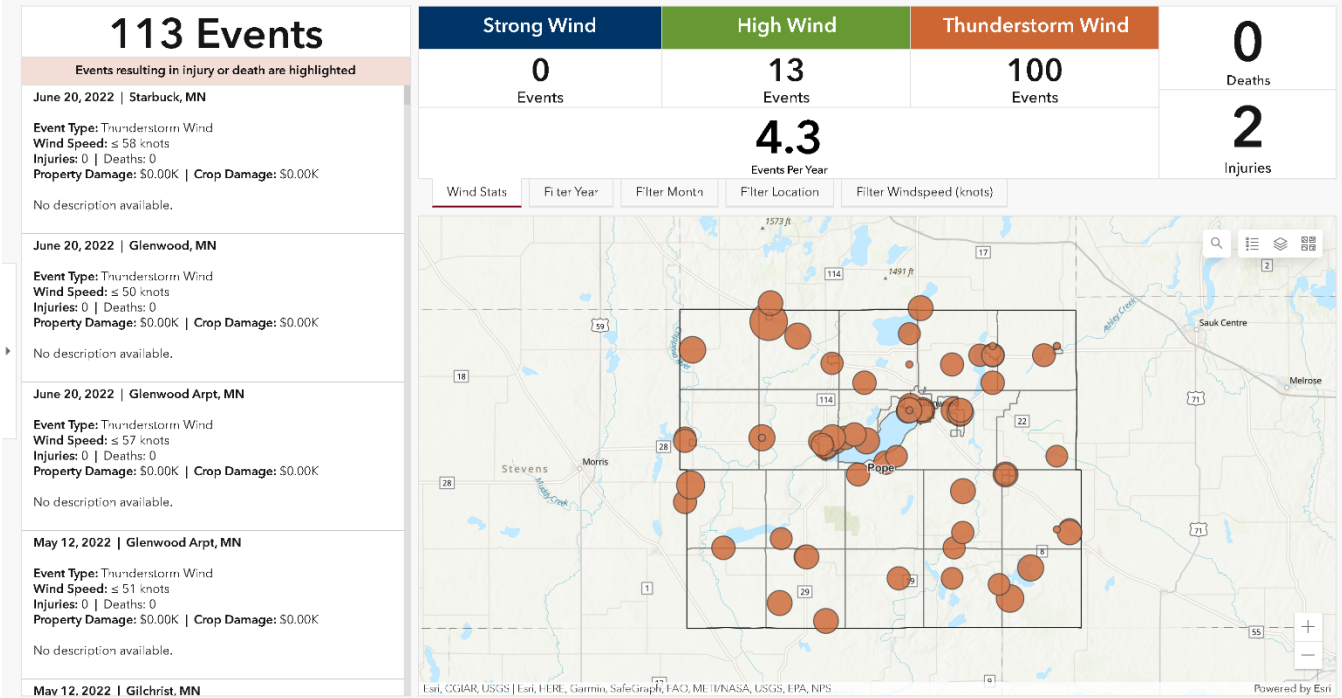
A windstorm is a wind strong enough to cause damage to trees and buildings and typically exceeding 34 mph (Pielke, 2012). Windstorm events encompass a variety of types of damaging wind. The history of windstorms in Pope County is shown in Figure 2; an interactive version of this map can be found on the Pope County HMP website.

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

4.2.1 PROBABILITY OF OCCURRENCE

To determine the probability of future wind-related events in Pope County, records of previous wind-related events (strong wind, high wind, and thunderstorm wind) in Pope 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 4.3 per year. These relative frequencies can be used to infer the probability of these events occurring in the future.

Figure 2. History of windstorms in Pope County



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

Pope 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:

Warning Siren for City of Sedan: The only city that does not have a warning siren is the City of Sedan. Outside grant funding will be necessary to assist the city in purchasing and installing a new warning siren.

Warning Siren Remote Activations: Not all warning sirens in the county are tied into the county's remote activation system, which is operated by Dispatch. In order to make this possible several warning sirens would need to undergo an upgrade, which will require significant outside grant funding to make this possible.

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

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

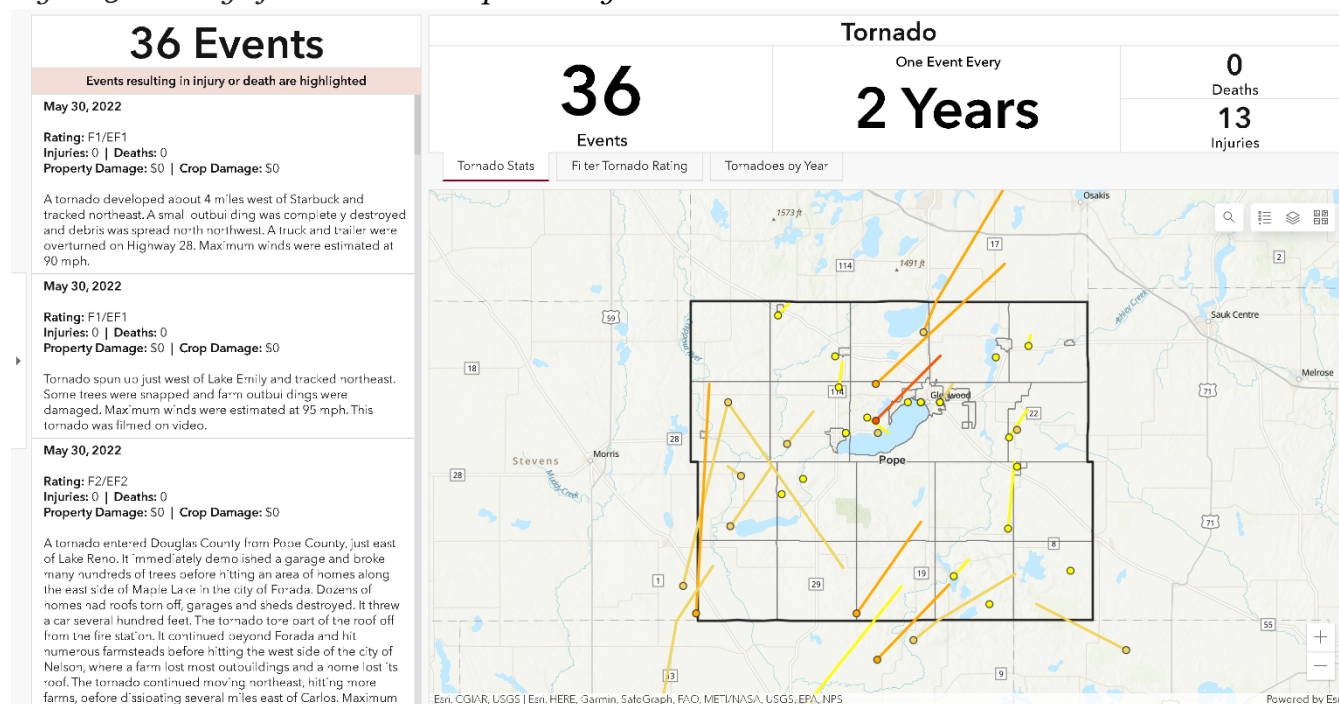
Storm Shelters and Tornado Safe Rooms: There are areas throughout Pope County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations. A coordinated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

4.3 Tornadoes

With wind speeds reaching up to 300 mph, tornadoes are one of nature's most violent storms (Hogebach, 2020). The history of tornadoes in Pope County is shown in Figure 3; an interactive version of this map can be found on the Pope County HMP website.

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

Figure 3. History of tornadoes in Pope County



4.3.1 PROBABILITY OF OCCURRENCE

Estimating the probability of future tornadoes in Pope County was done using two methods. The first method summed the total number of tornadoes which either touched down in or traveled through the county. This sum was divided by the number of years tornado data was recorded, resulting in the annual relative frequency of tornado occurrences in the county. Based on records in the NCEI Storm Events Database through May 2023, there has been one tornado every two years in Pope County. These 36 tornadic events occurred in 18 of the 72 years on record.

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

For any location in Pope County, there was an annual frequency of 4–5 tornadoes within a 50-mile radius. 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 Pope County; however, certain populations may be more vulnerable and less resilient to the impacts of a tornado. In general,

tornado casualties decrease when people receive adequate warnings with sufficient time to seek shelter in a reinforced structure. Because communication is critical before a tornadic event, certain residents may be more negatively impacted by a tornado, including those living in rural areas, individuals with limited mobility, people who do not live near an outdoor warning siren, or those who do not use social media. Section 3.4 provides jurisdictional responses of localized vulnerabilities to specific hazards.

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

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

4.3.3 PROGRAM GAPS AND DEFICIENCIES

Pope 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:

Warning Siren for City of Sedan: The only city that does not have a warning siren is the City of Sedan. Outside grant funding will be necessary to assist the city in purchasing and installing a new warning siren.

Warning Siren Remote Activations: Not all warning sirens in the county are tied into the county's remote activation system, which is operated by Dispatch. In order to make this possible several warning sirens would need to undergo an upgrade, which will require significant outside grant funding to make this possible.

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

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

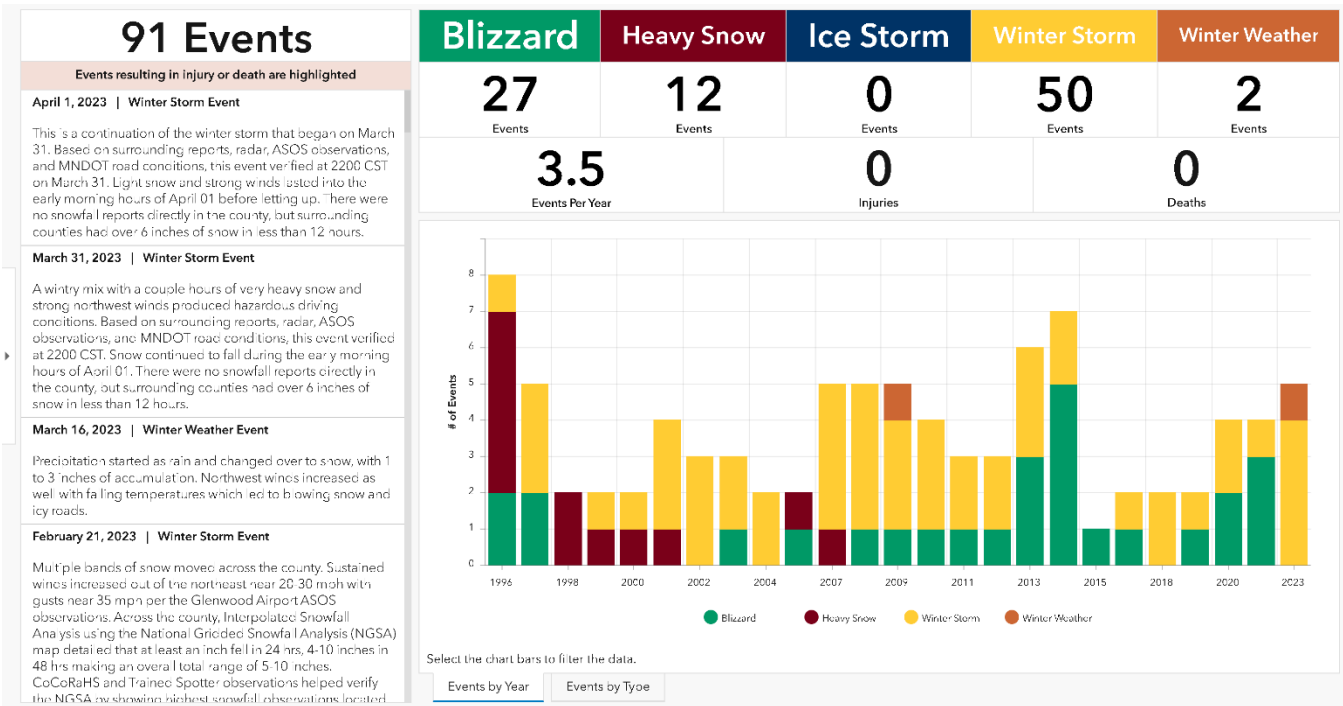
Storm Shelters and Tornado Safe Rooms: There are areas throughout Pope County without viable storm shelters or tornado safe rooms where there are populations vulnerable to high wind and storm events, such as campgrounds, resorts, mobile home parks, schools, and other seasonal gathering locations. A coordinated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

4.4 Winter Storms

Winter storms encompass a number of winter weather events which the National Weather Service (NWS) organizes into the following categories: blizzard, heavy snow, ice storm, winter storm, and winter weather. Winter weather events are common in Minnesota and can be costly. According to the Spatial Hazard Events and Losses Database (SHELDUS), winter weather events in Minnesota have cost more than \$1.02 billion dollars in damages since 1960 (CEMHS, 2023). The history of winter storms in Pope County is shown in Figure 4; an interactive version of this map can be found on the Pope County HMP website.

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

Figure 4. History of winter storms in Pope County



4.4.2 PROBABILITY OF OCCURRENCE

To determine the probability of future winter-related storm events in Pope County, records of previous events (blizzards, heavy snows, ice storms, winter storms, and winter weather) were summed and divided by the dataset's period of record, resulting in the annual relative frequency of winter-related storms. Based on records in the NCEI Storm Events Database through May 2023, the relative frequency of winter-related storm events in Pope County is 3.5 per year. This relative frequency can be used to infer the probability of these events occurring in the future.

4.4.3 VULNERABILITY

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

4.4.4 PROGRAM GAPS AND DEFICIENCIES

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

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

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

4.5 Extreme Cold

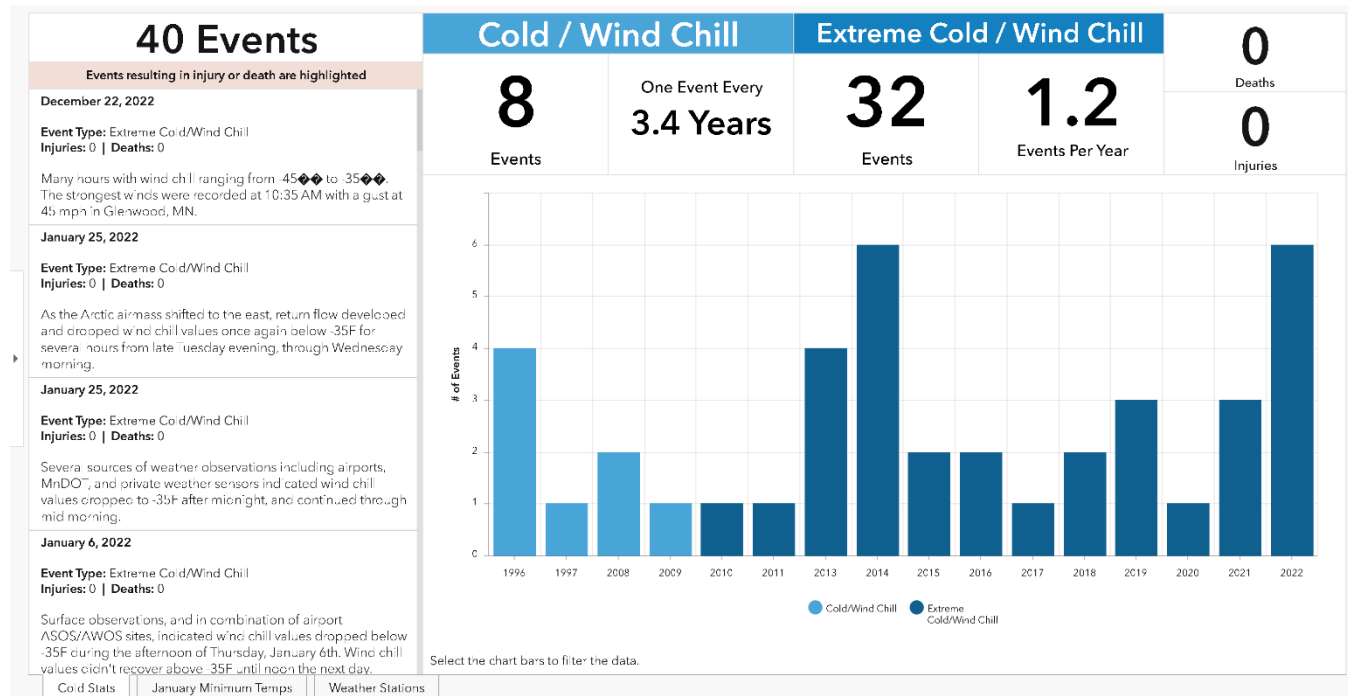
Due to Minnesota's position in the middle of the continent and subsequent climate, the state may experience extremely frigid temperatures in winter. Winter in Pope County can be especially dangerous when low temperatures and wind create arctic-like wind chills. The history of extreme cold in Pope County is shown in Figure 5; an interactive version of this dashboard can be found on the Pope County HMP website.

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

4.5.1 PROBABILITY OF OCCURRENCE

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

Figure 5. History of extreme cold in Pope County



4.5.2 VULNERABILITY

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

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

It is not always the depth of the cold that poses a threat but rather unpreparedness for the cold, such as an individual with a vehicle breakdown who lacks a personal winter safety kit in the vehicle. The cost of propane can make rural residents more vulnerable to issues with extreme cold. A propane shortage and resulting crisis, such as that which occurred in 2014, may increase the cost of heating homes and farms to a prohibitive amount (Eaton, 2014). The Minnesota Department of Commerce presents options and suggestions for homeowners who use propane [on their website](#).

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

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

4.5.3 PROGRAM GAPS AND DEFICIENCIES

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

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

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

4.6 Extreme Heat

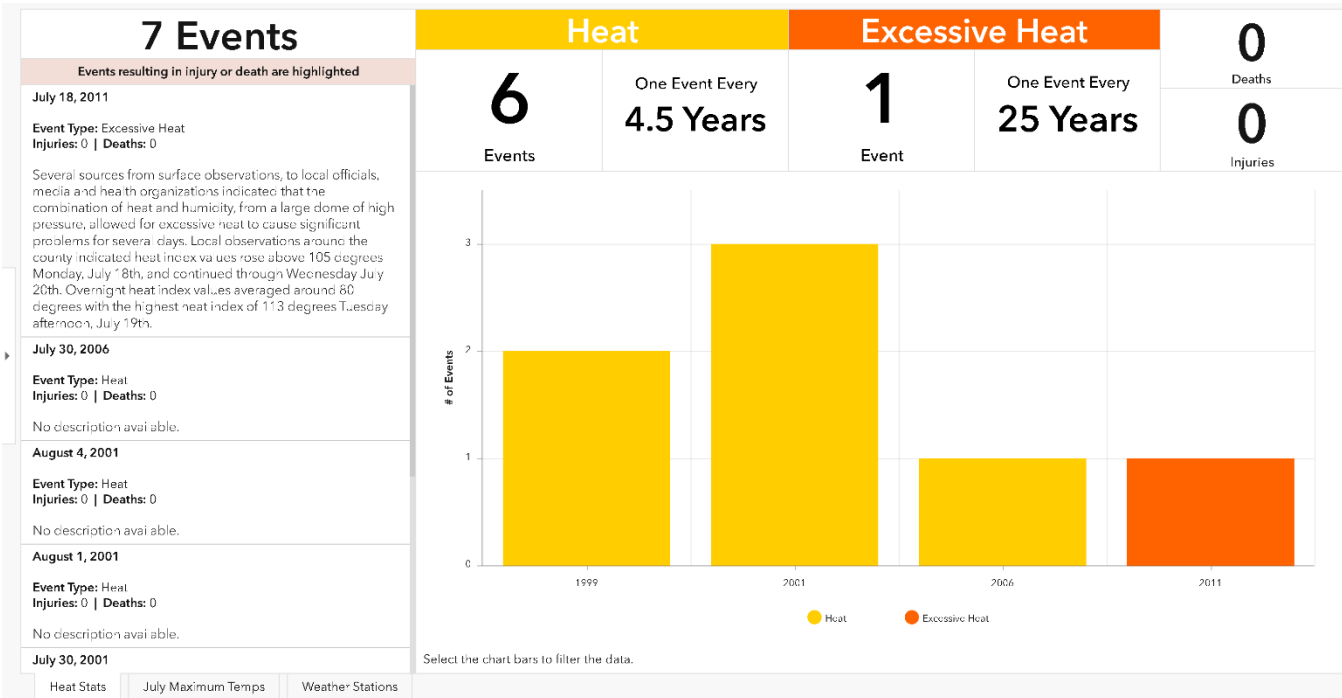
Extreme heat is the combination of very high temperatures and exceptionally humid conditions. Pope County's agricultural lands and structures are vulnerable to heat damage and its residents to injury, exacerbation of pre-existing chronic conditions, and even death (Moss, 2017). Medical costs related to extreme heat can be enormous, and with extreme heat estimated to create \$1 billion in health care-related costs in the United States in 2023 (Center for American Progress, 2023). In 2020 in Minnesota, 613 people went to the emergency department and five died from heat-related illness (MDH, 2022).

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

When the atmospheric moisture content is high, the rate of perspiration from the body decreases and the human body feels warmer (NWS, 2021). Heat stress can be indexed by combining the effects of temperature and humidity. The history of extreme heat in Pope County is shown in Figure 6; an interactive version of this chart can be found on the Pope County HMP website.

Data from the Spatial Hazard Events and Losses Database (SHELDUS) for the United States was examined to identify the county's monetary losses due to heat damage to crops. Ranking 21st among Minnesota counties in crop indemnity payments, heat-related losses for Pope County totaled over \$2.3 million for the period of record spanning 1989 to 2022 (CEMHS, 2023).

Figure 6. History of extreme heat in Pope County



4.6.1 PROBABILITY OF OCCURRENCE

To determine the probability of future heat-related events in Pope County records of previous heat and excessive heat events were summed and divided by the dataset’s period of record, resulting in the annual relative frequency of heat-related events. Based on records in the NCEI Storm Events Database through May 2023, the relative frequency of extreme heat events in the county is one event every 25 years. This relative frequency can be used to infer the probability of these events occurring in the future. The nearest weather station to Jackson County, Benson Station in Swift County, reported daily maximum temperatures above 90 F a total of 390 times, which is an average of 34 days per year.

4.6.1 VULNERABILITY

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

High temperatures can be exacerbated by the urban heat island effect in densely developed areas, an effect that amplifies higher temperatures in areas with a higher concentration of impervious and paved surfaces. These types of surfaces absorb more heat and hold it for longer than vegetation cover (EPA, 2019). Impervious surfaces cover 3% of Pope County (MDH & University of Minnesota, 2019). Impervious surfaces are not spread evenly throughout the county and attention should be given to cities or areas within the county that contain the largest amounts of this type of surface cover. Except for these areas, the risk of extreme heat does not vary geographically.

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

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

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

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

4.6.2 PROGRAM GAPS AND DEFICIENCIES

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

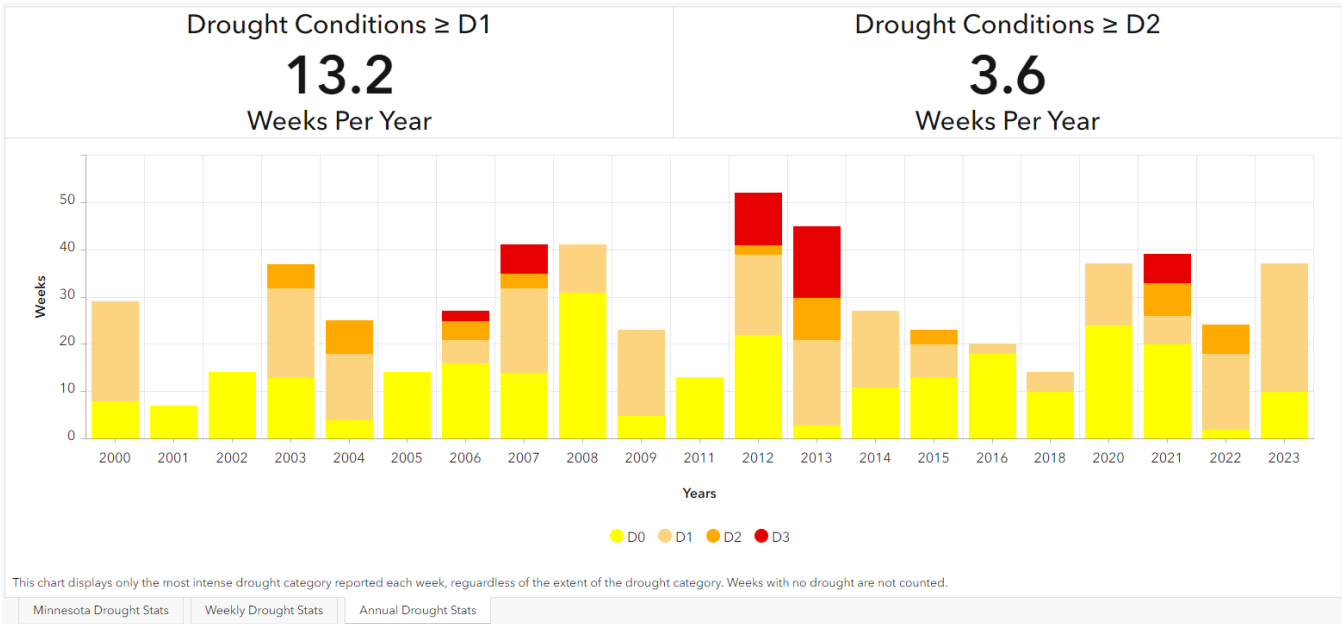
Generators for Backup Power to Critical Facilities & Shelters: Not all healthcare and other critical facilities utilized for the care of residents & visitors, including designated severe weather/emergency shelters (schools, churches, etc.) have backup power to run heating systems in the event of a power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

4.7 Drought

There are numerous approaches to assessing drought conditions. The current gold standard for accurate drought conditions in the United States is the United States Drought Monitor (USDM). Annual drought statistics since 2000 can be seen in Figure 7; an interactive version of this dashboard can be found on the Pope County HMP website.

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

Figure 7. Annual drought statistics in Pope County since 2000



4.7.1 PROBABILITY OF OCCURRENCE

To determine the probability of future droughts in Pope County, records of previous droughts were summed and divided by the dataset’s period of record, resulting in the annual relative frequency of droughts. The USDM database was examined from January 2000–September 12, 2023 for any occurrence of drought \geq D1 in Pope County, regardless of the duration of the drought. According to the weekly reported data, the relative frequency of the county experiencing drought conditions \geq D1 is 13.2 weeks per year, and the relative frequency of drought conditions \geq D2 is 3.6 weeks per year (NDMC et al., 2021). The relative frequency of past droughts can be used to infer the probability of similar droughts occurring in the future.

4.7.2 VULNERABILITY

One way to identify county assets vulnerable to drought is by examining the impacts of previous droughts. Overseen by the National Drought Mitigation Center (NDMC), the Drought Impact Reporter (DIR) is a comprehensive database that gathers drought-related reports from a variety of sources and identifies the sector(s) impacted by each drought. The NDMC (NDMC et al., 2021) defines a drought impact as “[a]n observable loss or change that occurred at a specific place and time because of drought.” A drought meeting this definition is categorized based on the sector(s) the drought impacts; therefore, a single drought affecting multiple sectors will be counted once for each respective sector it impacted.

DIR records show two reported drought incidents in Pope County between 2000 and 2022, impacting three sectors: agriculture; relief, response & restrictions, and water supply & quality (NDMC, 2023). Since droughts are regional in nature, jurisdictions within Pope County do not vary in their vulnerability to drought; however, the impact from droughts are not equal.

Drought conditions may impact soil moisture reserves, groundwater supplies, lake levels and stream flows. Water-dependent industries that experience the greatest impacts include: agriculture, public

utilities, forestry and tourism (MN DNR, 2021). In addition, droughts may negatively affect an individual's health by contributing to poor air quality caused by wildfire smoke and particulate, or a dusty environment. The 2021 drought resulted in elevated fire danger in roughly the northern two-thirds of the state, and record high particulate readings across Minnesota due to the Canadian wildfires (Huttner, 2021). [Populations vulnerable to these conditions](#) include children, older adults, and those with respiratory issues.

According to the DIR, Pope County's agriculture sector has been impacted by drought more than once, and with 55.4% of Pope County's land devoted to cultivated crops, the county's agriculture community is also vulnerable to the economic impact a drought may have on crops. From 1989–2012, Pope County received \$93,588,406.00 (2018 ADJ) in crop indemnity payments due to drought, placing it as the 2nd-highest-paid county in Minnesota (CEMHS, 2023).

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

4.7.3 PROGRAM GAPS AND DEFICIENCIES

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

4.8 Landslides

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. Landslide risk in Pope County is shown in Figure 8; an interactive version of this map can be found on the Pope County HMP website.

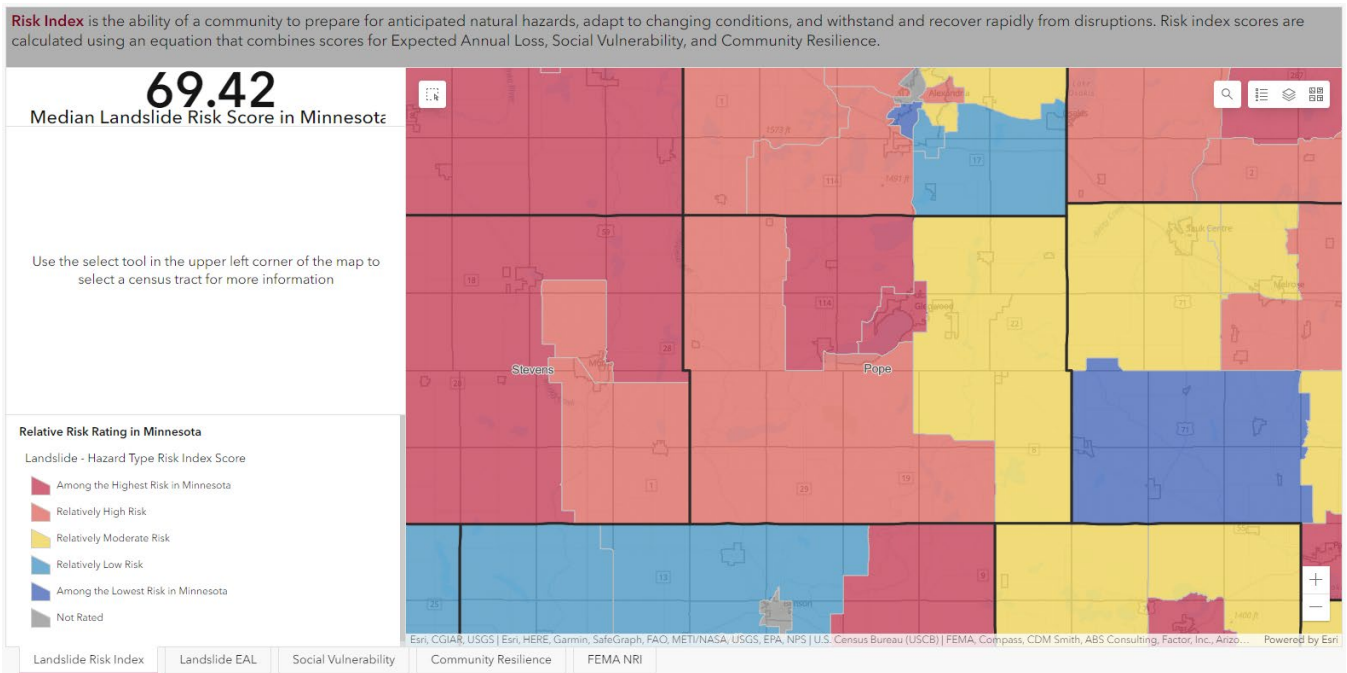
[See interactive information about landslides, including history, on the Pope County HMP website](#)

4.8.1 PROBABILITY OF OCCURRENCE

Researchers from eight colleges and universities across Minnesota examined the prevalence of landslides across the state and compiled an inventory of geological activity. This historical landslide inventory was published by USGS (DeLong, et al., 2022)

To determine the frequency of landslides in Pope 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 Pope County is relatively low; however, anecdotal evidence does indicate that there is a risk of landslides in bluff areas and areas of lakeshore development. 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 Pope County is low, landslides remain a concern to Pope County Emergency Management.

Figure 8. Risk of landslides in Pope County



4.8.2 VULNERABILITY

Given the lack of data on landslide incidents in Minnesota, the locations of Best Management Practices (BMPs) reported to the MN Board of Soil and Water Resources (BWSR) were used to identify areas in the State which may be more susceptible to landslides. BMPs are ways to manage land and activities to protect water quality and promote soil conservation, they can be a structure or part of a process. The BWSR identifies four BMPs which may be implemented to mitigate against erosion and slope failure issues that may result in landslides. Descriptions of these BMPs and the number of them installed in Pope County are in Table 7.

Table 7. Best Management Practices (BMP) affiliated with erosion, slope failure, and landslides

Practice Name	Code	Description	Count in County
Grade Stabilization Structure	410	A structure used to control the grade and head cutting in natural or artificial channels. Includes side-inlet controls for existing drainage ditches and/or streams.	8
Streambank and Shoreline Protection	580	Treatment(s) used to stabilize and protect banks of streams or constructed channels, and shorelines of lakes, reservoirs, or estuaries.	9
Stream Channel Stabilization	584	Measures used to stabilize the bed or bottom of a channel.	1
Water and Sediment Control Basin	638	An earth embankment, or combination ridge and channel, generally constructed across the slope and minor watercourses to form a sediment trap and water detention basin.	73

SOURCE: (MN BWSR, 2023)

Pope County contains a total of 109 best management practices, including five grade stabilization structures, 13 streambank & shoreline protections, and 91 water & sediment control basins. Three grade stabilization structures can be found immediately south of Lake Minnewaska (central Pope County), while the remaining two are located in northern Pope County along County Ditch 28. Streambank & shoreline protections are largely found in the eastern half of Pope County along major bodies of water. This includes Lake Minnewaska, Amelia Lake, Chippewa River (east branch), and in far western Pope County, Lake Emily. The 91 water & sediment control basins are distributed evenly throughout the central and north regions of the county, with south Pope County seeing an infrequent number of basins. These basins are located adjacent to bodies of water, namely Lake Minnewaska, Lake Emily, and Outlet Creek in central Pope County, and Little Chippewa River, Jorgenson Lake, and Diamond Lake in northern Pope County.

4.8.3 PROGRAM GAPS AND DEFICIENCIES

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

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 14 dams in Pope County.

4.9.1 PROBABILITY OF OCCURRENCE

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

4.9.2 VULNERABILITY

Although dam regulatory authorities differ between various federal and state agencies, all authorities attempt to classify dams according to the potential impacts from a dam failure or mis-operation. In response to the numerous classification systems, FEMA's Interagency Committee on Dam Safety created a downstream hazard potential classification system that is adaptable to any agency's current system. Table 8 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 8. Downstream hazard potential classification criteria

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

SOURCE: (USACE, 2008)

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

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

While there are no high hazard dams in Pope County, there is one significant hazard dam: the Chippewa River Dam is located Chippewa River E Branch. The nearest community downstream from the dam is Terrace, and it is a gravity dam built for recreational purposes. This dam is regulated by the DNR Ecological and Water Resources Division, and an EAP is not required. (USACE, 2023)

4.9.3 PROGRAM GAPS AND DEFICIENCIES

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

Section 5 – Mitigation Strategy

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

5.1 Community Capability Assessments

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

- Appendix D: Lists the plans and programs in place in Pope County as related to hazard mitigation.
- Appendix C: As part of the Pope 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 Pope 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 9 lists and describes jurisdictional participation in the National Flood Insurance Program (NFIP).

Table 9. NFIP participation in Pope County

FEMA Plan Requirements Plan Review Tool, Section C2	Description
Name of Community	POPE COUNTY
Participation in the NFIP	Participating – entry date 8/19/87
FEMA Map	FEMA-mapped high-risk areas
Current Effective Map Date	8/19/87
Total # of Buildings within Floodplain (including all townships and cities)	127
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: 12/21/93
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	12/21/93
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	Pope County enforces requirements of the NFIP through the county's current floodplain ordinance (Ordinance No.5) adopted 12/21/93 and published publicly 12/29/93. This ordinance establishes the flood plain district and zoning regulations and conditional uses permitted within the floodway, flood fringe, and general floodplain districts within the county. The Pope County Land and Resource Management Department is responsible for implementation and enforcement of the floodplain management ordinance for the county.
4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP	Floodplain Administrator: David Green, Director, Pope County Land & Resource Management
5. Description of how participant implements the substantial improvement / substantial damage provisions of their floodplain management regulations after an event.	Following a flood event, the county would work with the MN DNR to use a form to track cumulative improvements and repetitive losses in the floodplain. The county would also review the MN DNR Minnesota Post-Flood Substantial Damage Playbook for Local Officials.
Name of Community	CITY OF CYRUS
Participation in the NFIP	NOT Participating
FEMA Map	No FEMA-mapped high-risk areas
Name of Community	CITY OF FARWELL
Participation in the NFIP	NOT Participating

FEMA Plan Requirements Plan Review Tool, Section C2	Description
FEMA Map	No FEMA-mapped high-risk areas
Name of Community	CITY OF GLENWOOD
Participation in the NFIP	Participating – entry date 6/8/84
FEMA Map	No FEMA-mapped high-risk areas
Current Effective Map Date	(NSFHA) - No Special Flood Hazard Area is mapped; In counties with maps older than 2003, usually means earliest emergency maps were rescinded & determination made that anticipated development areas were low flood risk.
Total # of Buildings within Floodplain	1
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: N/A
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	N/A
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	N/A
4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP	N/A
5. Description of how participant implements the substantial improvement / substantial damage provisions of their floodplain management regulations after an event.	N/A
Name of Community	CITY OF LONG BEACH
Participation in the NFIP	Participating
FEMA Map	No FEMA-mapped high-risk areas
Current Effective Map Date	(NSFHA) - No Special Flood Hazard Area is mapped; In counties with maps older than 2003, usually means earliest emergency maps were rescinded & determination made that anticipated development areas were low flood risk.

FEMA Plan Requirements Plan Review Tool, Section C2	Description
Total # of Buildings within Floodplain	40
1. Adoption of NFIP minimum floodplain management criteria via local regulation	Adoption of current floodplain ordinance: N/A
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	N/A
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	N/A
4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP	N/A
5. Description of how participant implements the substantial improvement / substantial damage provisions of their floodplain management regulations after an event.	N/A
Name of Community	CITY OF LOWRY
Participation in the NFIP	NOT Participating
FEMA Map	No FEMA-mapped high-risk areas
Name of Community	CITY OF SEDAN
Participation in the NFIP	NOT Participating
FEMA Map	No FEMA-mapped high-risk areas
Name of Community	CITY OF STARBUCK
Participation in the NFIP	Participating – entry date 7/6/84
FEMA Map	No FEMA-mapped high-risk areas
Current Effective Map Date	(NSFHA) - No Special Flood Hazard Area is mapped; In counties with maps older than 2003, usually means earliest emergency maps were rescinded & determination made that anticipated development areas were low flood risk.
Total # of Buildings within Floodplain	5

FEMA Plan Requirements Plan Review Tool, Section C2	Description
1. Adoption of NFIP minimum floodplain management criteria via local regulation	N/A
2. Adoption of the latest effective Flood Insurance Rate Map (FIRM), if applicable	N/A
3. Implementation and enforcement of local floodplain management regulations to regulate and permit development in SFHAs	N/A
4. Appointment of a designee or agency to implement the addressed commitments and requirements of the NFIP	N/A
5. Description of how participant implements the substantial improvement / substantial damage provisions of their floodplain management regulations after an event.	N/A

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

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

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

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

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

- a) That has at least four NFIP claim payments (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000; or
- b) For which at least two separate claims payments (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building.

- c) For both (a) and (b) above, at least two of the referenced claims must have occurred within any 10-year period and must be greater than 10 days apart.

There are no RL or SRL properties in Pope County. For more on the areas that flood repeatedly in Pope County, see the [Pope County Flooding page](#).

5.1.2 PLANS AND ORDINANCES

Pope 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

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

All Hazards

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

CodeRED Emergency Notification System and IPAWS: Pope 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 Pope County Emergency Management website page. Pope County also has IPAWS (Integrated Public Alert Warning System) which allows for both targeted and county-wide emergency notifications to both residents and visitors (not an “opt-in” service).

Relationship with National Weather Service: Pope County has a strong relationship with the Twin Cities/Chanhassen National Weather Service (NWS) Forecast Office, having access to all live and on-demand briefings, announcements, and educational opportunities, and contact information for direct collaboration as needed. The county also receives all products/statements issued by the NWS, and in turn shares or incorporates these into its community outreach and public education. Pope Soil and Water Conservation District office also has a weather station located on site and captures precipitation information for the NWS.

Preparedness Outreach & Public Education: Pope County utilizes the Pope County Emergency Management website page, the Pope County Sheriff’s Office Facebook page, and local news media

to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather, and other hazard conditions throughout the year.

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

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

Backup Power: Pope County works to ensure the continuity of operations of county government services and critical infrastructure in the event of an extended power outage. Generator back-up power is in place for offices within the Pope County Courthouse, include the Sheriff's Office, EOC, Jail and Information Technology.

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

Regional Collaboration: Pope County Emergency Management works closely with the MN HSEM Region 4 regional program coordinator and county emergency managers on a range of planning, training, and exercises to support all-hazards preparedness, mitigation, response, and recovery capabilities.

Severe Winter Storms

Winter Weather Statements (Watch, Advisory, Warning, etc.): Pope County works to relay winter weather statements received from the NWS via the Pope County Emergency Management Facebook page and by CodeRED emergency notifications as necessary to help alert residents and visitors to hazardous conditions.

Winter Hazard Awareness Week: Pope County participates in the Winter Hazard Awareness Week campaign sponsored by MN HSEM and the NWS each November. The week-long effort provides specific information each day covering the topics of winter weather, outdoor winter

safety, indoor winter safety, and winter driving safety. Pope County Emergency Management promotes and shares information during the week via social media which communities, schools, churches or other civic programs are encouraged to share locally.

Snow Removal & Ice Control: The Pope County Highway Department is responsible for the removal of snow and ice control on 240 miles of bituminous roads and 130 miles of gravel roads. The county also assists with some city and township roads based upon agreement. The department completes its snow removal process in accordance with established best practices. MNDOT removes snow from State Highways as well as disperses salt/sand as needed.

Severe Summer Storms

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

Outdoor Warning Sirens: There are 9 outdoor warning sirens within the county, located in the following cities: Glenwood (3), Long Beach (1), Starbuck (1), Cyrus (1), Lowry (1), Villard (1), and Farwell (1). The Pope County Sheriff's Office works in conjunction with communities where sirens are located to test them and ensure they are functioning properly. The warning sirens located in Glenwood, Long Beach, and Farwell can be remotely activate by Dispatch. The remaining sirens are manually operated.

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

Severe Weather Awareness Week: Pope County participates in the Severe Weather Awareness Week campaign sponsored by MN HSEM and the NWS each April. The week-long effort provides specific information each day covering the topics of severe weather alerts and warnings, lightning, hail, floods, tornadoes (with statewide drills), and extreme heat. Each topic covered includes factsheets, checklists, data, and other resources. Pope County Emergency Management promotes and shares information during the week via social media which communities, schools, churches or other civic programs are encouraged to share locally.

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

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

Extreme Cold

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

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

Extreme Cold Emergency Sheltering: In the event of an extended power outage coupled with a period of extreme cold, Pope County Emergency Management works with local Fire or EMS locations as needed to assist vulnerable residents such as the elderly who may need temporary sheltering.

Extreme Heat

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

Public Education and Awareness: Pope County Emergency Management and Horizon 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.

Extreme Heat Emergency Sheltering: In the event of an extended power outage coupled with a period of extreme heat, Pope County Emergency Management works with local Fire or EMS locations as needed to assist vulnerable residents such as the elderly who may need temporary sheltering.

Drought

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

Pope Soil and Water Conservation District: The Pope SWCD helps to connect agricultural landowners and local jurisdictions in Pope County to educational and other technical resources for issues associated with managing drought. Pope SWCD also monitors 19 observation wells located throughout the county for the Department of Natural Resources (DNR). The DNR monitors additional wells or has automated measurement equipment installed at additional sites throughout Pope County.

Precipitation Monitoring: Pope Soil and Water Conservation District office has a weather station located on site at the Twin Cities/Chanhassen NWS Forecast Office and captures precipitation information for the NWS. The Pope SWCD also has a weather station located at the Rosholt Research Farm and this precipitation information is included in the NDAWN network.

Well Monitoring: The DNR Cooperative Groundwater Monitoring Program obwell network collects static groundwater-level data to assess groundwater resources, determine long term trends, interpret impacts of pumping and climate, plan for water conservation, and evaluate water conflicts. There are 25 wells monitored in the Pope SWCD's Observation Well Monitoring Program for the MN DNR. Some of them are nested together but there are separate measurements for each.

Landslides

Pope Soil and Water Conservation District: The Pope SWCD provides access to natural resource management and conservation services and provides technical, financial, and educational assistance to landowners to address natural resource concerns. The Pope SWCD applies for Federal and State grant dollars every year to address erosion and water quality issues throughout the county. This money is used to provide cost-share to landowners with erosion problems that otherwise would not be addressed due to the high cost of the projects.

Shoreland and Bluff Setback Regulations: In shoreland zoning districts, structure setbacks and shoreland alteration regulations in the Land Use Ordinance mitigate against landslides. Setbacks from Ordinary High Water Levels and bluffs apply to any structures in a shoreland zone, and shoreland alteration rules limit excavation, fill and vegetation removal in shore impact zones, bluff impact zones and on steep slopes. The performance standards (setback provisions) in the shoreland district that relate to de-vegetation and development near a bluff or steep slope are an effort to minimize impacts of such activities which can result in slope destabilization and sluffing off.

Sauk River Watershed Permit Program: The Sauk River Watershed District implements a permitting program that requires a permit for work within 500 feet of a waterbody or wetland and disturbs more than 200 square feet during development. This aids in minimizing destabilization during construction, should a storm event occur while soils are exposed.

Flooding

National Flood Insurance Program (NFIP): Pope County has FEMA-mapped high-risk areas and participates in the NFIP. Initial entry date into the program was 08/19/1987.

Floodplain Administrator: The Pope County Land and Resource Management Department Director is the county's designated Floodplain Administrator, who is responsible to implement the requirements of the NFIP.

Floodplain Ordinance: The FEMA designated floodplain is managed under the Pope County Flood Plain Ordinance No.5. The ordinance establishes the flood plain district and provides standards for development within the flood plain district. The Pope County Land and Resource Management Department is responsible for implementation and enforcement of the floodplain management ordinance for the county.

Floodplain Mapping: Pope County's current effective FEMA flood map date is 08/19/1987. In May, 2020 FEMA released preliminary digital flood insurance rate (DFIRM) maps for Pope County. The county's Land and Resource Management Department is the repository for the floodplain maps for the county. Land and Resource Management assists county residents in determining whether their property is affected by an officially mapped flood area.

Shoreland Regulations: Pope County's Land Use Controls Ordinance, Section 4, Shoreland Districts establishes regulations for land use near shorelands including stormwater management. Pope County assists the Minnesota Department of Natural Resources (DNR) with administering the Shoreland Management Act. This Act regulates land use development within 1,000 feet of a lake and 500 feet of a river and its designated floodplain. Pope County has an adopted higher standard as it relates to setback from the Ordinary High Water Levels of a river.

Subdivision Ordinance: Section 10.25 of the Pope County Land Use Controls Ordinance establishes application, review and approval standards for all subdivisions of land. Any review and approval will take into account hazards such as may be posed by flood risk. Depending upon the type of subdivision, approval may be granted by either the Pope County Land & Resource Management Director or the Board of County Commissioners. Pope County Land Use Controls Ordinance has stormwater management standards for new residential and planned agricultural developments.

5-Year Transportation Plan: The Pope County Highway Department is responsible for the planning, design, construction, and inspection all roads, bridges, and trails throughout the county. The Highway Department maintains a 5-year plan outlining proposed transportation projects. The plan identifies and schedules road and bridge improvement projects that include measures for flood mitigation.

Pope County Comprehensive Local Water Management Plan: The Pope County Water Plan (2013-2023) addresses water problems in the context of watershed units and groundwater systems. The plan identifies a plan of action to implement measures for priority watershed issues,

including wetland storage, stormwater and flood retention projects, updating culvert inventories, drainage ditch system improvements, and raising public awareness.

Minnesota Buffer Law: Pope County has adopted the requirements of the Minnesota Buffer Law. The purpose and intent of the law is to protect state water resources from erosion and runoff pollution; to stabilize soils, shores and banks; and to protect or provide riparian corridors. Pope SWCD has completed a county wide desktop analysis to determine compliance and is working with landowners to ensure implementation. Pope County Land & Resource Management is designated as the enforcement agency.

One Watershed, One Plan (1W1P) – Pope County has participated in regional watershed-based planning efforts including North Fork Crow River 1W1P and the Sauk River 1W1P. Pope County is currently participating in the Chippewa River 1W1P planning effort. The planning area for the Chippewa River 1W1P includes portions of Otter Tail, Grant, Douglas, Stevens, Pope, Swift, Chippewa, and Kandiyohi counties. County and SWCD Boards in each of these counties have entered into a Joint Powers Agreement for the purpose of developing a watershed plan and to restore and protect the water and soil resources in the Chippewa River Watershed planning area. The Pope SWCD staff are acting on behalf of the partnership to coordinate this effort and to manage the fiscal duties. The conclusion of this planning effort will provide state funding for mitigation strategies and conservation projects that are considered a priority for improving and protecting our resources as identified and agreed upon by the CRWA members. The plan includes considerations for flood risk areas within the regional watershed planning area. 1W1P is the process used to develop a Comprehensive Watershed Management Plan (CWMP). Once the 1W1P process is complete, the result is a CWMP.

Public Drainage Systems: Public drainage systems (those established under MS 103E) have been designed to handle 2-to-5-year 24-hour runoff events. With more recent climate changes, larger events are happening more frequently and have the potential for floods to occur that will cause significant crop failures. The Sauk River Drainage Authority continues to maintain the systems under their authority in Pope County, to provide the drainage they are designed to accomplish, and investigate potential improvements that will provide more adequate drainage without causing additional damages elsewhere.

Dam Failure

No noted plans or programs in place.

5.2 Mitigation Goals

The goals and strategies for natural hazards in the 2019 Minnesota State Hazard Mitigation Plan were adopted for use in the Pope County Plan. This framework, as outlined below, will allow for integration of the mitigation actions that are listed by Pope 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 10.

Table 10. 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

Mitigation Strategy	Description	Example Mitigation Actions
		<ul style="list-style-type: none"> • Shoreline codes • Stormwater management regulations and master plans
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p> <p>Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.</p>	<ul style="list-style-type: none"> • Acquisitions and elevations of structures in flood prone areas • Utility undergrounding • Structural retrofits • Floodwalls and retaining walls • Detention and retention structures • Culverts • Safe rooms
Natural Systems Protection	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 Pope 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 Pope 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 Pope 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 Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, Villard, and Westport.

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 10 for a description of each mitigation strategy and related types of actions.

Mitigation Action

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

Status

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

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

Mitigation actions that have been completed or deleted from the 2016 Pope 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 11 provides criteria that were taken into consideration in the process.

Table 11. 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 Pope County Mitigation Action Chart is provided in Table 12. Appendix H provides the mitigation action charts developed for each city participating in the HMP update.

Table 12. Pope County Mitigation Action Chart (2023–2027)

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

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
5	All-Hazards	Mitigation Preparedness & Response Support	VULNERABLE POPULATIONS Work in partnership with key partners on efforts to reduce risk to and benefit underserved communities or socially vulnerable populations within the county from the impacts of future natural hazard events.	Existing High Ongoing	PCEM, Horizon Public Health	PCEM and Horizon Public Health continue to work with local governments, school districts, hospitals, mobile home park (MHP) operators, long-term care and childcare facilities, MN Dept. of Health, American Red Cross, and the Salvation Army on emergency preparedness efforts that benefit those considered to be more vulnerable in the county from severe weather or extreme temperature events. This includes the elderly, disabled, students, and low-income residents. Example efforts include provision of energy assistance programs during periods of extreme cold, evacuation & shelter planning for long-term care facilities and MHP's, and delivery of education and awareness information in different formats. PCEM and PC GIS maintain data on location of vulnerable facilities which is incorporated in EM planning.	Pope County, other agencies & organizations
6	All-Hazards	Education & Awareness Programs	OUTREACH & EDUCATION Inform and educate residents through outreach and education programs to increase awareness and preparedness for severe weather events, periods of extreme heat or cold, and extended power outages.	Existing High Ongoing	PCEM	Pope County utilizes the Pope County Emergency Management website page, the Pope County Sheriff's Office Facebook page, and local news media to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather, and other hazard conditions throughout the year. Pope County also participates in the NWS annual Winter Hazard Awareness Week and Severe Weather Awareness Week each November and April.	Pope County
7	Severe Winter Storms	Local Planning & Regulations	SNOW & ICE CONTROL Implement snow removal and ice control to ensure the safety of county roads impacted by winter storms.	Existing High Ongoing	Pope County Hwy. Dept.	The PC Highway Department is responsible for the removal of snow and ice control on 240 miles of bituminous roads and 130 miles of gravel roads. The county also assists with some city and township roads based upon agreement. The department completes its snow removal process in accordance with established best practices.	Pope County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
8	Severe Summer Storms	Education & Awareness Programs	SKYWARN TRAINING Work with the National Weather Service (NWS) to provide SkyWarn training and develop a network of trained Storm Spotters throughout the county.	Existing High Ongoing	PCEM in coord with NWS	PCEM works with the NWS to offer this training on an annual basis to local fire and law enforcement departments and local residents that wish to be trained as spotters.	National Weather Service
9	Severe Summer Storms	Mitigation Preparedness & Response Support	OUTDOOR WARNING SIRENS Ensure outdoor warning sirens are located where needed and functioning properly.	Existing High Ongoing	PCEM in coord with local jurisdictions	Pope County Emergency Management and Pope County Sheriff's Office work in conjunction with communities where sirens are located to test them and ensure they are functioning properly. PCEM will work with communities to close any gaps in warning siren coverage. Grant funding may be available for warning sirens from the USDA Rural Development Community Facilities Grant Program.	Pope County & local jurisdictions
10	Severe Summer Storms	Structure & Infrastructure Projects	STORM SHELTERS / TORNADO SAFE ROOMS Coordinate with local jurisdictions to address the need for the construction of storm shelters or tornado safe rooms in areas where residents or visitors are vulnerable to high wind events, such as mobile home parks and campgrounds.	Existing High Ongoing	PCEM in coord with local jurisdictions	PCEM will assist any communities in their effort to assess and address the need for construction of a storm shelter or tornado safe room. Grant funding may be available for tornado safe rooms from FEMA Hazard Mitigation Assistance (HMA) grant program funding, based on application approval.	Pope County, Local Gov't, FEMA HMA
11	Severe Summer Storms	Local Planning & Regulations	MHP SAFTEY Ensure that licensed manufactured home parks (MHP's) within the county meet the requirements of MN Statute 327.20 for shelters and evacuation plans.	Existing High Ongoing	Horizon Public Health	Horizon Public Health works in coordination with the Minnesota Department of Health (MDH) on this effort. Shelter and evacuation plans must be approved by the city or township in which they are located and submitted to the MDH. Horizon Public Health serves the counties of Douglas, Grant, Pope, Stevens and Traverse Counties.	Pope County, MDH
12	Severe Winter & Summer Storms	Structure & Infrastructure Projects	POWERLINE RETROFITS Encourage municipal and rural electric coops to address burying powerlines or strengthening power poles to avoid power outages from high wind events and storms.	Existing High Ongoing	PCEM, local jurisdictions in coord with electric utility providers	PCEM works with our utility coops and local governments on these efforts as needed. FEMA HMA grant funding may be a source for powerline infrastructure retrofits that eligible rural and municipal electric coops can apply for.	Electric Coops, FEMA HMA

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
13	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	<p>GENERATOR BACKUPS Work with county departments and local jurisdictions to obtain generator backup power where needed for extended power outages due to storms.</p>	Existing Moderate Ongoing	PCEM in coord with county depts and local jurisdictions	PCEM continues to work with county departments and local jurisdictions to secure portable or permanent backup generators to power critical facilities during extended power outages. Most of the outdoor warning sirens in the county have no battery backup. PCEM will with local jurisdictions that own sirens to address this need for generator backup power. County and local government funding to purchase generators is limited and obtaining generators can be a slow process. Where applicable, FEMA HMA grant funding may be applied for generators.	Pope County, Local Gov't, FEMA HMA
14	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	<p>SEVERE WEATHER PLANS Encourage schools and other facilities that house senior citizens or other vulnerable populations to have emergency plans in place to deal with severe weather, extreme temperatures, and extended power outages.</p>	Existing Moderate Ongoing	PCEM in coord with local jurisdictions	PCEM continues to work with local jurisdictions provide outreach to and support to schools and other facilities on emergency planning. Schools and long-term care (LTC) facilities are required to have such plans in place. PCEM provides direct training or planning assistance as requested.	Pope County, Schools, LTC Facilities
15	Severe Winter & Summer Storms	Local Planning & Regulations	<p>BUILDING SAFETY Ensure that new development projects follow state building codes in order to withstand the impacts of severe weather events, including roof collapse from heavy snow or damages from high wind events.</p>	Existing Moderate Ongoing	PC Land & Resource Mgmt.	Pope County is not a "Code County" meaning that we have not adopted the State Building Code. Therefore, we do not enforce the Code. Meaning that we do not go onsite and inspect for compliance. However, we do enforce that contractors must be licensed and that a licensed contractor is obligated to build in conformance with the Code. Regardless of not being a "Code County" we are obligated to enforce bleacher safety and accessibility standards.	Pope County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
16	Severe Winter & Summer Storms	Natural Systems Protection	VEGETATION MANAGEMENT Manage trees and other vegetation along roads from severe storm events to reduce risk to passing motorists.	Existing Moderate Ongoing	PC Highway Dept., Local Utility Providers	The Pope County Highway Department regularly conducts vegetation management along county roads to reduce the risk of downed trees or branches resulting from severe spring and summer storm events. Local utility providers also work to manage vegetation near power lines to reduce the risk of downed lines and power outages.	County, Utilities
17	Severe Winter & Summer Storms	Mitigation Preparedness & Response Support	WEATHER RADAR GAPS Work with the National Weather Service to address gaps in radar coverage for Pope County.	Existing High 2024- 2029	PCEM in coord with NWS	Pope County is 1 of the 72 counties in the state that have some level of weather radar gap. PCEM is a member of the Association of Minnesota Emergency Managers (AMEM), which has a group working with the NWS to address closing the gaps in radar cover for all parts of the state. PCEM will continue to participate in these efforts.	NWS
18	Extreme Heat / Cold Temps	Education & Awareness Programs	EXTREME TEMPERATURES PUBLIC OUTREACH Conduct public outreach and provide information to residents on safety measures when there are periods of extreme heat or extreme cold.	Existing High Ongoing	PCEM	PCEM works to share information received from the National Weather Service when periods of extreme heat or cold are forecast and occurring. PCEM utilizes the county EM website page, and EM Facebook. Local radio and TV stations also provide this information to the public. School Districts have plans and policies in place for delaying or closing school to protect students from extreme temps.	Pope County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
19	Landslides	Natural Systems Protection	SHORELAND AND BLUFF SETBACK REQUIREMENTS Enforce Shoreland and Bluff setbacks requirements are enforced to reduce risk where flooding or erosion could occur and increase risk for landslides.	New Moderate Ongoing	PC Land & Resource Mgmt. in coord with Sauk River Watershed District	In shoreland zoning districts, structure setbacks and shoreland alteration regulations in the Land Use Ordinance mitigate against landslides. Setbacks from Ordinary High-Water Levels and bluffs apply to any structures in a shoreland zone, and shoreland alteration rules limit excavation, fill and vegetation removal in shore impact zones, bluff impact zones and on steep slopes. The performance standards (setback provisions) in the shoreland district that relate to de-vegetation and development near a bluff or steep slope are an effort to minimize impacts of such activities which can result in slope destabilization and sluffing off. In addition, the Sauk River Watershed District implements a permitting program that requires a permit for work within 500-feet of a waterbody or wetland and disturbs more than 200 square feet during development. This aids in minimizing destabilization during construction, should a storm event occur while soils are exposed. Pope County has adopted the requirements of the Minnesota Buffer Law. The purpose and intent of the law is to protect state water resources from erosion and runoff pollution; to stabilize soils, shores and banks; and to protect or provide riparian corridors. Pope SWCD has completed a county wide desktop analysis to determine compliance and is working with landowners to ensure implementation. Pope County Land & Resource Management is designated as the enforcement agency.	Pope County, Sauk River Watershed District
20	Landslides	Local Planning & Regulations	MN STATE BUFFER LAW Enforce requirements of the MN State Buffer Law to help reduce impacts of erosion in areas that may be susceptible to landslides.	Existing Moderate Ongoing	PC Land & Resource Mgmt. in coord with Pope SWCD		Pope County, Pope SWCD

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
21	Flooding	Local Planning & Regulations	NATIONAL FLOOD INSURANCE PROGRAM Participate in the National Flood Insurance Program and enforce policies that address development in high-risk flood areas.	Existing High Ongoing	PC Land & Resource Mgmt.	Pope County participates in the NFIP and enforces requirements of the program. The FEMA designated floodplain is managed under the Pope County Flood Plain Ordinance No.5. The ordinance establishes the flood plain district and provides standards for development within the flood plain district. The PC Land and Resource Management Department is responsible for implementation and enforcement of the floodplain management ordinance for the county. The Pope County Water Plan (2013-2023) addresses water problems in the context of watershed units and groundwater systems. The plan identifies a plan of action to implement measures for priority watershed issues, including wetland storage, stormwater and flood retention projects, updating culvert inventories, drainage ditch system improvements, and raising public awareness.	Pope County
22	Flooding	Local Planning & Regulations / Structure & Infrastructure Projects	LOCALIZED FLOOD RISK REDUCTION Plan for and implement measures to address localized flood reduction projects for roads, bridges, and culverts throughout the county.	Existing High Ongoing	PC Hwy. Dept. in coord with Pope SWCD and Watershed Orgs.	The PC Highway Department is responsible for the planning, design, construction, and inspection all roads, bridges, and trails throughout the county. The Highway Department maintains a 5-year plan outlining proposed transportation projects. The plan identifies and schedules road and bridge improvement projects that include measures for flood mitigation.	Pope County

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
23	Flooding	Local Planning & Regulations	WATERSHED PLANNING Work with area watershed organizations to address mitigation plans and projects that address risk reduction for localized flooding and erosion.	Existing High Ongoing	PCEM in coord with Watershed Districts, Pope SWCD	Pope County has participated in regional watershed-based planning efforts including North Fork Crow River 1W1P and the Sauk River 1W1P. Pope County is currently participating in the Chippewa River 1W1P planning effort. The planning area for the Chippewa River 1W1P includes portions of Otter Tail, Grant, Douglas, Stevens, Pope, Swift, Chippewa, and Kandiyohi counties. County and SWCD Boards in each of these counties have entered into a Joint Powers Agreement for the purpose of developing a watershed plan and to restore and protect the water and soil resources in the Chippewa River Watershed planning area.	Pope County, Watershed Orgs., Pope SWCD
24	Flooding	Local Planning & Regulations	PROPERTY BUYOUTS Conduct property buyouts to acquire homes affected by repetitive flooding and physically relocate or remove those homes to eliminate future flood damages.	Existing Moderate Ongoing	PCEM	There are currently no potential property buyout projects identified by Pope County. The county will continue to evaluate and assist with potential future property acquisition projects and application to FEMA or MN DNR for grant funding to conduct buyouts. This is an ongoing effort of PC Land & Resource Mgmt. in coordination with the Pope SWCD and watershed districts (Sauk River WD, North Fork Crow River WD, and Chippewa River WD) as projects are identified in the 1W1P regional plans. Pope County notes there is a need for runoff storage projects as well as channel restoration techniques to reduce the impacts of flooding. These efforts are under investigation by the Sauk River Drainage Authority. FEMA HMA grant funding may be sought for future eligible projects in the future. Pope County Land and Resource Management may review such plans but will not be involved with implementation of such projects.	Pope County, FEMA HMA
25	Flooding	Natural Systems Protection	RUNOFF STORAGE AND RESTORATION PROJECTS Conduct floodplain and stream corridor restoration in areas that are impacted by high rain events.	Existing Moderate Ongoing	PC Land & Resource Mgmt. in coord with Pope SWCD and other watershed groups		Pope County, Watershed Districts, FEMA HMA

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
26	Drought	Education & Awareness Programs	DROUGHT OUTREACH & EDUCATION Provide outreach and education to residents to be aware of watering restrictions, water conservation tips, and fire safety during periods of severe drought.	Existing High Ongoing	PCEM	PCEM continues to provide public outreach and education during heightened drought periods using the county website and social media platforms. PCEM encourages city and townships to promote drought awareness to residents at the local level.	Pope County
27	Drought	Local Planning & Regulations	WATERING RESTRICTIONS Implement watering restrictions during periods of drought as per MN DNR guidance.	Existing High Ongoing	PCEM in coord with MN DNR and local jurisdictions	Pope County and local jurisdictions will establish and enforce watering restrictions as per MN DNR guidelines during periods of severe drought. The Pope SWCD office has a weather station located on site at the Twin Cities/Chanhassen NWS Forecast Office and captures precipitation information for the NWS. The Pope SWCD also has a weather station located at the Rosholt Research Farm and this precipitation information is included in the North Dakota Agricultural Weather Network (NDAWN). The MN DNR maintains information on its website of drought levels from the U.S. Drought Monitor. The DNR Cooperative Groundwater Monitoring Program obwell network collects static groundwater-level data to assess groundwater resources, determine long term trends, interpret impacts of pumping and climate, plan for water conservation, and evaluate water conflicts. There are 25 wells monitored in the Pope SWCD's Observation Well Monitoring Program for the MN DNR. Some of them are nested together but there are separate measurements for each.	Pope County, Local Gov'ts
28	Drought	Local Planning & Regulations	DROUGHT MONITORING Monitor precipitation and wells for drought conditions that may pose risk to county water levels and use for agricultural industry.	Existing High Ongoing	Pope SWCD, NDAWN, and MN DNR		SWCD, MN DNR, NDAWN
29	Dam/Levee Failure	Structure & Infrastructure Projects	DAM & LEVEE SAFETY Work with the MN DNR Dam Safety program to address any dams or levees that require repair.	Existing Low Ongoing	MN DNR	Pope County continues to be available to work with the MN DNR on any issues that may arise with these structures within the county. There are no high hazard potential dams within the county.	MN DNR

Section 6 – Plan Maintenance

6.1 Monitoring, Evaluation, and Updating the Plan

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

The Pope 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 Pope County EMD will work with an emergency managers group to help monitor, review, evaluate, and update the HMP. The group will include township representatives and designated city emergency managers from the cities of Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, Villard, and Westport, and include other city elected officials or staff as needed. Representatives from agencies or organizations that are involved with related mitigation work in the county as well as those that work with underserved communities or socially vulnerable populations will also be invited to participate in the group. The Pope 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 Pope 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 Pope 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 Pope County. In addition, state and federal policies will be reviewed to ensure they are addressing current and expected conditions. The group will also review the risk assessment portion of the plan to determine if this information should be updated or modified. The parties responsible for the various implementation actions will report on the status of their projects, and will include which implementation processes worked well, any difficulties encountered, how coordination efforts are proceeding, and which strategies should be revised.

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

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

6.2 Implementation

Pope County and its included municipalities share a common HMP and work together closely to develop, revise, and implement it. This HMP provides a comprehensive chart of mitigation actions for Pope County and its jurisdictions (see Appendix H and Section 5.3). The cities of Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, Villard, and Westport 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 Pope County looks for opportunities for plan implementation. The following tools will be considered:

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

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

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

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

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

Regulation: Regulation is an important mitigation tool for Pope 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 Pope 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.

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

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

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

APPENDICES

Appendix A – References

Appendix B – Adopting Resolutions

Appendix C – Local Mitigation Survey Report

Appendix E – Past Mitigation Action Review Status Report

Appendix F – Planning Team Meetings

Appendix G – Public Outreach & Engagement Documentation

Appendix H – Mitigation Actions by Jurisdiction

Appendix A – References

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Appendix B – Adopting Resolutions

Appendix C – Local Mitigation Survey Report



Pope County Local Mitigation Survey Report

Overview

As part of Pope County's 2023 Hazard Mitigation Plan update, participating jurisdictions and county personnel were asked to fill out a Local Mitigation Survey (LMS) form. The purpose of the survey was to gather jurisdictionally-specific information needed to support update of the plan and to help inform development of local-level mitigation actions for the next five-year planning cycle.

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

LMS Forms

Pope County	Yes
City of Cyrus	Yes
City of Farwell	Yes
City of Glenwood	Yes
City of Long Beach	Yes
City of Lowry	Yes
City of Sedan	Yes
City of Starbuck	Yes
City of Villard	Yes
City of Westport	Yes

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

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: POPE COUNTY

Point of Contact:

Name: Kim Joos
Job Title: Pope County Deputy Emergency Management Director
Phone: 320-634-7798
Email: kim.joos@co.pope.mn.us

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

In May of 2022 Pope County experienced storms on May 12 and May 30 which caused significant damage to trees, powerlines, roads, culverts etc.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Flooding	One of our city's lift stations is prone to flooding during high rain events. Spring overland flooding and road wash outs from fast snow melt and heavy rains.
Ice Storms, Blizzards	Much of the county's electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.
Windstorms and Tornadoes	We are very busy in the summer months because of high recreation and vacationers which makes Pope County's storm shelters inadequate for the influx of people. Most of our sirens in the county have no battery backup which leaves our residents vulnerable to no warning if there is a loss of power
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. In extreme temperatures we have had LP customers experience lack of pressure and lost heating due to frozen regulators and loss of pressure in the LP tank. The county has experienced damages to roads from spring frost heaves, frozen culverts that cause localized flooding.
Drought	Due to drought in recent years have caused local aquifers to reach record lows imposing water restrictions county-wide. This puts major stress on our agricultural community.

REDUCTION IN VULNERABILITY

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

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

INCREASE IN VULNERABILITY

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

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

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

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

Pope County utilizes CodeRed Emergency Notification System, the Pope County Sheriff's Office website, the Pope County Sheriff's Office Facebook page, and local news media to communicate with residents, visitors, schools, and long-term care facilities on emergency preparedness, severe weather, and other hazard conditions throughout the year.

EMERGENCY NOTIFICATION SYSTEM

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

Pope 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 Pope County Emergency Management website page. Pope County also has IPAWS (Integrated Public Alert Warning System) which allows for both targeted and county-wide emergency notifications to both residents and visitors (not an "opt-in" service).

LOCAL PLANS & AUTHORITIES

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

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

Snow Removal & Ice Control: The Pope County Highway Department is responsible for the removal of snow and ice control on 240 miles of bituminous roads and 130 miles of gravel roads. The county also assists with some city and township roads based upon agreement. The department completes its snow removal process in accordance with established best practices. MNDOT removes snow from State Highways as well as disperses salt/sand as needed.

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

Building Code Enforcement: Pope County Land and Resource Management enforces the MN State Building Code.

National Flood Insurance Program (NFIP): Pope County has FEMA Mapped High Risk Areas and participates in the NFIP. Initial entry date into the program was 08/19/1987.

Floodplain Ordinance: The FEMA designated floodplain is managed under the Pope County Flood Plain Ordinance No.5. The ordinance establishes the flood plain district and provides standards for development within the flood plain district. The Pope County Land and Resource Management Department is responsible for implementation and enforcement of the floodplain management ordinance for the county.

Shoreland and Bluff Setback Regulations: In shoreland zoning districts, structure setbacks and shoreland alteration regulations in the Land Use Ordinance mitigate against landslides. Setbacks from Ordinary High Water Levels and bluffs apply to any structures in a shoreland zone, and shoreland alteration rules limit excavation, fill and vegetation removal in shore impact zones, bluff impact zones and on steep slopes. The performance standards (setback provisions) in the shoreland district that relate to de-vegetation and development near a bluff or steep slope are an effort to minimize impacts of such activities which can result in slope destabilization and sluffing off.

Sauk River Watershed Permit Program: The Sauk River Watershed District implements a permitting program that requires a permit for work within 500 feet of a waterbody or wetland and disturbs more than 200 square feet during development. This aids in minimizing destabilization during construction, should a storm event occur while soils are exposed.

Shoreland Regulations: Pope County's Land Use Controls Ordinance, Section 4, Shoreland Districts establishes regulations for land use near shorelands including stormwater management. Pope County assists the Minnesota Department of Natural Resources (DNR) with administering the Shoreland Management Act. This Act regulates land use development within 1,000 feet of a lake and 500 feet of a river and its designated floodplain. Pope County has an adopted higher standard as it relates to setback from the Ordinary High Water Levels of a river.

Subdivision Ordinance: Section 10.25 of the Pope County Land Use Controls Ordinance establishes application, review and approval standards for all subdivisions of land. Any review and approval will take into account hazards such as may be posed by flood risk. Depending upon the type of subdivision, approval may be granted by either the Pope County Land & Resource Management Director or the Board of County Commissioners. Pope County Land Use Controls Ordinance has stormwater management standards for new residential and planned agricultural developments.

5-Year Transportation Plan: The Pope County Highway Department is responsible for the planning, design, construction, and inspection all roads, bridges, and trails throughout the county. The Highway Department maintains a 5-year plan outlining proposed transportation projects. The plan identifies and schedules road and bridge improvement projects that include measures for flood mitigation.

Pope County Comprehensive Local Water Management Plan: The Pope County Water Plan (2013-2023) addresses water problems in the context of watershed units and groundwater systems. The plan identifies a plan of action to implement measures for priority watershed issues, including wetland storage, stormwater and flood retention projects, updating culvert inventories, drainage ditch system improvements, and raising public awareness.

Minnesota Buffer Law: Pope County has adopted the requirements of the Minnesota Buffer Law. The purpose and intent of the law is to protect state water resources from erosion and runoff pollution; to stabilize soils, shores and banks; and to protect or provide riparian corridors. Pope SWCD has completed a county wide desktop analysis to determine compliance and is working with landowners to ensure implementation. Pope County Land & Resource Management is designated as the enforcement agency.

One Watershed, One Plan (1W1P) – Pope County has participated in regional watershed-based planning efforts including North Fork Crow River 1W1P and the Sauk River 1W1P. Pope County is currently participating in the Chippewa River 1W1P planning effort. The planning area for the Chippewa River 1W1P includes portions of Otter Tail, Grant, Douglas, Stevens, Pope, Swift, Chippewa, and Kandiyohi counties. County and SWCD Boards in each of these counties have entered into a Joint Powers Agreement for the purpose of developing a watershed plan and to restore and protect the water and soil resources in the Chippewa River Watershed planning area.

STAFF & PARTNERSHIPS

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

Pope County staff partner together to help accomplish mitigation goals, these staff include the Sheriff/Emergency Management Director and EM Deputy Director, Sheriff's Office administrative staff,

Pope County Highway Department, Horizon Public Health, Pope County Land & Resource Management, Pope County SWCD, and Pope County Information Technology.

Pope County has a strong relationship with the Twin Cities/Chanhassen National Weather Service (NWS) Forecast Office, having access to all live and on-demand briefings, announcements, and educational opportunities, and contact information for direct collaboration as needed. The county also receives all products/statements issued by the NWS, and in turn shares or incorporates these into its community outreach and public education. Pope Soil and Water Conservation District office also has a weather station located on site and captures precipitation information for the NWS.

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

Pope County Emergency Management works closely with the MN HSEM Region 4 regional program coordinator and county emergency managers on a range of planning, training, and exercises to support all-hazards preparedness, mitigation, response, and recovery capabilities.

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

The Sauk River Drainage Authority continues to maintain the drainage systems under their authority in Pope County, to provide the drainage they are designed to accomplish, and investigate potential improvements that will provide more adequate drainage without causing additional damages elsewhere.

PROGRAMS IN PLACE

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

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

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

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

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

Pope Soil and Water Conservation District: The Pope SWCD helps to connect agricultural landowners and local jurisdictions in Pope County to educational and other technical resources for issues associated with managing drought. Pope SWCD also monitors 19 observation wells located throughout the county for the Department of Natural Resources (DNR). The DNR monitors additional wells or has automated measurement equipment installed at additional sites throughout Pope County.

Precipitation Monitoring: Pope Soil and Water Conservation District office has a weather station located on site at the Twin Cities/Chanhassen NWS Forecast Office and captures precipitation information for the NWS. The Pope SWCD also has a weather station located at the Rosholt Research Farm and this precipitation information is included in the NDAWN network.

Well Monitoring: The DNR Cooperative Groundwater Monitoring Program obwell network collects static groundwater-level data to assess groundwater resources, determine long term trends, interpret impacts of pumping and climate, plan for water conservation, and evaluate water conflicts. There are 25 wells monitored in the Pope SWCD's Observation Well Monitoring Program for the MN DNR. Some of them are nested together but there are separate measurements for each.

FUNDING & OTHER RESOURCES

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

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

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

- Encourage all county residents to sign-up for the county's emergency notification alert system.

- Provide ongoing education and outreach to residents on personal preparedness for severe weather, extreme temperatures, and extended power outages. Coordinate with local jurisdictions to share information locally.
- Ensure the county's Emergency Operations Plan (EOP) is updated and addresses policies & procedures needed to support EM functions prior to, during, and following a disaster.
- Ensure designated facilities are in place and prepared for providing mass care sheltering and county staff are trained in sheltering operations.
- Work with municipalities / rural electric coops to encourage them to address burying powerlines or strengthening power poles to avoid power outages from high wind events and storms.
- Address the safety of county, city, and township roads in winter through snow removal and ice control.
- Ensure there is a network of trained Storm Spotters throughout the county to support situational awareness of and public notification for dangerous storms such as severe thunderstorms and tornadoes.
- Work with county departments and local jurisdictions to acquire generator backup power to support critical infrastructure and delivery of essential services during an extended power outage due to storms.
- Encourage schools and long-term facilities that house senior citizens or other vulnerable populations to have emergency plans and generators in place to deal with severe weather, extreme temperatures and power outages.
- Work with 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.
- Work with local governments to ensure the functionality of outdoor warnings sirens to warn residents of dangerous high wind or tornado events.
- Provide assistance to local jurisdictions that require purchase & installation of new outdoor warning sirens and ensure they are connected to the county's remote activation system.
- Work in coordination with local jurisdictions to address the need for the construction of storm shelters or tornado safe rooms in locations where residents and visitors are vulnerable to high wind events, such as mobile home parks, municipal campgrounds, and other public areas.
- Conduct outreach to residents to be aware of water restrictions, water conservation tips, and fire safety during periods of severe drought.
- Continue to participate in the National Flood Insurance Program and enforce policies that address development in high-risk flood areas.

- Continue to enforce the Minnesota State Building Code to ensure new development is built to construction standards that help to minimize damages from severe storms.
- Continue to enforce ordinances and policies within the county's code of ordinances to support reduction of risk to existing buildings, structures, and infrastructure as well as to limit risk to new development and redevelopment. This includes shoreland regulations, setback limits, and floodplain regulations.
- Plan for and implement measures to address localized flood reduction projects for roads, bridges, and culverts throughout the county such as hardening public roads, bridges, and installing high-flow culverts to mitigate recurring flood damages. Additional projects may include paving shoulders of roads, paving or adding rip-rap around culverts, and adding rip-rap to the banks of ditches and streams. These projects may be in coordination between the county, SWCD, and other area watershed districts and in accordance with other existing plans.
- Continue to work in partnership with the Soil & Water Conservation District and other watershed partners to address mitigation plans, policies, and projects that address risk reduction for localized flooding and erosion.
- Continue to address shoreland zoning regulations and stormwater management to mitigate impacts from high rain events, especially for areas of new development and population growth within the county.
- Conduct property buyouts to acquire homes affected by repetitive flooding and physically relocate or remove those homes to eliminate future flood damages.
- Conduct soil stabilization and slope management projects in unstable areas for sediment and erosion control resulting from high rain events.
- Conduct floodplain and stream corridor restoration in areas that are impacted by high rain events.
- Construct flood diversion and storage projects where identified as needed to reduce the impacts of high rain events on streams, rivers, or drainage systems which may result in localized or downstream flooding. There is a need for runoff storage projects as well as channel restoration techniques to reduce the impacts of flooding. These efforts are under investigation by the Sauk River Drainage Authority.

GAPS OR DEFICIENCIES

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

Not all Pope County residents are signed up for our CodeRED Emergency Notification System, have NOAA weather radios, or use social media to follow our EM Facebook page to receive important messages. Ongoing continued public education needs to be done to encourage people to utilize these resources. Pope County is 1 of the 72 counties in Minnesota, that have some level of weather radar gap. This is alarming when considering how volunteer weather spotters are used. Many counties are sending

weather spotters out into weather, that may not be captured on radar. In addition, when considering how weather alerts are issued, and that at times weather systems are developing and happening below radar coverage, there is also cause for more concern for public safety.

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

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

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

Yes, Pope County participates in the NFIP.

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

N/A

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

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

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

August 19, 1987

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

December 21, 1993

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

January 1, 1994 (guesstimate)

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

- Floodplain Administrator – David Green (david.green@popecountymn.gov)
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

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

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

Yes

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

Not yet

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

No

PART E: SURVEY PARTICIPANTS

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

Kim Joos, Pope County Deputy EM/Office Mgr Sheriff's Office – 3 hours

Tim Riley, EM and Sheriff – 3 hours

Nathan Brecht, Chief Deputy – 3 hours

Dale Danter, Chief of Police City of Glenwood – 3 hours

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF CYRUS

Point of Contact:

Name: Betsey Alessi
Job Title: City Clerk
Phone: 320-795-2508
Email: cyruscityclerk@gmail.com

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

May 12, 2022 Cyrus experienced a severe thunderstorm with wind in excess of 80 mph. Rain saturated the ground causing fallen trees that damaged homes, buildings and blocked roads. Electrical power was out for an extended period causing failure to the backup generator system at the wastewater lift station and pump failures. Roadways were also washed out and damaged.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Winter Storms (Blizzards and Ice)	We are a rural community and can become isolated during these events. There is no gas station or grocery store in town and as a result basic needs can become threatened.
Tornados and Windstorms	The city and residents are vulnerable during these events due to many old mature trees and aging homes. We have a number of slab on grade new residential construction primarily for 55 plus residents. A small mobile home park and three apartment buildings. None of these residents have storm shelters.
Extreme Cold	Cyrus does experience power outages during these storms with residents and businesses having potential for loosing heat causing freezing damage and a need to relocate.

REDUCTION IN VULNERABILITY

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

A disaster was declared after the May 12, 2022 storms. Improvements have been made or underway at the wastewater lift station and treatment facility. Roads and ditching are occurring to allow better drainage and prevent future washouts.

INCREASE IN VULNERABILITY

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

No known increases in vulnerability. Population and building have not changed much in the last 5-10 years.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

The city has a bulletin board on the outside of City Hall. It is kept current with anything going on in the community or City Council actions. We also have an electronic message board maintained by the Fire and Police Departments located at the Community Room attached to the city building. The city has a Facebook page and a city website which are also used as avenues of communication.

EMERGENCY NOTIFICATION SYSTEM

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

We do encourage people to participate in the county's "Code Red" alert system.

LOCAL PLANS & AUTHORITIES

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

The Cyrus Fire Department is activated during severe weather and assists local law enforcement in the event of an evacuation. Cyrus has adopted Pope County's Hazard Mitigation Plan.

STAFF & PARTNERSHIPS

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

The Fire Chief is the city's designated Emergency Manager and is the primary person in charge during emergency events.

PROGRAMS IN PLACE

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

The Fire Department participates in the National Weather Service Severe Weather Awareness Week by activating the outdoor warning siren. Information on tornado drills is also during this week at a Firehall open house.

FUNDING & OTHER RESOURCES

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

The city budgets for known repairs and uses any resources available from other government agencies.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

Our primary mitigation projects to reduce risk include upgrading the outdoor warning sirens as well as looking into establishing a severe weather safe shelter.

GAPS OR DEFICIENCIES

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

Funding is always the gap in our small town to complete the desired projects.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

The City of Cyrus does not participate in the NFIP and does not have FEMA mapped high risk areas.

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

N/A

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Jeff Anderson, Fire Chief, 3 hours

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF FARWELL

Point of Contact:

Name: Jannel Brockopp,
Job Title: City Clerk
Phone: 320-766-3350
Email: Jannel.brockopp@usa.com

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

In the last 5 years we have not had any major storms with damages. In approximately 2021 or 2022 the city experienced a big windstorm that brought down some branches which took out power. As a result, several residents ended up with water in their basements because their sump pumps failed. Overall, we have standard winter storms and spring/summer storms.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
	None to report. We are a small city of 55 people and have limited infrastructure. All residents have their own wells and the city only has our sewer system for infrastructure, which is connected with the City of Kensington who runs that.

REDUCTION IN VULNERABILITY

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

None. We do have an outdoor warning siren that we maintain and the city's Community Center is our designated shelter that we can open if needed.

INCREASE IN VULNERABILITY

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

None.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We have a city Facebook and would like to develop a city website. We have a bulletin board at the Community Center and Post Office where we post information for our residents.

EMERGENCY NOTIFICATION SYSTEM

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

We have not done anything with this to date, but we could post a flyer in the future or put information on our FB page to encourage residents to go to the Pope County website to sign up.

LOCAL PLANS & AUTHORITIES

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

We do not have any zoning but we do require building permits. We follow all Pope County regulations.

STAFF & PARTNERSHIPS

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

We have our City Council and we contract for fire services with Kensington FD. We also partner with Kensington for our sewer service.

PROGRAMS IN PLACE

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

None.

FUNDING & OTHER RESOURCES

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

The city uses its own budget for projects need or looks for outside grants if necessary.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

We really don't have any necessary projects to identify. We would like to develop a city website and we can encourage residents to sign up for CodeRED.

GAPS OR DEFICIENCIES

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

We are small city with limited financial and staff resources.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

The city does not participate in the NFIP and does not have FEMA mapped high risk areas.

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

N/A

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Jannel Brockopp, City Clerk, 1 hr.

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF GLENWOOD

Point of Contact:

Name: Dave Iverson
Job Title: City Administrator
Phone: 320-634-5433, Ext. 8
Email: davei@ci.glenwood.mn.us

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

Within the last 5 years the city of Glenwood has experienced high rain events that have resulted in some street flooding, damage to culverts, and basement flooding for some residential properties. Our municipal campground has also experienced damages from a past high wind event which brought down tree limbs and caused danger to campers.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Windstorms & Tornadoes	<p>We have municipal campground where campers are more vulnerable to high wind events. We do have an evac plan for campers to go to the lower level of the Pope County Courthouse if they need to take shelter.</p> <p>We also have a mobile home park just outside the edge of city limits that is more vulnerable to severe wind storm events.</p> <p>We have a need for a additional outdoor warning sirens. We have 3 but they are spread out. In a few areas we have some new developments on the fringe of town where the sirens may not adequately cover the area.</p>
Severe Rain Events & Windstorms	<p>With the amount of public lakeshore we can get some severe lakeshore erosion during high rain and wind events. This could eventually pose problems to nearby city utilities. We have a road that runs next to the lake, and ongoing lakeshore erosion could undermine the roadway and underground utilities.</p>
Ice Storms, Blizzards	<p>Much of the city's municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.</p>
Extreme Cold	<p>Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have a high population of senior citizens and also low-income residents who are more vulnerable during these events.</p> <p>In the past we have experienced frozen water services and some residential homes experienced burst pipes from extended extreme cold.</p> <p>The city has experienced damages to roads from spring frost heaves.</p>
Flooding	<p>The city is located in a steep area with some ravines with a steep drop coming into the city. All the watershed water migrates down to the lake from high rain events and surface water discharge to our area. As a result we get enormous infiltration into our sanitary storm sewer system and it</p>

	can get overloaded. When the system gets backed up it results in flooding of storms sewer systems on some streets and some residential basements experience backup.
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REDUCTION IN VULNERABILITY

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

The city completed a street reconstruction project which included upsizing of storms sewers and some of our catch basins. The city also adopted a stormwater management ordinance, which enforces that as local development occurs developers must manage the stormwater onsite. The ordinance requires developers to have storm sewer containing ponds to hold the water on site for a determined time period to slow the impact of stormwater on the city system before it rushes down. Our city Public Works department continues to work on stormwater sewer systems (i.e., cleaning and maintaining). We also have a sump pump ordinance that we enforce for residents.

In addition, we have increased the use of our city website to communicate with residents on emergency preparedness.

INCREASE IN VULNERABILITY

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

With the increase in residential and commercial property in Glenwood, this would increase the cost of recovery due to natural hazard events. In general, we have noticed an increase in more frequent high-rain events in the last 5 years. Increasing stormwater runoff and discharge to the city system seems to be increased per rain event. As we create areas of new development, we try to limit these impacts by holding water in stormwater ponds.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We post info on our city website and our police and fire departments also post information on their Facebook pages. We also make special announcements at the City Commission meetings, and we have a digital sign at the city's liquor store where we post information with public announcements. We also use local media news & radio to get out important news to our residents.

EMERGENCY NOTIFICATION SYSTEM

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

The Police Department has posted information about this in the past. We need to be more proactive to encourage residents to sign up for the CodeRED system by having information on our city website.

LOCAL PLANS & AUTHORITIES

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

The city has adopted a stormwater management ordinance, which enforces that as local development occurs developers must manage the stormwater onsite. The ordinance requires developers to have storm sewer containing ponds to hold the water on site for a determined time period to slow the impact of stormwater on the city system before it rushes down.

The city's planning and zoning committee meets monthly to discuss new development and building issues. The city follows the MN State Building Code and the City Code zoning requirements for new development. The city also has a Building Inspector to help enforce the code.

The city also has a Comprehensive Plan that is designed to plan for the future physical growth of the city and appropriate land uses as well as a 5-year Capital Improvement Plan that is a plan for our city roadways and stormwater infrastructure.

We also provide information to campers & residents on emergency sheltering at the Pope County Courthouse basement if needed.

STAFF & PARTNERSHIPS

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

Our Police Chief is our designated emergency manager. Our city commission includes a public safety committee. We have a city engineer & public works director that addresses localized flooding for city streets. We have worked with the county EM dept. to manage and address upgrades to our outdoor warning sirens and system. We have also worked with the Pope SWCD to develop stormwater holding ponds in controlling and minimizing local flooding issues. As part of that we have a document that was prepared by Houston Engineering that identifies areas where we could construct holding ponds to limit the impacts of water on the city's I&I system. We use this document in our planning.

PROGRAMS IN PLACE

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

We do public outreach using our communication platforms (website, social media, digital media, and local media) on emergency conditions and emergency awareness. We work with our schools on tornado drills and our police department is always working with other groups on related EM training and exercises.

FUNDING & OTHER RESOURCES

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

We have partnered with Pope SWCD to write and receive grants for some ravine projects to address the first fast flush of water after a high rain event and to reduce erosion and impacts of sediment on the lake. We do use our city budget to address some of the mitigation issues such replacement of stormwater infrastructure when we can't get funding.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

Windstorms/Tornadoes – We'd like to upgrade the city warning sirens. We need additional sirens.

Flooding – Continue to enforce our stormwater management ordinance to address areas of new development. Continue to work with the city engineers and SWCD on local flooding reduction measures. Continue to enforce the city's sump pump ordinance to reduce impacts to the city's Stormwater and Sanitary Sewer Systems.

Drought – We continue to enforce water use restrictions in periods of drought. We went to a watering ban for residents for limited water consumption 2021 . We implemented a volunteer mitigation effort on sprinkling and use of water – used local media & city utility bills to share info with the public.

Severe Winter & Summer storms – Continue to post info on city website and local bulletin boards and social media platforms to encourage residents to sign up for CodeRED and continue to participate in the NWS severe weather awareness week. Our FD typically deals with that.

Extreme Cold – Continue to encourage residents to be prepared for extreme cold and power outages. We try and warn them of extreme cold and to run a trickle of warm water to avoid frozen pipes. Also encourage residents to have generators to be ready for extended power outages.

GAPS OR DEFICIENCIES

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

We are small city with limited financial and staff resources to address local mitigation projects. Funding for projects is a challenge. We also need to expand our outreach to residents with use of our website.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

No – the city does not have FEMA mapped high risk areas and we don't participate in the NFIP.

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

N/A

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Dave Iverson, City Administrator, 6 hours

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF LONG BEACH

Point of Contact:

Name: Patia Jensen
Job Title: City Clerk/Treasurer
Phone: 320-491-8266
Email: patiaj@longbeachmn.org

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

No major storms with damage. We have had typical winter and spring/summer storms.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
	We have no local vulnerabilities to report on.

REDUCTION IN VULNERABILITY

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

We have nothing to report.

INCREASE IN VULNERABILITY

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

We have had no increase in vulnerability.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We use our city website, city Facebook page, and post information at City Hall to share information with our residents.

EMERGENCY NOTIFICATION SYSTEM

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

We have not. But in the future we could seek to post reminders on our website or FB page.

LOCAL PLANS & AUTHORITIES

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

We have a Land Use/Building Permit application for new construction and building additions that are required for any new development within the city. We have a Comprehensive Plan (2008) and a subdivision ordinance. The City of Long Beach is expected to adopt a floodplain ordinance when the preliminary floodplain mapping is confirmed.

STAFF & PARTNERSHIPS

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

Mayor and City Council. We work with Pope County as needed.

PROGRAMS IN PLACE

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

None to note

FUNDING & OTHER RESOURCES

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

We use city funding for our projects.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

None identified.

GAPS OR DEFICIENCIES

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

None identified.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

Yes. The city participates in the NFIP. Currently we have no special flood area mapped, but we are informed that there will be mapped areas on preliminary new maps from the MN DNR.

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

N/A

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

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

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

10/25/74

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

The City has not adopted a floodplain ordinance. The new floodplain mapping for Pope County is preliminary, not yet final. According to the DNR, the mapping will be effective in 2024. The City of Long Beach is expected to adopt an ordinance when the preliminary mapping is confirmed.

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

N/A

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

- Floodplain Administrator – Fred Sandal, City Zoning Administrator, fred.sandal@hometownplanning.com. He reviews proposals that may impact the floodplain area.
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

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

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

Some homes and businesses appear to be at least partially within the floodplain.

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

The City of Long Beach is not currently using a form like the one suggested to track development or other improvements in the floodplain.

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

Yes

PART E: SURVEY PARTICIPANTS

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

Patia Jensen, City Clerk, 2 hrs.

Fred Sandal, Zoning Administrator, 1 hr.

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF LOWRY

Point of Contact:

Name: Kristi Kramber
Job Title: City Clerk/Treasurer
Phone: 320-283-5411
Email: lowry@runestone.net

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

In May 2022 we experienced a thunderstorm/high wind/tornado even that caused downed trees, downed power lines within the city and some basement flooding within town. This storm also caved in the roof on one of our local businesses and ripped shingles off many houses within town. The last major storm we had that was worse was back in August of 2011.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Ice Storms, Blizzards	The overhead lines and power poles can be prone to failure in ice storms/blizzards with heavy snowfall.
Windstorms and Tornadoes	Our overhead power lines are in danger of coming down to potential high wind or trees/branches falling on them.
Extreme Cold	Residents are susceptible to dangers from extreme cold, especially if the power goes down during winter storm events. We have senior citizens and families with children who are more vulnerable during these events.

REDUCTION IN VULNERABILITY

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

The city purchased backup generator for power outages that would affect the water treatment plant/well pump. Also installed a box on the community center to hook up a generator in case power goes out so residents would have somewhere to go if needed.

The city is also in the works of a capital improvement plan to help fix some issues with heavy rain flow and getting the lift stations to work better.

INCREASE IN VULNERABILITY

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

We rely on Minneapolis and Aberdeen for our accurate tornado tracking system but are right on the edge of both so we might not be getting accurate up to date information on possible tornadoes.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

The city uses the county CodeRed system and our social media page to alert residents. The city also has an outdoor warning siren that activates based on our Fire Department weather watchers.

EMERGENCY NOTIFICATION SYSTEM

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

To date we have not promoted signup for the county's public alert system. But again, we do have a siren here in town.

LOCAL PLANS & AUTHORITIES

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

Currently we do not have anything other than updating our community center with high efficiency units and insulating.

STAFF & PARTNERSHIPS

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

We have a water/sewer superintendent that addresses any water/sewer issues in accordance with state statutes and provides maintenance for the city as well.

PROGRAMS IN PLACE

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

Our city Fire Dept works with Pope County to participate in the National Weather Service's annual Severe Winter/Spring Weather Awareness Week by posting severe weather awareness information out on our city website.

FUNDING & OTHER RESOURCES

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

Currently the city uses our own budget to address mitigation projects.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

- Windstorm/Tornados – City recently upgraded our siren with a back up generator in case the power goes out.
- Flooding – City is updating the storm sewers on the Highway 114 (main discharge for the town).

GAPS OR DEFICIENCIES

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

Having the funds to accomplish and address local mitigation projects.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

No. The city does not participate as we have no FEMA mapped high risk areas.

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

N/A – (city elevation/runoff capabilities)

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Kristi Kramber, City Clerk Treasurer, 1 hour

Dan Sutton, Mayor, 30 minutes

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF SEDAN

Point of Contact:

Name: Julie Lloyd
Job Title: City Clerk/Treasurer
Phone: 320-424-0107
Email: CitySedan101@gmail.com

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

In the past few years we have experienced wind storms with downed trees and powerlines, power outages and damage to homes and vehicles.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
None	We are a small city of 40 people. We have no local vulnerabilities to report.

REDUCTION IN VULNERABILITY

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

None to report.

INCREASE IN VULNERABILITY

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

None to report.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We post information on bulletin boards at the city building and at the local bar.

EMERGENCY NOTIFICATION SYSTEM

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

Yes, we encourage participation in the county notification system.

LOCAL PLANS & AUTHORITIES

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

Sedan does not have city zoning and codes. We refer to the county for this.

STAFF & PARTNERSHIPS

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

Our Fire Chief attends city council meetings where any of these issues are discussed. We work closely with the Sedan Fire Department. We have an emergency warning siren.

PROGRAMS IN PLACE

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

Community Clean-Up initiatives to remove brush, trim trees, etc.

FUNDING & OTHER RESOURCES

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

The City of Sedan relies on its own budget and volunteers from the community and fire department.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

Network to check on neighbors and assist as needed. We are a close-knit community that checks on our neighbors.

GAPS OR DEFICIENCIES

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

We do not have a website or Facebook page. We are a small city with limited resources.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

The city does not participate in the NFIP. We are not in a mapped flood area.

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

N/A

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Julie Lloyd, City Clerk/Treasurer, 2 hours
Keith Kirchhevel, Mayor, 1/2 hour
Sonja Hawn, City Councilor, ½ hour
Ryan Steinhofer, City Councilor, ½ hour
Nancy Claussen, City Councilor, ½ hour
Jenny Lange, Fire Chief, ½ hour

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF STARBUCK

Point of Contact:

Name: Joan Kerkvliet
Job Title: City Clerk/Treasurer
Phone: 320-239-2525
Email: dcstarbuck@hcinet.net

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

In May, 2022 we experienced a thunderstorm/ high wind/tornado event that caused street flooding, damage to gravel roads, and downed power lines within the city. This storm event also took the roof off the city wastewater plant, damaged docks in the marina, and blew the light house in the marina into the lake. There have been at least two other occasions in the last 5 years where high winds have knocked down power lines and large tree limbs within the city limits.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
Flooding	One of our sanitary sewer lift stations could flood during high rain events. City staff does frequent maintenance to the lift station to try and prevent this. Our gravel roads are also susceptible to high rain events.
Ice Storms, Blizzards	Much of the city's municipal electrical service consists of overhead power lines and electrical poles. Those overhead lines and power poles are prone to failure in ice storms and blizzards with heavy snowfall and high winds that may bring down trees and branches.
Windstorms and Tornadoes	Our city campgrounds are susceptible to high wind events. There are both RV and tents campers that would need to evacuate to a safe location due to the wind itself or the possibility of large trees/branches being blown down. Overhead power lines are also in danger of coming down due to trees/branches or the wind itself.
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 experienced damages to roads from spring frost heaves.

REDUCTION IN VULNERABILITY

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

The city purchased backup generators for power outages that effect the wastewater plant, water plant, office/community center and the most vulnerable lift station.

The city has been able to convert some overhead wires in the city park to underground.

The city has purchased a new warning siren with better range to alert citizens to dangerous weather events.

We are in the process of constructing a new lighthouse in the marina with a concrete base and stronger structure to withstand high wind events.

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

INCREASE IN VULNERABILITY

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

A new campground opened in the last 5 years which has additional population vulnerable to high wind events. In general, we have noticed an increase in more frequent high-wind events in the last 5 years.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We post information on our city website and Facebook page. We also have a public alert system that will notify residents of events by phone, text, or email. We also make special announcements at City Council meetings.

EMERGENCY NOTIFICATION SYSTEM

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

To date we have not promoted signup for the county's public alert system. We do have a place on the homepage of our city website with a link to the city's sign-up page. In the future we could include information on the city website on how to sign up for the Pope County notification system.

LOCAL PLANS & AUTHORITIES

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

The city's planning and zoning committee meets monthly to discuss new development and building issues. The city follows the MN State Building Code and the City Code zoning requirements for new development. The city also has a Building Inspector to help enforce the code.

We have a new 20-year Comprehensive Plan that is designed to plan for the future physical growth of the city and appropriate land uses.

STAFF & PARTNERSHIPS

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

Our Police Chief is the city's designated Emergency Manager. The Emergency Manager works closely with the city Fire Dept and the Pope County emergency managers. We have a city engineer and a public works director that address road maintenance issues for flooding.

PROGRAMS IN PLACE

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

Our city Fire Dept works with the county to participate in the National Weather Service's annual Severe Winter/Spring Weather Awareness Week by posting severe weather awareness information out on our city website. They also go to the local school to talk about fire prevention and weather awareness.

FUNDING & OTHER RESOURCES

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

The city primarily uses its own budget to address mitigation projects. We did receive FEMA money to cover some mitigation projects due to damage from the May 2022 storm. The city did receive a partial grant to replace the old warning siren with a new one with more range. Our Fire Dept worked with the MN DNR-Rural Fire Program to get a new lake pump and generator for city use.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

- *Windstorms and Tornadoes* – Replace overhead electrical poles and wiring with underground service. Removal of some unhealthy trees in the city park and boulevard.
- *Flooding* - Implement new storm sewer upgrades as construction projects are implemented. Purchase additional pumps in the event of flooding.
- *Severe Winter / Summer Storms* – Post information on the city's website and Facebook page to encourage residents to sign up for the county's emergency notification system and the city

public alert system. Participate in the National Weather Service's – Severe Weather Awareness Weeks.

- *Extreme Cold* – Encourage local residents to be prepared for periods of extreme cold and potential power outages. Alert residents to the dangers of extreme cold and freezing pipes. Work with the local nursing home to be prepared with emergency plans for extended power outages or other emergencies.

GAPS OR DEFICIENCIES

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

Not all our residents are signed up for the county's emergency notification system or the city's public alert notifications. We are a small city with limited financial and staff resources to address local mitigation projects.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

Yes. The city of Starbuck is participating in the NFIP and has FEMA mapped high risk areas.

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

N/A

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

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

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

5/31/1974

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

7/6/1984

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

8/19/1987

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

- Floodplain Administrator: Tiffany Holten deputyclerk@hcinet.net
- Engineering Contact (optional)
- Additional Floodplain Contact (optional)

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

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

Yes. Our campground office and two small picnic shelters.

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

No

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

No

PART E: SURVEY PARTICIPANTS

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

Joan Kerkvliet, City Clerk Treasurer, 4 hours

Tiffany Holten, Deputy City Clerk/Planning & Zoning Administrator, 1 hour

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF VILLARD

Point of Contact:

Name: Ann Butler
Job Title: City Clerk
Phone: 320-554-7800
Email: cityofvillard@gmail.com

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

No major storms that caused damages.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
None	We have no local vulnerabilities to report. We are small community of 202.

REDUCTION IN VULNERABILITY

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

Nothing to report.

INCREASE IN VULNERABILITY

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

Nothing to report.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We are small community of 202. We can post information and share information with residents at City Council meetings as needed.

EMERGENCY NOTIFICATION SYSTEM

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

We do not do this.

LOCAL PLANS & AUTHORITIES

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

None.

STAFF & PARTNERSHIPS

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

City Clerk, Mayor, and City Council. We work with the county as needed.

PROGRAMS IN PLACE

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

None.

FUNDING & OTHER RESOURCES

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

Only limited city funding.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

We have no needed local mitigation actions to list here.

GAPS OR DEFICIENCIES

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

We are a small community with limited staff and finances.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

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

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

N/A

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Ann Butler, City Clerk, .5 hr.

Pope County

LOCAL MITIGATION SURVEY

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

Name of Jurisdiction: CITY OF WESTPORT

Point of Contact:

Name: Sally Kirckof
Job Title: City Clerk
Phone: 320-491-0322
Email: sallykirckof@gmail.com

PART A: HAZARD IDENTIFICATION, RISK ASSESSMENT & VULNERABILITY ANALYSIS

HAZARD IDENTIFICATION

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

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

RECENT HAZARD EVENTS

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

In 2022 there were high winds that damaged trees, there were a lot of broken branches all over.

LOCAL VULNERABILITIES

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

Natural Hazard (please list)	Vulnerability Assessment Describe <u>specific</u> community assets (infrastructure, systems, or populations) that are susceptible to damage or loss from hazard events.
	No local vulnerabilities identified for the city. We have a small population of 40 people and limited infrastructure.

REDUCTION IN VULNERABILITY

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

In 2018, the city has two of the streets resurfaced and a new culvert put in.

INCREASE IN VULNERABILITY

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

No increase in vulnerability.

PART B: LOCAL MITIGATION CAPABILITIES ASSESSMENT

PUBLIC OUTREACH

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

We have a bulletin board outside of city hall that post information on the residents of the city.

EMERGENCY NOTIFICATION SYSTEM

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

No

LOCAL PLANS & AUTHORITIES

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

None to note. We are a very small city.

STAFF & PARTNERSHIPS

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

City Clerk and our City Council.

PROGRAMS IN PLACE

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

None to note.

FUNDING & OTHER RESOURCES

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

We have no funding other than the real estate taxes being paid by the residents.

PART C: LOCAL MITIGATION PROJECTS

LOCAL MITIGATION PROJECTS

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

We are a small city. We have no mitigation projects to address.

GAPS OR DEFICIENCIES

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

We are a small city and have limited staff and funding.

PART D: NATIONAL FLOOD INSURANCE PROGRAM (NFIP) INFORMATION

Does your community participate in the NFIP?

No. The city of Westport has no FEMA Mapped High Risk Areas and is not participating in the NFIP.

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

N/A

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

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

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

N/A

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

N/A

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

N/A

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

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

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

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

N/A

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

N/A

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

N/A

PART E: SURVEY PARTICIPANTS

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

Sally Kirckof, City Clerk, 2 hours

Appendix D – Plans & Programs in Place

Pope County

HMP Plans & Programs in Place Form

EMERGENCY PLANNING CAPABILITIES	Yes/No	Comments
Emergency Mass Notification System	Yes	CodeRED Emergency Notification System and IPAWS
Outdoor Warning Sirens	Yes	Glenwood (3), Long Beach (1), Starbuck (1), Cyrus (1), Lowry (1), Villard (1), and Farwell (1)
Emergency Operations Plan (EOP)		County EOP is updated annually
Mass Care Sheltering Plan / List of Shelter Facilities	Yes	Addressed in EOP
Tornado Safe Rooms / Storm Shelters	No	Local vulnerabilities are addressed in coordination with schools & jurisdictions
NWS Weather Ready Nation / StormReady Certification	No	
Coordination with Schools	Yes	Tornado Drills, other trainings
Coordination with Neighboring County/Tribal Jurisdictions	Yes	HSEM Region 4 regional planning & exercises annually
Coordination with Local / Regional Agencies involved in mitigation	Yes	SWCD, MN DNR, MnDOT, Rural and Municipal Electric Cooperatives
Coordination with organizations or agencies addressing disaster related issues and vulnerable populations, emergency preparedness, access and functional needs populations	Yes	Public Health, American Red Cross, Salvation Army
Hazard data and information	Yes	Damage information on file from past storm events and disaster declarations
Other (please describe)	Yes	PH has preparedness plans in place

PLANNING & REGULATORY CAPABILITIES	Yes/No	Comments
Comprehensive/Land Use Plan	Yes	Pope County Comprehensive Land Use Plan (2018)
Capital Improvements Plan	Yes	2018 Comp Plan

Economic Development Plan	No	
Climate Adaptation Plan	No	
Continuity of Operations Plan (COOP)	Yes	Pope County Emergency Management (lead)
Transportation Plan (Roads, Bridges, Culverts, Ditches)	Yes	5-Year Transportation Plan, Highway Dept.
Stormwater Management Plan / Drainage Plan	Yes	Sauk River Drainage Authority
Burning Permits/Restrictions	Yes	Pope County Dispatch
Comprehensive Local Water Management Plan	Yes	Pope County Water Plan (2013-2023)
Watershed Plan (One Watershed, One Plan)	Yes	Pope County participates in North Fork Crow River 1W1P, Sauk River 1W1P, and Chippewa River 1W1P
Wellhead Protection Plan	Yes	Municipal level plans are done in coordination with MDH
Forest Management Plan	No	
Community Wildfire Protection Plan (CWPP)	No	
Participation in MN DNR Firewise Program	No	
Database of Dry Hydrants/Well Access	No	
<i>Other (please describe)</i>		

LOCAL POLICY / PROGRAM CAPABILITIES	Yes/No	Comments
Land Use, Planning, & Zoning Ordinance	Yes	Pope County Comprehensive Plan (2018) + Pope County Land Use Controls Ordinance (2022)
Subdivision Ordinance	Yes	Pope County Land Use Controls Ordinance, Section 10.25
Building Codes	Yes	Pope County Land and Resource Management enforces the MN State Building Code
National Flood Insurance Program (NFIP)	Yes	Pope County NFIP entry date 08/19/1987
Flood insurance rate maps	Yes	Pope County Land and Resource Management Dept.

Floodplain Ordinance	Yes	Pope County Flood Plain Ordinance No.5.
Shoreland Ordinance	Yes	Pope County Land Use Controls Ordinance, Section 4, Shoreland Districts
Minnesota Buffer Law / Soil Erosion Ordinance	Yes	Pope County Land & Resource Management is designated as the enforcement agency for the MN Buffer Law.
Home Buyouts for flood or erosion mitigation	No	
Other natural hazard specific ordinance (i.e., stormwater, steep slope, wildfire)	No	
Maintenance programs to reduce risk	Yes	Highway Dept. ROW maintenance and drainage systems
<i>Other (please describe)</i>		

ADMINISTRATIVE/TECHNICAL CAPABILITIES	Yes/No	Comments
Emergency Management Director	Yes	Pope County Emergency Management Office
Sheriff/Police Department	Yes	Pope County Sheriff's Office
Floodplain Administrator	Yes	Pope County Land and Resource Management Department Director
Chief Building Official	Yes	Pope County Land and Resource Management
County Engineer	Yes	Pope County Highway Dept.
Mapping Specialist (GIS)	Yes	Pope County Information Technology Dept.
Public Health Coordinator/Department	Yes	Horizon Public Health
Planning Commission	Yes	Pope County Board of Adjustment / Planning Advisory Commission
Soil and Water Conservation District	Yes	Pope SWCD
Minnesota Department of Natural Resources	Yes	MN DNR coordination as needed
Mitigation Planning Committee	Yes	2023 HMP Update Planning Team

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

EDUCATION & OUTREACH CAPABILITIES	<i>Yes/No</i>	<i>Comments</i>
SKYWARN Program Training with NWS	Yes	Annual event
Severe Weather Awareness Week (HSEM/NWS)	Yes	Annual event
Winter Weather Awareness Week (HSEM/NWS)	Yes	Annual event
Promotion of NOAA Weather Radios	Yes	During NWS Severe Weather Weeks and Ongoing
<i>Other (please describe)</i>		

Appendix E – Past Mitigation Action Review Status Report

Pope County

Past Mitigation Action Review Status Report

Following is a report on the status of mitigation actions related to natural hazards included in the Pope County 2016 Hazard Mitigation Plan. This report identifies those actions that have been completed, are being deleted, or are considered as ongoing efforts. Mitigation actions that are noted as “ongoing” will be reviewed and revised as necessary for future implementation. This report covers the mitigation actions that were listed for implementation by the county and by city jurisdictions, as applicable.

Hazard	Mitigation Action	Responsibility	Status	Comments
Tornadoes / Windstorms	Early Warning System. Maintain an extensive and reliable severe weather early warning system countywide.	EM, Cities, Hwy. Dept, County Board	Ongoing	Pope County Emergency Management (PCEM) continues to work with communities across the county to ensure warning sirens are tested monthly and are in functioning order.
Tornadoes / Windstorms	City of Cyrus Warning Siren. Work with stakeholders to install a new warning siren in the City of Cyrus.	Cyrus, EM	Ongoing	The City of Cyrus continues to use their warning siren. This has not been replaced. This warning siren still functioning but old and not reliable.
Tornadoes / Windstorms	City of Farwell Warning Siren. Work with stakeholders to install a new warning siren in the City of Farwell.	Farwell, EM	Ongoing	The City of Farwell continues to use their warning siren.
Tornadoes / Windstorms	City of Glenwood Warning Sirens. Work with stakeholders to install two new warning sirens in the City of Glenwood.	Glenwood, EM	Ongoing	The county is in the process of replacing the warning siren on the roof of the courthouse.
Tornadoes / Windstorms	City of Long Beach Warning Sirens. Work with stakeholders to install two new warning sirens in the City of Long Beach.	Long Beach, EM	Ongoing	This is an ongoing effort with the city of Long Beach.
Severe Winter & Summer Storms	Severe Weather. Promote how the public can be prepared for severe weather events.	EM, PH, Media	Ongoing	PCEM and PCPH continue to provide public outreach and education on severe weather awareness and preparedness through use of the county website, Sheriff's Office Facebook page, and use of local media.

Hazard	Mitigation Action	Responsibility	Status	Comments
Severe Winter & Summer Storms	Vulnerable Populations. Inventory vulnerable populations and provide assistance to them during severe weather events.	PH, EM	Ongoing	PCEM and PCPH continue to work with local jurisdictions to be aware of where facilities exist that care for vulnerable populations, such as long-term care facilities, hospitals, and schools.
Severe Winter & Summer Storms	Storm Shelters. Proactively work with stakeholders to identify where storm shelters are needed the most.	EM, Cities, County Board	Ongoing	PCEM continues to work with communities to establish designated facilities to serve as storm shelters.
Severe Winter & Summer Storms	City of Cyrus Storm Shelter. Work with the City of Cyrus to determine which building would best serve as a community Storm Shelter. Properly provide signage and create a flyer notifying the residents.	Cyrus, EM	Completed	The City of Cyrus has designated the fire hall community room as their storm shelter. It is equipped with a generator.
Severe Winter & Summer Storms	City of Long Beach Storm Shelter. Work with the City of Long Beach to have their community storm shelter certified by the Red Cross. Make upgrades as necessary.	Long Beach, EM	Ongoing	This is an ongoing effort with the city of Long Beach.
Severe Winter & Summer Storms	Back-up Generators. Proactively work with stakeholders to identify where back-up generators are needed the most.	EM, Cities, County Board	Ongoing	PCEM and local cities continue to identify and address where backup generators are needed to support critical infrastructure and delivery of services during long-term power outages.
Severe Winter & Summer Storms	City of Cyrus Back-up Generator. Work with the City of Cyrus to secure funding for a back- up generator for the Cyrus Water Plant (2016).	Cyrus, EM	Completed	A back-up generator was purchased for the Cyrus Water Plant when the new water treatment building went up.
Severe Winter & Summer Storms	City of Farwell Back-up Generator. Work with the City of Farwell to secure funding for a back-up generator for the Farwell City Hall (2016).	Farwell, EM	Ongoing	This is an ongoing effort with the city of Farwell.

Hazard	Mitigation Action	Responsibility	Status	Comments
Severe Winter & Summer Storms	City of Glenwood Back-up Generator. Work with the City of Glenwood to secure funding for a back-up generator for the community (2016).	Glenwood, EM	Ongoing	No back-up generator has been purchased for fire hall and police department.
Severe Winter & Summer Storms	City of Long Beach Back-up Generator. Work with the City of Long Beach to secure funding for a back-up generator for the community (2016).	Long Beach, EM	Ongoing	This is an ongoing effort with the city of Long Beach.
Severe Winter & Summer Storms	City of Starbuck Back-up Generator. Work with the City of Starbuck to secure funding for a back-up generator for the community (2016).	Starbuck, EM	Completed	The City of Starbuck just secured a back-up generator for the Community Center on 2/8/2023. This has not yet been installed.
Severe Winter & Summer Storms	Minnewaska High School Back-up Generator. Work with the Minnewaska School District (MSD) to secure funding for a back-up generator for the Minnewaska High School (serves as a Red Cross Storm Shelter).	MSD, EM	Ongoing	The Minnewaska Area High School has not secured funding for a backup generator but will continue to look for avenues to secure one.
All-Hazards	NIMS. Provide opportunities for local jurisdictions to receive training requirements using the National Incident Management System (NIMS).	EM	Ongoing	PCEM continues to work with local governments to receive NIMS training for all-hazards.
All-Hazards	Mock Disasters. Participate in emergency preparedness mock training disasters.	EM	Ongoing	This continues under PCEM's all-hazards emergency management program in conjunction with HSEM Region 4 neighboring counties.

Hazard	Mitigation Action	Responsibility	Status	Comments
Severe Winter & Summer Storms	Power Lines. Work with electric companies and Federal, State, and local agencies to review and identify all electrical transmissions in the County that need to be upgraded and/or buried in order to protect them from severe weather events.	EM, Hwy. Dept	Ongoing	Pope County continues to work with electric providers that serve the county, who take lead in addressing areas of vulnerability and making mitigation improvements to reduce future power failure.
All-Hazards	Emergency Signage. Upgrade and expand emergency management signage to be used during extreme weather events (i.e., detour signs during floods, road closed signs, etc.).	EM, Hwy. Dept, County Board	Delete	Not a necessary mitigation action. This is an ongoing part of emergency preparedness planning by PCEM and PC Hwy. Dept.
Flooding	Road & Bridges. Identify existing buildings, roads, and bridges throughout the County that are at risk from flooding and identify proper mitigation strategies.	Hwy. Dept, EM, Townships, County Board	Ongoing	Pope County, cities, and townships continue to identify and address transportation infrastructure improvements needed for flood mitigation.
Flooding	Stormwater Management Plan. Pursue funding to develop a countywide Pope County Stormwater Management Plan and target conservation funding on implementation activities.	LRM, WPTF, SWCD, MDA, MPCA	Ongoing	Stormwater management planning and projects continue at both the county and local level. There is not a countywide stormwater management plan, however the Pope County 2013-2023 Water Plan incorporates storm water and flood retention programming. Pope County Land Use Ordinance has stormwater management standards for new developments

Hazard	Mitigation Action	Responsibility	Status	Comments
Flooding	Retention Ponds. Work with the watersheds to identify three potential stormwater retention ponds and/or wetland restorations. Secure conservation funding to implement.	SWCD, LRM, DU, WPTF, BWSR	Ongoing	Pope County continues to work with the Sauk River Watershed District, North Fork Crow River Watershed District and Chippewa River Watershed District on flood mitigation projects including retention ponds and wetland restorations. Planning and projects for flood mitigation are included in the One Watershed One Plan.
Flooding	Stormwater Plans. Assist communities with developing and implementing Stormwater Management Plans.	LRM, WPTF	Ongoing	Pope County Land and Resource Management and the Pope County Water Plan Taskforce continue to assist communities with planning for stormwater management to handle high rain events.
Flooding	Storm Sewers. Apply for grant assistance to install and/or upgrade storm sewer systems (i.e., engineering studies and grant writing assistance).	Cities, LRM, WPTF	Ongoing	Cities continue to oversee project planning and obtaining funding for implementing stormwater infrastructure improvements.
Flooding	City of Villard Storm Sewers. Work with the City of Villard on establishing a communitywide storm sewer system.	Villard, LRM, WPTF	Ongoing	This is an ongoing effort by the city of Villard.
Flooding	Glenwood Flooding Site 1. Partner in implementing the feasibility study on addressing flooding concerns near the County Fairgrounds at the intersection of 4 th St. NW and State Highway 28 (2018).	Hwy. Dept, Glenwood, MnDOT	Ongoing	Some mitigation work was completed in the 2018-2019 Highway 28 project.
Flooding	Glenwood Stormwater Management Plan. Partner in securing funds to update the City of Glenwood's Stormwater Management Plan.	Glenwood, SWCD	Ongoing	City continues to do stormwater projects in plan to meet the goals of Glenwood's Stormwater Management Plan

Hazard	Mitigation Action	Responsibility	Status	Comments
Severe Winter & Summer Storms	Severe Storms. Inform citizens on how best to be prepared for severe winter and summer storms by providing tips for staying home and coping with potential power failures.	EM, PH, Media	Ongoing	PCEM and PCPH continue to provide public outreach and education on severe weather awareness and preparedness through use of the county website, Sheriff's Office Facebook page, and use of local media. PCEM also participates in the NWS Severe Weather Awareness Weeks held in April and November of each year and shares this information with the public.
Extreme Temperatures	Extreme Temperatures. Provide educational information and "best practices" for protecting life and property during extreme temperatures on the website.	PH, EM, Media	Ongoing	PCEM and PH continue to provide public outreach during periods of extreme temperatures.
Lightning	Lightning Strikes. Assess and retrofit critical facilities to improve resistance to lightning strikes.	EM, FD	Ongoing	Ongoing as relevant for protecting buildings or particular critical infrastructure from lightning strikes.
Extreme Cold	Freezing Pipes. Examine alternatives to running water to prevent pipes from freezing in order to help protect the County's aquifers.	PH, LRM, EM, WD, DNR	Delete	Not implemented or a pursued mitigation action by the county.
Erosion / Landslides	Severe Erosion Inventory. Conduct a county-wide assessment of severely eroding sites. Target conservation funding to address problem areas.	LRM, Hwy. Dept, SWCD, BCWD, Watersheds	Ongoing	Pope County LRM, Hwy. Dept., SWCD and watershed partners continue to monitor and address areas of significant erosion or landslide concern.
Drought	Drought Plan. Develop a Drought Contingency Plan with proper policies and ordinance language that limit water usage during drought emergencies.	EM, County Board	Ongoing	Pope County and local jurisdictions abide by requirements for watering restrictions by ordinance as set by the MN DNR during periods of severe drought. Larger scale drought contingency planning falls under the county EOP.

Hazard	Mitigation Action	Responsibility	Status	Comments
Drought	Drought Education. Identify a stakeholder who can provide inexpensive household water conservation kits. Promote the use through a media campaign.	PH, UME, Media	Delete	Provision of household water conservation kits is not a pursued mitigation activity. However, PCEM and local jurisdictions continue to promote awareness of drought conditions and water conservation during periods of severe drought.
All-Hazards	Task Force Meetings. Hold a Pope County Hazard Mitigation Task Force meeting annually to review current events and to prioritize local hazard mitigation projects.	EM, HMTF	Delete	PCEM does not have a mitigation task force. With the 2023 HMP update we will continue to keep our stakeholders engaged in providing input to the plan and to identify any new mitigation actions for the future.
All-Hazards	Local Match. Facilitate the development of priority projects and seek appropriate funding for implementation. Ensure that local match is available to leverage funding for priority projects to the greatest extent possible.	EM, County Board, Cities, All	Delete	This is occurring as part of plan implementation process but does not need to be a mitigation action.
All-Hazards	Hazard Mitigation Plan Update. Begin the planning process to update the County's Hazard Mitigation Plan 18 months prior to the five-year expiration date to help ensure continuous coverage.	EM, County Board, Cities, All	Delete	This is an ongoing part of the county's 5-year HMP cycle. It does not need to be a mitigation action.
All-Hazards	Hazard Mitigation Training. Ensure that local Emergency Management Staff receives proper Hazard Mitigation related training as available through the State and FEMA.	EM, County Board	Delete	PCEM encourages local governments to participate in NIMS training and additional FEMA IS courses. Local EM's are participating in local mitigation planning as part of the HMP update process.

Hazard	Mitigation Action	Responsibility	Status	Comments
All-Hazards	Integrated Plans. Work towards fully integrating the County's Threat and Hazard Identification and Risk Assessment (THIRA) and Emergency Operation Plan (EOP) into the Hazard Mitigation Plan.	EM	Delete	The county's HMP update is a stand-alone document that is developed to meet FEMA guidelines. However the plan does address the priority natural hazards that pose risk to the county and a range of "all-hazard" mitigation actions that benefit mitigation preparedness & response support.

Appendix F – Planning Team Meetings

Pope County HMP Update

Appendix F – Kickoff Meeting Documentation

Overview:

On July 19, 2022, U-Spatial@UMD hosted a kickoff meeting online that was attended by the Pope County Emergency Manager. The webinar included a project overview, U-Spatial@UMD's background, the roles and responsibilities of the Emergency Manager, the contents of the Hazard Mitigation Plan, the planning process, and the projected timeline of the project.

Attached Documentation:

- **Project Handout:** "Minnesota 2022-2023 Multi-Hazard Mitigation Plan Update Project Overview"
- **Webinar Slides:** "Minnesota 2022-2023 Multi-Hazard Mitigation Plan Update Project Kickoff Orientation Webinar"

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

During 2022-2023, U-Spatial at the University of Minnesota Duluth (U-Spatial@UMD) will be working to update Multi-Hazard Mitigation Plans (MHMPs) for 5 counties. Our team consists of UMD staff who specialize in GIS applications and research and Hundrieser Consulting LLC, who specializes in stakeholder engagement and mitigation strategies.

Participating Jurisdictions

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

Overview of Update Process

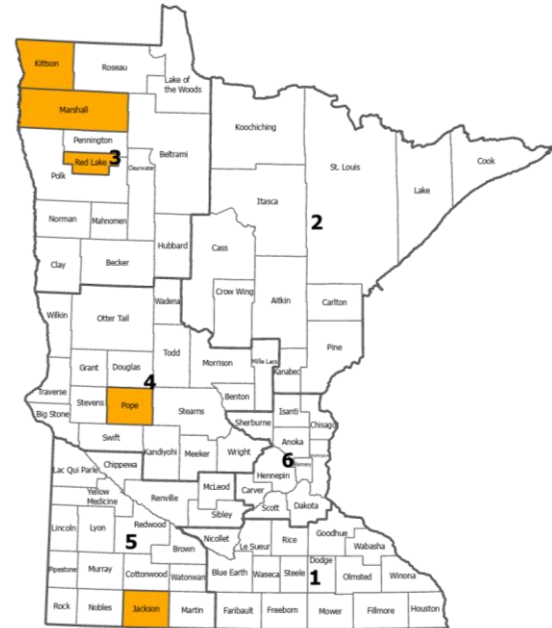
The U-Spatial@UMD team will coordinate with each Emergency Manager throughout the plan update process to engage participating jurisdictions and other stakeholders in the planning process. Following is an overview of key tasks that the U-Spatial@UMD team will facilitate to meet FEMA requirements in the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

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

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

Contact

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



Overview of the MHMP Update Process

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

Stage 1 Tasks (4-5 months)

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

Stage 2 Tasks (5-7 months)

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

Stage 3 Tasks (2-3 months)

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

Stage 4 Tasks (2-3 months)

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

Ongoing - Quarterly 25% Local Match Tracking Quarterly to HSEM

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

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

U-SPATIAL
UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Webinar Purpose & Goals

The purpose of this webinar is to provide an orientation for Emergency Managers participating in 2022-2023 Multi-Hazard Mitigation Plan Updates.

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

Stacey Stark

Introductions

U-Spatial@UMD Project Team



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hundrieser
Emergency Management Planning Consultant
Hundrieser Consulting LLC



Zach Vavra
GIS Specialist and Researcher
U-Spatial@UMD



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



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

Emergency Managers:

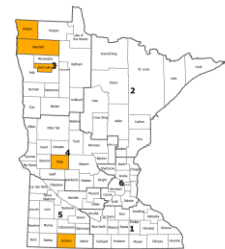
- Name, Title, and Jurisdiction
- Past Experience with MHMP?

Minnesota HSEM:

Jennifer Davis, MN HSEM
State Hazard Mitigation Officer

5 Counties:

Jackson
Kittson
Marshall
Pope
Red Lake



Project Overview

Why U-Spatial@UMD?

➤ Proven experience

Our updates of 30+ MHMPs, as well as the State MHMP, have been quickly approved by FEMA and adopted by counties.

➤ Advanced Capabilities

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

➤ Ability to Expedite

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

➤ Planning Team

Our project team includes advanced GIS students and Hundrieser Consulting.

Purpose

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

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

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

MHMP's must be updated every 5 years.

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

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

Overview of MHMP Update Process

Bonnie Hundrieser

U-Spatial@UMD Team Roles & Responsibilities

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

EM Roles & Responsibilities

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

Local 25% Match

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

Notes:

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

MHMP Planning Team

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

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

Key Tasks

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

Public Outreach

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

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

Key Tasks

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

Hazard Risk Assessment and Vulnerability Analysis

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

Key Tasks

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

Key Task Assignments

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

Key Tasks

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

Mitigation Action Charts

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

Key Tasks

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

Draft Plan Review

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

Key Tasks

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

Plan Submission

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

Key Steps

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

Plan Adoption

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

Notes

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

Plan format and delivery

“Next Gen” – MN Hazard Mitigation Plans

PDF document

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

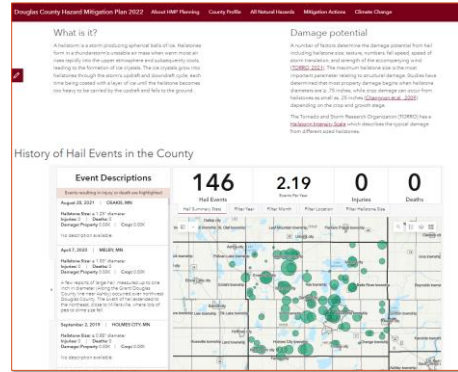
ArcGIS Hub (website) companion

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

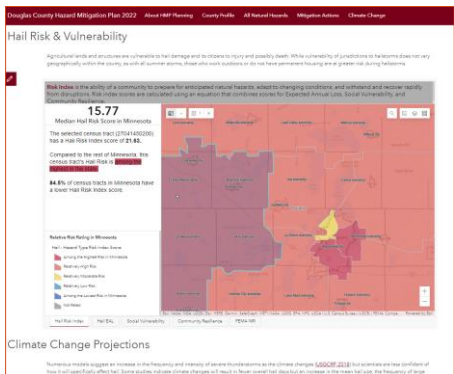
Stacey Stark



Example Web Site



Example Web Site



Example Web Site

Timeline Overview

- 18-Month total timeline (June 2022 – December 2023)
- Most plans take 14-18 months.
- Staggering of plans will be required to complete update of risk assessments, research of hazard histories, etc. for each jurisdiction.
- Many tasks occur concurrently, others must be done in succession.
- Work is expedited at the pace by which Emergency Managers complete tasks with Bonnie Hundrieser.

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

Next Steps

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

Notes:

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

Pope County HMP Update

JURISDICTIONAL CONTACT LIST

COUNTY CONTACTS

Name	Title	Phone	Email
Tim Riley	Sheriff/Emergency Management Director	320-634-5411	tim.riley@popecountymn.gov
Kim Joos	Deputy EM Director	320-634-7798	kim.joos@popecountymn.gov
Kersten Kappmeyer	County Administrator	320-634-7704	kersten.kappmeyer@popecountymn.gov
Michael Wacker	County Assessor	320-634-7715	michael.wacker@popecountymn.gov
Stephanie Rust	County Auditor/Treasurer	320-634-7706	stephanie.rust@popecountymn.gov
David Green	Land & Resource Management Director	320- 634-7791	david.green@popecountymn.gov
Dave Orłowski	Drainage/Public Ditches	320-634-7745	dave.orłowski@popecountymn.gov
Brian Giese	Highway/Engineering	320-634-7745	brian.giese@popecountymn.gov
Brad Pierce	Facility Maintenance	320-634-7741	bradley.pierce@popecountymn.gov
Bryan Gates	Information Technology	320-634-7789	bryan.gates@popecountymn.gov
Shelley Svec	Horizon Public Health	1-800-450-4177	shelleys@horizonph.org
Paul Gremmels	District 1 Commissioner	320-304-9953	paul.gremmels@popecountymn.gov
Gordy Wagner	District 2 Commissioner	320-634-3008	gordy.wagner@popecountymn.gov
Paul Gerde	District 3 Commissioner	320-278-3762	paul.gerde@popecountymn.gov
Larry Lindor	District 4 Commissioner	320-795-2495	larry.lindor@popecountymn.gov
Cody Rogahn	District 5 Commissioner	320-634-0311	cody.rogahn@popecountymn.gov

CITY CONTACTS

CITY OF CYRUS (POP. 300)

Name	Title	Phone	Email
Betsey Alessi	Clerk	320-795-2508	cyruscityclerk@gmail.com
Tyler Berg	Mayor	320-808-0669	cyruscityclerk@gmail.com
Jeff Anderson	Fire Chief	320-760-0330	jeff.anderson@trailertransfer.com

CITY OF FARWELL (POP. 55)

Name	Title	Phone	Email
Jannel Brockopp	Clerk	320-766-3350	Jannel.brockopp@usa.com
Curt Huizinga	Mayor		

CITY OF GLENWOOD (POP. 2,619)

Name	Title	Phone	Email
David Iverson	Administrator	320-634-5433	davei@ci.glenwood.mn.us
Sherri Kazda	Mayor		
Bruce Cerney	Fire Chief		btcerney@msn.com

CITY OF LONG BEACH (POP. 331)

Name	Title	Phone	Email
Patia Jensen	Clerk	320-491-8266	patiaj@longbeachmn.org
Mike Pfeiffer	Mayor		

CITY OF LOWRY (POP. 343)

Name	Title	Phone	Email
Kristi Kramber	Clerk	320-283-5411	lowry@runestone.net
Dan Sutton	Mayor		
Kyle Nichtern	Fire Chief		k.nichtern@gmail.com

CITY OF SEDAN (POP. 40)

Name	Title	Phone	Email
Julie Lloyd	Clerk	320-4242-0107	citysedan101@gmail.com
Keith Kirchhevel	Mayor		
Jennifer Lange	Fire Chief		jen.lange@protonmail.com

CITY OF STARBUCK (POP. 1,462)

Name	Title	Phone	Email
Joan Kerkvliet	Clerk	320-239-2525	dcstarbuck@hcinet.net
Gary Swenson	Mayor		
Doug Noyes	Fire Chief		Dougnoyes1@hotmail.com

CITY OF VILLARD (POP. 202)

Name	Title	Phone	Email
Ann Butler	Clerk	320-554-7800	cityofvillard@gmail.com
Jason Rupp	Mayor		
Patrick Pfeninger	Fire Chief		trucking@pfeninger.com

CITY OF WESTPORT (POP. 40)

Name	Title	Phone	Email
Sally Kirckof	Clerk	320-491-0322	sallykirckof@gmail.com
Tim Rechkemmer	Mayor		

TOWNSHIP CONTACTS

Name of Township	Name & Title	Phone	Email
Bangor Township	Gerald Vanderbeek, Clerk	320-346-2752	jerryvb@tds.net
Barsness Township	Tony Douvier	320-424-3005	tmdouvier@gmail.com
Ben Wade Township	Vernon Hedlin	320-815-2732	hedlinv@runestone.net
Blue Mounds Township	Terri Mitchell		bluemoundstwp@outlook.com
Chippewa Falls Township	Bernadine Gerde	320-424-1378	gerdebernie@gmail.com
Gilchrist Township	Joseph White	651-895-5227	jnwhite20@yahoo.com
Glenwood Township	David Sibell	320-334-0006	david.sibell@hotmail.com
Grove Lake Township	Jamie Dietzmann	320-424-2814	grovelaketownship@gmail.com
Hoff Township	Joanna Rustad	320-288-8864	puttchoo@yahoo.com
Lake Johanna Township	Kelly Quade	320-290-3451	quadekj@gmail.com
Langhei Township	Gary Williams	320-760-1164	gcwilliams@mvtvwireless.com
Leven Township	Kathy Tauber	320-491-6325	kjtauber@gmail.com

Minnewaska Township	Dianne Ronnie	320-815-9629	drdcminntwnship@gmail.com
New Prairie Township	Karla Larson	320-287-0033	klarson@scmcinc.org
Nora Township	Kerri Mattson	320-815-0982	mkmatts@runestone.net
Reno Township	Richard Moen	320-248-3448	Richard.moen@cnhind.com
Rolling Forks Township	Brian Jergenson	320-424-0530	bljergenson@gmail.com
Walden Township	Theresa Fisher	320-288-8103	waldentownshipmn@gmail.com
Westport Township	Nancy Ahlfors	320-805-0523	nalhfors@wisper-wireless.com
White Bear Lake Twp	Andy Aslagson	320-239-3900	asmuselectric@outlook.com

OTHER STAKEHOLDER CONTACTS

LOCAL & REGIONAL AGENCIES INVOLVED IN HAZARD MITIGATION

Name of Agency / Organization	Name & Title	Phone	Email
MN Homeland Security & Emergency Management	Lisa Dumont, HSEM Region 4 Regional Program Coordinator	320-429-0348	Lisa.Dumont@state.mn.us
Pope Soil & Water Conservation District (SWCD)	Holly Kovarik, District Manager	320-634-5327	holly.kovarik@mn.nacdn.net
Natural Resources Conservation Service (NRCS)	Jeff Hellerman, District Conservationist	320-634-5143	jeff.hellermann@usda.gov
USDA Farm Service Agency (FSA)	Alex Fellbaum, Executive Director	320-634-5143	Alexander.fellbaum@usda.gov
USDA Rural Development Community Programs	Jeff Scholten, Area Specialist	320-763-3191, ext. 112	jeff.scholten@usda.gov
MnDOT District 4	Shiloh Wahl, Transportation District Engineer	218-846-3603	shiloh.wahl@state.mn.us
Sauk River Watershed District	Jon Roeschlein, Administrator	320-352-2231	jon@srwdmn.org
North Fork Crow River Watershed District	Colton Henjum, Watershed Program Coordinator	320-346-2869 ext. 3	technfcrrwsd@tds.net
MN DNR Ecological and Water Resources Division	Emily Siira, Region 1 Northwest Area Hydrologist (Glenwood)	320-634-7345	emily.siira@state.mn.us

REPRESENTATIVES OF BUSINESSES, ACADEMIA, AND OTHER PRIVATE ORGANIZATIONS

Name of Agency / Organization	Name & Title	Phone	Email
Minnewaska Area School District	Chip Rankin, Superintendent	320-239-4820 x1470	crankin@isd2149.org
Otter Tail Power	Scott Wiese, Customer Care and Relations	218-739-8838	SWiese@otpc.com

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

Name of Agency / Organization	Name & Title	Phone	Email
West Central Initiative Foundation	Jill Amundson, Innovation Strategist	218-998-1614	jill@wcif.org
Central Minnesota American Red Cross	Linda Blackmore, Executive Director	612-217-3631	linda.blackmore@redcross.org
Salvation Army of Pope & Douglas County	Donna Ortendahl, Salvation Army Field Representative	1-651-746-3410	donna.ortendahl@usc.salvationarmy.org

NEIGHBORING JURISDICTIONS

Name of Jurisdiction	Name & Title	Phone	Email
Stevens County	Dona Greiner, Emergency Management Director	320-208-6507	donagreiner@co.stevens.mn.us
Grant County	Tina Lindquist, Emergency Management Director	(218) 685-8224	tina.lindquist@co.grant.mn.us
Douglas County	Julie Anderson, Emergency Management Director	320- 304-7115	juliea@co.douglas.mn.us
Stearns County	Erin Tufte, Emergency Management Director	320- 259-3940	Erin.Tufte@co.stearns.mn.us
Swift County	Bill McGeary, Emergency Management Director	320- 843-2157	bill.mcgeary@co.swift.mn.us
Kandiyohi County	Stephanie Felt, Emergency Management Director	320- 214-6700	stephanie.felt@kcmn.us

LOCAL MEDIA CONTACTS

Name of Local Media	Media Contact	Phone	Email
Pope County Tribune	Tim Douglas	320-634-4571	tdouglass@pctribune.com
KMGK 107.1 FM	Steven R. Nestor	320-634-5358	nestor@kmgk1071.com

Pope County MHMP Planning Team Meeting #1

9/30/2022 - Meeting Summary & Documentation

Summary: On Friday, September 30, 2022 Pope 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 Pope County Multi-Hazard Mitigation Plan (MHMP). The purpose of the meeting was to formally present information about the Pope 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: Pope County Emergency Management invited all stakeholders included on the county's MHMP Update Jurisdictional Contact List (JCL), which includes the key County Contacts, City Contacts, Township Contacts, Other Stakeholder Contacts, and Neighboring Jurisdiction Contacts identified to be invited to participate in the plan update process. Contacts were encouraged to engage additional staff or to send someone in their stead if they could not attend. A copy of the county's Jurisdictional Contact List is provided in *Appendix F Planning Team Meetings*.

Meeting Participants: A total of **35** people attended the meeting. Representation included elected officials and departmental staff from Pope County and the cities of Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, and Westport. The city of Villard was unable to attend due to staff capacity. Other stakeholders, including neighboring jurisdictions, participated in the meeting. A participant list is included with this meeting summary.

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

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

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

- Yes, I have previously participated in in a hazard mitigation planning process. **(11/28) 39%**
- No, but I am familiar with hazard mitigation planning. **(8/28) 29%**
- No, and this is all new to me. **(9/28) 32%**

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

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

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

Hazard	2016 Plan	2022 Plan
Winter Storms	High	High
Tornadoes	High	High
Land Subsidence/Erosion	High	<i>See Erosion/Landslides below</i>
Windstorms	Moderate	High
Flooding	Moderate	Moderate
Extreme Cold	Moderate	Moderate
Extreme Heat	Moderate	Moderate
Drought	Moderate	Moderate
Hail	Low	Low
Lightning	Low	Low
Wildfire	Low	Low
Dam/Levee Failure	Low	Low
Landslides	<i>Not Addressed</i>	Erosion/Landslides - Moderate

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
Jeff Anderson, City of Cyrus Fire Chief	<i>Regarding prioritization of Windstorms:</i> Windstorms should be moved from moderate (2016) to high. Wind damage from storms should be addressed separately from tornadoes. / Jannel Brockopp, City of Farewell – City Clerk included a comment she was in agreement.	Stacey Stark: Yes, windstorms are addressed as a separate hazard profile from tornadoes in the plan. It was noted to move the priority for windstorms up to high for the Pope County 2022 plan update.
David Green, Pope County Land & Resource Management Director	<i>Regarding hazard profile of Flooding for Pope County</i> - There is not much development (structures) in floodplain areas along riverine areas in Pope County. Most risk from flooding is to roadways.	Stacey Stark: Good comment. The potential economic loss model does not take into account infrastructure such as roads, but we do want to take them into account so we will be collecting that sort of information.
Emily Siira, MN DNR, Area Hydrologist	Regarding hazard profile of Dam/Levee Failure: Noted that the MN DNR has inspection reports for most dams in Pope County.	Stacey Stark: Noted, thank you. We can follow up with you on this.

Meeting Participant	Comment, Question or Mitigation Idea Submitted	Facilitator Feedback / How to be Addressed in Plan Update
All Participants	<i>Regarding Hazard Prioritization of Erosion/Landslides:</i> During the presentation it was noted that Land Subsidence/Erosion had been prioritized as high. Stacey Stark sought feedback from the group on dropping subsidence, as it is not a hazard relevant for Pope County, but combining Erosion/Landslides together in a hazard profile.	Stacey Stark / Kim Joos: Suggested we go with this change and note the erosion / landslide risk priority as moderate so that it can be profiled in the plan and addressed with mitigation actions as necessary. There was group agreement to this change.

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

- 9-30-22 Mtg. #1 Email Invitation
- 9-30-22 Mtg. #1 List of Participants
- 9-30-22 Mtg. #1 Power Point Slides
- 9-30-22 Mtg. #1 Handouts

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

From: [Kim Joos](#)
To: [Tim Riley](#); [Kim Joos](#); [Kersten Kappmeyer](#); [Michael Wacker](#); [Stephanie Rust](#); [David Green](#); [Dave Orlowski](#); [Brian Giese](#); [Bradley Pierce](#); [Bryan Gates](#); [ShelleySvec](#); [Nan Haggerty](#); [Gordy Wagner](#); [Paul Gerde](#); [Larry Lindor](#); [Cody Rogahn](#); ["cyruscityclerk@gmail.com"](#); ["jeff.anderson@trailertransfer.com"](#); ["Jannel.brockopp@usa.com"](#); ["davei@ci.glenwood.mn.us"](#); ["btcerney@msn.com"](#); ["patiaj@longbeachmn.org"](#); ["lowry@runestone.net"](#); ["k.nichtern@gmail.com"](#); ["citysedan101@gmail.com"](#); ["jen.lange@protonmail.com"](#); ["dcstarbuck@hcinet.net"](#); ["Dougnoyes1@hotmail.com"](#); ["cityofvillard@gmail.com"](#); ["pfentrkg@embarqmail.com"](#); ["sallykirckof@gmail.com"](#); ["jerryvb@tds.net"](#); ["tmdouvier@gmail.com"](#); ["hedlinv@runestone.net"](#); ["bluemoundstwp@outlook.com"](#); ["gerdebernie@gmail.com"](#); ["jnwhite20@yahoo.com"](#); ["david.sibell@hotmail.com"](#); ["grovelaketownship@gmail.com"](#); ["puttchoo@yahoo.com"](#); ["quadekj@gmail.com"](#); ["gcwilliams@mvtvwireless.com"](#); ["kjttauber@gmail.com"](#); ["drdcminntwnship@gmail.com"](#); ["klarson@scmcinc.org"](#); ["mkmatts@runestone.net"](#); ["Richard.moen@cnhind.com"](#); ["bljergenson@gmail.com"](#); ["valdentownshipmn@gmail.com"](#); ["nalhfors@wisper-wireless.com"](#); ["asmuselectric@outlook.com"](#); ["Lisa.Dumont@state.mn.us"](#); ["holly.kovarik@mn.nacdn.net"](#); ["jeff.hellermann@usda.gov"](#); ["Alexander.felbaum@usda.gov"](#); ["jeff.scholten@usda.gov"](#); ["shiloh.wahl@state.mn.us"](#); ["jon@srwdmn.org"](#); ["nfcrrwsd@tds.net"](#); ["emily.siira@state.mn.us"](#); ["crankin@isd2149.org"](#); ["rlspangler@otpc.com"](#); ["jill@wcif.org"](#); ["linda.blackmore@redcross.org"](#); ["donna.ortendahl@usc.salvationarmy.org"](#); ["Dona Greiner"](#); ["Tina Lindquist"](#); ["julia@co.douglas.mn.us"](#); ["Erin.Tufte@co.stearns.mn.us"](#); ["bill.mcgeary@co.swift.mn.us"](#); ["stephanie.felt@kcmn.us"](#)
Cc: ["Bonnie K Hundrieser"](#)
Subject: Pope County Multi-Hazard Mitigation Plan Update - Meeting Invitation
Date: Monday, August 15, 2022 2:06:41 PM

POPE COUNTY

MULTI-HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

Your presence is requested at a virtual Planning Team Meeting for the update of the **Pope 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: Friday, September 30, 2022

Time: 9:00 a.m. – 11:00 a.m.

Zoom Link: https://umn-private.zoom.us/webinar/register/WN_aZkvmxYwTPGTz5NH8X2i5w

Please Note: You must click on the link above to register. (Ctrl+Click to follow link)
When you register, you will automatically be placed on an RSVP list. Please be sure to include the name, title and representation (jurisdiction/agency) for all persons planning to attend the meeting.

About the Plan

The update of the Pope 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 Pope 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 Pope 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,

Kim Joos

Office Manager/Pope County Deputy Emergency Manager
Pope County Sheriff's Office
130 E. Minnesota Avenue
Glenwood, MN 56334
320-634-7798 (direct dial)
320-634-5411
**new e-mail – kim.joos@popecountymn.gov

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From: [Kim Joos](#)
To: [Tim Riley](#); [Kim Joos](#); [Kersten Kappmeyer](#); [Michael Wacker](#); [Stephanie Rust](#); [David Green](#); [Dave Orlowski](#); [Brian Giese](#); [Bradley Pierce](#); [Bryan Gates](#); [ShelleySvec](#); [Nan Haggerty](#); [Gordy Wagner](#); [Paul Gerde](#); [Larry Lindor](#); [Cody Rogahn](#); ["cyruscyclerk@gmail.com"](#); ["jeff.anderson@trailertransfer.com"](#); ["Jannel.brockopp@usa.com"](#); ["davei@ci.glenwood.mn.us"](#); ["btcerney@msn.com"](#); ["patiaj@longbeachmn.org"](#); ["lowry@runestone.net"](#); ["k.nichtern@gmail.com"](#); ["citysedan101@gmail.com"](#); ["jen.lange@protonmail.com"](#); ["dcstarbuck@hcinet.net"](#); ["Dougnoyes1@hotmail.com"](#); ["cityofvillard@gmail.com"](#); ["pfentrgk@embarqmail.com"](#); ["sallykirckof@gmail.com"](#); ["jerryvb@tds.net"](#); ["tmdouvier@gmail.com"](#); ["hedlinv@runestone.net"](#); ["bluemoundstwp@outlook.com"](#); ["gerdebernie@gmail.com"](#); ["jnwhite20@yahoo.com"](#); ["david.sibell@hotmail.com"](#); ["grovelaketownship@gmail.com"](#); ["puttchoo@yahoo.com"](#); ["quadekj@gmail.com"](#); ["gcwilliams@mvtvwireless.com"](#); ["kjttauber@gmail.com"](#); ["drdcminntwnship@gmail.com"](#); ["klarson@scmcinc.org"](#); ["mkmatts@runestone.net"](#); ["Richard.moen@cnhind.com"](#); ["bljergenson@gmail.com"](#); ["valdentownshipmn@gmail.com"](#); ["nalhfors@wisper-wireless.com"](#); ["asmuselectric@outlook.com"](#); ["Lisa.Dumont@state.mn.us"](#); ["holly.kovarik@mn.nacdn.net"](#); ["jeff.hellermann@usda.gov"](#); ["Alexander.felbaum@usda.gov"](#); ["jeff.scholten@usda.gov"](#); ["shiloh.wahl@state.mn.us"](#); ["jon@srwdmn.org"](#); ["nfcrrwsd@tds.net"](#); ["emily.siira@state.mn.us"](#); ["crankin@isd2149.org"](#); ["rlspangler@otpc.com"](#); ["jill@wcif.org"](#); ["linda.blackmore@redcross.org"](#); ["donna.ortendahl@usc.salvationarmy.org"](#); ["Dona Greiner"](#); ["Tina Lindquist"](#); ["juleia@co.douglas.mn.us"](#); ["Erin.Tufte@co.stearns.mn.us"](#); ["bill.mcgeary@co.swift.mn.us"](#); ["stephanie.felt@kcmn.us"](#)
Cc: [Kim Joos](#); ["Bonnie K Hundrieser"](#); ["tdouglass@pctribune.com"](#); ["nestor@kmgk1071.com"](#)
Subject: IMPORTANT NOTICE - Pope County Mitigation Planning Meeting Reminder
Date: Monday, September 19, 2022 10:10:41 AM
Attachments: [email_sig_sheriff_20969028-f90c-436f-9eea-b1626795ce76.png](#)

Greetings,

This is a very important reminder to please register for the upcoming Pope County hazard mitigation planning meeting coming up on Friday, September 30th. Information on how to register is provided below. Your community / organization's representation and feedback during this meeting are critical to our plan update and meeting FEMA requirements. If you have not registered already, we hope you will do so.

Date: Friday, September 30, 2022

Time: 9:00 a.m. – 11:00 a.m.

Zoom Link: https://umn-private.zoom.us/webinar/register/WN_aZkvmxYwTPGTz5NH8X2i5w

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*****previous e-mail sent to you on
8/15/2022*****

POPE COUNTY

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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 Pope

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,



Kim Joos

Office Manager

130 East Minnesota Ave

Glenwood, MN 56334

Phone: [320-634-5411](tel:320-634-5411)

kim.joos@popecountymn.gov

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Pope County

9/30/22 MHMP Planning Team Meeting #1

List of Participants (35)

	First Name	Last Name	Organization	Job Title
1	Kim	Joos	Pope County Sheriff's Office	Deputy Emergency Management Director
2	David	Green	Pope County Land & Resource Management	Director
3	Bryan	Gates	Pope County Information Technology	Director
4	Brad	Pierce	Pope County Facility Maintenance	Director
5	Brian	Giese	Pope County Highway Department	County Engineer
6	Michael	Wacker	Pope County Assessor's Office	County Assessor
7	Stephanie	Rust	Pope County Auditor's Office	Auditor/Treasurer
8	David	Orlowski	Pope County Drainage Department	Drainage Inspector
9	Larry	Lindor	Pope County	Commissioner
10	Nan	Haggerty	Pope County	Commissioner
11	Paul	Gerde	Pope County	Commissioner
12	Kersten	Kappmeyer	Pope County	County Administrator
13	Gordy	Wagner	Pope County	Commissioner
14	Shelley	Svec	Horizon Public Health	PHEP Coordinator/Health Educator
15	Betsey	Alessi	City of Cyrus	City Clerk
16	Jeff	Anderson	City of Cyrus - Fire Department	Chief
17	Jannel	Brockopp	City of Farwell	City Clerk
18	Bruce	Cerney	City of Glenwood - Fire Department	Chief
19	Bill	Mills	City of Long Beach	City Council Member
20	Daniel	Sutton	City of Lowry	Mayor
21	Julie	Lloyd	City of Sedan	City Clerk
22	Joan	Kerkvliet	City of Starbuck	City Clerk Treasurer
23	Sally	Kirckof	City of Westport	Clerk
24	Richard	Hollermann	Ben Wade Township	Supervisor
25	Vernon	Hedlin	Ben Wade Township	Township Clerk
26	Joanna	Rustad	Hoff Township	Township Clerk
27	Donna	Ortendahl	Salvation Army of Pope & Douglas County	Field Representative
28	Holly	Kovarik	Pope Soil & Water Conservation District	District Manager
29	Mark	Kaelke	West Central Initiative	Assistant Community Planner
30	Alex	Fellbaum	USDA Farm Service Agency	County Executive Director
31	Emily	Siira	MN DNR	Area Hydrologist
32	Colton	Henjum	North Fork Crow River Watershed District	Program Coordinator
33	Jon	Roeschlein	Sauk River Watershed District	Administrator
34	Charles	Rankin	Minnewaska School District	Superintendent

35	Dona	Greiner	Stevens County Sheriff's Office	EM Director
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POPE COUNTY Multi-Hazard Mitigation Plan Update 2022 Planning Team Meeting #1

September 30, 2022



Welcome & Introductions

U-Spatial@UMD Project Leads



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hundrieser
HMP Planning Specialist
Hundrieser Consulting LLC

Pope County Project Lead

- Tim Riley, Pope County Sheriff / Emergency Management Director
- Kim Joos, Deputy EM Director



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

PRESENTER: STACEY STARK

Zoom Logistics

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

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

USE CHAT:

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



ASK TO SPEAK:



PRESENTER: STACEY STARK

Meeting Purpose & Agenda



2022 spring thaw road damage

The purpose of this meeting is to formally convene the **Pope 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 iced power lines

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.

Pope County MHMP Update 2022

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

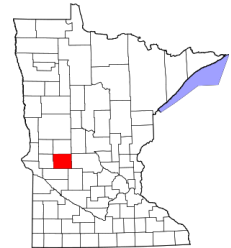
PRESENTER: BONNIE HUNDRIESER

Who the Plan Covers



The **Pope 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



Pope County Planning Team

- Pope 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?

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
- Multiple ways to navigate the content
- Links to PDF components and document
- Public input form on site



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 CR7 spring ice-snow jam



Spring 2022 spring thaw flooding

PRESENTER : STACEY STARK

Pope County Review of Hazard Risk Prioritization

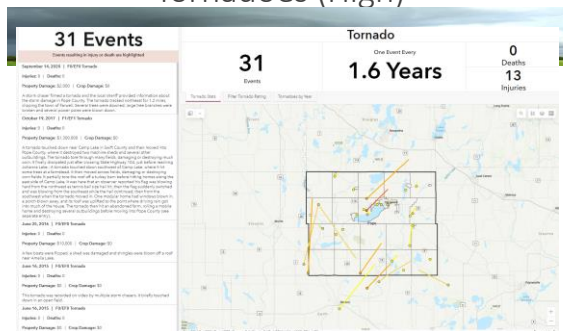
Hazard	2016 Plan
Winter Storms	High
Tornadoes	High
Land Subsidence/Erosion	High
Windstorms	Moderate
Flooding	Moderate
Extreme Cold	Moderate
Extreme Heat	Moderate
Drought	Moderate
Hail	Low
Lightning	Low
Wildfire	Low
Dam/Levee Failure	Low
Landslides	Not Addressed

Considerations for changes in hazard prioritization since last plan:

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

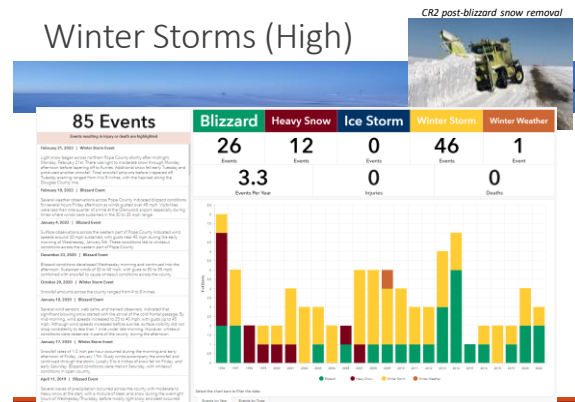
PRESENTER : STACEY STARK

Tornadoes (High)



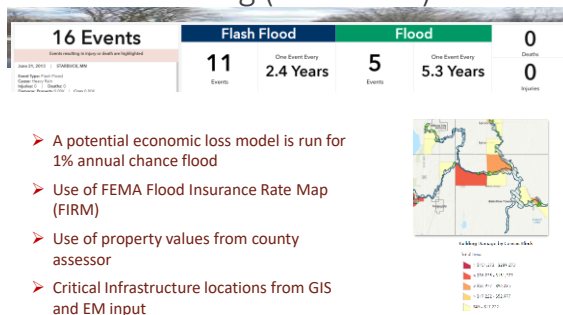
PRESENTER : STACEY STARK

Winter Storms (High)



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

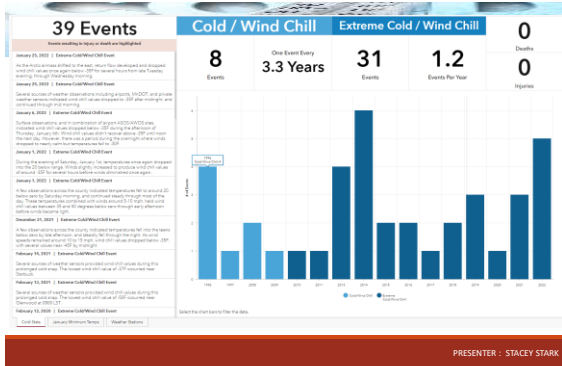
PRESENTER : STACEY STARK

Windstorms (Moderate) Lightning, Hail (Low)

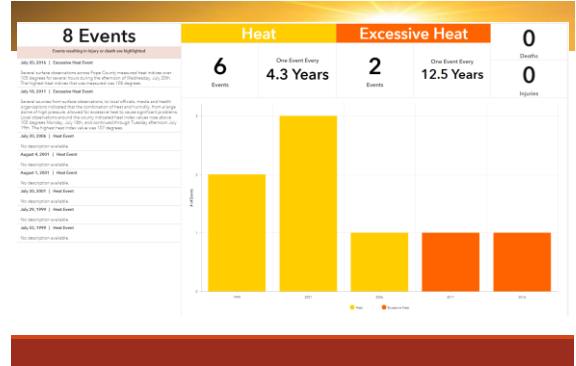


PRESENTER : STACEY STARK

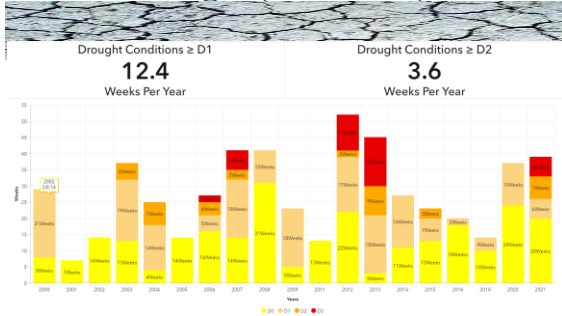
Extreme Cold (Moderate)



Extreme Heat (Moderate)



Drought (Moderate)



Wildfire/Wildland Fire (Low)

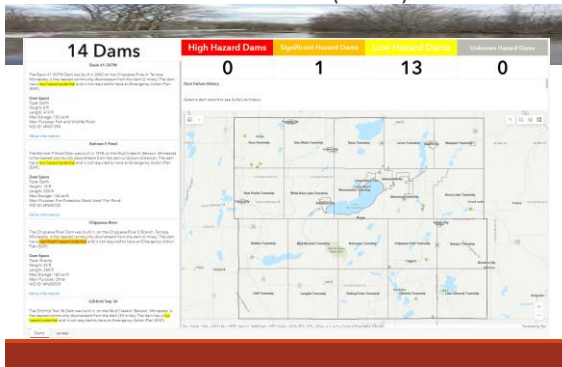


Landslides (not addressed previously)

- 2016 plan ranked Land Subsidence/Severe Erosion as High in relationship to lakes and shoreline properties throughout the county. However, the county and jurisdictional risk assessments noted no historic events, rare frequency, and minimal risk.
- Hazards deemed low risk and without significant mitigation actions, can be dropped from the plan.

PRESENTER: STACEY STARK

Dam Failure (Low)



Pope County Review of Hazard Risk Prioritization

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

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

PRESENTER: STACEY STARK

Mitigation Strategies & Example Actions



See Handout: Mitigation Strategies & Action Types

PRESENTER : BONNIE HUNDRIESER

#1 - Local Planning & Regulations



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

EXAMPLES:

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



PRESENTER : BONNIE HUNDRIESER

#2 – Structure and Infrastructure Projects



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

EXAMPLES:

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



PRESENTER : BONNIE HUNDRIESER

Tornado Safe Rooms

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



1998 Tornado damage to MHP in Le Center, MN.



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

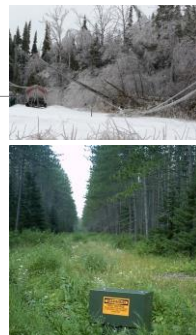


1st School-based tornado safe room, Wadena, MN (2012) following June 17, 2010 tornado damage

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 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

Mitigation Ideas

See Handout: Mitigation Ideas Worksheet

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

PRESENTER : BONNIE HUNDRIESER



Oct. 2022 – Feb., 2023

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

Lead: Bonnie Hundrieser

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

PRESENTER : BONNIE HUNDRIESER



(Concurrent)
Oct. 2022 – Feb., 2023

Critical Infrastructure Inventory, Risk Assessment and Vulnerability Analysis

Lead: U-Spatial

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

PRESENTER : BONNIE HUNDRIESER



March – May, 2023

Development of Local Mitigation Action Charts

Lead: Bonnie Hundrieser

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

PRESENTER : BONNIE HUNDRIESER



June – July, 2023

Hold Planning Team Meeting #2

Lead: U-Spatial & Bonnie Hundrieser

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

PRESENTER : BONNIE HUNDRIESER



Aug. – Sept., 2023

EM review of Draft Plan + Public Review & Comment Period

Lead: U-Spatial & Bonnie Hundrieser

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

PRESENTER : BONNIE HUNDRIESER



Oct. – Dec., 2023

Draft Plan Submission to HSEM & FEMA for Approval

Lead: U-Spatial

- Draft plan will be submitted first to HSEM and then to FEMA for approval for meeting all Federal requirements.
- Typically requires 1-2 months.
- APA letter
- EM coordination of adopting resolutions and submission to HSEM
- Final Letter of Approval

PRESENTER : BONNIE HUNDRIESER

Questions?

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

PRESENTER : STACEY STARK

Contact Information

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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

Pope County HMP Planning Team Meeting #2

October 3, 2023 - Meeting Summary & Documentation

Summary: On Tuesday, October 3, 2023, Pope 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 Pope County Hazard Mitigation Plan (HMP). The purpose of the meeting was to formally convene the Pope County HMP Planning Team for a presentation on the draft plan and discussion of key items prior to public review and submission of the plan to HSEM and FEMA. The meeting was held via Zoom webinar video conference and was facilitated by Stacey Stark and Bonnie Hundrieser of the U-Spatial@UMD project team.

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

Meeting Participants: A total of 19 people attended the meeting. Representation included elected officials and departmental staff from Pope County and the cities of Cyrus, Glenwood, Lowry, Sedan, and Starbuck. The cities of Farwell, Long Beach, Villard, and Westport were not available to participate and were not in attendance. Other stakeholders, including neighboring jurisdictions, participated in the meeting. A participant list is included with this meeting summary.

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

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

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

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

Meeting Participant	Comment, Question or Mitigation Idea Submitted	Facilitator Feedback / How to be Addressed in Plan Update
Emily Siira, MN DNR Area Hydrologist	<p><i>Regarding clarification of CI data for campgrounds and mobile home parks within the county:</i> There are multiple campgrounds near Lake Minnewaska. Also Glacial Lakes State Park.</p> <p><i>Regarding Flood hazard profile data:</i> Did you use the best available information for the 1% chance flood? The FEMA Risk Maps are being updated and will be adopted within the year.</p>	<p>Stacey Stark: Thank you. We will follow up and get all the correct information on the location of campgrounds and mobile home parks.</p> <p>Stacey Stark: YES. We were able to get the preliminary FEMA map data from the MN DNR, so even though it's not yet adopted, they are the most current information.</p>
Daniel Sutton, City of Lowry Mayor	<i>Regarding overview of Pope County HMP website:</i> Is the website available now or after the updates?	Stacey Stark: It is available now and everyone is invited to review it and let us know if you have any comments. https://pope-county-hmp-umn.hub.arcgis.com/

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

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

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

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

From: [Kim Joos](#)
To: [Tim Riley](#); [Kim Joos](#); [Kersten Kappmeyer](#); [Michael Wacker](#); [Stephanie Rust](#); [David Green](#); [Dave Orlowski](#); [Brian Giese](#); [Bradley Pierce](#); [Bryan Gates](#); [Shelley Svec](#); [Gordy Wagner](#); [Paul Gerde](#); [Larry Lindor](#); [Cody Rogahn](#); ["cyruscityclerk@gmail.com"](#); ["jeff.anderson@trailertransfer.com"](#); ["Jannel.brockopp@usa.com"](#); ["davei@ci.glenwood.mn.us"](#); ["btcerney@msn.com"](#); ["patiaj@longbeachmn.org"](#); ["lowry@runestone.net"](#); ["k.nichtern@gmail.com"](#); ["citysedan101@gmail.com"](#); ["jen.lange@protonmail.com"](#); ["dcstarbuck@hcinet.net"](#); ["Dougnoyes1@hotmail.com"](#); ["cityofvillard@gmail.com"](#); ["trucking@pfeninger.com"](#); ["sallykirckof@gmail.com"](#); ["jerryvb@tds.net"](#); ["tmdouvier@gmail.com"](#); ["hedlinv@runestone.net"](#); ["bluemoundstwp@outlook.com"](#); ["gerdebernie@gmail.com"](#); ["jnwhite20@yahoo.com"](#); ["david.sibell@hotmail.com"](#); ["grovelaketownship@gmail.com"](#); ["puttchoo@yahoo.com"](#); ["quadekj@gmail.com"](#); ["gcwilliams@mvtvwireless.com"](#); ["kjttauber@gmail.com"](#); ["drdcminntwnship@gmail.com"](#); ["klarson@scmcinc.org"](#); ["mkmatts@runestone.net"](#); ["Richard.moen@cnhind.com"](#); ["bljergenson@gmail.com"](#); ["valdentownshipmn@gmail.com"](#); ["nalhfors@wisper-wireless.com"](#); ["asmuselectric@outlook.com"](#); ["Lisa.Dumont@state.mn.us"](#); ["holly.kovarik@mn.nacdn.net"](#); ["jeff.hellermann@usda.gov"](#); ["Alexander.fellbaum@usda.gov"](#); ["jeff.scholten@usda.gov"](#); ["shiloh.wahl@state.mn.us"](#); ["jon@srwdmn.org"](#); ["technfcwrsd@tds.net"](#); ["emily.sira@state.mn.us"](#); ["crankin@isd2149.org"](#); ["rlspangler@otpc.com"](#); ["jill@wcif.org"](#); ["linda.blackmore@redcross.org"](#); ["donna.ortendahl@usc.salvationarmy.org"](#); ["donagreiner@co.stevens.mn.us"](#); ["tina.lindquist@co.grant.mn.us"](#); ["julia@co.douglas.mn.us"](#); ["Erin.Tufte@co.stearns.mn.us"](#); ["bill.mcgeary@co.swift.mn.us"](#); ["stephanie.felt@kcmn.us"](#); [Paul Gremmels](#)
Cc: ["Bonnie K Hundrieser"](#)
Subject: Hazard Mitigation
Date: Thursday, September 7, 2023 12:53:11 PM
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POPE COUNTY

HAZARD MITIGATION PLAN UPDATE – MEETING INVITATION

Greetings,

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

We will be holding the meeting virtually using Zoom webinar:

Date: Tuesday, October 3, 2023
Time: 2:00 p.m. – 3:30 p.m.
Zoom Link: https://umn-private.zoom.us/webinar/register/WN_WmqKNB3wTbKixjK1MvwWvA

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

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

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

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

Thank you,



Kim Joos

Office Manager

130 East Minnesota Ave

Glenwood, MN 56334

Phone: [320-634-5411](tel:320-634-5411)

kim.joos@popecountymn.gov

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Pope County

10/3/23 HMP Planning Team Meeting #2

List of Meeting Participants (19)

	Name	Organization	Job Title
1	Kim Joos	Pope County Sheriff's Office	Office Manager/Deputy EM
2	Stephanie Rust	Pope County Auditor's Office	Auditor/Treasurer
3	David Green	Pope County Land & Resource Management Dept.	Director
4	Dave Orlowski	Pope County Highway/Drainage Dept.	Senior Eng Tech/Drainage Inspector
5	Kersten Kappmeyer	Pope County Administration	County Administrator
6	Paul Gerde	Pope County Commission	Pope county commissioner
7	Gordy Wagner	Pope County Commission	Commissioner
8	Jeff Anderson	City of Cyrus Fire Department	Chief
9	Daniel Sutton	City of Lowry	Mayor
10	Julie Lloyd	City of Sedan	City Clerk/Treasurer
11	Bruce Cerney	City of Glenwood Fire Department	Chief
12	Joan Kerkvliet	City of Starbuck	City Clerk/Treasurer
13	Kerri Mattson	Nora Township	Clerk/Treasurer
14	Lisa Villcheck	MN HSEM	Region 4 Regional Program Coordinator
15	Mark Kaelke	West Central Initiative	Community Planner
16	Chip Rankin	Minnewaska Area Schools	Superintendent
17	Jeff Hellermann	USDA NRCS	District Conservationist
18	Emily Siira	MN DNR	Area Hydrologist
19	Stephanie Felt	Kandiyohi County Emergency Management	Emergency Management Director

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

October 3, 2023



U-SPATIAL
UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Welcome & Introductions

U-Spatial@UMD Project Leads



Stacey Stark
Project Manager
U-Spatial@UMD



Bonnie Hundrieser
HM Planning Specialist
Hundrieser Consulting LLC

Pope County Project Lead

- Kim Joos, Pope County Deputy Emergency Management Director



Tim Riley, Pope County Sheriff & Emergency Management Director

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

PRESENTER: STACEY STARK

Zoom Logistics

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

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

USE CHAT:

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



ASK TO SPEAK:



PRESENTER: STACEY STARK

Meeting Purpose & Agenda



The purpose of this meeting is to formally convene the **Pope County HMP Planning Team** for a presentation on the draft plan and discussion of key items prior to public review and submission of the plan to HSEM and FEMA.

Agenda

- Welcome & Introductions
- Recap of Key HMP Points
- Overview of HMP website
- 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

Pope County is updating its **Hazard Mitigation Plan (HMP)** to fulfill a state & federal requirement. The plan must be updated every 5 years. The last plan was adopted in 2016.

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



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

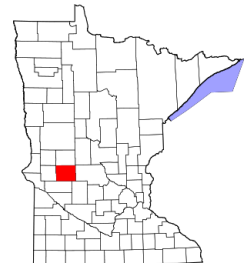
PRESENTER: BONNIE HUNDRIESER

Who the Plan Covers



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

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



PRESENTER: BONNIE HUNDRIESER

Who Needs to Participate



Key Stakeholders

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

2 Planning Team Meetings

Local Mitigation Survey

Provision of key data

MAC Review & Feedback

Review of Draft Plan

The Public

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

2 News Releases

Outreach conducted via websites, social media, bulletin boards, and local media

Online public review & comment period for draft plan

PRESENTER: BONNIE HUNDRIESER

HMP products

PDF document:

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



Website companion:

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

PRESENTER: STACEY STARK

Hazards Risk Assessment

- Validates the prioritization of hazards
- Provides probability and severity of future events as possible
- Identifies vulnerable populations and structures at risk as possible
- Considers variable jurisdictional vulnerability
- Informs Mitigation Actions in the HMP



PRESENTER: STACEY STARK

Prioritization of Hazards for Pope County



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

➤ Probability and Severity of natural hazard events (risk)

➤ Observed increase or decrease in risk since last plan

➤ Jurisdictional variations in risk (i.e., local vulnerabilities, changes in development)

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

PRESENTER: BONNIE HUNDRIESER

Comments and Questions?

Overview of Mitigation Action Charts



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

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

Mitigation Action Charts are the end product of the HMP.

Mitigation actions are specific.

Mitigation actions address known vulnerabilities.

Mitigation actions utilize capabilities to reduce risk.

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

FEMA HMA Grant Funding



FEMA

- All applicants must be covered by an approved HMP
- Cost share: Federal 75%, Applicant 25%
- Projects must address risk reduction.
- Eligible projects must be identified in the plan of action.

Example Eligible Activities:

Property Acquisition (flooding/erosion)
Tornado Safe Rooms (new/retrofit)
Infrastructure Retrofits (utility systems, roads & bridges)
Wildfire Mitigation
Soil Stabilization
Flood Risk Reduction
Green Infrastructure
Other projects difficult to conduct a standard BCA

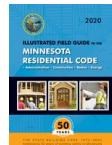
PRESENTER: BONNIE HUNDRIESER

Local Planning & Regulations



Pope County Examples:

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



PRESENTER: BONNIE HUNDRIESER

Structure & Infrastructure Projects

Pope County Examples:

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



PRESENTER: BONNIE HUNDRIESER

Natural Systems Protection

Pope County Examples:

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



PRESENTER: BONNIE HUNDRIESER

Education & Awareness Programs

Pope County Examples:

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



PRESENTER: BONNIE HUNDRIESER

Mitigation Preparedness & Response Support

Pope County Examples:

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



PRESENTER: BONNIE HUNDRIESER

Comments and Questions?



Fall 2023

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



Following Planning Team Mtg. #2

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

PRESENTER: BONNIE HUNDRIESER



Winter 2023

Draft Plan Submission to HSEM & FEMA, Plan Approval, and Collection of Adopting Resolutions

- Draft plan will be submitted first to HSEM and then to FEMA for approval for meeting all Federal requirements.
- Typically requires 1-2 months.
- APA letter
- EM coordination of adopting resolutions from each city.

PRESENTER: BONNIE HUNDRIESER

Questions?

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

PRESENTER: STACEY STARK

Contact Information

Stacey Stark, MS, GISP

U-Spatial@UMD

slstark@d.umn.edu

218-726-7438

U-SPATIAL

UNIVERSITY OF MINNESOTA DULUTH
Driven to Discover

Bonnie Hundrieser, HM Planner

Hundrieser Consulting LLC

hundrieserconsulting@outlook.com

218-343-3468



PRESENTER: STACEY STARK



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

HAZARD MITIGATION ASSISTANCE

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

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

Who is eligible for grant funding?

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

What types of projects can be funded?

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

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

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

How do I apply?

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

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

Where can I obtain further information?

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

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

Mitigation Strategies & Action Types

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

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

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

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

Appendix G – Public Outreach & Engagement Documentation

Pope County MHMP News Release #1

Record of Public Input & Incorporation

Overview: On **August 8, 2022**, Pope 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. Pope County used the news release to gather feedback from residents and businesses from across the county to incorporate into the plan, inviting feedback to the following:

- What are the natural hazards you feel pose the greatest risk to your community?
- What concerns do you have, and what sorts of mitigation actions or projects do you feel would help to reduce the damages of potential future events for your personal property, your community, or the County as a whole?

The public was strongly encouraged contact Pope 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 Pope County, participating jurisdictions, local media, and other stakeholders. Cities and townships were encouraged to help share the news release locally by posting it on their websites, social media, or community bulletin boards.

Public Input & Incorporation:

Following is a record of public responses to the news release and how their input will be incorporated into the plan update, and if not relevant to be addressed, why.

1. 8/15/22 Email to Tim Riley, Pope County EM Director from Otter Tail Power Operations Manager

Hi Tim,

I am the Operations Manager for Otter Tail Power. I read a flyer for Pope County regarding the Multi-Hazard Mitigation plan and input requests and wanted to share a little info.

We supply power to Cyrus and Farwell in Pope County and we also have a transmission line that runs from Cyrus up through Farwell. The line feeds a couple of Runestone substations along the way as well. One of the notes in the flyer mentioned burying powerlines. We do bury some of our distribution lines, which are lines energized at or below a nominal voltage of 12,470 volts, but we don't bury transmission lines, which are lines that are energized at or above a nominal voltage of 40,000 volts. The cost of the higher voltage cables makes it cost prohibitive to do so. Also, I believe we have maybe talked in the past that since we are investor-owned we do not qualify for FEMA dollars.

I hope this helps if you should take any questions in relation to OTP.

Eric

8/15/22 Email Response from Tim Riley

Eric,

Thank you for the email, I will pass this information along.

*Have a great week,
Tim*

Incorporation: Nothing to address for incorporation into the plan update. Otter Tail County is not an eligible utility company for potential future application for FEMA HMA grants for converting powerlines from overhead to underground.

2. 8/17/22 Email to Tim Riley, Pope County EM Director from Steven Jurek, Pope County Technical Support Specialist

Tim,

Just saw this on our website and wanted to put in my 2 cents worth in.

I would like to make comment on Trailer Parks and RV Parks in the county, and there need for storm shelters. Years ago when I was up in Pine Hill Park on Hwy 55, our closed shelter was the courthouse. That is way too far for when a tornado is on its way. In the storm, of I believe 2011, we actually got stuck in the storm, as Hwy 28 just down from AJ's was blocked and so was Park Rd (Snake Rd) with down trees as we attempted to get to the courthouse from Pine Hill Park. The county should require Trailer Parks and RV parks to have storm shelters on site. A tornado is no time for people to be driving to a shelter.

*Just my 2 cents worth.
Steven Jurek*

8/17/22 Email Response from Tim Riley

Steven,

Thank you for your feedback on the news release and concern about the need for storm shelters and RV parks in the county. The update of the Pope County hazard mitigation plan will be addressing local

vulnerabilities for tornadoes and severe windstorms and we will be identifying where structures such as tornado safe rooms or storm shelters are needed. The Minnesota Dept. of Health has state statutes in place for mobile home park owners to be in compliance with developing evacuation plans and storm shelters based on their size. We will use the planning process to encourage those communities to take action on those needs and get guidance from MDH and the county as needed so they are in compliance and create a safer environment for their residents.

*Thank you,
Tim*

Incorporation: The Pope County MHMP will be addressing where tornado safe rooms and storm shelters are needed in the county.

From: [Kim Joos](#)
To: [Tim Riley](#); [Kim Joos](#); [Kersten Kappmeyer](#); [Michael Wacker](#); [Stephanie Rust](#); [David Green](#); [Dave Orlowski](#); [Brian Giese](#); [Bradley Pierce](#); [Bryan Gates](#); [ShelleySvec](#); [Nan Haggerty](#); [Gordy Wagner](#); [Paul Gerde](#); [Larry Lindor](#); [Cody Rogahn](#); ["cyruscitclerk@gmail.com"](#); ["jeff.anderson@trailertransfer.com"](#); ["Jannel.brockopp@usa.com"](#); ["davei@ci.glenwood.mn.us"](#); ["btcerney@msn.com"](#); ["patiaj@longbeachmn.org"](#); ["lowry@runestone.net"](#); ["k.nichtern@gmail.com"](#); ["citysedan101@gmail.com"](#); ["jen.lange@protonmail.com"](#); ["dcstarbuck@hcinet.net"](#); ["Dougnoyes1@hotmail.com"](#); ["cityofvillard@gmail.com"](#); ["pfentrrkg@embarqmail.com"](#); ["sallykirckof@gmail.com"](#); ["jerryvb@tds.net"](#); ["tmdouvier@gmail.com"](#); ["hedlinv@runestone.net"](#); ["bluemoundstwp@outlook.com"](#); ["gerdebernier@gmail.com"](#); ["jnwhite20@yahoo.com"](#); ["david.sibell@hotmail.com"](#); ["grovelaketownship@gmail.com"](#); ["puttchoo@yahoo.com"](#); ["quadekj@gmail.com"](#); ["gcwilliams@mvtvwireless.com"](#); ["kjttauber@gmail.com"](#); ["drdcminntwnship@gmail.com"](#); ["klarson@scmcinc.org"](#); ["mkmatts@runestone.net"](#); ["Richard.moen@cnhind.com"](#); ["bljergenson@gmail.com"](#); ["valdentownshipmn@gmail.com"](#); ["nalhfors@wisper-wireless.com"](#); ["asmuselectric@outlook.com"](#); ["Lisa.Dumont@state.mn.us"](#); ["holly.kovarik@mn.nacdnet.net"](#); ["jeff.hellermann@usda.gov"](#); ["Alexander.felbaum@usda.gov"](#); ["jeff.scholten@usda.gov"](#); ["shiloh.wahl@state.mn.us"](#); ["jon@srwdmn.org"](#); ["nfcrrwsd@tds.net"](#); ["emily.siira@state.mn.us"](#); ["crankin@isd2149.org"](#); ["rlspangler@otpc.com"](#); ["jill@wcif.org"](#); ["linda.blackmore@redcross.org"](#); ["donna.ortendahl@usc.salvationarmy.org"](#); ["Dona Greiner"](#); ["Tina Lindquist"](#); ["juleia@co.douglas.mn.us"](#); ["Erin.Tufte@co.stearns.mn.us"](#); ["bill.mcgeary@co.swift.mn.us"](#); ["stephanie.felt@kcmn.us"](#)
Cc: ["Bonnie K Hundrieser"](#); [Tim Riley](#)
Subject: POPE COUNTY NEWS RELEASE
Date: Monday, August 8, 2022 10:10:44 AM
Attachments: [news release.docx](#)

Greetings,

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

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

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

INSTRUCTIONS:

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

- **Electronic Postings** - If you are posting to a website and/or Facebook page, please send me an email with information on the date, location, and website link of the posting. We will need to get a screenshot of the posting for documentation.

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

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

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

If you have any questions, please let me know.

Thank you,

Kim Joos

Office Manager

Pope County Sheriff's Office

130 E. Minnesota Avenue

Glenwood, MN 56334

320-634-7798 (direct dial)

320-634-5411

**new e-mail – kim.joos@popecountymn.gov

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IF YOU RECEIVE THIS EMAIL IN ERROR, PLEASE NOTIFY THE SENDING PARTY
IMMEDIATELY AND DESTROY ALL ACCOMPANYING DOCUMENTS.

From: [Kim Joos](#)
To: ["tdouglass@pctribune.com"](mailto:tdouglass@pctribune.com)
Cc: ["Bonnie K Hundrieser"](#)
Subject: Pope County News Release
Date: Wednesday, August 10, 2022 2:27:06 PM
Attachments: [news release.docx](#)

Please carry this in your online or printed news.

Thank you~

Kim Joos

Office Manager
Pope County Sheriff's Office
130 E. Minnesota Avenue
Glenwood, MN 56334
320-634-7798 (direct dial)
320-634-5411
**new e-mail – kim.joos@popecountymn.gov

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prohibited.

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IMMEDIATELY AND DESTROY ALL ACCOMPANYING DOCUMENTS.

From: [Kim Joos](#)
To: ["Bonnie K Hundrieser"](#)
Subject: FW: Pope County News Release
Date: Wednesday, August 10, 2022 2:28:06 PM
Attachments: [news release.docx](#)

From: Kim Joos
Sent: Wednesday, August 10, 2022 2:28 PM
To: 'nestor@kmgk1071.com' <nestor@kmgk1071.com>
Subject: Pope County News Release

Please carry this in your online or printed news...

Thank you~

Kim Joos

Office Manager
Pope County Sheriff's Office
130 E. Minnesota Avenue
Glenwood, MN 56334
320-634-7798 (direct dial)
320-634-5411
**new e-mail – kim.joos@popecountymn.gov

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IF YOU RECEIVE THIS EMAIL IN ERROR, PLEASE NOTIFY THE SENDING PARTY
IMMEDIATELY AND DESTROY ALL ACCOMPANYING DOCUMENTS.



TIM RILEY
Sheriff

Pope County Sheriff's Office
130 East Minnesota Ave.
Glenwood, MN 56334
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E-mail: tim.riley@co.pope.mn.us

"WORKING WITH YOU AND FOR YOU TO BUILD A BETTER COMMUNITY"

POPE COUNTY NEWS RELEASE

August 8, 2022

Public Input Wanted as County Updates Multi-Hazard Mitigation Plan

Pope County residents, business owners, nonprofit members, and community leaders now have an organized opportunity to share how severe weather events impact their property and lives. There is also an opportunity to share their ideas on how to reduce the impact in the future.

The Pope 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 Pope County MHMP is a multi-jurisdictional plan that covers Pope County, including the cities of Brooten, Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, Villard, and Westport. The Pope County MHMP also incorporates the concerns and needs of townships, school districts, and area agencies or organizations participating in the plan. The plan will be updated by a planning team made up of representatives from county departments, local municipalities, school districts and other key stakeholders.

"Hazard mitigation planning is a central part of our emergency management program," said Tim Riley, Pope County Sheriff and Emergency Management Director. "Understanding the natural hazards that can cause serious impact to our communities and taking action to reduce or eliminate the impact of future disasters makes us more resilient. Hazard mitigation helps us to break the cycle of damage and repair caused by things like flooding, ice storms, and severe wind events that can damage property, stress economies, and threaten life safety in our county."

Examples of hazard mitigation include:

- improvement of roads and culverts that experience repetitive flooding
- construction of safe rooms at campgrounds, public parks, mobile home parks or schools to protect lives in the event of tornados or severe wind events
- burying powerlines that may fail due to heavy snow, ice, or windstorms
- ensuring timely emergency communication to the public through warning sirens and mass notification systems

- conducting public awareness and education campaigns to help people be prepared to take safe action before, during, or following a hazard event.

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

Public input is an essential part of the plan update. As part of the planning process, Pope County is seeking feedback from residents and businesses from across the county to incorporate into the plan:

- What are the natural hazards you feel pose the greatest risk to your community?
- What concerns do you have, and what sorts of actions or projects do you feel would help to reduce the damages of potential future events for your personal property, your community, or the county as a whole?

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

There will be additional opportunities for public feedback throughout the planning process. A draft of the plan will be made available for public review prior to submission of the plan to the State of Minnesota. Future news releases will be shared with the media to notify the public of these opportunities.

The Federal Disaster Mitigation Act of 2000 (DMA 2000) requires counties to update their plan every 5 years to maintain eligibility for FEMA's Hazard Mitigation Assistance (HMA) grant programs.

Contact

Tim Riley
Pope County Emergency Management Director
320-634-7797
Email: tim.riley@popecountymn.gov

Kim Joos
Pope County Deputy Emergency Management Director
Phone: 320-634-7798
Email: kim.joos@popecountymn.gov

Pope County HMP News Release #1 – August 8, 2022
Chart Documentation of News Release Postings

Jurisdiction or Agency	Posting Representative	Date & Location of News Release Posting
Pope County	Kim Joos, Pope County Deputy EM Director	8/8/22, Pope County Website, Sheriff's Office Facebook page, Pope County Auditor-Treasurer's Office information board
City of Cyrus	Jeff Anderson, Fire Chief	8/9/22, City Hall bulletin board, City website
City of Farwell	Jannel Brockopp, City Clerk	8/8/22, Community Center bulletin board
City of Glenwood	David Iverson, City Administrator	8/15/22, City Hall bulletin board
City of Long Beach	Patia Jensen, City Clerk	8/15/22, City Hall bulletin board
City of Lowry	Kristi, Kramber, City Clerk/Treasurer	8/15/22, City Hall bulletin board
City of Sedan	Julie Lloyd, City Clerk/Treasurer	8/16/22, City Hall bulletin board
City of Starbuck	Joan Kerkvliet, City Clerk	8/8/22, City Office and Community Center bulletin boards
City of Villard	Ann Butler, City Clerk	8/9/22, Community Center bulletin board
City of Westport	Sally Kirckof, City Clerk	8/10/22, City Hall bulletin board
Hoff Township	Joanna Rustad, Twp. Clerk	8/8/22, Town Hall bulletin board
Westport Township	Nancy Ahlfors, Twp. Clerk	8/8/22, Town Hall bulletin board
Ben Wade Township	Vern Hedlin, Twp. Clerk	8/11/22, Community Center and B&S Grain bulletin boards
White Bear Lake Township	Andy Aslagson, Twp. Rep	8/10/22, Town Hall bulletin board
Lake Johanna Township	Kelly Quade, Twp. Rep	8/10/22, Town Hall bulletin board
New Prairie Township	Karla Larson, Twp. Rep	8/13/22, Town Hall bulletin board
Reno Township	Richard Moen, Twp. Rep.,	8/17/22, Town Hall bulletin board
Pope Soil and Water Conservation District	Holly Kovarik, District Manager	8/11/22, SWCD Office bulletin board
USDA Farm Service Agency	Alex Fellbaum, County Executive Director,	8/8/22, USDA Service Center bulletin board

Pope County HMP News Release #2

Record of Public Input & Incorporation

Overview: On October 30, 2023 Pope County Emergency Management put out a news release titled “Public Comment Sought for County’s Hazard Mitigation Plan” to announce the completion of the draft Pope County Hazard Mitigation Plan and invitation for public review and comment. The news release informed jurisdictional stakeholders and the public that a copy of the draft plan, interactive website, and comment form for public feedback was available online with a website link. The public review period for the draft plan was open from 10/30/23 to 11/13/23 for a total of 15 days.

Distribution: The news release was sent via email to the county’s HMP Jurisdictional Contact List, which includes the names, titles, phone numbers, and email addresses of key stakeholders to be engaged in the HMP update, including County Contacts, City Contacts, Township Contacts, Other Stakeholder Contacts, and Neighboring Jurisdiction Contacts. (A copy of the Jurisdictional Contact List can be found in Appendix F). The news release was additionally sent to local media contacts such as area newspapers, radio and television channels with a request to carry the news release.

Postings: Attached is documentation of the news release postings by Pope 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 Pope County news release and how the input will be incorporated into the plan update, and if not relevant to be addressed, why.

Submitted By	Comment	How Incorporated into the Plan
David Green, Pope County Land & Resource Management Director	Email Response: <i>I have reviewed and provided comments on several occasions including on February 28th and September 27th. However, I will do another review and provide additional comments if appropriate.</i>	No incorporation needed. Prior feedback specific to plan content was previously incorporated.

Jill Admundson, Impact Evaluator, West Central Initiative	Email Response: <i>The Pope County plan your team put together is so ridiculously beautiful!! I'm thrilled that Pope County was able to have your help with this. Thanks for sending it to me Stacey! As you may know, West Central Initiative has recently completed a regional Climate Action Plan. I was curious how we might connect our work to that of this site. For example, I see that there is a survey asking for personal stories on the Climate Page of the HMP website. I was curious if this was part of larger research and how we could collaborate. As always, any/all ideas are welcome - just excited to be learning from such brilliant social scientists.</i>	No incorporation needed. Stacey Stark followed up with an email to share that: <i>The climate stories idea via survey has not taken off yet. We are hoping eventually we will have a statewide map of stories as we are working with 35 counties currently and in the next year. We are convinced that having the personal stories and notable event stories in the hazard mitigation plan will make them more compelling.</i> A future phone call to discuss further was suggested.
Bill McGeary, Swift County Emergency Management Director	Survey Response: <i>It all looks good to me.</i>	No incorporation needed.
Brad Pierce, Pope County Facilities Director	Survey Response: <i>I checked it out very nice looks good to me thank you.</i>	No incorporation needed.
Shelley Svec, Horizon Public Health	Survey Response: <i>At first glance, the plan seems straight forward and well laid out.</i>	No incorporation needed.

Mark Kaelke, Community Planner, West Central Initiative	<p><i>Survey Response: Drought is rated as a moderate risk/vulnerability in the plan currently however after three consecutive years of varying degrees of drought in this region and modeling forecasting drier summers in the future, it seems Pope County might strongly consider elevating drought to "high vulnerability" status. This also seems pertinent given a large section of south eastern Pope County (the Bonanza Valley) falls inside a Groundwater Management Area due to the amount of wells/water use, past well-interferences and the character of the aquifer(s) there. Including drought in the high risk category may be an opportunity to develop/enhance conservation guidelines prior to the need for their implementation.</i></p>	<p>No changes needed to the plan. Drought is profiled in the Pope County HMP as a moderate hazard risk based on input that was received from 2 planning team meetings and the risk and vulnerability assessment that was conducted for drought. Mitigation actions for drought were developed for Pope County and each city jurisdiction based on existing capabilities and programs.</p> <p>This is a valuable comment and Pope County has made note of it. The county will continue to assess the risk priority of drought over the next 5 years following plan adoption and consider increasing the priority level from moderate to high if needed when the plan is updated.</p>
---------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

From: [Kim Joos](#)
To: [Tim Riley](#); [Kim Joos](#); [Kersten Kappmeyer](#); [Michael Wacker](#); [Stephanie Rust](#); [David Green](#); [Dave Orlowski](#); [Brian Giese](#); [Bradley Pierce](#); [Bryan Gates](#); [ShelleySvec](#); [Paul Gremmels](#); [Gordy Wagner](#); [Paul Gerde](#); [Larry Lindor](#); [Cody Rogahn](#); ["cyruscitclerk@gmail.com"](#); ["jeff.anderson@trailertransfer.com"](#); ["Jannel.brockopp@usa.com"](#); ["davei@ci.glenwood.mn.us"](#); ["btcerney@msn.com"](#); ["patiaj@longbeachmn.org"](#); ["lowry@runestone.net"](#); ["k.nichtern@gmail.com"](#); ["citysedan101@gmail.com"](#); ["jen.lange@protonmail.com"](#); ["dcstarbuck@hcinet.net"](#); ["Dougnoyes1@hotmail.com"](#); ["cityofvillard@gmail.com"](#); ["trucking@pfeninger.com"](#); ["sallykirckof@gmail.com"](#); ["mlbmeyer@outlook.com"](#); ["tmdouvier@gmail.com"](#); ["hedlinv@runestone.net"](#); ["bluemoundstwp@outlook.com"](#); ["gerdebernie@gmail.com"](#); ["jnwhite20@yahoo.com"](#); ["david.sibell@hotmail.com"](#); ["grovelaketownship@gmail.com"](#); ["puttchoo@yahoo.com"](#); ["quadekj@gmail.com"](#); ["gcwilliams@mvtvwireless.com"](#); ["kjttauber@gmail.com"](#); ["drdcminntwnship@gmail.com"](#); ["klarson@scmcinc.org"](#); ["mkmatts@runestone.net"](#); ["Richard.moen@cnhind.com"](#); ["bljergenson@gmail.com"](#); ["validentownshipmn@gmail.com"](#); ["nalhfors@wisper-wireless.com"](#); ["asmuselectric@outlook.com"](#); ["Lisa.Dumont@state.mn.us"](#); ["holly.kovarik@mn.nacdn.net"](#); ["jeff.hellermann@usda.gov"](#); ["Alexander.felbaum@usda.gov"](#); ["jeff.scholten@usda.gov"](#); ["shiloh.wahl@state.mn.us"](#); ["jon@srwdmn.org"](#); ["technfcwrsd@tds.net"](#); ["emily.siira@state.mn.us"](#); ["crankin@isd2149.org"](#); ["SWiese@otpc.com"](#); ["jill@wcif.org"](#); ["linda.blackmore@redcross.org"](#); ["donna.ortendahl@usc.salvationarmy.org"](#); ["donagreiner@co.stevens.mn.us"](#); ["tina.lindquist@co.grant.mn.us"](#); ["juliea@co.douglas.mn.us"](#); ["Erin.Tufte@co.stearns.mn.us"](#); ["bill.mcgeary@co.swift.mn.us"](#); ["stephanie.felt@kcmn.us"](#)
Cc: ["Bonnie K Hundrieser"](#)
Subject: Pope County News Release - Public Comment Sought for Hazard Mitigation Plan
Date: Monday, October 30, 2023 1:57:25 PM
Attachments: [email_sig.sheriff_20969028-f90c-436f-9eea-b1626795ce76.png](#)
[10-30-23 Pope County News Release - Hazard Mitigation Plan Public Review.pdf](#)

Greetings,

Attached is a news release announcing the public review and comment period is open for the Pope County Hazard Mitigation Plan from **October 30th – November 13th** prior to submission of the plan to FEMA. As a jurisdiction, related agency, or neighboring jurisdiction involved in the Pope County plan update, your assistance is requested to help post the news release and also to review the draft plan. Your assistance requested on the following items below in order to document to FEMA your participation in this important public outreach process:

- **PLEASE POST THE NEWS RELEASE**

Each city jurisdiction within the county is requested to post the news release.

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

- **PLEASE REVIEW THE PLAN**

All recipients of this notice are encouraged to review the plan and provide comment. Please also share with your local governments or agency partners to review. There are website links as well as QR codes in the news release that will take you to PDF of the plan, interactive website, and mitigation action charts. There is also an online feedback form where you are encouraged to provide any comments, questions, or other feedback. **Please email me the names & titles of who reviewed the plan.**

- **PLEASE RESPOND BY NOV 13th**

As this is a 15-day review period, your timeliness to post the news release and review the plan is very important. Please respond to me with the requested information above no later than November 13th, which will be the end of the public

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

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

Thank you,



Kim Joos
Office Manager
130 East Minnesota Ave
Glenwood, MN 56334
Phone: [320-634-5411](tel:320-634-5411)
kim.joos@popecountymn.gov

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From: [Kim Joos](#)
To: ["tdouglass@pctribune.com"](#); ["ads@pctribune.com"](#); ["news@pctribune.com"](#); ["nestor@kmgk1071.com"](#)
Cc: ["Bonnie K Hundrieser"](#)
Subject: Pope County News Release - Hazard Mitigation Plan Public Review
Date: Monday, October 30, 2023 1:59:12 PM
Attachments: [email.sig.sheriff_20969028-f90c-436f-9eea-b1626795ce76.png](#)
[10-30-23 Pope County News Release - Hazard Mitigation Plan Public Review.docx](#)
[10-30-23 Pope County News Release - Hazard Mitigation Plan Public Review.pdf](#)

Please see attached news release in word and PDF formats. I would ask that you please carry this news release.

Thank you!



Kim Joos
Office Manager
130 East Minnesota Ave
Glenwood, MN 56334
Phone: [320-634-5411](tel:320-634-5411)
kim.joos@popecountymn.gov

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From: [Stacey Stark, U-Spatial](#)
To: hundrieserconsulting@outlook.com
Subject: Your input is requested for the Pope County Hazard Mitigation Plan!
Date: Thursday, November 2, 2023 8:06:48 AM

Dear Bonnie,

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

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

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

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

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

Use the Public Comment Feedback Form to submit feedback:
https://z.umn.edu/CountyHMP_Feedback

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

Kim Joos
Deputy EM Director, Pope County
Phone: 320-634-7798
Email: kim.joos@co.pope.mn.us

Thank you for your attention.

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

--

Stacey Stark, MS, GISP
Associate Director | U-Spatial | uspatial.umn.edu
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Sheriff

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"WORKING WITH YOU AND FOR YOU TO BUILD A BETTER COMMUNITY"

Public Comment Sought for County's Hazard Mitigation Plan

POPE COUNTY NEWS RELEASE

October 30, 2023

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

All county residents, as well as other interested agency or organizational stakeholders are strongly encouraged to review and offer feedback on the interactive website, PDF of the draft plan, and proposed local mitigation actions. The review and comment period is open for a period of 15 days through November 13, 2023. The public can access the plan using the following links:

[Pope County HMP Website](https://z.umn.edu/PopeHMP) (z.umn.edu/PopeHMP)

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

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

The Pope County HMP is a multi-jurisdictional plan that covers Pope County, including the cities of Cyrus, Farwell, Glenwood, Long Beach, Lowry, Sedan, Starbuck, Villard, and Westport. The Pope 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 Pope County Emergency Management in cooperation with U-Spatial at the University of Minnesota Duluth and representatives from county departments, city and township governments, school districts, and other key stakeholders. Together, the planning team worked to identify cost-effective and sustainable actions to reduce or eliminate the long-term risk to human life or property from natural hazards. Examples include improvement of roads and culverts that experience repetitive flooding; construction of safe rooms in areas where residents and visitors are vulnerable to tornadoes and severe storm events; burying powerlines that may fail due to heavy snow, ice or wind storms; ensuring timely emergency communication to the public through warning sirens and mass notification systems; and conducting outreach to increase public awareness of severe weather and personal preparedness.

Hazard mitigation planning helps Pope 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 Pope 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.

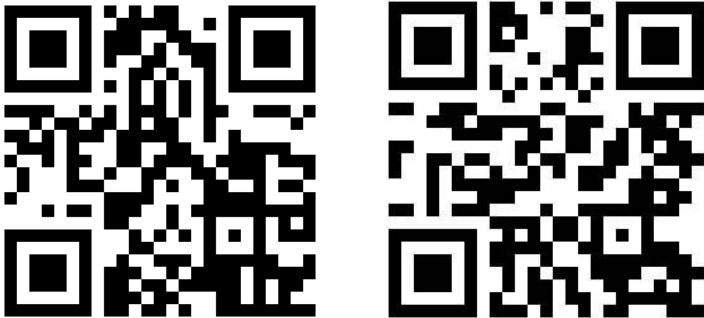
Community feedback is vital to the success of the plan. Pope County invites public review and feedback of the draft plan prior to submitting it to the State of Minnesota and the Federal Emergency Management Agency (FEMA) for review. Feedback may be provided via the online comment forms or directly to Pope County Emergency Management.

Contact

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



Pope County HMP News Release #2 – 10/30/23, 2023
Chart Documentation of News Release Postings

Jurisdiction or Agency	Posting Representative	Date & Location of News Release Posting
Pope County	Kim Joos, Pope County Deputy EM Director	10/30/2023 Pope County Website and SO website
City of Cyrus	Betsey Alessi, City Clerk	10/31/2023 – City Hall
City of Cyrus	Robert Tirevold, Chief of Police	11/2/2023 – City website
City of Farwell	Jannel Brockopp, City Clerk	11/9/2023 – posted at community center
City of Glenwood	David Iverson, City Administrator	11/9/2023 – posted on city website
City of Long Beach	Patia Jensen, City Clerk	11/8/2023 posted on City Facebook page
City of Lowry	Kristi, Kramber, City Clerk/Treasurer	11/6/2023
City of Sedan	Julie Lloyd, City Clerk/Treasurer	11/10/23 – posted at city hall meeting room
City of Starbuck	Joan Kerkvliet, City Clerk	11/2/2023 – city website
City of Villard	Ann Butler, City Clerk	11/9/2023 – posted community center
City of Westport	Sally Kirckof, City Clerk	11/9/2023 – city hall bulletin board
Kersten Kappmeyer	Pope County Administrator	10/30/2023 – Pope County website
Bryan Klassen	Deputy Sheriff	10/30/2023 – Pope County Sheriff website
Joanna Rustad	Hoff Township Clerk	10/31/2023 - Townhall
Karla Larson	New Prairie Township Clerk	11/1/2023 – Cyrus Community Center
Scott Wiese	OtterTail Power Company	11/3/2023 – revd – no questions or feedback
Nancy Ahlfors	Westport Township	11/3/2023 – Posted Villard Coop
Shelley Svec	Horizon Public Health	10/31/2023 – posted on website
Shelley Svec	Horizon Public Health	11/1/2023 – posted to Facebook
Steph Rust	Pope County Auditor/Treasurer	11/7/2023 – posted in office
Kerri Mattson	Nora Township Clerk	11/7/2023 – posted at Townhall
Andy Aslagson	White Bear Lake Township Clerk	11/7/23 – posted at townhall
Joe White	Gilchrist Township Clerk	11/7/2023 – posted at Gilchrist Townhall and W. Lake Johanna Church. Forwarded to 3 supervisors for review. No comments to add
Bruce Cerney	Glenwood Fire Dept.	11/7/2023 Posted on Fire department Facebook page
Richard Moen	Reno Township Clerk	11/7/2023 – Posted Reno townhall
Chip Rankin	Minnewaska Schools, Superintendent	11/13/2023 – shared via e-mail and google drive folder with employees

Appendix H – Mitigation Actions by Jurisdiction

CITY OF CYRUS**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We share information with our residents in multiple ways. The city has a bulletin board on the outside of City Hall and we also have an electronic message board that is attached to the city building. The city has a Facebook page and a city website which are also used as avenues of communication. We encourage residents to participate in the county's CodeRED emergency notification system and to be prepared for severe weather and temperatures.	City
2	Extreme Cold	Mitigation Preparedness & Response Support	Be prepared to provide emergency evacuation and sheltering to vulnerable residents during extreme cold event with a power outage.	Existing High 2024-2029	City Admin, City EM	Cyrus does experience power outages during winter storms with residents and businesses having potential for losing heat causing freezing damage and a need to relocate. The Cyrus Fire Department is activated during severe weather and assists local law enforcement in the event of an evacuation. We would work with Pope County in the event that emergency sheltering was needed for displaced residents.	City

CITY OF CYRUS

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
3	Severe Summer Storms	Mitigation Preparedness & Response Support	Look into establishing a severe weather safe shelter for the city.	New High 2024-2029	City Admin, City EM	The city has several slab-on-grade new residential constructions primarily for 55+ age residents. We also have a small mobile home park and three apartment buildings. None of these residents have storm shelters. The city will work to evaluate if we have an existing building that can serve as a temporary shelter that residents can report to, or if a new construction project would be needed. If we sought to build a new tornado safe room, we would look to possible FEMA HMA grant funding to do so.	City, FEMA HMA Grant
4	Severe Summer Storms	Structure & Infrastructure Projects	Upgrade the city's existing outdoor warning sirens.	Existing High 2024-2029	City EM	The city would like to upgrade our existing warning sirens, but grant funding would be necessary to do so. We will look into a possible grant from the USDA Community Facilities grant program. Our Fire Department maintains our sirens are test them on a monthly basis in coordination with the Pope County Sheriff's Office.	City, USDA CF Grant
5	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF FARWELL**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We have a city Facebook and would like to develop a city website. We have a bulletin board at the Community Center and Post Office where we post information for our residents. We can post a flyer to encourage residents to go to the Pope County website to sign up for CodeRED.	City
2	Severe Winter & Summer Storms	Local Planning & Regulations	Ensure new development is built to guidelines to reduce risk of damage or failure from extreme storm events.	Existing High 2024-2029	City Admin, City Public Works	We do not have any zoning but we do require building permits. We follow all Pope County regulations.	City
3	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning siren for high wind events.	Existing High 2024-2029	City EM	We maintain the outdoor warning siren and test it on a monthly basis in coordination with the Pope County Sheriff's Office.	City
4	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF GLENWOOD

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We post info on our city website and our police and fire departments also post information on their Facebook pages. We also make special announcements at the City Commission meetings, and we have a digital sign at the city's liquor store where we post information with public announcements. We also use local media news & radio to get out important news to our residents. The city will work to encourage residents to sign up for the county's CodeRED system by posting information on our city website.	City
2	Severe Winter & Summer Storms	Local Planning & Regulations	Ensure new development is built to guidelines to reduce risk of damage or failure from extreme storm events.	Existing High 2024-2029	City Admin, City Public Works	The city's planning and zoning committee meets monthly to discuss new development and building issues. The city follows the MN State Building Code and the City Code zoning requirements for new development. The city also has a Building Inspector to help enforce the code.	City
3	Severe Summer Storms	Structure & Infrastructure Projects	Purchase and install additional outdoor warning sirens.	New High 2024-2029	City Admin, City EM, City Public Works	We have a need for a additional outdoor warning sirens. We have 3 but they are spread out. In a few areas we have some new developments on the fringe of town where the sirens may not adequately cover the area. We will see if we may be eligible to apply for USDA Community Facility grant funding to assist in this effort.	City, USDA CF Grant

CITY OF GLENWOOD

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
4	Extreme Cold	Education & Awareness Programs	Encourage residents to be prepared for extreme cold and power outages.	Existing High 2024-2029	City Admin, City EM	The city uses its outreach methods to try and warn residents of extreme cold and to run a trickle of warm water to avoid frozen pipes. We also encourage residents to have generators to be ready for extended power outages.	City
5	Severe Summer Storms	Mitigation Preparedness & Response Support	Be prepared to provide emergency sheltering to vulnerable residents during severe storm events.	Existing High 2024-2029	City Admin, City EM	We provide information to campers at the municipal campground and local residents on emergency sheltering at the lower-level of the Pope County Courthouse basement if needed.	City
6	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	We continue to enforce water use restrictions in periods of drought. We went to a watering ban for residents for limited water consumption 2021. We implemented a volunteer mitigation effort on sprinkling and use of water – used local media & city utility bills to share info with the public. The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
7	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvement to reduce the risk of localized flooding to homes and the city storm sewer system.	Existing High 2024-2029	City Admin, City Public Works	The city completed a street reconstruction project which included upsizing of storms sewers and some of our catch basins. Our city Public Works department continues to work on stormwater sewer systems (i.e., cleaning and maintaining). We also have a sump pump ordinance that we enforce for residents.	City

CITY OF GLENWOOD

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
8	Landslides / Flooding	Natural Systems Protection	Address ways to reduce the impacts of ravine flooding and shoreland erosion.	Existing High 2024-2019	City Admin, City Public Works in coord with SWCD	We have partnered with Pope SWCD to write and receive grants for some ravine projects to address the first fast flush of water after a high rain event and to reduce erosion and impacts of sediment on the lake. Our city public works department is monitoring the rate of erosion along the lake to ensure that the adjacent road and underground utilities are not compromised. We will evaluate methods to reduce shoreland erosion where needed in the future.	City, SWCD
9	Flooding	Local Planning & Regulations	Enforce city ordinances that reduce the impacts of high rain events and risk of flooding to areas of new development.	Existing Moderate 2024-2029	City Admin	The city has adopted a stormwater management ordinance, which enforces that as local development occurs developers must manage the stormwater onsite. The ordinance requires developers to have storm sewer containing ponds to hold the water on site for a determined time period to slow the impact of stormwater on the city system before it rushes down. As we create areas of new development, we try to limit these impacts by holding water in stormwater ponds.	City

CITY OF GLENWOOD**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
10	Flooding	Local Planning & Regulations	Ensure that personnel, plans, and equipment are in place to handle flood mitigation and response.	Existing High 2024-2029	City Admin, City EM	We have a city engineer & public works director that addresses localized flooding for city streets. The city also has a Comprehensive Plan that is designed to plan for the future physical growth of the city and appropriate land uses as well as a 5-year Capital Improvement Plan that is a plan for our city roadways and stormwater infrastructure. We have worked with the Pope SWCD to develop stormwater holding ponds in controlling and minimizing local flooding issues. As part of that we have a document that was prepared by Houston Engineering that identifies areas where we could construct holding ponds to limit the impacts of water on the city's I&I system. We use this document in our planning.	City

CITY OF LONG BEACH

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We use our city website, city Facebook page, and post information at City Hall to share information with our residents. We will use our website and FB page to encourage residents to sign up for the county's CodeRED emergency notification system.	City
2	Severe Winter & Summer Storms	Local Planning & Regulations	Ensure new development is built to guidelines to reduce risk of damage or failure from extreme storm events.	Existing High 2024-2029	City Admin, City Public Works	We have a Land Use/Building Permit application for new construction and building additions that are required for any new development within the city. We have a Comprehensive Plan (2008) and a subdivision ordinance.	City
3	Extreme Cold	Education & Awareness Programs	Encourage residents to be prepared for extreme cold and power outages.	Existing High 2024-2029	City Admin, City EM	The city uses its outreach methods to try and warn residents of extreme cold and to run a trickle of warm water to avoid frozen pipes. We also encourage residents to have generators to be ready for extended power outages.	City
4	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
5	Flooding	Local Planning & Regulations	Enforce city ordinances that reduce the impacts of high rain events and risk of flooding to areas of new development.	Existing Moderate 2024-2029	City Admin	The city participates in the NFIP. Currently we have no special flood area mapped, but we are informed that there will be mapped areas on preliminary new maps from the MN DNR. The City of Long Beach is expected to adopt a floodplain ordinance when the preliminary floodplain mapping is confirmed.	City

CITY OF LOWRY

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM		City
2	All-Hazards	Mitigation Preparedness & Response Support	Be prepared to provide emergency sheltering to vulnerable residents during extreme temperature or other storm events.	Existing High 2024-2029	City Admin, City EM	We installed a box on the community center to hook up a generator in case power goes out so residents would have somewhere to go if needed.	
3	Severe Summer Storms	Structure & Infrastructure Projects	Encourage the National Weather Service to address gaps in radar coverage for our area.	Existing High 2024-2029	City EM	We rely on the NWS in the Twin Cities and in Aberdeen, SD for our accurate tornado tracking system. We are right on the edge of both so we might not be getting accurate up to date information on possible tornadoes. We will work with Pope County Emergency Management to encourage the NWS to provide better radar coverage for our area.	City
4	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning siren for high wind events.	Existing High 2024-2029	City EM	The city's Fire Dept. maintains our outdoor warning siren and test it on a monthly basis in coordination with the Pope County Sheriff's Office.	City
5	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
6	Flooding	Structure & Infrastructure Projects / Local Planning & Regulations	Implement stormwater system improvement to reduce the risk of localized flooding to homes and the city storm sewer system.	In-Progress High 2024-2029	City Admin, City Public Works	The city purchased backup generator for power outages that would affect the water treatment plant/well pump. The city is also updating the storm sewers on Highway 114 (main discharge for the town).	City

CITY OF LOWRY**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
7	Flooding	Local Planning & Regulations	Ensure that personnel, plans, and equipment are in place to handle flood mitigation and response.	In-Progress High 2024-2029	City Admin, City EM	The city purchased backup generator for power outages that would affect the water treatment plant/well pump. The city is also in the works of a capital improvement plan to help fix some issues with heavy rain flow and getting the lift stations to work better.	City

CITY OF SEDAN

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We are a small city of 40 people. We post information on bulletin boards at the city building and at the local bar. We encourage participation in the county notification system.	City
2	Severe Winter & Summer Storms	Structure & Infrastructure Projects	Reduce the risk of downed power lines and extended power outages from the impacts of heavy snow, ice, or high wind events.	Existing High 2024-2029	City Maintenance, Xcel Energy	City maintenance works to trim trees away from powerlines as needed. Xcel Energy does ongoing maintenance and addresses any problems where they exist.	City, Xcel Energy
3	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning siren for high wind events.	Existing High 2024-2029	City EM	The Sedan Fire Dept. maintains our outdoor warning siren and tests it on a monthly basis in coordination with the Pope County Sheriff's Office.	City
4	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF STARBUCK

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We post information on our city website and Facebook page. We also have a public alert system that will notify residents of events by phone, text, or email. We also make special announcements at City Council meetings. Our city Fire Dept works with the county to participate in the National Weather Service's annual Severe Winter/Spring Weather Awareness Week by posting severe weather awareness information out on our city website. They also go to the local school to talk about fire prevention and weather awareness.	City
2	Severe Winter & Summer Storms		Encourage Xcel Energy to replace overhead electrical poles and wiring with underground service.			The city will work with Xcel Energy to address power line conversions or other projects to help reduce the risk of extended power outages to the city.	
3	Severe Winter & Summer Storms		Work with the local nursing home to be prepared with emergency plans for extended power outages or other emergencies.			Our Police Chief is the city's designated Emergency Manager. The Emergency Manager works closely with the city Fire Dept and the Pope County emergency managers. We will seek to work with the local nursing home to ensure emergency plans are in place for potential evacuations or sheltering in the event of extreme temperatures with a power outage or other severe storm event that requires emergency assistance for senior residents.	City

CITY OF STARBUCK

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
4	Severe Winter & Summer Storms	Local Planning & Regulations	Ensure new development is built to guidelines to reduce risk of damage or failure from extreme storm events.	Existing High 2024-2029	City Admin, City Public Works	The city's planning and zoning committee meets monthly to discuss new development and building issues. The city follows the MN State Building Code and the City Code zoning requirements for new development. The city also has a Building Inspector to help enforce the code. We have a new 20-year Comprehensive Plan that is designed to plan for the future physical growth of the city and appropriate land uses.	City
5	Severe Winter & Summer Storms	Structure & Infrastructure Projects	Reduce the risk falling trees and branches due to severe storm events.	Existing High 2024-2029	City Maintenance	The city continues to remove some unhealthy trees in the city park and boulevard.	City
6	Severe Summer Storms	Structure & Infrastructure Projects	Ensure the functionality of the city's outdoor warning siren for high wind events.	Existing High 2024-2029	City EM	The city has purchased a new warning siren with better range to alert citizens to dangerous weather events. Our fire department maintains the siren and tests it on a monthly basis in coordination with the Pope County Sheriff's Office.	City
7	Severe Summer Storms	Structure & Infrastructure Projects	Construct a new lighthouse in the marina that can withstand high wind events.	In-Progress High 2024-2029	City Public Works	We are in the process of constructing a new lighthouse in the marina with a concrete base and stronger structure to withstand high wind events.	
8	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF STARBUCK

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
9	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvement to reduce the risk of localized flooding to homes and the city storm sewer system.	Existing High 2024-2029	City Admin, City Public Works	The city public works department will implement new storm sewer upgrades as construction projects are implemented. We will also purchase additional pumps in the event of flooding.	City
10	Flooding	Local Planning & Regulations	Enforce city ordinances that reduce the impacts of high rain events and risk of flooding to areas of new development.	Existing Moderate 2024-2029	City Admin	The city of Starbuck enforces requirements of the NFIP through the city's current floodplain ordinance, adopted 7/6/84 and published publicly 8/19/87. This ordinance regulates development in the flood hazard areas of the city. The city's Deputy Clerk is our designated Floodplain Administrator.	City
11	Flooding	Local Planning & Regulations	Ensure that personnel, plans, and equipment are in place to handle flood mitigation and response.	Existing High 2024-2029	City Admin, City EM	Our Fire Dept worked with the MN DNR-Rural Fire Program to get a new lake pump and generator for city use. The city purchased backup generators for power outages that effect the wastewater plant, water plant, office/community center and the most vulnerable lift station. We have a city engineer and a public works director that address road maintenance issues for flooding.	City

CITY OF VILLARD**Mitigation Action Chart**

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We post information and share information with residents at City Council meetings as needed.	City
2	Extreme Cold	Education & Awareness Programs	Encourage residents to be prepared for extreme cold and power outages.	Existing High 2024-2029	City Admin, City EM	The city encourages residents to be prepared for periods of extreme cold and to run a trickle of warm water to avoid frozen pipes.	City
3	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City

CITY OF WESTPORT

Mitigation Action Chart

#	Hazard	Mitigation Strategy	Mitigation Action	Status Priority Timeframe	Responsibility	Comments on Implementation & Integration	Possible Funding
1	All-Hazards	Education & Awareness Programs	Encourage residents to be aware of and prepared for severe weather events, periods of extreme temperatures, and extended power outages.	Existing High 2024-2029	City Admin, City EM	We have a bulletin board outside of city hall that post information on the residents of the city. We share information with residents at City Council meetings as needed.	City
2	Severe Winter & Summer Storms	Structure & Infrastructure Projects	Reduce the risk of downed power lines and extended power outages from the impacts of heavy snow, ice, or high wind events.	Existing High 2024-2029	City Maintenance, Xcel Energy	City maintenance works to trim trees away from powerlines as needed. Xcel Energy does ongoing maintenance and addresses any problems where they exist.	City, Xcel Energy
3	Extreme Cold	Education & Awareness Programs	Encourage residents to be prepared for extreme cold and power outages.	Existing High 2024-2029	City Admin, City EM	The city encourages residents to be prepared for periods of extreme cold and to run a trickle of warm water to avoid frozen pipes.	City
4	Drought	Local Planning & Regulations / Education & Awareness Programs	Establish watering restrictions during drought conditions and raise public awareness of water conservation measures.	New Moderate 2024-2029	City Admin	The city will establish and enforce a water conservation ordinance as per MN DNR guidelines during periods of severe drought. The city will do local outreach to help make residents aware of the ordinance and the limitations on non-essential water usage.	City
5	Flooding	Structure & Infrastructure Projects	Implement stormwater system improvement to reduce the risk of localized flooding to homes and the city storm sewer system.	Existing High 2024-2029	City Admin, City Public Works	In 2018, the city has two of the streets resurfaced and a new culvert put in. We will continue to address any improvement projects as needed.	City