

# 2024 Chippewa County Multi-Hazard Mitigation Plan

Prepared for:



Prepared by:



Upper Minnesota Valley  
**REGIONAL DEVELOPMENT COMMISSION**  
Helping Communities Prosper

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# CONTENTS

Executive Summary.....	6
Chapter 1 : Introduction .....	8
1.1 Hazard Mitigation Overview .....	8
1.2 Project Scope .....	9
Chapter 2 : The Planning Process.....	10
2.1 The Planning Task Force and Participants.....	10
2.2 Review of Existing Plans, Capabilities, and Vulnerabilities .....	11
2.3 Planning Process and Timeline.....	13
Chapter 3 : Chippewa County Profile .....	16
3.1 Location.....	16
3.2 History .....	16
3.3 Physical Characteristics .....	16
3.3.1 Climate and Precipitation.....	16
3.3.2 Geology and Topography .....	18
3.3.3 Soils .....	18
3.3.4 Land Use and Cover .....	18
3.3.5 Hydrology .....	19
3.4 Climate Change .....	21
3.5 Demographics .....	24
3.5.1 Population .....	24
3.5.2 Age and-Race Characteristics .....	26
3.5.3 Households.....	27
3.5.4 Population with Disabilities and At-Risk Population .....	27
3.5.5 Housing .....	28
3.6 Economic Conditions.....	29
3.7 Community Infrastructure .....	31
3.7.1 Schools .....	31
3.7.2 Public Facilities .....	31
3.7.3 Transportation .....	33
3.7.4 Telecommunication and Power Facilities .....	35
3.7.5 Sewer and Water Systems .....	35
3.7.6 Emergency Response/Public Safety .....	35



3.7.7 Property .....	38
Chapter 4 Hazard profiles .....	39
4.1 Flooding.....	44
4.1.1 History.....	49
4.1.2 Probability .....	52
4.1.3 Floods and Climate Change.....	52
4.1.4 Vulnerability.....	53
4.1.5 Program Gaps or Deficiencies for Floods.....	54
Chippewa County Hazus Flood Analysis.....	55
Vulnerability.....	56
4.2 Wildfire.....	60
4.2.1 History.....	60
4.2.2 Probability .....	61
4.2.3 Wildfires and Climate Change.....	61
4.2.4 Vulnerability.....	61
4.2.5 Program Gaps or Deficiencies .....	62
4.3 Windstorms.....	62
4.3.1 History of Windstorms .....	63
4.3.2 Probability of Occurrence .....	65
4.3.3 Windstorms and Climate Change .....	66
4.3.4 Vulnerability.....	66
4.3.5 Program Gaps and Deficiencies for Windstorms .....	66
4.4 Tornadoes .....	66
4.4.1 History of Tornadoes.....	67
4.4.2 Probability .....	69
4.4.3 Tornadoes and Climate Change .....	70
4.4.4 Vulnerability.....	70
4.4.5 Program Gaps and Deficiencies for Tornadoes.....	71
4.5 Hail .....	71
4.5.1 History .....	72
4.5.2 Probability.....	72
4.5.3 Hail and Climate Change .....	72
4.5.4 Vulnerability.....	73

4.5.5 Program Gaps and Deficiencies .....	73
4.6 Dam/Levee Failure .....	73
4.6.1 History .....	76
4.6.2 Probability of Occurrence .....	76
4.6.3 Climate Change and Dam Failure .....	76
4.6.4 Vulnerability .....	76
4.6.5 Program Gaps and Deficiencies .....	77
4.7 Extreme Heat .....	77
4.7.1 History of Extreme Heat .....	78
4.7.2 Probability of Occurrence .....	78
4.7.3 Extreme Heat and Climate Change .....	78
4.7.4 Vulnerability .....	78
4.7.5 Program Gaps and Deficiencies .....	78
4.8 Drought .....	79
4.8.1 History .....	79
4.8.2 Probability .....	79
4.8.3 Drought and Climate Change .....	79
4.8.4 Vulnerability .....	79
4.8.5 Program Gaps and Deficiencies for Droughts .....	80
4.9 Lightning .....	80
4.9.1 History .....	80
4.9.2 Probability .....	80
4.9.3 Lightning and Climate Change .....	80
4.9.4 Vulnerability .....	80
4.9.5 Program Gaps and Deficiencies .....	81
4.10 Winter Storms .....	81
4.10.1 History .....	81
4.10.2 Probability .....	83
4.10.3 Winter Storms and Climate Change .....	83
4.10.4 Vulnerability .....	83
4.10.5 Program Gaps and Deficiencies .....	83
4.11 Erosion, Landslides, and Mudslides .....	84
4.11.1 History .....	84

4.11.2 Probability .....	84
4.11.3 Erosion and Climate Change .....	84
4.11.4 Vulnerability .....	84
4.11.5 Program Gaps and Deficiencies .....	85
4.12 Extreme Cold.....	85
4.12.1 History.....	85
4.12.2 Probability .....	85
4.12.3 Extreme Cold and Climate Change.....	85
4.12.5 Program Gaps and Deficiencies .....	86
4.13 Infectious Diseases.....	87
4.13.1 History.....	88
4.13.2 Probability .....	88
4.13.3 Infectious Disease and Climate Change .....	88
4.13.4 Vulnerability .....	89
4.13.5 Program Gaps or Deficiencies .....	89
4.14 Structural Fire.....	89
4.14.1 History.....	89
4.14.2 Probability .....	90
4.14.3 Structural Fire and Climate Change .....	90
4.14.4 Vulnerability .....	90
4.14.5 Program Gaps or Deficiencies .....	90
4.15 Hazardous Materials .....	91
4.15.1 History.....	91
4.15.2 Probability .....	92
4.15.3 Hazardous Materials and Climate Change .....	92
4.15.4 Vulnerability .....	92
4.15.5 Program Gaps or Deficiencies .....	93
4.16 Water Supply Contamination.....	94
4.16.1 History.....	94
4.16.2 Probability .....	94
4.16.3 Drinking Water Contamination and Climate Change.....	94
4.16.4 Vulnerability .....	94
4.16.5 Program Gaps and Deficiencies .....	94

4.17 Wastewater Treatment System Failure .....	94
4.17.1 History .....	94
4.17.2 Probability .....	95
4.17.3 Wastewater Treatment System Failure and Climate Change .....	95
4.17.4 Vulnerability .....	95
4.17.5 Program Gaps or Deficiencies .....	95
4.19 Civil Disturbance/Terrorism/Cyber Attack .....	95
4.19.1 History .....	95
4.19.2 Probability .....	96
4.19.3 Civil Disturbance/Terrorism and Climate Change .....	96
4.19.4 Vulnerability .....	96
4.19.5 Program Gaps and Deficiencies .....	96
Chapter 5 : County Mitigation Strategy .....	97
Overview .....	97
Definitions .....	97
General Mitigation Vision .....	97
Development of Strategies .....	98
Potential Funding Programs .....	98
Prioritizing Strategies .....	100
Chapter 6 : Plan Implementation & Maintenance .....	119

## EXECUTIVE SUMMARY

Chippewa County is located in western Minnesota, approximately 120 miles west of the Twin Cities metro area. The county is rural in nature and possesses quality farmland. The southwestern border is formed by the Minnesota River. The county is served by U.S. Highways 59 and 212 as well as MN State Highways 7, 23, 29, 40 and 277. It is also served by the Twin Cities and Western and Burlington Northern Santa Fe (BNSF) railroads along the western and southeastern borders.

Population levels have steadied in recent counts around with the most recent population being 12,598 in 2020. There are five communities in the county with Montevideo being the largest community with approximately 5,400 residents and also serves as the County Seat. The other communities include Clara City, Maynard, Milan and Watson.

Chippewa County and FEMA are currently in the process of updating the County's floodplain maps and at the time of this plan, they are not yet complete.

The planning process began in June 2022 with a virtual task force kick off meeting. Local meetings were held in each community to report on and update the 2015 strategies. In addition, City staff in each of the communities as well as County staff provided updated information and maps. Drafts of the updated strategies were also presented at City Council meetings for comment. A virtual wrap-up meeting was held in June 2023 to present a summary of tasks completed over the previous year.

### Hazards Identified

The County, as well as each individual community reviewed their lists of potential hazards and took part in a slightly different hazard analysis scoring exercise using the Calculated Priority Risk Index to prioritize what disasters could have the greatest impact on local jurisdictions. This exercise considered probability, magnitude, warning time, and duration of identified disasters and gave each category a weighted value. The results of the County's scoring are given in the following table.

**Table 1: Hazard Priority Risk Rankings, Chippewa County 2023**

Natural Disasters	Score	Human Caused Disasters	Score
Windstorms	2.95	Hazardous materials incident	3.15
Hail	2.95	Water supply contamination	3.1
Extreme cold	2.85	Structural Fire	3.05
Winter storms	2.85	Wastewater treatment failure	2.8
Tornados	2.8	Infectious diseases	2.65
Dam/Levee Failure	2.65	Civil disturbance/terrorism/Cyber attack	2.15
Drought	2.5		
Flooding	2.5		
Extreme Heat	2.4		
Lightning	2.05		
Wildfire	1.95		
Erosion, landslides, and mudslides	1.2		

Hazard Priority Risk Ranking Categories	
Score	Priority Level
3.0-4.0	High
2.0-2.99	Moderate
0-1.99	Low

## **Natural Disasters Priorities**

- Each city and the County Emergency Manager should continue to do periodic visits and review plan annually.
- Identify funding to purchase portable generators and transfer switches to community emergency operation centers.
- Assist with finding funding sources for and build safe shelters in all manufactured home parks, cities, city parks, county, and state parks and public golf courses. Identify a safe room for the campgrounds in cities and the greater county.
- Work with state agencies, local government and emergency managers to address flooding issues as a region. Create a network of print, radio, social media that reaches all citizens with maps of risk areas, shelters, contact information and what to do in the event of a flood.
- Prioritize bridges and culverts with annual flood concerns. Determine strategies to mitigate repeatedly flooded infrastructure (Ex. Replacing bridges, with clear-span bridges, replacing culverts).
- Identify and prioritize repeat flood-impacted township roads to be improved.
- Identify structures prone to flood hazards for future buyouts.
- Work with all units of government, fire departments, and schools to provide educational fire safety materials to the public.

## **Man-made or Technological Disasters Priorities**

- Ensure that all Emergency Responders participate in Rail Car Incident Response Training.
- Continue to participate in regional exercise that test local plans and interaction between local agencies.
- Schedule discussions with school leaders, hospital administrators, emergency managers, law enforcement and local units of government to address performance in response to terrorism, focusing on schools and hospitals.
- Provide public education to residents, focusing on carbon monoxide poisoning, evacuation, and smoke alarms.
- Complete an annual inventory assessment of fire equipment, personnel, and training needs.

# Chapter 1 : INTRODUCTION

## 1.1 HAZARD MITIGATION OVERVIEW

The Disaster Mitigation Act of 2000 amended the Stafford Act (42 U.S.C. 5121 et seq.), which established a national program for pre-disaster mitigation. The program is meant to control Federal costs of disaster assistance and streamline the administration of disaster relief.

As a result of the Disaster Mitigation Act of 2000, the Federal Emergency Management Agency (FEMA) requires jurisdictions to first have in place a multi-hazard mitigation plan, in order to be eligible for Hazard Mitigation Grant Program (HMGP) funds. Effective November 1, 2004, jurisdictions must update their plan within five years. FEMA has provided states with funding to assist local governments in funding these plans.

Hazard mitigation is defined as any action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards. Potential types of hazard mitigation measures include: structural hazard control or protection projects; retrofitting of facilities; acquisition and relocation of structures; development of mitigation standards, regulations, policies, and programs; public awareness and education programs; and development or improvement of warning systems. The goal of hazard mitigation is to eliminate and reduce vulnerability to significant damage and/or repetitive damage from one or more hazards.

Hazard mitigation can provide a multitude of benefits to jurisdictions including saving lives; protecting public health and reducing injuries; preventing or reducing property damage; reducing economic losses; minimizing social dislocation and stress; decreasing agricultural losses; maintaining critical facilities in functioning order; protecting infrastructure from damage; protecting mental health; and reducing legal liability of government and public officials.

Hazard mitigation planning can break the cycle of disaster-repair-disaster within a community and prepare it for a more sustainable future. The development and application of long-term strategies that reduce or alleviate loss of life, injuries and property damage or destruction resulting from natural or human caused hazards accomplish the goals of hazard mitigation planning. These long-term strategies must incorporate a range of community resources including planning, policies, programs and other activities that can make a community more resistant to disaster. Mitigation planning efforts should both protect people and structures and minimize costs of disaster response and recovery. Mitigation is the cornerstone for emergency management and is a method for decreasing demand on scarce and valuable disaster response resources.

The hazard mitigation planning process involves numerous steps, including:

- Identification and screening of major hazards
- Review of existing capabilities and resources
- Analysis of the risks posed by those hazards
- Development, implementation, and maintenance of specific hazard mitigation measures

Although most mitigation measures are implemented on a continual basis, the post-disaster period often presents special hazard mitigation opportunities. Mitigation opportunities are often more apparent immediately following a disaster making both public officials and the general public more willing to consider taking mitigation actions and proactive in seeking special funding to assist implementation efforts.

## **1.2 PROJECT SCOPE**

Chippewa County chose to engage in a comprehensive planning process to update their All-Hazard Mitigation Plan for several reasons: first, as a process, it helps the county determine its current state – social, economic and environmental trends in addition to the hazards that affect the county; second, it lays out a process that will guide the county on how it deals with both current and potential hazards; and third, it gives the public an opportunity to decide what projects they want the county and cities to complete in the future.

Chippewa County contracted with the Upper Minnesota Valley Regional Development Commission (UMVRDC) to facilitate an update to the County's 2015 Hazard Mitigation Plan. Funding for the development of this update was provided through FEMA's Hazard Mitigation Grant Program (HMGP). UMVRDC has worked with local jurisdictions in its five-county service area to update hazard mitigation plans and has experience in collecting and analyzing data, facilitating stakeholder outreach and leading planning processes including hazard mitigation planning. Under normal circumstances, Chippewa County's plan was scheduled for updating in 2020 as FEMA requires local hazard mitigation plans to be updated every five years to remain current and eligible for future funding opportunities. However, with the onset of the coronavirus pandemic, the normal five-year timeline was delayed. Taking this into consideration, FEMA has granted an exemption to the county to allow additional time to complete their plan update.

This plan update is a multi-jurisdictional plan in that it covers all of Chippewa County including the cities of Clara City, Maynard, Milan, Montevideo, and Watson. It should be noted that the eastern portion of the city of Granite Falls is also in Chippewa County, but for the purposes of this plan, Granite Falls' mitigation strategy is included in the Yellow Medicine County Hazard Mitigation Plan. Also included in the scope of this plan are the unincorporated areas including townships and school districts and other interests located outside of the incorporated boundaries of the cities.

Representatives from each of these jurisdictions were included on the planning task force committee and played an active role in soliciting public input, providing information, developing strategies and reviewing plan drafts. Each jurisdiction will also officially adopt the plan by resolution after it is approved by FEMA. The adopting resolutions from the County and the communities will be included after final approval by FEMA.



## Chapter 2 : THE PLANNING PROCESS

As mentioned in the previous section, Chippewa County contracted with the Upper Minnesota Valley Regional Development Commission (UMVRDC) to write the original planning grant and County Hazard Mitigation plan and subsequent updates. In addition to the County, all cities within the county (Clara City, Maynard, Milan, Montevideo, and Watson) also participated in the original plan/updates through adopted participation resolutions and task force delegates. Chippewa County completed and adopted its initial All-Hazard Mitigation Plan, with FEMA approval in 2005.

An additional requirement of the Disaster Mitigation Act of 2000 requires a full All-Hazard Mitigation Plan update within five years of adoption. To meet this requirement, Chippewa County again contracted with the UMVRDC to write the plan update grant in 2008 and completed an All-Hazard Mitigation Plan update for the county in September 2010. In 2013, Chippewa County and the UMVRDC collaborated to complete a plan update for 2015. Chippewa County requested the continued participation from all cities within the county in updating the All-Hazard Mitigation Plan.

### 2.1 THE PLANNING TASK FORCE AND PARTICIPANTS

The Chippewa County planning task force was headed by Chippewa County Emergency Management Director, Stephanie Weick, who served as the primary point of contact for the plan. Members of the planning team included representatives from the public and governmental sectors including agencies and individuals representing underserved populations (Prairie Five Community Action, Countryside Public Health, and school administrators). The following list identifies those who were invited to serve on the planning task force as well as the organizations or departments they represent.

#### CHIPPEWA COUNTY HAZARD MITIGATION PLAN TASK FORCE

**Stephanie Weick**, Chippewa County Emergency Director

**David Lieser**, Chippewa County Commissioner

**William Pauling**, Chippewa County Commissioner

**Scott Williams**, Chippewa County Planning and Zoning Administrator/GIS

**Jeremy Gilb**, Chippewa County Engineer

**Derek Olson**, Chippewa County Sheriff

**Michelle May**, Chippewa County Auditor Treasurer Coordinator

**Josh Macziewski**, Chippewa County Ag and Drainage Inspector

**Richard Groothuis**, City of Maynard Mayor

**Nicole Strassburg**, City of Maynard Clerk

**Gary Nelson**, City of Clara City Mayor

**Steve Jones**, City of Clara City Administrator

**Jeff Sager**, City of Clara City Public Works Director

**Rhonda Pieper**, City of Clara City Councilmember

**Ronald Anderson**, City of Milan Mayor  
**James Anderson**, City of Milan City Councilmember  
**Veronica Blommel**, City of Milan Clerk  
  
**Nathan Schmidt**, City of Montevideo Council President  
**Beverly Olson**, City of Montevideo Council Member  
**Robert Wolfington**, City of Montevideo Manager  
**Jack Gottfried**, City of Montevideo Community Development Director  
**Aaron Blom**, City of Montevideo Public Works Director  
**Glennis Lauritsen**, City of Montevideo Clerk  
  
**Todd Tongen**, City of Watson Mayor  
**Nicole Koenen/Alan Marohl**, City of Watson Clerk/Treasurer  
**Todd Vogel**, City of Watson Council Member  
  
**James Schmaedeka**, Township Association Officer  
**Ron Abel**, Township Association Officer  
**Charles DeGrote**, Township Association Officer  
**Bill Luschen**, Township Association Member Officer  
**John Bristle**, Township Association Officer  
  
**Wade McKittrick**, Montevideo Public Schools Superintendent  
**Tyler Sachariason**, Montevideo Chamber President  
**David Bothun**, Countryside Public Health  
  
**Larissa Schwenk**, Head Librarian, Montevideo  
**Joseph Skallerud**, Chippewa County-Montevideo Hospital Safety Director  
**Jill Rothschild**, MN Valley Co-op Light-Power  
**Ted Nelson**, Prairie Five Rides Program Manager  
**Tom Warner**, Soil and Water Conservation District  
**Ethan Jenzen**, DNR Waters Area Hydrologist  
  
**Kevin Ketelsen**, Upper Minnesota Valley Regional Development Commission  
**Kristi Fernholz**, Upper Minnesota Valley Regional Development Commission

## 2.2 REVIEW OF EXISTING PLANS, CAPABILITIES, AND VULNERABILITIES

For hazard mitigation to be successful, it is helpful to look for ways to implement mitigation activities through existing plans, ordinances and policies. UMVRDC staff referred to a variety of planning documents during plan development and a list of these documents is provided in the following table.

**Table 2.1 Documents Applicable to Hazard Mitigation in Chippewa County**

<b>Name of Plan</b>	<b>Date Completed or Updated</b>	<b>Available</b>	<b>Relevant Information</b>
Minnesota State Hazard Mitigation Plan	2019	MN Department of Public Safety	Risk assessment, hazard profiles, county plan must conform to State Hazard Mitigation Plan
Chippewa County Comprehensive Plan	2003	Planning and Zoning	Population profile, population projections, vision statement
Chippewa County Zoning Ordinance	1996	Planning and Zoning	Land use, sewage and water supply, public roads, and recreational parks, floodplain regulations, setbacks from blufflines (erosion)
Montevideo and Township Fire Rescue Agreement	2019	Emergency Manager	Montevideo fire district
Chippewa County Emergency Operations Plan	2022	Emergency Management	Emergency operation plans, responsibility, critical facilities
Montevideo Comprehensive Plan	2013	City of Montevideo	Population profile, city land statistics, and maps
Clara City Comprehensive Plan	2012	City of Clara City	Population profile, city land statistics, and maps
Milan Comprehensive Plan	2013	City of Milan	Population profile, city land statistics, and maps
Chippewa County Water Plan	2013-2018	Planning and Zoning	Water and wastewater supply information.
All Cities in Chippewa County Wellhead Protection Plan	Varies by city	Cities	Water/well protection measures
Minnesota River Basin Plan	2001	MN Pollution Control Agency	Pollution, ground water, and clarity
Resilience Report for Chippewa County	2012	Emergency Management	Reference for the management and mitigation of floods and other risks

Since hazard mitigation spans all facets of a community and county, some mitigation actions can be carried out by enforcing existing ordinances or following local policies, such as a comprehensive plan, building codes or a zoning ordinance. Therefore, it is beneficial to review what regulatory mechanisms are in place and note any deficiencies that may exist. To do this, UMRDC surveyed the cities and county to assemble an inventory of current plans, ordinances and policies they currently have in place as well as an evaluation of their local capabilities in terms of administrative, fiscal, political and technical capabilities. The results of these surveys gave an indication as to what areas may prove to assist or hinder the jurisdictions' abilities to implement the various strategies of this plan. A summary of these inventories and assessments is given in Appendix IV.

A hazard analysis and risk assessment were also updated as part of the early stages of the planning process. The method used in the risk assessment was the Calculated Priority Risk Index, which scores each disaster 0-4 in four categories: frequency of occurrence, warning time, potential severity, and risk level. A more detailed description of this process and its results can be found in Chapter 4.

## **2.3 PLANNING PROCESS AND TIMELINE**

March 3, 2022 – Kevin Ketelsen of the UMRDC and Stephanie Weick met at the UMRDC office in Appleton to go over the proposed timeframe and tasks for the planning process. It was also decided that a virtual kickoff meeting during the late afternoon would hopefully produce the best attendance. Communication to the planning task force would be done via email by Stephanie as she had the contact information of the members. She would also promote events/feedback/input via Facebook and the County website when appropriate.

March 28, 2022 – Kevin Ketelsen and Kristi Fernholz of the UMRDC and County Emergency Management Director, Stephanie Weick met virtually via Teams with Jennifer Davis and Kristen Dellwo from MN Homeland Security/Emergency Management (HSEM) for introductions and to go over the proposed timeline and HSEM gave examples of some best practices and available resources to help with the development of the plan.

May 19, 2022 – UMRDC staff, Stephanie Weick and Scott Williams (county GIS) met via Teams to discuss potential mapping services to be included in the plan. Since U-Spatial does not produce static maps for plans any longer, the County GIS department was asked about the possibility of providing these maps for the plan update. Mr. Williams felt he would have time to produce any maps needed for the plan as long as he was provided the data to make them.

June 23, 2022 – Planning Kickoff Meeting - On Thursday, June 23, 2022, Chippewa County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 1<sup>st</sup> Planning Team Meeting for the update of the Chippewa County Hazard Mitigation Plan. The purpose of the meeting was to formally present information about the Chippewa County Hazard Mitigation Plan update and to discuss key items that would inform plan development. The meeting was held via Zoom webinar video conference and was facilitated by Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission. A more detailed summary of the meeting, including participants and presentation materials can be found in Appendix II.

July 2022 – After the June 23<sup>rd</sup> kickoff meeting, County Emergency Management sent out a “Mitigation Ideas Worksheet” to the entire planning task force to provide any ideas they had for potential mitigation projects or any concerns they had related to potential disasters. Also, during the month of July, local jurisdictions were asked to review their critical facilities map and current land use maps from the 2015 plan for accuracy and/or any updates. Once the maps were confirmed, city clerks and city managers were asked to provide an inventory of local plans, ordinances and policies currently in place as well as to complete a local capabilities assessment. Also, in late July, a press release was issued notifying the public that the County was in the process of updating its hazard mitigation plan. This was posted on the County Emergency Management Facebook page, Clara City newspaper and through the Montevideo Chamber of Commerce. Copies of these items can be found in Appendix I.

September 2022-March 2023 – UMRDC scheduled meetings with representatives in all local jurisdictions and County EM to review and discuss past and future mitigation strategies. These meetings were held with community representatives such as elected officials, city/county employees, emergency

response volunteers, and public works/utilities personnel. At these meetings, those in attendance also participated in a revised hazard analysis scoring exercise since the 2015 plan did not address a comprehensive list of disasters. Also, during this timeframe (on January 25, 2023), additional input was sought through County EM Facebook page as well as notices that were hung at the local post offices in Milan, Maynard, Watson and Clara City as well as the Montevideo Market (grocery store) in Montevideo.

March - April 2023 – UMVRDC staff attended the Chippewa County Townships annual meeting in Maynard. Information about the plan was shared and those in attendance were asked to contact the County or UMVRDC with any additional input. Also, during March and April 2023, County Emergency Manager and County Sheriff attended City Council meetings to present drafts of their respective updated mitigation strategies and collect any additional feedback. These meetings were held on the following dates:

**Chippewa County Elected Officials meeting times:**

Clara City City Council – Tuesday, March 14<sup>th</sup>, 6:30pm

Montevideo City Council – Monday, March 20<sup>th</sup>, 7pm

Maynard City Council – Monday, April 10<sup>th</sup>, 7pm

Watson City Council – Tuesday, April 11<sup>th</sup>, 7pm

Milan City Council – Tuesday, May 2<sup>nd</sup>, 7pm

June 22, 2023 – Planning process wrap-up meeting – On Thursday, June 22, 2023, a virtual meeting was held to provide a summary of completed activities since the kick-off meeting and next steps. Chippewa County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the second Planning Team Meeting for the summary of the Chippewa County Hazard Mitigation planning process. The purpose of the meeting was to provide a summary of what had been done over the past year since the kick-off meeting. The meeting was held via Zoom webinar video conference and was facilitated by Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission. A more detailed summary of this meeting, including participants and presentation materials can be found in Appendix II.

In general, videoconferencing was used for the two task force meetings and in-person meetings were held for local jurisdictions and the large County planning group meeting. Phone calls and emails were used for direct requests and follow-up with city and county staff. Emails were also used to communicate to planning task force.

**Table 2.2 Chippewa County & Cities Participation in All-Hazard Mitigation Plan Update**

Jurisdiction	Adopted Updated Plan (2015)	Documented Participation in 2022-23 Planning Process	Task Force Mtg. 1 (6/23/22)	Local meetings	Task Force Mtg. 2 (6/22/23)	Adopted Updated Plan (2024)
County	x	x	x	x	x	X (Jan. 16)
Clara City	x	x		x		X (Feb. 13)
Maynard	x	x		x		X (Feb. 12)
Milan	x	x		x		X (Feb. 6)
Montevideo	x	x	x	x		X (Feb. 20)
Watson	x	x	x	x	x	X (Feb. 13)
Townships		x	x	x		-

A 15-day public review and comment period was also held for the general public to review a draft of the plan prior to submission to MN HSEM and FEMA for approval from September 13 through September 30, 2023. The document was posted on the Chippewa County and UMRDC websites. Notices of the comment period were published in the Montevideo and Clara City newspapers and posted at the post offices in the communities without newspapers (Maynard, Milan, and Watson). Notices were also posted on the County Emergency Management and UMRDC websites and Facebook pages. All participants during the planning process were also notified via email from County Emergency Management. No comments were received during this comment period.

After the public comment period, the plan was sent to Minnesota HSEM and FEMA for review and approval. The plan was officially approved by FEMA on January 23, 2024 (see Appendix VIII). Once approved by FEMA, each of the participating jurisdictions (cities and county) officially adopted the plan by resolution in January and February 2024. Copies of the Chippewa County and individual city resolutions adopting the All-Hazard Mitigation Plan are included in Appendix IX of this plan. The County as well as cities were then sent an electronic copy of the final plan.

## Chapter 3 : CHIPPEWA COUNTY PROFILE

### 3.1 LOCATION

Chippewa County is 582.8 square miles located in southwestern Minnesota approximately 120 miles west of Minneapolis-St. Paul Metropolitan Area and 70 miles southwest of the city of St. Cloud. Chippewa County is bordered by Swift County to the north, Kandiyohi County to the east, Renville County to the southeast, Yellow Medicine County to the southwest, and Lac qui Parle County to the west. The Minnesota River forms the angled southwest border. Trees, rolling hills and vast agricultural land characterize the rest of the county. Chippewa County has five cities (and part of Granite Falls) and 16 townships.

### 3.2 HISTORY

Chippewa County runs through the much larger Glacial River Warren Valley in western Minnesota. All early Minnesota explorers followed the Minnesota River which had a system of major trails on both sides of the river. The first wave of inhabitants came as French-Canadian voyageurs and missionaries from settlements in the eastern portion of the United States. Following the Civil War, Americans from New York and New England were able to travel by railroad, boat and ox cart to the newly opened land where they established most of the governmental structure for the county, townships and towns. During the 1700s Europeans established a fur-trading post near the rivers and traded with area Native Americans.

Many towns in Minnesota were settled in areas that had access to water, especially areas where water could serve as energy, transportation and a way to dispose of unwanted waste.

Montevideo was settled in the 1870s and is located overlooking the valleys of the Chippewa and Minnesota Rivers. After the city was platted, Montevideo became an agricultural center. Clara City, Maynard, Watson, and Milan were all platted in 1879-1888 as a result of the railroad expansion in the area. East Granite Falls, located in Chippewa County is located on the east side of the Minnesota River and is part of the municipality of Granite Falls in Yellow Medicine County.

For nearly 150 years, agriculture has remained the number one industry in Chippewa County. Crops grown are extremely diverse and include wheat, oats, corn, soybeans, and sugar beets. Currently, some farmers are exploring new markets for their organically grown feed grains, produce, and free-range organic meats such as poultry, beef, lamb, and pork. Industry in the county continues to expand and numerous manufacturing jobs are created along with an evolving the retail sector to keep pace with growing demands.

### 3.3 PHYSICAL CHARACTERISTICS

#### 3.3.1 CLIMATE AND PRECIPITATION

A wide range of seasonal temperatures characterizes Chippewa County. The hottest day that Chippewa County has recorded was 110 degrees F in July 1988; the coldest day was -39 degrees F in February 1936

(Source: Midwest Regional Climate Center) shown in Table 3.1. The sun shines 65 percent of the time in summer and 45% in winter. Prevailing winds are from the south.

Total annual precipitation is about 24 inches, 75% of which usually falls in the growing season between May and September, shown in Table 3.2 below.

**Table 3.1 Chippewa County Avg. Monthly Temperature and Record Highs & Lows, 1971 - 2022**

Month	Average High	Average Low	Mean	Record High	Record Low
January	22° F	1° F	11° F	69° F (1981)	-35° F (1977)
February	28° F	7° F	18° F	64° F (1981)	<b>-39° F (1936)</b>
March	40° F	20° F	30° F	83° F (2012)	-20° F (1984)
April	58° F	34° F	45° F	100° F (1980)	2° F (1975)
May	71° F	46° F	58° F	99° F (1987)	22° F (2005)
June	80° F	56° F	68° F	105° F (1979)	37° F (1998)
July	84° F	60° F	72° F	<b>110° F (1988)</b>	35° F (1971)
August	82° F	58° F	69° F	106° F (1988)	35° F (1971)
September	74° F	48° F	61° F	103° F (1978)	21° F (1974)
October	60° F	36° F	48° F	92° F (1993)	12° F (1993)
November	42° F	22° F	32° F	80° F (1999)	-19° F (1977)
December	27° F	8° F	17° F	63° F (1998)	-32° F (1983)

Source: Midwestern Regional Climate Center Monthly Data Summary. Data pertains to station at Montevideo.

**Table 3.2 Chippewa County Average Monthly Precipitation & Snowfall, 1971 - 2022**

Month	Precipitation in inches	Snowfall in inches
January	0.77	8.9
February	0.77	8.4
March	1.30	8.1
April	2.30	3.5
May	2.99	0.1
June	3.86	-
July	3.31	-
August	3.28	-
September	2.43	-
October	1.91	0.9
November	1.06	5.1
December	0.76	7.2
<b>Annual</b>	<b>24.74</b>	<b>42.2</b>

Source: Midwestern Regional Climate Center Monthly Data Summary. Data pertains to station at Milan.



**Table 3.3 Normal Monthly Temperatures and Precipitation Amounts, 1991-2020**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Temp (°F)	21.9	26.8	39.3	55.3	68.8	78.5	82.2	80.1	73.5	59.0	41.8	27.6
Min Temp (°F)	2.0	5.4	18.4	31.7	45.4	56.1	59.8	57.1	48.1	34.7	21.1	9.1
Precip. (in.)	0.67	0.76	1.90	2.48	3.66	4.35	3.82	3.96	3.01	2.46	1.56	0.82
Normal Annual Precipitation Amount: 29.5"												

Source: Midwestern Regional Climate Data Center

### **3.3.2 GEOLOGY AND TOPOGRAPHY**

Chippewa County contains 374,400 acres of land and water, all influenced by glaciation. Most of Chippewa County is covered by nearly level to rolling ground moraine deposits of clay, sand and rocks deposited by the melting glacial sheet. Relatively flat, glacial lake deposits are found in the east and central part of the county. A large sandy outwash delta covers the northeast corner of the county.

The Minnesota River flows in a deep valley forming the western border of the county. The valley was cut by water draining from Glacial Lake Agassiz, which covered most of the Red River Valley.

Outside the Minnesota River Valley, the county's average elevation is 1,050 feet above sea level. Topography gradually rises to the east; with the highest point in the County 1,142 feet above sea level in the southeastern corner. Rugged valley walls and a flat floor characterize the Minnesota River Valley, while row crops and grassland characterize the remaining region. The topography of Chippewa County's watersheds includes gently twisting glacial till plains, nearly level to undulating ground moraines, and nearly level to gently sloping lands with a complex mixture of well and poorly drained soils.

### **3.3.3 SOILS**

Soils data indicate general patterns of soil suitability and limitations for land uses and can be used to determine flooding potential, load bearing capacities, permeability, surface drainage, and percolation rates. Chippewa County contains 11 general soil associations. Soil parent material in Chippewa County ranges from clay in the east to sandy loam in the Minnesota River Valley.

Soil erosion affects cropland, urban areas, roadsides, lakeshores, stream banks and drainage systems. The potential for wind erosion occurs when wind velocities increase above 12 miles per hour. Wind speeds above this mark overcome the force of gravity and dislodge soil particles. Soils with fine granulated structure are most susceptible to erosion, including sandy loam, loamy sand, and sand. November through June is the worst time for wind erosion when field surfaces are typically dry and strong northwest winds are prevalent. Water erosion in Chippewa County generally occurs the most between the months of April and June when fields have been tilled and planted, but a crop canopy has not yet developed to protect the surface. Soil is most vulnerable to both wind and water erosion when unprotected by vegetative cover.

### **3.3.4 LAND USE AND COVER**

The pre-settlement vegetation of Chippewa County has undergone significant change since settlement began in the 1870s. Before it was settled, Chippewa County was predominately covered with prairie, wet prairie and river bottom forest vegetation along the Chippewa and Minnesota Rivers. Fire played a

main role in limiting the woody vegetation of Chippewa County. The forests were restricted to areas where natural firebreaks (such as rivers, lakes and rough topography) prevented the spread of fire from the adjacent prairie lands.

Today, land use in Chippewa County can be divided into four general categories: agricultural, woodland, water and wetlands, and other (includes urban uses). Agriculture is the most prevalent use, composing approximately 87% of the county land, woodland makes up three percent, and water and wetlands make up one percent of the land in Chippewa County. Other uses are about one percent. A more detailed breakdown of land uses is found in Table 3.4 below.

**Table 3.4 Chippewa County Land Use & Cover**

Land Use	Acres	% of Total
Urban and Rural Development	8,069	2%
Cultivated Land	327,003	87%
Hay/Pasture/Grassland	21,933	5%
Brush Land	931	2%
Forested	11,714	3%
Water	4,114	1%
Bog/Marsh/Fen	2,481	0%
Mining	143	0%
<b>Total</b>	<b>338,170</b>	<b>100%</b>

Source: Minnesota Land Management Information Center

“Minnesota Land Use Land Cover: 1990’s Census of the Land (8 category statewide)”.

Agricultural land is the dominant use in every township. Farms in Chippewa County have generally increased in size over the years with 547 acres being the most recently reported average farm size (U.S. Census of Agriculture, 2017). As the size of farms increased, the overall number of farms decreased. In 1964 there were 1,551 farms in Chippewa County and today, 623 farms remain. Table 3.5 below shows the comparisons of farms and farm size over the years in the County.

**Table 3.5 Chippewa County Farm Comparisons from 1997-2017**

Farms	1997	2002	2007	2012	2017
Farms (number)	618	694	720	674	623
Land in farms (acres)	318,472	339,652	367,926	335,109	341,030
Land in farms, avg. size of farm (acres)	515	489	511	497	547

Source: US Census of Agriculture, 2017

### 3.3.5 HYDROLOGY

Chippewa County’s lakes, streams and groundwater are some of its most significant resources, however vulnerable to pollution from a wide variety of human activities and/or disasters. Water quality has become one of the most important environmental issues facing the county and state. Water is used for

domestic and residential purposes, industry, agriculture and recreation. The health, safety and welfare of the public are directly linked to the county's water supply.

### ***Groundwater***

Groundwater generally travels southwestward in Chippewa County. Cretaceous sandstone aquifers are present over most of the area, but yields in many places are not satisfactory, as aquifers are generally less than ten feet thick. Groundwater is found in three principal aquifers: near surface sand and gravel aquifers, buried sand and gravel aquifers and aquifers within Cretaceous deposits. Usable groundwater is mainly found in areas of gravel deposits and glacial drift. The depth of water varies from shallow enough to be withdrawn by a centrifugal pump to over 100 feet below the surface.

Recharge of the major aquifers in Chippewa County occurs through precipitation, primarily in sand and gravel where infiltration rates are high and topography is rolling. Recharge of confined aquifers is greatest where unconfined aquifers are present. Recharge areas include gravel pits, wetlands and ponds, lakes and rivers and road ditches. Recharge can also occur, although more slowly, through confining layers into confined aquifers throughout the county. Most recharge occurs in spring from snowmelt and rainfall when ground water demands by growing vegetation are minimal and precipitation can soak through to the water table. There is generally little recharge during the active growing season. Chippewa County aquifers are recharged in Swift County. Parts of Chippewa County may also serve as recharge areas for ground water resources of neighboring counties.

### ***Rivers***

Chippewa County lies within the Minnesota River Basin and is drained by three watersheds: the Minnesota River Headwaters, Minnesota River Granite Falls and the Chippewa River. As the entire county was covered with glacial sheets of ice until approximately 9,500 years ago, surficial drainage is very young. All of Chippewa County drains into the Minnesota River, which then drains to the Mississippi River. Hawk Creek, as Judicial Ditch 7, drains the eastern part of the county and runs into the Minnesota River. Shakopee Creek drains the northeastern part of the county and Dry Weather Creek drains the central part. Both of these creeks flow into the Chippewa River. The Chippewa River and a number of small creeks drain the final western third of the county. Other small creeks flow directly into the Minnesota River. An extensive system of county ditches and tile lines has modified the water flow since the county was settled. Many marshy areas that existed before the area was settled have been drained for agricultural purposes.

### ***Lakes***

Lac qui Parle is the most prominent lake in the county. It was created by the Lac qui Parle Flood Control Project and completed in 1951. The reservoir behind the Lac qui Parle Dam has a capacity of 122,800 acre-feet and was designed for flood control, recreation, fish and wildlife conservation. Chippewa County has 79 lakes of 10 acres or more. These lakes cover an area of 9,158 acres which represents approximately 2.4 percent of the total area of the county.

### ***Wetlands***

The term "wetlands" refers to low depressions in the landscape covered with shallow and sometimes intermittent water. Wetlands are also commonly referred to as marshes, swamps, potholes, sloughs,

shallow lakes, and ponds. Wetlands differ in size, shape, and types of wet environment and derive their unique characteristics from climate, vegetation, soils and hydrologic conditions. Some have surface water only in the springtime during thaws or after rainstorms, while others may form shallow lakes that rarely dry up. They are classified according to their depth of water, total area, and seasonal life span.

Originally, wetlands were located throughout the entire county. With the advent of intensive agriculture practices and the application of land drainage techniques, many of the wetlands located on lands that were flat and suited to agricultural use have been drained, leaving relatively few wetlands in the flat till plain areas of the county. Most of the remaining wetlands are found in the moraine areas of the northern half of the county where the wetlands have either been preserved or where drainage is not economically feasible.

### **3.4 CLIMATE CHANGE**

The United States Environmental Protection Agency (EPA) defines climate change as any significant change in the measures of climate lasting for an extended period of time. It includes major changes in temperature, precipitation, wind patterns, or other effects, that occur over several decades or longer.

According to the EPA, global average temperature has increased between 2-3°F from 1901 to 2021. Changes of one or two degrees in the average temperature of the planet can cause potentially dangerous shifts in climate and weather. Several places have seen changes in rainfall, resulting in more floods, droughts, intense rain, and more frequent and severe heat waves. As these changes in weather and climate changes become more pronounced in the coming decades, they will likely present challenges to our society and our environment.

The 2019 Minnesota State Hazard Mitigation Plan also states, “Minnesota has a highly variable, continental-type climate as described below. Despite its high degree of natural variability, climate scientists are finding clear evidence that recent temperature and precipitation increases are exceeding the historical variability of Minnesota’s climate and can be attributed to climate change.

Minnesota’s position near the center of the continent, and halfway between the Equator and North Pole, subjects it to a wide variety of air mass types throughout the year. Frequent outbreaks of continental polar air occur in every season, with occasional bitterly cold Arctic outbreaks during the winter. Similarly, the state experiences occasional mild to warm conditions in all seasons, with extreme heat episodes common during the summer, particularly in the southern and western portions of Minnesota.”

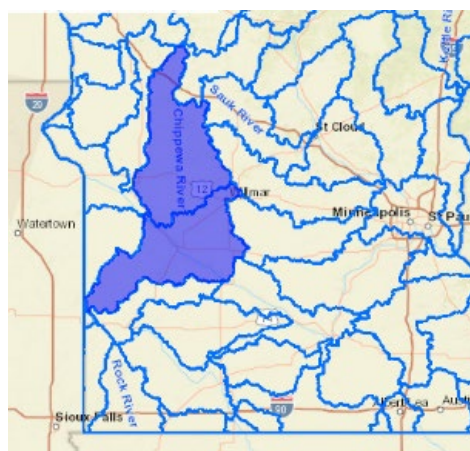
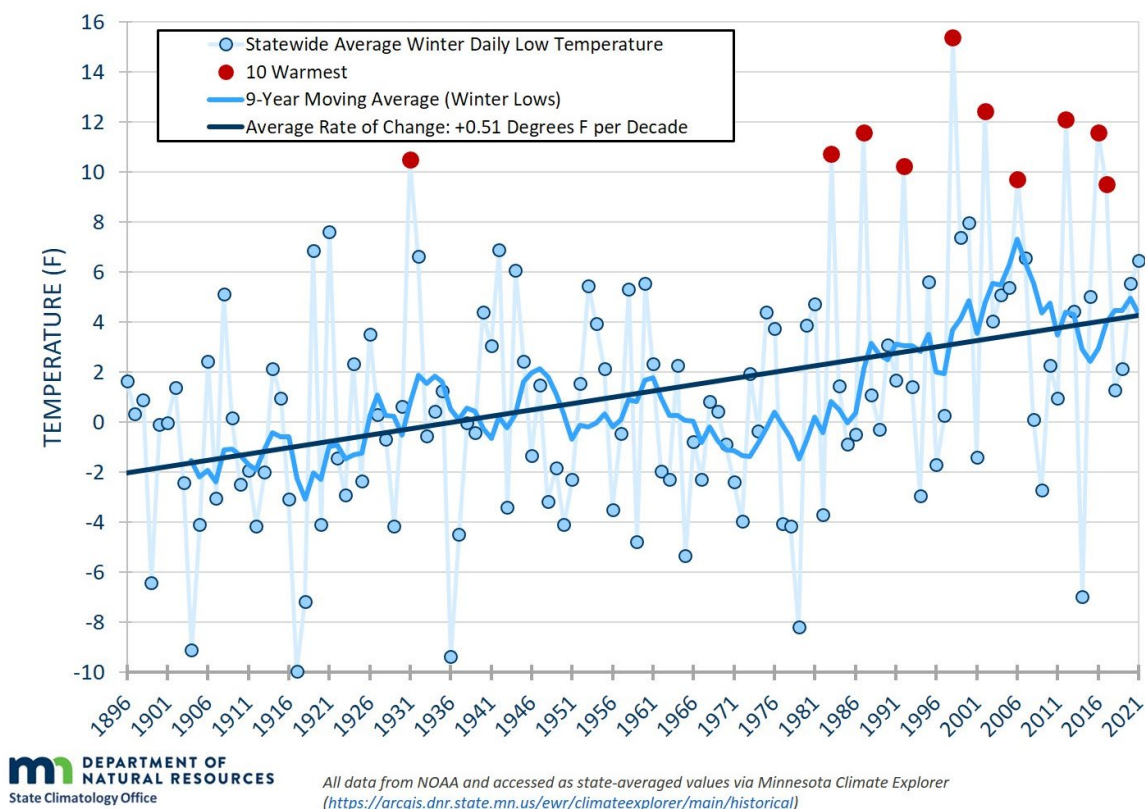
#### ***History of Climate Change in Chippewa County/Minnesota***

According to the Minnesota State Hazard Mitigation Plan (2019), climate change in Minnesota is already occurring in ways that will affect the environment, the economy and everyday life. Historical weather data show changing trends in some weather phenomenon over the past few decades, and future changes are likely. Intense study of these topics will continue into the future.

The Minnesota State Climatology Office reports that Minnesota has warmed by three degrees (F) between 1895 and 2020, while annual precipitation increased by an average of 3.4”. The increase in

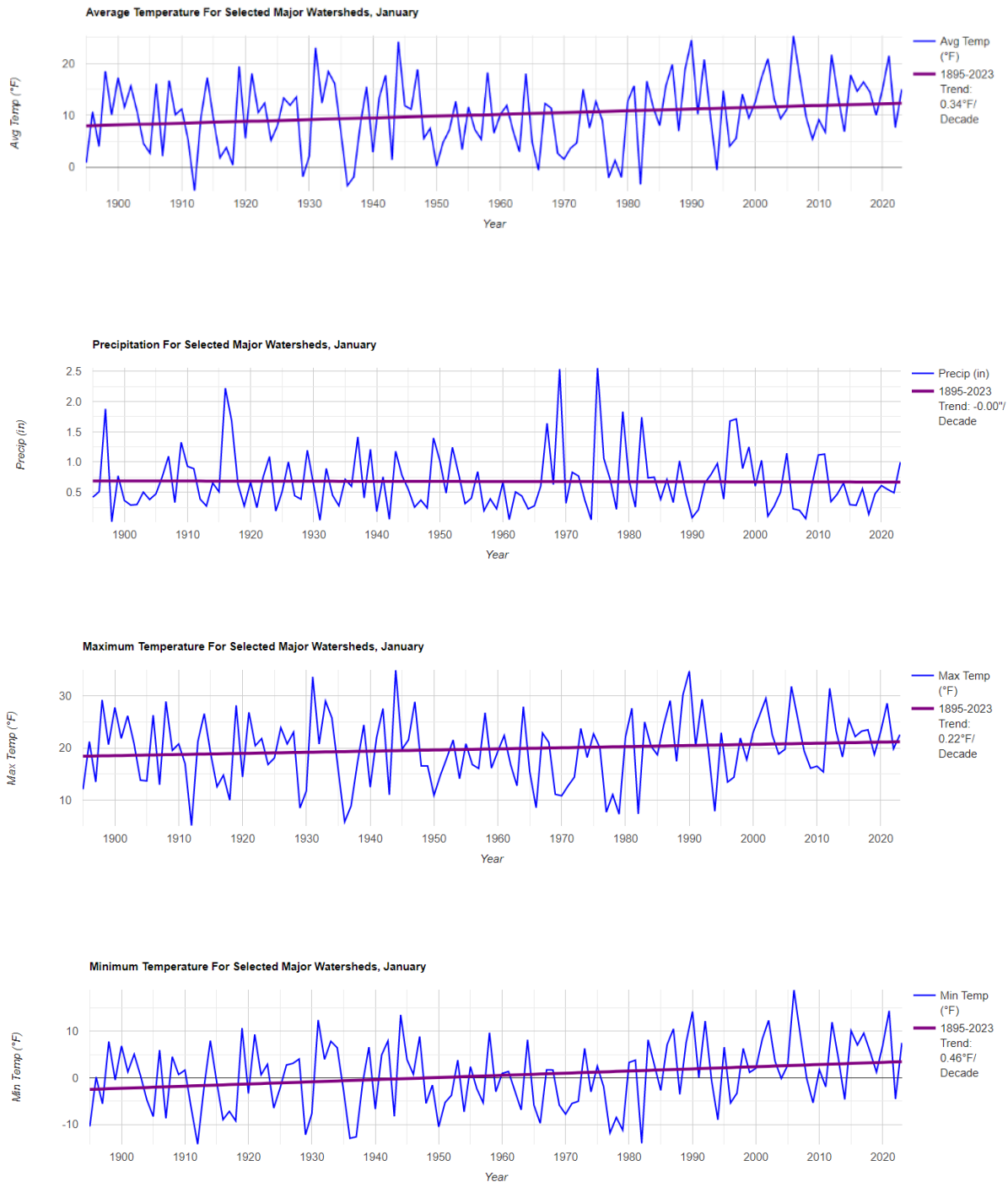
temperatures during the winter months has occurred at a rate 2-3 times faster than during the summer months from 1895 to 2021 and even more rapidly since 1970. In addition, Minnesota is not getting as cold as it once did. The intensity of rain events has also increased as 1-3" rainfalls are becoming more common. The State is expecting these trends to continue through the 21st century. The following figure shows the warming trend of the average winter minimum temperatures since 1896.

**Figure 3.1 Minnesota Average Winter Daily Minimum Temperatures (December through February, 1896-2021)**



Closer to home in Chippewa County, average temperature trends are similar to statewide figures. Using the MN DNR's [Climate Trends Tool](#), and selecting the watersheds of Chippewa County (Chippewa River and Minnesota River-Yellow Medicine River watersheds, shown at left), shows that the average temperature has increased by .34 degrees F from 1895 to 2023 while the average precipitation has remained unchanged. The minimum temperature for the two watersheds has increased .46 degrees F while the average maximum temperature has increased less than half of that at .22 degrees F. These trends are illustrated in the following graph plots.

**Figure 3.2 Chippewa River & Minnesota River Historic Temperature and Precipitation Trends, 1895-2023\***



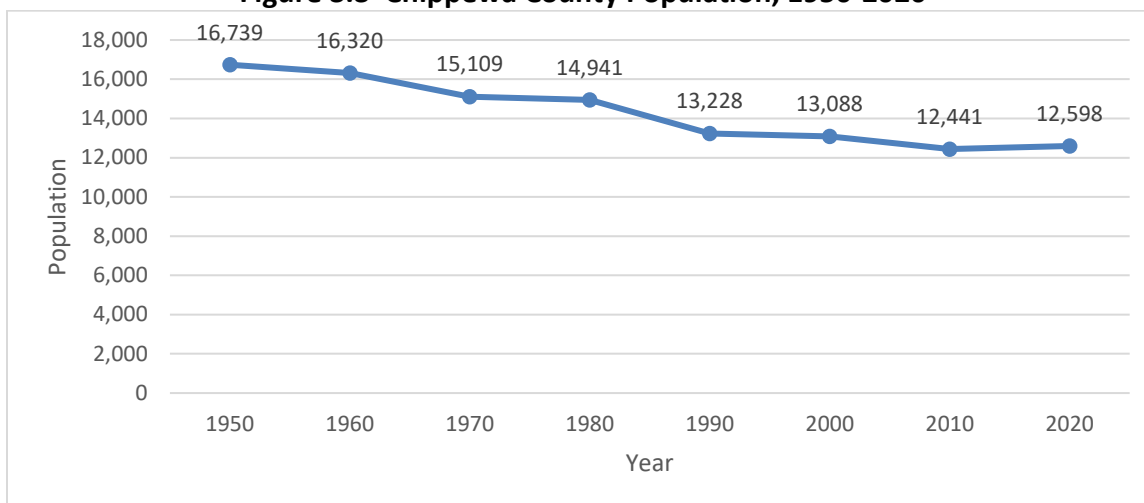
\*The four graphs above were generated using the Minnesota DNR's [Minnesota Climate Trends tool](#)

## 3.5 DEMOGRAPHICS

### 3.5.1 POPULATION

The 2020 U.S. Census reported that Chippewa County has a current population of 12,598 people. This is a 1.3% increase from 2010, marking the first increase in population since 1940 and indicating a potential stabilization in the population. Prior to this slight increase, the county's population had been on a continual decline since 1950.

**Figure 3.3 Chippewa County Population, 1950-2020**



Source: U.S. Census

Table 3.6 identifies population projections for Chippewa County. The State Demographic Center projects that Chippewa County's population will decrease by almost 660 residents by 2035 from the 2020 Census figure.

**Table 3.6 Chippewa County Population Projections**

	2010 Population	2020 Population	2025 Projection	2035 Projection
Chippewa County	12,443	12,598	12,112	11,938

Source: U.S. Census; Minnesota State Demographic Center, May 2023

Chippewa County is home to five cities (and part of Granite Falls) and sixteen townships. The following is a brief city-specific discussion of population and number of households.

#### *Montevideo*

The city of Montevideo is situated in the Minnesota River Valley. The city is located along the southern edge of Chippewa County, surrounded by Sparta Township. U.S. Highways 59 and 212 run through the city, as do State Highways 7 and 29. Montevideo is the largest employment center and, as the county seat, provides most of Chippewa County's governmental services. Montevideo has a population of 5,398 residents and 2,426 households (U.S. Census, 2020, American Community Survey).

### **Clara City**

Clara City is the county's third largest city with a reported population of 1,423 residents and 584 households (U.S. Census Bureau, 2020). In addition to State Highway 23, State Highway 7 runs east/west along the southern edge of the city, County Road 2 runs north/south through the city, and the Burlington Northern Railroad runs parallel to Highway 23.

### **Milan**

The city of Milan is located approximately 15 miles northwest of Montevideo and approximately two miles north of Lac qui Parle Lake. Milan is Chippewa County's third smallest city with an estimated 428 people and 126 households (U.S. Census Bureau, 2020). U.S. Highway 59 and State Highway 7 are joined at this point and run through the city from the northwest to the southeast. State Highway 40 runs along the southern edge of the city.

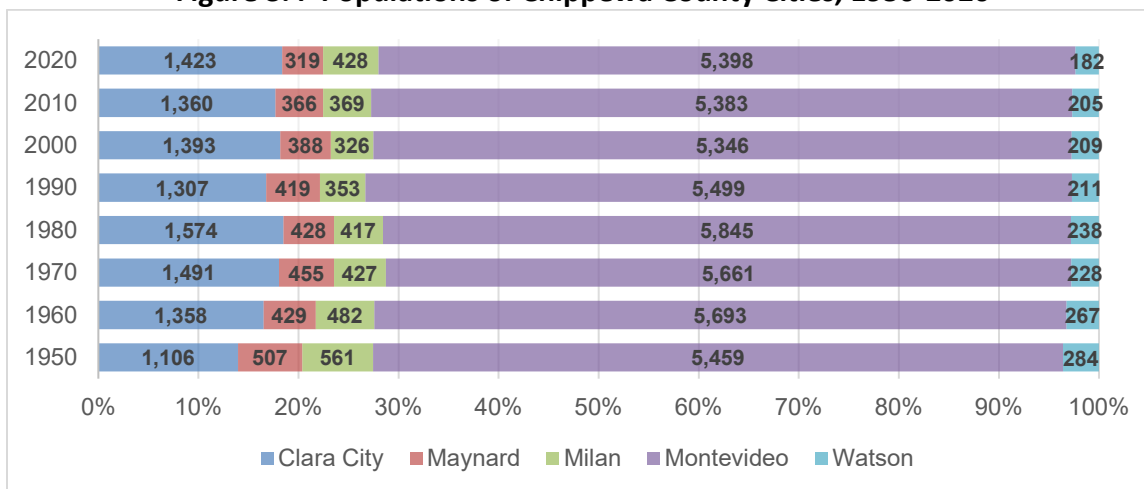
### **Maynard**

The city of Maynard is located in the southern part of Chippewa County between Clara City and Granite Falls on State Highway 23. County Road 4 dissects the city cutting from the north to the southeastern part of the city. In addition, the Burlington Northern Railroad runs parallel to Highway 23. Maynard is the county's second smallest city with 319 people and 173 households (U.S. Census Bureau, 2020).

### **Watson**

The city of Watson is located approximately five miles northwest of Montevideo along the joined U.S. Highway 59 and State Highway 7. The city is located approximately two miles northeast of the Minnesota River. Watson is the county's smallest city with an estimated population of 182 residents and 87 households (U.S. Census Bureau, 2020).

**Figure 3.4 Populations of Chippewa County Cities, 1950-2020**



Source: U.S. Census, 2020



### 3.5.2 AGE AND-RACE CHARACTERISTICS

Since 1970, the county's population has "aged." Minnesota Planning predicts that the percent increase in elderly population will grow at a faster rate than the total population over the next 25 years. It is during this time frame that "baby boomers" will reach retirement age. This is a strong indicator of the need for many senior-related services, including senior housing and transit services. This trend also shows the importance of planning for disasters as many in this demographic may require additional assistance before, during and after a disaster event. Evacuations and sheltering may present some challenges to the elderly who have limited mobility, hearing difficulties and vision problems. According to the 2020 American Community Survey 5-year Estimates, Chippewa County has a median age of 40.6, which is two years older than the state's figure of 38.3. When looking at potentially vulnerable age groups, the 75+ age group might be a sector of the population that may need extra attention. As the following table indicates, Chippewa County and all but one of its communities have larger proportions of the 75+ demographic than the state.

**Table 3.7 Chippewa County Age Characteristics, 2020**

	Under 18	18 and Older	65 and over	75 and over
Clara City	29.7%	70.3%	25.6%	13.3%
Maynard	25.2%	74.8%	20.2%	8.1%
Milan	23.4%	76.6%	17.6%	6.9%
Montevideo	19.5%	80.5%	21.5%	11.3%
Watson	21.3%	78.7%	12.4%	3.4%
Chippewa County	23.3%	76.7%	21.2%	9.9%
<b>Minnesota</b>	<b>23.2%</b>	<b>76.8%</b>	<b>15.8%</b>	<b>6.5%</b>

Source: 2020 American Community Survey, U.S. Census Bureau,

The racial make-up of Chippewa County has been slowly changing in recent years. According to the 2021 American Community Survey, Chippewa County has seen a decline in the white population while the number of people of other races increased. From 2011 to 2021, the white population declined by almost 6%, while many of the other races increased by significant percentages. The next largest race in Chippewa County is the Hispanic or Latino origin, consisting of 991 residents, or almost 8% of the total population. It should be noted that while the county's minority population continues to increase, it still only comprises approximately 12% of the total.

**Table 3.8 Chippewa County Race and Hispanic Origin, 2021**

Race and Hispanic Origin, 2021	Number	Percent	% Change, 2011-21 (Chippewa Co.)	% Change, 2011-21 (MN)
Total population	12,509	100%	1.0%	7.4%
White	10,980	87.8%	-5.8%	0.4%
Black or African American	145	1.2%	126.6%	42.2%
American Indian or Alaska Native	216	1.7%	227.3%	-8.0%
Asian or Other Pacific Islander	322	2.6%	261.8%	35.8%
Some Other Race	668	5.3%	156.9%	66.5%
Two or More Races	178	1.4%	-26.7%	121.8%
Hispanic or Latino Origin	991	7.9%	69.1%	31.6%

Source: 2021 American Community Survey, U.S. Census, DEED Chippewa County Profile

Similarly, the county experienced a significant increase in the number of foreign-born residents over the same period. From 2011-2021, the number of foreign-born residents increased by 106.7% or 396 residents. This rate of increase was greater than the state's increase over the same timeframe (30.6%). The majority of the foreign-born residents are natives of Latin America, Oceania, and Asia. The total number of foreign-born residents in Chippewa County is 767 or about 6% of the total population.

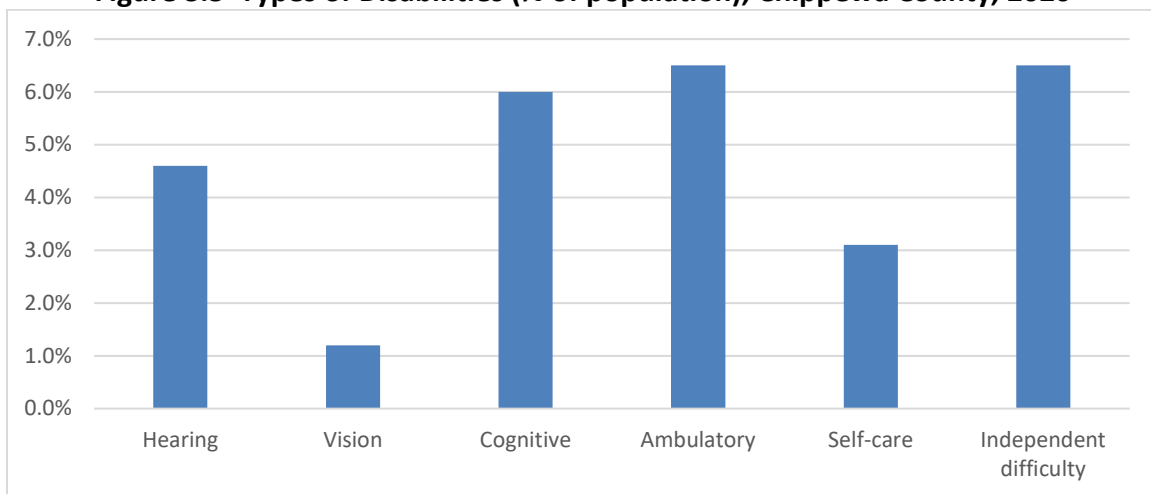
### 3.5.3 HOUSEHOLDS

Household characteristics have a direct impact on land use, housing needs, social services, and educational expenses. Changes in household size have a direct and proportional effect on demand exerted and types of housing necessary for communities. As household size decreases, the demand for housing units will increase. Chippewa County has an estimated 5,240 households according to the 2021 American Community Survey 5-Year Estimates with an average household size of 2.33.

### 3.5.4 POPULATION WITH DISABILITIES AND AT-RISK POPULATION

Another factor in determining the vulnerability of a population is the percentage of the population with disabilities. According to the 2020 American Community Survey, 13.4% of the county's population is disabled in some way. This is higher than the state's percentage of 10.9%. The proportion of the population with various disabilities is summarized in the following figure.

**Figure 3.5 Types of Disabilities (% of population), Chippewa County, 2020**



Source: 2020 American Community Survey, 5-Year Estimates

As mentioned earlier, it is helpful to identify populations within the planning area that may be at risk or more vulnerable than the general population. This may be a result of age, income, housing, mobility, education level, and language. Using data collected by Headwaters Economics Profile System and comparing Chippewa County to the nation as a whole, most of the “at risk” categories are less than the national average. There were just three categories where Chippewa County had a higher percentage than the rest of the U.S. – population under 5, population over 65 and population with disabilities. This is not to say there are few segments of the population that are at risk or vulnerable, but rather those individuals make up a smaller percentage of the population than the national averages.

**Table 3.9 Chippewa County/U.S. Percentage of Populations at Risk, 2021**

Indicators, 2021	Chippewa County	U.S.
Population under 5	6.4%	5.9%
Population over 65	21.0%	16.0%
Population Non-White (all other races)	12.2%	31.8%
Population Hispanic	7.9%	18.4%
Population without a High School Diploma	9.1%	11.1%
Population that speak English "Not Well"	1.9%	4.1%
Population in "Deep Poverty"	5.2%	5.3%
Families Below Poverty	6.7%	8.9%
Families that are Single Mother Households and Below Poverty	3.9%	3.9%
Households Receiving Food Stamps (SNAP)	6.1%	11.4%
Population that "Did Not Work"	15.2%	22.7%
Rentals where Gross Rent Exceeds 30% of Household Income	32.6%	46.0%
Housing that are Mobile Homes	1.7%	5.2%
Households that are Single Female with Children under 18	7.0%	7.6%
Households with No Car	7.1%	8.3%
Population over 65 and Living Alone	32.6%	33.1%
Population with Disabilities	13.9%	12.6%
Population without Health Insurance	8.0%	8.5%

Source: U.S. Department of Commerce, 2022, American Community Survey Office, Washington, D.C., reported by Headwaters Economics

### 3.5.5 HOUSING

The conditions, type and variety of housing offered by communities directly influence the sustainability and vitality of the entire county. The 2020 Census reports that Chippewa County has 5,627 total housing units, with 5,150 of them occupied and 477 vacant. The age of the county's housing stock is shown in Table 3.8.

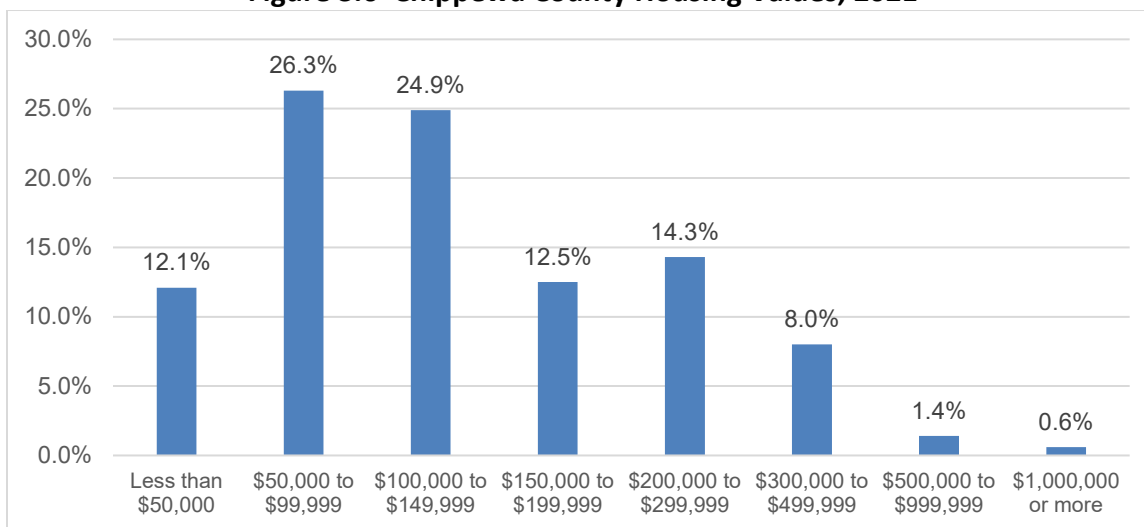
**Table 3.10 Chippewa County Housing Year Built, 2021**

Year Built	Total Structures Built	% of-total
After 2020	3	0.1%
2010 or 2019	121	2.1%
2000 to 2009	378	6.7%
1990 to 1999	450	8.0%
1980 to 1989	316	5.6%
1970 to 1979	825	14.6%
1960 to 1969	462	8.2%
1950 to 1959	918	16.3%
1940 to 1949	541	9.6%
1939 or earlier	1,631	28.9%
<b>Total</b>	<b>5,645</b>	<b>100%</b>
<b>Median Year Built</b>	<b>1960</b>	

Source: 2021 American Community Survey 5-Year Estimates

Housing values are another important data set to considering mitigation strategies and determining potential loss. Almost 64% of the housing stock is valued under \$150,000 according to the 2021 American Community Survey (ACS) 5-Year Estimates, with 51.2% falling between \$50,000 and \$149,999. The median house value is \$121,900.

**Figure 3.6 Chippewa County Housing Values, 2021**



Source: 2021 ACS 5-Year Estimates

### 3.6 ECONOMIC CONDITIONS

Chippewa County's economic atmosphere supports an agricultural base, recreation, tourism, services, retail, trade and government. The county possesses strong and mature manufacturing and service-related industries. This, along with excellent access to transportation systems and close proximity to the major urban centers; Chippewa County is positioned to have a vibrant economy for many years to come.

Almost 65% of Chippewa County residents 16 years old and over are in the labor force and three percent are unemployed, according to the 2020 American Community Survey and Minnesota Department of Employment and Economic Development (Jan. 2022). Table 3.11 provides an in-depth breakdown of occupations by business and industry types in Chippewa County in 2020. The largest sector in the county is the Education, Health, and Social Services sector followed by the Manufacturing and Retail Trade sectors.

**Table 3.11 Chippewa County Industries for the Employed Civilian Population, 16 Years and Older, 2020**

Industry Sector	% of Workforce
Agriculture, Forestry, Fishing and Hunting, and Mining	8.0%
Construction	7.4%
Manufacturing	17.4%
Wholesale Trade	2.5%
Retail Trade	12.2%
Transportation and Warehousing, and Utilities	3.6%
Information	1.2%
Finance, Insurance, Real Estate and Rental and Leasing	3.7%
Professional, Scientific, Management, Administrative, and Waste Management Services	6.0%
Educational, Health and Social Services	24.5%
Arts, Entertainment, Recreation, Accommodation and Food Services	6.3%
Other Services (except public administration)	3.7%
Public Administration	3.4%
<b>Total</b>	<b>100%</b>

Source: U.S. Census, 2020 American Community Survey 5-Year Estimates

As shown in Table 3.12 below, the highest percentages of households (21.4%) and families (21.2%) fall into the income range of \$50,000 to \$74,999 in Chippewa County. The estimated median household and family incomes for Chippewa County in 2020 was \$57,301 and \$70,783 respectively. These figures were significantly lower than the statewide median incomes of \$73,383 (household) and \$92,692 (family).

**Table 3.12 Chippewa County Income Statistics, 2020**

	Households		Families	
	Number	Percentage	Number	Percentage
Less than \$10,000	246	4.8%	33	1.0%
\$10,000 to \$14,999	210	4.1%	47	1.5%
\$15,000 to \$24,999	549	10.7%	255	7.7%
\$25,000 to \$34,999	477	9.3%	252	7.6%
\$35,000 to \$49,999	729	14.2%	480	14.5%
\$50,000 to \$74,999	1,098	21.4%	702	21.2%
\$75,000 to \$99,999	688	13.4%	553	16.7%
\$100,000 to \$149,999	765	14.9%	656	19.8%
\$150,000 to \$199,999	221	4.3%	209	6.3%
\$200,000 or more	144	2.8%	126	3.8%
<b>Total</b>	<b>5,133</b>	<b>100%</b>	<b>3,313</b>	<b>100%</b>
<i>Median household or family income</i>	<i>\$57,301</i>	<i>-</i>	<i>\$70,783</i>	<i>-</i>

Source: U.S. Census Bureau, 2020 American Community Survey  
Note: Household count contains both families and persons living alone.

### 3.7 COMMUNITY INFRASTRUCTURE

This section identifies Chippewa County's schools, public facilities, parks and natural resources, and available modes of transportation offering transit, airport facilities, roads, and a multitude of trail opportunities. A complete listing of telecommunication and power facilities has been provided along with city-specific water and sewer systems currently in place throughout the county.

#### 3.7.1 SCHOOLS

Chippewa County is home to all or portions of six School Districts: Lac Qui Parle Valley, Yellow Medicine East, Montevideo, Benson, Kerkhoven-Murdock-Sunburg (KMS), and MACCRAY (Table 3.13). Lac qui Parle Valley District covers the northwest corner of the county and includes Milan and Watson. Yellow Medicine East School District covers Granite Falls and the rest of the southern portion of Chippewa County. Montevideo School District includes the west central part of the county, which includes the city of Montevideo. Benson serves a small rural portion of the north central part of the county. The KMS district covers a rural area in the far northeast corner and the MACCRAY School District covers the eastern part of the county, which includes Clara City and Maynard.

**Table 3.13 Chippewa County Schools**

Chippewa County Schools	Locations
Montevideo Senior High School	Montevideo
Montevideo Middle School	Montevideo
Ramsey Elementary Schools	Montevideo
Sanford Education Center	Montevideo
Minnesota Valley Learning Center	Montevideo
Wildwood Montessori School	Montevideo
MACCRAY School District	Clara City
Heritage Plains Christian Academy	Montevideo
Wildwood Montessori Preschool	Montevideo
KMS Public Schools (no facility in Chippewa Co.)	Kerkhoven, Murdock
Lac qui Parle Valley (no facility in Chippewa Co.)	Appleton, Madison, Rural area between Appleton/Madison
Yellow Medicine East (no facility in Chippewa County)	Granite Falls
Benson Public Schools	Benson

#### 3.7.2 PUBLIC FACILITIES

Public Facilities include city and town halls, county courthouse, libraries, parks, churches and historic resources. These places provide both public services and create an important sense of community character. Most public facilities are located in the cities. However, there are parks and wildlife management areas located in the rural areas of the county.

**Table 3.14 Chippewa County/City Facilities**

Clara City	Located in Floodplain?	Higher than average vulnerability to other disasters?	Why?
City Hall /Community Center/Fire Department	No	Terrorism	Government facilities are sometimes more of a target of terrorism.
Public Library	No	No	Public facility
Swimming Pool	No	Lightning	Pool guests may be vulnerable to lightning strikes if not warned.
Community Hall	No	No	Public gathering space
Nursing Home	No	Various disasters, evacuation of residents may be challenging	While structures are structurally sound, evacuating or sheltering the vulnerable population (elderly) could pose a challenge
Water Treatment Plant	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the facility.
Wastewater Plant	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the facility.
MACCRAY School District (Grades PS-12)	No	Wildfire, terrorism (very slight)	School has grassland adjacent. Schools have become more susceptible to violence in recent years
<b>Maynard</b>			
Maynard City Hall/Library/Community Center	No	Terrorism	Government facilities are sometimes more of a target of terrorism.
Water tower	No	Terrorism (slight)	Water supply
Water treatment facility	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the facility.
Wastewater treatment facility	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the system.
Maynard Event Center	No	No	Community gathering space
<b>Milan</b>			
Fire Hall/City Hall	No	Terrorism	Government facilities are sometimes more of a target of terrorism.
Public Library	No	No	Public gathering space
Milan Village Arts School	No	No	Cultural facility
<b>Montevideo</b>			
City Hall/Police Department	Yes**	Terrorism	Government facilities are sometimes more of a target of terrorism.
Fire Department	No	No	Emergency facility/equipment
Chippewa County Courthouse	No	Terrorism	Government offices tend to be higher target for terrorism
Historic Chippewa City	Yes	Strong winds/tornados	Buildings are old and may be more susceptible to strong winds/tornados
Armory	No	Terrorism	Governmental facility
Wells/water supply	No	Hazardous materials	One well is located near busy highway and may be vulnerable to a potential hazardous materials spill
Community Center/Senior Center	No	Tornado	Facility itself is not more vulnerable, but is used as senior center during the week
Public Library	No	No	Public gathering space
Hospital – CCM Health	No	Tornado, fire, hazardous materials, terrorism	Structure itself is sound, but evacuation or mobilization of patients and guests may be challenging if required
Outdoor Swimming Pool	No	Lightning	Pool guests may be vulnerable to lightning strikes if not warned.
Schools	No	Terrorism (slight)	Schools have become more susceptible to

			violence recently
Water Treatment Plant	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the facility.
Wastewater Treatment Plant	Yes**	Lightning (slight)	Lightning strikes can take out the power/electronic components of the facility.
Landfill	No	No	Waste disposal facility would need to be operational especially after major storms
<b>**Facilities are located in 2023 FEMA proposed floodplain, but are not in the current map. Once the recently completed levee is certified by ACE, these facilities will not be considered in the 2023 proposed floodplain.</b>			
<b>Watson</b>			
Watson City Hall/Community Center	No	No	Public gathering space
Watson Town Hall	No	No	Public gathering space, City Hall
Pump House and wells	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the facility.
Wastewater lift station	No	Lightning (slight)	Lightning strikes can take out the power/electronic components of the system..
<b>Rural Chippewa County</b>			
Swensson Farm Museum	No	Windstorm, tornado, lightning	Buildings are old and may be more susceptible to strong winds/tornados. Guests may also be vulnerable to thunderstorms if outside.
Lac qui Parle Mission	No	Windstorm, tornado, lightning	Building is old and may be more susceptible to strong winds/tornados. Guests may also be vulnerable to thunderstorms if outside.
Chippewa County Park #1	No	Wind, tornado	Campers outdoors
Chippewa County Park #2	Yes	Wind, tornado	Campers outdoors
Lac qui Parle State Park Upper Campground	No	Wind, tornado	Large groups of people outdoors
Lac qui Parle Mission	No	Wind, tornado	Historic structure, cultural significance.

### 3.7.3 TRANSPORTATION

#### Roads

Chippewa County is well served by an extensive roadway network that connects the county with the rest of the region and Minnesota. State, county, township, and city roads are all included in the roadway network. It is the primary means of transportation for both goods and people within and out of the county. A map of the Chippewa County Transportation system can be found in Appendix 1.

#### Trunk Highway System

Chippewa County has five Minnesota State Trunk Highways: 7, 23, 277, 40 and 29, and two U.S. Trunk Highways: 212 and 59/7. Highway 59 is considered a U.S. Trunk Highway, but where Highway 7 joins 59 in Montevideo, 59 is considered a State Highway. These roads are constructed and maintained by the Minnesota Department of Transportation (MnDOT). Chippewa County has 6.8 miles of US Highways and 126 miles of State Highways.



### **County Roads**

These roads are established, constructed and improved by the County Boards. They are under the sole authority of the County Board and stretch to 53.7 miles. There are currently 244 miles of County State-Aid Highways under the jurisdiction of the County.

### **Township Roads**

A road established by and under the authority of the township board or reverted to township jurisdiction by the County Board. These roads are constructed and maintained by township boundaries and Chippewa County contains 706.9 miles of township roads.

### **City Streets**

These roads serve as direct access from residential properties and/or commercial establishments and are classified as any street under the jurisdiction of a municipality not otherwise designated as a trunk Highway, County State Aid Street, Highway or County Highway. Municipal streets total 62.2 miles.

### **Transit**

Mass transit is an essential public service to provide for increased capacity on heavily traveled roads, transportation access to disabled persons or those otherwise unable to drive, supports dense land use development, decreases dependence on car use, and helps prevent the creation of additional air pollution from diminished individual car use.

Chippewa County has one large mass transit provider, Prairie Five Rides. Prairie Five Community Action Council, Inc. serves the entire five county region including city systems in seven communities in the five-county service area - Appleton, Benson, Canby, Dawson, Madison, Montevideo, and Ortonville.

### **Airports**

The Chippewa County airport is located in Montevideo. Montevideo airport has a paved runway, 4,000 feet in length and 75 feet wide; and on average, six planes land a day. Montevideo also has a turf runway, 2,361 feet in length and 165 feet wide.

### **Railroads**

Two rail lines operate in Chippewa County, the Burlington Northern Santa Fe (BNSF) line and the Twin Cities and Western Railroad Company (TC&W), mainly for agricultural purposes. The BNSF line operates a class four rail line in the southeastern portion of the county, running on the northern side of State Highway 23 east of Clara City. West of Clara City it continues along through Maynard and passes just northwest of Granite Falls. The BNSF rail line owns approximately 1,626 miles of line (35%) of the total rail mileage in the state. TC&W line is a class three line running along the western edge of the county, parallel to the combined State Highway 7 and U.S. Highway 59 in the northern half of the county until Montevideo, where the rail line continues parallel to the Minnesota River on the north. BNSF runs 16 trains a day at 49 miles per hour and the Twin Cities Western runs two trains a day at 40 miles per hour.

### 3.7.4 TELECOMMUNICATION AND POWER FACILITIES

#### Internet, Electric, Gas and Phone

Table 3.15 below identifies the telecommunication and power facilities within Chippewa County.

**Table 3.15 Chippewa County Telecommunication and Power Facilities**

City	Telecommunication Internet, Cable		Electric	Gas	Phone
Clara City	Clara City Telephone Co.	Mediacom MVTW Wireless	Xcel	Dooleys	Clara City Telephone Co.
Maynard	MVTW Wireless	Mediacom	Xcel MN Valley Co-op	Dooleys	Clara City Telephone
Milan	Federated Telephone Co.	MVTW Wireless	Ottertail Power Company	--	Federated Telephone Co.
Montevideo	MVTW Wireless Charter	Quest	Xcel MN Valley Co-op	Great Plains Natural Gas	Charter Communications
Watson	MVTW Wireless Farmers Mutual Telephone		Xcel	Dooleys	Century Link, Farmers Mutual

MN Valley Electric Cooperative serves most of the rural areas of the county. Xcel Energy serves the far western part of the county including the City of Montevideo and rural areas along US. Highway 59 from Lac qui Parle Lake to just south of Wegdahl. Xcel also serves Clara City and Maynard as well as a small rural area in the southeastern part of the county. Otter Tail Power serves Milan and the far northwestern part of the county. Kandiyohi Power Co-op serves the far northeastern rural portion of the county. And finally, Renville-Sibley Coop Power Association serves a small area of the rural southeastern part of the county.

#### Radio

There are three FM and two AM radio stations that serve the county. Montevideo has KMGM (FM), KRAM (FM) and KDMA (AM) that provides up-to-date weather readings. Granite Falls has KKRC (FM) and KOLV (AM) that provides up to date weather readings.

### 3.7.5 SEWER AND WATER SYSTEMS

All cities in Chippewa County have municipal water and sewer systems. The City of Watson recently completed the construction of a new sewer and water system in the city. The wastewater generated by the city of Watson is now pumped to Montevideo for treatment. Residents outside these areas are served by individual wells and septic systems.

### 3.7.6 EMERGENCY RESPONSE/PUBLIC SAFETY

A county's ability to respond to an emergency situation or event is based on service areas, facilities, and equipment. An understanding of response times and abilities is critical in protecting the citizens of Chippewa County. The existing facilities and equipment in the county are intended to address local needs and support regional needs. Chippewa County is considered a mutual aid county and provides and receives support from adjacent counties. The following summary and description serve as an inventory of the response facilities for Chippewa County.

## Medical Facilities

Chippewa County is served by four clinics and one hospital. All Chippewa County medical facilities are identified in Tables 3.17. Three clinics are served by the healthcare providers of the Montevideo Clinic and the VA Clinic has its own staff. Montevideo has two ambulances and Clara City has one ambulance. Granite Falls has three ambulances. The Montevideo ambulances are backed up by the ambulance service in Clarkfield. Both Montevideo and Appleton provide ambulance service for Milan.

**Table 3.16 Chippewa County Ambulance Services**

Ambulance Services	Number of Ambulances
Clara City	1 ambulance
Granite Falls <i>(provides service to the southern rural area of the county)</i>	4 ambulances, 1 with Advanced Life Support
Maynard	Served by Montevideo and Clara City
Milan	Served by Montevideo and Appleton
Montevideo	3 ambulances, 1 with Advanced Life Support
Watson	Served by Montevideo

**Table 3.17 Chippewa County Healthcare Facilities**

Clinic Name
CCM Health Hospital and Clinic - Montevideo
CCM Health Clinic - Montevideo
CCM Health Clinic - Clara City
CCM Health Clinic - Milan
Montevideo VA Clinic

## Fire Services

There are no full-time fire departments in Chippewa County. All four fire departments within the county are served by volunteer firefighters. The four departments are based in Clara City, Maynard, Milan, and Montevideo. Montevideo Fire Department also provides fire protection for the City of Watson. The Department of Natural Resources (DNR) is responsible for fire protection on state forest and parkland. The DNR and USFWS work closely with local fire units for protection of these lands through contracting agreements. Additionally, all fire departments have mutual aid agreements.

All departments have firefighting vehicles such as pumpers, tankers, grass rigs, UTVs and Montevideo has a ladder truck. For a complete list of vehicles, refer to the Chippewa County Emergency Operations Plan (EOP).

Other equipment available throughout Chippewa County includes personal protection equipment and turnout gear/wetland gear for firefighters, thermal imaging cameras, compressors, containment fill station, and defibrillators.

### **Emergency Operations Center**

Located in Chippewa County Assembly Room in Montevideo, the center provides a point for strategic command for all events in Chippewa County.

The Montevideo City Hall is a back-up EOC. Services available include multiple phone lines, access to internet and fax, and desk space.

### **Emergency Warning Systems**

The Chippewa County Public Service Answering Point (PSAP) is the Chippewa County warning point. The Chippewa County Sheriff has overall responsibility to ensure all notifications received by the warning point are handled properly. The Chippewa County warning points are responsible for proper receipt and dissemination of all emergency notifications. The National Weather Service tower in Appleton and the Marshall NAWAS Warning Point are responsible for disseminating all watches and warnings to the Chippewa County warning point, except warnings for conditions generated within the county itself.

The Chippewa County Warning Point is at the Law Enforcement Center in Montevideo, which has 24-hour warning capability. All cities in Chippewa County have emergency sirens in working condition. All city sirens have battery backup power.

Chippewa County Emergency Management also utilizes the CodeRED emergency notification system. CodeRED allows emergency officials to notify residents and businesses by telephone, cell phone, text message, email and social media regarding time-sensitive general and emergency notifications. Only authorized officials have access to the CodeRED system. Any message regarding the safety, property or welfare of the community will be disseminated using the CodeRED system. These typically include AMBER alerts, notifications of hazardous traffic or road conditions, evacuation notices and severe weather conditions like tornado and blizzard warnings.

### **Police Departments**

Police protection in the county is provided by the Chippewa County Sheriff's Department. Montevideo is the only community with its own police department. Other communities contract with the County Sheriff's Department for police protection as it is not feasible for the smaller communities to fund their own police departments.

### **Countryside Public Health**

Countryside Public Health Services is the County Department of Health for Chippewa, Swift, Lac qui Parle, Big Stone and Yellow Medicine counties. Part of their mission is designed to protect the health of the general population by emphasizing the prevention of disease, injury, disability and death through effective coordination, use of community resources, and provide education, training, WIC program, disease prevention and control and environmental programs. Countryside Public Health has the ability to respond to health emergencies and is part of the Medical Reserve Corps (MRC) for volunteers, which is part of a nationwide initiative to pre-register, manage, and mobilize volunteers to help their communities respond to all types of disasters.

### **Heavy Equipment Inventory**

The County Highway Department as well as Clara City, Milan and Montevideo have equipment that can be used in case of an emergency from tornados to floods. For a complete list of available equipment, refer to the County's Emergency Operation Plan.

### **3.7.7 PROPERTY**

#### **Land Uses**

Land uses are regulated in Chippewa County through county ordinances. Cities in Chippewa County have zoning ordinances that regulate the building construction and location of manufactured home parks. The cities of Clara City, Maynard, Milan, Montevideo, and Watson have also adopted zoning ordinances. The County Zoning Ordinance requires 30' (in the Scenic Sub-District) and 20" (in the Recreational Sub-District) setbacks from bluff-lines to prevent potential adverse erosion.

#### **Manufactured Home Parks**

There is one manufactured home park (Northdale Estates) in Chippewa County located on the north side of Montevideo. Manufactured home parks are allowed as a conditional use and must follow guidelines as set forth in the Chippewa County Ordinance Code.

#### **Current Codes**

Chippewa County has a floodplain ordinance adopted in 1993 and amended in 1997. The floodplain ordinance regulates permitted uses and development in the 100-year floodplain. Montevideo and Clara City have also adopted floodplain ordinances.

Montevideo and Granite Falls have adopted the universal building code. Construction of new buildings in Montevideo and Granite Falls require the use of tie-downs in the foundation in order to withstand high wind conditions. Montevideo also requires roof tie-downs. Other cities and the county do not regulate the use of tie-downs.

## Chapter 4 HAZARD PROFILES

This plan discusses both Natural Hazards as well as Manmade Hazards. To identify what hazards to include in this plan, the planning committee began by evaluating the list of hazards identified in the 2019 Minnesota State Hazard Mitigation Plan and determining if each could pose a threat to Chippewa County.

While FEMA only requires jurisdictions to evaluate natural disasters, the County also decided to include technological or human-caused hazards in the original hazard mitigation plan and subsequent updates and thought it would be beneficial to continue to include them in this update as well, so they are also addressed in this plan. It should be noted that since these hazards are not required to be addressed by FEMA, they are not eligible for funding assistance through FEMA's Hazard Mitigation funding programs. However, it is possible there may be additional funding sources through other local, state, and federal programs depending on the identified strategies and projects.

The hazard inventory chapter is divided into two parts: Natural Hazards and Manmade/Technological Hazards, as defined by the Minnesota State Hazard Mitigation Plan.

### **Natural Hazard – Definition**

*Natural hazards are those presented by the physical world, rather than those presented by humans. In a natural hazard, there is an interaction between the physical world, the constructed environment, and the people that occupy them. Natural Hazards are primarily atmospheric or geologic.*

### **Manmade/Technological Hazard – Definition**

*Technological hazards are those presented by humans, rather than those presented by nature. They are comprised of substances and processes that are flammable, combustible, explosive, toxic, noxious, corrosive, oxidizers, irritants, or radioactive.*

Using the MN State Hazard Mitigation Plan's list of disasters as a starting point, the following Natural and Manmade/Technological disasters were considered to be included in this plan. Those disasters that are **bolded** below were included in this plan update. Those that were omitted were not considered to be threats to the County by the planning committee due to very limited probability or complete absence or probability. The 2015 plan document discussed "Violent Storms/Extreme Temperatures" which included windstorms, tornados, hail, extreme heat/cold, lightning, and winter storms. This update evaluated each disaster separately to stay consistent with the State of Minnesota's plan format.

1. **Flooding**
2. **Wildfire**
3. **Windstorms** (previously included under Violent Storms/Extreme Temps)
4. **Tornadoes** (previously included under Violent Storms/Extreme Temps)
5. **Hail** (previously included under Violent Storms/Extreme Temps)
6. **Dam/Levee Failure**
7. **Extreme Heat** (previously included under Violent Storms/Extreme Temps)
8. **Drought**

9. **Lightning** (*previously included under Violent Storms/Extreme Temps*)
10. **Winter Storms** (*previously included under Violent Storms/Extreme Temps*)
11. **Erosion, Landslides and Mudslides**
12. Coastal Erosion and Flooding (excluded as hazard is not present)
13. Land Subsidence (Sinkholes and Karst) (excluded as hazard is not present)
14. **Extreme Cold** (*previously included under Violent Storms/Extreme Temps*)
15. Earthquakes (excluded due to extremely low probability)
16. **Infectious Diseases**
17. **Structural Fire**
18. **Hazardous Materials**
19. **Water Supply Contamination**
20. **Wastewater Treatment System Failure**
21. **Civil Disturbance/Terrorism**

The planning committees in each of the communities as well as the County planning committee performed a hazard analysis using the **Calculated Priority Risk Index**. This method considers the probability, vulnerability, warning time and duration of each disaster and assigns a weighted value to each category. The previous plan used a similar scoring method without the weighted values. The County felt it would be good to reevaluate the hazards to see if any priorities have changed since the original scoring exercise was done. The following table gives the definitions of the categories and their weighted values. (Individual communities' hazard analyses can be found in Appendix VI.)

A jurisdictional capabilities assessment was also conducted by each of the cities and county to review the plans and programs that are in place for the implementation of mitigation efforts, as related to each natural hazard. An assessment was also conducted for local jurisdictions to identify the plans, policies, programs, staff, and funding they have in place to incorporate mitigation into other planning mechanisms (see Appendix IV).

### Calculated Priority Risk Index (CPRI) Definitions

CPRI Category	Degree of Risk			Assigned Weighting Value
	Level ID	Description	Index Value	
Probability	Unlikely	Extremely rare with no documented history of events. Annual probability of less than 0.001	1	45%
	Possible	Rare occurrences with at least one documented or anecdotal historic event. Annual probability that is between 0.01 and 0.001.	2	
	Likely	Occasional occurrences with at least two or more documented historic events. Annual probability that is between 0.1 and 0.01	3	
	Highly Likely	Frequent events with a well-documented history of occurrence. Annual probability that is greater than 0.1.	4	
Magnitude/Severity	Negligible	Negligible property damages (less than 5% of critical and non-critical facilities and infrastructure). Injuries or illnesses are treatable with first aid and there are no deaths. Negligible quality of life lost. Shutdown of critical facilities for less than 24 hours.	1	30%
	Limited	Slight property damages (greater than 5% and less than 25% of critical and non-critical facilities and infrastructure). Injuries or illnesses do not result in permanent disability and there are no deaths. Moderate quality of life lost. Shut down of critical facilities for more than 1 day and less than 1 week.	2	
	Critical	Moderate property damages (greater than 25% and less than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and at least one death. Shut down of critical facilities for more than 1 week and less than 1 month.	3	
	Catastrophic	Severe property damages (greater than 50% of critical and non-critical facilities and infrastructure). Injuries or illnesses result in permanent disability and multiple deaths. Shut down of critical facilities for more than 1 month.	4	
Warning Time	More than 24 hours	More than 24 hours	1	15%
	12 to 24 hours	12 to 24 hours	2	
	6 to 12 hours	6 to 12 hours	3	
	Less than 6 hours	Less than 6 hours	4	
Duration	Brief	Up to 6 hours	1	10%
	Intermediate	Up to 1 day	2	
	Extended	Up to 1 week	3	
	Prolonged	More than 1 week	4	



**Table 4.1 Chippewa County Hazard Analysis Results, 2022-23**

Hazard/Disaster	Probability (45%)	Magnitude/ Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
Natural Disasters					
Windstorms	3	3	4	1	2.95
Hail	3	3	4	1	2.95
Extreme cold	4	2	1	3	2.85
Winter storms	4	2	1	3	2.85
Tornados	2	4	4	1	2.8
Dam/Levee Failure	1	4	4	4	2.65
Drought	3	2	1	4	2.5
Flooding	2	3	2	4	2.5
Extreme Heat	3	2	1	3	2.4
Lightning	3	1	2	1	2.05
Wildfire	1	2	4	3	1.95
Erosion, landslides, and mudslides	1	1	1	3	1.2
Coastal erosion and flooding	N/A – Were not considered to be threats to the County.				
Land subsidence (sinkholes/Karst)					
Earthquakes					
Human Caused Disasters					
Hazardous materials incident	3	3	4	3	3.15
Water supply contamination	2	4	4	4	3.1
Structural Fire	3	3	4	2	3.05
Wastewater treatment failure	2	3	4	4	2.8
Infectious diseases	2	3	3	4	2.65
Civil disturbance/terrorism/ Cyber attack	2	2	3	2	2.15

<b>Hazard Priority Risk Ranking Categories</b>	
Score	Priority Level
3.0-4.0	High
2.0-2.99	Moderate
0-1.99	Low

Overall, wind, hail, extreme cold, winter storms and tornados ranked toward the top of the Moderate category for natural disasters while hazardous materials, water supply contamination, and structural fire scored as High priorities for the Technological disasters. This exercise was used as a tool for the County and local planning committees to use when considering strategies and priorities.

## **Changes in Development**

With each plan update, it is important to identify any new areas of development that may be vulnerable to disasters that may need to be addressed by additional strategies.

### **Clara City**

Clara City's future growth area for development was identified north, south, and far south of the city. On the north end of the city lies Hawk Creek Acres, with 20 lots available for residential development, with nine new houses built. To the north of that a new assisted living facility was built. South of the city is the Hanson Addition, with ten lots open for residential development and five homes built. Lastly, far south of Clara City, agricultural land is available for future development behind Donner's Crossroads.

### **Maynard**

Maynard's future potential growth areas for development have been identified in three general areas. The first is located along the railroad to convert agricultural lands to industrial and residential. The second area is south of Highway 23, that is primed for industrial expansion. The final area is within the municipal boundary of Maynard, encouraging residential infill throughout the city.

### **Milan**

Milan's future growth area for development was identified by Milan staff as south of the existing city infrastructure, south of State Highway 40. This would most likely be residential development on open agricultural land. However, while there is a need for new housing in the community, it is currently not feasible without some form of financial assistance and as such, there are no immediate plans for development.

### **Montevideo**

Montevideo's future growth area for development as identified by Montevideo staff are located in the northeast quadrant of the City, lots adjacent to Highway 7, land along 24<sup>th</sup> Street and Ashmore Avenue, and Williams Avenue in the southeast. The lots in the northeast should see growth in commercial and industrial areas, with residential and light industrial areas in the southeast part of the community along Williams Avenue and 24<sup>th</sup> Street and Ashmore Avenue in the eastern part of Montevideo, north of Highway 7. This area in the southeast part of the community will see the addition of a New Veterans Administration Home in with 72 units and approximately 160 employees. This location is near the main public school campus, National Guard Armory and residential area.

### **Watson**

Watson's future growth areas for development (as identified by Watson staff) remain the northeast, southeast, and southwest corners of the municipal boundary. The City has no land available within city limits and the development areas would be slated for residential homes.

## 4.1 FLOODING

A flood is defined as an overflowing of water onto an area of land that is normally dry. For floodplain management purposes, the Federal Emergency Management Agency (FEMA) uses the following definition of “100-year or 1 percent flood.” There are three types of flooding included in this section – riverine flooding, flash flooding, and ice jam floods.

Riverine flooding is also known as overbank flooding and involves water rising out of the banks of streams and rivers.

Flash flooding typically occurs near streams, ponds, and low-lying areas. The flooding is caused by extreme amounts of rainfall in a short timeframe with significant runoff. Warning time for flash flooding is typically minimal.

Ice jam floods occur in the spring of the year during snow melt and can be accelerated by early spring rains. Large chunks of ice and debris can get lodged when water flow is restricted, thus causing the water flow to back up in the waterway.

The term “100-year flood” is the annual one percent chance that water levels will reach or exceed a defined flood elevation threshold. Thus, a 100-year flood could occur more than once in a relatively short period of time. The 100-year flood, which is the standard used by most federal and state agencies, is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance. A structure located within a special flood hazard area shown on a map has a 26% chance of suffering flood damage during the term of a 30-year mortgage. One hundred-year floodplains have been identified, mapped and used for further analysis using the county’s Geographic Information Systems (GIS).

Floods generally occur from natural causes, usually weather-related, such as a sudden snowmelt, often in conjunction with a wet or rainy spring or with sudden and very heavy rain falls. Floods can also result from human causes such as a dam impoundment bursting. Additional water hazards considered in this section include flash floods, washouts, and ice freezes that have potential to affect dams and culverts. In the spring of 2009 and 2010, a great amount of water overflowed roads causing a major washout and road closures throughout the county.

At the time of this plan, FEMA was in the process of updating the County’s floodplain maps. There has been continued discussion about the accuracy of the maps, specifically within the city of Montevideo and unincorporated areas of the County. As mentioned elsewhere in this plan, the City of Montevideo recently completed a levee project around their wastewater treatment facility near the Minnesota River. This levee was designed to hold back flood waters of a 1% event or more and therefore, protect properties to the south and east of the levee. However, with the levee being recently completed, it has not yet been officially certified by the U.S. Army Corps of Engineers and therefore, the proposed flood maps do not acknowledge its protection. The City and County would like to delay adoption of the new maps until the levee can be certified and at which time the maps can accurately show the redefined floodplain areas. In addition, there are also numerous new floodplain areas throughout the rural area

that were not identified in previous versions of the maps and may impact future land use if inaccurate. The County and landowners would like to continue to discuss the accuracy of these new areas with state and federal officials before the maps become official. (See map of proposed floodplain areas in Appendix V.)

#### *Participation in National Flood Insurance Program*

The National Flood Insurance Program enables property owners to purchase flood insurance. In return, communities agree to adopt and implement local floodplain management regulations that contribute to protecting lives and reducing the risk of new construction and substantial improvements from future flooding. The following table shows the jurisdictions that currently participate in the NFIP in Chippewa County.

**Table 4.2 National Flood Insurance Program Participants in Chippewa County**

Jurisdiction	CID	Initial FHB Identified	Initial FIRM	Current Effective Map Date	Reg Emer Date
Chippewa Co.	270066#	4/20/1979	6/17/1986	5/19/1987	6/17/1986
Clara City	270067	5/17/1974	N/A	NSFHA	6/8/2004
Granite Falls	270068A	11/16/1973	4/1/1977	10/7/2021	4/1/1977
Maynard	270587	11/15/1974	-	11/15/1974	3/10/11E
Montevideo	275243	-	5/26/1972	8/29/1975	5/26/1972
<b>Communities NOT Participating in NFIP</b>					
Jurisdiction	CID	Initial FHB Identified	Initial FIRM	Current Effective Map Date	Reg Emer Date
Milan	270589#	11/1/1974	-	7/15/1977	11/1/1975

Source: FEMA Community Status Book, 2022

“E” = Emergency entry into the program

“NSFHA” = No Special Flood Hazard Area – all Zone C

#### *Community Rating System (CRS)*

The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP). Over 1,500 communities participate nationwide.

In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community’s efforts that address the three goals of the program:

1. Reduce and avoid flood damage to insurable property
2. Strengthen and support the insurance aspects of the National Flood Insurance Program
3. Foster comprehensive floodplain management

Granite Falls and Montevideo are currently the only cities in Chippewa County that participate in the Community Rating System.

**Table 4.3 Communities Participating in the Community Rating System**

	CRS Entry Date	Current Effective Date	Current Class	% Discount SFHA	% Discount Non-SFHA	Status
Granite Falls	5/1/2013	10/1/2020	10	0	0	Retrograde
Montevideo	5/1/2010	10/1/2020	6	20%	10%	Cycle

Source: FEMA

FEMA mandates that all communities participating in the NFIP must identify continued compliance with the program. The following are descriptions of Clara City, Montevideo, and Chippewa County processes for continued compliance.

#### ***Clara City***

Clara City does not currently have any designated flood hazard areas, however the **proposed** flood zone map recently released by FEMA depicts areas adjacent to Hawk Creek on the eastern side of the community to become Flood Zone A. At this time, almost none of the community's existing development is expected to be in critical areas. Some undeveloped areas could be flood prone. Once the new maps are published, the City (and Planning Commission) will develop a new flood plain ordinance to regulate all areas within the city. City Administrator Steve Jones is a Certified Flood Plain Manager and will work with the Planning Commission and City to draft an appropriate plan.

In 2023, the City completed two small flood control projects that helps to manage two flood prone areas (Wachtler Avenue and the Main Lift Station), and recent high water events in 2023 were better managed than in the past.

Below are three strategies that Clara City intends to complete as methods to continue compliance with the National Flood Insurance Program.

#### ***Strategies to Continue NFIP Compliance:***

1. Work with the MN DNR and FEMA to modernize floodplain maps.
2. Work with the MN DNR on a new Flood Plain Ordinance.
3. Discourage development in "flood-prone" areas.

#### ***Maynard***

The City of Maynard was entered into the NFIP on November 15, 1974. City staff was not aware of a floodplain ordinance currently in place. Information about the State of Minnesota's NFIP program, DNR contact person, and sample floodplain ordinances were shared with the City. The current Zone A floodplain in Maynard is undeveloped and is unlikely to be developed in the near future, if ever. However, the City may want to consider adopting a floodplain ordinance to have the ability to regulate these areas and prevent future flood damage.

#### ***Strategies to Continue NFIP Compliance:***

1. Work with the MN DNR and FEMA to modernize floodplain maps.

2. Work with the MN DNR NFIP Coordinator or Floodplain and Shoreland Planner to adopt a new Flood Plain Ordinance.
3. Discourage development in “flood-prone” areas.

### ***Milan***

Milan has a flood hazard area identified within their community and has been mapped by FEMA, but is not currently a participant in the National Flood Insurance Program. City officials indicated they have not participated in the NFIP due to the fact that the area of the community (eastern side) that is mapped would likely never be developed and the western half of the community (west of U.S. Highway 59), including future development areas is on higher ground that has never had flooding problems.

### ***Montevideo***

The City of Montevideo utilizes digital FIRM maps dated August 29, 1975 to illustrate the location of 100 and 500-year floodplain boundaries within municipal limits. In order to prevent development in the 100-year floodplain, Montevideo passed a Floodplain Management Ordinance in September of 1989. The process that Montevideo uses to monitor potential development in the floodplain is through tracking building permits. The City educates all potential development applicants that development in the 100 and 500-year floodplains is very difficult to attain and many applicants do not move forward with the building permit application. If an applicant decides to continue the permit application, they would fill out a building permit application and included on the permit is an area for the Zoning Administrator to review and make comments. In this space, the Zoning Administrator would identify whether a property is located in the 100 or 500-year floodplain. If the site is in the designated floodplain, the application is sent to the DNR Area Hydrologist for review and comment. If the applicant continues and applies for a zoning variance/conditional use permit/special use permit, the Board of Zoning Adjustment would host a public hearing and make a recommendation to the City Council.

In addition to a strictly enforced Floodplain Ordinance, the City of Montevideo is an active participant in the Community Rating System program facilitated by FEMA. From 2007-2009, Montevideo applied to become part of the program and in November 2009, Montevideo was accepted and initially ranked a Class 5 City. The City currently has a Class 6 rating, as noted above, which allows all property owners that reside in a Special Flood Hazard Area a 20% discount off their flood insurance policy. It also allows a 10% discount off flood insurance policies for those who live in a Non-Special Flood Hazard Area. To maintain their status as a Class 6 Rank, Montevideo must track all flood and insurance-related questions and enforce the 50% improvement rule (properties in the flood zone cannot be improved 50% beyond their value).

Montevideo has extended numerous efforts to educate citizens regarding flood protection. The City created a handout “Flood Protection Information” that gives background on the city’s flooding history, discusses learning if a property is located in a floodplain, mandatory purchase requirements for flood insurance, and provides additional information on Flood Information Rate Maps, elevation certificates, historical flooding data, zoning maps, building permit requirements in flood zones, and a comprehensive list of flood related resources. Further, Montevideo works with residents that live in floodplains by

providing information on depth of flooding over a building's first floor, past flood problems in the area, copies of elevation certificates on buildings built past 1997, flood-proofing, and will visit properties to review its flood problems and explain ways to stop flooding or prevent flood damage. These services are offered free of charge.

Below are six strategies that the City of Montevideo intends to complete as methods to continue compliance with National Flood Insurance Program.

***Strategies to Continue NFIP Compliance:***

1. Work with the MN DNR and FEMA to modernize floodplain maps.
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.
3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.
4. Discourage zoning variances in Flood Hazard Areas.
5. Encourage all property owners in Flood Hazard Areas to purchase flood insurance.
6. Continue to comply with Community Rating System requirements.

***Chippewa County***

Chippewa County utilizes digital FIRM maps dated August 1975, to illustrate the location of 100 and 500-year floodplain boundaries within the unincorporated areas of the county. To prevent future development in the 100-year floodplain, Chippewa County passed a Floodplain Management Ordinance (last amended in June 1997) that is actively updated as the MN DNR instructs. The permitting process in Chippewa County is quite extensive. A permit application is completed by an applicant and is reviewed by the Zoning Administrator. The Zoning Administrator reviews the digital FIRM maps to determine whether a property is in the floodway and what type of use the applicant proposes. If the permit is for a permitted use in the floodway, the permit goes to the Planning Commission and later the County Commission for approval. If the use is not permitted, the responsibility falls to the applicant to hire a surveyor and get elevation data of the property and submit the information to FEMA. The purpose would be to attain a document from FEMA to determine whether or not the property is in the floodplain. If this ruling is made, then the application is routinely processed. If the ruling is not made, the applicant may apply for a conditional use permit with additional standards determined in the Floodplain Management Ordinance; and must be approved by both the Planning Commission and County Commission.

In addition to a Floodplain Management Ordinance, Chippewa County's 2013-23 Water Plan also identifies a need to prepare the County against the impacts of flood events. The Water Plan Committee created three specific goals related to flooding (Goals 6, 7, and 8). These goals are specifically related to soil erosion (wind and water), stormwater management and shoreland protection. Further, the County supports no-net-loss of wetlands, promotes voluntary restoration of drained wetlands, may accept and

process eligible applications for wetland preservation on a countywide basis (wetland exempt from property tax), and will create a GIS layer of the SWCD Wetlands Inventory. Finally, the County intends to work with the Buffalo Lake Dam to continue assisting with water retention (raising water levels when water is low and dropping during high water volumes).

Below are five strategies that Chippewa County has committed to in order to continue with NFIP compliance. (The County plans to review and update their strategy and review process once the new flood maps are officially updated in the near future.)

#### ***Strategies to Continue NFIP Compliance:***

1. Work with the MN DNR and FEMA to modernize floodplain maps.
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.
3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.
4. Discourage zoning variances in Flood Hazard Areas.
5. Encourage all property owners in Flood Hazard Areas to purchase flood insurance.

#### **4.1.1 HISTORY**

The most severe flooding in Chippewa County occurs along the Chippewa and Minnesota Rivers when there is excessive rainfall, ice blockage of the channel, and/or rapid spring snow melt. Ice jams in eastern Granite Falls contribute to significant spring flooding. Flood damage may also result from improperly maintained or undersized ditches, excess drainage in the upper reaches of the watershed, or lack of upland retention structures. Hawk Creek and Shakopee Creek experience flooding problems whenever rainfalls exceed 4.5 inches. Major effects of excessive rainfall are flooding of agricultural lands and road washouts. According to estimates by the US Army Corp of Engineers, Soil Conservation Service, and FEMA, there are approximately 9,391 acres in the 100-year floodplain and 70.57 acres in the 500-year floodplain in Chippewa County.

In 1997 and 2001, the Minnesota River floodwater was high enough to affect many business districts and homes within Chippewa County, including Montevideo and Granite Falls. Both flood events were considered 100-year floods.

#### ***Hawk Creek Flooding***

Hawk Creek flows through parts of Clara City and Maynard. In the 1950s, parts of Hawk Creek were channelized as a part of a USDA Flood Reduction project to help speed the flow of water and reduce flooding. This worked at a local level to control flooding, but the faster flows may have increased flooding downstream.



It should also be noted that the City of Willmar, in neighboring Kandiyohi County, discharges three million gallons of effluent daily from its wastewater treatment plant into Hawk Creek. During rain events, it has reached as high as seven million gallons per day. During flood events, there is an EQ basin which can hold one million gallons.

#### **Montevideo Flood History**

Montevideo sits at the confluence of the Chippewa and Minnesota Rivers. During the major flood events, such as those in 1997 and 2001, the Chippewa River actually started to flow backwards because of the high waters of the Minnesota River. Businesses and residences in the Smith Addition have been flooded during these major events. Over 100 homes have been bought out and about 12 remain. One commercial business was moved after the 1997 floods. The remaining 10 businesses in jeopardy of being flooded want relocation or better protection.

In 2009, Montevideo began to raise its existing levee system. The U.S. Army Corps of Engineers had studied the effects of this change in terms of how this may change where floodwaters threaten homes or businesses. This extensive project was recently completed in 2023 and will protect the wastewater treatment facilities and properties downstream. Flood events happen periodically in the city, but these smaller floods do not cause damage. City crews usually respond by making sure pumps and all flood proofing are working properly. Other large flood events that caused damage happened in 1952 and 1969. In 1993, Montevideo was able to avoid damage through constant pumping at a cost of \$118,482. In 1997, the city spent \$1 million for flood fighting efforts and cleanup. FEMA reimbursed the city \$729,000. In 2001, the city spent about one million for flood fighting efforts and cleanup. FEMA reimbursed the City \$712,000.

More recently and since the last plan update, the City of Montevideo has completed additional flood mitigation projects. These projects were funded by the MN DNR Flood Hazard Mitigation Grant Assistance Program and federal funds and are summarized below.

**Table 4.4 Montevideo MN DNR Flood Hazard Mitigation Grant Assistance Program Awards, 2014-2020**

Year	Project type	Award Amount
2014	Buyout	\$10,400
2014	Levee project	\$2,700,000
2017	Buyout	\$10,025
2017	Levee project	\$450,000
2018	Buyout	\$13,500
2018	Federal Flood Control Project (levee project)	\$2,788,132
2020	Final phase – federal flood control project	\$2,500,000

Source: MN DNR, 2023

### Milan Flood History

On March 23, 2009, approximately one mile southwest of Milan, a township road was washed out. Local rainfall totals varied from two to three inches before the storm moved north. Along with heavy rainfall and thick ice remaining on streams, creeks, and rivers, ice jams developed and caused flooding of roads and local communities. Several major rivers rose during this time period and caused additional road closures and some minor property damage.

### Maynard Flood History

Maynard has three bridges that hold back ice that causes flooding. In 1997, the city was reimbursed \$12,686 from FEMA for flood fighting efforts, cleanup and repair. In 2001, the city was reimbursed \$16,639 from FEMA.

In June of 2014, Maynard experienced some flash flooding resulting from several rounds of thunderstorms passing through the area. Each round of storms produced one to two inches of rainfall and totaled four to six inches producing widespread areas of flooding and flash flooding. It was reported that there was approximately four feet of water over 90<sup>th</sup> Street SE south of Maynard. Several basements were flooded in the northern part of the community from Amy Street to Ruth Street and north to Jessie Avenue. Some homes on the south side of town near Swift Avenue also reported basement flooding.

### Clara City Flood History

Currently, flooding is caused by ice jams that occur along Hawk Creek at bridges in Clara City. Out of the five bridges in Clara City, one bridge has a history and potential to cause ice jams resulting in flooding. In 1997, Clara City was reimbursed \$24,008 from FEMA for flood fighting efforts, cleanup and repair. In 2001, the city was reimbursed \$14,479. More recently in 2017, the City received \$46,000 for storage and floodproofing infrastructure.

### Recent Flooding Events (since 2015)

**MONTEVIDEO**  
**American News**  
Thursday, April 27, 2023 DEVOTED TO THE PROGRESS OF MONTEVIDEO AND THE TRI-COUNTY FARM REGION CherryRoad Media

**UPCOMING EVENTS**

Wednesday, May 3rd: Montevideo Farmers Market meeting at the Montevideo Public Library. Large meeting room at 4 p.m. New vendors are welcome along with customers.

Saturday, May 12th: Mother's Day Tea Party at the Chippewa County Historical Society Village Hall 2 p.m. Come dressed in your finest for tea served from antique teacups, sandwiches and events. There will also be a fashion show featuring antique clothing. Space is limited. To purchase a spot call 120-260-7616 and leave a voicemail or email [chippewahistorical@gmail.com](mailto:chippewahistorical@gmail.com).

Saturday, April 29: Prairie Arts Council "The Journey Home: Blue Skies and Country Roads" concert. Prairie Arts Council is an adult choir from southwest Minnesota performing around the region since 1980 under the direction of Dan Hargrove and Kate Davidson. Concert held at United Methodist Church at 7:30 p.m. Tickets at the door or in advance at [prairiearts.org](http://prairiearts.org).

**Citizens appeal to council for support on trail**

Jessica Sillen-Jacobson Editor  
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At last week's meeting of the Montevideo City Council, a number of citizens attended to express their hopes that the City would get behind a project for the Lake Snoopy Loop Trail. Bill Paulding spoke, noting that the project has been proposed by Geoff Hathaway, President of the Minnesota Trails Initiative. Hathaway has already had engineering work done on the project, with plans prepared and ready for the work to begin if financing and support can be found. Paulding, also a Chippewa County Commissioner, thanked the council for working with the county on recent projects such as the Hwy 17 and County Road 15 Safe Road Crossing project. "By the two firms of government working together, we were able to get that grant," he says. Paulding also noted that the Lake Snoopy Loop Trail Project could be an addition to not only that safety project but the safe route to schools projects. He also presented the council members with packets of letters from local community members in support of the idea of the project.

Paulding noted that with the Chippewa County Commissioners and Milan City Council working together on a bike trail from Milan Beach to Milan, both entities have contributed money to a fund for the maintenance of the trail. "So when the project needs maintenance, which all of those projects do, and that's the biggest scariest thing for anybody to take this on is who gets panned with that, but we've collaborated together and have that set up. And Jimmy, See COUNCIL A4

**State of Emergency declared for Montevideo, Chippewa County**

At last Tuesday's meeting of the Chippewa County Board of Commissioners, the board passed a resolution declaring a State of Emergency for Chippewa County because of the damage in various parts of the county caused by flood waters. This Monday evening, the Montevideo City Council also passed a resolution declaring a State of Emergency for Montevideo for the same reasons. The declarations will allow the County and City to obtain funding available from the state for repairs needed because of flooding. According to the National Weather Service, as of Monday, the flood warning was still in effect for the Chippewa River and Minnesota River, with the flood waters starting to lower on the 21st, and falling from the "Major" level to "Moderate" on the 24th. The Minnesota River was recorded at flood stage 14 feet on Monday. This year's flooding ranked in the top ten flood events in Montevideo's history.

Photo by Jessica Sillen-Jacobson

In August 2016, a severe thunderstorm resulted in heavy rains in west central Minnesota. Approximately 9-10" of rain fell over a two-day span and resulted in severe flash flooding. The estimated amount of damage caused by this event is unknown. Nearby, the community of Willmar advised residents to limit their water consumption as their wastewater treatment facility was overwhelmed.

There have been two Federally-Declared Disaster events related to flooding in Chippewa County since the last plan update. DR-4442-MN was declared in June 2019 from flooding that occurred in March

and April 2019 and most recently, DR-4722-MN in July 2023 from April's flooding.

The significant flooding in late March 2019 occurred approximately five miles northwest of Milan near Lac qui Parle Lake. This was a result of spring snow melt from an above average snowpack for March, coupled with a few rainstorms and resulted in ice jam flooding in the area. This flooding resulted in numerous road closures for several days until flooding subsided, especially along streams and creeks adjacent to county roads.

Most recently, the spring of 2023 resulted in flooding as a result of significant snowfall melt and ice jams. In April 2023, the County Commissioners and Montevideo City Council passed resolutions declaring a state of emergency and allowing them to receive state funding to carry out repairs caused by the flooding. According to the Montevideo American News, the 2023 flooding ranked in the top ten flood events in Montevideo's history. Damage amounts were unavailable at the time of this plan's adoption. This flooding event later resulted in Chippewa County being a Federally Declared Disaster area (DR-4722-MN) on July 19, 2023 as mentioned above.

#### 4.1.2 PROBABILITY

Please refer to the 2023 Flood Hazard Analysis for Chippewa County at the end of this section.

#### 4.1.3 FLOODS AND CLIMATE CHANGE

The Minnesota Department of Health's 2018 Report, *Planning for Climate & Health Impacts in Southwest Minnesota* states that changes in temperature and precipitation have been recorded in Minnesota and across the Midwest. Climate records show that we are experiencing an increase in warmer, wetter conditions as well as an increase in extreme weather events and related natural disasters. Experts expect these conditions to continue well into the future. By mid-century, Minnesotans can expect much warmer winters, more severe summer heat waves, a higher frequency of very heavy rain events and a higher frequency of late growing season drought conditions. Extreme rainfall events will increase flood risk, particularly in floodplain areas, leading to a myriad of other issues and disruptions related to transportation, utilities, and infrastructure as well as lake/stream/river pollution, reduced ag yields and threaten drinking water quality.

**Table 4.5 Summary of Expenses from 2019 Flooding**

Townships	
Big Bend	\$3,700
Crate	Waiting on assessment
Grace	\$7,820
Granite Falls	\$10,000
Havelock	\$39,000
Kragero	\$7,000
Leenthrop	\$26,000
Lonetree	\$28,755
Louriston	\$1,000
Mandt	\$2,000
Rheiderland	\$1,800
Rosewood	\$3,500
Sparta	\$100,000
Stoneham	Waiting on assessment
Tunsberg	\$500
Woods	Waiting on assessment
Cities	
Montevideo	\$550,000
Maynard	\$1,000
Clara City	\$50,700
Watson	0
Milan	0
Other County Departments	
Drainage Department	\$650,000
Land Resource - Wegdahl	\$5,000
Watson Lion Park/DNR	\$5,000
Highway	\$38,000
<b>Total</b>	<b>\$1,530,775</b>

Source: Chippewa County Emergency Management, 2023

In addition, the Minnesota DNR's publication, "[\*Minnesota's Climate is Already Changing, \(2019\)\*](#)" there has been a 20% increase in 1" rains, a 65% increase in 3" rains, and the ten warmest and wettest years on record have all occurred in the past 20 years. It also states that "since 2000, widespread rains of more than 6" are four times more frequent than in the previous three decades," with climate projections indicating these heavy rains will continue to increase into the future.

#### **4.1.4 VULNERABILITY**

Chippewa County and UMRDC utilized U-Spatial Research Computing of the University of Minnesota-Duluth to conduct a flood hazard analysis of the county and is a required element of local hazard mitigation plans. See complete analysis at the end of this section.

While federal, state and local funding has resulted in the acquisition of 15 repetitive loss (RL) properties in the county (fourth most is the state), there are still 17 repetitive loss properties as well as one severe repetitive loss (SRL) property yet remaining in the floodplain. This places Chippewa county at #6 in the top ten NFIP communities with remaining RL/SRL properties within their jurisdiction.

The 2019 Minnesota State Hazard Mitigation Plan reports that there are 13 state-owned structures remaining in 1% Chance Annual Floodplain areas in the county with an estimated replacement value totaling \$1,116,294. It should be noted that some of these structures or facilities are intended to be located near the floodplain by design. In addition, the database containing state structures was somewhat unreliable for locational accuracy, so all records would need to be located with certainty with high resolution imagery or field visits in order to understand the risk to state-owned structures.

*The Chippewa River and Big Bend Cemetery.* The bank of the Chippewa River has eroded away during flood events; thus as the river rises higher and faster, banks erode further and further. Some landowners lost many acres of land to the Chippewa River. The Big Bend Cemetery lost land to the river and was in a crisis state as the river moved closer to the Big Bend Lutheran Church Cemetery. The bank was only 15 feet from the nearest known gravesite and the Chippewa River has eroded over 75 feet of its bank in the last 50 years with approximately 25 feet of erosion occurring in the last ten years alone. Preliminary cost estimated of moving the cemetery out and developing a new cemetery was \$1,627,122.75. Seven hundred and forty-one gravesites are within the 100 year-flood level, which is similar to the water levels recorded during the floods of 1997 and 2001. Of those gravesites, 70%, or 519, would require special care, as they were dug prior to 1965 and do not have vaults.

The Army Corp of Engineers collaborated with Chippewa County to protect approximately 900 linear feet of stream bank with riprap protection. Topsoil and seeding were placed over the riprap to establish vegetative protection on the eroded slope. Nearly 8,600 tons of riprap and 1,700 tons of topsoil were placed along the streambank. Chippewa County and the Army Corp of Engineers executed a project agreement on September 29, 2005, and the construction contract was awarded on July 31, 2006. The project ended in November 2006 and with a project cost of \$560,000 dollars.

*Salvage Yard.* A salvage yard in Chippewa County (near Montevideo) is located in the floodplain. While the building is out of flood danger; the yard has had severe flooding during past events. Debris flow and hazardous material spills during major flood events is a realistic problem. Currently no programs exist to

move and clean up the site, although it is a priority for Chippewa County. Estimates to relocate and clean up the site range from \$350,000 and higher. The site currently has a plan to implement during flood events to protect water quality (elevate items off the ground and from water flow). The project currently lacks funding as well as a new site for relocation.

#### **4.1.5 PROGRAM GAPS OR DEFICIENCIES FOR FLOODS**

- The salvage yard near Montevideo needs to be moved out of the floodplain. Currently the project is not financially feasible and a new location has not been secured.
- A few businesses remain in identified 100-year floodplains, including nonconforming structures and uses currently “grandfathered in” in both the county and Montevideo land use plans and ordinances.
- Clara City and Maynard have homes at risk during 100-year flood events and have not fully addressed the 100-year flood risks in its planning and zoning.
- Local resources are not adequate for a severe and prolonged flood and there is a need for assistance from outside the community during an emergency.
- After several rounds of planned buyouts in Montevideo, about 12 homes and 10 businesses still remain in the 100-year floodplain.
- The discharge from the Willmar wastewater treatment plant is released into Hawk Creek. It is believed that because of the warm water, more ice builds up on Hawk Creek, creating a larger issue. More investigation into this issue is necessary.
- DNR forestry staff suggest that the costs and hazards associated with downed trees as debris flow might be mitigated through improved “sanitation cutting” in the floodplain. There are provisions within the Reinvest in Minnesota (RIM) set aside program that allows limited timber cutting on lands enrolled in the program. However, the cutting must be allowed in a timber management plan prepared by a DNR forester. Not all SWCDs and landowners have been utilizing this aspect of the RIM program.

# Flood Hazard Analysis for Chippewa County

*The following section was prepared by:*

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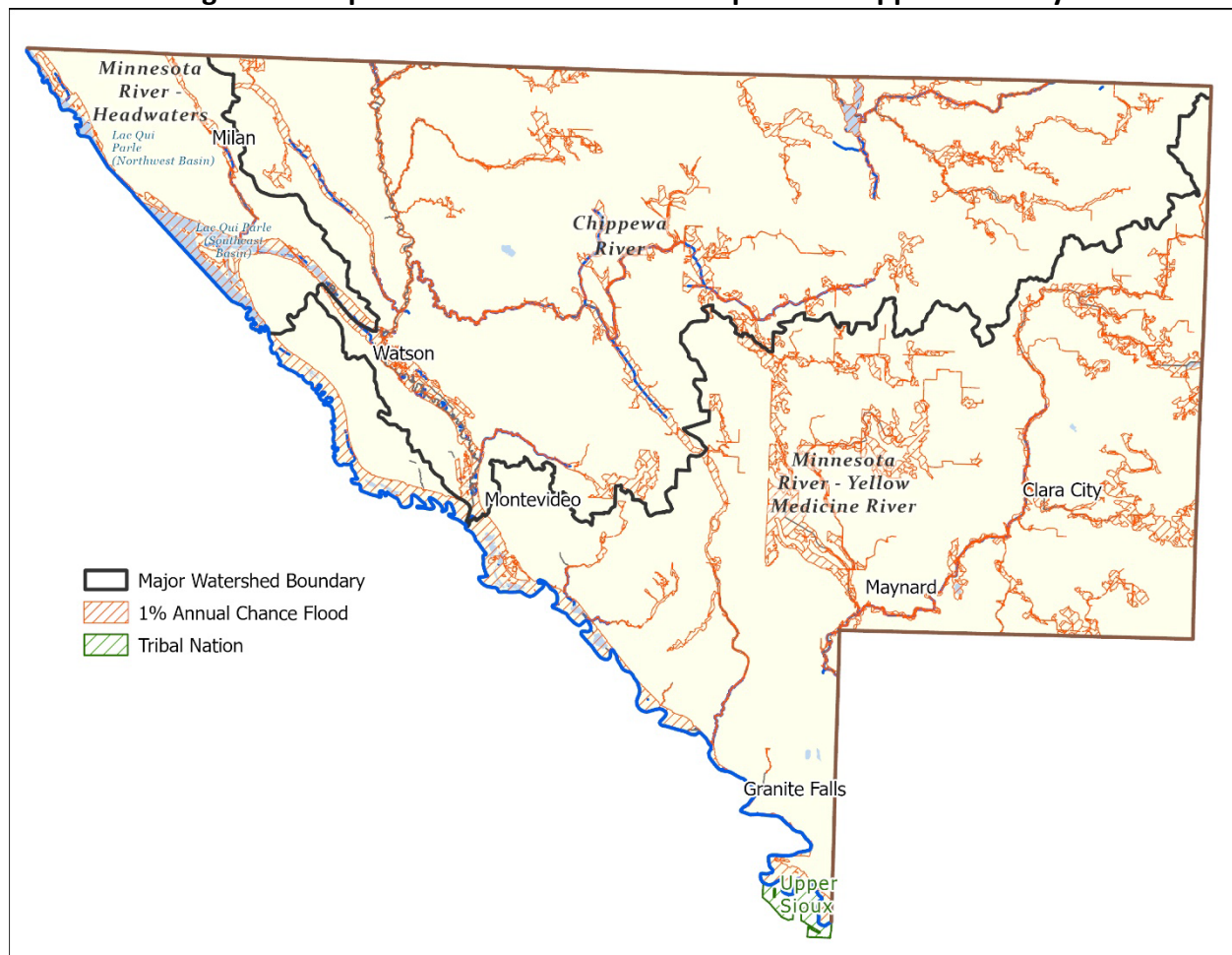
*Prepared for: Upper Minnesota Valley Regional Development Commission*

*Level II Flood Hazard Analysis performed using FEMA Hazus*

## CHIPPEWA COUNTY HAZUS FLOOD ANALYSIS

A potential risk and economic loss analysis for a 1% annual chance flood was performed using a FEMA tool, Hazus for ArcGIS. A Digital Flood Insurance Rate Map (DFIRM) defined the 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. The resulting Hazus 1-percent annual chance floodplain output is shown in Figure 4.1.

**Figure 4.1 1-percent Annual Chance Floodplain in Chippewa County**



Source: (MN DNR, 2021a)



## VULNERABILITY

Potential economic loss estimates were based on county-specific building data. Chippewa 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.

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, 12,566 points were input to Hazus to represent buildings with a total estimated building plus contents value of \$1.7 billion. Approximately 61% of the buildings (and 55% of the building value) are associated with residential housing.

The estimated loss by occupancy class for the entire county is shown in Table 4.6.

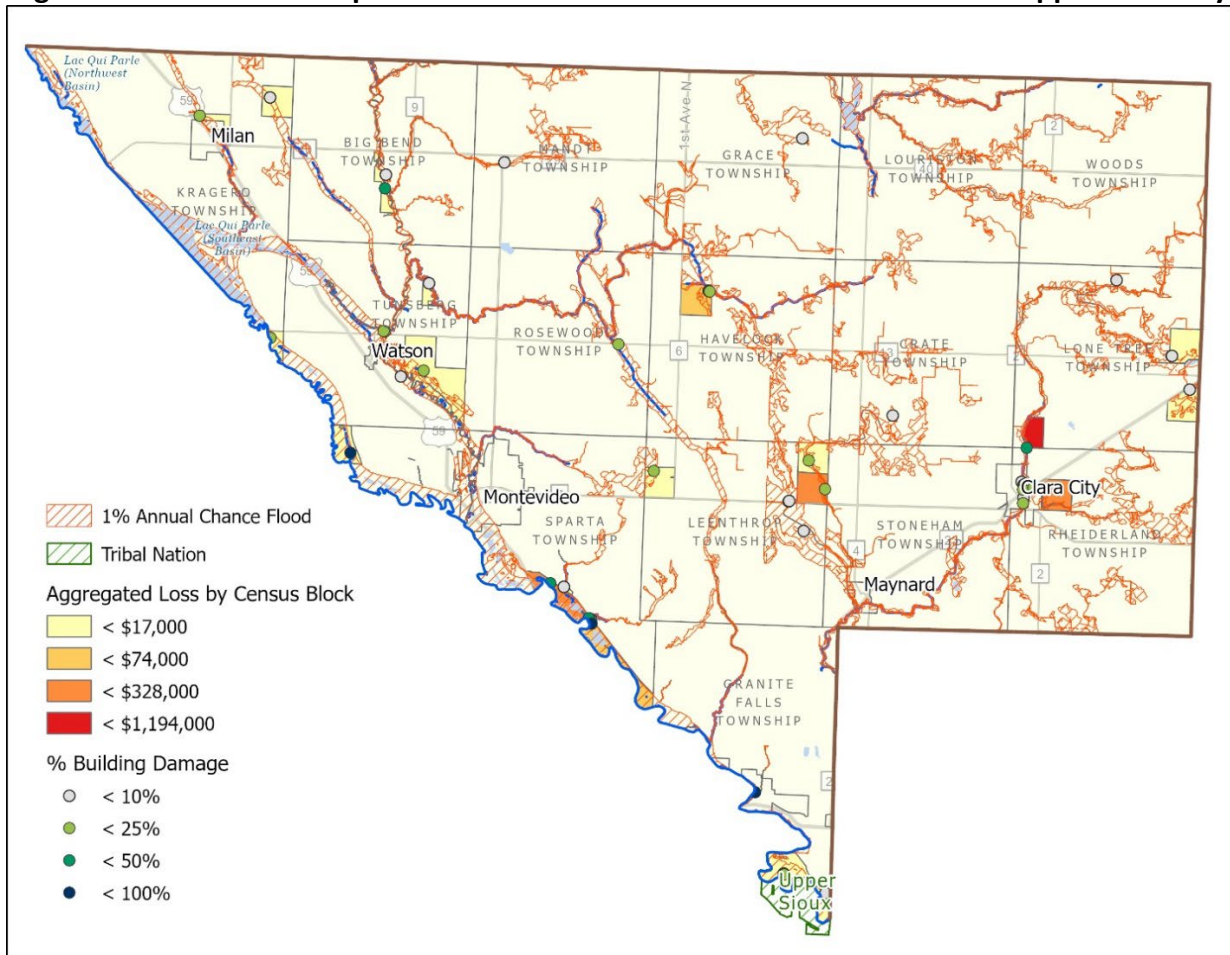
**Table 4.6 Summary of 1-percent Annual Chance Flood Loss Estimation by Occupancy Class**

General Occupancy	County Total Buildings	County Building and Contents Value	Floodplain Total Buildings	Floodplain Building + Contents Value	Buildings with damage	Building + Contents Loss
Residential	7,603	\$921,242,248	118	\$22,906,950	22	\$1,588,422
Commercial	624	\$257,317,516	113	\$20,340,000	2	\$1,752
Other	4,339	\$484,673,750	56	\$13,481,650	16	\$541,308
Totals	12,566	\$1,663,233,514	287	\$56,728,600	40	\$2,131,482

SOURCE: (FEMA, 2021)

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. An overview of these results with the percent damage of buildings is shown in Figure 2. Please note: It is possible for a building location to report no loss even if it is in the flood boundary. For example, if the water depth is minimal relative to 1<sup>st</sup>-floor height, there may be 0% damage.

**Figure 4.2 Overview of 1-percent Annual Chance Flood Loss Estimation in Chippewa County**



SOURCE: (FEMA, 2021)

### 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.

Buildings identified as essential facilities for the Hazus flood analysis include hospitals, police and fire stations, and schools (often used as shelters). Essential facilities within floodplains 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. Three of Chippewa County's essential facilities included in the Hazus flood analysis are located within the 1-percent annual chance floodplain. These facilities are all in the city of Montevideo and include a supervised living facility as well as a fire station and law enforcement facility. The fire station and law enforcement facility are located at the same site.

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-percent annual chance floodplain, given the higher risk of the facility or infrastructure being incapacitated or destroyed during a flood. Fortunately, none of Chippewa County's critical infrastructure was determined to be in the 1-percent chance flood boundary using the available facility data.

### Community Vulnerability

Potential economic losses were estimated by Census Minor Civil Division. The City of Granite Falls would suffer significant estimated losses in the 1-percent annual chance flood. Lone Tree and Sparta Townships also have significant estimated losses. All jurisdictions with buildings identified in the 1-percent annual chance flood zone listed in Table 4.7.

**Table 4.7 1-percent Annual Chance Flood Building-Related Loss Estimates by Jurisdiction**

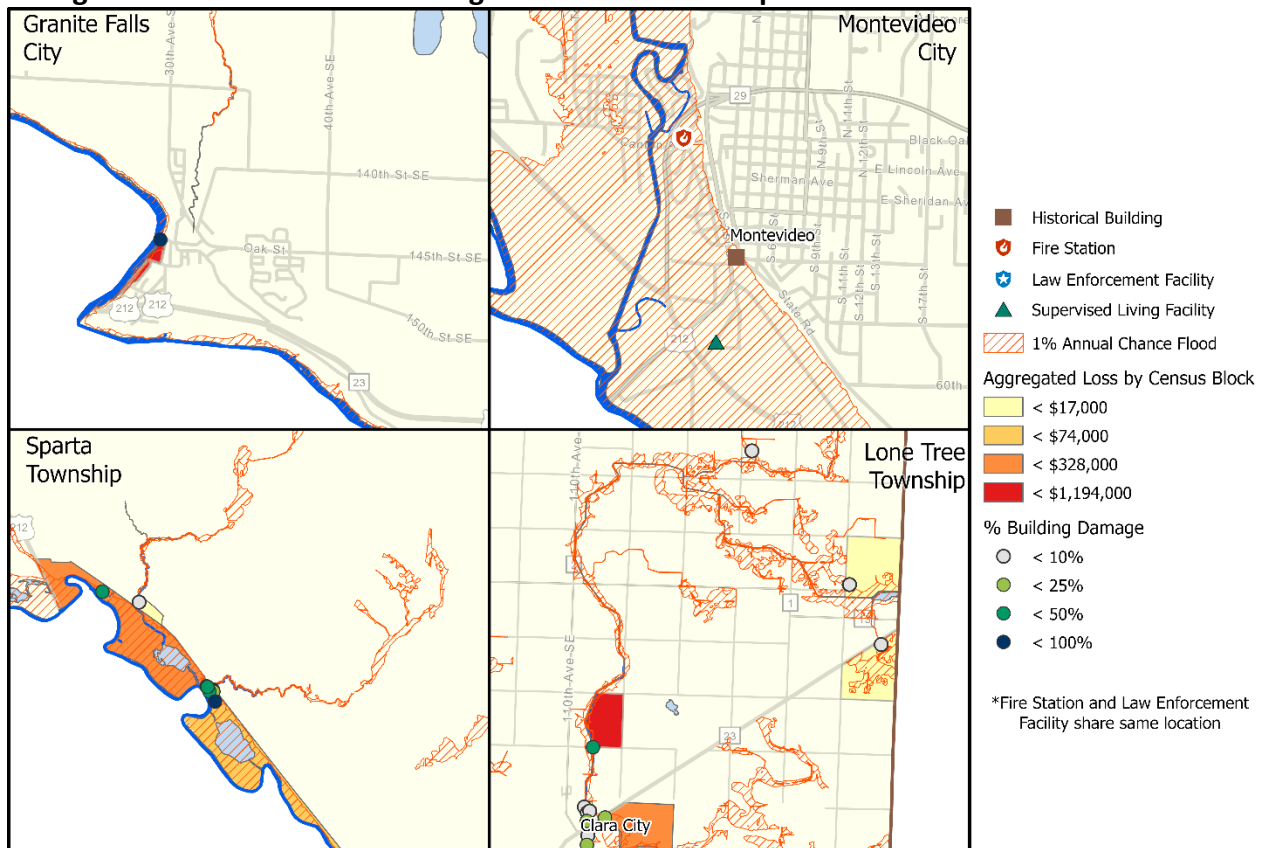
Jurisdiction (county subdivision)	Count of Buildings in Floodplain	Estimated Building and Contents Loss*
Big Bend Township	1	\$16,789
Clara City City	5	\$36,349
Granite Falls City	1	\$1,193,544
Granite Falls Township	4	\$9,337
Havelock Township	4	\$31,531
Kragero Township	3	\$2,388
Leenthrop Township	3	\$191,007
Lone Tree Township	4	\$331,047
Rheiderland Township	1	\$74,283
Rosewood Township	1	\$2,403
Sparta Township	9	\$226,812
Tunsberg Township	4	\$15,992
<b>Total</b>	<b>40</b>	<b>\$2,131,482</b>

SOURCE: (FEMA, 2021)

\*It is possible for a building to register no loss even if it is in the flood boundary. For example, if the water depth is minimal relative to 1<sup>st</sup>-floor height, there may be 0% damage.

Figure 4.3 shows jurisdictions in the county with the highest potential losses as well as critical infrastructure in the 1% annual chance flood zone. In addition to the aggregate economic loss by census block, the point locations used to represent flooded buildings are symbolized by percent damage to the building. The location of a registered historical site within the flood zone was also included.

**Figure 4.3 Communities with Significant Estimated 1-percent Annual Chance Flood Loss**



SOURCE: (FEMA, 2021)

## SOURCES

FEMA. (2021). *Hazus* | FEMA.gov. <https://www.fema.gov/flood-maps/products-tools/hazus#2>

(End of Hazus Report)

## 4.2 WILDFIRE

A wildfire is an uncontrolled fire spread through vegetative fuels, posing danger and destruction to property. Wildfires can occur in undeveloped areas and spread to urban areas where structures and other human development are more concentrated. While some wildfires are started by natural causes such as lightning, humans cause four out of every five wildfires. Burning debris, arson, and carelessness are the leading causes of wildfires. As a natural hazard, a wildfire is often the direct result of a lightning strike that may destroy personal property and public land areas, especially on state and national forest lands. The greatest risks of wildfires are the destruction of timber, property, wildlife, and injury or loss of life to people living in or using the area for recreational activities.

Wildfire risks are not limited to public lands. There are extensive tracts of privately owned grasslands as well. These include both conservation program lands (CRP, RIM, CREP, etc.) and “rough ground” that has been hayed, pastured, or left wild. These private lands particularly in combination with public lands (such as WMA, SNA, State Parks, WPA, etc.) can combine to create substantial blocks of grasslands.

To date, there has been very little injury or loss of property resulting from wildfire in the Upper Minnesota Valley Region. However, there are some risks that should be managed to mitigate potential disasters.

### 4.2.1 HISTORY

Wildfires occur throughout the state of Minnesota. According to the Minnesota State Fire Marshal, there are more than 2,000 annual wildfires with an estimated loss of more than \$13 million dollars.

*Milan Area Wildfire, April 2003.* On April 12, 2003, a wildfire started on a vacant farm near Chippewa County Road 30. Fifteen fire departments responded to the call over the weekend. Many of these fire departments do not have equipment to fight prairie fires and ended up with damaged and lost equipment. Many clutches on the fire trucks went out from driving on the bumpy prairie and at least one injured firefighter was reported.

The demands of this and other fires over the weekend stretched the resources of local, volunteer fire departments and the DNR crews that joined to battle the blazes. They obtained critical assistance from a DNR forestry tanker plane based in Brainerd and later National Guard helicopters with 500-gallon buckets.

Wildfires that raced through grasslands south of Appleton over that weekend scorched an estimated 3,300 acres; approximately 1,700 of these acres were part of the Lac qui Parle Wildlife Management Area. The fire could have spread further if it was not for back burning efforts that kept the blaze south of Highway 119 and away from Milan Beach. On Sunday, the wind speed increased and rekindled the fire. Conditions of powerful winds and bone-dry tinder set the stage for the Sunday fire.

Wildfire behavior is based on three primary factors: fuel, topography, and weather. When dry weather mixes with windy conditions, areas with fuel have the potential for a wildfire to spread out of control as it did in the 2003 fire near Milan. Chippewa County currently has 18,263.1 acres enrolled in CREP, RIM, CRP and the Wetland Reserve Program. These areas are left for wildlife habitat and are not burned on a

regular basis. As a result, years of dead grasses accumulate on these lands and are a good fuel for any fire that may start. The Minnesota River Valley and the Wildlife Management Areas also provides an abundance of fuel for wildfires. Wildlife Management Areas occupy approximately 12,000 acres in Chippewa County.

Topography is an important factor in determining wildfire potential because it affects the movement of air and fire over the ground surface. The slope and shape of terrain can change the rate at which the fire travels. The majority of Chippewa County is relatively flat, which allows for fire to spread quickly. The Chippewa River Valley has some defined slope while the Minnesota River Valley is wide around Lac qui Parle Lake and has a more defined slope below the Lac qui Parle dam.

Weather affects the probability of wildfire and has a significant effect on its behavior. Temperature, humidity, and wind affect the severity and duration of wildfires. These conditions are similar throughout the county. Although higher wind speeds are possible in the northern portion of the county due to the lack of vegetation and slope, the area is dominated by agricultural uses and lacks major stands of forests.

According to Chippewa County Emergency Management, there have not been any major wildfires in the county since the last plan update (2015).

#### **4.2.2 PROBABILITY**

Based on past occurrences, the current probability for wildfires is low. Much of the County is used as farmland with little natural fuel available to ignite. However, there are natural areas along waterways and wetlands that may slightly increase the probability of a wildfire during extremely dry conditions. In Chippewa County, the primary area for wildfire risk is along the Minnesota River valley on the western border of the county. However, much of this risk is considered to be “very low” according to the MN DNR. There are areas of “moderate risk” immediately adjacent to the river, but makes up a very low percentage of the area. Outside of the river valley area, there are a few scattered areas of “very low” to “low” risk in the rural areas of the county. Additionally, wildfires tend to occur most frequently in the early spring after snow melt and late fall when there is a lot of dead plant material and windier conditions. See Chippewa County Wildfire Hazards Map in the Appendix for locations of areas of risk.

#### **4.2.3 WILDFIRES AND CLIMATE CHANGE**

As mentioned earlier in this plan, the impacts of climate change have resulted in warmer temperatures and more intense precipitation events. However, the precipitation events, while producing more rain amounts, are projected to be spaced further apart, leading to drier conditions. These dry conditions would then make wildfires more likely.

#### **4.2.4 VULNERABILITY**

Due to the predominance of agricultural lands in the county, there is not a significant number of acres of grasslands or woodlands aside from land adjacent to rivers and wetlands and land not suited for row crop farming. (See attached Chippewa County Wildfire Hazards Map for areas of risk in Appendix V.)

Some of these areas abut communities such as Clara City, Milan, Montevideo, and Watson. However, if a fire were to occur in these areas, there is minimal risk to property and structures. There are also several dry hydrants located throughout the County that allow tankers to draw water from natural bodies of water to improve efficiencies of fighting both wildfires and structural fires in the rural areas of the County. They are located at:

Mandt Township: North of Montevideo along Highway 29, East side of Highway 29 at 30<sup>th</sup> St NW

Sparta Township: Minnesota River public access off of County Road 15 in Wegdahl  
3 miles west of Montevideo on County Road 15 (Waterman or Zempel Bridge)

Tunsberg Township: North of Watson on County Road 9 and ½ mi east on County Road 13

#### **4.2.5 PROGRAM GAPS OR DEFICIENCIES**

- Currently, county zoning lacks regulations regarding vegetation on property. One of the problems with past fires is the undergrowth and overhanging trees near residential structures. Although aesthetically appealing, vegetation around homes has destroyed numerous dwellings in past fires.
- There is currently no program to ensure that fire is considered when planning conservation plantings that include woody cover. Firebreaks should be included to protect homes and woody cover as well as allowing the use of fire as a management tool. (If a tree and shrub planting is placed in the middle of a prairie planting, it may be difficult to accomplish a prescribed management burn of that property without damaging or destroying the woody component. It may also be impossible to protect that planting in the event of a wildfire.)
- Because of the rough terrain and location of wildfires many of the fire departments do not have adequate equipment to fight wildfires. Fire vehicles are not able to access these areas due to their large size and weight. The Maynard Fire Department indicated their UTV is in need of replacement.

### **4.3 WINDSTORMS**

A windstorm hazard is a wind strong enough to cause light damage to trees and buildings. Wind speeds during a windstorm typically exceed 34 miles per hour (29.5 knots). Wind damage can be caused by gusts or sustained winds. For the purposes of this plan, tornados will be categorized and discussed as a separate hazard from windstorms. Windstorms encompass a large variety of damaging wind types, including:

- Straight-line wind - thunderstorm wind not associated with rotation
- Downdraft - a small-scale column of air that rapidly sinks toward the ground
- Downburst - a strong downdraft with an outrush of damaging winds on or near the earth's surface

- Gustnado - small whirlwind originating from the ground and not connected to any cloud-based rotation
- Derecho - widespread, long-lived, straight-line windstorm that is associated with a fast-moving group of severe thunderstorms known as a mesoscale convective system. Derechos can cause hurricane-force winds, tornados, heavy rains, and flash floods.

Source: NOAA National Severe Storms Laboratory

Windstorms can and do occur in all months of the year, but the most severe windstorms typically occur during severe thunderstorms in the warmer months of April through September. These include tornados and downburst or straight-line winds. Winds of greater than 60 mph are also associated with intense winter, spring, and fall low-pressure systems. These can inflict damage to buildings and in some cases can overturn high profile vehicles.

Also, strong winds combined with saturated soils can lead to widespread loss of trees. This becomes a problem in communities when downed trees injure people, damage property, knock down power lines, or impede traffic. Downed power lines present a risk of electrocution or fire. Risks associated with downed trees can be managed through proper tree selection and proper maintenance programs. Some communities desire the look and feel of tree-shaded roads, however, this may lead to the planting of trees that are too large for the boulevards, resulting in a greater risk of property damage.

**Table 4.8 Effects of Wind Speed**

Wind speeds	Effects
26-38 knots (30-44 mph)	Trees in motion. Lightweight loose objects (e.g., lawn furniture) tossed or toppled.
39-49 knots (45-57 mph)	Large trees bend; twigs, small limbs break; and a few larger dead or weak branches may break. Old/weak structures (e.g., sheds, barns) may sustain minor damage (roof, doors). Buildings partially under construction may be damaged. A few loose shingles may be removed from houses. Carports may be uplifted; minor cosmetic damage may occur to mobile homes.
50-64 knots (58-74 mph)	Large limbs break; shallow-rooted trees may be pushed over. Semi-trucks may be overturned. More significant damage to old/weak structures occurs. Shingles, awnings may be removed from houses; mobile homes and carports incur minor structural damage.
65-77 knots (75-89 mph)	Widespread damage to trees with trees broken/uprooted. Mobile homes may incur more significant structural damage; Roofs may be partially peeled off industrial/commercial/warehouse buildings. Some minor roof damage may occur to homes. Weak structures (e.g., farm buildings, airplane hangars) may be severely damaged.
78+ knots (90+ mph)	Many large trees broken and uprooted. Mobile homes may be severely damaged; moderate roof damage to homes may occur. Roofs may be partially peeled off homes and buildings. Moving automobiles may be pushed off dry roads. Barns and sheds may be demolished.

Source: National Weather Service, 2018

#### 4.3.1 HISTORY OF WINDSTORMS

Windstorms are fairly common in Chippewa County and occur to some extent almost annually. The following table summarizes the windstorms that have occurred since 2015. Most recently in May 2022, the County experienced widespread wind damage from a couple of severe thunderstorms. Damage included lots of downed trees, damaged outbuildings and grain storage as well as roof damage to many homes. As a result of these two events, Chippewa County was included in the federally-declared disaster events on July 8, 2022 (FEMA-4658-DR-MN) for severe storms, straight-line winds, tornadoes, and flooding that occurred during the period of May 8 through May 13, 2022 and on August 9, 2022 (FEMA-4666-DR-MN) for severe storms, straight-line winds, tornadoes, and flooding occurring during the period of May 29 through May 30, 2022.

**Table 4.9 Reported Chippewa County Windstorms, 2015-2022**

<b>Date of Event</b>	<b>Windstorm Event Description</b>
July 17, 2015, Montevideo (2 events)	A measured wind gust of 55 knots was reported by the Montevideo County Airport wind sensor. Large construction barricades were blown over in Montevideo.
June 12, 2016, Montevideo	There was wind damage to a pole barn, and two 18-wheelers were blown off the road, northeast of Montevideo.
July 16, 2016, Montevideo and Granite Falls (2 events)	Numerous trees and power lines were blown down across a widespread area of Montevideo. Several sources from the media, law enforcement and trained spotters reported widespread damage across the city of Granite Falls. Numerous trees and power lines were blown down along with some roof damage to businesses. The area affected included the east side of Granite Falls, which is east of the Minnesota River and in Chippewa County.
August 28, 2016, Montevideo	Multiple trees were blown down northeast of the Montevideo airport.
June 11, 2017, Montevideo	Power lines and trees were blown down in town.
September 19, 2017, Clara City	Windspeeds recorded at 51 knots.
September 22, 2017, Watson	Several trees were blown down near Watson.
May 28, 2018, Montevideo	Several trees and power lines were blown down around Montevideo.
June 4, 2019, Clara City	A Minnesota Department of Transportation wind sensor west of Clara City, measured wind gusts over 60 mph for a period of 10 minutes. The peak wind was 63 mph.
August 8, 2020, Granite Falls	Numerous trees and power lines were blown down on the north and northeast side of Granite Falls. There was a measured wind gust of 122 mph on a wind farm north of Granite Falls. However, this measurement was taken at 200 feet above the ground.
May 12, 2022, Watson	A large tree was blown down northwest of Watson.
May 12, 2022, Montevideo	There was a concentrated area of wind damage from the southeast portion of Montevideo, then northeast for a few miles over rural western Chippewa County. Several trees, sheds and barns were damaged, including major damage to an apartment garage in the City of Montevideo.
May 12, 2022, Gluek	There was sporadic tree and shed damage to farms north of Gluek and into Louriston Township.

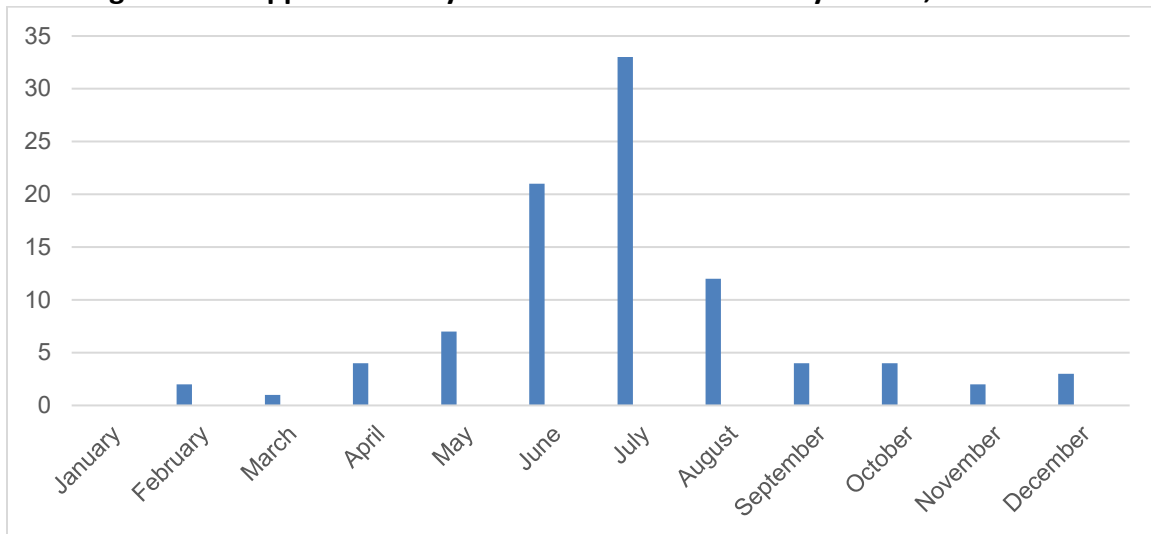
May 12, 2022, Clara City	Sporadic damage to trees and sheds northeast of Clara City.
May 30, 2022, Wegdahl	Several trees and power lines were blown down near Wegdahl.
July 23, 2022, Clara City	Wind speeds measured at 51 kts.
July 23, 2022, Clara City	Wind speeds measured at 52 kts.

Source: National Climatic Data Center, 2023

#### 4.3.2 PROBABILITY OF OCCURRENCE

Windstorms can happen any month of the year, but based on historical occurrences, most windstorm events tend to occur in the months of May through August. This is also the time of year when thunderstorms are most likely to occur. The following table using data from the National Center for Environmental Information, shows the number of “Strong wind,” “High wind,” and “Thunderstorm wind” events from 1955 through 2021. July has historically had the most wind events, with June and August having the second and third most events. While the number of wind events and their intensity may vary month to month and year to year, this overall trend is expected to continue.

**Figure 4.4 Chippewa County Windstorm Occurrences by Month, 1955-2021**



Source: NOAA (National Center for Environmental Information), 2021

The frequency of windstorms can vary greatly from year to year, but since 1955, there have been around one per year. The table below shows the number of wind events classified by the National Center for Environmental Information since 1955. While this data may not be extremely accurate, since not all wind events over that time frame were reported, it does give an approximate range of average annual occurrences.

**Table 4.10 Chippewa County Average Annual Wind Events, 1955-2021**

	Thunderstorm Wind, 1955-2021	High Wind, 1996-2021
Events	77	15
Years	66	25
Average/year	1.17	0.6

Source: National Center for Environmental Information, 2021



#### **4.3.3 WINDSTORMS AND CLIMATE CHANGE**

At the current time, there is limited data available that supports an increase in windstorm events and climate change. The Minnesota State Hazard Mitigation Plan (2019) states that the *“Lack of high-quality long-term data sets makes assessment of changes in wind speeds very difficult (Kunkel, et al., 2013). In general, one analysis found no evidence of significant changes in wind speed distribution. Other trends in severe storms, including the number of hurricanes and the intensity and frequency of tornados, hail, and damaging thunderstorm winds, are uncertain. Since the impact of more frequent or intense storms can be larger than the impact of average temperature, climate scientists are actively researching the connections between climate change and severe storms (USGCRP, 2017).”*

#### **4.3.4 VULNERABILITY**

Similar to tornados, windstorms tend to impact weaker structures such as mobile homes, older homes, out buildings such as sheds, barns, grain bins, and trees. Straight line winds, like those in a derecho, can produce hurricane force winds and result in as much damage or more due to the larger geographic area they cover. The lack of storm shelters in some areas, especially mobile home parks leave some members of the community quite vulnerable during these events. Above ground power lines are also vulnerable to windstorms and can leave large neighborhoods or rural areas without power for hours, if not days depending on the storm’s magnitude.

#### **4.3.5 PROGRAM GAPS AND DEFICIENCIES FOR WINDSTORMS**

- As much as 10% of homes (approximately 500) in the county lack basements that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm.
- Most power lines in the county are above ground and subject to damage from ice storms, wind and falling tree limbs. There are few community requirements that discourage the planting of large trees near power lines.
- Watson, population 182, could benefit from a safe room in the community to serve residents that do not have safe places to go during severe weather.
- Lac qui Parle State Park Upper Campground does not have a storm shelter for campers. Strong winds have impacted campers recently and DNR staff would like to provide shelter for campers.
- Lagoon Park in Montevideo could benefit from a storm shelter as it is a popular camping location.
- Buffalo Lake Park (County Park) does not have a storm shelter for campers.

### **4.4 TORNADOS**

Tornados are the most violent of all storms facing Midwestern residents and communities. A tornado is a rapidly rotating column of air, spawned by a cumulonimbus cloud. When it drops to the ground it can create significant damage and loss of life. Tornados always occur in association with thunderstorms.

While tornados tend to be somewhat more common in southern Minnesota, they have occurred in all counties in the state.

Tornados are most likely to occur during warm, humid spells during the months of May, June, July, and August but have occurred as early as March and as late as November in Minnesota. On occasion, tornados called cold air funnels occur after the passage of a cold front when air is much less humid, but the air aloft is very cold creating enough instability to make funnel clouds. Most tornados occur during the warm part of the day – late afternoon or early evening; over 80 percent of tornados occur between noon and midnight.

The tornado's path typically ranges from 250 feet to a quarter of a mile in width. The speed that a tornado travels varies but is commonly between 20 and 30 mph. However, larger and faster tornados have occurred in Minnesota. Most tornados stay on the ground for less than five minutes. Tornados frequently move from the southwest to the northeast but can vary in direction during some instances.

A tornado's magnitude is measured by the Enhanced Fujita Scale. The Enhanced Fujita Scale, or EF Scale, became operational on February 1, 2007, and is used to assign a tornado a 'rating' based on estimated wind speeds and related damage. When tornado-related damage is surveyed, it is compared to a list of Damage Indicators (DIs) and Degrees of Damage (DoD) which help estimate better the range of wind speeds the tornado likely produced. From that, a rating (from EF0 to EF5) is assigned.

The EF Scale was revised from the original Fujita Scale to reflect better examinations of tornado damage surveys so as to align wind speeds more closely with associated storm damage. The new scale has to do with how most structures are designed.

**Table 4.11 Enhanced Fujita (EF) Scale Definitions**

EF SCALE	
EF Rating	3 Second Gust (mph)
0	65-85
1	86-110
2	111-135
3	136-165
4	166-200
5	Over 200

*Source: National Weather Service*

#### **4.4.1 HISTORY OF TORNADOS**

Like all Minnesota counties, Chippewa County has not been immune to tornados in its history.

According to the National Centers for Environmental Information, there have been 21 tornados reported in Chippewa County since 1960. All of these tornados were reported to be fairly minor in magnitude and were classified as either EF0 or EF1 and F0/F1 prior to 2007.

Looking at a larger geographic radius of 100 km from Montevideo, the Storm Prediction Center shows similar data. Within this larger area, almost 87%, or 354, of all tornados were classified as F/EF0 or F/EF1 from 1950-2019 and resulted in only 22 or 8.6% of related injuries and two fatalities or 14% of the total. On the other hand, the F/EF4 and F/EF5 tornados, while only accounting for around 1% of all tornados, resulted in 72% of all tornado-related injuries and 79% of tornado deaths.

While past tornados in Chippewa County have been fairly minor in nature, perhaps the most devastating tornado in recent history occurred just outside of its borders in the Yellow Medicine County portion of Granite Falls on July 25, 2000. One person was killed, over a dozen injured, and millions of dollars of damage was done to residences, businesses, and public facilities in and around Granite Falls. Chippewa County felt some of its impact as it had two homes damaged by the strong winds of the storm.

The tornado first touched down in rural Yellow Medicine County, eight miles west and three miles north of Granite Falls. The tornado lifted before exiting Granite Falls, leaving a concentrated damage path two miles long and 500 feet wide, through a primarily residential area of Granite Falls. Most of the damage in Granite Falls was caused by F2 to F3 wind speeds. However, this tornado was eventually classified as a minimal F4 tornado, based on the twisted wreckage of an overturned railroad car near the intersection of 9th Avenue and 14th Street in Granite Falls.

Most recently, a couple of small tornados were reported near Milan and Bunde in 2022. Both were rated EF0 and caused some significant damage to trees and farm outbuildings.

**Table 4.12 Recent Tornados in Chippewa County, 2015-2022**

<b>Magnitude, Date, Location</b>	<b>Description</b>
EF1 Tornado – May 16, 2015, near Watson	A tornado produced damage at a farm. A 100' x 70' long machine shed was destroyed when it was pushed off its foundation, with metal blown 1.5 miles downwind. Much of the equipment inside the shed was destroyed. A metal fence was blown down, and dozens of trees were broken. The tornado even clipped off some of the new soybeans that had emerged and were only one or two inches out of the ground.
EF0 Tornado – May 16, 2015, near Gluek	Tornado moved across open fields. It was recorded on video by numerous storm chasers. This tornado moved across an open field. It was photographed and recorded on video by two independent storm chasers and viewed by multiple trained spotters.
EF0/EF1 Tornado – September 19, 2017, south of Montevideo	This tornado began on the Chippewa County side of the Minnesota River, just east of the Montevideo golf course. It moved east-northeast across the south side of Montevideo. Most of the damage was to trees, but siding and shingles were taken off a few homes and the Montevideo Community Center. This tornado uprooted or snapped dozens of trees south of Montevideo and just east of the Minnesota River.
EF0 Tornado - May 30, 2022, 3 miles N/NE of Milan	A brief tornado developed about 3 miles north northwest of Milan. It uprooted several trees and then moved into Swift County where it significantly damaged farm outbuildings. Maximum winds for the Chippewa County portion were estimated at 70 mph.
EF0 Tornado - August 28, 2022, 3 miles SE of Bunde	Storm chaser video showed the tornado touched down in a field in Chippewa County and hit a tree, taking down large branches. It continued moving across a bean field, then moved across a road and tracked into Kandiyohi County, where it entered a corn field and eventually dissipated.

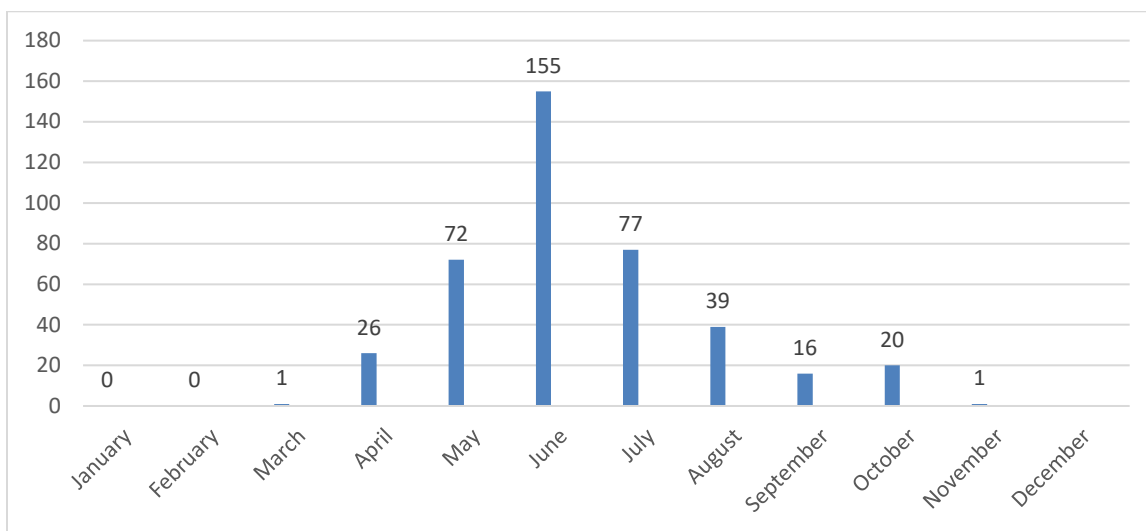
Source: National Climate Data Center, 2023

A map showing tornado paths in Chippewa County from 1956-2021 can be found in Appendix V.

#### 4.4.2 PROBABILITY

Using data from the Storm Prediction Center’s Tornado Risk Assessment tool shows that the greatest risk for tornados within a 100km radius of Montevideo is typically in June (61%), with May and July also being fairly active months. However, the tornado season is typically April through October. According to the National Centers for Environmental Information’s (NCEI) Storm Event Database, in Minnesota, tornados are most prevalent in the months of June (34%), July (25%), and May (16%); 63% of tornados occur between 2:30 PM - 7:00 PM. The majority of tornados are ≤ F1, have an average tornado path of three miles long, and a width slightly wider than 100 yards (NOAA, 2018).

**Figure 4.5 Tornados by Month, 1950-2019**  
(Within 100km of Montevideo, MN)



Source: Storm Prediction Center (NOAA)

According to the Storm Prediction Center, there are 2.8 “tornado days” on average per year within 100km radius of Montevideo. When considering stronger tornados, F/EF2 or more, there has been one every two years on average and the same goes for F/EF4 or stronger tornados (0.6/year). When looking at past fatality rates, about one death per decade is a result of a tornado.

**Table 4.13 Tornado-Day Statistics**  
(within 100km radius of Montevideo), 1950-2019

Average Tornado Days per Year	2.8
Average # of F/EF2 or Stronger Tornado Days per Year	0.5
Average # of F/EF4 or Stronger Tornado Days per Year	0.6
Average # of Killer Tornado Days per <b>Decade</b>	0.9

Source: Storm Prediction Center (NOAA)

**Table 4.14 Tornados Reported in Chippewa County, 1968-2022**

	Tornados 1968-2022
Events	16
Years	54
Average per year	0.30

Source: National Centers for Environmental Information, 2022

Using countywide data of past events from the National Centers of Environmental Information (shown in Table 4.14), the number of tornado events per year is slightly lower than those given in Table 4.13, perhaps indicating the value is somewhere in between.

#### **4.4.3 TORNADOS AND CLIMATE CHANGE**

A recent article from Yale Climate Connections of Yale University did not find any significant evidence that climate change has impacted tornadic activity. While they state that there has been an increase in the number of tornados in recent years, most have been very minor and likely due to the increased number of storm chasers today compared to years ago. The number of more severe tornados has not changed much in recent history, but the tornado season has started earlier in the year (even though tornados can occur at any time of the year). In addition, the location of tornados in the U.S. has seemed to have slightly shifted to the east, but the cause of that has yet to be determined.

Source: <https://yaleclimateconnections.org/2021/07/climate-change-and-tornados-any-connection/>

#### **4.4.4 VULNERABILITY**

As discussed earlier, tornados can occur anywhere in Chippewa County, putting all areas at risk. However, certain populations, neighborhoods and facilities may be more vulnerable than others. Adequate warning is one of the more important factors in preventing injury and death in the population. The presence of storm shelters and basements is another big factor in minimizing the potential for injury and/or death. The elderly and those with physical handicaps may also be at more risk due to limited mobility issues. There are seven nursing home/assisted living facilities in Chippewa County; four in, or near Montevideo, two in Granite Falls and one in Clara City. Residents of mobile home parks and those camping outdoors are also quite vulnerable due to limited sheltering opportunities. There is one mobile home park in Montevideo. There are four campground locations within the county: Lagoon Park (Montevideo), Lac qui Parle Upper Campground, Chippewa County Park #1 (Buffalo Lake), Chippewa County Park #2 (Wegdahl Park).

Traditionally, tornados are seen as a countywide hazard. In order to predict estimated damage caused by an F4/F5 tornado, Chippewa County based fiscal analysis on the recommendation of the National Weather Service (NWS) Data Management Department. According to the NWS, an acceptable method to create a damage cost estimate model from a F4/F5 tornado in a small community could be performed by using cost data from a previous tornado event that occurred in Greensburg, Kansas with a population of approximately 1,500 people. The devastation totaled around \$250 million dollars and damaged approximately 95% of the city. To model an F4/F5 tornado, the NWS suggested approximating that 90% of each land use category be considered demolished. Using 2023 market values, Table 4.15 depicts this information, providing the number of parcels damaged and estimated damage value by city. Final damage amount is estimated at \$462,304,440 impacting 3,977 parcels of residences, commercial/industrial buildings, schools, churches, and government-owned properties (summation of all city parcels and assessed parcel values).

**Table 4.15 Chippewa County Estimated Potential Damage  
by an F4/F5 Tornado (2023 Market Value)**

Geographic Area	Total Number of Parcels	Total Value of Parcels	90% of Total Parcels	Estimated Damage Value
Clara City	810	\$104,212,100	729	\$93,790,890
Maynard	284	\$16,274,700	256	\$14,647,230
Milan	265	\$13,879,900	239	\$12,491,910
Montevideo	2,893	\$372,698,900	2,604	\$335,429,010
Watson	165	\$6,606,900	149	\$5,945,400
<b>County Total</b>	<b>4,417</b>	<b>\$513,671,600</b>	<b>3,977</b>	<b>\$462,304,440</b>

Source: Chippewa County Assessor, April 2023

#### **4.4.5 PROGRAM GAPS AND DEFICIENCIES FOR TORNADOS**

- As much as 10% of homes (approximately 500) in the county lack basements that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm.
- Most power lines in the county are above ground and subject to damage from ice storms, wind and falling tree limbs. There are few community requirements that discourage the planting of large trees near power lines.
- Watson, population 182, could benefit from a safe room in the community to serve residents that do not have safe places to go during severe weather.
- Lac qui Parle State Park Upper Campground does not have a storm shelter for campers. Strong winds have impacted campers recently and DNR staff would like to provide shelter for campers.
- Lagoon Park in Montevideo could benefit from a storm shelter as it is a popular camping location.
- Buffalo Lake Park (County Park) does not have a storm shelter for campers.

#### **4.5 HAIL**

Hail is considered ice and is a result of severe thunderstorms. Hail forms when strong updrafts within the cumulonimbus cloud carry water droplets above the freezing level or when ice pellets in the cloud collide with water droplets. The water droplets freeze or attach themselves to the ice pellets and begin to freeze as strong updraft winds toss the pellets and droplets back up into colder regions of the cloud. Both gravity and downdrafts in the cloud pull the pellets down, where they encounter more droplets that attach and freeze as the pellets are tossed once again to higher levels in the cloud. This process continues until the hailstones become too heavy to be supported by the updrafts and fall to the ground as hail.

Most hail in Minnesota ranges in size from pea-size to golf-ball sized hail. Larger hailstones have been reported, but are much less common. Strong updrafts are usually associated with severe thunderstorms. The area covered by individual hailstorms is highly variable because of the changing nature of the cumulonimbus cloud. While almost all areas of southern Minnesota can expect some hail during the summer months, most hail is not large enough to cause significant crop or property damage.

#### 4.5.1 HISTORY

Chippewa County has experienced 101 reported hail events since 1957 through November 2022. Of this total, 68 or 67% of the events produced hailstones 1" or larger in diameter while ten events produced hailstones of 2" or more in diameter. More recently, there have been thirteen hail events since 2015 in Chippewa County producing hailstones ranging in size from 0.75 to 2.0" in diameter.

**Table 4.16 Recent Hailstorms in Chippewa County, 2015-22**

Date, Location	Hail Size
July 16, 2016, Montevideo	2.0" diameter
July 4, 2017, near Clara City (two events)	1.0-1.5" diameter
July 9, 2017, near Watson (three events)	1.0-2.0" diameter
July 9, 2017, near Montevideo	1.75" diameter
June 4, 2019, Montevideo, near Montevideo (two events)	0.75-1.25" diameter
May 9, 2022, Montevideo (two events)	1.75-2.0" diameter
May 9, 2022, Montevideo airport	1.0" diameter
May 9, 2022, Clara City	1.5" diameter

*Source: National Climatic Data Center, 2022*

#### 4.5.2 PROBABILITY

According to the Insurance Information Institute, Minnesota had the fourth most hail claim losses from 2017-19 (\$150,673). They also state that State Farm paid out over \$3.1 billion in hail claims in 2020, according to an April 2020 analysis by the insurer and was third in claims paid out in 2020. Texas was the state with the most hail claims paid for auto and home insurance, with \$474.6 million in losses, followed by Illinois (\$394.2 million), and Minnesota (\$259.2 million). According to the Storm Prediction Center, there are between 10 and 50 reports of  $\geq 2"$  hail or larger per decade per 10,000 square nautical mile from 1955-2002 in Chippewa County. Like tornados, hailstorms also occur primarily during the late spring through early fall months of April through September. Also, based on historical County hail data provided above, there have been about 1.5 hail events (of any size) per year since 1957.

**Table 4.17  
Chippewa County Hailstorms,  
1957 - 2022**

Events	101
Years	65
Yearly Average	1.55

*Source: National Climatic Data Center, 2022*

#### 4.5.3 HAIL AND CLIMATE CHANGE

According to the Yale Climate Connections, the impacts of climate change on hailstorms has yet to be determined. At this time, researchers believe that increased temperatures may result in larger hailstones and greater kinetic energy which could potentially result in increased property damage.

Studies have shown that the kinetic energy produced by slightly larger hailstones created in the more severe storms have increased by 2%. However, there has not been an observed global increase in the number of hailstorms.

Source: <https://yaleclimateconnections.org/2022/03/hailstorms-and-climate-change-what-to-expect/>

In addition, data referenced in the 2019 MN State Hazard Mitigation Plan also supports that current research on this correlation has been inconclusive. According to the U.S. Global Change Research Program (USGCRP) National Climate Assessment (NCA), trends in severe storms, including the numbers of hurricanes and the intensity and frequency of tornados, hail, and damaging thunderstorm winds are uncertain. Since the impact of more frequent or intense storms can be larger than the impact of average temperature, climate scientists are actively researching the connections between climate change and severe storms (*USGCRP, 2014*). The NCA reports that in Minnesota's neighboring Great Plains region to the west, fewer hail days are expected, but more frequent occurrences of larger hail in spring months are possible (*USGCRP, 2017*).

#### **4.5.4 VULNERABILITY**

There are no geographic differences in hail events, meaning all areas of the county have equal chances to experience a hailstorm. Depending on the size of hailstones, various levels of damage can result during a hailstorm. Larger stones can damage roofs, vehicles, siding, windows, and vegetation/crops. While people and property can be quite vulnerable to hail, the most frequent damage associated with hailstorms is crop loss. Being an agricultural area, most of the unincorporated land in the county is used as farmland. Depending on the growth stage of the plant, hail can be quite destructive, even smaller hail. Sometimes even when plant damage is not readily visible, hailstones can greatly reduce crop yields.

#### **4.5.5 PROGRAM GAPS AND DEFICIENCIES**

- None identified

#### **4.6 DAM/LEVEE FAILURE**

Dam failure is defined as the collapse or failure of an impoundment resulting in downstream flooding. Dam failures can cause loss of life and extensive property damages; and could result from an array of situations, including flood events, poor operation, lack of maintenance and repair, and terrorism.

The main purpose of dams is to hold water, which is important during high water or floods, especially during spring runoff and immediately after heavy rains. Although dams act to prevent harm from flooding, they do pose potential threats in the event of failure. Dam failure can push a wall of water down to the valley below, causing serious destruction in its path.

Dams that could affect Chippewa County include dams along the Minnesota River and Lac qui Parle Lake. The Lac qui Parle Flood Control and Water Conservation Projects were authorized by Congress in 1936 and partially constructed as a Work Progress Administration (W.P.A.) project. The U.S. Army Corps



of Engineers completed construction of their portion of the project between 1941 and 1951. Operation of the project was transferred from the state of Minnesota to the U.S. Army Corps of Engineers in 1950.

This project is located on the Upper Minnesota River in western Minnesota near the South Dakota border. It consists of the Highway 75 Dam, Marsh Lake Dam, Lac qui Parle Dam, the Watson Sag Weir, and the diversion channel on the Chippewa River. Although the Highway 75 Dam and Marsh Lake Dams are not located in Chippewa County, if they failed, they would have the potential to impact cities within Chippewa County.

The **Highway 75 Dam** impounds water for the Big Stone National Wildlife Refuge and is located just east of the city of Odessa in Big Stone County, northwest of Chippewa County.

The **Marsh Lake Dam** is part of the Lac qui Parle Flood Control Project on the Minnesota River near Appleton, Minnesota in Swift County. This dam is for water conservation purposes and does not affect the flooding of the Minnesota River. It is possible that in the event that it would fail during a flood event, it could cause another crest downstream. The Minnesota Department of Natural Resources operates the Lac qui Parle Wildlife Management Area, including the land around Marsh Lake. Marsh Lake Dam was constructed by the Works Progress Administration in 1939 and improved by the U.S. Corps of Engineers between 1941 and 1951. The dam has a fixed crest overflow spillway section 112 feet wide with a crest elevation of 937.6 feet. Unlike the Lac qui Parle Dam downstream, the Marsh Lake Dam cannot be operated to manage the lake's water level. Changes to this dam include rerouting the Pomme de Terre River to its original stream bed and allowing the level of Marsh Lake to drop periodically.

The **Watson Sag Weir** is used to reduce downstream flows at Montevideo by diverting a portion of the Chippewa River floodwaters into the Lac qui Parle reservoir.

The **Granite Falls Dam** is a "Low Hazard Dam" which indicates that failure is unlikely to result in loss of life and only minor increases to existing flood levels at roads and buildings is expected. A dam break analysis was performed and was filed with state and federal regulatory agencies. Maximum "Sunny Day Failure" was 5.2 feet with a stage increase of one foot or more between Granite Falls Dam and Minnesota Falls Dam. For a dam break at a 15-year event, stage increases were 2.0 feet or less.

The **Lac qui Parle Dam** is the highest dam and regulates water flow from the Lac qui Parle Lake. This is a "Low Head Dam" which means that if it failed, it is not life threatening to Montevideo. A dam failure was modeled for the "Probable Maximum Flood", which illustrated travel time from the dam to Montevideo at approximately six to seven hours. The water level would only raise stages in Montevideo by less than half a foot. For a "Normal High Pool" failure, the impact at Montevideo would be approximately five feet. The impact at Granite Falls is very similar.

The U.S. Corps of Engineers operates and maintains day use recreation areas below Lac qui Parle and Marsh Lake dams. Facilities consist of picnic areas, playground, privies, bank fishing, and drinking water.

## **Dams located within Chippewa County:**

### **Handeen-Jahn Group Pond**

Owner: Private (Audrey Arner, Richard Handeen, and Charles Jahn)  
Location: Approximately two miles west of Montevideo  
Year Built: 1975  
Construction material: Earth type dam  
Purpose – Flood protection  
Dam length: 330'  
Dam height: 29'  
Structure height: 20'  
Emergency action plan required? No  
Risk assessment: N/A  
Hazard potential classification: Low  
Inspection frequency: Every 8 years  
State regulated? Yes

### **Gravel Pit**

Owner: Chippewa County  
Location: Approximately one mile southeast of Montevideo  
Year Built: 1994  
Construction material: Earth type dam  
Purpose – Flood risk reduction  
Dam length: 200'  
Dam height: 22'  
Structure height: 25'  
Emergency action plan required? No  
Risk assessment: N/A  
Hazard potential classification: Low  
Inspection frequency: Every 8 years  
State regulated? Yes

### **Granite Falls Dam**

Owner: City of Granite Falls  
Location: Granite Falls  
Year Built: 1911  
Construction material: Concrete  
Purpose – Hydroelectric  
Dam length: 300'  
Dam height: 21'  
Structure height: 16'  
Emergency action plan required? Yes  
Risk assessment: N/A  
Hazard potential classification: Low  
Inspection frequency: Every 3 years  
State regulated? Yes

### **Shakopee Lake**

Owner: SWCD of Chippewa County  
Location: Approximately 10 miles southwest of Murdock  
Year Built: 1976  
Construction material: Earth type dam  
Purpose – Flood risk reduction  
Dam length: 700'  
Dam height: 11'  
Structure height: 18'  
Emergency action plan required? No  
Risk assessment: N/A  
Hazard potential classification: Low  
Inspection frequency: Every 8 years  
Condition assessment: Poor  
State regulated? Yes

### **Watson Sag Weir**

Owner: USACE  
Location: Approximately one mile north of Watson  
Year Built: 1938  
Construction material: Concrete/earth  
Purpose – Flood risk reduction (primary), recreation, fish and wildlife pond, water supply  
Dam length: 1,900'  
Dam height: 23'  
Structure height: 23'  
Emergency action plan required? Yes  
Risk assessment: Moderate  
Hazard potential classification: Low  
Inspection frequency: Every 5 years  
State regulated? No

### **Chippewa Diversion**

Owner: USACE  
Location: Two miles west of Watson  
Year Built: 1951  
Construction material: Earth type dam  
Purpose – Flood risk reduction (primary), recreation  
Dam length: 12,000'  
Dam height: 5'  
Structure height: 20'  
Emergency action plan required? Yes  
Risk assessment: Moderate  
Hazard potential classification: Low  
Inspection frequency: Every 5 years  
State regulated? No

#### **4.6.1 HISTORY**

The worst recorded dam failure in U.S. history occurred in Johnstown, Pennsylvania in 1889. More than 2,200 people were killed when a dam failed, sending a huge wall of water downstream destroying the town below. Although risks are fairly minimal, dam failure can occur in Minnesota. Several dam failures have occurred in Minnesota in the past, but none have been reported in Chippewa County.

#### **4.6.2 PROBABILITY OF OCCURRENCE**

The probability of a dam failure in Chippewa County is considered to be very low. This is based the fact there have been zero records of dam failure and dam conditions are inspected anywhere between three and eight years depending on the facility/structure (see inspection frequencies above).

#### **4.6.3 CLIMATE CHANGE AND DAM FAILURE**

While climate change will not increase the probability of catastrophic dam failure, it may increase the probability of design failures. Climate change is adding a new level of uncertainty that needs to be considered with respect to assumptions made during the dam construction.

Dams are designed based on assumptions about a river's annual flow behavior. These assumptions will determine the volume of water behind the dam and the amount of water flowing through the dam at any one time. Changes in weather patterns due to climate change may change the hydrograph or expected flow pattern.

Spillways are put in place on dams as a safety measure in the event of the reservoir filling too quickly. Spillway overflow events are a mechanism that also results in increased discharges downstream. It is conceivable that heavier rainfalls at earlier times in the year could threaten a dam's designed margin of safety, causing dam operators to release greater volumes of water earlier in a storm cycle in order to maintain the required margins of safety. Such early releases of increased volumes can increase flood potential downstream.

#### **4.6.4 VULNERABILITY**

Dam failure, although the risk is minimal, has the potential to be devastating to the areas within the floodplain and around the stream directly below the dam in Montevideo and Granite Falls. If the Lac qui Parle Dam were to fail, Montevideo and Granite Falls would be impacted. Dam failure would cause immediate flash flooding, destruction of property, erosion of crops, and the potential destruction of infrastructure.

The USACE currently has the Chippewa and Watson dams listed as moderate-risk dams (DSAC-3) among its more than 700 dams. The risk ranking is based on a screening-level assessment in 2009 that cited concerns for overtopping (especially near the abutments and wingwalls of the two structures where velocities are higher) and intermittent scour downstream of Chippewa. The potential consequences of a breach in Chippewa during large floods only impact downstream water surface profiles by a few inches, so consequences related to the dam performance are minimal. Therefore, Chippewa and Watson are listed as low hazard dams.

#### 4.6.5 PROGRAM GAPS AND DEFICIENCIES

None Listed.

#### 4.7 EXTREME HEAT

Chippewa County's location in the Midwest away from coastal regions results in a climate that can have very extreme temperature fluctuations throughout the year. While temperatures in the county rarely surpass 100°F, the summer heat coupled with high levels of humidity can result in dangerous conditions for vulnerable humans and livestock. High humidity levels prevent our sweat from evaporating, which is what cools our bodies. If the sweat is slow to evaporate, our bodies tend to overheat, which can lead to health issues.

Extreme heat events are the leading cause of weather-related fatalities in the U.S. More than 600 people are killed by extreme heat every year, according to the Centers for Disease Control and Prevention. By comparison, the National Weather Service reports that about 80 tornado deaths a year are reported and in 2021, 145 people were killed in floods.

**Table 4.18 Heat Index and its Effect on People**

Classification	Heat Index/Apparent Temperature	General Effect on People in High-Risk Groups
Extremely Hot	≥130°F	Heat/Sunstroke HIGHLY LIKELY with continued exposure
Very Hot	105-129°F	Sunstroke, heat cramps, or heat exhaustion LIKELY, and heatstroke POSSIBLE with prolonged exposure and/or physical activity
Hot	90-104°F	Sunstroke, heat cramps, or heat exhaustion POSSIBLE with prolonged exposure and/or physical activity
Very warm	80-89°F	Fatigue POSSIBLE with prolonged exposure and/or physical activity

Source: National Weather Service

Heat Index has been developed as a measure that combines humidity and temperature to better reflect the risk of warm weather to people and animals. The index measures the apparent temperature in the shade. People exposed to the sun would experience an even higher apparent temperature. A heat index of 105°F is considered dangerous. With prolonged exposure, it could result in heat stroke, heat exhaustion, and heat cramps. People are reminded to use extreme caution when the heat index is between 90°F and 105°F. A heat index of 90°F occurs when the temperature is 90°F and the relative humidity is 50 percent. This is more of a problem when these conditions are present for several days in a row, allowing buildings to become hotter and hotter as the conditions persist.

A heat index of 105-114°F warrants a heat advisory. This occurs when air temperature reaches 95°F and the relative humidity is 50 percent. An excessive heat warning is issued when the heat index reaches

115°F. This occurs with an air temperature of 95°F and relative humidity of 60 percent. An index of 115°F or higher creates severe risk for both humans and animals.

#### **4.7.1 HISTORY OF EXTREME HEAT**

In July, the warmest month of the year, the normal high temperature is 84.9° F in most of Chippewa County. On average, the county experiences 19-20 days of 90° F or higher during a typical summer. The all-time recorded high is 113° F in Milan, which occurred in 1934.

**Table 4.19 Chippewa County Temperature Extremes**

	Highest Temp	Date	Lowest Temp	Date
Milan	113° F	July 21, 1934	-42° F	February 16, 1936
Montevideo	110° F	July 31, 1988	-39° F	February 16, 1936

Source: Midwest Regional Climate Center

While summers are typically warm but pleasant in Chippewa County, it is not uncommon to experience high dew points and temperatures in the 90s for several days in a row.

#### **4.7.2 PROBABILITY OF OCCURRENCE**

As mentioned above, the probability of temperatures reaching 100°F or higher in Chippewa County is somewhat rare. According to the MN Department of Natural Resources, Minneapolis has only reached 100 or higher just twice since 2015. However, when coupled with higher humidity levels, the heat can have a greater impact on people and animals.

#### **4.7.3 EXTREME HEAT AND CLIMATE CHANGE**

According to the State Climatologist, there is some evidence that current dew points are not only higher, but are occurring with greater frequency than was true in the past. If that is true, Chippewa County residents can expect an increasing number of hours with heat indexes in the danger category.

The average temperature in Minnesota has increased more than 3.0° F since record keeping began in 1895 and that increased warming has been occurring in recent decades (Interagency Climate Adaptation Team, p. 4). Midwest annual temperatures have generally been well above the 1901-1960 average since the late 1990s. The warmest decade on record occurred during the 2000s (Kunkel, K.E. et al, 2013). In addition, the Midwest has experienced major heat waves and their frequency has increased over the last six decades (Perera et al. 2012). In the U.S., mortality rates increase 4% on days with heat waves in comparison with non-heat wave days (Anderson and Bell 2011). It's been projected that heat stress will increase as summer temperatures and humidity continue to increase (Schoof, 2012).

#### **4.7.4 VULNERABILITY**

Extended periods of warm, humid weather can create significant risks for people, particularly the very young, those that are ill, and seniors who may lack air conditioning and proper insulation or ventilation in their homes. Animals and livestock are also at risk during extended periods of heat and humidity.

#### **4.7.5 PROGRAM GAPS AND DEFICIENCIES**

- Lack of designated community shelters in Milan, Montevideo

## **4.8 DROUGHT**

Drought is defined as a prolonged period of dry weather or a lack of rainfall.

### **4.8.1 HISTORY**

Since the last hazard mitigation plan update in 2015, the County has had periods of drought conditions, including a period of extreme drought (D3) in 2021. Prior to that, the drought conditions that occurred in the last seven years were most sporadic and fortunately short-lived. Aside from a two month stretch over the summer months of 2021 and late 2022 when drought conditions were considered severe (D2), past drought conditions were categorized as abnormally dry (D0) or moderate drought (D1).

Fortunately, most of these conditions were short lived aside from a stretch from June 2020 to April 2021 and again in late 2022 through the current date. For up-to-date drought conditions in Chippewa County, visit [www.drought.gov/states/minnesota/county/Chippewa](http://www.drought.gov/states/minnesota/county/Chippewa).

(Source: [Drought.gov](http://Drought.gov))

### **4.8.2 PROBABILITY**

The probability was determined by reviewing previous weekly drought events recorded by the U.S. Drought Monitor since 2000. The U.S. Drought Monitor has four levels of drought severity, D1 through D4. Level D4, or exceptional drought, has not been reached in Minnesota in recent history. Drought Level D3, which results in corn being harvested early, emergency haying and grazing are authorized, wildfires are widespread, and surface water levels are at near record lows occurred for approximately 26 weeks in Chippewa County over the 20+ year span or for about 2% of the time since 2000. The county experienced approximately 60 weeks of Drought Level D2 which results in high fire danger, required burn permits, hardened ground conditions, low crop yields, slow/low river flow and snowpack is significantly lower and well levels decrease. This period accounted for approximately 5% of the 22-year time span. These frequencies of past drought levels can be used to infer the probability of similar droughts occurring in the future.

### **4.8.3 DROUGHT AND CLIMATE CHANGE**

“Extreme rainfall events increase the probability of disaster-level flooding. However, there is also an increased probability that by mid-century heavy downpours will be separated in time by longer dry spells, particularly during the late growing season. Over the past century, the Midwest hasn’t experienced a significant change in drought duration. However, the average number of days without precipitation is projected to increase in the future, leading Minnesota climate experts to state with moderate-to-high confidence that drought severity, coverage, and duration are likely to increase in the state.” - *Planning for Climate & Health Impacts in Southwest Minnesota*, MN Dept. of Health, 2018

### **4.8.4 VULNERABILITY**

Chippewa County’s reliance on the agricultural economy would likely be the most vulnerable to drought. Without adequate rainfall, crops cannot produce good yields, which results in a downturn of the local economy as there is a heavy reliance on agriculture in this part of the state. Another vulnerable resource is the area’s aquifers. Prolonged dry conditions can lead to diminished groundwater levels, thus jeopardizing communities’ and rural residents’ access to fresh water.

#### **4.8.5 PROGRAM GAPS AND DEFICIENCIES FOR DROUGHTS**

- County has no estimates of annual recharge rates or the capacities of the various aquifers.
- Water conservation provisions and use restrictions in times of drought are not included in county ordinances.

### **4.9 LIGHTNING**

While windstorms and tornados are significant hazards associated with severe thunderstorms, lightning is the most frequent hazard associated with thunderstorms and the hazard that results in the greatest loss of life. Lightning occurs to balance the difference between positive and negative discharges within a cloud, between two clouds and between the cloud and the ground. For example, a negative charge at the base of the cloud is attracted to a positive charge on the ground. When the difference between the two charges becomes great enough a lightning bolt strike. The charge is usually strongest on tall buildings, trees and other objects protruding from the surface. Consequently, such objects are more likely to be struck than lower objects.

While cloud-to-ground lightning poses the greatest threat to people and objects on the ground it actually accounts for only 20% of all lightning strikes. The remaining lightning occurs within the cloud, from cloud to cloud, or from the ground to cloud. Within-cloud lightning is the most common type.

#### **4.9.1 HISTORY**

There have been isolated lightning strikes reported in the five communities which have caused moderate damage in some cases. Strikes to electronic systems and power sources were the main incidents. More details can be found in the individual community reports.

#### **4.9.2 PROBABILITY**

The probability of lightning in Chippewa County is fairly high as there are on average 20 to 25 thunderstorms days in Minnesota. Within these storms, multiple lightning strikes can be produced depending on the conditions. However, due to the extreme localized nature of a lightning strike, the probability of causing personal injury or property damage is relatively low.

#### **4.9.3 LIGHTNING AND CLIMATE CHANGE**

Several studies in recent years have projected that the number of lightning strikes will increase due to climate change. Increased air temperatures will likely result in stronger updrafts and therefore more thunderstorms.

#### **4.9.4 VULNERABILITY**

All people and structures are vulnerable to lightning. Lightning strikes to humans can cause significant bodily injury if not death. Lightning strikes to structures can cause fires or severe burns, especially if conditions are dry. People that are outdoors either working or gathering, especially if they are located in an open area or higher ground, are most vulnerable to lightning strikes during the warmer months as that is when thunderstorms primarily occur and is also the time of year when people congregate outside.

in larger groups. Unprotected electrical systems and electronic controls are also vulnerable to lightning strikes as surges in electricity can cause damage.

#### **4.9.5 PROGRAM GAPS AND DEFICIENCIES**

- Lack of adequate shelter for large numbers of people at outdoor summer events and gatherings.

### **4.10 WINTER STORMS**

Because most of Chippewa County is relatively flat, dangerous winter conditions are created when the wind blows including drifting, white-outs and wind chills.

Chippewa County experiences three basic types of winter storms: blizzards, heavy snow events and ice storms (including freezing rain, freezing drizzle and sleet).

Blizzards, the most violent of winter storms, are characterized by low temperatures usually below 20° F, strong winds in excess of 35 miles per hour, and blowing snow that creates visibility issues at one-quarter mile or less for at least three hours. Blowing snow can result in whiteouts and drifting on the roadways, leading to stranded motorists and the difficulty or inability of emergency vehicles to respond to incidents. While blizzards can occur in Chippewa County from October through April, they most commonly occur from November through the end of March.

Freezing rain, the most serious of ice storms, occurs during a precipitation event when warm air aloft exceeds 32° F while the surface remains below the freezing point. When precipitation originates as rain or drizzle contacts physical structures on the surface, ice forms on all surfaces creating problems for traffic, utility lines, and tree limbs.

Sleet forms when precipitation originates as rain falls through a rather large layer of the atmosphere with below freezing temperatures, allowing raindrops to freeze before reaching the ground. Sleet is also commonly referred to as ice pellets. Sleet storms are usually of shorter duration than freezing rain and generally create fewer problems.

In Minnesota, six or more inches of snow in a 12-hour period or eight or more inches of snow in a 24-hour period defines a heavy snow event. Snow is considered heavy when visibility drops below one-quarter mile regardless of wind speed. Drifting and blizzard conditions can occur even if there are no new snow accumulations.

#### **4.10.1 HISTORY**

Between November 1993 and December 2021, the National Climatic Data Center reported 36 blizzards. During the winter of 1996-1997, drifts were higher than most street vehicles and its snow melt contributed to record spring flooding. The winters of 2018-19, 2013-14, 1995-96 and were also exceptionally extreme. Six blizzards were reported in the winter season of 2013-14, while four were reported during the 1995-96 winter and three were reported during the 1996-97 winter. In addition, heavy snow, high wind and winter storms made these three winters difficult for Chippewa County. The



winter of 1996-1997 was declared a Presidential disaster because of the snow emergency. There were many school closings during this winter. Snow removal was extremely expensive and large snow load both damaged and destroyed buildings. The roof on the wastewater treatment plant in Clara City was destroyed during the winter of 1996-97 because of the snow load. There was also record setting snowfall in December of 2010 and April of 2013. Most recently, the December 23, 2020 blizzard was brought up by several communities as having an impact on the area. The storm developed quickly and caught many off guard. Numerous motorists were stranded along Highway 7 between Montevideo and Clara City with many seeking shelter in Clara City.

**Table 4.20 Chippewa County Winter Storm Events/Blizzards, 2015 - 2022**

Winter	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Winter storms/Blizzards	3/1	1/0	3/1	4/3	3/2	1/1	1/1

Source: National Climatic Data Center

There are two weather stations in Chippewa County located in Milan and Montevideo. Tables 4.21 and 4.22 show the snowfall records for these two weather stations. Milan had a record snowfall of 92 inches during the 1996-1997 winter season. In 1996, the blizzard of mid-January dropped record amounts of snow on both Milan and Montevideo.

**Table 4.21 Chippewa County Snowfall Extremes by Month, 1951 – Mar. 2022**

Month	Milan		Montevideo	
	High (in)	Year	High (in)	Year
January	29.5	1975	33	1982
February	25.5	1952	28	1962
March	33.5	1951	44	1951
April	29.7	2018	28.5	2018
May	2.0	2017	1	1954
October	8.5	2020	6	1991
November	20	2001	25	1985
December	25.3	2010	32.5	2010
Season (Jul-Jun)	92	1996-1997	82.2	1983-1984

Source: Midwest Regional Climate Center

**Table 4.22 Chippewa County Largest One-day Snowfall in Milan and Montevideo from 1951 – Mar. 2022**

Month	Milan		Montevideo	
	1-Day Max (in)	Date	1-Day Max (in)	Date
January	11.0	1/18/1996	12.0	1/18/1996
February	12.0	2/20/2011	12.0	2/21/2011
March	15.0	3/21/2008	14.0	3/3/1989
April	15.0	4/11/2008	14.0	4/15/2018
May	2.0	5/1/2017	2.0	5/1/2017

October	5.8	10/20/2020	6.0	10/31/1991
November	13.0	11/10/2014	12.0	11/28/1983
December	10.0	12/9/2012	12.0	12/9/2012

Source: Midwest Regional Climate Center

#### **4.10.2 PROBABILITY**

To determine the probability of future winter-related storm events in Chippewa County, records of previous winter storms were totaled and divided by the dataset's period of record, resulting in the annual relative frequency of winter storms. Based on records in the NCEI Storm Events Database from 1996 through January 2022, the relative frequency of winter storm events in Chippewa County is 2.15 per year. This relative frequency can be used to infer the probability of these events occurring in the future.

#### **4.10.3 WINTER STORMS AND CLIMATE CHANGE**

Winter storms have had a large impact on public safety in Minnesota historically. Snowstorm frequency and annual total snowfall have the potential to increase in the future. These events increase energy demand and pressure on the systems that provide energy that can result in power outages. As these events increase in the future there is a risk of reduced reliability in services, increased number of outages, and rising energy costs that can affect public health.

Climate change will likely have different effects on different geographical regions of the country as well as within the state of Minnesota. In the absence of downscaled modeling, more specific predictions for smaller geographical areas are not available at this time. Therefore, the climate change risks associated with Chippewa County are not mutually exclusive, but rather the effects in the county may differ from those of the state and Midwest region.

Recent winters have shown to be shorter and warmer than previous years. If these trends continue, scientists predict more severe and intense winter storms. A warmer air atmosphere holds more moisture which then results in more precipitation in either the form of rain or snow. With sea temperatures on the rise, storms tend to have more energy which can result in higher intensity and frequency.

#### **4.10.4 VULNERABILITY**

All areas of the county are equally vulnerable to winter storms. Transportation routes, power supply and structures are the most vulnerable to winter storms. Ice and drifting snow make roads and streets impassable. Ice and winds can weigh down power lines causing them to break. Extremely heavy, wet snow can cause structural damage to weaker roofs. The location, frequency and intensity of winter storms varies greatly from year to year making some winters worse than others.

#### **4.10.5 PROGRAM GAPS AND DEFICIENCIES**

- Most powerlines the rural areas of the county are located above ground making them vulnerable to power outages from ice/wind. However, burying powerlines in the rural parts of

the county also makes the lines vulnerable to rodents chewing them and causing outages. These problem areas are difficult to locate underground, therefore utility providers will likely continue to run their lines above ground.

- Deteriorating wooden power poles, many were installed in late 1940s and are still in use.
- Availability of back-up generators in Montevideo for public works building.
- Lack of designated community shelters in Milan, Montevideo

## **4.11 EROSION, LANDSLIDES, AND MUDSLIDES**

Erosion is the gradual wearing-away of land surface materials, especially rocks, sediments, and soils, by the action of water, wind, or a glacier. Usually, erosion also involves the transfer or eroded material from one place to another (The American Heritage Dictionary of Student Science). Erosion can occur on farmland, stream banks, bluffs, and coastlines and can be the result of both natural and man-made activities.

### **4.11.1 HISTORY**

There have not been any landslides or major erosion events in the county.

### **4.11.2 PROBABILITY**

According to the Chippewa County Water Plan (2013), Chippewa County soils are subject to both water and wind erosion. Water erosion results from soil removed from its original location by the force of water to lower slopes and plots. The potential for wind erosion occurs when wind velocities exceed 12 mph. The Chippewa County Water Plan states that approximately 55% of the land is classified as having potential for moderate water erosion. The Chippewa County Comprehensive Local Water Plan Update (2013) lists erosion and sediment control as a priority issue for the county.

### **4.11.3 EROSION AND CLIMATE CHANGE**

Increased heavy rain events in the future would result in more chances for soil erosion and landslides to occur. Also, warmer winters and less ice on lakes and rivers could also lead to increased chances of shoreline and streambank erosion. In addition, impervious surfaces from human development as well as the predicted increases in heavy rain events in the future may contribute to flash flooding leading to erosion for stream and riverbanks in Chippewa County.

### **4.11.4 VULNERABILITY**

While a vast majority of the county is relatively flat, areas adjacent to streams and waterways tend to possess some more slope and are sometimes more vulnerable to occasional washout or erosion. These areas would be located primarily on the western boundary of the county along the Minnesota River valley. In addition, there are some areas including behind the downtown business district that are more steeply inclined. Areas with steep slope are more susceptible to erosion, washouts, and minor landslides after periods of heavy rains. It is somewhat common for rural gravel roads to partially wash out after spring flooding and/or heavy spring rains.

#### 4.11.5 PROGRAM GAPS AND DEFICIENCIES

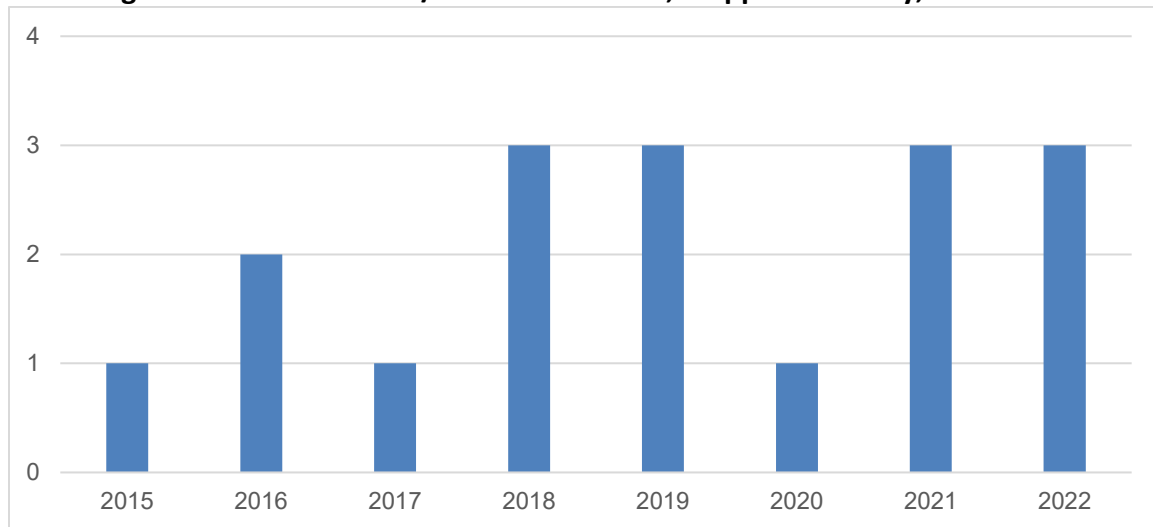
- More education is needed on the devastating impacts erosion could have on the county, as well as prevention techniques.
- Area behind Montevideo business district has a steep slope.

### 4.12 EXTREME COLD

#### 4.12.1 HISTORY

In the past seven years, Chippewa County has experienced one to three extreme cold events, which are typically categorized by having windchill values of -30°F or below.

**Figure 4.6 Extreme Cold/Wind Chill Events, Chippewa County, 2015-2022**



Source: National Centers for Environmental Information, NOAA, 2023

#### 4.12.2 PROBABILITY

The number of extreme cold days in any given year is somewhat unpredictable. January is the coldest month on average, with daytime highs of averaging 22°F and nighttime lows of 0°F, but these averages do not tell the entire story. Maximum temperatures in January have been as high as 69°F and as low as -42°F in Chippewa County. In addition, extremely cold temperatures can occur anytime between December and February. The winter months, on average, produce about 37-42 days of 0°F or lower, which, when coupled with even the slightest winds, make for extremely dangerous conditions.

#### 4.12.3 EXTREME COLD AND CLIMATE CHANGE

As mentioned earlier in this plan, Minnesota's climate has warmed, especially the colder, winter months. The increase in temperatures during the winter months has occurred at a rate 2-3 times faster than during the summer months from 1895 to 2021 and even more rapidly since 1970. In addition, Minnesota is not getting as cold as it once did. While Minnesota's location in the Midwest will certainly result in periods of extremely cold temperatures in the winter, according to the MN DNR's State

Climatology Office, “The frequencies of -35° F readings in northern Minnesota and -25° F readings in the south have fallen by up to 90% with the long-term decline in cold extremes is all but guaranteed to continue.”

#### **4.12.4 VULNERABILITY**

Cold weather is often accompanied by winds creating a dangerous wind chill effect, putting both people and livestock at risk. Most of the county is at risk of this kind of weather because of its relatively flat, open character. More wooded, hilly areas of the county are less severely affected by wind chill. Wind chills of -35° F and lower can present significant risk, particularly if people are not properly clothed or protected. A -15° F air temperature with wind speeds of 10 miles per hour creates a wind chill of -35° F. Under these conditions, frostbite can occur in just minutes on exposed skin.

#### **4.12.5 PROGRAM GAPS AND DEFICIENCIES**

- The City of Milan does not have an officially designated community shelter in the event of extreme cold temperatures.

## **TECHNOLOGICAL HAZARDS – INTRODUCTION**

Source: Minnesota State Hazard Mitigation Plan

Technological hazards are a part of everyday life, a result the modern world in which we live. The challenge is to benefit from the use of technology while limiting potential harm to the community. In order to fully realize the benefits of technology, it is necessary to plan an effective response to unwanted technological emergencies before they occur.

From a hazard mitigation perspective, the existence of technological hazards in the community poses a risk to life, health, or property, just as natural hazards do. The use of hazardous materials in manufacturing and transportation can be extremely harmful if an unwanted release occurs and the use of nuclear materials in the presence of a community creates risks that must be managed. While dam failure can result from natural hazards, dams will still have a catastrophic impact on those downstream, if poor engineering or construction causes it to fail. Further, the furnishings in our homes make a pleasant living environment, but are often flammable and produce toxic gases if ignited.

For the purposes of this plan, technological hazards identified are organized into these groups:

- 1. Infectious Diseases**
- 2. Fire**
- 3. Hazardous Material**
- 4. Water Supply Contamination**
- 5. Wastewater Treatment System Failure**
- 6. Civil Disturbance/Terrorism/Cyber Attack**

### **4.13 INFECTIOUS DISEASES**

An infectious disease is defined as an organism or virus that has the potential to spread or affect a population in adverse ways. Infectious diseases have the potential to affect any form of life at any time based on local conditions, living standards, basic hygiene, pasteurization, and water treatment. Despite breakthroughs in both medicine and technology, infectious diseases continue to pose a major public health risk. Today, the issue of emerging and re-emerging infectious diseases is at the forefront of public health concern especially in light of the recent coronavirus pandemic. The very young, older adults, immunocompromised individuals, and hospitalized or institutionalized patients are at an increased risk for many infectious diseases. Changes in demographics, lifestyle, technology, land use practices, food production and distribution methods, childcare practices, immunization, as well as increasing poverty, have roles in emerging infections.

Many infectious diseases are preventable and controllable. Prevention and control of infectious diseases involve collection of accurate condition assessment data. Outbreak detection and investigation and the development of appropriate control strategies (both short and long term) are based on specific epidemiological data. These activities require close collaboration among clinical providers (especially infection-control practitioners within hospitals), clinical laboratories, state and local health departments, and federal agencies. Furthermore, a need exists for continued education of food industry professionals,

health-care students and providers, as well as research to improve immunizations, diagnostic methods, and therapeutic modalities. The prevention of infectious diseases requires multidisciplinary interventions involving public health professionals, medical practitioners, researchers, community-based organizations, private and volunteer groups, industrial representatives, and educational systems.

#### **4.13.1 HISTORY**

In contrast to typical natural disasters in which critical components of the physical infrastructure may be threatened or destroyed, an infectious disease outbreak may also pose significant threats to the people responsible for critical community services due to widespread absenteeism in the workforce. In the non-health sector, this might include highly specialized workers in the public safety, utility, transportation, or food service industries, and will likely vary from jurisdiction to jurisdiction. State and local officials should carefully consider which services and key personnel within relevant firms or organizations are essential. It is important to identify where absenteeism would pose a serious threat to public safety or would significantly interfere with the ongoing response to the outbreak. To offset this issue, Countryside Public Health has collaborated with Chippewa County to create a Continuity of Operations Plan that determines priority activities that will help to ensure an office will be able to remain open during times of high absenteeism.

In general, infectious diseases would have no effect on physical property, but there could be a negative impact on the economy if a widespread outbreak were to occur. As a result of an outbreak, businesses may be forced to shut down for an extended period. Chippewa County's entire population is susceptible to exposure from an infectious disease because of the random nature of diseases. Infection rates and exposure risk will vary based on the disease, individual sanitation habits and personal behaviors. Large population concentrations and sites with large numbers of people are especially at risk in the event of an outbreak. Many of these impacts were realized during the recent COVID-19 pandemic from March 2020 through early 2022. According to [usafacts.org](https://usafacts.org), Chippewa County reported 3,260 cases of COVID-19 and 48 deaths. The number of cases spiked the greatest during the winter months of this time span.

#### **4.13.2 PROBABILITY**

It is difficult to predict the probability of an infectious disease. Several diseases are seasonal in nature like influenza, pneumonia, and Lyme disease and vary in severity from one year to the next. While the coronavirus pandemic is still fresh on everyone's minds, global pandemics like that are fairly rare and tend to occur every 100 years or so. However, previously unknown or new strains of viruses may arise at any time.

#### **4.13.3 INFECTIOUS DISEASE AND CLIMATE CHANGE**

Warmer temperatures could provide more favorable conditions for vector borne diseases such as Lyme disease and West Nile Virus as the warmer winter months allow for the carriers of these diseases to survive. Also, as temperatures warm, animals leave their native habitats and move to new territories where they interact with new species. Scientists are also seeing certain disease-causing fungi spread into new areas that were previously too cold for them to survive. As water temperatures warm, we could see more frequent and more severe instances of harmful algal blooms, which can be very harmful and potentially fatal to dogs and other animals.

#### 4.13.4 VULNERABILITY

As the past couple of years have shown with the global coronavirus pandemic, infectious disease can have a significant impact on people of all ages as well as the global economy. While no one can be considered “safe” or immune to all potential viruses, the younger, elderly and those who are immunocompromised are typically more affected by infectious diseases.

#### 4.13.5 PROGRAM GAPS OR DEFICIENCIES

- Having adequate PPE was identified as an issue during the recent pandemic.
- Local resources may be inadequate in handling the volume of care needed during a widespread disease outbreak and therefore communities are reliant on state and federal resources. As a result, rural areas like Chippewa County are not always a top priority compared to more populated areas.

### 4.14 STRUCTURAL FIRE

Urban fires are blazes that spread through structures, posing danger and destruction to property. These fires include any instance of uncontrolled burning which results in structural damage to residential, commercial, industrial, institutional or other properties in developed areas. Fires can occur in any community and pose threats year-round.

#### 4.14.1 HISTORY

According to the State Fire Marshal Division, three people in Chippewa County have lost their lives due to fire since 1990. In 2018, the most recent year that fire data is available, Chippewa County had a total of 30 fire runs, 51 “other” runs, and had a total dollar loss of \$302,400. Chippewa County’s fire rate has been between 325 and 479 between 2015 and 2018 and was usually similar to the statewide fire rate during the same time period. The fire rate equals one fire per number of persons indicated. Fires tend to be more common in cities because of the density and number of both residential and commercial structures.

**Table 4.23 Chippewa County Number of Fire/Other Runs, 2015-2018**

Community	Total Fire Runs	Total Other Runs	Total Dollar Loss
Chippewa County	146	267	\$1,148,850
Clara City	43	38	\$7,400
Maynard	18	74	\$567,050
Milan	11	8	\$30,000
Montevideo	66	147	\$518,800
Watson	8	0	\$25,000

Source: MN State Fire Marshal’s “Fire in Minnesota: Annual Reports”, 2015-2018



**Table 4.24 Chippewa County Average Fire Loss per Fire, 2015-18**

Year	Average Dollar Loss per Fire
2015	\$8,886
2016	\$10,836
2017	\$3,778
2018	\$10,800

Source: MN State Fire Marshal's "Fire in Minnesota: Annual Reports", 2015-2018

#### **4.14.2 PROBABILITY**

Based on past fire calls data and the size of community, the probability of a structural fire occurring is anywhere between 1% and 13% on a daily basis (Average # of calls per year/365 days). Watson, which is also the smallest community in the county, had the fewest calls and Montevideo, which is the largest community in the county, averaged the most calls in a given year.

**Table 4.25 Fire Calls per Community, 2018-2022**

	Clara City	Milan	Maynard	Montevideo	Watson
2018	13	3	3	40	3
2019	10	4	10	50	2
2020	13	5	2	62	5
2021	9	6	8	40	5
2022	11	2	5	42	1
Calls/year	11.2	4.0	5.6	46.8	3.2

Source: Chippewa County Emergency Management, 2022

#### **4.14.3 STRUCTURAL FIRE AND CLIMATE CHANGE**

There may be a slight increase in the probability of structural fires due to prolonged periods of drought caused by climate change. Drier conditions may lead to an increase in fire danger. The [National Oceanic and Atmospheric Administration \(NOAA\) suggests](#) that climate change has resulted in drier atmospheric conditions and a longer wildfire season, which may in turn result in more structural fires as well.

#### **4.14.4 VULNERABILITY**

While almost any structure is vulnerable to structural fire, older homes, especially those that use woodburning as their primary heat source and possibly have outdated electrical wiring may be more vulnerable than others. Also, older commercial structures built before fire suppression systems were mandated are also slightly more vulnerable to fire damage than newer buildings. Larger agricultural buildings are also vulnerable due to their remote location away from fire responders and water sources. Populations that are vulnerable include infants, elderly and those that are physically handicapped as they may have difficulty evacuating a burning building.

#### **4.14.5 PROGRAM GAPS OR DEFICIENCIES**

- Although not in use very often, homes with chimneys pose a large threat of fires. Specialized training classes, such as chimney cleaning, safe cooking in the kitchen, and holiday hazards, could be offered to residents.

- Residents living in higher density areas should be more educated on fire prevention.
- In the back of the Main Street in Montevideo, there are large power lines behind the tall buildings that limit accessibility in the event of a major structure fire.
- Large agricultural production operations in the rural areas pose a fire risk to property and livestock due to the remote location away from water supplies.

## **4.15 HAZARDOUS MATERIALS**

Hazardous materials are chemical substances, which if released or misused can threaten the environment and/or health of a community. These chemicals are used in industry, agriculture, medicine, research, and consumer goods throughout Chippewa County. Hazardous materials are found in the county in the forms of explosives, flammable and combustible substances, corrosives, poisons, and radioactive materials.

A hazardous material spill or release poses risks to life, health, and property. An incident can force the evacuation of a few people, a section of a facility, or an entire neighborhood or community, resulting in significant economic impact and possible property damage. Spilled material is costly to clean up and may render the area of the spill unusable for an extended period of time. Hazardous materials incidences are generally associated with transportation accidents or accidents at fixed facilities.

### **4.15.1 HISTORY**

Hazardous materials exist as part of everyday life in Chippewa County. These materials make life easier and more comfortable for residents throughout the county. The challenge is to use, store, and transport hazardous materials in a safe way that does not harm communities and prepare an effective response to unwanted releases of hazardous materials when they occur. A hazardous materials accident can occur almost anywhere at any time.

Minor incidents have occurred, but these have had little or no impact on the community at large. The likelihood of a major event is considered to be marginal, but an isolated minor accident is of constant concern.

From 2000 to 2009, six pipeline breaks have occurred in Chippewa County. Three of the six breaks took place in 2001. Two of the breaks took place in Montevideo as a result of excavation. The other break occurred in Rhinelander Township, when a third-party excavated with a backhoe and hit a 2-inch natural gas pipe. In 2002, another 2-inch natural gas pipeline was hit during an excavation and caused a natural gas leak in Montevideo, requiring natural gas to be turned off for the area. During 2004, a homeowner in Montevideo was digging and broke a 1.5-inch natural gas pipeline that serviced the home. The most recent pipeline damage occurred on November 15, 2006 in Rhinelander Township, located near 50<sup>th</sup> St SE and County Road 1. The break transpired due to a construction company installing drain tile and excavation caused damage to an 8-inch pipeline owned by Magellan Pipeline Company LP carrying gasoline. In this case, the pipeline did not leak as it was shut down for maintenance. There have been none since.

#### **4.15.2 PROBABILITY**

Based on past events, there are approximately 8-9 reported hazardous materials events per year in Chippewa County according to County Emergency Management. These events vary in terms of severity, with most being minor in nature, but all have the potential to cause an impact or harm to people and/or the environment and interrupt transportation routes.

#### **4.15.3 HAZARDOUS MATERIALS AND CLIMATE CHANGE**

Hazardous Materials and climate change have not been shown to be related.

#### **4.15.4 VULNERABILITY**

Road, rail, aircraft, and pipeline all move hazardous materials presenting differing levels of risk. Transported products include hazardous materials passing from producers to users, between storage and use facilities as well as hazardous waste from generators going to treatment and disposal facilities.

People and property on or immediately adjacent to transportation corridors throughout the county are at higher risk than those located one mile or more from a major county corridor. Chippewa County assumes that the highest risk of an incident would be to areas in close proximity to both rail lines and major roads and from large quantities of hazardous materials moving into and out of Chippewa County. The risk of a major event is most severe in more populated western portions of the county and along state highways. According to the most recent findings at the Minnesota Department of Transportation (MnDOT), more than half of all accidents involving hazardous materials have occurred on the state roadways. Roads are a major concern in Chippewa County due to the lack of information available regarding what is traveling on the road system on a daily basis.

Transported hazardous materials on rail lines also pose a risk to Chippewa County residents. While a spill could greatly affect residents anywhere in the county, a hazardous material spill would have the most impact if it occurred within a city. The United States Department of Transportation (US DOT) considers the area within ½ mile of rail lines the *Evacuation Zone* for Oil Train Derailments. Areas within one mile of rail lines are considered to be *Potential Impact Zones* in case of an oil train fire.

The airport facility also provides further concern based on the possibility of an aircraft or site incident involving some sort of hazardous material. Chippewa County has one small municipally-run airport (Montevideo) that operates a general use facility for small businesses and pleasure uses only. The only hazardous material found at the airport is used for agricultural spraying. Aircraft are not allowed to wash out any hazardous materials and this use is seasonal only.

There are also a variety of hazardous materials stored in fixed facilities throughout the county, ranging from stored flammable liquids to radioactive materials and chemical agents. Some materials are particularly lethal even in small amounts, while others require strong concentrations with prolonged exposure periods to cause harm. Businesses housing hazardous materials are listed in the Emergency Operations Plan.

The major concern for hazardous materials events for fixed facilities is primarily in the city of Montevideo. Montevideo contains the majority of the county's population and employers.

The specific hazards created by a release are dependent on the hazardous characteristics of the material, the amount released, the location of the release, and the weather and topographic conditions in the area. Identifying specific materials and those involved in transportation can provide a more specific assessment of the vulnerability.

Facilities storing or using hazardous materials above minimum amounts have developed and filed a Risk Management Plan with the Local Emergency Planning Committee, State Emergency Response Commission and the Environmental Protection Agency. Each plan identifies significant hazards for the facility, likely release scenario for the hazards, estimated population impacted by the release, and specific steps to take in the event of a release to protect a population from harm.

Chippewa County also has a few pipelines a few pipelines that traverse the county supplies pressurized flammable liquids transmission. A liquid release in the Magellan Pipeline would put the City of Maynard at risk. The rest of the rural area is at slight risk and in the event of a leak in either the Alliance or Dome pipeline, additional personnel will be required to inform each farm place to evacuate.

Currently, over 78,000 miles of pipelines are located within the state of Minnesota. Six pipelines run throughout Chippewa County carrying liquid gasoline and natural gas are owned by CenterPoint Energy, Great Plains, Alliance Pipeline LTD, Dooley's, Magellan Pipeline Company LP, and Kinder Morgan Cochin LLP. Table 4.23 below identifies the type of commodity carried and length of pipelines by their respective owners.

**Table 4.26 Chippewa County Pipelines**

Operator Name	Commodity Carried	Mileage
CenterPoint Energy	Natural Gas	Unknown
Great Plains	Natural Gas	Unknown
Alliance Pipeline LTD	Natural Gas	8.2 Miles
Dooley's	Natural Gas	13.0 Miles
Magellan Pipeline Company	Gasoline Product	14.9 Miles
Kinder Morgan Cochin LLP	Gasoline Product	8.3 Miles

Source: Chippewa County, 2014

#### **4.15.5 PROGRAM GAPS OR DEFICIENCIES**

- With the presence of several heavily traveled transportation routes (State/U.S. Highways, and two railroads) there is an ever-present threat of a hazardous materials spill. In addition, there is no way to know what materials are being transported through the county at any given time.

#### **4.16 WATER SUPPLY CONTAMINATION**

Water supply contamination is the introduction of point and non-point source pollutants into public ground water and/or surface water supplies. Although minimal, water supply contamination does pose a threat in Chippewa County.

Microbiological and chemical contaminants can enter water supplies. Chemicals can leach through soils from leaking underground storage tanks, feedlots, and waste disposal sites. Human wastes and pesticides can also be carried to lakes and streams during heavy rains or snow melt.

Drinking water in Chippewa County comes from groundwater and all cities have municipal water systems. All water plants are in good working condition and undergo regular inspections by municipal employees. Individual wells provide drinking water for rural residences within Chippewa County.

##### **4.16.1 HISTORY**

There have not been any drinking water contamination events in Chippewa County.

##### **4.16.2 PROBABILITY**

The probability of a water contamination incident would be considered fairly rare as there have not been any events in the past and given the level of security and monitoring that is currently being done in each of the communities.

##### **4.16.3 DRINKING WATER CONTAMINATION AND CLIMATE CHANGE**

As a human-caused disaster, drinking water contamination is not linked to climate change.

##### **4.16.4 VULNERABILITY**

All municipalities have taken proper measures to protect their water supplies as they are a critical resource to each community. If an incident were to occur, an entire community would be affected.

##### **4.16.5 PROGRAM GAPS AND DEFICIENCIES**

- Water supplies, while mostly secure and protected, are very vulnerable to irreversible contamination, especially via private wells.

#### **4.17 WASTEWATER TREATMENT SYSTEM FAILURE**

Wastewater treatment and disposal is an important part of our need to protect and preserve Minnesota's water resources. Although minimal, failure of wastewater treatment systems poses a potential risk in Chippewa County. Numerous hazards can impact wastewater treatment plants, including severe flooding.

##### **4.17.1 HISTORY**

Wastewater systems typically pose higher risks of failure during the spring when melting snow and runoff can cause flooding. To date, no wastewater treatment systems have failed in Chippewa County.

#### **4.17.2 PROBABILITY**

The probability of a wastewater treatment failure event is relatively low based on the lack of past occurrences. However, those communities with older systems, may be more susceptible to failure in the near term.

#### **4.17.3 WASTEWATER TREATMENT SYSTEM FAILURE AND CLIMATE CHANGE**

With more intense rainfall events anticipated in the future, some wastewater treatment systems may be inundated with stormwater resulting from excessive inflow and infiltration. Communities should continue to monitor and upgrade their collection systems as necessary to reduce the amount of stormwater entering their wastewater systems.

#### **4.17.4 VULNERABILITY**

Those communities with aging infrastructure may be more susceptible to a potential failure event. Communities with wastewater treatment lagoons/ponds are slightly less susceptible to failure as they tend to have some excess capacity built into their ponds. There is also some vulnerability to the nearby streams' water quality and ecosystems as in a worst-case scenario, a municipality may have to bypass treatment and discharge untreated wastewater into the nearby receiving stream.

#### **4.17.5 PROGRAM GAPS OR DEFICIENCIES**

- None identified.

### **4.19 CIVIL DISTURBANCE/TERRORISM/CYBER ATTACK**

Human-caused hazards can be intentional, criminal, malicious uses of force and violence to perpetrate disasters against people or property. They can be the result of terrorism – actions intended to intimidate or coerce a government or the civilian population to further political or social objectives – which can be either domestic or international, depending on the origin, base and objectives of the terrorist organization.

Hazards can result from the use of weapons of mass destruction, including biological, chemical, nuclear and radiological weapons; arson, incendiary, explosive and armed attacks; industrial sabotage and intentional hazardous materials releases; and cyber terrorism.

#### **4.19.1 HISTORY**

Chippewa County has no history of terrorist or individual acts designed to cause disasters against people or property. Vandalism, assaults and other criminal acts do occur, but these isolated incidents fall within the purview of local law enforcement.

School Violence. Violence in schools has become an increasingly important topic among teachers, students, and police. There is a focusing on preventing bullying, school shootings, vandalism, and overall safety. Regardless of the availability of drugs, alcohol, and weapons to youth, it appears as though school violence incidences are decreasing. This fact is demonstrated in the Minnesota Student Surveys

completed in 2016, 2019 and 2022 in Chippewa County. The vast majority of 11<sup>th</sup> grade students “strongly agree or agree” to feeling safe walking to and from school and at school.

#### **4.19.2 PROBABILITY**

Due to the rural nature of the County, it is fairly unlikely the area would be a target of any kind of civil disturbance or terrorism attack. The more probable situation would be that the county would be included in a larger geographic area impacted by a widespread attack on the electric grid or cyber networks. There is also always the slight threat of a local individual or group acting out in anger toward local elected officials or governmental agencies.

#### **4.19.3 CIVIL DISTURBANCE/TERRORISM AND CLIMATE CHANGE**

As civil disturbance/terrorism is a human caused disaster, it cannot be directly linked to climate change. However, if climate change worsens, and causes other emergency situations such as natural resource shortages, food/water shortages, etc., it is conceivable that civil disturbances may increase slightly as people get desperate.

#### **4.19.4 VULNERABILITY**

As civil disturbances and the like become increasingly more common across the country, law enforcement departments have become well trained on how to handle and respond to these situations. Anti-virus/malware software programs are also becoming increasingly more sophisticated to combat technological threats on computers and networks. Smaller communities in the county may be a little more vulnerable as they do not have the resources available to respond to these types of events and need to rely on outside agencies.

#### **4.19.5 PROGRAM GAPS AND DEFICIENCIES**

- The original design and operations of the older facilities in the county were not developed with terrorism prevention in mind.
- Chippewa County government buildings, including the county courthouse and city hall, have unrestricted pedestrian access.
- The Montevideo City Hall and the Chippewa County Courthouse do not have fire suppression systems and are not blast resistant. Montevideo had a fire detection system installed in 2000.

## Chapter 5 : COUNTY MITIGATION STRATEGY

(City strategies are included in Appendix VII.)

### OVERVIEW

The following tables outline the goals, objectives, and mitigation strategies for natural hazards important to Chippewa County. The goals are used as a framework for the objectives and mitigation strategies, which in turn, provide specific information on how mitigation decisions should be made. The goals, objectives, and strategies are based on the issues identified by the Local Task Force and the risk assessment in this plan. The chapter is divided into three sections; completed strategies by Chippewa County and cities, current goals, objectives, and strategies for Chippewa County and cities, and the prioritization of strategies.

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### DEFINITIONS

**Goals** are general statements. **Objectives** are action statements and start with an action verb. **Strategies** support the action of the objective.

The **Time Frame** was determined by the task force and the County Emergency Manager as an estimated timeline in which to complete the strategy. The time frame denoted as **“Recurring”** is a strategy type that does not have a specific length of time. Once the strategy has been completed, the responsible entity will re-start the strategy. The time frame denoted as **“Ongoing”** is a strategy type that occurs on a continuous or regular basis.

**Responsible Entity** is the entity in charge of initiating and completing the strategy identified. This was determined by the task force and County Emergency Manager as the most likely entity to complete the strategy.

The **Estimated Cost** was an educated guess of the cost of each strategy. Some strategies would not cost extra and were denoted “N/A”. Some costs were not known and denoted as “unknown” and other actions would vary depending on the size and scope of the project.

The **Funding Partner** is a potential partner for the county/city to obtain funding from in order to complete a strategy. **“Internal funding”** refers to activities occurring as part of normal budgeted activities and no external or additional funding is needed.

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### GENERAL MITIGATION VISION

“The county will strive to work with surrounding communities and local emergency responders to create and implement a proactive and results-oriented all-hazard mitigation plan that will make the county and region a safer and more sustainable place to live by protecting and enhancing the resources of the county as they relate to hazards that may have an impact in the future.”



## **DEVELOPMENT OF STRATEGIES**

The strategies in this plan were developed and updated by having the County's planning committee first refer to the 2015 strategies as a starting point. The committee reviewed and discussed each disaster's strategies as to whether or not they had been accomplished, remained to be completed, or if they were no longer relevant. Some strategies were slightly modified to reflect current the current situation and, in some cases, a new strategy was added. Also, as part of the discussion, the strategy timelines were reviewed and modified as necessary. Strategies were also modified to incorporate new mitigation ideas or concerns from the mitigation surveys that were sent out after the planning kick-off meeting (see Appendix I for survey results).

In addition to the Countywide strategies presented in the following pages, each city conducted a similar process with a local committee. However, in addition to reviewing the 2015 strategies and keeping the new 2023 FEMA guidelines in mind, the city strategies were significantly expanded to include at least one mitigation action for each disaster that was identified. This was done by discussing each disaster, finding out where each City may be susceptible and then considering various ways they could mitigate. Many of these strategies could be accomplished by continuing ongoing programs or carrying out practical and inexpensive projects or programs, keeping in mind the limited resources (both financial and staffing) of the local jurisdictions. City strategies and brief summaries of each disaster discussion can be found in Appendix VII.

## **POTENTIAL FUNDING PROGRAMS**

Below is a list of potential state and federal funding programs that the County or local governments could utilize to implement mitigation strategies.

### **Minnesota DNR Flood Hazard Mitigation Grant Assistance Program (FHM)**

The Flood Hazard Mitigation Grant Assistance Program (FHM) was created by the Minnesota Legislature in 1987 to provide technical and financial assistance to local government units for reducing the damaging effects of floods. Under this program the state can make cost-share grants to local units of government for up to 50 percent of the total cost of a project. The goal of existing regulations and programs for flood damage reduction is to minimize the threat to life and property from flooding. The efforts of local governments to enforce their zoning ordinances, to sponsor flood mitigation public improvement projects, and to acquire or relocate flood-prone buildings have significantly helped to reduce risk to lives and flood damages across the state.

### **FEMA Hazard Mitigation Grant Program (HMGP)**

FEMA's Hazard Mitigation Grant Program provides funding to state, local, tribal and territorial governments so they can develop hazard mitigation plans and rebuild in a way that reduces, or mitigates, future disaster losses in their communities. This grant funding is available after a presidentially declared disaster. In this program, homeowners and businesses cannot apply for a grant. However, a local community may apply for funding on their behalf. All state, local, tribal and territorial governments must develop and adopt hazard mitigation plans to receive funding for hazard mitigation project application.

Hazard mitigation includes long-term efforts to reduce risk and the potential impact of future disasters. HMGP assists communities in rebuilding in a better, stronger, and safer way to become more resilient overall. The grant program can fund a wide variety of mitigation projects including:

- Planning and Enforcement efforts including hazard mitigation planning, property acquisition, and code enforcement
- Flood protection measures using levees, floodwalls, elevating structures, reconstruction of damaged dwellings on elevated foundations, and drainage improvements
- Retrofitting to structures and utilities/infrastructure to make them more resistant to natural disasters and other hazards
- Construction of safe rooms and slope stabilization

### **FEMA Flood Mitigation Assistance (FMA)**

Flood Mitigation Assistance is a competitive grant program that provides funding to states, local communities, federally recognized tribes and territories. Funds can be used for projects that reduce or eliminate the risk of repetitive flood damage to buildings insured by the National Flood Insurance Program. FEMA chooses recipients based on the applicant's ranking of the project and the eligibility and cost-effectiveness of the project. FEMA requires state, local, tribal and territorial governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for hazard mitigation assistance projects.

### **FEMA Building Resilient Infrastructure and Communities (BRIC)**

The BRIC program is a competitive annual grant program that supports local governments as they implement hazard mitigation projects to reduce the risks from disasters and natural hazards. The program is authorized by Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The BRIC program aims to categorically shift the federal focus away from reactive disaster spending and toward proactive investment in community resilience. Through BRIC, FEMA continues to invest in a variety of mitigation activities with an added focus on infrastructure projects benefitting disadvantaged communities, nature-based solutions, climate resilience and adaptation, and adopting hazard resistant building codes. As a competitive grant program, applicants can apply on a yearly basis.

The BRIC program's priorities include:

1. Incentivize natural hazard risk reduction activities that mitigate risk to public infrastructure and disadvantaged communities;
2. Incorporate nature-based solutions, including those designed to reduce carbon emissions;
3. Enhance climate resilience and adaptation;
4. Increase funding for the adoption and enforcement of the latest published editions of building codes; and

5. Encourage mitigation projects that meet multiple program priorities.

#### **FEMA Assistance to Firefighters Grant (AFG) Program**

The primary goal of the Assistance to Firefighters Grant (AFG) is to meet the firefighting and emergency response needs of fire departments and non-affiliated emergency medical service organizations.

Since 2001, AFG has helped firefighters and other first responders obtain critically needed equipment, protective gear, emergency vehicles, training and other resources necessary for protecting the public and emergency personnel from fire and related hazards.

#### **FEMA Staffing for Adequate Fire and Emergency Response Grants (SAFER) Grant**

The SAFER Grants program was created to provide funding directly to fire departments and volunteer firefighter interest organizations to help them increase or maintain the number of trained, "front line" firefighters available in their communities.

The goal of SAFER is to enhance the local fire departments' abilities to comply with staffing, response and operational standards established by the NFPA (NFPA 1710 and/or NFPA 1720).

#### **USDA Community Facilities Program**

This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings. Funding is available in the form of low-interest loans, grants or a combination thereof.

Examples of essential community facilities related to hazard mitigation include:

- Health care facilities such as hospitals, medical clinics, dental clinics, nursing homes or assisted living facilities
- Public safety services such as fire departments, police stations, police vehicles, fire trucks, public works vehicles or equipment, and warning sirens

#### **PRIORITIZING STRATEGIES**

Similar to the strategies, prioritization was also discussed after review of the 2015 strategies. A description of how the strategies were initially prioritized can be found in the 2015 plan. In summary, the strategies were prioritized by considering the following criteria:

- Cost and available resources
- Length of project
- Compatibility with other plans – avoid duplication
- Available information – is enough known about the project to proceed soon?

- Impact of project or frequency of disaster and number of people benefitting

After review, the planning committee felt the 2015 priorities were still relevant for this plan as well.

With the addition of several new strategies at the city level to meet the new FEMA policy of having at least one mitigation action per disaster, local planning committees had several new actions to consider when prioritizing their strategies. After meeting to review and develop new strategies, UMRDC staff assigned an initial priority level of high, medium or low to each action based on the discussions that were held and also taking into account the following criteria:

- If it was something they are already doing or could be incorporated into an existing program or operation
  - **High** – Already doing or could easily incorporate into existing programs
  - **Medium** – Could be done with additional funding, but grant funding is possible, additional staff time is minimal
  - **Low** – Would require significant local funding and/or staff time to implement
- The cost/benefit of the proposed action, number of people/properties benefiting
  - **High** – benefits a lot of people/property for minimal cost
  - **Medium** – benefits a moderate amount of the population/properties for a moderate cost
  - **Low** – Benefits a limited amount of the population/properties for a high cost
- Frequency of the disaster and impact
  - **High** – Disaster occurs frequently and significantly impacts people and property
  - **Medium** – Disaster occurs infrequently and/or has moderate to minimal impact
  - **Low** – Disaster occurs rarely and/or has minimal impact
- Ease of implementation based on local resources (financial and staffing)
  - **High** – Jurisdiction has financial resources readily available, existing staff can accommodate
  - **Medium** – Jurisdiction does not have all of the financial resources available, but assistance is possible (grants/loans/bonding) and city staff can accommodate
  - **Low** – Jurisdiction does not have financial resources available and funding assistance is unlikely and/or staff is unable to accommodate additional workload or does not have ability/skills to implement

These priority levels were given to local elected officials and city staff for review prior to their City Council meetings in the months of March-April 2023. At these meetings County Emergency Management staff presented the draft strategies and hear any comments or feedback from the elected

officials, city staff and the attending public. As mentioned earlier, the local jurisdictions' strategies can be found in Appendix VII.

**Table 5.1 2023 Chippewa County Prioritized Strategies (Natural Hazards)**

Ranked	Hazard	Strategy	Affected Participating Jurisdiction
1	Severe Storms & Extreme Temperatures	Each city and the County Emergency Manager should continue to do periodic visits and review plan annually.	County EM, All Cities
1	Severe Storms & Extreme Temperatures	Identify funding to purchase portable generators and transfer switches to community emergency operation centers.	County, All Cities
1	Severe Storms & Extreme Temperatures	Assist with finding funding sources for and build safe shelters in all manufactured home parks, cities, city parks, county, and state parks and public golf courses. Identify a safe room for the campgrounds in cities and the greater county.	County EM, All Cities
2	Flooding	Prioritize bridges and culverts with annual flood concerns. Determine strategies to mitigate repeatedly flooded infrastructure (Ex. Replacing bridges, with clear-span bridges, replacing culverts).	County Engineer, County EM, All Cities
2	Flooding	Identify and prioritize repeat flood-impacted township roads to be improved.	County Engineer, County EM, Townships
2	Flooding	Identify structures prone to flood hazards for future buyouts.	County EM
3	Wildfire	Work with all units of government, fire departments, and schools to provide educational fire safety materials to the public.	County EM, All Cities, All Fire Departments, Schools

**2023 Chippewa County Prioritized Strategies (Manmade/Technological Hazards)**

<b>Ranked</b>	<b>Hazard</b>	<b>Strategy</b>	<b>Affected Participating Jurisdiction</b>
1	Hazardous Materials	Ensure that all Emergency Responders participate in Rail Car Incident Response Training.	All City Fire Departments, County
1	Hazardous Materials	Continue to participate in regional exercise that test local plans and interaction between local agencies.	County EM, All Cities, All Fire Departments
2	Civil Disturbance/ Terrorism	Schedule discussions with school leaders, hospital administrators, emergency managers, law enforcement and local units of government to address performance in response to terrorism, focusing on schools and hospitals.	County EM
3	Structure Fire	Provide public education to residents, focusing on carbon monoxide poisoning, evacuation, and smoke alarms.	County EM, All Cities, All Fire Departments
3	Structure Fire	Complete an annual inventory assessment of fire equipment, personnel, and training needs.	County EM, All fire departments

## 2023 Chippewa County Hazard Mitigation Goals, Objectives, and Strategies

### NATURAL HAZARDS

#### Violent Storms and Extreme Temperatures (Includes Windstorms, Tornadoes, Hail, Extreme Heat, Extreme Cold, Lightning, Winter Storms)

Goal 1: Have safe and accessible safe rooms from violent storms.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner(s)
1. Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	A. Educate contractors and homeowners on safe rooms.	Recurring	All Cities and County	\$500/city	Internal (County/cities)
	B. Assist with finding funding sources for and build safe shelters in all manufactured home parks, cities, city parks, county, and state parks and public golf courses. Identify a safe room for the campgrounds in cities and the greater county. Potential locations: <ul style="list-style-type: none"> <li>Buffalo Lake Park (aka, County Park #1)*</li> <li>Upper Campground at LqP State Park*</li> <li>Chippewa Co. Fairgrounds*</li> </ul> <b>(*Priority Level 1)</b> <b>*New Strategies, 2023</b>	Recurring	Cities, County, MN DNR	\$50,000-\$100,000/shelter	FEMA – (HMGP, BRIC), County, MN DNR
2. Investigate snow fences in Chippewa County.	A. Work with the landowner to continue to pile snow along the northwest perimeter of the city to serve as a temporary snow fence. <b>*Modified in 2023</b>	2024-25	Clara City, landowner(s)	Unknown	N/A
3. Require all new manufactured home parks to provide safe shelter for park residents either through a structure on site or a plan of evacuation to safe shelter off site.	A. Require that the safe shelter plans go through local governing unit each year for review.	Recurring	All Cities	N/A	Internal (Cities)
4. Ensure that all hospitals, schools and nursing home facilities have a severe storm plan in place to protect patients and students.	Each city and the County Emergency Manager should continue to do periodic visits and review plans annually. <b>(*Priority Level 1)</b>	Recurring	County Emergency Manager and facilities	N/A	Internal (County)
5. Educate residents of safe rooms in community and continue to address safe room needs in the county.	Build safe rooms as needed.	2-15 years	All Cities, County	\$100,000/shelter	FEMA – (HMGP, BRIC)

Goal 2: Improve severe storm warning system for all county residents.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Ensure that emergency management personnel, county sheriff, city police and emergency response persons are notified as soon as possible in the event of a severe storm.	A. Continue current programs and plans that are in place and periodically review the effectiveness of these plans.	Recurring	County EM, County Sheriff	N/A	Internal (County)
2. Assess adequacy of existing civil defense sirens and emergency operations centers.	A. Review countywide siren needs annually. Look for funding to provide new or improved warning systems as necessary.	Recurring	County EM	\$17,000/ Siren	USDA - Community Facilities Program
	B. Identify funding to purchase portable generators and transfer switches to community emergency operation centers. <b>(*Priority Level 1)</b>	2-3 years	Watson	\$6,500	FEMA – (HMGP, BRIC)
3. Ensure that all communities and rural areas of the county have immediate access to severe weather warnings and communications.	A. Encourage residents to sign up for CodeRED emergency notifications.  <b>*Modified Strategy, 2023</b>	Recurring	County EM	\$500	Internal (County)
4. Continue to train storm spotters.	A. Work with programs in place and periodically evaluate their effectiveness.	Every 2 years	County Emergency Manager, NWS	N/A	Internal (County)
5. Ensure emergency communications system is working  <b>*New Objective, 2023</b>	A. Conduct monthly test of 800MHz radio system (ARMER) to verify operability.  <b>*New Strategy, 2023</b>	Monthly	County EM, City/County Emergency department	N/A	Internal (County)

Goal 3: Protect people and infrastructure from the impacts of severe weather.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Prevent prolonged power outages due to wind and ice storms.  <b>*Revised Objective, 2023</b>	A. Work with utility companies to assess the safest placement of utility lines.	Recurring	County, All Cities, MN Valley Cooperative Light & Power, Xcel	N/A	Internal (County EM, cities)
	B. Underground burial of power lines where feasible.	Recurring	County, All Cities, MN Valley Cooperative Light & Power, Xcel	Will vary	FEMA – (HMGP, BRIC), USDA Rural Utilities Service,



	C. Upgrade aging powerlines where needed.  <b>*New Strategy, 2023</b>	Ongoing	MN Valley Cooperative Light & Power	Will vary on size of project	Utility provider(s)
	D. Test poles for rotting/weaking and replace as needed.  <b>*New Strategy, 2023</b>	Ongoing	MN Valley Cooperative Light & Power	Will vary on size of project	Utility provider(s)

## Flooding

### Goal 1: Eliminate nonconforming structures in the identified 100-year floodplain.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Enforce current zoning ordinances that provide for the amortization and elimination of existing nonconforming private structures and uses in identified 100-year floodplains.	A. Work with the state and federal government to provide funding to remove nonconforming structures (residences, businesses) from the floodplains.	Recurring	Montevideo, County EM	Unknown	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)
2. Buy out willing sellers of their structures in the 100-year floodplain including businesses in Montevideo.	A. Work with the state and federal government to provide funding to acquire and remove nonconforming structures in the Flood A and Flood B Zones.	Recurring	Montevideo	Unknown	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)
3. Relocate existing businesses still operating within 1% floodplain.  <b>*Modified Objective, 2023</b>	A. Work with the state and federal government to secure funding to relocate this nonconforming use.	As funding is available	County, City of Montevideo	\$350,000	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)

### Goal 2: Improve the safety and security of Wastewater Treatment Plants/lift stations.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Protect Maynard's Wastewater Treatment Plant	A. Build a berm along Hawk Creek.	2 years	Maynard	Unknown	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)

**Goal 3: Minimize the flooding along Hawk Creek.**

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Work with the City of Willmar to keep ice out of Clara City and Maynard.	A. The cities of Clara City and Maynard should participate in dialogue with the Hawk Creek Watershed Project, the City of Willmar and the MPCA. Investigate the diversion of water to Grass Lake especially during flooding. Consider seeking state or federal funding.	Recurring	Clara City, Maynard, Willmar, Hawk Creek Watershed Project	\$20,000	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)
2. Protect residences in Maynard from flooding.	A. Build a berm along Hawk Creek.	2 years	City of Maynard	Unknown	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)
3. Protect the Maynard Lutheran Cemetery from flooding.	A. Build a berm along Hawk Creek to protect the cemetery from flood events.	2 years	Maynard Lutheran Church, City of Maynard	Unknown	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)

**Goal 4: Improve the safety and security of flood prone areas throughout Chippewa County.**

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Establish a plan of action to address flood emergencies.	A. Identify resources both local and outside of the community that are needed and contract for this assistance.	Recurring	City staff of Clara City, Maynard, Milan, Montevideo, Watson, County EM	N/A	Internal (cities)
2. Identify flood concerns in Chippewa County Townships	A. Prioritize bridges and culverts with annual flood concerns. Determine strategies to mitigate repeatedly flooded infrastructure (ex. replacing bridges with clear-span bridges, replacing culverts). <b>(*Priority Level 2)</b>	2 years	County Engineer, Townships	N/A	Internal (County, townships)
	B. Identify and prioritize repeat flood-impacted township roads to be improved. <b>(*Priority Level 2)</b>	2 years	County Engineer, Townships	N/A	Internal (County, townships)

### Goal 5: Ensure continued compliance with NFIP standards for participating communities.

Below are strategies that Chippewa County and the three NFIP-participating communities have committed to in order to continue with NFIP compliance.

#### *Chippewa County Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps. ([Currently working with them.](#))
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.
3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.
4. Discourage zoning variances in Flood Hazard Areas.
5. Encourage all property owners in Flood Hazard Areas to purchase flood insurance.

#### *Clara City Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps. ([Currently working with them.](#))
2. Work with the MN DNR on a new Flood Plain Ordinance.
3. Discourage development in “flood-prone” areas.

#### *Mayard Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps. ([Currently working with them.](#))
2. Work with the MN DNR NFIP Coordinator or Floodplain and Shoreland Planner to adopt a new Flood Plain Ordinance.
3. Discourage development in “flood-prone” areas.

#### *Montevideo Strategies to Continue NFIP Compliance:*

1. Work with the MN DNR and FEMA to modernize floodplain maps. ([Currently working with them.](#))
2. Work with the MN DNR to review and update the Floodplain Management Ordinance as required.
3. Work with the MN DNR on all development applications in identified Flood Hazard Areas.
4. Discourage zoning variances in Flood Hazard Areas.
5. Encourage all property owners in Flood Hazard Areas to purchase flood insurance.
6. Continue to comply with Community Rating System requirements.

## Erosion

### Goal 1: Minimize property damage and reduce economic impacts of erosion.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Limit the potential loss of property and economic impact from river and ravine erosion, landslides, and slope failure.	A. Support demolition and/or relocation of dwellings and infrastructure to prevent loss of property due to erosion, landslides, or slope failure	Recurring	County Emergency Manager	Will vary	FEMA (HMGP, BRIC, FMA); MN DNR (FDR)

2. Educate the public on possible effects of erosion, landslides, and slope failure.	A. Increase public awareness and knowledge on erosion landslides, and slope failure, targeting individuals and businesses located in high-risk areas.	Recurring	County Emergency Manager, County Zoning	N/A	Internal (County, cities)
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## Drought

Goal 1: Monitor the county's ground water supplies and demands.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Monitor levels of aquifers.	A. Continue and expand the monitoring of ground water levels in order to control consumption during a drought.	Recurring	County and All Cities	N/A	County, SWCD, DNR Hydrologist

Goal 2: Adopt a wellhead protection ordinance.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Coordinate with and encourage cities within the county to keep wellhead protection ordinances/plans up to date.  *Modified Objective, 2023	A. Implement wellhead protection ordinances/plans.	2-10 years	County and All Cities	N/A	Internal (County, cities)

## Wildfire

Goal 1: Prevent Wildfires					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Minimize the amount of natural fuel in areas prone to fire damage.	A. Work with the Minnesota DNR to include prescribed burning on all county lands and parks. Work with FSA to educate landowners about cost share funding available for controlled burns on CRP and CREP lands. Provide regulations in conservation plantings that consider controlled burns in the future.	Recurring	County SWCD, FSA, DNR	N/A	Internal (SWCD, DNR, FSA)

2. Provide education to the public about wildfire prevention.	A. Work with the FSA office to provide education to landowners. Some landowners may not realize that burning is allowed and beneficial.	Recurring	County SWCD, FSA	N/A	Internal (SWCD, FSA)
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## Goal 2: Minimize structure loss from wildfire.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Have access to additional firefighters other than those already in the county for large wildfires.	A. Create a contract between DNR and local fire departments to organize response to large wildfires. This contract should address the entities responsible for wildfires on state and federal-owned land and who pays expenses.	Recurring	Clara City, Maynard, Milan, Montevideo, DNR	N/A	Internal (cities, DNR)

## Goal 3: Increase available resources related to wildfire prevention and response *(\*New goal, Goal 3 in 2015 plan was left blank.)*

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Provide education to the public about wildfire prevention.	A. Work with local units of government, fire departments and schools to provide educational fire safety materials to the public.  <b>(*Priority Level 3)</b>	Recurring	Clara City, Maynard, Milan, Montevideo	N/A	Internal (City FDs)
2. Promote training programs between the DNR and local firefighters.	A. Encourage DNR to give training locally.	Recurring	Clara City, Maynard, Milan, Montevideo, DNR	N/A	Internal (cities)
3. Increase access to equipment suitable to fighting wildfires.	A. Work with DNR to provide more equipment for local fire departments. Look for grants for additional equipment if necessary.  • UTV replacement for Maynard FD* <b>(*New Strategy, 2023)</b>	Recurring	Clara City, Maynard, Milan, Montevideo	Varies according to FD	USDA - Community Wildfire Defense; FEMA - Asst. to Firefighters Grant Program

## Dam Failure

### Goal 1: Prevent structure from cracking or breaking.

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Ensure dam structures are maintained and functioning properly.	A. Coordinate dam inspections with the DNR and Army Corps of Engineers and County departments.	Recurring	DNR, ACOE, County Sheriff, County Highway Department	N/A	Internal (County)

### Goal 2: Provide safety to residents

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Minimize development within floodplains.	A. Enforce floodplain ordinances.	Recurring	County Land & Resource Management, Maynard, Montevideo	N/A	Internal (County)

## MANMADE & TECHNOLOGICAL HAZARDS

### Infectious Disease

Goal 1: Reduce the threat of infectious diseases through education and awareness.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Support and maintain programs that keep the county healthy and safe from infectious diseases.	A. Continue to support Countryside Public Health programs.	Recurring	Countryside Public Health & County	N/A	Internal (County, CSPH)
	B. Work to make sure mass transportation and mobile community can address infectious disease outbreak.	Recurring	Countryside Public Health, Prairie Five Rides	N/A	Internal (CSPH, P5 Rides)
	C. Work with State of Minnesota on Quarantine/Isolation plan.	Recurring	Countryside Public Health	N/A	Internal (CSPH)
2. Educate the public.	A. Get uniform, accurate and up-to-date information out to the public through the risk communication service.	Recurring	Countryside Public Health	N/A	Internal (CSPH)
	B. Continued cooperation with Emergency Manager, Countryside Public Health and hospitals and clinic staff.	Recurring	Countryside Public Health, County Emergency Manager, Hospital and Clinic Staff	N/A	Internal (County, CSPH, Hospital, clinics)
3. Ensure all community members receive updated public health and emergency information.	A. Partner with ECHO Minnesota to provide public health and emergency information in the languages of all immigrants and refugees.	Recurring	Countryside Public Health, County Emergency Manager, Hospital and Clinic Staff	N/A	Internal (County, CSPH, Hospital, clinics)
	B. Adapt to early warning systems that become available.  <b>*New Strategy, 2023</b>	Recurring	Countryside Public Health, County Emergency Manager, Hospital and Clinic Staff	N/A	Internal (County, CSPH, Hospital, clinics)
Goal 2: Improve the effectiveness and quality of the various efforts addressing infectious diseases that have the potential to impact the county.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Maintain and update material, plans, and agreements for addressing infectious diseases.	A. Maintain partnerships and good communication networks to address potential disease outbreak situations/public health emergencies  <b>*Modified Strategy, 2023</b>	Recurring	Countryside Public Health, County Emergency Manager, Hospital and Clinic Staff, MN Dept. of Health	N/A	Internal (County, CSPH, Hospital, clinics, MN DPH)

## Structural Fire

Goal 1: Protect structures from fire.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Provide residents with adequate knowledge of fire safety.	A. Continue fire education programs.	Recurring	All Fire Departments, Schools	<\$500	Internal (FDs)
2. Ensure fire departments have adequate staff, communication equipment, and firefighting equipment to save lives and protect property.	A. Complete an annual inventory assessment of equipment, personnel, and training needs.  (*Priority Level 3)	Annually	All Fire Departments	N/A	Internal (FDs)
3. Provide adequate and timely fire protection for all cities in Chippewa County.	A. Improve efficiency of emergency response boundaries in rural areas for local departments.  *New Strategy, 2023	Within next 5 years	County EM, Townships	N/A	Internal (County, townships)
4. Provide adequate fire protection for large rural structures and facilities  *New Objective, 2023	A. Identify large facilities such as crop and livestock producers or rural manufacturers (Grain drying, dairies, animal confinements, etc.)  *New Strategy, 2023	Within next 5 years	All Fire Departments	N/A	Internal (FDs)
	B. Identify nearest water supply and available capacities.  *New Strategy, 2023				
	C. Work with property owner(s) to develop plan for fire response in event of emergency.  *New Strategy, 2023				



Goal 2: Provide safety to residents					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Educate the public about fire safety.	A. Provide public education to residents, focusing on carbon monoxide poisoning, evacuation and smoke alarms.  (*Priority Level 3)	Recurring	All City Fire Departments	<\$500	Internal (FDs)

## Hazardous Materials

Goal 1: Provide useful and factual information about hazardous materials located in the county.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Support policies and programs that assist in creating factual and timely information about hazardous material in the county.	A. Continue current programs and periodically evaluate their effectiveness.	Recurring	Emergency Manager, All City Fire Departments	N/A	Internal (County, FDs)
2. Make sure emergency personnel have hazardous material location information.	A. Continue to use 911 systems which distribute information to emergency personnel.	Recurring	All City Fire Departments	N/A	Internal (FDs)
3. Educate the public about hazardous materials.	A. Provide public education to residents on hazardous materials and proper disposal.	Recurring	County Land & Resource Management	>\$500	Internal (County L&RM)
4. Periodically inventory and map hazardous material sites in the county.	A. Provide educational material to businesses that use hazardous material.	Recurring	County Emergency Manager	>\$500	Internal (County EM)
5. Work with County and cities to address awareness of dangerous drug use.  *Modified Objective, 2023	A. Educate the public on the slogan, "if you see something, say something."  *Modified Strategy, 2023	Recurring	County Emergency Manager	N/A	Internal (County EM)

**Goal 2: Continue the effective efforts addressing hazardous material that may impact the county.**

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Maintain and update information, plans, and agreements for addressing hazardous material.	A. Review and update the Chippewa County Emergency Operations Plan outlining procedures dealing with hazardous material on an annual basis.	Recurring	County Emergency Manager	\$20,000	FEMA – EMPG; MN HSEM - HMEP
	B. Continue to expand the use of mutual aid agreements and memoranda of understandings to improve coordination between state, local and federal agencies and appropriate private sectors.	Recurring	County Emergency Manager, area emergency response departments	N/A	Internal (County EM)

**Goal 3: Improve overall preparedness and equipment for handling hazardous events.**

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Adopt new technology and obtain training to improve the county's ability to respond to a disaster.	A. Need proper personal protection equipment to respond to hazardous materials disasters for Fire Departments, Law Enforcement, and Ambulance/EMT Departments as applicable to each city.	2 years	County and all Cities	\$5,000	FEMA - AFG
	B. Continue to participate in regional exercises that test local plans and interaction between local agencies. (*Priority Level 1)	Recurring	County and all Cities	\$4,000/year	Internal (County EM), HSEM, FEMA Region 5
	C. Continued training in the use of the Nation Incident Management System for all hazard materials incidents that may occur in the county.	Recurring	County EM	\$3,500	FEMA - AFG
	D. Ensure that all Emergency Responders participate in Rail Car Incident Response Training. (*Priority Level 1)	Recurring	County Emergency Manager, All City Fire Departments	N/A	Internal (County EM)
	E. Encourage that emergency responder groups, fire department, and emergency managers are trained to at least the Hazardous Materials Awareness level.	Recurring	County EM, FDs, emergency response departments	\$4,000	Internal (County EM) HSEM, FEMA Region 5

	F. Ensure that the first responder groups conduct the required terrorism and hazardous materials training and maintains current records on all completed training.	Recurring	County EM, first responder departments	N/A	Internal (County EM)
	G. Create Standard Operating Procedures for how to handle hazardous events.	5 years	County EM	N/A	Internal (County EM)

## Water Supply Contamination

Goal 1: Protect the quality of the county's ground water resources.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Reduce contamination from feedlots.	A. Continue to monitor and regulate locations of feedlots.	Recurring	County Land & Resource Management	N/A	Internal (County L&RM)
2. Reduce contamination into private wells.	A. Provide educational materials on testing private wells.	Recurring	County Land & Resource Management, Countryside Public Health	N/A	Internal (County L&RM)
3. Minimize contamination of ground water from unused or abandoned wells.	A. Continue the abandoned well sealing program within the county.	Recurring	County Land & Resource Management, County SWCD	N/A	Internal (County L&RM, SWCD)

Goal 2: Focus on efforts in areas more prone to ground water contamination.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Implement the wellhead protection program for the county.	A. Keep implementation of wellhead protection a top priority in the county.	Recurring	Cities, County Land & Resource Management	N/A	Internal (County L&RM)

## Wastewater Treatment Facility Failure

Goal 1: Protect the quality of the county's ground water resources.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Ensure that all public facilities are working properly.	A. Continue updating sanitary sewer systems and securing funding to make these updates.	Recurring	All cities	Will vary	USDA - Community Facilities; MN PFA – Clean Water SRF

## Civil Disturbance /Terrorism

Goal 1: Protect critical infrastructure.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Install security measures at city water treatment plants.	A. Install alarms on buildings.	3-4 years	Clara City, Maynard, Montevideo	\$300-500 each	Internal (Cities)

Goal 2: Reduce risk to critical government facilities.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Increase the level of security using landscape design, vehicle barriers and separation of public and private functions.	A. Continue to review landscape design to improve security of current structures and develop appropriate design for new structures.	As needed	All Cities, County Sheriff's Dept., County EM	Will vary	Internal (County, cities)

Goal 3: Increase security at major public gathering places.					
OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Increase level of security with restricted access points, increased surveillance, and lighting.	A. Continued review of facilities and make changes as needed.	Recurring	Montevideo, County Sheriff's Dept.	Will vary	Internal (County EM/ Sheriff's Office)
*Modified Objective, 2023					

**Goal 4: Decrease vulnerability of regional and state resources in the county.**

OBJECTIVES	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner
1. Work with state and federal agencies engaged in the statewide domestic preparedness strategy to identify further options for the county.	A. Schedule discussions with school leaders, hospital administrators, emergency managers, law enforcement and local units of government to address performance in response to terrorism, focusing on schools and hospitals.  (*Priority Level 2)	Recurring	County Emergency Manager, County Sheriff's Dept.	\$5,000	Internal (County EM)

## Chapter 6 : PLAN IMPLEMENTATION & MAINTENANCE

The Chippewa County All-Hazard Mitigation Plan is intended to serve as a guide for dealing with the impact of both current and future hazards for all county people and institutions. It is not a static document but must be modified to reflect changing conditions if it is to be an effective plan. The goals, objectives, and mitigation strategies will serve as the action plan. Even though individual strategies have a responsible party assigned to it to ensure implementation; overall responsibility, oversight and general monitoring of the action plan has been assigned to the Chippewa County Emergency Manager. It will be their responsibility to gather a Local Task Force to update the All-Hazard Mitigation Plan on a routine basis. Every two years, the County Emergency Manager will call a meeting to review the plan, mitigation strategies and the estimated costs attached to each strategy. All participating parties of the original Local Task Force and cities will be invited to this meeting. Responsible parties will report on the status of their projects. Committee responsibility will be to evaluate the plan to determine whether:

- Goals and objectives are relevant.
- Risks have changed.
- Resources are adequate or appropriate.
- The plan as written has implementation problems or issues.
- Strategies have happened as expected.
- Partners participating in the plan need to change (new and old).
- Strategies are effective.
- Any changes have taken place that may affect priorities.
- Any strategies should be changed.

In addition to the information generated at the Local Task Force meetings, the County Emergency Manager will also annually evaluate the All-Hazard Mitigation Plan and update the plan in the event of a hazardous occurrence. Two-year updates are due on the anniversary of the plan approval date.

After the second update meeting (four years will have passed), the Chippewa County Emergency Manager will finalize a new Local Task Force to begin the required five-year update process. This will be accomplished in coordination with cities and the entire All-Hazard Mitigation Plan shall be updated and submitted to FEMA for approval (within five years of plan adoption). These revisions will include public participation by requiring a public hearing and published notice, in addition to multiple Local Task Force meetings to make detailed updates to the plan.

Public participation for updates is as critical as in the initial plan. Public participation methods that were used in the initial writing will be duplicated for future update processes – direct mailing list of interested parties, public meetings, press releases, questionnaires, and resolutions of participation and involvement. Additional methods of getting public input and involvement are encouraged such as placing copies of the plan in the Chippewa County Emergency Manager's Office and city offices, in addition to placing the plan on the Chippewa County and UMRDC websites. Further, cities will be encouraged to place a notice on their websites stating the plan is available for review at the city offices.

Notifications of these methods could be placed in chamber newsletters, the UMRDC newsletter and newspapers. Committee responsibilities will be the same as with updates.

Chapter 5 focuses on mitigation strategies for natural hazards and man-made/technological hazards. Appendix VII focuses on city-specific mitigation strategies for both natural and manmade/technological hazards. The All-Hazard Mitigation Plan proposes a number of strategies, some of which will require outside funding in order to implement. If outside funding is not available, the strategy will be set aside until sources of funding can be identified. In these situations, Chippewa County and its cities will consider other funding options such as the county's/cities' general funds, bonding and other sources. Based on the availability of funds and the risk assessment of that hazard, the county will determine which strategies should be continued and which should be set aside. Consequently, the action plan and the risk assessment serves as a guide to spending priorities but will be adjusted annually to reflect current needs and financial resources.

This last step requires an evaluation of the strategies identified in the goals and policies framework, selecting preferred strategies based on the risk assessment, prioritizing the strategy list, identifying the entity responsible for carrying out the strategy, and the timeframe and costs of strategy completion. Chippewa County and cities have incorporated the preferred strategies including identification of the responsible party to implement, the timeframe and the cost of the activity with the goals and policies framework.

This plan will be integrated into other Chippewa County plans such as the County Comprehensive Plan, County Water Plan, County Transportation Plan, and the Emergency Operations Plan. Chapter 1 will serve as an executive summary to the All-Hazard Mitigation Plan and be attached to those plans as necessary. The County Board and Emergency Manager will encourage cities to implement their city-specific mitigation strategies in their comprehensive plans, land use regulations, zoning ordinances, capital improvement plans and/or building codes by including mitigation strategies in their plans as listed in Table 6.1. Further, as each land use mechanism is updated, mitigation strategies will be evaluated to determine whether they can implement or include them at that time. This evaluation will consist of basic cost-benefit analyses, much like what was used to create the mitigation strategies.

**Table 6.1 Chippewa County & Cities - Local Planning Mechanisms**

Planning Mechanisms	Jurisdictions
Comprehensive Plan	Chippewa County, Clara City, Maynard, Milan, Montevideo
Emergency Operations Plan	Chippewa County
Local Water Management Plan	Chippewa County
Watershed Plan	Chippewa County
Zoning Ordinance	Chippewa County, Clara City, Maynard, Milan, Montevideo, Watson
Building Code	Chippewa County, Milan, Maynard, Montevideo
Floodplain Ordinance	Chippewa County, Clara City, Montevideo, Maynard
Shoreland Ordinance	Chippewa County

Many of these plans or policies can help implement the goals, objectives, and strategies in Chippewa County's All-Hazard Mitigation Plan. The Chippewa County Emergency Manager is responsible for meeting with each city within the County two times throughout the next five years. During these meetings, the Emergency Manager will review all Local Planning Mechanisms and collaborate with the cities to ensure the All-Hazard Mitigation Plan becomes as integrated into local plans as possible. As adopted versions of Chippewa County's All-Hazard Mitigation Plan will be available at all city offices, during these meetings the Emergency Manager will solicit and collect any public comments relevant to the plan and make a record for the upcoming update process to be discussed at a Local Task Force meeting. These Local Planning Mechanisms are meant to work cooperatively together in order to ensure the health, safety, and welfare of Chippewa County and its cities.



# **Appendix I**

## *Public Outreach*

- *Planning Kickoff notices*
- *Mitigation Ideas Survey*
- *Minutes of City Council meetings*
- *Public comment period outreach*

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

The Chippewa County Office of Emergency Management is working with the Upper Minnesota Valley Regional Development Commission 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, thunderstorms, winter storms, 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 Chippewa County MHMP is a multi-jurisdictional plan that covers Chippewa County, including the cities of Milan, Clara City, Watson, Montevideo, and Maynard. The Chippewa County MHMP also incorporates the concerns and needs of townships, school districts, and other stakeholders participating in the plan. The plan will be updated by a planning team made up of representatives from county departments, local municipalities, school districts and other key stakeholders.

"Hazard mitigation planning is a central part of our emergency management program," said Stephanie Weick, Chippewa County Emergency Management Director. "Understanding the natural hazards that can cause serious impact to our communities and taking action to reduce or eliminate the impact of future disasters makes us more resilient. Hazard mitigation helps us to break the cycle of damage and repair caused by things like flooding, ice storms, and severe wind events that can damage property, stress economies, and threaten life safety in our county."

Examples of hazard mitigation include actions include improvement of roads and culverts that experience repetitive flooding; construction of safe rooms at campgrounds, public parks, mobile home parks or schools to protect lives in the event of tornados or severe wind events; burying powerlines that may fail due to heavy snow, ice or wind storms; ensuring timely emergency communication to the public through warning sirens and mass notification systems, and conducting public awareness and education campaigns to help people to be prepared to take safe action before, during, or following a hazard event. Some mitigation activities may be eligible for future FEMA Hazard Mitigation Assistance grant funding.

Public input is an essential part of the plan update. As part of the planning process, Chippewa County is seeking feedback from residents and businesses from across the county to incorporate into the plan:

- What are the natural hazards you feel pose the greatest risk to your community?
- Have you experienced a previous disaster event?
- What concerns do you have, and what sorts of mitigation actions or projects do you feel would help to reduce the damages of potential future events for your personal property, your community, or the county as a whole?

Comments, concerns, or questions regarding natural disasters and potential mitigation actions to be included into the plan update process should be submitted to Chippewa County Emergency Management (see contact information below). Public comments may also be submitted on the Chippewa County Sheriff's Office Facebook page where this news release will be posted.

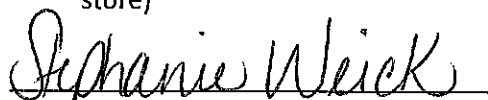
There will be additional opportunities for public feedback throughout the planning process. A draft of the plan will be posted on the county website for public review prior to submission of the plan to the State of Minnesota. Future news releases will be shared with the media to notify the public of these opportunities. The Federal Disaster Mitigation Act of 2000 (DMA 2000) requires counties to update their plan every 5 years to maintain eligibility for FEMA's Hazard Mitigation Assistance (HMA) grant programs.

Contact:

Chippewa County Emergency Management  
Stephanie Weick, Director  
629 N. Eleventh Street  
Montevideo, MN 56265  
320-269-2121

This notice was posted at the following locations on January 25, 2023:

- Clara City Post Office
- Maynard Post Office
- Milan Post Office
- Watson Post Office
- Montevideo Market (grocery store)



Signed by: Stephanie Weick,  
Chippewa Co. Emergency Management

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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."

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### Contact:

Chippewa County Emergency Management  
Stephanie Weick, Director  
629 N. Eleventh Street  
Montevideo, MN 56265  
320-269-2121

# BUDGER'S

*Dinner House*  
Main St. Maynard

320-367-2110

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FOR MAYNARD ALL-CLASS REUNION**

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Chippewa County Emergency Management Facebook posts notifying the public of planning process – August 2, 2022



Chippewa County Emergency Management Facebook posts asking for public input during the public of planning process – January 25, 2023



Insert scan of Clara City newspaper

## Summary of Mitigation Ideas Worksheets

Jill Rothschadl, Minnesota Valley Cooperative Light & Power  
[jillr@mnvalleyrec.com](mailto:jillr@mnvalleyrec.com)  
320-269-2312

Hazard	Description of Concern or Proposed Mitigation Action
Trees falling on powerlines	Maintain adequate clearance around lines. Inspect and take down hazardous trees.
Powerlines falling due to strong winds	Upgrade lines/pole strength if possible in some areas Test poles for rotting/weakening

Steven Jones, City Administrator, City of Clara City

Hazard	Description of Concern or Proposed Mitigation Action
Flooding, Minnesota River and Hawk Creek	Continue with flood protection and flood mitigation in Montevideo and Clara City
Heavy Rain	Storm water ponds, water gardens, signage (for vulnerable areas)
Tornadoes	Early warning, protection for vulnerable populations and areas
Wind Damage	Early warning, building practices that encourage protection devices or anchors, tree trimming. In the winter, blowing snow and SNIRT!!  Wind breaks for blizzard areas (Highway 7 from Montevideo to Clara City, and others.)
Blizzards	Vehicles and personnel for rescues. Shelters for traveling public stuck in our communities.
Train or truck spills.	Evacuation plans and warnings. Clean-up crews. First responder training and equipment.

**Bill Pauling, Chippewa County Commissioner**

Medication idea number one

What I think we should prepare for in the event of a perfect storm pandemic

Water should be number one priority we should have a RO system (reverse osmosis) in place that can produce drinkable water enough to sustain several thousand people. I feel water is very sensual and with the grid knock down from a storm how are we going to produce it we need a mobile RO system in place The military is already figured this out and they have these systems.

#### Pandemic

We should have a place for ill people that can house a few hundred patients and keep these people away from the healthy population a pre-plan on this place would be a good plan to start with. I always try to think of an area that's only used once or twice a year that has buildings water sewer some heat (Chippewa county fairgrounds) something that could be and made into a mash style hospital.

On the last pandemic they put this sick people with the healthy people and turn what happened thousands perished because they spread the pathogen.

I was told once when I was on Pandemic vital needs committee that Hennepin County's plan of action is in a perfect storm pandemic go back where you came from Chippewa County would burst with population in just a few days

#### **Dave Lieser, Chippewa County Commissioner**

Here is my list:

1. Power outages that may extend for more than days. In my view, that would be potentially very impactful.
2. In a related issue, systematic computer failure over an extended time frame through malware, ransomware, virus, etc.
3. Extreme weather events.

#### **Jim Schmaedeka, Louriston Township**

**320-212-0642** [jimnlori@hcinet.net](mailto:jimnlori@hcinet.net)

Hazard Electrical Power outage due to weather - Could possibly bury power lines, but the high transmission lines and substations and transformers can't be buried

Wild Fires - With the CRP and CREP land around I think the county should mandate fire buffer zones around farm sites, etc.

**Name:** Jeremy Gilb, Chippewa County Highway Department

**Phone:** 320-269-2151

**Email:** [jeremy.gilb@chippewa.mn](mailto:jeremy.gilb@chippewa.mn)

Flooding

Tornados

Hail, lightning, and high windstorms

Winter Storms

Extreme heat

Extreme cold

Infectious disease

Water supply contamination

# 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. Please return this form via email to your county Emergency Manager (Stephanie.Weick@Chippewa.MN) to submit your feedback.

**NAME OF JURISDICTION:**

**CONTACT INFORMATION**

**Name:**

**Phone:**

**Email:**

Hazard	Description of Concern or Proposed Mitigation Action



**MEETING MINUTES  
CLARA CITYCITY COUNCIL  
REGULAR MEETING  
Tuesday  
March 14, 2023  
6:30 PM  
CITY HALL COUNCIL CHAMBERS  
CLARA CITY, MINNESOTA**

---

**Members Present:** Mayor Daniel Pieper, Rhonda Pieper, David Plagge, Mark Miller and LeAnn Nord

**Staff Present:** Steve Jones (City Administrator), Jeff Stager (Public Works Director), Matt Blum (Care Center Administrator), Shane Nord (Fire Chief), Derek Olson (Sheriff), City Engineer Mike Amborn

**Others Present:** Kali Camacho (CC Herald), Lowell Schwitters

**1. Call to Order:** By Mayor Pieper at 6:31 PM.

***Note:** This meeting is being officially recorded. Any and all commentary must be communicated through the microphones at the Council and Staff tables or through the microphone attached at the speaker's podium. Also, please silent all cell phones and do not use them during the meeting.*

**2. Additions/Deletions/Modifications to Agenda**

- 1) (8C) Fire Dept. Request-Permission for Alcohol Use
- 2) (13-B) Revised Engineers Report and Revised Resolution

**Action Taken:** M/S/P 5-0 (R. Pieper, Plagge) to approve the additions to the agenda.

**3. Approval of Minutes:**

- (A) Planning Commission February 1, 2023 **Cancelled**
- (B) EDA February 13, 2023 **Cancelled**
- (C) Regular Council Meeting February 14, 2023

**Action Taken:** M/S/P 5-0 (Plagge, R. Pieper) to approve the minutes as presented.

#### **4. Licenses and Permits:**

(A) **Approval of License and Permit Consent Items.** *If acceptable, please approve the following agenda items in one motion without further discussion. If not acceptable, please request that any objectionable item(s) be moved to 3(B), non-consent licenses and permits or into the new business section of the agenda and then proceed to approve the remaining item(s) in a single motion.*

(1) **Review of the “Application for Construction Permit(s)”** for the month of February 2023 approved by City Staff: **NONE**

(B) **Non-Consent License and Permit Items:** **NONE**

#### **5. Public Hearing-** **NONE**

#### **6. Correspondence, Notices and Communications:** **NONE**

#### **7. Appearance or Citizens with Scheduled Items for City Council to Consider.** *(Items must be included in the City Council Agenda to be considered.)* **NONE**

#### **8. Reports from Staff and Administrative Officers**

(A) **Public Works Department** (Jeff Stager, Director of Public Works)  
**No further information given.**

(B) **Ambulance Service** (Ben Schoep, President) **Not in attendance.**

Consideration of approval for new employee Nicholas Pieper for ambulance service-first responder.

**Action Taken:** M/S/P 3-0-2 (Plagge, Miller) Plagge, Miller and Nord AYE, D. Pieper and R. Pieper ABSTAIN.

(C) **Fire Department** (Shane Nord, Fire Chief) see *attached report*  
Chief Nord gave a brief update on activities, and explained about the “Use of Alcohol” request for the Retired Firefighter Dinner.

**Action Taken:** M/S/P 5-0 (R. Pieper, Plagge) to approve the use of alcohol for March 20<sup>th</sup> Retirement Party on City Property.

(D) **Clara City Care Center** (Matt Blum, Administrator) –*See agenda item No. 13 A*

(E) **City Administrator** No further information supplied.

(F) **Sheriff Dept**— Sheriff Olson was on hand to give a report of activities since January, and to review the Preliminary Hazard Mitigation Plan. In addition, further conversation, and a request for assistance was asked by staff to the Sheriff to help approach MNDOT about the winter conditions on area highways.

(G) **Librarian** – Larissa Schwenk was on hand to review and discuss the annual report. Activities seem to be increasing since COVID.

**9. Reports from Boards, Commissions, Council Members and Mayor:**

(A) **Planning Commission** February 1, 2023 **Cancelled, no report.**

(B) **EDA** February 13, 2023 **Cancelled, no report.**

(C) **Council Members** No report.

(D) **Mayor** No report.

**10. Appearance of Interested Citizens:** Meeting Open to the Public to Discuss Items NOT scheduled under Item 6. *Please present yourself at the podium and after being recognized by the mayor, clearly state your name and address for the record, and then address your concern to the entire City Council, doing so within a maximum of three (3) minutes. Your items of concern will generally not be debated or discussed, but may be assigned to staff for further investigation.*  
**NONE**

**11. Old Business:** **NONE**

**12. New Business Consent Agenda:** *If acceptable, please approve the following agenda items in one motion without further discussion. If not acceptable, please request that any objectionable item(s) be moved to the end of the New Business section of the agenda and then proceed to approve the remaining item(s) in a single motion.* **NONE**

**REGULAR MEETING  
APRIL 10, 2023**

The regular meeting of the City Council of Maynard was held on Monday, April 10, 2023 at the Maynard Community Center. Acting Mayor Roberts called the meeting to order at 7:00 p.m.

Present: Roberts, Maurice, Degner, Pierskalla, Clerk Strassburg and Miller

Absent: Groothuis

Also present: S. Weick, M. Mickels, D. Mueller, J. Suckow and J. McDonald

**APPOINTMENTS:**

Stephanie Weick of Chippewa County was here to go over the Hazard Mitigation Strategies. After a brief review it was decided to move forward with the plan that is in place.

**PUBLIC WORKS:**

Council reviewed quotes for a new mower. It was decided to sell the current mower privately rather than trade and order the new mower from Warren's. Streets will be swept as soon as we are able. As of right now there is no immediate flood concern.

**FIRE DEPARTMENT:**

The new Can-Am ATV is here. Pancake feed was Saturday, April 8<sup>th</sup>.

**ECONOMIC DEVELOPMENT:**

Meyer is working with a local person to open a new business in town.

**OLD BUSINESS:**

We received an estimate on block work to start redoing landscape around the Community Center. We will not know exactly how much will need to be done until we remove the old retaining wall. Miller said that could begin soon.

**MOTION BY MAURICE AND SECOND BY PIERSKALLA TO ACCEPT THE ESTIMATE BY LAKE COUNTRY. MOTION CARRIED.**

**NEW BUSINESS:**

Zoning permit issued to 310 Jessie for doors, windows, steps and railings. Quote from Leap Forward for IT support for office.

**MOTION BY MAURICE AND SECOND BY PIERSKALLA TO APPROVE CONTRACT WITH LEAP FORWARD. MOTION CARRIED.**

**MOTION BY DEGNER AND SECOND BY PIERSKALLA TO APPROVE MEETING MINUTES. MOTION CARRIED.**

**CORRESPONDENCE:**

Representative called from Clara City Care Center asking if in the case of emergency that our Event Center could be utilized. Council agreed that would be fine.

**CONCERNS OF COUNCIL AND RESIDENTS:**

Question on when train cars will be picked up. That will be done on BNSF's time. Resident interested in community involvement, Strassburg took her number for future projects. Maurice wondering if council packets could be done a full week before meeting, that would be fine except for bills. Cargill is looking to do tour with FD.

**MOTION BY MAURICE AND SECOND BY PIERSKALLA TO ADJOURN AT 7:50 P.M. MOTION CARRIED.**

Milan Meeting Minutes  
Tuesday, May 2, 2023  
7:00 p.m.

Mayor Ronald Anderson called the monthly meeting to order on Tuesday, May 2, 2023 7:00 p.m. in Milan Community Hall.

Pledge of Allegiance was recited.

Present: Ronald Anderson, Heidi Hanson, Jeff Higgins, Jennifer de Calderen and Katrina Lund

Also Present: Vernon Berge, Gary Andrews, Gary Kleven, Ann Thompson, Merle Hilden, Paul Belseth, Roni Bryan, Tom Tillma, Sue Tillma, Gwen Olson, Stephanie Weick and Martha Rodriguez.

Motion was made by council member Hanson, seconded by council member Lund to approve April 17, 2023 meeting minutes. Motion approved unanimously.

Motion was made by council member Lund, seconded by council member Higgins to approve April 24, 2023 special meeting minutes. Motion passed unanimously.

Jim Dittbenner presented the water report to council via paper. He was absent.

Gwen Olson will look into finding a few donations for the new deliberators that were purchased.

Stephanie Weike was at the meeting the discuss the Hazardous mitigation plans. More information will be available when all aspects are put together.

Concerns of the public:

None

Old business:

RLF reports were reviewed and approved.

The church is looking at quotes for a generator for the emergency shelter at Kvistseid.

. Council member Hanson stated that the Coucnil was elected to work for the residents of the City. When 75% of the residents that came to the meeting that were against Chickens why would we continue to pursue this action. Motion was mady be council member Higgins, seconded by council member Lund to approve more information on pros and cons along with more knowledge. Also draft a possible ordinance. Motion was passed with 3 in favor and 1 against.

CITY OF MONTEVIDEO  
CITY COUNCIL PROCEEDINGS  
March 20, 2023

The city council met in regular session Monday, March 20, 2023 in the council chambers at city hall. Council President Schmidt called the meeting to order at 7:00 P.M. with the Pledge of Allegiance.

Council members present: Nathan Schmidt, Bryce Curtiss, Dan Sanborn, Beverly Olson and Steve Sulflow. Absent: None. Mayor Erich Winter present.

Also present: City Manager Robert Wolfington, City Attorney Janice Nelson, City Engineer Mike Amborn and City Clerk Glennis Lauritsen.

It was moved by Sulflow, seconded by Curtiss and unanimously passed to approve the agenda, with the following modifications:

**MODIFY:    5A)    CONSIDER APPROVAL OF VERIFIED CLAIMS FOR THE  
PERIOD ENDING MARCH 16, 2023 IN THE AMOUNT OF  
~~\$131,544.06~~ \$201,551.03.**

The revised list reflects the following additions/deletions:

**LIQUOR**

Southern Glazer's of MN - Inventory	\$ 6,706.29
Johnson Brothers Liquor Co. - Inventory	7,346.15
Johnson Brothers Liquor Co. - Inventory	3,814.40
Madison Bottling Company - Inventory	2,349.95
Dahlheimer Beverage - Inventory	10,362.72
Johnson Brothers Liquor Co. - Inventory	4,588.48
Johnson Brothers Liquor Co. - Inventory	4,118.05
Breakthru Beverage - Inventory	7,493.78

**MISCELLANEOUS**

Xcel Energy - Electric bills	10,236.00
------------------------------	-----------

**PUBLIC WORKS**

Heartland Electric - (6) Used Electrical Poles	3,841.56
--	----------

POOL

Associated Supply Company, Inc. - Drain Cover

9,149.59

**MODIFY: 8B) CONSIDER INTRODUCTION OF AN ORDINANCE  
ESTABLISHING A STORM WATER UTILITY FUND FOR THE  
CITY OF MONTEVIDEO.**

Ordinance provided.

It was moved by Sanborn, seconded by Olson and unanimously passed to approve the minutes of the Regular Meeting of March 6, 2023, as presented.

4. Notices/Communications/Announcements or Appearance of Interested Citizens.

- 4(A) Stephanie Weick, Chippewa County Emergency Management Director, was in attendance to present hazard mitigation summary information and to discuss goals/strategies moving forward. Written materials had been provided to the council for discussion purposes which addressed the continuing activities being undertaken to plan for and respond to the various forms of natural disasters.

It was the consensus of the council that the Mitigation Plan, as developed and updated, accurately identifies the needs and goals of the community. Therefore, the county will continue to refine the document and present a final draft for review at a future meeting.

5. Consent Agenda.

It was moved by Sanborn, seconded by Sulflow and unanimously passed to approve the following consent agenda items:

- 5(A) VERIFIED CLAIMS FOR THE PERIOD ENDING MARCH 16, 2023 IN THE (MODIFIED) AMOUNT OF \$201,551.03.
- 5(B) SALE OF SEIZED/SURPLUS ITEMS BY THE POLICE DEPARTMENT (2001 DODGE RAM 1500 PICKUP | 2005 NISSAN MAXIMA | 1994 DODGE DAKOTA PICKUP | 2002 SATURN COUPE | 2005 HONDA PILOT | 2003 HONDA | 2002 FORD F150 PICKUP | 2001 CHEVROLET SILVERADO.)

# **Watson City Council Meeting Minutes**

April 11, 2023

Present: Mayor: Todd Tongen. Council Members: Carter Lokken, Nathan Jordahl, Cheryl Bjornstad, Todd Vogel, City Clerk: Alan Marohl. Stephanie Weik with the Sheriff's Office. 10 residents.

Mayor Tongen called the meeting to order at 7:00 pm.

Add Referendum to New Business and Interstate Power Co-Op to Maintenance Report.

**Motion to approve agenda with additions by Tongen, 2<sup>nd</sup> Vogel m/s/p unanimously.**

**Motion to approve March 14th, 2023 Council Meeting Minutes by Vogel, 2<sup>nd</sup> Bjornstad m/s/p unanimously.**

Stephanie Weik – Review of hazard Strategies – Watson is renewing its 5-year hazard mitigation plan. This plan allows the city to receive aid from FEMA in the case of a natural or manmade disaster. The plan goes through each risk and lays out options to reduce possible damage. Now that council has reviewed the entire plan, Stephanie will have it prepared for state approval. Council may add or change the plan but only before it is approved by the state.

Financial Report:

- Cash Balances

**Motion to approve monthly claims by Vogel, 2<sup>nd</sup> Jordahl m/s/p unanimously.**

- Utilities – Delinquent accounts were sent disconnection notices.

Old Business:

- Street Sweeping – Montevideo is willing to sweep Watson's roads. The quoted prices were \$120 an hour for a sweeper and \$70 an hour for a dump truck. Montevideo estimated it would take about 20 hours to complete the whole town for a total cost of \$3,800. They were not willing to rent their equipment to Watson. The deadline to submit to MNDOT for reimbursement is May 1<sup>st</sup>.

New Business:

- Water Bill Adjustment – Marisa Trexler with her two siblings Beth and Clayton were present to discuss their late fathers water bill. Their request was to waive the late fees and have the bill partially forgiven. Council agreed to waive the late fees and stop future late charges. Council will wait to decide on forgiving a portion of the bill at a future meeting once insurance has been accounted for.
- Compost site burn – Considering the weather, council plans to burn the compost site April 22<sup>nd</sup>.
- MN Basic Code Update – The league of Minnesota Cities is recommending Watson adopt the 2023 edition of the MBC. The 2023 edition includes changes to liquor licensing, Nuisance and




**Public Outreach Documentation for Public Comment Period**  
**September 12-30, 2023**



Screen shot of Chippewa County Emergency Management Web page

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Emergency Management Ordinance


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## Emergency Management

### CodeRed

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Keeping citizens informed.

### Documents

- [All-Hazard Mitigation Plan \(PDF\)](#)
- [CodeRed Frequently Asked Questions \(PDF\)](#)
- [Emergency Preparedness Guide \(PDF\)](#)
- [Family Preparedness \(PDF\)](#)
- [Pandemic Planning Guidelines for Businesses \(DOC\)](#)
- [Pandemic Planning Guidelines for Businesses \(PDF\)](#)

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

[Click here for more information](#)

### Contact Us

#### Emergency Management

**Physical Address** [View Map](#)  
629 N Eleventh Street  
Montevideo, MN 56265


[Directions](#)

Phone: [320-269-2121](tel:320-269-2121)  
Fax: 320-269-2698

#### Hours

Monday through Friday  
8 a.m. to 4:30 p.m.

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<https://www.co.chippewa.mn.us/MyAccount/ProfileCreate>



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2023 - Home

Posted on: September 11, 2023

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

Chippewa County has recently completed an updated draft of its Hazard Mitigation Plan (HMP) and is now seeking public feedback and comment. Hazard mitigation can be defined as taking action to eliminate or reduce the long-term risk to human life and property from natural and technological hazards. Planning for these disasters can help minimize the impacts of these events on people, structures, infrastructure, and the local economy.

All county residents, as well as other interested stakeholders (those in neighboring counties, tribal nations, or working with affected agencies) are encouraged to review and offer feedback on the draft plan and proposed local mitigation actions. The review and public comment period is open for a period of 15 days through **September 30, 2023**. The public can access the plan using the following link:

[2023-Chip-Co-HM-Plan-for-Public-Review](#)

The Chippewa County HMP is a multi-jurisdictional plan that covers all of Chippewa County, including the cities of Clara City, Maynard, Milan, Montevideo, and Watson. The Chippewa County HMP also incorporates the concerns and needs of townships, school districts, and other stakeholders participating in the plan.

The Upper Minnesota Valley Regional Development Commission was contracted to assist with the update of this plan under direction of Chippewa County Emergency Management along with input from representatives from county departments, city and township governments, school districts, and other key stakeholders. Together, the planning team worked to identify actions to reduce or eliminate the long-term risk to human life or property from natural and human caused hazards.

Updating the plan further allows Chippewa 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. Chippewa County Emergency Management invites public review and feedback of the draft plan prior to submitting it to Minnesota Homeland Security/Emergency Management (HSEM) and the Federal Emergency Management Agency (FEMA) for review. Feedback may be provided by directly contacting:

Stephanie Weick, Chippewa County Emergency Management Director

Phone: (320) 269-2121

Email: [Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)



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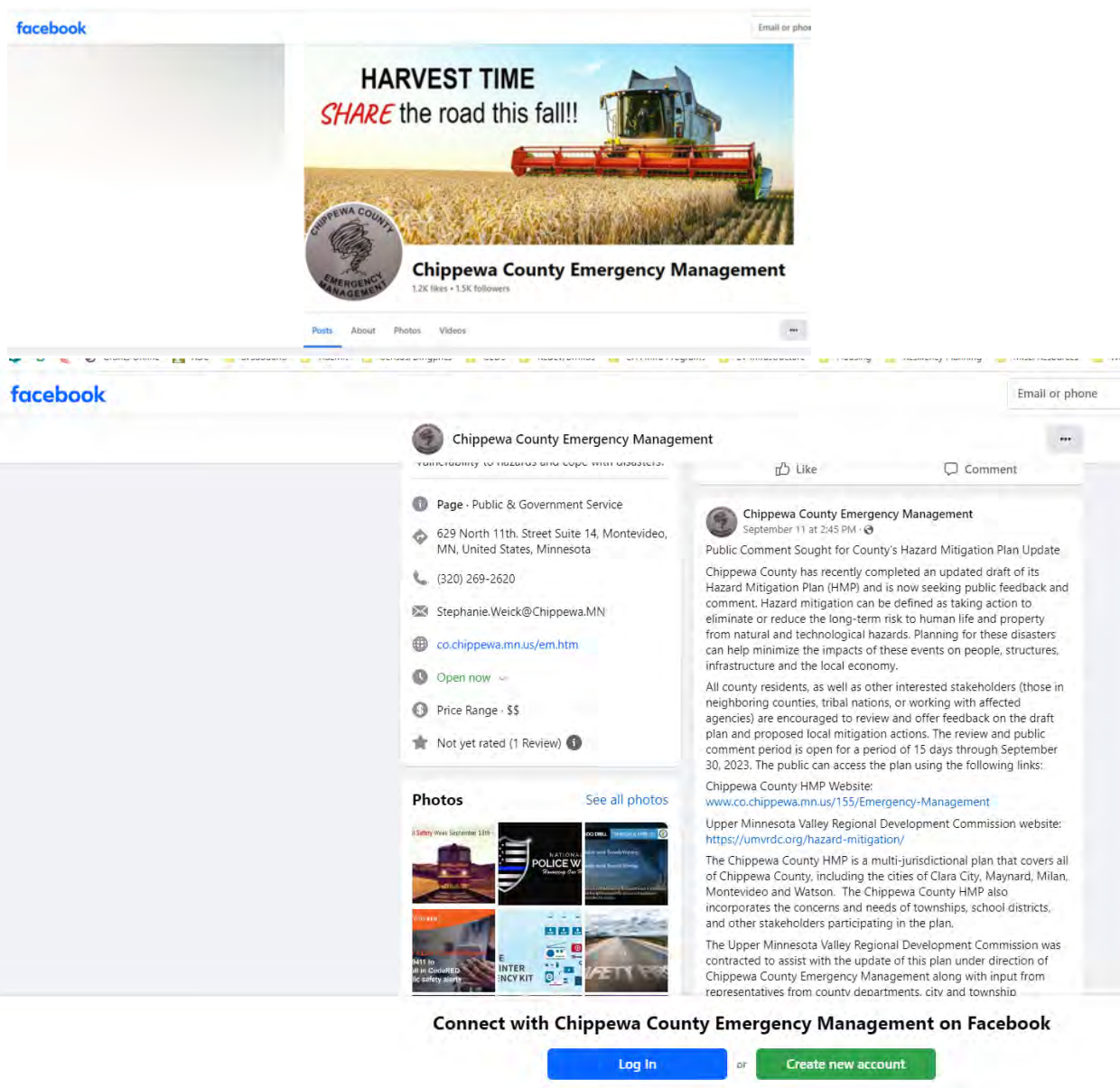
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Screen shot of UMRDC Hazard Mitigation web page

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Upper Minnesota Valley  
**REGIONAL DEVELOPMENT COMMISSION**  
Helping Communities Prosper

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## HAZARD MITIGATION

Hazard Mitigation Planning aims to break the cycle of disaster-repair-disaster and can help a community to prepare for a more sustainable future. Developing and putting into place long-term strategies that reduce or alleviate loss of life, injuries, and property resulting from natural or human caused hazards accomplish this goal. These long-term strategies must incorporate a range of community resources including planning, policies, programs, and other activities that can make a community more resistant to disaster. Mitigation planning efforts should both protect people, structures, and natural resources, while minimizing costs of disaster response and recovery. Mitigation is the cornerstone for emergency management and should be viewed as a method for decreasing demand on scarce and valuable disaster response resources.

The UMRDC is considered an expert in Hazard Mitigation Planning, through multiple contracts with Big Stone, Chippewa, Lac qui Parle, Swift, Yellow Medicine Counties and the Upper Sioux Community. The Minnesota Department of Homeland Security and Emergency Management collaborate with the Federal Emergency Management Agency to ensure that each county and/jurisdiction have active Hazard Mitigation Plans. FEMA requires that all Hazard Mitigation Plans be updated within a 5-year period.

*For public review and comment through September 30, 2023.*

- › [Chippewa County All-Hazard Mitigation Plan – 2023](#)
- › [Plan Appendices](#)

*Any comments can be submitted to Kevin Ketelsen – [kevin@umvrdc.org](mailto:kevin@umvrdc.org) or 320-289-1981 x111*

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Upper Minnesota Valley Regional Development Commission  
10m · 3

# 2023 Chippewa County Multi-Hazard Mitigation Plan

Prepared for:



Chippewa County Emergency Management  
22h · 3

Public Comment Sought for County's Hazard Mitigation Plan Update

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<https://umvrdc.org/hazard-mitigation/>

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Stephanie Weick, Emergency Management Director  
Phone: (320) 269-2121  
Email: [Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)

31.17 TWO HUNDREDTHS (532.62)  
ON A BEARING OF NORTH ZERO  
EES, TEN MINUTES, SIXTEEN SEC-  
(N 00 DEGREES 10' 16" W) A DISTANCE  
HUNDRED THIRTEEN AND EIGHTY-  
REDTHS (313.81') FEET; THENCE ON  
OF NORTH EIGHTY-NINE DEGREES,  
MINUTES, SIXTEEN SECONDS  
DEGREES 32' 28" E) A DISTANCE OF  
ED SIXTY-TWO AND FIFTY-SIX HUN-  
62.56') FEET; THENCE ON A BEARING  
ERO ZERO DEGREES, TEN MINUTES,  
CONDS EAST (S 00 DEGREES 10' 16" S  
CE OF NINE HUNDRED SEVENTEEN  
T THENCE ON A BEARING OF SOUTH  
DEGREES, FIFTY-ONE MINUTES,  
SECONDS WEST (S 86 DEGREES 51' 09"  
CE OF TWO HUNDRED TWENTY-TWO  
EEN HUNDREDTHS (222.18') FEET;  
A BEARING OF SOUTH ZERO SIX DE-  
ENTY-SEVEN MINUTES, THIRTY-SEV-  
S EAST (S 06 DEGREES 27' 37" E) A  
OF SEVEN HUNDRED THREE AND  
HUNDREDTHS (703.45') FEET TO  
OF BEGINNING, SUBJECT TO EASE-  
TRCTIONS AND RESERVATIONS, IF  
ORD OR APPARENT UPON INSPEC-  
PREMISES.

ADDRESS: 1035 30th St SW, Montevideo,

IDENTIFICATION NUMBER: 12-036-

WHICH PROPERTY IS LOCATED:

T CLAIMED TO BE DUE ON THE  
ON THE DATE OF THE NOTICE:

eforeclosure requirements have been  
; that no action or proceeding has been  
w or otherwise to recover the debt se-  
mortgage, or any part thereof;  
p the power of sale contained in said  
above described property will be sold  
of said county as follows:

IE OF SALE: November 7, 2023, 10:00AM  
LE: Sheriff's Main Office, 11th Street  
n Avenue, Montevideo, MN 56265

secured by said mortgage and taxes, if  
mises and the costs and disbursements,  
neys fees allowed by law, subject to re-  
n 6 Months from the date of said sale by  
(s) the personal representatives or as-

TE TO VACATE PROPERTY: If the real  
er-occupied, single-family dwelling, unless  
ed by law, the date on or before which the  
st vacate the property, if the mortgage is  
der section 580.30 or the property is not re-  
ction 580.23, is 11:59 p.m. on May 7, 2024, or  
ss day if May 7, 2024 falls on a Saturday,  
oliday.

ber 5, 2023  
n Servicing LLC  
rtgagee  
oup LLP  
mortgagee  
dile Road, Suite 210  
21

THIS IS A COMMUNICATION  
FROM A DEBT COLLECTOR  
Montevideo American News September  
er 5, 12, 19, 2023.

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T BUY IT FIND IT

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Sincerely,

*Willie L. Jett II*

Willie L. Jett II  
Commissioner

September 7, 2023

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### PUBLIC COMMENT SOUGHT FOR COUNTY'S HAZARD MITIGATION PLAN UPDATE

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Email: [Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)

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## PUBLIC NOTICE

## PUBLIC NOTICE

23-116525

# NOTICE OF MORTGAGE FORECLOSURE SALE THE RIGHT TO VERIFICATION OF THE DEBT AND IDENTITY OF THE ORIGINAL CREDITOR WITHIN THE TIME PROVIDED BY LAW IS NOT AFFECTED BY THIS ACTION.

NOTICE IS HEREBY GIVEN, that default has occurred in the conditions of the following described mortgage:

DATE OF MORTGAGE: October 26, 2012

ORIGINAL PRINCIPAL AMOUNT OF MORTGAGE: \$142,200.00

MORTGAGOR(S): Eric M. Jerve and Melissa L. Coil Jerve, husband and wife

MORTGAGEE: Mortgage Electronic Registration Systems, Inc.

TRANSACTION AGENT: Mortgage Electronic Registration Systems, Inc.

MIN#: 100010402911563629

LENDER OR BROKER AND MORTGAGE ORIGINATOR STATED ON THE MORTGAGE: Suntrust Mortgage, Inc.

SERVICER: Specialized Loan Servicing LLC

DATE AND PLACE OF FILING: Filed November 2, 2012, Chippewa County Recorder, as Document Number A000287625

ASSIGNMENTS OF MORTGAGE: Assigned to: Trust Bank; Dated: February 27, 2023 filed: February 27, 2023, recorded as document number A000314412; thereafter assigned to Specialized Loan Services, LLC; Dated: May 17, 2023 filed: May 18, 2023, recorded as document number A000314871

## LEGAL DESCRIPTION OF PROPERTY:

THAT PART OF THE WEST HALF OF THE SOUTH-EAST QUARTER (W1/2 OF SE1/4) OF SECTION THIRTY-SIX (36), TOWNSHIP ONE HUNDRED EIGHTEEN (118) NORTH, RANGE FORTY (40) WEST OF THE FIFTH PRINCIPAL MERIDIAN, ROSEWOOD TOWNSHIP, CHIPPEWA COUNTY MINNESOTA DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION THIRTY-SIX (36); THENCE ON A GEODETIC BEARING OF SOUTH EIGHTY-NINE DEGREES, THIRTY-TWO MINUTES, TWENTY-EIGHT SECONDS WEST (S 89 DEGREES 32' 28" W) ALONG THE SOUTH LINE OF SAID SECTION THIRTY-SIX (36), A DISTANCE OF ONE THOUSAND NINE HUNDRED FIFTY-NINE AND EIGHTY-TWO HUNDREDTHS (1959.82') FEET TO THE POINT OF BEGINNING OF THE LAND TO BE DESCRIBED; THENCE CONTINUING ON A BEARING OF SOUTH EIGHTY-NINE DEGREES, THIRTY-TWO MINUTES, TWENTY-EIGHT SECONDS WEST (S 89 DEGREES 32' 28" W), ALONG THE SOUTH LINE OF SAID SECTION THIRTY-SIX (36); A DISTANCE OF FIFTY AND TWENTY-EIGHT HUNDREDTHS (50.28') FEET; THENCE ON A BEARING OF NORTH ZERO SIX DEGREES, TWENTY-SEVEN MINUTES, THIRTY-SEVEN SECONDS WEST (N 06 DEGREES 27' 37" W) A DISTANCE OF SEVEN HUNDRED FIFTEEN AND SEVENTY-EIGHT (715.78') FEET; THENCE ON A BEARING ON NORTH EIGHTY-TWO DEGREES, ZERO TWO MINUTES, FIFTY-ONE SECONDS WEST (N 82 DEGREES 02' 51" W) A DISTANCE OF ONE HUNDRED SEVENTY-EIGHT AND FORTY-ONE HUNDREDTHS (178.41') FEET; THENCE ON A BEARING OF NORTH SEVENTY-SIX DEGREES, ZERO ZERO MINUTES, FORTY-THREE SECONDS WEST (N 76 DEGREES 00' 43" W) A DISTANCE OF ONE HUNDRED SEVENTY-SIX AND FORTY-FOUR HUNDREDTHS (176.44') FEET; THENCE ON A BEARING OF NORTH ZERO

## Description of Proposed School Construction Project

Montevideo Public School District, ISD #0129-01, is proposing a two question bond referendum on November 7, 2023. The first ballot question would authorize \$49.975 million in bonding authority to finance district-wide facility improvements. Proposed improvements include: repurposing the existing middle school to serve as a K-4 elementary school, the closure and demolition of the two existing elementary schools (Ramsey and Sanford) and modifications to the existing high school to serve as a middle/high school. The second ballot question would authorize \$11.335 million in bonding authority to finance an auditorium to the enhanced middle/high school proposed in ballot question one. Passage of the second ballot question is contingent upon passage of the first ballot question.

The projects proposed would be scheduled for completion in calendar years 2025 and 2026. Cost estimates by ballot question, location and project type are as follows:

Ballot Question 1	
Ramsey Elementary	
Demolition	\$424,000
Contingencies	\$19,080
	\$443,080
Repurpose Existing MS to K-4 Elementary	
Renovations	\$1,552,660
Site Improvements	\$378,640
Contingencies	\$98,644
Fees, Permits & Testing	\$260,870
	\$2,290,814
Districtwide Costs	
Bond Issuance	\$195,000
Sanford Elementary	
Demolition	\$424,000
Site Improvements - Ballfield	\$299,450
Contingencies	\$34,304
Fees, Permits & Testing	\$38,900
	\$796,654
Existing HS Modifications - to include MS	
Building Additions	\$35,989,658
Renovations	\$3,125,747
Contingencies	\$1,998,457
Fees, Permits & Testing	\$5,135,590
	\$46,249,452
TOTAL Costs Ballot Question #1	\$49,975,000

Ballot Question 2	
Auditorium Addition to New HS	
Construction Costs	\$9,186,989
Fees, Permits & Testing	\$1,194,300
Contingencies	\$918,711
Bond Issuance	\$35,000
	\$11,335,000

The district last went to the voters in May 2023 with a similar two question bond referendum. Though both bond questions for the May referendum failed to pass, the first ballot question failed by only 23 votes.

Sanford Elementary is currently serving K-2 students and Ramsey Elementary is serving students in grades 1-3. The two elementary schools are the District's oldest buildings. They were originally constructed in the 1950s and are around 42,000 square feet each. The renovation costs for both elementary schools is estimated to be 90% of the cost of the new construction. Both the existing elementary schools and the middle school are well above MDE guidelines in terms of space or square footage per K-4 student. There is roughly 190 square feet per student when the space in the two existing elementary schools is combined. If the middle school is converted to K-4 use, it would provide roughly 258 square feet per student. MDE Guidelines call for up to 135 square feet per student at the elementary level or roughly 50% less than the space available in the existing middle school.

The existing middle school was constructed in 1995 and is the newest of the District's buildings. Only minor renovations will be necessary to modify it to serve K-4 students. The proposed conversion of the existing middle school to serve K-4 students will allow the district to reduce costs operationally and eliminate the costs associated with maintaining the aging elementary schools. However, the middle school space appears to be much more than needed to house the District's current K-4 enrollment.

The high school was built in 1965 and is roughly 122,000 square feet. The proposed addition to the high school in the first ballot question would add another 123,000 square feet, or a total of around 245,000 square feet, for the proposed middle/high school. Currently 5-12 grade enrollment is around 816 students. On a square foot per student basis, the proposed middle/high school would provide approximately 300 square feet per student. MDE Guidelines call for up to 190 square feet per student for high school students. In other words, the proposed addition to the high school is above MDE Guidelines.

The District is projecting stable student enrollment over the next five year period.

The district has supplied cost estimates to operate and staff the additional building space and it appears existing revenues, along with operational savings from the closure of the two existing elementary schools, will be sufficient to fund any associated operational cost increases. With the caveats explored above regarding the proposed square footage of the high school addition and utilization of the existing middle school as a K-4 elementary, the proposed projects appear to be in the long-term interest of the school district.

## Review and Comment Statement

Based on the department's analysis of the school district's required documentation and other pertinent information from sources of the Minnesota Department of Education the Commission

# SELL IT BUY IT FIND IT LOVE IT

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boats

sports equipment

pets

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auctions

yard sales

collectibles

appliances



September 13, 2023

Sept. 9

Traffic Stop, Vehicle stopped for no taillights, driver was given a verbal warning, 60th Street SE & Highway 23.

Records Check, Record check for the jail, Montevideo.

Recovered Stolen Property, the complainant called to report he found his missing gun. He said it was a computer bag that he did not look in before. Deputy verified it was the same gun and had it taken out of the system, N. 11th Street, Montevideo.

Home Monitoring, N. 6th Street, Montevideo.

Assist Other Agency, Assisted Granite Falls Police Department, and transported inmate to the Chippewa County Jail, E. Highway 212, Granite Falls.

Transport, Inmate needed to go to the hospital for x-ray. LQP on over and relieved deputy, Montevideo.

Agency Assist, Benson Road, Montevideo.

Disturbance/Noise Complaint, Verbal argument between family. The suspect was separated from other family members and was given a ride home, N.W. 2nd Avenue, Clara City.

Driving Complaint, Highway 7 & 120th Avenue SE.

Traffic Stop, Vehicle stopped for speed, verbal warning given, County Road 5 & 110th Street

Turning Permit Called In, Montevideo.

Animal Complaint, Located a cow in the ditch near Highway 10. County Road 10. Deputy talked the land owner and assisted him in getting the cow out of the pasture, Highway 40 & County Road 10.

DWI, DWI arrest by SP519, ICR created for a records check. Female booked in Chippewa, housed in YMC hold for court. No deputy action, Montevideo.

Disturbance/Noise Complaint, Report of loud music and a revving four-wheeler. When deputy arrived there was no noise. Spoke with the owner of the property and said they were not revving a four-wheeler but a friend had started his truck which is loud. Deputy sat in the area for a while to make sure they did not start to make noise again, N. 1st Street, Milan.

Sept. 8

911 Accidental Dial, Dispatch spoke with the caller and all was fine it was a pocket dial, N. 4th Street, Milan.

Car/Deer Accident, Deer on the road. Swift County was given this as it was well in to their county, County Road 9, Halloway.

Medical, Montevideo.

Fires, Car fire. The fire was put out by the fire department and towed to Monte Motors. Fire possibly started under the hood, County Road 13 & Highway 29, Montevideo.

Towards Zero Deaths Enforcement, Deputy stopped vehicle for speed, verbal warning given, Highway 7 & 130th Avenue, Clara City.

Theft, Reported theft of trailer license plate, 14th Street, Benson.

Towards Zero Deaths Enforcement, Deputy stopped a vehicle for the driver being on his cell phone, verbal warning given, Highway 7 & Main Street, Clara City.

Child Custody Dispute, Child custody dispute. Mother wants son to stay at old school, while

father is trying to enroll son into a new school, Kandi-Chippewa Line, Clara City.

Informational, Miawakon Avenue, Montevideo.

Juvenile Problem, Wolverine Drive, Clara City.

Towards Zero Deaths Enforcement, Deputy stopped a vehicle for speed and being on his cell phone. Citation for speed, S. 17th Street, Montevideo.

Towards Zero Deaths Enforcement, Deputy stopped a vehicle for speed, verbal warning given, Williams Avenue, Montevideo.

Harassment, S. 5th Street, Montevideo.

Towards Zero Deaths Enforcement, Deputy stopped a vehicle for speed and failing to change his DL to MN, 17th Street & Buckeye Drive, Montevideo.

Transport, Transported inmate from jail to ER for chest X-ray and back, without incident, Montevideo.

Towards Zero Deaths Enforcement, Deputy stopped a vehicle for a stop sign violation, verbal warning given, Highway 7 & 11th street, Montevideo.

Predatory Offender Registry. Parking Complaint, Spoke with the owner of the vehicle, he will move it from the restricted area, verbal warning given N. 2nd Street, Milan.

Burning Permit Called In, Montevideo.

Gun Permit - Carry Checks for County, dated 10/04/2026.

Gun Permit - Carry Checks

for County, dated 9/3/2028.

Gun Permit - Carry Checks for County, dated 9/7/2028.

Gun Permit - Carry Checks for County, dated 9/20/2028.

Informational, Highway 40 & 130th Avenue NE, Woods Township.

Gun Permit - Purchase, dated 9/7/2024.

Traffic Stop, Vehicle stopped for speed, verbal warning given for speed, Highway 23 & 130th Avenue SE, Clara City.

Gun Permit - Purchase, dated 9/7/2024.

Traffic Stop, Vehicle stopped for speed, verbal warning given for speed, Highway 23 & 130th Avenue SE, Clara City.

Gun Permit - Purchase, dated 9/7/2024.

Gun Permit - Purchase, dated 9/7/2024.

Traffic Stop, Vehicle stopped for speed, verbal warning given for speed, Highway 23 & Highway 7, Clara City.

Abandoned Vehicle, Deputy attempted contact with the owner of vehicle with no answer. Deputy will attempt contact again tomorrow. Vehicle is parked with a flat tire near the town hall, County Road 1 & County Road 13.



## LEGALS

ifications.  
COMPLETION OF WORK:  
work under the Contract  
be complete by October  
24.

AN HOLDERS LIST,  
ENDUMS, AND BID  
JLATION: The plan hold-  
ist, addendums, and bid

**LIVING, AND PRAIRIE PARK  
PLACE FACILITIES**  
OM2.131109  
CITY OF CLARA,  
MINNESOTA

**RECEIPT AND OPENING  
OF PROPOSALS:** Sealed  
proposals for the work

mation. An optional paper set  
of project documents is also  
available for a nonrefundable  
price of \$50.00 per set, which  
includes applicable sales tax  
and shipping. Please make  
your check payable to Bolton  
& Menk, Inc. and send it to  
1960 Premier Drive, Montevideo

## NOTICE TO LANDOWNERS AND OPERATORS IN EDWARDS TOWNSHIP

Landowners and operators  
are responsible for removal of  
excess dirt and mud from

City Administrator, City of Clara City, 215 First Street NW, Clara City, MN 56222, until 2:00 PM on September 21, 2023, at which time the bids will be opened and publicly read.

**DESCRIPTION OF WORK:** The work includes the construction of approximately:

- Remove and replace multiple asphalt shingle roof systems totaling approximately 56,000 SF at the Clara City Care Center, Clara City Assisted Living, and Prairie Park Place facilities.
- Replacement of skylight located on the Clara City Care Center Roof.

together with numerous related items of work, all in accordance with Plans and Specifications.

**COMPLETION OF WORK:** All work under the Contract must be complete by October 1, 2024.

**PLAN HOLDERS LIST, ADDENDUMS, AND BID TABULATION:** The plan holders list, addendums, and bid tabulations will be available for download online at [www.bolton-menk.com](http://www.bolton-menk.com) or [www.questcdn.com](http://www.questcdn.com). Any addendums may also be distributed by mail, fax, or email.

**TO OBTAIN BID DOCUMENTS:** Complete digital project bidding documents are available at [www.bolton-menk.com](http://www.bolton-menk.com) or [www.questcdn.com](http://www.questcdn.com). You may view the digital plan documents for free by entering Quest project #8675083 on the website's Project Search page. Documents may be downloaded for \$30.00. Please contact QuestCDN.com at 952-233-1632 or [info@questcdn.com](mailto:info@questcdn.com) for assistance in free membership registration, viewing, downloading, and working with this digital project information.

**PUBLIC NOTICE**

**TO ADOPT A COUNTY WIDE ORDINANCE**

Members of Chippewa County will meet on Tuesday, September 19, 2023 in the Commissioner's Room in the Courthouse. The purpose of the meeting is to adopt and finalize the adoption of an ordinance regarding the use of Cannabis and Cannabis Products. The new ordinance will prohibit the use of Cannabis flower, Cannabis products, hemp-derived consumer products, a place of public accommodation, an establishment or event where the consumption of adult-use cannabis products is prohibited. The ordinance goes further to protect youth by prohibiting the use of tobacco, smoke, or aerosol in any place where the smoke, aerosol or vapor is prohibited. Complete copies of the ordinance are available from the County Auditor/Treasurer's Office in the County Courthouse at 629 North 5th Street, Chippewa Falls, WI 54601.

**OWNER'S RIGHTS RESERVED:** The Owner reserves the right to reject any or all bids and to waive any irregularities and informalities therein and to award the Contract to other than the lowest bidder if, in their discretion, the interest of the Owner would be best served thereby.

Dated: 8/31/2023  
/s/ Steven C. Jones  
H50-51

Gravel will be replaced on damaged roads as deemed necessary by the supervisors and charged to the landowner or operator.

Board of Supervisors  
Edwards Township  
H50-51

**Date Posted/Published: September 13, 2023**

**PUBLIC COMMENT SOUGHT FOR COUNTY'S HAZARD MITIGATION PLAN UPDATE**

Chippewa County has recently completed an updated draft of its Hazard Mitigation Plan (HMP) and is now seeking public feedback and comment. Hazard mitigation can be defined as taking action to eliminate or reduce the long-term risk to human life and property from natural and technological hazards. Planning for these disasters can help minimize the impacts of these events on people, structures, infrastructure and the local economy.

All county residents, as well as other interested stakeholders (those in neighboring counties, tribal nations, or working with affected agencies) are encouraged to review and offer feedback on the draft plan and proposed local mitigation actions. The review and public comment period is open for a period of 15 days through September 30, 2023. The public can access the plan using the following links:

Chippewa County HMP Website: [www.co.chippewa.mn.us/155/Emergency-Management](http://www.co.chippewa.mn.us/155/Emergency-Management)

Upper Minnesota Valley Regional Development Commission website: <https://umvrdc.org/hazard-mitigation/>

The Chippewa County HMP is a multi-jurisdictional plan that covers all of Chippewa County, including the cities of Clara City, Maynard, Milan, Montevideo and Watson. The Chippewa County HMP also incorporates the concerns and needs of townships, school districts, and other stakeholders participating in the plan.

The Upper Minnesota Valley Regional Development Commission was contracted to assist with the update of this plan under direction of Chippewa County Emergency Management along with input from representatives from county departments, city and township governments, school districts, and other key stakeholders. Together, the planning team worked to identify actions to reduce or eliminate the long-term risk to human life or property from natural and human caused hazards.

Updating the plan further allows Chippewa 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.

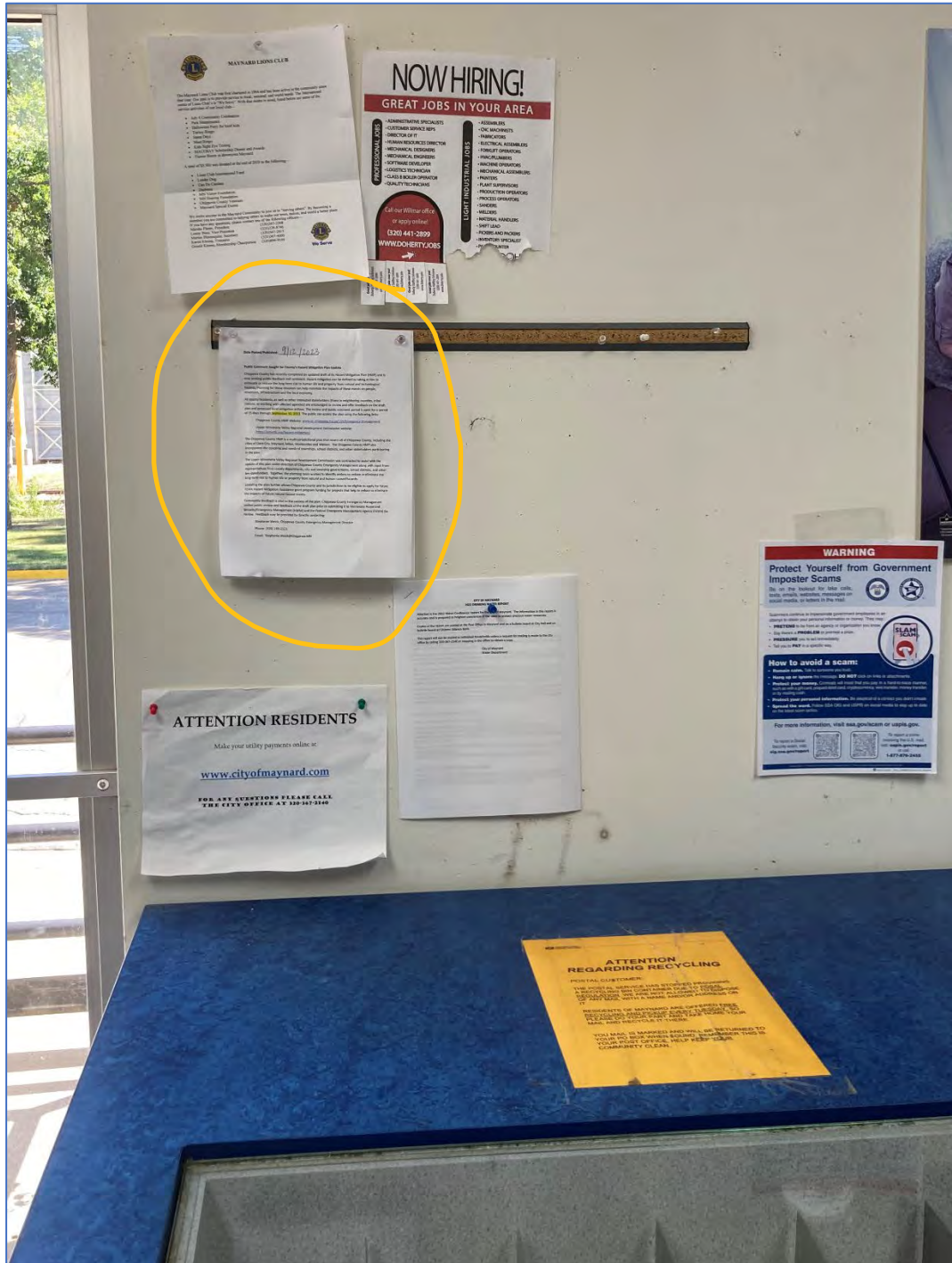
Community feedback is vital to the success of the plan. Chippewa County Emergency Management invites public review and feedback of the draft plan prior to submitting it to Minnesota Homeland Security/Emergency Management (HSEM) and the Federal Emergency Management Agency (FEMA) for review. Feedback may be provided by directly contacting:

Stephanie Weick, Chippewa County Emergency Management Director

Phone: (320) 269-2121

Email: [Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)

Public Comment Notice Posting at Maynard Post Office, September 12, 2023









[illegible]

**From:** [Stephanie Weick](#)  
**To:** [Kevin Ketelsen](#)  
**Subject:** FW: Chippewa County Hazard Mitigation Plan  
**Date:** Tuesday, September 12, 2023 1:06:01 PM  
**Attachments:** [2023 Chip Co HM Plan for Public Review.pdf](#)

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committee

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**From:** Stephanie Weick  
**Sent:** Monday, September 11, 2023 2:59 PM  
**To:** Stephanie Weick <Stephanie.Weick@Chippewa.MN>; Scott Williams <Scott.Williams@Chippewa.MN>; Jeremy Gilb <jeremy.gilb@chippewa.mn>; Josh Macziewski <Josh.Macziewski@Chippewa.MN>; James Schmaedeka - Louriston <jimnlori@hcinet.net>; Ron Abel-Havelock <merri@mvtvwireless.com>; Charles Degrote - Lone Tree <cdegrote@hcinet.net>; Bill Luschen - Crate <bluschen@hcinet.net>; John Bristle-Stoneham <jbuip2002@yahoo.com>; 'walt.gessler@state.mn.us' <walt.gessler@state.mn.us>; Ted Nelson (ted.nelson@prairiefive.org) <ted.nelson@prairiefive.org>; 'josephs@montevideomedical.com' <josephs@montevideomedical.com>; toddrodvogel@gmail.com; 'cityadmin@hcinet.net' <cityadmin@hcinet.net>; 'cityofmilan@fedteldirect.net' <cityofmilan@fedteldirect.net>; 'cityofwatson@farmerstel.net' <cityofwatson@farmerstel.net>; Casey Namken (Casey.Namken@co.ym.mn.gov) <Casey.Namken@co.ym.mn.gov>; 'Blain Johnson' (blain.johnson@lqpc.com) <blain.johnson@lqpc.com>; Bill McGeary (bill.mcgeary@co.swift.mn.us) <bill.mcgeary@co.swift.mn.us>; larissa.schwenk@pioneerland.lib.mn.us; David Bothun (David@countryside.co.swift.mn.us) <David@countryside.co.swift.mn.us>; tjtongen@farmerstel.net; nelsong@hcinet.net; ccpublicworks@hcinet.net; drpieper@hcinet.net; Jill - MN Valley (jill@mnvalleyrec.com) <jill@mnvalleyrec.com>; scottk@mnvalleyrec.com; Robert Wolfington (ctyadmin@montevideomn.org) <ctyadmin@montevideomn.org>; 'aaron@montevideomn.org' <aaron@montevideomn.org>; olson.beverly@icloud.com; nschmidt1419@yahoo.com; cdd@montevideomn.org; tylersachariason@gmail.com; wmckittrick@montevideoschools.org; 'citmay@mchsi.com' <citmay@mchsi.com>; Zach Bothun <Zach.Bothun@swcd.chippewa.mn>; JoAnn Blomme <JoAnn.Blomme@Chippewa.MN>  
**Subject:** Chippewa County Hazard Mitigation Plan

Good Afternoon,

We are in the public review phase of Chippewa County's Hazard Mitigation Plan. Attached is a copy

If you have any questions or concerns just let me know.

Thank  
Stephanie Weick  
Chippewa County Emergency Management Director

**From:** [Stephanie Weick](#)  
**To:** [Kevin Ketelsen](#)  
**Subject:** FW: Chippewa County's Hazard Mitigation Plan.  
**Date:** Tuesday, September 12, 2023 1:06:09 PM  
**Attachments:** [2023 Chip Co HM Plan for Public Review.pdf](#)  
[ALL APPENDICES.pdf](#)

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commisioners

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**From:** Stephanie Weick  
**Sent:** Monday, September 11, 2023 2:56 PM  
**To:** Bill Pauling <Bill.Pauling@Chippewa.MN>; David Lieser <dliester@co.chippewa.mn.us>; Candice Jaenisch <Candice.Jaenisch@Chippewa.MN>; David Nordaune <dnordaune@co.chippewa.mn.us>; Matt Gilbertson <matt.gilbertson@co.chippewa.mn.us>  
**Cc:** Michelle May <Michelle.May@Chippewa.MN>; Derek Olson <Derek.Olson@Chippewa.MN>  
**Subject:** Chippewa County's Hazard Mitigation Plan.

Good Afternoon,

We are in the public review phase of Chippewa County's Hazard Mitigation Plan. Once the public review period is over and the plan is approved by HSEM/FEMA, we will bring it the board to adopt it by resolution.

Thank you  
Stephanie Weick  
Chippewa County Emergency Management Director

**From:** [Kevin Ketelsen](#)  
**To:** [Milan -Veronica Blommel \(cityofmilan@fedteldirect.net\)](#); [Maynard - Nicole Strassburg \(citmay@mchsi.com\)](#); [cityadmin@montevideomn.org](#); [Clara City - Steve Jones \(cityadmin@hcinet.net\)](#); [Watson - Nicole Koenen \(cityofwatson@farmerstel.net\)](#)  
**Cc:** [Stephanie Weick](#)  
**Subject:** Hazard Mitigation Plan public comment period  
**Date:** Tuesday, September 12, 2023 1:28:00 PM  
**Attachments:** [image002.png](#)

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Good Afternoon,

The draft of the Chippewa County Hazard Mitigation Plan is available for review and public comment through September 30, 2023. After the public review period, the plan will be submitted to Minnesota Homeland Security and Emergency Management and FEMA for review. Once approved, we will follow up with you to assist in having your community adopt the plan by resolution. The notice, plan, and instructions can be viewed visiting the following link:

<https://www.co.chippewa.mn.us/CivicAlerts.aspx?AID=147>

The notice will be in this week's newspapers and Steph has posted it on the County Emergency Management Facebook page as well.

Please pass this message along to your Mayors/Councils and if you could cc either Steph or me on that so we document that it was sent to them, it would be greatly appreciated!

Let me know if you have any questions and thank you all for your help during this process!

**Kevin Ketelsen**

*Community Development Specialist*

W: 320.289.1981 x 111 C: 507.828.1258

323 West Schlieman Ave., Appleton, MN 56208

**Summer Office Hours:** Closing at 2pm on Fridays (May 5<sup>th</sup>-Sept 30<sup>th</sup>)



[www.umvrdc.org](http://www.umvrdc.org) | [Prairie Waters](#) | [Scenic Byway](#) | [Arts Meander](#)



**From:** [cityofmilan@fedteldirect.net](mailto:cityofmilan@fedteldirect.net)  
**To:** [paparon69@gmail.com](mailto:paparon69@gmail.com); [Heidi Hanson](#); [jennifer.gomes.11832@gmail.com](mailto:jennifer.gomes.11832@gmail.com); [Jeff Higgins](#); [Katrina Lund](#)  
**Cc:** ["Stephanie Weick"](#); [Kevin Ketelsen](#)  
**Subject:** FW: Hazard Mitigation Plan public comment period  
**Date:** Tuesday, September 12, 2023 2:38:00 PM  
**Attachments:** [image002.png](#)

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Council,

Please take a look at the Chippewa County Hazard Mitigation Plan below.

*Veronica Blommel*

Veronica Blommel

City Clerk

City of Milan

320-734-4411

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**From:** Kevin Ketelsen <[kevin@umvrdc.org](mailto:kevin@umvrdc.org)>  
**Sent:** Tuesday, September 12, 2023 1:28 PM  
**To:** Milan -Veronica Blommel ([cityofmilan@fedteldirect.net](mailto:cityofmilan@fedteldirect.net)) <[cityofmilan@fedteldirect.net](mailto:cityofmilan@fedteldirect.net)>;  
Maynard - Nicole Strassburg ([citmay@mchsi.com](mailto:citmay@mchsi.com)) <[citmay@mchsi.com](mailto:citmay@mchsi.com)>;  
[cityadmin@montevideomn.org](mailto:cityadmin@montevideomn.org); Clara City - Steve Jones ([cityadmin@hcinet.net](mailto:cityadmin@hcinet.net))  
<[cityadmin@hcinet.net](mailto:cityadmin@hcinet.net)>; Watson - Nicole Koenen ([cityofwatson@farmerstel.net](mailto:cityofwatson@farmerstel.net))  
<[cityofwatson@farmerstel.net](mailto:cityofwatson@farmerstel.net)>  
**Cc:** Stephanie Weick <[Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)>  
**Subject:** Hazard Mitigation Plan public comment period

Good Afternoon,

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Let me know if you have any questions and thank you all for your help during this process!

Kevin Ketelsen

*Community Development Specialist*

W: 320.289.1981 x 111 C: 507.828.1258

323 West Schlieman Ave., Appleton, MN 56208

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[www.umvrdc.org](http://www.umvrdc.org) | [Prairie Waters](#) | [Scenic Byway](#) | [Arts Meander](#)

**From:** [cityofwatson@farmerstel.net](mailto:cityofwatson@farmerstel.net)  
**To:** [tjtongen@farmerstel.net](mailto:tjtongen@farmerstel.net)  
**Cc:** [Kevin Ketelsen](#)  
**Subject:** FW: Hazard Mitigation Plan public comment period  
**Date:** Monday, September 25, 2023 9:39:26 AM  
**Attachments:** [image002.png](#)

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**From:** Kevin Ketelsen <[kevin@umvrdc.org](mailto:kevin@umvrdc.org)>  
**Sent:** Tuesday, September 12, 2023 1:28 PM  
**To:** Milan -Veronica Blommel ([cityofmilan@fedteldirect.net](mailto:cityofmilan@fedteldirect.net)) <[cityofmilan@fedteldirect.net](mailto:cityofmilan@fedteldirect.net)>;  
Maynard - Nicole Strassburg ([citmay@mchsi.com](mailto:citmay@mchsi.com)) <[citmay@mchsi.com](mailto:citmay@mchsi.com)>;  
[ctyadmin@montevideomn.org](mailto:ctyadmin@montevideomn.org); Clara City - Steve Jones ([cityadmin@hcinet.net](mailto:cityadmin@hcinet.net))  
<[cityadmin@hcinet.net](mailto:cityadmin@hcinet.net)>; Watson - Nicole Koenen ([cityofwatson@farmerstel.net](mailto:cityofwatson@farmerstel.net))  
<[cityofwatson@farmerstel.net](mailto:cityofwatson@farmerstel.net)>  
**Cc:** Stephanie Weick <[Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)>  
**Subject:** Hazard Mitigation Plan public comment period

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**Kevin Ketelsen**

*Community Development Specialist*

W: 320.289.1981 x 111 C: 507.828.1258

323 West Schlieman Ave., Appleton, MN 56208

**Summer Office Hours:** Closing at 2pm on Fridays (May 5<sup>th</sup>-Sept 30<sup>th</sup>)



## **Appendix II**

### *Meeting Summaries*

- *Kickoff meeting (invite list and slides)*
  - *Community meetings*
- *Wrap-up meeting (invite list and slides)*

**From:** [Stephanie Weick](#)  
**To:** [David Lieser](#); [Bill Pauling](#); [Candice Jaenisch](#); [Scott Williams](#); [Jeremy Gilb](#); [Derek Olson](#); [Michelle May](#); [Josh Macziewski](#); [James Schmaedeka - Louriston](#); [Ron Abel-Havelock](#); [Charles Degrote - Lone Tree](#); [Bill Luschen - Crate](#); [John Bristle-Stoneham](#); ["walt.gessler@state.mn.us"](#); [Tom Warner](#); [Ted Nelson \(ted.nelson@prairiefive.org\)](#); ["Josephs@montevideomedical.com"](#); [toddrodvogel@gmail.com](#); ["cityadmin@hcinet.net"](#); ["cityofmilan@fedteldirect.net"](#); ["cityofwatson@farmerstel.net"](#); [Casey Namken \(Casey.Namken@co.ym.mn.gov\)](#); ["Blain Johnson"](#); [Bill McGeary](#); [larissa.schwenk@pioneerland.lib.mn.us](#); [David Bothun](#); [tjtongen@farmerstel.net](#); [nelsong@hcinet.net](#); [ccpublicworks@hcinet.net](#); [drpieper@hcinet.net](#); [Sherri Broderius](#); [Jill - MN Valley \(jill@mnvalleyrec.com\)](#); [scottk@mnvalleyrec.com](#); [Robert Wolfington \(ctyadmin@montevideomn.org\)](#); [Glennis Lauritsen](#); ["aaron@montevideomn.org"](#); [olson.beverly@icloud.com](#); [n Schmidt1419@yahoo.com](#); [cdd@montevideomn.org](#); [tylersachariason@gmail.com](#); [wmckittrick@montevideoschools.org](#); ["citmay@mchsi.com"](#); [Ken Schule](#)  
**Cc:** [Stephanie Weick](#); [Kristi Fernholz](#); [Kevin Ketelsen](#)  
**Subject:** Chippewa County Multi-Hazard Mitigation plan update  
**Date:** Tuesday, June 7, 2022 10:42:21 AM

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## Chippewa County

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

Greetings,

Your presence is requested at a Planning Team Meeting for the update of the **Chippewa County Multi-Hazard Mitigation Plan**. Over the next year we will reach out with information about the plan and opportunities to participate in the planning process. You are requested to participate in this vital meeting because you have a position of administrative or departmental responsibility within either the county, a municipal government, or are a key stakeholder related to the planning process. Emergency Managers from neighboring jurisdictions are also encouraged to attend so we may strengthen our shared mitigation efforts.

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

Date: Thursday, June 23, 2022

Time: 3:00 p.m.

Join Zoom Meeting

<https://us02web.zoom.us/j/84227998193?pwd=ZEVJQmtVb1U0S1RmbzFyZExwKzZuQT09>

Meeting ID: 842 2799 8193

Passcode: 083961

Dial by your location

+1 312 626 6799 US (Chicago)

### **About the Plan**

The update of the Chippewa 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 Chippewa 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.

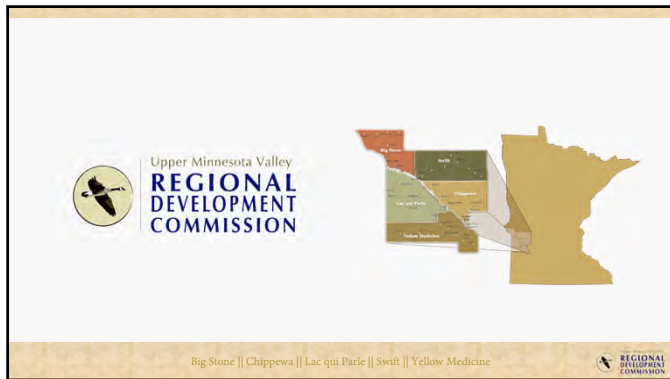
Your participation in this plan update is important for several reasons:

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 Chippewa County and individual communities and discuss a range of mitigation measures for local implementation. The meeting will be facilitated by personnel from **Upper Minnesota Valley Regional Development Commission** (UMVRDC) who are working closely with us on this project.

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

Thank you,  
Stephanie Weick  
Chippewa County Emergency Management Director



1



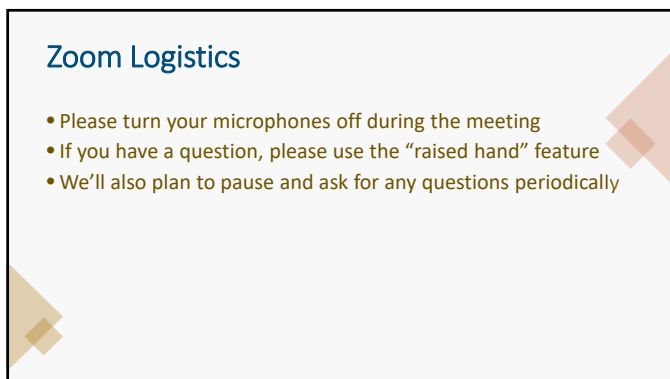
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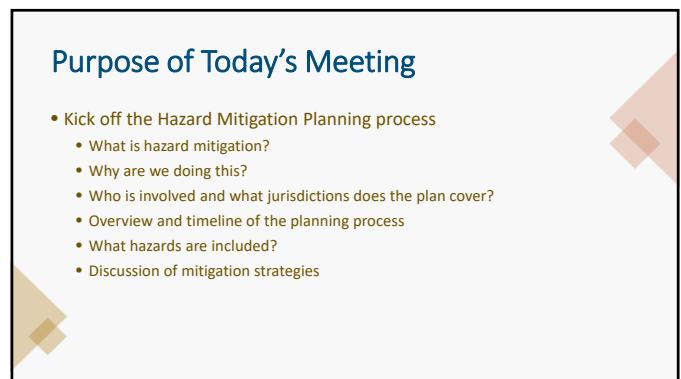
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7

### Why are we doing this? What are the benefits?

- Saves lives, protects the health of the public, and reduces potential injuries
- Prevents or reduces property damage including damage to critical facilities and infrastructure
- Reduces economic losses
- Minimizes social dislocation and stress, especially for vulnerable populations
- Reduces agricultural losses
- Reduces legal liability of government and public officials
- Maintains critical ecosystem services
- \$6 saved per \$1 spent on natural hazard mitigation projects

8

### Why are we doing this? (continued)

By having a FEMA-approved Hazard Mitigation plan, Chippewa County and participating cities are eligible for future federal funding opportunities

- Hazard Mitigation Grant Program (HMGP)
- Building Resilient Infrastructure and Communities (BRIC)
- Flood Mitigation Assistance (FMA)
- High Hazard Potential Dam (HHPD)
- Public Assistance

Plan must be updated and approved by FEMA every 5 years

Without a FEMA-approved plan in place, you are not eligible for pre-disaster or post disaster project funding.

9

### Who is involved and who does the plan cover?

The plan covers all of Chippewa County and participating jurisdictions. The planning task force includes members from a wide variety of departments, agencies, organizations and interests, including...

<b>Chippewa County</b>	<b>Cities</b>	<b>Other Jurisdictions/Agencies</b>
Commissioners	Mayors/City Council	Township officials
Emergency Management	Clerks/Administrators	Prairie Fire Rides
Planning and Zoning	Public Works	Soil and Water Conservation District
Engineer	Community Development	DNR Waters Area Hydrologist
Sheriff's Dept.	Library	Healthcare/Public Health
Auditor/Treasurer/Coordinator	Chamber of Commerce	Utilities
Ag and Drainage Inspector		

10

### Overview of Process and Timeline

Meeting #1 – Today

- Introductions
- Purpose
- Who is involved?
- Overview of process and timeline
- Hazard identification
- Mitigation strategies

11

### Overview of Process and Timeline (continued)

June-November – Conduct interviews/gather information from County staff, city staff, emergency personnel, agencies, other data sources

Review and update local information

- Update lists of available resources
- Note any completed strategies and update local gaps and deficiencies
- Update demographic information
- Note any new developments
- Identify any new threats
- Update inventory of critical assets/facilities

12



## Overview of Process and Timeline (continued)

### June-November (continued)

- Update local capabilities/resources
- Update hazard profiles
- Update risk assessment and vulnerability analysis
- Update GIS mapping/HAZUS analysis – UMD U-Spatial
- Develop local/County mitigation strategies for next 5 years

13

## Overview of Process and Timeline (continued)

### Meeting #2 – December 2022 - Planning task force

#### Presentation of -

- Hazards prioritization
- Risk assessment and vulnerability analysis
- Draft mitigation strategies – County and cities
  - Prioritize mitigation actions

14

## Overview of Process and Timeline (continued)

### December 2022 – January 2023

- Task Force review of plan draft
- Public review of plan
  - Solicit public input/comments
  - By County and local jurisdictions
- Incorporate public comments into plan where appropriate

15

## Overview of Process and Timeline (continued)

### March - June 2023

- Submit plan to MN HSEM for review
- Plan is submitted to FEMA for final review
  - Any changes or edits are made
- FEMA issues "Approved Pending Adoption"
  - Each local jurisdiction adopts plan by resolution
- Final FEMA approval

16

## What hazards are included?

### Natural Disasters

- Coastal erosion/flooding
- Dam/levee failure
- Drought
- Earthquakes
- Erosion/landslides/mudslides
- Extreme cold
- Extreme heat
- Flooding
- Hail
- Land subsidence (sinkholes)
- Lightning
- Tornadoes
- Windstorms
- Winter storms
- Wildfire

17

## What hazards are included?

### Human-caused Disasters

- Hazardous materials
- Infectious diseases
- Fire (structural)
- Water Supply Contamination
- Wastewater Treatment System Failure
- Civil Disturbance/Terrorism

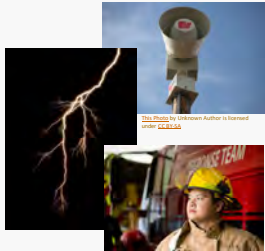


18

## Risk Assessment

### Prioritizing the Disasters

- Frequency of Occurrence
- Warning Time
- Potential Severity
- Risk Level



19

## Risk Assessment – Prioritizing the Disasters

### HIGH

- Frequency is likely or highly likely
- Warning time is 6 hours or less
- Potential Severity is major or substantial
- Risk level to people, animals, housing, structures and infrastructure is High or Very High

### MODERATE

- Frequency is Likely or Occasional
- Warning time is 6-12 hours
- Potential Severity is major or substantial
- Risk level to people, animals, housing, structures and infrastructure is high or limited

### LOW

- Frequency is Occasional or Unlikely
- Warning time is more than 12 hours
- Potential Severity is major to limited
- Risk level to people, animals, housing, structures and infrastructure is limited or minimal

20

## 2015 Risk Assessment Results

Hazard	Priority Level	Special Areas of Concern
Tornado	3.21 – Moderate	Countywide
Winter Weather	2.99 – Moderate	Countywide
Hazardous Materials	2.87 – Moderate	Countywide, cities
Summer Storms	2.79 – Moderate	Countywide
Civil Disturbance/Terrorism	3.13 – Moderate	Countywide
Flash Flooding	2.29 – Low	Countywide
100-year Floods	2.08 – Low	Montevideo, Maynard
Structure Fires	2.71 – Moderate	All cities
Drought	2.52 – Moderate	County
Infectious Disease	2.42 – Low	County
Water Supply Contamination	2.34 – Low	County
Dam Failure	2.33 – Low	Montevideo
Wildfire	2.31 – Low	Homes/structures located near grasslands, cities within the river valley
Wastewater Treatment System Failure	2.04 – Low	County, cities

21

## Risk Assessment - CPRI

- What is CPRI? Calculated Priority Risk Index
- Another tool to help prioritize disasters and mitigation strategies
- Weights the four risk assessment categories in the following way:
  - Probability = Score x .45
  - Magnitude/Severity = Score x .30
  - Warning time = Score x .15
  - Duration = Score x .10
- High priority = 4.0-3.0
- Moderate priority = 2.99-2.0
- Low priority = < 1.99

22

## HAZUS Analysis

- Provided by University of MN-Duluth staff
- HAZUS is a GIS-based tool that analyzes potential physical damage, economic loss, social impacts and cost-effectiveness of mitigation strategies.
- It satisfies the FEMA required element of the hazard mitigation plan to “estimate the human and economic losses based on the exposure and vulnerability of people, buildings, and infrastructure.”

23

## Identify Vulnerable Populations

- Identify groups or areas that may be more susceptible to hazards
  - Mobile home parks
  - Outdoor gathering areas (fairgrounds, campgrounds, parks)
  - Facilities – nursing homes, healthcare, mentally or physically disabled populations
  - Language barriers

24

## Mitigation Strategies

### Five categories of mitigation actions -

1. Local plans and regulations
2. Structure and infrastructure projects
3. Natural systems protection
4. Education and awareness programs
5. Mitigation Preparedness and Response Support

25

## Mitigation Strategies

### 1. Local Plans and Regulations

- Government, administrative, or regulatory actions or processes that influence the way land and buildings are developed and built.

- Examples include –

- Local policies, ordinances or codes
- Floodplain ordinances
- Building codes and enforcement
- Zoning ordinances
- Capital Improvement Plans



26

## Mitigation Strategies

### 2. Structure and Infrastructure Projects

- Actions that involve the construction of structures to reduce the impact of a hazard

- Examples include –

- Flood walls and berms
- Burying powerlines
- Tornado safe rooms
- Drainage/stormwater system improvements



27

## Mitigation Strategies

### 3. Natural Systems Protection

- Actions that, in addition to minimizing hazard losses, preserve or restore the functions of natural systems.

- Examples include –

- Stream corridor restoration
- Conservation efforts
- Forest management (fire)
- Erosion control
- Stream bank/slope restoration and management



28

## Mitigation Strategies

### 4. Education and Awareness

- Actions to inform and educate citizens, practitioners, public officials, and property owners about the hazards and potential ways to mitigate them.

- Examples include –

- Public education
- Print, radio, TV, social media, schools, community groups



29

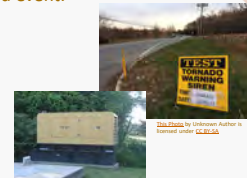
## Mitigation Strategies

### 5. Mitigation Preparedness and Response Support

- Actions that protect people and property prior to, during and immediately after a disaster or hazard event.

- Examples include –

- Emergency Operations Plans
- Emergency warning systems
- CodeRed, Storm warning sirens
- NWS storm spotter training
- Back-up power generators



30

## Do you have a specific mitigation idea in mind?

**We'd love to hear it!**

**Mitigation Idea Worksheet – Please include the following...**

1. Jurisdiction name
2. Your contact information
3. The disaster related with your idea or concern
4. Any mitigations ideas you may have for your community or for the county as a whole
5. You can also submit any concerns you may have related to any disaster and we can research potential mitigation strategies
6. Submit to Steph Weick via email (provided on worksheet)

31

## Next steps?

Timeline for over the next few months...(June – November)

- Planning team meets with individual jurisdictions
- Public outreach
- HAZUS analysis provided by UMD
- Update local resources/capabilities
- Update disaster histories since 2015
- Update critical facility maps
- Discuss program gaps and deficiencies
- Develop/update local strategies

32

Any questions?

Thank you for participating!

33

## Contact Information

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34

## **Chippewa County Hazard Mitigation Planning Task Force Meeting #1 June 23, 2022, 3:00pm – Meeting Summary and Documentation**

### **Summary**

On Thursday, June 23, 2022, Chippewa County Emergency Management convened key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to participate in the 1<sup>st</sup> Planning Team Meeting for the update of the Chippewa County Hazard Mitigation Plan. The purpose of the meeting was to formally present information about the Chippewa County Hazard Mitigation Plan update and to discuss key items that would inform plan development. The meeting was held via Zoom webinar video conference and was facilitated by Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission.

### **Invitation and Invited Attendees**

Chippewa County Emergency Management invited representatives from the various jurisdictions, departments, organizations, and agencies that were included on the county's previous hazard mitigation planning task force, which includes elected officials, city/county departments, 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 meeting invitation and the county's planning task force contact list is provided in the plan Appendix.

### **Attendees of 6.23.22 meeting (3:00-4:00pm, via Zoom)**

Steph Weick, Chippewa County Emergency Management  
Kristi Fernholz, UMRDC staff  
Kevin Ketelsen, UMRDC staff  
Todd Vogel, City of Watson, City Council  
David Bothun, Countryside Public Health  
Bill McGeary, Swift County Emergency Management  
Jeremy Gilb, Chippewa County Engineer  
Bill Pauling, Chippewa County Commissioner  
Michelle May, Chippewa County Auditor/Treasurer/Administrator  
David Lieser, Chippewa County Commissioner  
Jack Gottfried, City of Montevideo Community Development  
Jim Schmaedeka, Township Association Officer  
Robert Wolfington, City of Montevideo City Manager  
Josh Macziewski, Chippewa County Ag and Drainage Inspector  
Blain Johnson, Lac Qui Parle County Emergency Management  
Jill Rothschild, Minnesota Valley REC

### **Presentation and Meeting Summary**

Kevin Ketelsen of the UMRDC led the meeting and gave a PowerPoint presentation highlighting the purpose of the meeting, hazard mitigation and the overall process/timeline. A PDF of the presentation slides is included with this meeting summary. The slides were also emailed out after the meeting by Steph Weick, Chippewa County Emergency Manager to everyone on the invitee list.

The slides covered the following topics:

- Purpose of the meeting
- Mitigation definition

- Mitigation benefits
- List of invited participants/organizations
- Overview of process and proposed timeline
- Included hazards – Natural and human caused
- Description of risk assessment
- Overview of Hazus
- Overview of vulnerable populations
- Types of mitigation strategies
- Instructions on how to complete the Mitigation Idea Worksheet
- Time for questions
- Project contact information

While the meeting was primarily informational, there were a couple opportunities for group discussion. The first was on the how townships would be involved in the planning process and what actions they needed to take to be covered by the plan. Townships will continue to be included in the process and be asked for input, but they are not required to officially adopt the plan. When the County adopts the plan, it will cover the unincorporated areas of the county, which includes the townships.

There was also discussion on the list of potential hazards to be included in the plan. Primarily, the discussion centered on coastal erosion/flooding, earthquakes, and land subsidence/sinkholes. After discussing the validity of these disasters, it was decided to leave them all in for now and where each jurisdiction begins discussion, they can decide at that time which ones to include.

The other discussion centered on adding electrical outages and cyber-attack/security as stand alone disasters. It was decided by the group that power/communication outages would be discussed under each disaster as a cascading event where appropriate. Also, cyber-attack/security would be covered under the civil disturbance/terrorism disaster.

There was also a question regarding the County's status since the current plan was from 2015 (7 years prior) and whether they were still in good standing with FEMA. It was confirmed that due to the pandemic over the past two years, the County was granted an extension to update their plan as long as they were making progress toward doing so.

## **Clara City Hazard Mitigation Planning Meeting**

**October 11, 2022, 10am**

**Clara City City Hall**

1. Hazard mitigation introduction
2. Go over any gaps and deficiencies from 2015 Plan
3. Go over previous mitigation strategies and evaluate
4. Develop mitigation strategies for 2022-23 plan - Need at least one mitigation action per each identified hazard (\*see below)
  - a. Types of strategies to think about:
    - i. Plans/Regulations
    - ii. Structure/Infrastructure
    - iii. Natural systems protection
    - iv. Education and awareness
    - v. Preparedness and Response Support
  - b. Things to consider –
    - i. Are there disasters that do not impact the community or have a very unlikely chance of occurring?
    - ii. Who will implement?
    - iii. What is estimated cost? Funding sources?
    - iv. Is it cost beneficial?
    - v. How much of a priority is the action?
    - vi. Timeline for implementation
  - c. Natural Disasters – as we go through each, note any previous disaster events since 2015
  - d. Human caused disasters
5. Hazard analysis – will conduct as we go through disasters

\*C4-b. Each plan participant must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment. The actions must be achievable and demonstrate how the mitigation activities reduce the risks identified in the risk assessment. The actions may apply to physical infrastructure, as well as the populations within the planning area. Actions may apply to one or more participants, as long as each participant is clearly associated with one or more actions. Non-mitigation actions can be included in a plan but will not be considered as part of the mitigation action requirement. These include actions that do not contribute to a long-term solution for the problem they are intended to address. Plan updates may validate and include previously included actions if those actions are being reconsidered for implementation to reduce the risks of identified hazards in the plan's current risk assessment.

## Summary of Gaps/Deficiencies from 2015 Plan (Community specific G/D's are bold)

### “Summer Storms” (Includes T-storms, tornadoes, lightning, hail, winds) - Gaps and Deficiencies

- As much as 10% (approximately 500 homes) in the county lack basements that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm.
- Manufactured home parks in and around **Montevideo** are quite old and do not provide on-site safety shelters for residents. Emergency management personnel notify residents of the location of the safety shelters when they move to the area. Residents are told to go directly to the **Montevideo Hospital**. Progress is being made on a safe room for 120 people near North Dale Mobile Home Park in **Montevideo**.
- Most power lines in the county are above ground and subject to damage from ice storms, wind and falling tree limbs. There are few community requirements that discourage the planting of large trees near power lines.
- **Watson**, population 205, could benefit from a safe room in the community to serve residents that do not have safe places to go during severe weather.

### Extreme Temperatures – none listed

### Flooding - Program Gaps and Deficiencies

- The salvage yard near **Montevideo** needs to be moved out of the floodplain. Currently the project is not financially feasible.
- A few businesses remain in identified 100-year floodplains, including nonconforming structures and uses currently “grandfathered in” in both the **county** and **Montevideo** land use plans and ordinances.
- **Clara City** and **Maynard** have homes at risk during 100-year flood events and have not fully addressed the 100-year flood risks in its planning and zoning.
- **Montevideo** and **Granite Falls** have homes and business at risk during 100-year flood events.
- Local resources are not adequate for a severe and prolonged flood and there is a need for assistance from outside the community during an emergency.
- After the 2003 planned buyouts in **Montevideo**, 18 homes still remain in the 100-year floodplain.
- The discharge from the Willmar wastewater treatment plant is released into **Hawk Creek**. Because of the warm water, more ice builds up on **Hawk Creek**, creating a larger issue.
- DNR forestry staff suggest that the costs and hazards associated with downed trees as debris flow might be mitigated through improved “sanitation cutting” in the floodplain. There are provisions within the Reinvest in Minnesota (RIM) set aside program that allows limited timber cutting on lands enrolled in the program. However, the cutting must be allowed in a timber management plan prepared by a DNR forester. Not all SWCDs and landowners have been utilizing this aspect of the RIM program.

### Erosion - Program Gaps and Deficiencies

- More education is needed on the devastating impacts erosion could have on the county, as well as prevention techniques.

### Droughts - Program Gaps and Deficiencies

- County has no estimates of annual recharge rates or the capacities of the various aquifers.



- Water conservation provisions and use restrictions in times of drought are not included in county ordinances.
- The current county water plan recommends wellhead protection standards for adoption via ordinance by Chippewa County but has yet to be implemented.

### **Wildfires - Program Gaps and Deficiencies**

- Currently, county zoning lacks regulations regarding vegetation on property. One of the problems with past fires is the undergrowth and overhanging trees near residential structures. Although aesthetically appealing, vegetation around homes has destroyed numerous dwellings in past fires.
- There is currently no program to ensure that fire is considered when planning conservation plantings that include woody cover. Firebreaks should be included to protect homes and woody cover as well as allowing the use of fire as a management tool. (If a tree and shrub planting is placed in the middle of a prairie planting, it may be difficult to accomplish a prescribed management burn of that property without damaging or destroying the woody component. It may also be impossible to protect that planting in the event of a wildfire.)
- Communications between DNR and local fire departments could be improved.
- Because of the rough terrain and location of wildfires many of the fire departments do not have adequate equipment to fight wildfires. Fire vehicles are not able to access these areas. More grass rigs and off-road vehicles are needed to address the problem of wild land and grass fires.

### **Dam Failure - Program Gaps and Deficiencies**

- None Listed.

## **HUMAN CAUSED**

### **Infectious Diseases - Program Gaps and Deficiencies**

- Countryside Public Health has a plan in place with multiple ways to reach the public. This plan requires and receives continuous review, constant monitoring, and updates as necessary.

### **Structural Fires – Program Gaps and Deficiencies**

- Although not in use very often, homes with chimneys pose a large threat of fires. Specialized training classes, such as chimney cleaning, safe cooking in the kitchen, and holiday hazards, could be offered to residents.
- Residents living in higher density areas should be more educated on fire prevention.
- In the back of the main street in **Montevideo** there are large power lines behind the tall buildings that limit accessibility in the event of a major structure fire.

### **Hazardous Materials – Program Gaps and Deficiencies**

- There is no warning system currently in place for warning residents in the rural area of a hazardous materials spill, although plans are to upgrade. Although this would be an effective warning system, emergency personnel will still need to go door-to-door to make sure everyone is out.

- Plans, policies and/or procedures are not in place to deal with a meth lab incident in the county. Law enforcement and emergency services are able to deal with meth labs, but the general public should be more educated on the risks. Lack of information and awareness has left the county susceptible to an accident that could impact a large area.

#### **Water Supply Contamination – Program Gaps and Deficiencies**

- The emergency response plan does not identify alternate sources of drinking water, including locates for acquiring adequate amounts of bottled water, in the event of contamination.

#### **Wastewater Treatment System Failure – Program Gaps and Deficiencies**

- Human-induced events, like terrorism, are not addressed in all emergency plans.

#### **Civil Disturbance – Program Gaps and Deficiencies**

- Design and operations of facilities in the county were not developed with terrorism prevention in mind.
- Chippewa County government buildings, including the county courthouse and **city hall**, have unrestricted pedestrian access.
- The **Montevideo City Hall** and the Chippewa County Courthouse do not have fire suppression systems and are not blast resistant. Montevideo had a fire detection system installed in 2000.

## Clara City: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

Goal 1: Promote safe and accessible shelter from violent storms.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Encourage that all new homes without basements have a safe shelter where household residents may go in case of violent storms.	Construct a safe room and place in Lion's Park near the City Pool.	8-10 years	City	\$3,000	FEMA	2	Citizen Safety
	Create an Educational Packet of Emergency information for city residents and distribute information through public television and mailings.	3-5 years	City	\$500	FEMA	3	Educate citizens
Require that all manufactured homes use tie-downs.	Seek funding sources for tie-downs on existing manufactured homes.	1-2 years	City/Residents	\$250-500 per	SCDP	7	Citizen Safety
Investigate snow fences in Chippewa County.	Install a 1/2 mile Living Snow Fence along properties in the Northwest portion of the City.	5-7 years	City	Unknown	FEMA	8	Citizen Safety

### Flood

Goal 2: Improve the safety and security Wastewater Treatment Plants/lift stations.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Protect Clara City's Lift Station.	Build a berm along Hawk Creek.	2 years	City	Unknown	FEMA	1	Citizen Safety
Goal 3: Minimize the flooding along Hawk Creek.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Work with the city of Willmar to keep ice out of Clara City and Maynard.	The cities of Clara City and Maynard should participate in dialogue with the Hawk Creek Watershed District, the city of Willmar and the MPCA. Investigate the diversion of water to Grass Lake especially during flooding. Consider seeking state or federal funding.	Recurring	Clara City, Maynard, Willmar, Hawk Creek Watershed District	\$20,000	FEMA/ DNR/ ACOE	5	Citizen Safety
Protect the homes in Clara City that is danger of seasonal flooding in response to the ice dams at the bridges.	Annually review the plan of action which addresses flooding. This plan includes early sandbagging and having equipment available to move ice which will reduce flooding.	Recurring	City	Unknown	FEMA	4	Citizen Safety

Clara City: Goals, Objectives, and Mitigation Strategies

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Civil Disturbance/Terrorism

Goal 1: Protect critical infrastructure.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install security measures at city water treatment plants.	A. Install alarms on buildings.	3-4 years	City	\$300-500	--	6	Citizen Safety

## Mitigation Ideas

Steven Jones, City Administrator, City of Clara City

Hazard	Description of Concern or Proposed Mitigation Action
Flooding, Minnesota River & Hawk Creek	Continue with flood protection and flood mitigation in Montevideo and Clara City
Heavy Rain	Storm water ponds, water gardens, signage (for vulnerable areas)
Tornadoes	Early warning, protection for vulnerable populations and areas
Wind Damage	Early warning, building practices that encourage protection devices or anchors, tree trimming. In the winter, blowing snow and SNIRT!!  Wind breaks for blizzard areas (Highway 7 from Montevideo to Clara City, and others.)
Blizzards	Vehicles and personnel for rescues. Shelters for traveling public stuck in our communities.
Train or truck spills.	Evacuation plans and warnings. Clean-up crews. First responder training and equipment.

## **Clara City Hazard Mitigation Planning Meeting**

**October 11, 2022**

**10:00am-12:00pm**

### **Clara City Community Building**

The City of Clara City held a meeting to discuss updating the community's hazard mitigation planning strategies on October 11, 2022 at 10am at the Clara City Community Building. Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission facilitated the meeting. Representatives of the City were in attendance as well as Stephanie Weick, County Emergency Management Director (see attached attendance sheet). Ketelsen gave a background on hazard mitigation and the purpose of having a plan in place and why they were updating the County's plan. The group was presented gaps and deficiencies from the 2015 plan and were asked if any of Clara City's had been addressed since then. There was then discussion on the City's 2015 mitigation strategy and what had been done or if they would like to modify or eliminate any of them. The group decided to eliminate the strategy of discussing the Hawk Creek ice dam issue with the City of Willmar as they felt the problem is more likely downstream. Another strategy (construction of a berm along Hawk Creek to protect the city's lift station) was removed as it is scheduled to be completed soon.

The bulk of the remainder of the meeting was to discuss the mitigation strategies for the plan update. Since the last plan, a new requirement that came about was that each of the hazards listed in the State of MN Hazard Mitigation Plan needs to be addressed and for each hazard listed in the plan, there needs to be at least one mitigation strategy. The committee chose to eliminate dam/levee failure, erosion/landslides/mudslides, coastal erosion/flooding, land subsidence (sinkholes), earthquakes from the list of disasters due to their extremely low probability of occurrence. Also as part of the discussion on each disaster, the committee was asked to perform a hazard analysis scoring exercise to help the City prioritize the mitigation strategies.

Upon completion of the discussion, Ketelsen explained the next steps being that he would type up a summary of the meeting and the new mitigation strategy for their review. After that, it would be presented to the City Council for review and inclusion in the County's Hazard Mitigation Plan Update to be submitted to FEMA for final approval.

2 hours

## Hazard Mitigation Attendance/Sign-in Sheet

Name of Jurisdiction: Clara City

Date: 10-11-22

[illegible]

## **Maynard Hazard Mitigation Planning Meeting**

**October 25, 2022, 10am**

**Maynard City Hall**

1. Hazard mitigation introduction
2. Go over any gaps and deficiencies from 2015 Plan
3. Go over previous mitigation strategies and evaluate
4. Develop mitigation strategies for 2022-23 plan - Need at least one mitigation action per each identified hazard (\*see below)
  - a. Types of strategies to think about:
    - i. Plans/Regulations
    - ii. Structure/Infrastructure
    - iii. Natural systems protection
    - iv. Education and awareness
    - v. Preparedness and Response Support
  - b. Things to consider –
    - i. Are there disasters that do not impact the community or have a very unlikely chance of occurring?
    - ii. Who will implement?
    - iii. What is estimated cost? Funding sources?
    - iv. Is it cost beneficial?
    - v. How much of a priority is the action?
    - vi. Timeline for implementation
  - c. Natural Disasters – as we go through each, note any previous disaster events since 2015
  - d. Human caused disasters
5. Hazard analysis – will conduct as we go through disasters

\*C4-b. Each plan participant must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment. The actions must be achievable and demonstrate how the mitigation activities reduce the risks identified in the risk assessment. The actions may apply to physical infrastructure, as well as the populations within the planning area. Actions may apply to one or more participants, as long as each participant is clearly associated with one or more actions. Non-mitigation actions can be included in a plan but will not be considered as part of the mitigation action requirement. These include actions that do not contribute to a long-term solution for the problem they are intended to address. Plan updates may validate and include previously included actions if those actions are being reconsidered for implementation to reduce the risks of identified hazards in the plan's current risk assessment.



## Summary of Gaps/Deficiencies from 2015 Plan (Community specific G/D's are bold)

### “Summer Storms” (Includes T-storms, tornadoes, lightning, hail, winds) - Gaps and Deficiencies

- As much as 10% (approximately 500 homes) in the county lack basements that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm.
- Manufactured home parks in and around **Montevideo** are quite old and do not provide on-site safety shelters for residents. Emergency management personnel notify residents of the location of the safety shelters when they move to the area. Residents are told to go directly to the **Montevideo Hospital**. Progress is being made on a safe room for 120 people near North Dale Mobile Home Park in **Montevideo**.
- Most power lines in the county are above ground and subject to damage from ice storms, wind and falling tree limbs. There are few community requirements that discourage the planting of large trees near power lines.
- **Watson**, population 205, could benefit from a safe room in the community to serve residents that do not have safe places to go during severe weather.

### Extreme Temperatures – none listed

### Flooding - Program Gaps and Deficiencies

- The salvage yard near **Montevideo** needs to be moved out of the floodplain. Currently the project is not financially feasible.
- A few businesses remain in identified 100-year floodplains, including nonconforming structures and uses currently “grandfathered in” in both the **county** and **Montevideo** land use plans and ordinances.
- **Clara City** and **Maynard** have homes at risk during 100-year flood events and have not fully addressed the 100-year flood risks in its planning and zoning.
- **Montevideo** and **Granite Falls** have homes and business at risk during 100-year flood events.
- Local resources are not adequate for a severe and prolonged flood and there is a need for assistance from outside the community during an emergency.
- After the 2003 planned buyouts in **Montevideo**, 18 homes still remain in the 100-year floodplain.
- The discharge from the Willmar wastewater treatment plant is released into Hawk Creek. Because of the warm water, more ice builds up on Hawk Creek, creating a larger issue.
- DNR forestry staff suggest that the costs and hazards associated with downed trees as debris flow might be mitigated through improved “sanitation cutting” in the floodplain. There are provisions within the Reinvest in Minnesota (RIM) set aside program that allows limited timber cutting on lands enrolled in the program. However, the cutting must be allowed in a timber management plan prepared by a DNR forester. Not all SWCDs and landowners have been utilizing this aspect of the RIM program.

### Erosion - Program Gaps and Deficiencies

- More education is needed on the devastating impacts erosion could have on the county, as well as prevention techniques.

### Droughts - Program Gaps and Deficiencies

- County has no estimates of annual recharge rates or the capacities of the various aquifers.

- Water conservation provisions and use restrictions in times of drought are not included in county ordinances.
- The current county water plan recommends wellhead protection standards for adoption via ordinance by Chippewa County but has yet to be implemented.

### **Wildfires - Program Gaps and Deficiencies**

- Currently, county zoning lacks regulations regarding vegetation on property. One of the problems with past fires is the undergrowth and overhanging trees near residential structures. Although aesthetically appealing, vegetation around homes has destroyed numerous dwellings in past fires.
- There is currently no program to ensure that fire is considered when planning conservation plantings that include woody cover. Firebreaks should be included to protect homes and woody cover as well as allowing the use of fire as a management tool. (If a tree and shrub planting is placed in the middle of a prairie planting, it may be difficult to accomplish a prescribed management burn of that property without damaging or destroying the woody component. It may also be impossible to protect that planting in the event of a wildfire.)
- Communications between DNR and local fire departments could be improved.
- Because of the rough terrain and location of wildfires many of the fire departments do not have adequate equipment to fight wildfires. Fire vehicles are not able to access these areas. More grass rigs and off-road vehicles are needed to address the problem of wild land and grass fires.

### **Dam Failure - Program Gaps and Deficiencies**

- None Listed.

## **HUMAN CAUSED**

### **Infectious Diseases - Program Gaps and Deficiencies**

- Countryside Public Health has a plan in place with multiple ways to reach the public. This plan requires and receives continuous review, constant monitoring, and updates as necessary.

### **Structural Fires – Program Gaps and Deficiencies**

- Although not in use very often, homes with chimneys pose a large threat of fires. Specialized training classes, such as chimney cleaning, safe cooking in the kitchen, and holiday hazards, could be offered to residents.
- Residents living in higher density areas should be more educated on fire prevention.
- In the back of the main street in **Montevideo** there are large power lines behind the tall buildings that limit accessibility in the event of a major structure fire.

### **Hazardous Materials – Program Gaps and Deficiencies**

- There is no warning system currently in place for warning residents in the rural area of a hazardous materials spill, although plans are to upgrade. Although this would be an effective warning system, emergency personnel will still need to go door-to-door to make sure everyone is out.

- Plans, policies and/or procedures are not in place to deal with a meth lab incident in the county. Law enforcement and emergency services are able to deal with meth labs, but the general public should be more educated on the risks. Lack of information and awareness has left the county susceptible to an accident that could impact a large area.

#### **Water Supply Contamination – Program Gaps and Deficiencies**

- The emergency response plan does not identify alternate sources of drinking water, including locates for acquiring adequate amounts of bottled water, in the event of contamination.

#### **Wastewater Treatment System Failure – Program Gaps and Deficiencies**

- Human-induced events, like terrorism, are not addressed in all emergency plans.

#### **Civil Disturbance – Program Gaps and Deficiencies**

- Design and operations of facilities in the county were not developed with terrorism prevention in mind.
- Chippewa County government buildings, including the county courthouse and **city hall**, have unrestricted pedestrian access.
- The **Montevideo City Hall** and the Chippewa County Courthouse do not have fire suppression systems and are not blast resistant. Montevideo had a fire detection system installed in 2000.

## City of Maynard: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

#### Goal 1: Promote safe and accessible storm shelters from violent storms.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Encourage that all new homes without basements have a safe shelter where household residents may go in case of violent storms.	Create an Educational Packet of Emergency information for city residents and distribute information through public television and mailings.	1-2 years	City	\$500	FEMA	4	Citizen Safety

### Flood

#### Goal 2: Improve the safety and security Wastewater Treatment Plants/lift stations.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Protect Maynard's Wastewater Treatment Plant.	Build a berm along Hawk Creek.	2 years	City	Unknown	FEMA/ DNR	1	Citizen Safety

#### Goal 3: Minimize the flooding along Hawk Creek.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Work with the city of Willmar to keep ice out of Clara City and Maynard.	The cities of Clara City and Maynard should participate in dialogue with the Hawk Creek Watershed District, the city of Willmar and the MPCA. Investigate the diversion of water to Grass Lake especially during flooding. Consider seeking state or federal funding.	Recurring	Clara City, Maynard, Willmar, Hawk Creek Watershed District	\$20,000	FEMA/ DNR/ ACOE	5	Citizen Safety
Protect residences in Maynard.	Build a berm along east side of Hawk Creek.	2 years	Maynard	Unknown	FEMA/ DNR	2	Citizen Safety
Protect cemetery in Maynard.	Build a berm along Hawk Creek.	2 years	Maynard Lutheran Church	Unknown	FEMA/ DNR	3	Prevent Flooding

### Civil Disturbance/Terrorism

#### Goal 1: Protect critical infrastructure.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install security measures at city water treatment plants.	A. Install alarms on buildings.	3-4 years	City	\$300-500	--	6	Citizen Safety

## **Maynard Hazard Mitigation Planning Meeting**

**October 11, 2022**

**10:00-11:30am**

### **Maynard Community Building**

The City of Maynard held a meeting to discuss updating the community's hazard mitigation planning strategies on October 25, 2022 at 10am at the Maynard Community Building. Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission facilitated the meeting. Representatives of the City were in attendance as well as Stephanie Weick, County Emergency Management Director (see attached attendance sheet). Ketelsen gave a background on hazard mitigation and the purpose of having a plan in place and why they were updating the County's plan. The group was presented gaps and deficiencies from the 2015 plan and were asked if any of Maynard's had been addressed since then. There was then discussion on the City's 2015 mitigation strategy and what had been done or if they would like to modify or eliminate any of them. The group decided to eliminate the strategy of discussing the Hawk Creek ice dam issue with the City of Willmar as they felt the problem is more likely downstream. There was also some brief discussion on the aging utility poles and potential flooding near the wastewater treatment facility and cemetery. There was also some discussion on how flooding had been alleviated somewhat by the new road/bridge on the southwest part of town and how it has allowed water to flow more freely.

The bulk of the remainder of the meeting was to discuss the mitigation strategies for the plan update. Since the last plan, a new requirement that came about was that each of the hazards listed in the State of MN Hazard Mitigation Plan needs to be addressed and for each hazard listed in the plan, there needs to be at least one mitigation strategy. The committee chose to eliminate dam/levee failure, erosion/landslides/mudslides, coastal erosion/flooding, land subsidence (sinkholes), and earthquakes from the list of disasters due to their extremely low probability of occurrence. Also, as part of the discussion on each disaster, the committee was asked to perform a hazard analysis scoring exercise to help the City prioritize the mitigation strategies.

Upon completion of the discussion, Ketelsen explained the next steps being that he would type up a summary of the meeting and the new mitigation strategy for their review. After that, it would be presented to the City Council for review and inclusion in the County's Hazard Mitigation Plan Update to be submitted to FEMA for final approval.

1.5 hours

## Hazard Mitigation Attendance/Sign-in Sheet

Name of Jurisdiction: Maynard

Date: 10/25/22

[illegible]

## **Milan Hazard Mitigation Planning Meeting**

**November 14, 2022, 5:30pm**

### **Milan City Hall**

1. Hazard mitigation introduction
2. Go over any gaps and deficiencies from 2015 Plan
3. Go over previous mitigation strategies and evaluate
4. Develop mitigation strategies for 2022-23 plan - Need at least one mitigation action per each identified hazard (\*see below)
  - a. Types of strategies to think about:
    - i. Plans/Regulations
    - ii. Structure/Infrastructure
    - iii. Natural systems protection
    - iv. Education and awareness
    - v. Preparedness and Response Support
  - b. Things to consider –
    - i. Are there disasters that do not impact the community or have a very unlikely chance of occurring?
    - ii. Who will implement?
    - iii. What is estimated cost? Funding sources?
    - iv. Is it cost beneficial?
    - v. How much of a priority is the action?
    - vi. Timeline for implementation
  - c. Natural Disasters – as we go through each, note any previous disaster events since 2015
  - d. Human caused disasters
5. Hazard analysis – will conduct as we go through disasters

\*C4-b. Each plan participant must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment. The actions must be achievable and demonstrate how the mitigation activities reduce the risks identified in the risk assessment. The actions may apply to physical infrastructure, as well as the populations within the planning area. Actions may apply to one or more participants, as long as each participant is clearly associated with one or more actions. Non-mitigation actions can be included in a plan but will not be considered as part of the mitigation action requirement. These include actions that do not contribute to a long-term solution for the problem they are intended to address. Plan updates may validate and include previously included actions if those actions are being reconsidered for implementation to reduce the risks of identified hazards in the plan's current risk assessment.

## Summary of Gaps/Deficiencies from 2015 Plan (Community specific G/D's are bold)

### “Summer Storms” (Includes T-storms, tornadoes, lightning, hail, winds) - Gaps and Deficiencies

- As much as 10% (approximately 500 homes) in the county lack basements that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm.
- Manufactured home parks in and around **Montevideo** are quite old and do not provide on-site safety shelters for residents. Emergency management personnel notify residents of the location of the safety shelters when they move to the area. Residents are told to go directly to the **Montevideo Hospital**. Progress is being made on a safe room for 120 people near North Dale Mobile Home Park in **Montevideo**.
- Most power lines in the county are above ground and subject to damage from ice storms, wind and falling tree limbs. There are few community requirements that discourage the planting of large trees near power lines.
- **Watson**, population 205, could benefit from a safe room in the community to serve residents that do not have safe places to go during severe weather.

### Extreme Temperatures – none listed

### Flooding - Program Gaps and Deficiencies

- The salvage yard near **Montevideo** needs to be moved out of the floodplain. Currently the project is not financially feasible.
- A few businesses remain in identified 100-year floodplains, including nonconforming structures and uses currently “grandfathered in” in both the **county** and **Montevideo** land use plans and ordinances.
- **Clara City** and **Maynard** have homes at risk during 100-year flood events and have not fully addressed the 100-year flood risks in its planning and zoning.
- **Montevideo** and **Granite Falls** have homes and business at risk during 100-year flood events.
- Local resources are not adequate for a severe and prolonged flood and there is a need for assistance from outside the community during an emergency.
- After the 2003 planned buyouts in **Montevideo**, 18 homes still remain in the 100-year floodplain.
- The discharge from the Willmar wastewater treatment plant is released into Hawk Creek. Because of the warm water, more ice builds up on Hawk Creek, creating a larger issue.
- DNR forestry staff suggest that the costs and hazards associated with downed trees as debris flow might be mitigated through improved “sanitation cutting” in the floodplain. There are provisions within the Reinvest in Minnesota (RIM) set aside program that allows limited timber cutting on lands enrolled in the program. However, the cutting must be allowed in a timber management plan prepared by a DNR forester. Not all SWCDs and landowners have been utilizing this aspect of the RIM program.

### Erosion - Program Gaps and Deficiencies

- More education is needed on the devastating impacts erosion could have on the county, as well as prevention techniques.

### Droughts - Program Gaps and Deficiencies

- County has no estimates of annual recharge rates or the capacities of the various aquifers.



- Water conservation provisions and use restrictions in times of drought are not included in county ordinances.
- The current county water plan recommends wellhead protection standards for adoption via ordinance by Chippewa County but has yet to be implemented.

### **Wildfires - Program Gaps and Deficiencies**

- Currently, county zoning lacks regulations regarding vegetation on property. One of the problems with past fires is the undergrowth and overhanging trees near residential structures. Although aesthetically appealing, vegetation around homes has destroyed numerous dwellings in past fires.
- There is currently no program to ensure that fire is considered when planning conservation plantings that include woody cover. Firebreaks should be included to protect homes and woody cover as well as allowing the use of fire as a management tool. (If a tree and shrub planting is placed in the middle of a prairie planting, it may be difficult to accomplish a prescribed management burn of that property without damaging or destroying the woody component. It may also be impossible to protect that planting in the event of a wildfire.)
- Communications between DNR and local fire departments could be improved.
- Because of the rough terrain and location of wildfires many of the fire departments do not have adequate equipment to fight wildfires. Fire vehicles are not able to access these areas. More grass rigs and off-road vehicles are needed to address the problem of wild land and grass fires.

### **Dam Failure - Program Gaps and Deficiencies**

- None Listed.

## **HUMAN CAUSED**

### **Infectious Diseases - Program Gaps and Deficiencies**

- Countryside Public Health has a plan in place with multiple ways to reach the public. This plan requires and receives continuous review, constant monitoring, and updates as necessary.

### **Structural Fires – Program Gaps and Deficiencies**

- Although not in use very often, homes with chimneys pose a large threat of fires. Specialized training classes, such as chimney cleaning, safe cooking in the kitchen, and holiday hazards, could be offered to residents.
- Residents living in higher density areas should be more educated on fire prevention.
- In the back of the main street in **Montevideo** there are large power lines behind the tall buildings that limit accessibility in the event of a major structure fire.

### **Hazardous Materials – Program Gaps and Deficiencies**

- There is no warning system currently in place for warning residents in the rural area of a hazardous materials spill, although plans are to upgrade. Although this would be an effective warning system, emergency personnel will still need to go door-to-door to make sure everyone is out.

- Plans, policies and/or procedures are not in place to deal with a meth lab incident in the county. Law enforcement and emergency services are able to deal with meth labs, but the general public should be more educated on the risks. Lack of information and awareness has left the county susceptible to an accident that could impact a large area.

#### **Water Supply Contamination – Program Gaps and Deficiencies**

- The emergency response plan does not identify alternate sources of drinking water, including locates for acquiring adequate amounts of bottled water, in the event of contamination.

#### **Wastewater Treatment System Failure – Program Gaps and Deficiencies**

- Human-induced events, like terrorism, are not addressed in all emergency plans.

#### **Civil Disturbance – Program Gaps and Deficiencies**

- Design and operations of facilities in the county were not developed with terrorism prevention in mind.
- Chippewa County government buildings, including the county courthouse and **city hall**, have unrestricted pedestrian access.
- The **Montevideo City Hall** and the Chippewa County Courthouse do not have fire suppression systems and are not blast resistant. Montevideo had a fire detection system installed in 2000.

## City of Milan: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

Goal 1: Have safe and accessible safe rooms from violent storms.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Complete an annual mailing of the Emergency Preparedness Guide.	Recurring	City Clerk	\$500	FEMA	4	Educate citizens on where to go and what to do in event of hazardous weather
Goal 2: Improve severe storm warning system for all county residents.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Assess adequacy of existing civil defense sirens.	Purchase a new warning siren.	1 year	City	\$17,000	FEMA	2	Ensure entire town is within warning siren hearing area
Ensure that all sectors of the county have immediate severe weather warnings and weather radios.	Obtain funding for the new radio system for EMS and FD in event of a system change.	3-4 years	City	Unknown	County	5	Provide coverage to FD/EMS and increase safety

### Wildfire

Goal 3: Protect the safety of residents and firefighters.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Increase access to equipment suitable to fighting wildfires.	Purchase a grass rig.	1 year	Fire Department	\$55,000	FEMA/MnDNR	3	Increase FD Preparedness

### Water Supply Contamination

Goal 2: Protect residents from contaminated ground water.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Improve or build proper water supply treatment plants.	Build a Water Treatment Plant, water mains, and water storage area with high security.	2 years	City/ WSN Engineering	\$3,500,000	USDA/ DEED	1	Provide potable water to residents

## **Milan Hazard Mitigation Planning Meeting**

**November 14, 2022**

**5:30 to 7:00pm**

### **Milan City Hall**

The City of Milan held a meeting to discuss updating the community's hazard mitigation planning strategies on November 14, 2022 at 5:30pm at the Milan City Hall. Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission facilitated the meeting. Representatives of the City were in attendance as well as Stephanie Weick, County Emergency Management Director (see attached attendance sheet). Ketelsen gave a background on hazard mitigation and the purpose of having a plan in place and why they were updating the County's plan. The group was presented gaps and deficiencies from the 2015 plan and were asked if any of Milan's had been addressed since then. There was then discussion on the City's 2015 mitigation strategy and what had been done or if they would like to modify or eliminate any of them. The planning committee was asked about the % of homes without basements and they estimated that less than 10% had basements as the land in the area is fairly dry and well drained. The committee was asked about their grass firefighting equipment and stated that their two grass rigs and UTV were in good condition. When reviewing the 2015 community strategies, the planning committee would like to keep everything except the purchase of a new grass rig as that was no longer a need. There was some discussion about warning siren coverage and how the southwestern part of town couldn't always hear it. The strategy listing the improvements to the water treatment/supply system was modified to leave just the proposed security measures.

The bulk of the remainder of the meeting was to discuss the mitigation strategies for the plan update. Since the last plan, a new requirement that came about was that each of the hazards listed in the State of MN Hazard Mitigation Plan needs to be addressed and for each hazard listed in the plan, there needs to be at least one mitigation strategy. The committee chose to eliminate dam/levee failure; erosion, landslides, and mudslides; coastal erosion/flooding; land subsidence (sinkholes); and earthquakes from the list of disasters due to their extremely low probability of occurrence. Also, as part of the discussion on each disaster, the committee was asked to perform a hazard analysis scoring exercise to help the City prioritize the mitigation strategies.

Upon completion of the discussion, Ketelsen explained the next steps being that he would type up a summary of the meeting and the new mitigation strategy for their review. After that, it would be presented to the City Council for review and inclusion in the County's Hazard Mitigation Plan Update to be submitted to FEMA for final approval.

## Hazard Mitigation Attendance/Sign-in Sheet

Name of Jurisdiction: City of Milan

Date: 11/14/22

[illegible]

**Montevideo Hazard Mitigation Plan Meeting, October 6, 1pm**

**Montevideo City Hall**

**Agenda**

Sign-in sheet – document local match

Go over critical facilities map – update as needed

Current land use map – still current?

Local resources/capabilities worksheet

Go over gaps/deficiencies

Areas of new development? Residential, commercial, industrial, institutions?

VA home

What properties are still left in floodplain?

Potential shelter locations? Fairgrounds? Any parks?

Vulnerable populations? Elderly, handicapped, ethnicities, proximity to river/hazardous materials?

Major employers?

Mobile home park – shelter completed since last time

Who to serve on local planning committee? And when to meet?

## **Montevideo Hazard Mitigation Plan Meeting, October 6, 1pm (1 hour)**

### **Montevideo City Hall**

#### **Meeting Minutes**

Robert Wolfington (City Manager), Stephanie Weick (County EM), and Kevin Ketelsen (UMVRDC) met on October 6, 2022 to begin work on the City of Montevideo's section of the Chippewa County Hazard Mitigation Plan.

They went over the 2015 critical facilities map and updated as needed. Robert would provide a copy of the most current City land use map.

Ketelsen led Robert through the Local resources/capabilities worksheet and completed it for the City.

Ketelsen brought along a copy of the 2015 gaps/deficiencies that were identified in the 2015 plan. They were discussed and noted whether they had been addressed or were still relevant. They also discussed four strategies from the 2015 plan that pertained to Montevideo and noted any accomplishments.

Wolfington noted areas of new development in the community such as the site of the new VA home, new residential complex and proposed site of additional housing at the site of the school's former performing arts center.

There was discussion about what remained in the floodplain and the status of the properties. The City bought one property this year and would like to buy another with grant funds if possible. There was also discussion on how many commercial properties were left in flood plain. It was estimated there were 8-10 still left.

Shelter locations were discussed. One in mobile home park. Other potential shelter locations included Fairgrounds, Smith Park, and ball field complex

Vulnerable populations were discussed. Nursing homes, schools, and daycares. There is a substantial number of Hispanic residents and the City typically offers Spanish versions of most communication and works with the Hispanic community leaders.

Discussion about storm warning sirens and their condition. Weick noted that they are in good working condition and that one recently had a battery replaced (\$4,000). Wolfington thought the city was well covered and they don't get many if any complaints.

There was discussion on who would serve on local planning committee and the best time to meet.

City manager – Robert Wolfington

Community Development – Jack Gottfried

Mayor/City Council – 2-3 individuals - Nathan Schmidt (also vol. firefighter), Bev Olson

Building inspector/official – Brad Henricksen

Chamber of Commerce – Dustin Satrowski, current president

Public works/Streets– Aaron Blom

Utilities - Byron Hayunga

Electricity –Xcel covers most of the town, MN Valley Coop might cover far eastern part

Emergency services – Police Dept. – Ken Schule; Fire Dept. - Mitch Stueck; Ambulance – CCH (Hospital)

School – Robert will reach out and invite

Countryside Public Health – Robert will reach out and invite

Wolfigton stated that early afternoon should work for the group. Committee meeting was tentatively set for November 10 at 1pm at City Hall. Ketelsen would prepare information for the committee to review prior to the meeting.



@ City Hall

Name of Jurisdiction: Montevideo

Date: 10/6/22

[illegible]

## **Montevideo Hazard Mitigation Planning Meeting**

**November 10, 2022, 1pm**

**Montevideo City Hall**

1. Hazard mitigation introduction
2. Review previous mitigation strategies and evaluate
3. Develop mitigation strategies for 2022-23 plan - Need at least one mitigation action per each identified hazard (\*see below)
  - a. Types of strategies to think about:
    - i. Plans/Regulations
    - ii. Structure/Infrastructure
    - iii. Natural systems protection
    - iv. Education and awareness
    - v. Preparedness and Response Support
  - b. Things to consider –
    - i. Are there disasters that do not impact the community or have a very unlikely chance of occurring?
    - ii. Who will implement?
    - iii. What is estimated cost? Funding sources?
    - iv. Is it cost beneficial?
    - v. How much of a priority is the action?
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  - c. Natural Disasters – as we go through each, note any previous disaster events since 2015
  - d. Human caused disasters
4. Hazard analysis – will conduct as we go through disasters

\*C4-b. Each plan participant must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment. The actions must be achievable and demonstrate how the mitigation activities reduce the risks identified in the risk assessment. The actions may apply to physical infrastructure, as well as the populations within the planning area. Actions may apply to one or more participants, as long as each participant is clearly associated with one or more actions. Non-mitigation actions can be included in a plan but will not be considered as part of the mitigation action requirement. These include actions that do not contribute to a long-term solution for the problem they are intended to address. Plan updates may validate and include previously included actions if those actions are being reconsidered for implementation to reduce the risks of identified hazards in the plan's current risk assessment.

## City of Montevideo: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

#### Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Buy out willing sellers of their structures in the 100-year floodplain including businesses in Montevideo.	Work with the state and federal government to provide funding to acquire and remove non-conforming structures in Flood A & B Zones. – Continue to work on, have bought out three properties since 2014 and one in 2022, with hopes to acquire one more if possible. Once the levee project is complete, new floodplain maps are supposed to come out late October and City Hall will then be in Zone C.	Unknown	City	\$1,000,000	FEMA/ CDBG/ SCDG/ HUD/ EDA	2	Citizen Safety

#### Goal 2: Improve the safety and security of the Montevideo Wastewater Treatment Plant.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Rebuild the levee in Montevideo to protect the Wastewater Treatment Plant.	Continue Levee Project – Phases 2 & 3 – Phase 3B is going on right now and when complete will finalize project.	2 years	City Administration	\$13,000,000	FEMA/ ACOE/ MN State	1	Citizen Safety

#### Goal 4: Improve the safety and security of flood prone areas throughout Chippewa County.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Address flooding issues as a region.	Creation of network of print, radio, social medias that reach all citizens with maps of risk areas, shelters, contact information and what to do in the event of an event. – City has put together a fairly comprehensive flood related document and is available on their website and is available in Spanish.	Recurring	Community Development	Staff Time	--	3	Citizen Education

Hazardous Materials

Goal 2: Protect residents from contaminated ground water.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Improve or build proper water supply treatment plants.	Build a Water Treatment Plant, water mains, and water storage area with high security. - <a href="#">Complete</a>	2 years	City/ WSN Engineering	\$3,500,000	USDA/ DEED	1	Provide potable water to residents

## **Montevideo Hazard Mitigation Planning Meeting**

**November 10, 2022**

**1:00 to 2:30pm**

### **Montevideo City Hall**

The City of Montevideo held a meeting to discuss updating the community's hazard mitigation planning strategies on November 10, 2022 at 1pm at the Montevideo City Hall. Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission facilitated the meeting. Representatives of the City were in attendance as well as Stephanie Weick, County Emergency Management Director (see attached attendance sheet). Ketelsen gave a background on hazard mitigation and the purpose of having a plan in place and why they were updating the County's plan. The group was presented gaps and deficiencies from the 2015 plan and were asked if any of Montevideo's had been addressed since then. There was then discussion on the City's 2015 mitigation strategy and what had been done or if they would like to modify or eliminate any of them. At a prior meeting with City Administrator Robert Wolfington, it was determined that a lot of progress had been made on the 2015 strategies. The City would continue to look to acquire properties in the floodplain as funding and opportunities presented themselves. The City's levee around the wastewater treatment plant is close to being completed and will result in new floodplain maps. The City also completed upgrades to its water treatment plant/mains including improved security. The City will also continue to send out flood-related information to residents on an annual basis.

The bulk of the remainder of the meeting was to discuss the mitigation strategies for the plan update. Since the last plan, a new requirement that came about was that each of the hazards listed in the State of MN Hazard Mitigation Plan needs to be addressed and for each hazard listed in the plan, there needs to be at least one mitigation strategy. The committee chose to coastal erosion/flooding, land subsidence (sinkholes), and earthquakes from the list of disasters due to their extremely low probability of occurrence. Also as part of the discussion on each disaster, the committee was asked to perform a hazard analysis scoring exercise to help the City prioritize the mitigation strategies.

Upon completion of the discussion, Ketelsen explained the next steps being that he would type up a summary of the meeting and the new mitigation strategy for their review. After that, it would be presented to the City Council for review and inclusion in the County's Hazard Mitigation Plan Update to be submitted to FEMA for final approval.



## **Watson Hazard Mitigation Planning Meeting**

**September 7, 2022, 8am**

### **Watson Community Building**

1. Go over any gaps and deficiencies from 2015 Plan
2. Go over previous mitigation strategies and evaluate
3. Develop mitigation strategies for 2022-23 plan - Need at least one mitigation action per each identified hazard (see below)
  - a. Types of strategies to think about:
    - i. Plans/Regulations
    - ii. Structure/Infrastructure
    - iii. Natural systems protection
    - iv. Education and awareness
    - v. Preparedness and Response Support
  - b. Things to consider –
    - i. Are there disasters that do not impact the community or have a very unlikely chance of occurring?
    - ii. Who will implement?
    - iii. What is estimated cost? Funding sources?
    - iv. Is it cost beneficial?
    - v. How much of a priority is the action?
    - vi. Timeline for implementation
  - c. Natural Disasters – as we go through each, note any previous disaster events since 2015
  - d. Human caused disasters
4. Hazard analysis – will email out to Alan to forward to City Council, etc.

C4-b. Each plan participant must identify one or more mitigation actions the participant(s) intends to implement for each hazard addressed in the risk assessment. The actions must be achievable and demonstrate how the mitigation activities reduce the risks identified in the risk assessment. The actions may apply to physical infrastructure, as well as the populations within the planning area. Actions may apply to one or more participants, as long as each participant is clearly associated with one or more actions. Non-mitigation actions can be included in a plan but will not be considered as part of the mitigation action requirement. These include actions that do not contribute to a long-term solution for the problem they are intended to address. Plan updates may validate and include previously included actions if those actions are being reconsidered for implementation to reduce the risks of identified hazards in the plan's current risk assessment.

## Summary of Gaps/Deficiencies from 2015 Plan (Community specific G/D's are bold)

### “Summer Storms” (Includes T-storms, tornadoes, lightning, hail, winds) - Gaps and Deficiencies

- As much as 10% (approximately 500 homes) in the county lack basements that would provide shelter in the event of a tornado or damaging winds from a severe thunderstorm.
- Manufactured home parks in and around **Montevideo** are quite old and do not provide on-site safety shelters for residents. Emergency management personnel notify residents of the location of the safety shelters when they move to the area. Residents are told to go directly to the **Montevideo Hospital**. Progress is being made on a safe room for 120 people near North Dale Mobile Home Park in **Montevideo**.
- Most power lines in the county are above ground and subject to damage from ice storms, wind and falling tree limbs. There are few community requirements that discourage the planting of large trees near power lines.
- **Watson**, population 205, could benefit from a safe room in the community to serve residents that do not have safe places to go during severe weather.

### Extreme Temperatures – none listed

### Flooding - Program Gaps and Deficiencies

- The salvage yard near **Montevideo** needs to be moved out of the floodplain. Currently the project is not financially feasible.
- A few businesses remain in identified 100-year floodplains, including nonconforming structures and uses currently “grandfathered in” in both the **county** and **Montevideo** land use plans and ordinances.
- **Clara City** and **Maynard** have homes at risk during 100-year flood events and have not fully addressed the 100-year flood risks in its planning and zoning.
- **Montevideo** and **Granite Falls** have homes and business at risk during 100-year flood events.
- Local resources are not adequate for a severe and prolonged flood and there is a need for assistance from outside the community during an emergency.
- After the 2003 planned buyouts in **Montevideo**, 18 homes still remain in the 100-year floodplain.
- The discharge from the Willmar wastewater treatment plant is released into Hawk Creek. Because of the warm water, more ice builds up on Hawk Creek, creating a larger issue.
- DNR forestry staff suggest that the costs and hazards associated with downed trees as debris flow might be mitigated through improved “sanitation cutting” in the floodplain. There are provisions within the Reinvest in Minnesota (RIM) set aside program that allows limited timber cutting on lands enrolled in the program. However, the cutting must be allowed in a timber management plan prepared by a DNR forester. Not all SWCDs and landowners have been utilizing this aspect of the RIM program.

### Erosion - Program Gaps and Deficiencies

- More education is needed on the devastating impacts erosion could have on the county, as well as prevention techniques.

### Droughts - Program Gaps and Deficiencies

- County has no estimates of annual recharge rates or the capacities of the various aquifers.



- Water conservation provisions and use restrictions in times of drought are not included in county ordinances.
- The current county water plan recommends wellhead protection standards for adoption via ordinance by Chippewa County but has yet to be implemented.

### **Wildfires - Program Gaps and Deficiencies**

- Currently, county zoning lacks regulations regarding vegetation on property. One of the problems with past fires is the undergrowth and overhanging trees near residential structures. Although aesthetically appealing, vegetation around homes has destroyed numerous dwellings in past fires.
- There is currently no program to ensure that fire is considered when planning conservation plantings that include woody cover. Firebreaks should be included to protect homes and woody cover as well as allowing the use of fire as a management tool. (If a tree and shrub planting is placed in the middle of a prairie planting, it may be difficult to accomplish a prescribed management burn of that property without damaging or destroying the woody component. It may also be impossible to protect that planting in the event of a wildfire.)
- Communications between DNR and local fire departments could be improved.
- Because of the rough terrain and location of wildfires many of the fire departments do not have adequate equipment to fight wildfires. Fire vehicles are not able to access these areas. More grass rigs and off-road vehicles are needed to address the problem of wild land and grass fires.

### **Dam Failure - Program Gaps and Deficiencies**

- None Listed.

## **HUMAN CAUSED**

### **Infectious Diseases - Program Gaps and Deficiencies**

- Countryside Public Health has a plan in place with multiple ways to reach the public. This plan requires and receives continuous review, constant monitoring, and updates as necessary.

### **Structural Fires – Program Gaps and Deficiencies**

- Although not in use very often, homes with chimneys pose a large threat of fires. Specialized training classes, such as chimney cleaning, safe cooking in the kitchen, and holiday hazards, could be offered to residents.
- Residents living in higher density areas should be more educated on fire prevention.
- In the back of the main street in **Montevideo** there are large power lines behind the tall buildings that limit accessibility in the event of a major structure fire.

### **Hazardous Materials – Program Gaps and Deficiencies**

- There is no warning system currently in place for warning residents in the rural area of a hazardous materials spill, although plans are to upgrade. Although this would be an effective warning system, emergency personnel will still need to go door-to-door to make sure everyone is out.

- Plans, policies and/or procedures are not in place to deal with a meth lab incident in the county. Law enforcement and emergency services are able to deal with meth labs, but the general public should be more educated on the risks. Lack of information and awareness has left the county susceptible to an accident that could impact a large area.

#### **Water Supply Contamination – Program Gaps and Deficiencies**

- The emergency response plan does not identify alternate sources of drinking water, including locates for acquiring adequate amounts of bottled water, in the event of contamination.

#### **Wastewater Treatment System Failure – Program Gaps and Deficiencies**

- Human-induced events, like terrorism, are not addressed in all emergency plans.

#### **Civil Disturbance – Program Gaps and Deficiencies**

- Design and operations of facilities in the county were not developed with terrorism prevention in mind.
- Chippewa County government buildings, including the county courthouse and **city hall**, have unrestricted pedestrian access.
- The **Montevideo City Hall** and the Chippewa County Courthouse do not have fire suppression systems and are not blast resistant. Montevideo had a fire detection system installed in 2000.

## City of Watson: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

#### Goal 1: Improve severe storm warning systems for all county residents.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Assess adequacy of existing emergency warning sirens and emergency operation centers.	Purchase a portable generator and transfer switch.	2 years	City	\$6,500	FEMA	2	Ensure that shelters have emergency back-up systems for citizen welfare
	Obtain funding to build a City Maintenance Shop/Emergency Operations Center.	3-5 years	City	\$300,000	USDA	3	Need to store City Equipment and be accessible

### Wastewater Treatment System Failure

#### Goal 1: Improve the safety and security of Granite Falls and other flood-prone areas.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure that all public wastewater facilities are working properly through improvements, updates, and building.	Purchase safety equipment for operating lift stations.	2 years	City	Unknown	FEMA/ USDA	1	Protect water safety and supply

### Structure Fire

#### Goal 1: Provide safety to residents.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
1. Provide adequate and timely fire protection for all cities in Chippewa County. <b>*New Objective</b>	A. Build a satellite fire station for the Montevideo Fire Department located in the City of Watson. <b>*New Strategy</b>	3-10 years	Montevideo Fire Department, City of Watson	Unknown	USDA	4	Citizen Safety

## **Watson Hazard Mitigation Planning Meeting**

**September 7, 2022**

**8:00-9:30am**

### **Watson Community Building**

The City of Watson held a meeting to discuss updating the community's hazard mitigation planning strategies on September 7, 2022 at 8am at the Watson Community Building. Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission facilitated the meeting. Representatives of the City were in attendance as well as Stephanie Weick, County Emergency Management Director. Ketelsen gave a background on hazard mitigation and the purpose of having a plan in place and why they were updating the County's plan. The group was presented gaps and deficiencies from the 2015 plan and were asked if any of Watson's had been addressed since then. There was then discussion on the City's 2015 mitigation strategy and what had been done or if they would like to modify or eliminate any of them. The bulk of the remainder of the meeting was to discuss the mitigation strategies for the plan update. Since the last plan, a new requirement that came about was that each of the hazards listed in the State of MN Hazard Mitigation Plan needs to be addressed and for each hazard listed in the plan, there needs to be at least one mitigation strategy. The committee chose to eliminate flooding, dam/levee failure, erosion/landslides/mudslides, coastal erosion/flooding, land subsidence (sinkholes), earthquakes from the list of disasters due to their extremely low probability of occurrence. The committee also decided to change "Wastewater Treatment System Failure" to "Wastewater Collection Failure" since the City no longer operates a wastewater treatment facility. The collected wastewater from Watson is now piped to the City of Montevideo for treatment and discharge.

Upon completion of the discussion, Ketelsen explained the next steps being that he would type up a summary of the meeting and the new mitigation strategy for their review. After that, it would be presented to the City Council for review and inclusion in the County's Hazard Mitigation Plan Update to be submitted to FEMA for final approval.

City of Watson Hazard Mitigation Meeting  
Sept 7, 2022 - 8am

<u>Name</u>	<u>Position</u>
Kevin Ketelsen	UMVRDC
Todd Vogel	watson city Council
Alan Marohl	Clerk / Treasurer
Todd Tongen	Watson Mayor
Stephanie Weick	Emergency Management

## Chippewa County Hazard Mitigation Agenda

March 9, 2023, 10am

Chippewa County Courthouse

I. Brief recap of hazard mitigation

II. Review list of disasters that could impact Chippewa County from State HM Plan – any to remove/add? (*Bolded disasters were included in 2015 Plan*)

- |   |   |
|---|---|
| 1. Flooding   | 9. <b>Lightning</b> ( <i>included under Violent Storms/Extreme Temps</i> )      |
| 2. <b>Wildfire</b>  |   |
| 3. <b>Windstorms</b> ( <i>included under Violent Storms/Extreme Temps</i> )   | 10. <b>Winter Storms</b> ( <i>included under Violent Storms/Extreme Temps</i> ) |
| 4. <b>Tornadoes</b> ( <i>included under Violent Storms/Extreme Temps</i> )    | 11. <b>Erosion, Landslides and Mudslides</b>                                    |
| 5. <b>Hail</b> ( <i>included under Violent Storms/Extreme Temps</i> )         | 12. Coastal Erosion and Flooding  |
| 6. <b>Dam/Levee Failure</b>   | 13. Land Subsidence (Sinkholes and Karst)                                       |
| 7. <b>Extreme Heat</b> ( <i>included under Violent Storms/Extreme Temps</i> ) | 14. <b>Extreme Cold</b> ( <i>included under Violent Storms/Extreme Temps</i> )  |
| 8. <b>Drought</b>   | 15. Earthquakes   |

III. Review the hazard scoring

IV. Questions to ask of the group –

- a. Any changes related to disasters since 2015?  
New areas of development?
- a. Have any disasters become worse? Less impactful?
- b. Any new areas of vulnerability?

V. **Review Gaps/Deficiencies and 2015 strategies** - As we review them think about:

- a. What has been accomplished?
- b. What is no longer relevant?
- c. Any new strategies to add or modify?
- d. Have any of the priorities changed?

VI. What is next?

## **Chippewa County Hazard Mitigation Meeting**

**March 9, 2023, 10am-12pm**

**Chippewa County Courthouse**

The County hazard mitigation planning committee met on March 9, 2023 to review the gaps/deficiencies and strategies from the 2015 hazard mitigation plan. Several representatives of county departments and public organizations were present (see attached sign-in sheet). Kevin Ketelsen from the UMRDC facilitated the meeting. Those in attendance introduced themselves. Ketelsen shared a brief summary of what hazard mitigation planning was and why the County was doing it.

The first item of discussion was the review of the list of disasters included in the plan. The previous plan had "Violent Storms" which included wind, tornados, lightning, hail, and extreme temperatures. To be consistent with the State of MN plan, the County will break out each of those individual disasters. The committee decided not to include coastal erosion and flooding, land subsidence (sinkholes), and earthquakes due to their non-existence or extreme unlikelihood of them happening. The committee then reviewed the hazard analysis scoring results which assigned a weighted value to each disaster based on probability, severity, warning time, and duration. There was some discussion on where tornados ranked, but after going through the definitions of the scoring ranges, it was decided that it was in the appropriate rank.

Next the committee reviewed the gap/deficiencies from the 2015 plan and noted which were addressed and which remained. Similarly, Ketelsen led the group through the 2015 strategies and there was discussion on each related to whether it was still relevant, needed to be modified or if it could be removed. There was good discussion on a lot of topics.

Ketelsen shared that he planned to incorporate the changes into the plan and that there would be another task force meeting with everyone again sometime later in the spring. He hopes to have a draft of the plan complete by late spring/early summer.

Meeting concluded at 12pm.

# Hazard Mitigation Attendance/Sign-in Sheet

Name of Jurisdiction: Chippewa County

Date: 3-9-23

Time: 10am - 12pm -

Name	Organization	Position
Kevin Kotelsen	UMV RDC	Planner
Stephanie Wuck	Chippewa Sheriff's office	EM
Josh Macziewski	chippewa Drainage	Drainage Inspector
Zach Bothum	Chippewa SWCD	District Manager
Deek Olson	Chippewa County Sheriff	Sheriff
David Lieser	Ch. Co. Commis.	Commissioner
JoAnn Blomme	Chippewa Co. L+R M	Environmental Tech
Kevin Enevaldsen	Chippewa Highway	
Jeremy Gilb	Chippewa Highway	County Engineer
PAUL COYOUNG	PRAIRIE FIVE P&E	Transit Director
Jim Schmaedek	chippewa Co. Townships	chairman
Bill Pauling	CHIPPWA CO Commissioner	Commissioner
David Bothum	Countryside PH	EP Coordinator



**From:** [Stephanie Weick](#) on behalf of [Kevin Ketelsen](#)  
**To:** [David Lieser](#); [Bill Pauling](#); [Stephanie Weick](#); [Candice Jaenisch](#); [Scott Williams](#); [Jeremy Gilb](#); [Derek Olson](#); [Michelle May](#); [Josh Macziewski](#); [James Schmaedeka - Louriston](#); [Ron Abel-Havelock](#); [Lone Tree Twp Treasurer](#); [Crate Twp Chair](#); [John Bristle-Stoneham](#); ["walt.gessler@state.mn.us"](#); [Tom Warner](#); [Ted Nelson](#) ([ted.nelson@prairiefive.org](#)); ["josephs@montevideomedical.com"](#); [toddrodvogel@gmail.com](#); [Windy Block](#); [Milan City Clerk](#); [Watson City Clerk/Mayor](#); [Casey Namken](#) ([Casey.Namken@co.ym.mn.gov](#)); ["Blain Johnson"](#) ([blain.johnson@lqpc.com](#)); [Bill McGeary](#) ([bill.mcgeary@co.swift.mn.us](#)); [larissa.schwenk@pioneerland.lib.mn.us](#); [David Bothun](#) ([David@countyside.co.swift.mn.us](#)); [tjtongen@farmerstel.net](#); [nelsong@hcinet.net](#); [ccpublicworks@hcinet.net](#); [drpieper@hcinet.net](#); [Sherri Broderius](#); [Jill - MN Valley](#) ([jill@mnvalleyrec.com](#)); [scottk@mnvalleyrec.com](#); [Robert Wolfington](#) ([ctyadmin@montevideomn.org](#)); [Montevideo City Clerk](#); ["aaron@montevideomn.org"](#); [olson.beverly@icloud.com](#); [nschmidt1419@yahoo.com](#); [cdd@montevideomn.org](#); [tylersachariason@gmail.com](#); [wmckittrick@montevideoschools.org](#); [Maynard Clerk](#); [Zach Bothun](#); [JoAnn Blomme](#)  
**Subject:** FW: Chippewa County Hazard Mitigation Plan WRAP-UP meeting  
**Start:** Thursday, June 22, 2023 1:00:00 PM  
**End:** Thursday, June 22, 2023 2:00:00 PM  
**Location:** <https://us02web.zoom.us/j/83179177464?pwd=dmQvTlV0ZUQvU3JuVjVnRFhWZ1pGUT09>

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-----Original Appointment-----

From: Stephanie Weick On Behalf Of Kevin Ketelsen  
Sent: Wednesday, May 31, 2023 2:43 PM  
To: David Lieser; Bill Pauling; Candice Jaenisch; Scott Williams; Jeremy Gilb; Derek Olson; Michelle May; Josh Macziewski; James Schmaedeka - Louriston; Ron Abel-Havelock; Charles Degrote - Lone Tree ; Bill Luschen - Crate; John Bristle-Stoneham; 'walt.gessler@state.mn.us'; Tom Warner; Ted Nelson ([ted.nelson@prairiefive.org](#)); 'josephs@montevideomedical.com'; [toddrodvogel@gmail.com](#); 'cityadmin@hcinet.net'; 'cityofmilan@fedteldirect.net'; 'cityofwatson@farmerstel.net'; Casey Namken ([Casey.Namken@co.ym.mn.gov](#)); 'Blain Johnson' ([blain.johnson@lqpc.com](#)); Bill McGeary ([bill.mcgeary@co.swift.mn.us](#)); [larissa.schwenk@pioneerland.lib.mn.us](#); David Bothun ([David@countyside.co.swift.mn.us](#)); [tjtongen@farmerstel.net](#); [nelsong@hcinet.net](#); [ccpublicworks@hcinet.net](#); [drpieper@hcinet.net](#); Sherri Broderius; Jill - MN Valley ([jill@mnvalleyrec.com](#)); [scottk@mnvalleyrec.com](#); Robert Wolfington ([ctyadmin@montevideomn.org](#)); Montevideo City Clerk; 'aaron@montevideomn.org'; [olson.beverly@icloud.com](#); [nschmidt1419@yahoo.com](#); [cdd@montevideomn.org](#); [tylersachariason@gmail.com](#); [wmckittrick@montevideoschools.org](#); 'citmay@mchsi.com'; Zach Bothun; JoAnn Blomme  
Subject: Chippewa County Hazard Mitigation Plan WRAP-UP meeting  
When: Thursday, June 22, 2023 1:00 PM-2:00 PM (UTC-06:00) Central Time (US & Canada).  
Where: <https://us02web.zoom.us/j/83179177464?pwd=dmQvTlV0ZUQvU3JuVjVnRFhWZ1pGUT09>

-----Original Appointment-----

From: Kevin Ketelsen <[kevin@umvrdc.org](mailto:kevin@umvrdc.org)> <<mailto:kevin@umvrdc.org>>  
Sent: Wednesday, May 31, 2023 2:36 PM  
To: Kevin Ketelsen; Stephanie Weick  
Subject: Chippewa Co. Hazard Mitigation Plan Task Force Meeting  
When: Thursday, June 22, 2023 1:00 PM-2:00 PM (UTC-06:00) Central Time (US & Canada).  
Where: <https://us02web.zoom.us/j/83179177464?pwd=dmQvTlV0ZUQvU3JuVjVnRFhWZ1pGUT09> <<https://us02web.zoom.us/j/83179177464?pwd=dmQvTlV0ZUQvU3JuVjVnRFhWZ1pGUT09>>

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Good afternoon,

You are invited to attend the Chippewa County Hazard Mitigation Plan wrap-up meeting. Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission (UMVRDC) will provide an overview of the past year's activities, including changes to the document from 2015, highlights of the various communities' mitigation strategies, and an outline of the next steps. The meeting will be held virtually on Thursday, June 22 at 1pm via Zoom (see link below). This will be the last planning task force meeting before the plan is finalized and made available for public review and comment this summer. If you thought of any additional mitigation projects as a result of this spring's flooding, this meeting would be a good time to share them so they can be included in the plan. We hope you are able to attend.

Thank you,

Stephanie Weick

Chippewa County Emergency Manager

UMVRDC is inviting you to a scheduled Zoom meeting.

Join Zoom Meeting

<https://us02web.zoom.us/j/83179177464?pwd=dmQvTlV0ZUQvU3JuVjVnRFhWZlplGUT09>

Meeting ID: 831 7917 7464

Passcode: 607708

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+1 646 931 3860 US

+1 346 248 7799 US (Houston)

+1 360 209 5623 US

+1 386 347 5053 US

+1 507 473 4847 US

+1 564 217 2000 US

+1 669 444 9171 US

+1 669 900 9128 US (San Jose)

+1 689 278 1000 US

+1 719 359 4580 US

+1 253 205 0468 US

+1 253 215 8782 US (Tacoma)

Meeting ID: 831 7917 7464

Passcode: 607708

Find your local number: <https://us02web.zoom.us/j/83179177464?pwd=dmQvTlV0ZUQvU3JuVjVnRFhWZlplGUT09>

Email invite list for 6/22/23 Wrap up meeting

<b>Name</b>	<b>Org/position</b>	<b>Attend?</b>
Kevin Ketelsen	UMVRDC/Planner	Yes
Stephanie Weick	Chippewa County EM Director	Yes
Scott Williams	Chippewa County Land and Resource Department Director	Yes
Casey Namken	Yellow Medicine County EM Director	Yes
Kristi Fernholz	Planning Director, UMVRDC	Yes
Zach Bothun	Chippewa County SWCD	Yes
Bill Pauling	Chippewa County Commissioner	Yes
David Lieser	Chippewa County Commissioner	Yes
Thomas Fleming	Emergency Medical Services Manager, CCM Health	Yes
Alan Marohl	City of Watson City Clerk	Yes
Candice Jaenisch	Chippewa County Commissioner	No
Jeremy Gilb	Chippewa County Engineer	No
Josh Macziewski	Chippewa County SWCD	No
JoAnn Blomme	Chippewa County Environmental Department	No
Michelle May	Chippewa County Administrator	No
Derek Olson	Chippewa County Sheriff	No
Tom Warner	Chippewa County SWCD	No
Steven Jones	Clara City City Administrator	No
Gary Nelson	Clara City Mayor	No
Jeff Sager	Clara City Public Works Director	No
Gary Nelson	Clara City Mayor	No
Jack Gottfried	City of Montevideo Community Development Director	No
Wade McKittrick	Montevideo Schools Superintendent	No
Sherri Broderius	Superintendent MACCRAY Schools	No
Veronica Blommel	City of Milan City Clerk	No
Nicole Strassburg	Maynard City Clerk	No
Richard Groothuis	Maynard Mayor	No
Robert Wolfington	Montevideo City Manager	No
Glennis Lauritsen	Montevideo City Clerk	No
Aaron Blom	Montevideo Public Works Director	No

Nathan Schmidt	Montevideo City Council President	No
Beverly Olson	Montevideo City Council	No
Tyler Sachariason	Montevideo Chamber of Commerce, Montevideo School Board	No
Todd Tongen	City of Watson Mayor	No
Todd Vogel	City of Watson, City Council	No
James Schmaedeka	Louriston Township	No
Ron Abel	Havelock Township	No
Charles DeGrote	Lone Tree Township Treasurer	No
Bill Luschen	Crate Township Chair	No
John Bristle	Stoneham Township	No
Joseph Skallerud	Chippewa County-Montevideo Hospital Safety Director	No
Scott Kubesh	Member Services Manager, Minnesota Valley Cooperative Light & Power Assn	No
Jill Rothschadl	Office Manager, Minnesota Valley Cooperative Light and Power Association	No
Larissa Schwenk	Head Librarian, Clara City, Maynard, Milan, Montevideo, and Granite Falls Libraries	No
Walt Gessler	Wildlife Area Manager, Minnesota DNR, Lac Qui Parle Wildlife Area	No
Blain Johnson	Lac qui Parle EM	No
Bill McGeary	Swift County EM	No
Ted Nelson	Prairie Five Rides, Program Manager	No
David Bothun	Countryside Public Health	No

## Chippewa County Multi-Hazard Mitigation Plan Update Taskforce Meeting #2

June 22, 2023  
1:00pm  
Virtual (Zoom)



Upper Minnesota Valley  
**REGIONAL  
DEVELOPMENT  
COMMISSION**

1

## Welcome and Introductions

### Planning Team -

- Kevin Ketelsen, Community Development Specialist, UMRVDC
- Kristi Fernholz, Planning Director, UMRVDC
- Stephanie Weick, Director, Chippewa County Emergency Management

2

## Purpose of Today's Meeting

- Wrap up the planning process and provide an update on what has been done over the past year.
  - Changes to the plan
  - Planning process, input, data gathering
  - Strategies and funding sources
  - Next steps

3

## What is Hazard Mitigation?

Hazard mitigation may be defined as any action taken to eliminate or reduce the future risk to human life and property from natural and human caused hazards.

4

## Changes to the plan document

- FEMA added a few new policies effective April 2023
  - One strategy per disaster per jurisdiction
  - Focus on underserved populations
- Reorganized format to be more similar to the State's plan
- Tried to remove any unnecessary information


5

## Planning process –

- Held virtual kickoff meeting in June 2022
- Posted notices on Emergency Management Facebook
- Published in Clara City Herald
- Posted notices in communities – post offices, grocery store
- Attended annual township meeting in April
- Met with local community committees as well as county committee
- Attended city council meetings
- Held virtual wrap-up meeting (today)




6



## Local Capacity Assessments

- Sent out to city clerks and administrators
- Updated the list of current plans, policies and ordinances in place
- Self evaluated local capacities in terms of technical, fiscal, administrative, and political areas

7



## Local Committee Meetings

- Held last summer and fall in each of the five communities
- Consisted of local representatives
  - City clerk/administrators
  - Elected officials
  - Public works/utilities
  - Emergency responders
  - UMRDC and County Emergency Management

8



## Local Committee Meetings

- Reviewed gaps and deficiencies from 2015 plan
- Review strategies from 2015 plan and evaluated
- Conducted a hazard analysis using Calculated Priority Risk Index (CPRI)
- Developed new list of strategies for next five years

9

## Hazard Analysis

Used the Calculated Priority Risk Index (CPRI)

- Scoring exercise that evaluates each potential disaster by:
  - Probability (45%)
  - Severity (30%)
  - Warning time (15%)
  - Duration (10%)
- Assigns a weighted value to each of the above
- Helps identify what disasters need to be addressed and can help to prioritize

10

## Hazard Analysis (County results)

Hazard/Disaster	Probability (45%)	Magnitude/Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
<b>Natural Disasters</b>					
Winds/tornadoes	3	3	4	1	<b>2.95</b>
Drought	3	3	4	1	<b>2.95</b>
Extreme cold	4	2	1	3	<b>2.85</b>
Winter storms	4	2	1	3	<b>2.85</b>
Tornadoes	2	4	4	1	<b>2.8</b>
Dam/Levee Failure	3	4	4	4	<b>2.65</b>
Drought	3	2	1	4	<b>2.5</b>
Flooding	3	3	2	4	<b>2.5</b>
Extreme Heat	3	2	1	3	<b>2.4</b>
Lightning	3	1	2	1	<b>2.05</b>
Wildfire	1	2	4	3	<b>1.95</b>
Erosion, landslides, and mudslides	1	1	1	3	<b>1.2</b>
Coastal erosion and flooding					
Land subsidence (sinkholes/faults)					
Earthquakes					
<b>Human Caused Disasters</b>					
Hazardous materials incident	3	3	4	3	<b>3.15</b>
Water supply contamination	2	4	4	4	<b>3.1</b>
Structural fire	3	3	4	2	<b>3.05</b>
Wastewater treatment failure	2	3	4	4	<b>2.8</b>
Infectious diseases	1	3	3	4	<b>2.65</b>
Civil disturbance/terrorism/Cyber attack	2	2	3	2	<b>2.15</b>


N/A – Were not considered to be threats to the County.

Hazard Priority Risk Ranking Categories	
Score	Priority Level
3.0-4.0	High
2.0-2.99	Moderate
0-1.99	Low


11

## Updated maps

Tornado Paths, 1956-2021



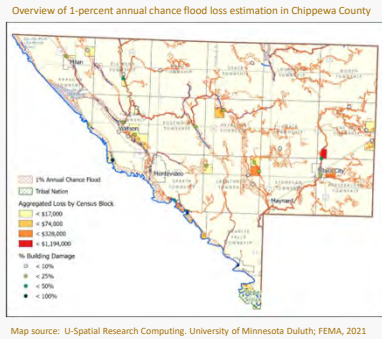
Proposed Flood Map, 2023



12

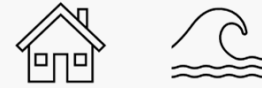
## Hazus Analysis

- Done by U-Spatial Research Computing, University of Minnesota – Duluth
- Looked at vulnerability of properties to 1% annual chance flood
- Required component of plan
- Used proposed FEMA flood maps



13

## Hazus Analysis



*Summary of 1-percent annual chance flood loss estimation by occupancy class*

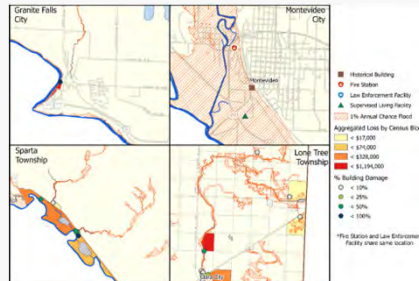
General Occupancy	County Total Buildings	County Building and Contents Value	Floodplain Total Buildings	Floodplain Building + Contents Value	Buildings with damage	Building + Contents Loss
Residential	7,603	\$921,242,248	118	\$22,906,950	22	\$1,588,422
Commercial	624	\$257,317,516	113	\$20,340,000	2	\$1,752
Other	4,339	\$484,673,750	56	\$13,481,650	16	\$541,308
<b>Totals</b>	<b>12,566</b>	<b>\$1,663,233,514</b>	<b>287</b>	<b>\$56,728,600</b>	<b>40</b>	<b>\$2,131,482</b>

Source: (FEMA, 2021)

14

## Hazus Analysis

*Communities with significant estimated 1-percent annual chance flood loss*



15

## Hazus Analysis

*1-percent annual chance flood building-related loss estimates by jurisdiction*

Jurisdiction (county subdivision)	Count of Buildings in Floodplain	Estimated Building and Contents Loss *
Big Bend Township	1	\$16,789
Clara City City	5	\$36,349
Granite Falls City	1	\$1,193,544
Granite Falls Township	4	\$9,337
Havelock Township	4	\$31,531
Kragero Township	3	\$2,388
Leenthrop Township	3	\$191,007
Lone Tree Township	4	\$331,047
Rheiderland Township	1	\$74,283
Rosewood Township	1	\$2,403
Sparta Township	9	\$226,812
Tunberg Township	4	\$15,992
<b>Total</b>	<b>40</b>	<b>\$2,131,482</b>

Source: FEMA, 2021

16

## Updated Disaster Events/Community Data

Updated disaster information and community data using...

- Anecdotal evidence of past disasters from local planning committees
- Event data from National Centers for Environmental Information/NOAA
- Climate change data from MN DNR
- County Assessor's office
- County Emergency Management
- Local and State Planning Documents
- U.S. Census/American Community Survey



17

## Common Strategies

- Work with the MN DNR and FEMA to modernize floodplain maps.
- Encourage residents to sign up for CodeRED emergency notifications.
- Tree trimming around powerlines.
- Identify locations for safe rooms in campgrounds and other outdoor gathering spaces.
  - Potential locations:
    - Buffalo Lake Park (aka, County Park #1)
    - Upper Campground at LqP State Park
    - Chippewa Co. Fairgrounds
    - Lagoon Park (Montevideo)
    - Watson



18

### Clara City Strategies

- Conduct prescribed burns of the grassy natural area west of the school.
- Work with property owners in northwest part of the community to plant a living snow fence or other alternative windbreak such as snow piles.
- Continue to work with County EM and school to prepare, plan and train for hazardous materials response.



19

### Maynard Strategies

- Build a berm(s) along Hawk Creek to protect wastewater treatment plant, Lutheran Cemetery and residences
- Replace Fire Department UTV
- Continue discussions with Xcel Energy regarding the replacement of utility poles and transformer.
- Increase protection/security of City wells, City Hall, & Events Center by installing alarms and/or surveillance system



20

### Milan Strategies

- Work to establish a designated local community shelter at the church basement and equip with new portable generator.
- Develop a local communication plan to notify residents of community shelter availability during/after future storm events.
- Hire an assistant street employee or alternative contractor to help with snow removal on an as-needed basis.



21

### Montevideo Strategies

- Work with State and Federal agencies to provide funding to acquire and remove non-conforming structures in the floodplain
- Storm shelters/restrooms for the fairgrounds and Lagoon Park
- Provide back-up generator for the Public Works Building so it could be used as a command center during disaster situations



Photo credit: Tom Cherveny / West Central Tribune

22

### Watson Strategies

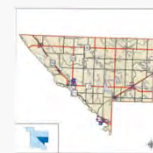
- Provide a community safe room for residents without basements
- Designate the Community Building as community shelter if needed during or after disaster events and equip with basic supplies
- Acquire back-up generator for wastewater lift station



23

### County Strategies

- Work with the MN DNR and FEMA to modernize floodplain maps.
- Encourage residents to sign up for CodeRED emergency notifications.
- Identify locations for safe rooms in campgrounds and other outdoor gathering areas in cities and the greater county.
  - Potential locations:
    - Buffalo Lake Park (aka, County Park #1)
    - Upper Campground at LqP State Park
    - Chippewa Co. Fairgrounds



**CodeRED**



24



## County Strategies (continued...)

- Test/upgrade aging power lines/poles where needed.
- Improve efficiency of emergency response boundaries in rural areas for local departments.
- Work with large livestock and grain operations to train and develop plan for fire response at these large rural facilities.
- Continue and expand the monitoring of ground water levels in order to control consumption during a drought.



25

## Potential Funding Sources



### FEMA

- Flood Mitigation Assistance (FMA)
- Hazard Mitigation Grant Program (HMGP)
- Building Resilient Infrastructure and Communities (BRIC)
- Assistance to Firefighters Grant Program (AFG)

### MN DNR

- Flood Hazard Mitigation Grant Assistance Program (FHM)

### USDA

- Community Facilities Program

26

## FEMA Programs



**Flood Mitigation Assistance (FMA)** - Reduce the risk of flood damage to NFIP-insured buildings.

**Hazard Mitigation Grant Program (HMGP)** – Rebuild after a major disaster in a way that reduces future disaster losses.

**Building Resilient Infrastructure and Communities (BRIC)** – Help reduce risks from future disasters and natural hazards.

**Assistance to Firefighters Grant Program (AFG)** – Funds equipment, protective gear, emergency vehicles, training and other resources necessary for protecting the public and emergency personnel from fire and related hazards.

**Fire Prevention and Safety (FP&S)** - Supports projects that enhance the safety of the public and firefighters from fire and related hazards. *(Part of AFG program)*

27

## MN DNR FHM



- The **Flood Hazard Mitigation Grant Assistance Program (FHM)** was created to reduce the damaging effects of floods.
- Grants to local units of government can be up to 50% of the total cost of a project.
  - Structural acquisition in the 100-year floodplain
  - Levees, ring dikes, and flood walls
  - Elevating existing structures
  - Flood warning systems
  - Public education
  - Flood insurance studies
  - Floodplain mapping
  - Comprehensive watershed plans
  - Flood storage easements
  - Cost share on federal projects

28

## USDA Rural Development

### Community Facilities – Direct Loan and Grant Program

- Funds public safety services such as fire departments, police stations, police vehicles, fire trucks, public works vehicles or equipment
- Storm warning sirens
- Grants are based on local income levels



29

## Next Steps...



- Complete the document
- Internal review by County staff
- Public comment period
- MN HSEM review
- FEMA review
- Local adoption by resolutions

30

Any questions?

Do you have any additional  
mitigation strategies/ideas?  
...Especially after this  
spring's flooding?

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Thank you for attending!



31

## Contact Information

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UMVRDC

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Email: [kevin@umvrdc.org](mailto:kevin@umvrdc.org)

Stephanie Weick, Director

Chippewa County Emergency Management

Phone: (320) 269-2121

Email: [Stephanie.Weick@Chippewa.MN](mailto:Stephanie.Weick@Chippewa.MN)

32

## **Chippewa County Hazard Mitigation Planning Task Force Meeting #2 June 22, 2023, 1:00pm – Meeting Summary and Documentation**

### **Summary**

Chippewa County Emergency Management invited key county, city, and township representatives, as well as neighboring jurisdictions and other stakeholders to attend the 2<sup>nd</sup> Planning Task Force Meeting on Thursday, June 22, 2023. The purpose of the meeting was to formally present activities that had been done over the past year in updating the plan. The meeting was held virtually via Zoom and was facilitated by Kevin Ketelsen of the Upper Minnesota Valley Regional Development Commission.

### **Invitation and Invited Attendees**

Chippewa County Emergency Management invited representatives from the various jurisdictions, departments, organizations, and agencies that were included on the county's previous hazard mitigation planning task force, which includes elected officials, city/county departments, schools, other stakeholder contacts, and neighboring jurisdictions identified to be invited to participate in the plan update process. A copy of the meeting invitation and the county's planning task force contact list is provided in Appendix II.

### **Attendees of 6.22.23 meeting (1:00-2:00pm, via Zoom) (See attached list for list of invitees)**

- Kevin Ketelsen, UMRDC/Planner
- Stephanie Weick, Chippewa County EM Director
- Scott Williams, Chippewa County Land and Resource Department Director
- Casey Namken, Yellow Medicine County EM Director
- Kristi Fernholz, Planning Director, UMRDC
- Zach Bothun, Chippewa County SWCD
- Bill Pauling, Chippewa County Commissioner
- David Lieser, Chippewa County Commissioner
- Thomas Fleming, Emergency Medical Services Manager, CCM Health

### **Presentation and Meeting Summary**

Kevin Ketelsen of the UMRDC led the meeting and gave a PowerPoint presentation highlighting the purpose of the meeting and highlighted the various achievements and tasks accomplished over the past year in updating the plan. A PDF of the presentation slides is included with this meeting summary. The slides were also emailed out after the meeting by Steph Weick, Chippewa County Emergency Manager to everyone on the invitee list.

The slides covered the following topics:

- Purpose of the meeting
- Mitigation definition
- Changes to the document
- Overview of the planning process
- Capability assessments
- Hazard analysis scoring results
- Summary of Hazus analysis
- Summaries of County/community strategies
- Summary of potential funding sources
- Next steps

- Time for questions
- Project contact information

At the end, there was time for questions and/or comments. There was one comment (David Lieser) on how electrical outages would be catastrophic and if there was anything that could be done to mitigate for prolonged outages due to storms, rolling blackouts, terrorism, etc. Ketelsen noted that there is discussion about preventing power outages within some of the disaster sections (wind, winter storms, tornados, etc.) and strategies included (like tree trimming around powerlines, replacing old poles, and backup generation) and would talk to Steph about it. There was another comment (Bill Pauling) stating that he was surprised that infectious diseases were ranked somewhat low in the hazard analysis scoring exercise, especially given we just came out of the pandemic. Ketelsen responded that the lower scoring was likely due to the fairly low probability of a global pandemic occurring. We hadn't experienced a widespread pandemic like COVID for around 100 years prior, so that is likely why it scored low (probability is weighted more heavily than other factors).

## **Appendix III**

*Update/Reports on 2015 Strategies*

### Summary of 2015 Mitigation Actions that were Completed, Modified or Removed in 2023

Goal/Objective (Goal and Obj. #'s reference 2015 plan)	2015 Strategy	Description
<b>Violent Storms, Goal 2, Obj. 3 -</b> Ensure that all communities and rural areas of the county have immediate access to severe weather warnings and communications.	A. Educate the public on the use of weather radios.	<b>MODIFIED</b> - Weather radios are not utilized as much as they used to be, especially with the advent of cell phones and mobile devices. The planning committee would rather focus their efforts on encouraging residents to sign up for CodeRED notifications.
	B. Make weather radios available to rural residents.	
<b>Violent Storms, Goal 3, Obj. 1 -</b> Encourage that all new local electrical distribution lines be placed underground when applicable.	N/A	<b>REVISED</b> – This objective was revised to broaden the options to include other alternatives of preventing power outages due to strong winds and ice. The planning committee noted that burying powerlines in the rural area is not always the best solution and sometimes leads to more trouble. One factor is that gophers have a tendency to chew the lines underground causing outages and finding the area to repair is difficult and costly. Identifying and strengthening poles and lines may be more cost effective in rural areas.
<b>Windstorms, Winter storms, Goal 1, Obj. 2 -</b> Investigate snow fences in Chippewa County.	A. Purchase and install a ½ mile living snow fence along properties located in the northwest portion of Clara City.	<b>MODIFIED</b> - There have been conversations with the landowner, but they are currently unwilling to work with the City/County to plant a windbreak. However, they are willing let snow crews pile snow in the area during the winter months to provide a temporary “snow fence.”
<b>Tornados, Windstorms, Goal 1, Obj. 3 -</b> Require all new manufactured home parks to provide safe shelter for park residents either through a structure on site or a plan of evacuation to safe shelter off site.	B. Seek financial assistance for a safe shelter at Raveling Manufactured Home Park near Montevideo.	<b>REMOVED</b> – The planning committee noted that there are a limited number of mobile homes remaining in the county and would not be feasible to construct a safe room.
<b>Flooding, Goal 1, Obj. 3 -</b> Relocate Flinn's Salvage Yard	A. Work with the state and federal government to secure funding to relocate this nonconforming use.	<b>MODIFIED</b> – Reworded to include other non-conforming uses in floodplain. The planning committee knew of other scrap yards/properties also located in the floodplain and did not want to single out any one business.
<b>Flooding, Goal 3, Obj. 2 -</b> Protect the homes in Clara City that is danger of seasonal flooding in response to the ice dams at the bridges.	A. Annually review the plan of action which addresses flooding. This plan includes early sandbagging and having equipment available to move ice which will reduce flooding.	<b>WILL BE COMPLETE</b> – Clara City will get rip rap installed along Hawk Creek to protect from floodwaters with 2019 FEMA money. Also, stream barbs were installed north of Clara City to slow water flow and debris during high water levels.

<b>Flooding, Goal 4, Obj. 1</b> – Address flooding issues as a region.	A. Work with state agencies, local governments and emergency managers to address flooding issues as a region. Creation of network of print, radio, social medias that reach all citizens with maps of risk areas, shelters, contact information and what to do in the event of a flood.	<b>COMPLETE</b> – The County has conducted person-to-person discussions with property owners impacted by flood areas and will continue to do so.
<b>Flooding, Goal 4, Obj. 1</b> – Address flooding issues as a region.	B. Work regionally to improve the flood forecast system.	<b>REMOVED</b> – The County did not feel that the flood forecast system was inadequate and improving it would be the responsibility of state and federal agencies.
<b>Flooding, Goal 4, Obj. 3</b> - Identify flood concerns in Chippewa County Townships.	A. Identify residences prone to flood hazards for future buyouts.	<b>REMOVED</b> – The County is aware of properties still remaining in the floodplain. When the new flood maps are complete, an updated list can be generated through the County's GIS.
<b>Erosion, Goal 1, Obj. 2</b> - Prevent possibility of damage from river and ravine erosion, landslides, and slope failure.	A. Review, update, and enforce zoning ordinances that prohibit building in areas that are susceptible to water erosion, landslides, and slope failure.	<b>COMPLETE</b> – the County zoning ordinance includes bluff line setbacks
<b>Drought, Goal 1, Obj. 1</b> - Encourage use of water meters to monitor water consumption.	A. Most communities have water meters. Make sure that water consumption information is available during drought times.	<b>REMOVED</b> – All communities have water meters. Monitoring well levels would provide more information to City leaders on impact of drought conditions.
<b>Drought, Goal 2, Obj. 1</b> - Coordinate with and encourage cities within the county to adopt complementing wellhead protection ordinances/plans	A. Actions by County Board and City Councils.	<b>COMPLETE, MODIFIED (Objective)/REMOVED (Strategy A)</b> – The cities in the county have all adopted wellhead protection plans/ordinances. Now the focus is on keeping them updated and enforced as required by the State of MN.
<b>Wildfire, Goal 2, Obj. 2</b> - Identify dry hydrants within the county.	A. Identify the location of all dry hydrants on a map.	<b>COMPLETE</b> – the locations of dry hydrants are mapped and known

<b>Infections Disease, Goal 2, Obj. 1</b> - Maintain and update material, plans, and agreements for addressing infectious diseases.	A. Continue cooperation between Countryside Public Health and County Emergency Manager.	<b>MODIFIED</b> – The planning committee felt that coming out of the recent pandemic, one of the things they learned was the importance of their communication network with other agencies and local providers. The potential diseases may change, but having solid relationships and communication channels contributes to overall efficiency and operations regardless of the situation.
<b>Structural Fire, Goal 1, Obj. 3</b> - Provide adequate and timely fire protection for all cities in Chippewa County.	A. Build a satellite fire station for the Montevideo Fire Department located in the City of Watson.	<b>REMOVED</b> – Since Montevideo has taken over fire response duties, the City of Watson has been pleased with the response times and services provided. The feasibility of building a new fire hall in Watson would be low considering the community's small size and current satisfaction with Montevideo's FD's level of service.
<b>Hazardous Materials, Goal 3, Obj. 1</b> - Adopt new technology and obtain training to improve the county's ability to respond to a disaster.	H. Purchase sensor to detect anhydrous ammonia leaks.	<b>REMOVED</b> – The County chose to remove this strategy as it was unknown what further precautions could be taken. Also, there have not been many, if any incidents involving anhydrous ammonia leaks. Further, it is out of the County's control and would be up to the owner of the tanks to install sensors.
<b>Hazardous Materials, Goal 4, Obj. 1</b> - Implement procedures or programs that address gaps or deficiencies in dealing with hazardous materials.	A. Work to get farmers and fertilizer plants to secure ammonia tanks.	<b>REMOVED</b> – The County chose to remove this strategy as it was unknown what further precautions could be taken. Also, there have not been many, if any incidents involving anhydrous ammonia leaks. Further, it is out of the County's control and would be up to the owner of the tanks to install sensors. Also, it was decided to remove the goal altogether as the strategies did not seem to correlate.
<b>Hazardous Materials, Goal 4, Obj. 2</b> – Work with County and cities to address clean up of illegal drug labs.	A. Educate the public on the dangers of drug labs	<b>MODIFIED</b> – As methamphetamine production has shifted outside of the US, illegal drug labs are no longer much of an issue. However, new illegal drugs such as fentanyl and other opiates are more common and can be more dangerous. As the drug scene continues to evolve, the County felt it best to educate the public to report any suspicious activities if they see them.
<b>Water Supply Contamination, Goal 2, Obj. 1</b> - Provide adequate drinking water in the event of ground water contamination.	A. Identify alternate drinking water sources during an emergency in the Emergency Operations Plan	<b>COMPLETE</b> – Back up water supply is included in the County's Emergency Operations Plan.
<b>Civil Disturbance/Terrorism, Goal 3, Obj. 1</b> – Increase level of security with landscape design and lighting.	A. Continue review of facilities and make changes as needed.	<b>MODIFIED</b> – Reworded the objective to remove language about landscape design and include restricted access points and increased surveillance.
<b>Civil Disturbance/Terrorism, Goal 3, Obj. 2</b> – Separate parking facilities from arenas.	A. Continue review of parking for events.	<b>REMOVED</b> – There are no arenas or major parking facilities in the county. Current parking for events and larger facilities (schools, shopping areas, hospital, etc.) can be monitored if necessary.



## APPENDIX III: 2023 UPDATE/REPORT ON CITY SPECIFIC GOALS, OBJECTIVES AND MITIGATION STRATEGIES

### Clara City: Goals, Objectives, and Mitigation Strategies

#### Violent Storms and Extreme Temperatures

##### Goal 1: Promote safe and accessible shelter from violent storms.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Encourage that all new homes without basements have a safe shelter where household residents may go in case of violent storms.	Construct a safe room and place in Lion's Park near the City Pool. <i>*Remove, planning committee no longer feel there is a need as the school gym could serve as a saferoom if needed.</i>	8-10 years	City	\$3,000	FEMA	2	Citizen Safety
	Create an Educational Packet of Emergency information for city residents and distribute information through public television and mailings. <i>*Modified to include electronic means of communication and notification such as Nixle and CodeRED.</i>	3-5 years	City	\$500	FEMA	3	Educate citizens
Require that all manufactured homes use tie-downs.	Seek funding sources for tie-downs on existing manufactured homes. <i>*Remove as there are very few mobile homes and City does not enforce building code due to staffing limitations.</i>	1-2 years	City/ Residents	\$250-500 per	SCDP	7	Citizen Safety
Investigate snow fences in Chippewa County.	Install a 1/2 mile Living Snow Fence along properties in the Northwest portion of the City. <i>*Keep in 2023 plan</i>	5-7 years	City	Unknown	FEMA	8	Citizen Safety

#### Flood

##### Goal 2: Improve the safety and security Wastewater Treatment Plants/lift stations.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Protect Clara City's Lift Station.	Build a berm along Hawk Creek. <i>*Completed in 2022</i>	2 years	City	Unknown	FEMA	1	Citizen Safety

Goal 3: Minimize the flooding along Hawk Creek.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Work with the city of Willmar to keep ice out of Clara City and Maynard.	The cities of Clara City and Maynard should participate in dialogue with the Hawk Creek Watershed Project, the city of Willmar and the MPCA. Investigate the diversion of water to Grass Lake especially during flooding. Consider seeking state or federal funding. <i>*City would like to remove as it is not feasible.</i>	Recurring	Clara City, Maynard, Willmar, Hawk Creek Watershed District	\$20,000	FEMA/ DNR/ ACOE	5	Citizen Safety
Protect the homes in Clara City that is danger of seasonal flooding in response to the ice dams at the bridges.	Annually review the plan of action which addresses flooding. This plan includes early sandbagging and having equipment available to move ice which will reduce flooding. <i>*Keep in 2023 plan</i>	Recurring	City	Unknown	FEMA	4	Citizen Safety

## Civil Disturbance/Terrorism

Goal 1: Protect critical infrastructure.							
OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install security measures at city water treatment plants.	A. Install alarms on buildings. <i>*Planning committee would like to modify to install security cameras on City Hall/Community Building.</i>	3-4 years	City	\$300-500	--	6	Citizen Safety

## City of Maynard: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

#### Goal 1: Promote safe and accessible storm shelters from violent storms.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Encourage that all new homes without basements have a safe shelter where household residents may go in case of violent storms.	Create an Educational Packet of Emergency information for city residents and distribute information through public television and mailings. <a href="#">*Keep in 2023 plan</a>	1-2 years	City	\$500	FEMA	4	Citizen Safety

### Flood

#### Goal 2: Improve the safety and security Wastewater Treatment Plants/lift stations.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Protect Maynard's Wastewater Treatment Plant.	Build a berm along Hawk Creek. <a href="#">*Keep in 2023 plan</a>	2 years	City	Unknown	FEMA/ DNR	1	Citizen Safety

#### Goal 3: Minimize the flooding along Hawk Creek.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Work with the city of Willmar to keep ice out of Clara City and Maynard.	The cities of Clara City and Maynard should participate in dialogue with the Hawk Creek Watershed District, the city of Willmar and the MPCA. Investigate the diversion of water to Grass Lake especially during flooding. Consider seeking state or federal funding. <a href="#">*Keep in 2023 plan</a>	Recurring	Clara City, Maynard, Willmar, Hawk Creek Watershed District	\$20,000	FEMA/ DNR/ ACOE	5	Citizen Safety
Protect residences in Maynard.	Build a berm along east side of Hawk Creek. <a href="#">*Keep in 2023 plan</a>	2 years	Maynard	Unknown	FEMA/ DNR	2	Citizen Safety
Protect cemetery in Maynard.	Build a berm along Hawk Creek. <a href="#">*Keep in 2023 plan</a>	2 years	Maynard Lutheran Church	Unknown	FEMA/ DNR	3	Prevent Flooding

### Civil Disturbance/Terrorism

#### Goal 1: Protect critical infrastructure.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Install security measures at city water treatment plants.	A. Install alarms on buildings. <a href="#">*Keep in 2023 plan</a>	3-4 years	City	\$300-500	--	6	Citizen Safety

## City of Milan: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

#### Goal 1: Have safe and accessible safe rooms from violent storms.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Encourage homes without basements to have a safe room where household residents may go in case of violent storms.	Complete an annual mailing of the Emergency Preparedness Guide.  <i>*Keep in 2023 Plan</i>	Recurring	City Clerk	\$500	FEMA	4	Educate citizens on where to go and what to do in event of hazardous weather

#### Goal 2: Improve severe storm warning system for all county residents.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Assess adequacy of existing civil defense sirens.	Purchase a new warning siren. <i>*County/City will investigate coverage</i>	1 year	City	\$17,000	FEMA	2	Ensure entire town is within warning siren hearing area
Ensure that all sectors of the county have immediate severe weather warnings and weather radios.	Obtain funding for the new radio system for EMS and FD in event of a system change. <i>*Remove, communication is adequate</i>	3-4 years	City	Unknown	County	5	Provide coverage to FD/EMS and increase safety

### Wildfire

#### Goal 3: Protect the safety of residents and firefighters.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Increase access to equipment suitable to fighting wildfires.	Purchase a grass rig. <i>*Remove, the department has a grass rig</i>	1 year	Fire Department	\$55,000	FEMA/MnDNR	3	Increase FD Preparedness

### Water Supply Contamination

#### Goal 2: Protect residents from contaminated ground water.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Improve or build proper water supply treatment plants.	Build a Water Treatment Plant, water mains, and water storage area with high security. <i>*Complete</i>	2 years	City/ WSN Engineering	\$3,500,000	USDA/ DEED	1	Provide potable water to residents

## City of Montevideo: Goals, Objectives, and Mitigation Strategies

### Violent Storms and Extreme Temperatures

#### Goal 1: Adopt a wellhead protection ordinance as proposed in the county Comprehensive Water Plan.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Buy out willing sellers of their structures in the 100-year floodplain including businesses in Montevideo.	Work with the state and federal government to provide funding to acquire and remove non-conforming structures in Flood A & B Zones. – <b>Continue to work on, have bought out three properties since 2014 and one in 2022, with hopes to acquire one more if possible. Once the levee project is complete, new floodplain maps are supposed to come out late October and City Hall will then be in Zone C.</b>	Unknown	City	\$1,000,000	FEMA/ CDBG/ SCDG/ HUD/ EDA	2	Citizen Safety

#### Goal 2: Improve the safety and security of the Montevideo Wastewater Treatment Plant.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Rebuild the levee in Montevideo to protect the Wastewater Treatment Plant.	Continue Levee Project – Phases 2 & 3 – <b>Phase 3B is complete. Waiting for levee to be certified.</b>	2 years	City Administration	\$13,000,000	FEMA/ ACOE/ MN State	1	Citizen Safety

#### Goal 4: Improve the safety and security of flood prone areas throughout Chippewa County.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Address flooding issues as a region.	Creation of network of print, radio, social medias that reach all citizens with maps of risk areas, shelters, contact information and what to do in the event of an event. – <b>City has put together a fairly comprehensive flood related document and is available on their website and is available in Spanish.</b>	Recurring	Community Development	Staff Time	--	3	Citizen Education

## Hazardous Materials

### Goal 2: Protect residents from contaminated ground water.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Improve or build proper water supply treatment plants.	Build a Water Treatment Plant, water mains, and water storage area with high security. - <b>Complete</b>	2 years	City/ WSN Engineering	\$3,500,000	USDA/ DEED	1	Provide potable water to residents

## City of Watson: Goals, Objectives, and Mitigation Strategies

## Violent Storms and Extreme Temperatures

### Goal 1: Improve severe storm warning systems for all county residents.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reasoning for Rank
Assess adequacy of existing emergency warning sirens and emergency operation centers. <i>The County operates the warning siren.</i>	Purchase a portable generator and transfer switch. <b>*Complete</b>	2 years	City	\$6,500	FEMA	2	Ensure that shelters have emergency back-up systems for citizen welfare
	Obtain funding to build a City Maintenance Shop/Emergency Operations Center. <b>*Keep in 2023 plan</b>	3-5 years	City	\$300,000	USDA	3	Need to store City Equipment and be accessible

## Wastewater Treatment System Failure

### Goal 1: Improve the safety and security of Granite Falls and other flood-prone areas.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
Ensure that all public wastewater facilities are working properly through improvements, updates, and building.	Purchase safety equipment for operating lift stations. <b>*Complete, battery backup has been addressed</b>	2 years	City	Unknown	FEMA/ USDA	1	Protect water safety and supply

## Structure Fire

### Goal 1: Provide safety to residents.

OBJECTIVE	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Rank	Reason for Ranking
1. Provide adequate and timely fire protection for all cities in Chippewa County.	A. Build a satellite fire station for the Montevideo Fire Department located in the City of Watson.	3-10 years	Montevideo Fire Department,	Unknown	USDA	4	Citizen Safety

	<b>*City has been very satisfied with Monte FD response times/service. Likelihood that a new fire department facility would be built in Watson is low due to high cost.</b>		City of Watson				
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## **Appendix IV**

### *Local Capability Assessments*



## **Chippewa County Hazard Mitigation Plan Capability Assessment Public Survey:**

### **What is a Capability Assessment?**

The purpose of conducting a capability assessment is to determine the ability of a given jurisdiction to implement a mitigation strategy. As in any planning process, based on an understanding of those jurisdictions that are tasked with strategy implementation, it is important to know what actions are feasible. More specifically, the capability assessment helps to determine what mitigation actions are likely to be implemented over time given the fiscal, technical, administrative and political framework of the jurisdiction.

It also provides an opportunity to assess existing plans, policies and processes in place. What follows is a basic self-assessment survey that will allow us to identify the extent of continuity, advantages and strengths existing within your cities and county.

While plans, policies and ordinances may exist, sometimes they exist in name only. Meaning while plans, policies and ordinances might exist, they may not be used in the governance the jurisdiction. In the very last row titled "Score," representatives of local jurisdictions were to indicate to the best of their ability, the degree to which they believe the totality of the plans, policies and ordinances are actually utilized using "H" for highly used; "M" for moderately used and an "L" for low use.

### **Definitions of Acronyms**

- HMP: Hazard Mitigation Plan
- DRP: Disaster Recovery Plan
- CLUP: Comprehensive Land Use Plan
- FMP: Floodplain Management Plan
- SMP: Storm water Management Plan
- EOP: Emergency Operations Plan
- COOP: Continuity of Operations Plan
- TRANS: Transportation Plan
- CIP: Capital Improvements Plan
- COMP: Comprehensive Plan
- REG-PL: Regional Planning
- HPP: Historic Preservation Plan
- ZO: Zoning Ordinance
- FDPO: Flood Damage Prevention Ordinance
- NFIP: National Flood Insurance Program
- BC: Building Codes

**Table 1: Evaluation of Existing Plans, Policies and Ordinances Summary**

	Jurisdictions					
Plans/Policies	<i>Clara City</i>	<i>Milan</i>	<i>Montevideo</i>	<i>Watson</i>	<i>Maynard</i>	<i>Chippewa County</i>
HMP	X	X	X	X	X	X
DRP			X (County)		X	X
CLUP			X	X	X	
FMP			X	X		
SMP			X		X	
EOP	X (County)	X (County)	X (County)	X (County)	X (County)	X (County)
COOP			X			X
TRANS			X			X
CIP	X		X		X	
COMP	X	X	X		X	X
REG-PL			X		X	X
HPP			X		X	
ZO	X	X	X	X	X	X
FDPO			X			
NFIP	X		X		X	X
BC		X	X		X	
<b>Score</b>	H	M	H	L	L	H

**Part 2: Assessment of Local Capability:**

Part two of this self-assessment was used to determine the technical, administrative/institutional, fiscal, and political capabilities of local jurisdictions.

**Capability Definitions:**

Technical capability can be defined as possessing the skills and tools needed to improve decision-making, including the development of sound mitigation actions.

Fiscal capability or the ability to take financial action is closely associated with the amount of money available to implement policies and projects. This may take the form of grants received or state and locally based revenue.

Administrative and institutional capability is defined as jurisdictions staffing abilities and the existing organizational structures needed to implement mitigation strategies.

Political capability is the level of interest that both the citizens and government officials of a given jurisdiction has in conducting mitigation projects.

An “L” indicates low capability; an “M” indicated moderate capability; and an “H” indicates high capability.

**Table 2: Assessment of Local Capability**

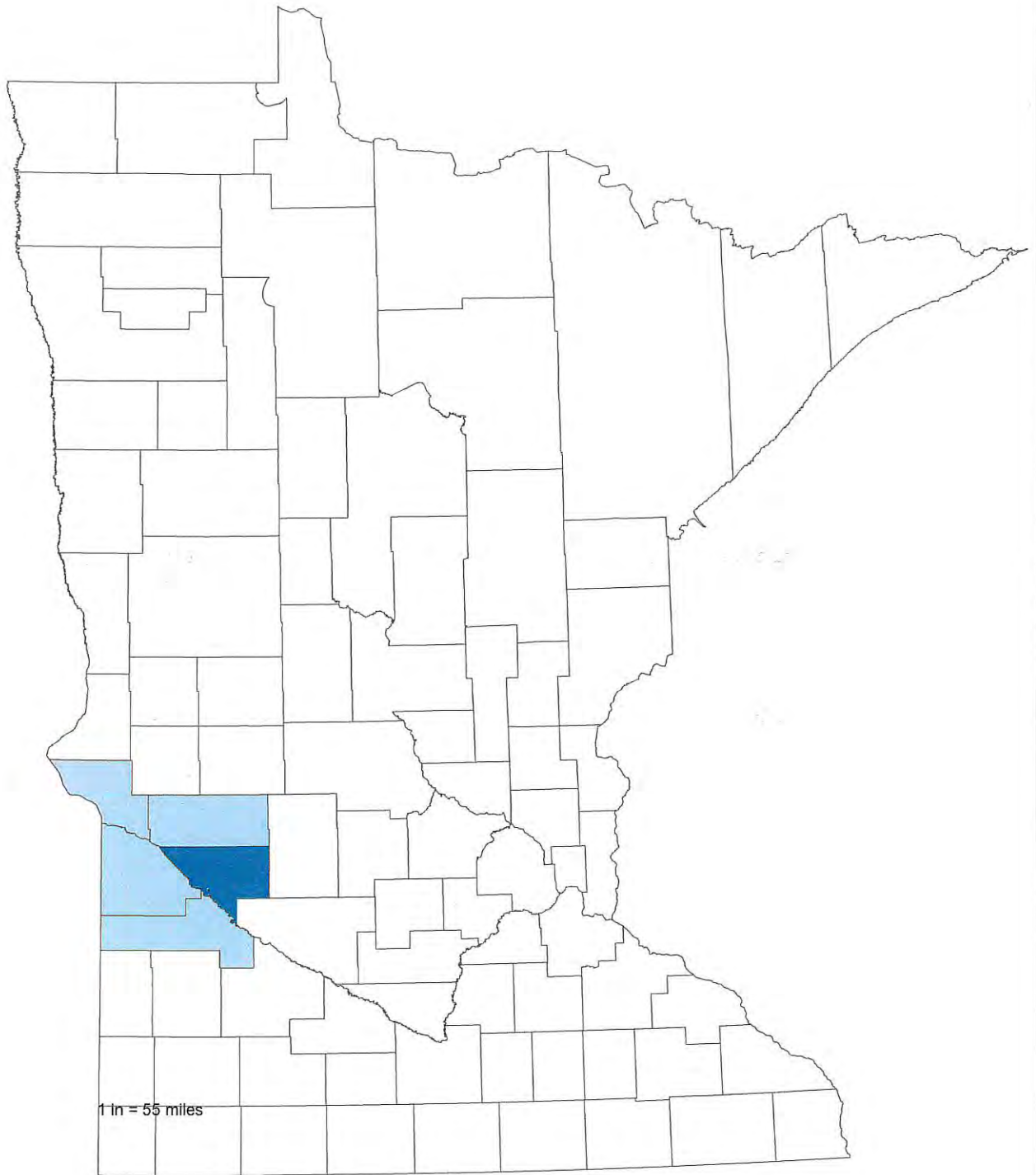
<b>Jurisdiction</b>	<b>Technical Capability</b>	<b>Fiscal Capability</b>	<b>Administrative Capability</b>	<b>Political Capability</b>
<b>Clara City</b>	M	L	M	M
<b>Montevideo</b>	H	H	H	H
<b>Watson</b>	M	L	M	M
<b>Milan</b>	M	M	H	H
<b>Maynard</b>	H	L	M	M
<b>Chippewa County</b>	H	H	H	H

# Appendix V

## *Maps*

- County Location Map
- Civil Divisions Map (Cities, townships)
- Hydrology and Drainage Map
- Natural Features
- Population by Census Block
- Transportation Infrastructure Map
- Land Cover Map
- Zone A Flood Zones and Proposed Zone A Flood Zones (2023)
  - County Map
  - Clara City map
  - Maynard map
  - Milan map
  - Montevideo map
  - Watson map
- Wildfire Hazards Map
- Tornado Paths (1956-2021)
- Land Use Maps
  - Clara City
  - Maynard
  - Milan
  - Montevideo
  - Watson
- Feedlot Locations Map

State Overview  
Chippewa County  
All-Hazard Mitigation Planning

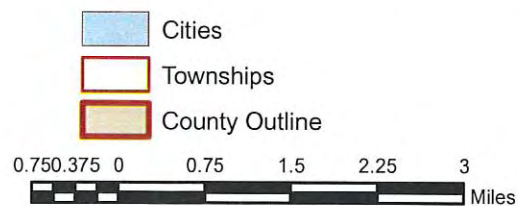
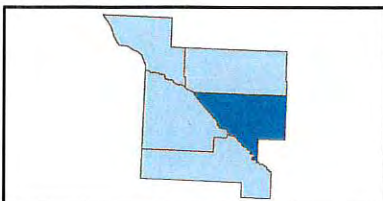
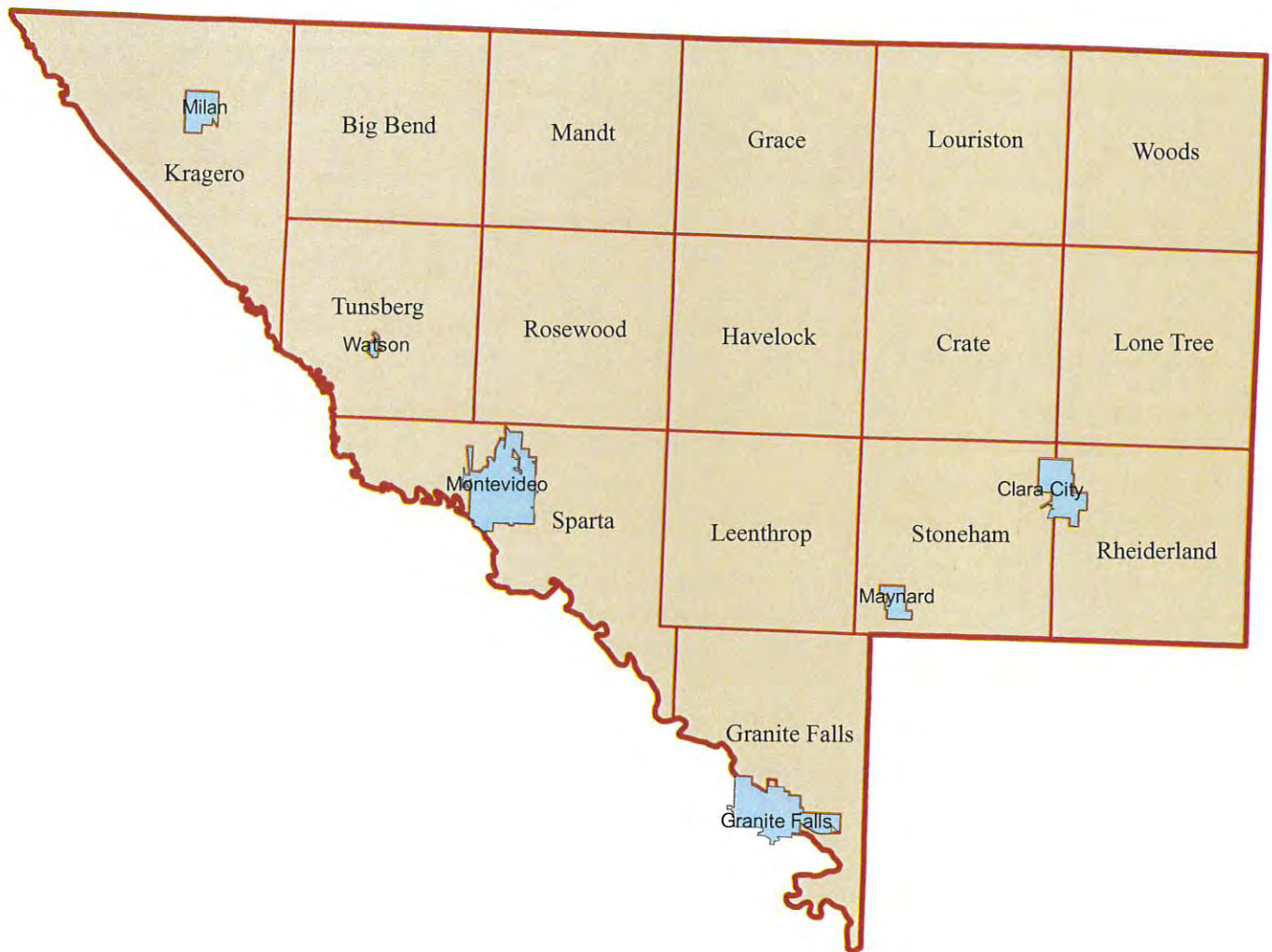


**Region 6W**

**County**

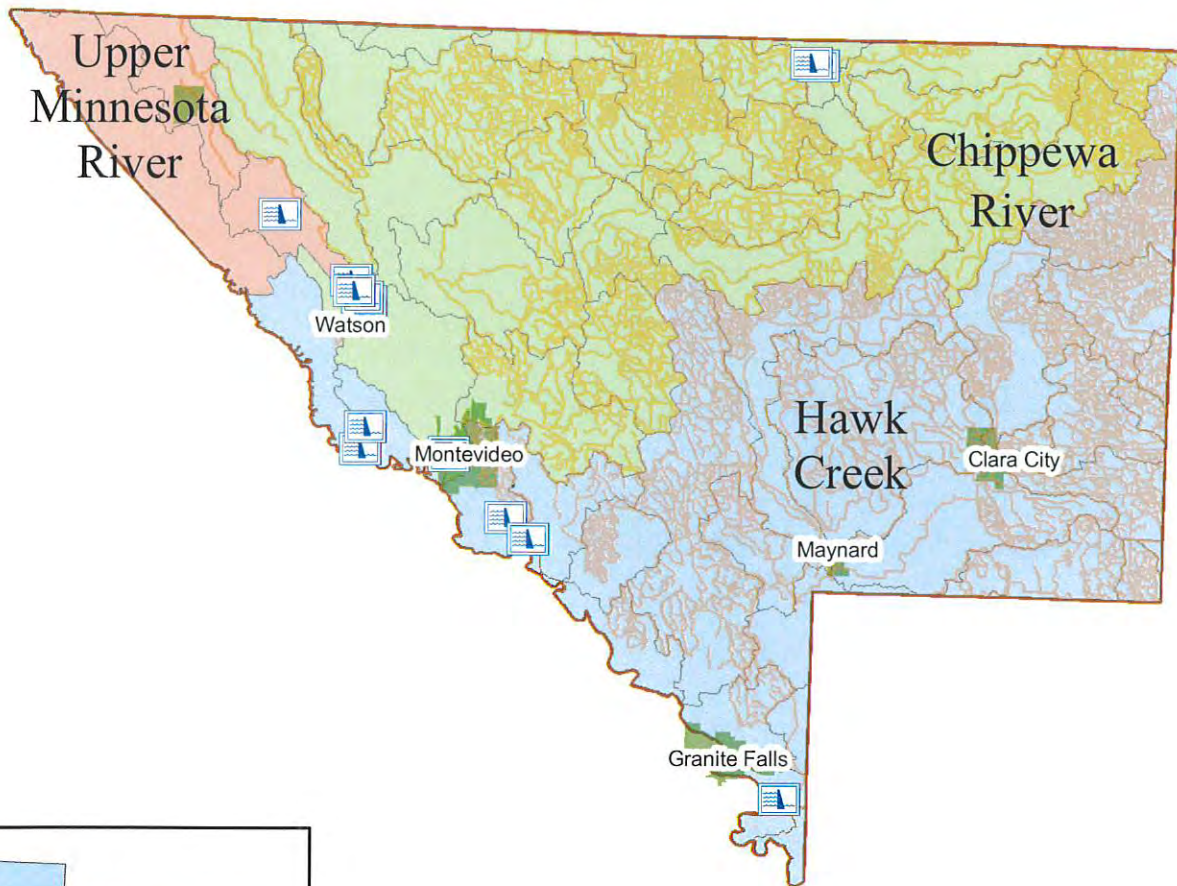


# Civil Divisions Chippewa County All-Hazard Mitigation Planning





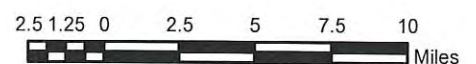
Hydrology and Drainage  
Chippewa County  
All-Hazard Mitigation Planning



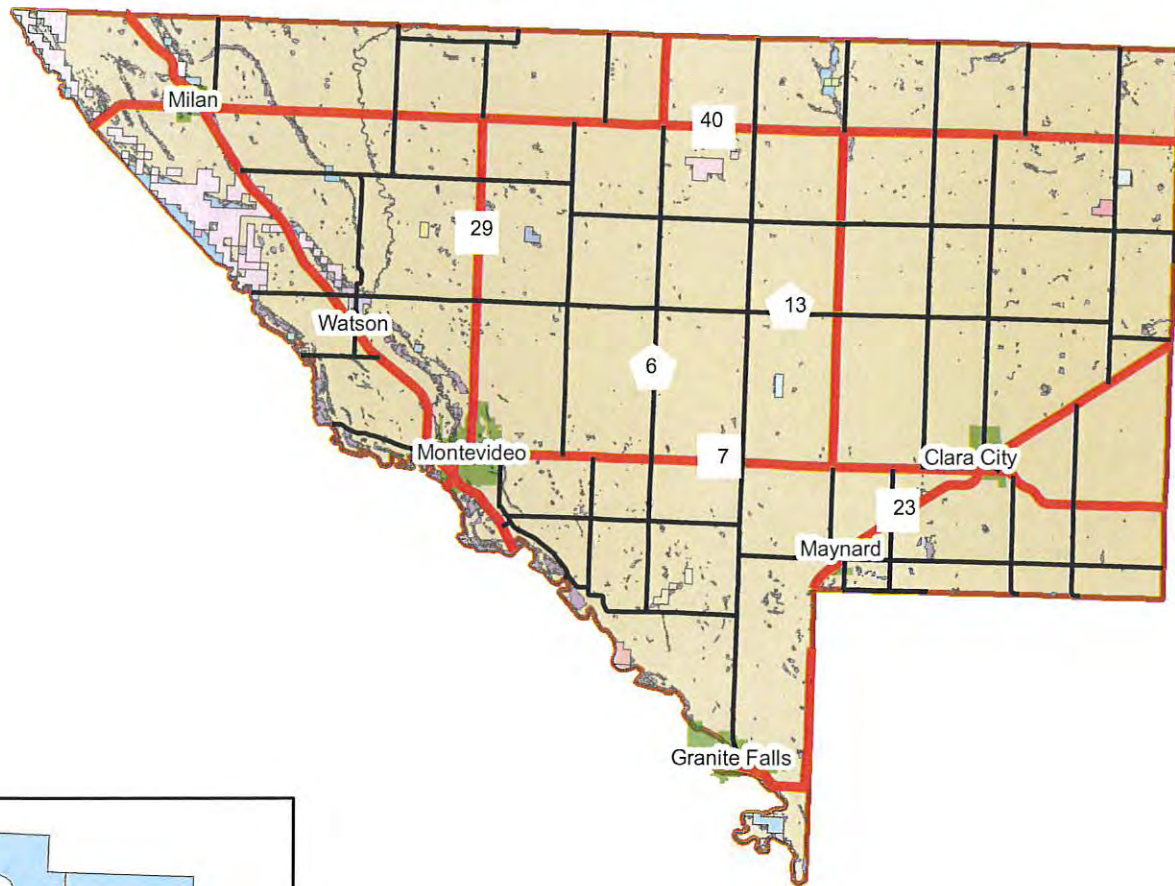
**Watersheds Dams Drianage Ditch**



Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR

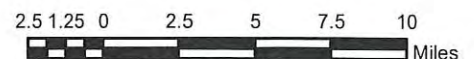


# Natural Features Chippewa County All-Hazard Mitigation Planning



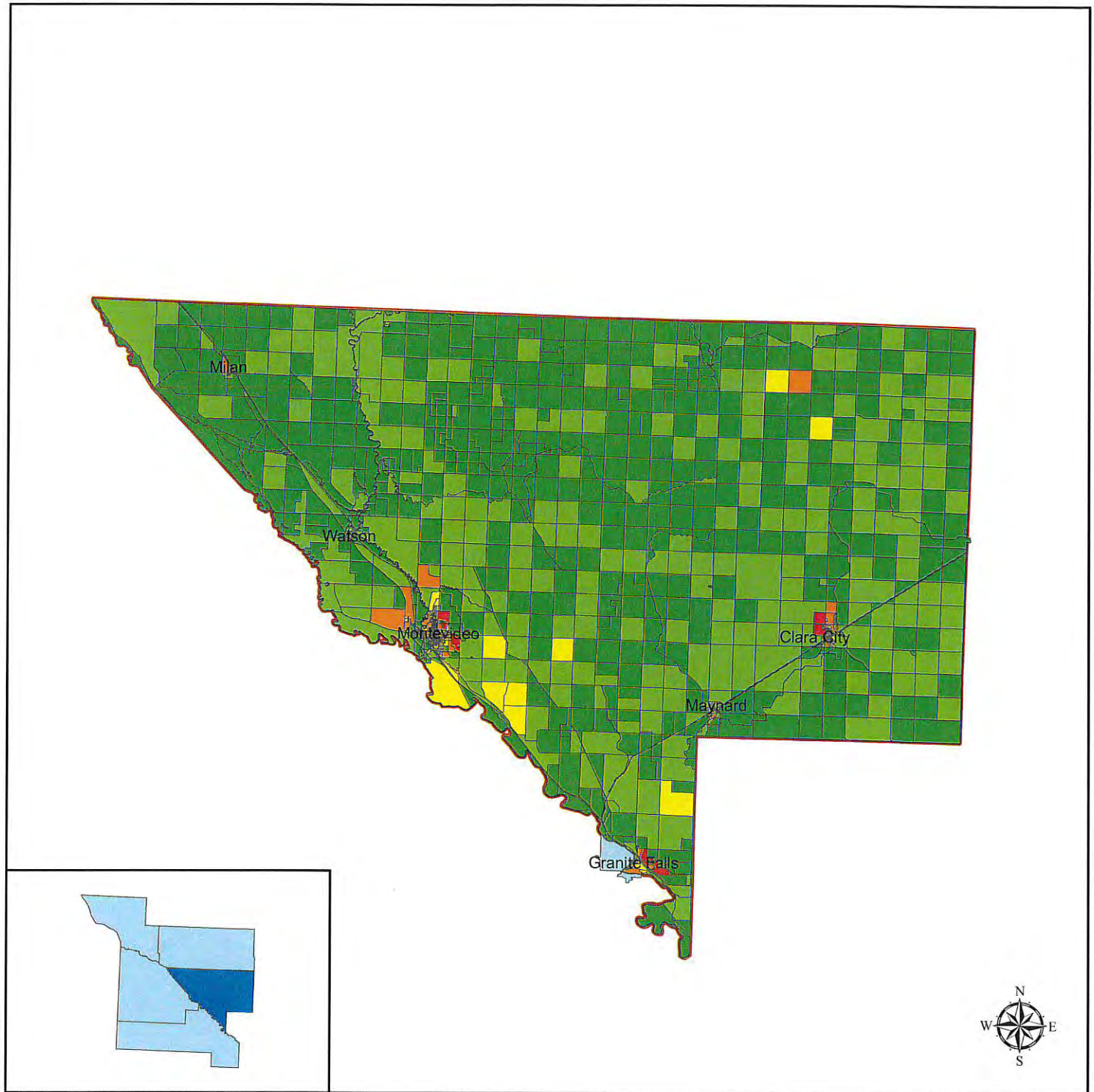
— CSAH	<b>Public Lands</b>	CUKA WMA	NUMO WMA
— Highways	<b>Public Lands</b>	DIV OF FISH & WILDLIFE	SENA WMA
<b>Wetlands</b>	ARMY CORPS OF ENGINEERS	FRANKO WMA	SHAKOPEE WMA
<b>Type</b>	BERGO WMA	GNEISS OUTCROPS SNA	SPARTAN WMA
Lacustrine	BLM	GRACE WMA	SWEEN WMA
Palustrine	BOIKE WMA	LAC QUI PARLE ST PARK	TUNSBURG WMA
Riverine	C.T. ROLLINGS-CHIP CO WMA	LAC QUI PARLE WMA	WATERFOWL PRODUCTION AREA
	CHIPPEWA	MILAN WMA	

Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR





Population by Census Block  
Chippewa County  
All-Hazard Mitigation Planning



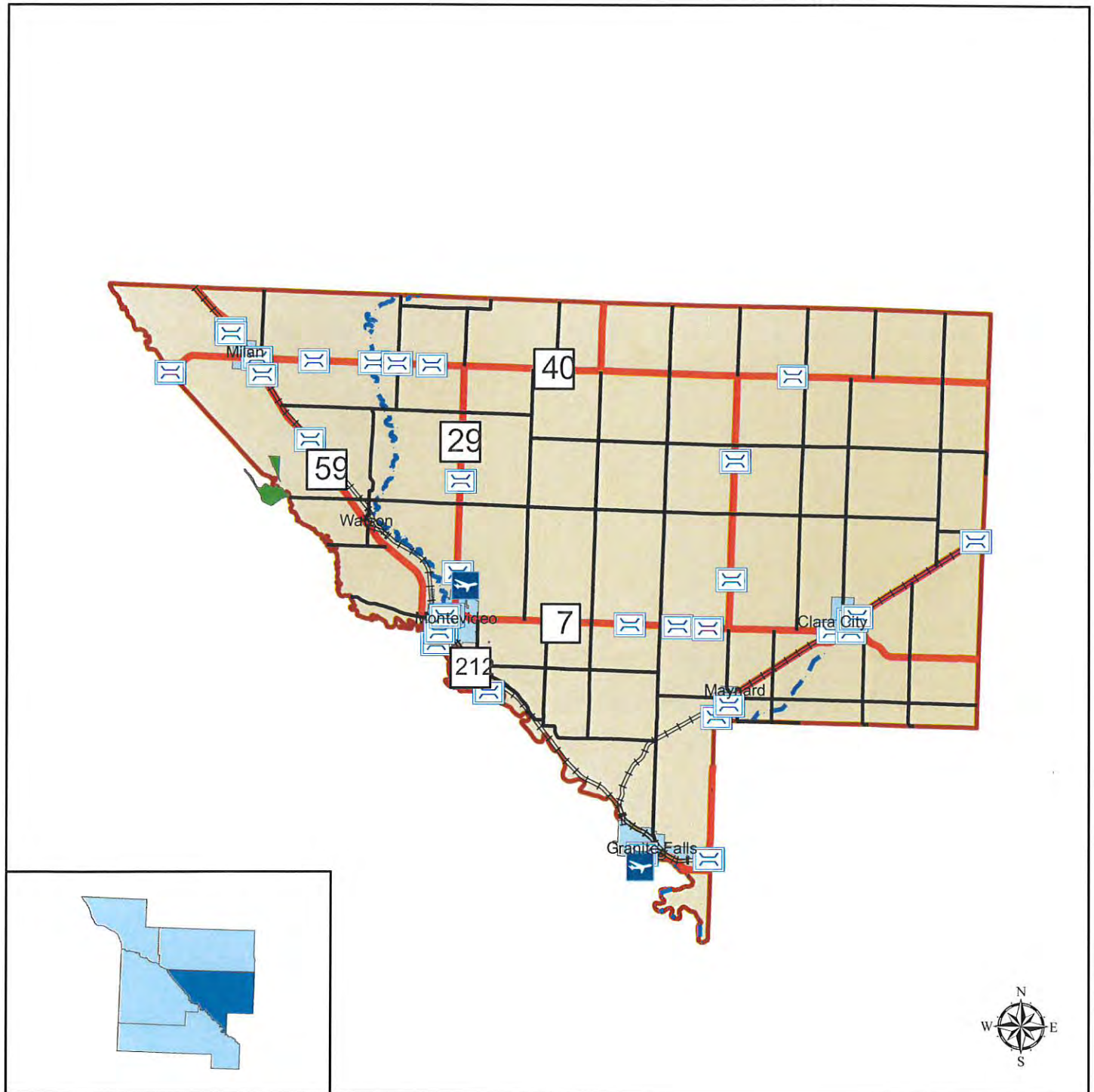
**Population**

0-5	6-20	41-90
	21-40	91+

Map Created By: Chippewa County  
Data: 2023  
Data Source: US Census 2020

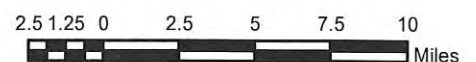
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Miles

# Tranportation Infrastructure Chippewa County All-Hazard Mitigation Planning



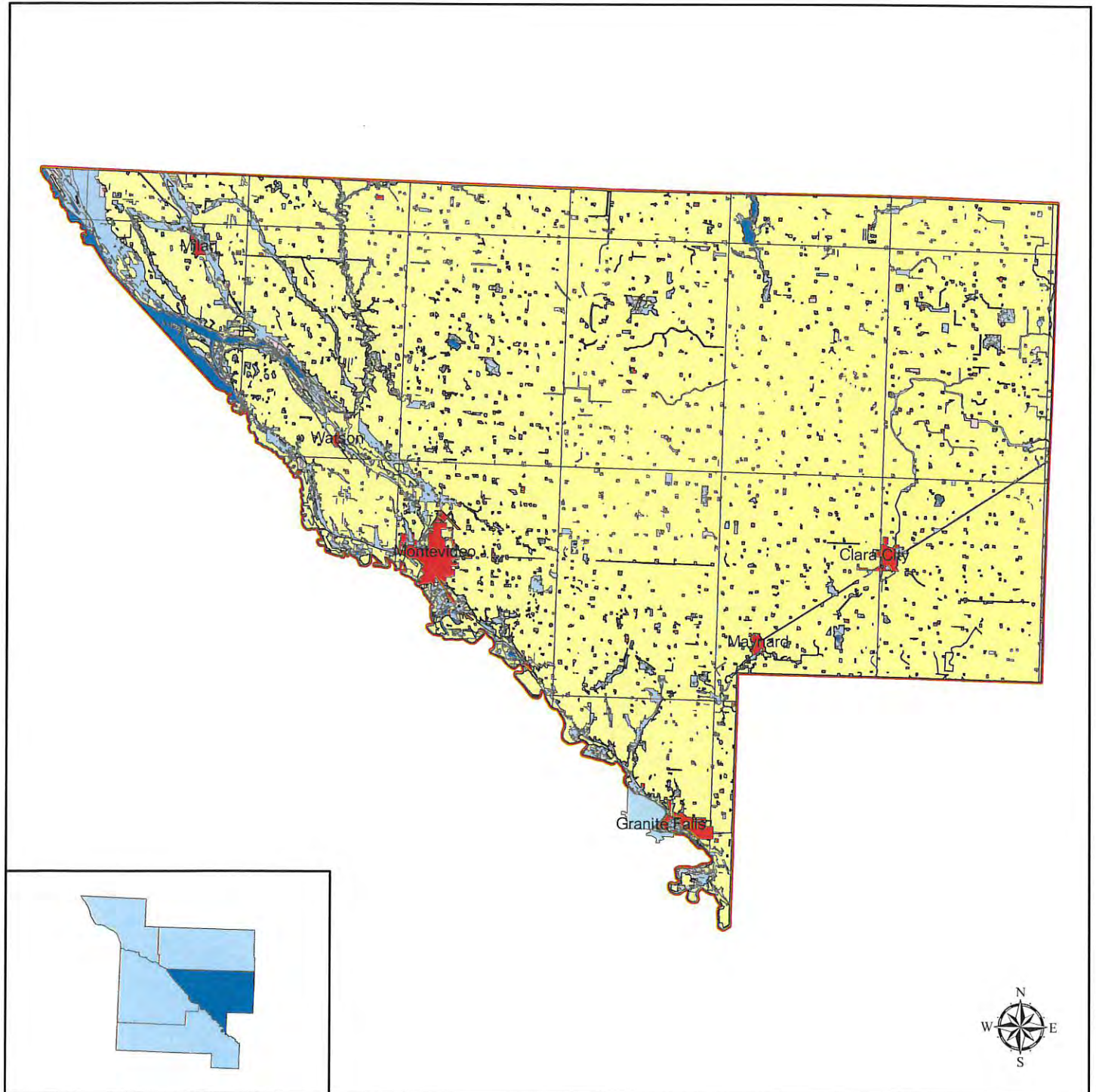
-  Airport
-  Bridges
-  Railroads
-  Highways
-  State Parks
-  Canoe Route
-  CSAH

Map Created By: Chippewa County  
Data: 2023  
Data Source: US Census 2020





# Land Cover Chippewa County All-Hazard Mitigation Planning



**landuse**  
**LUSE\_CODE**

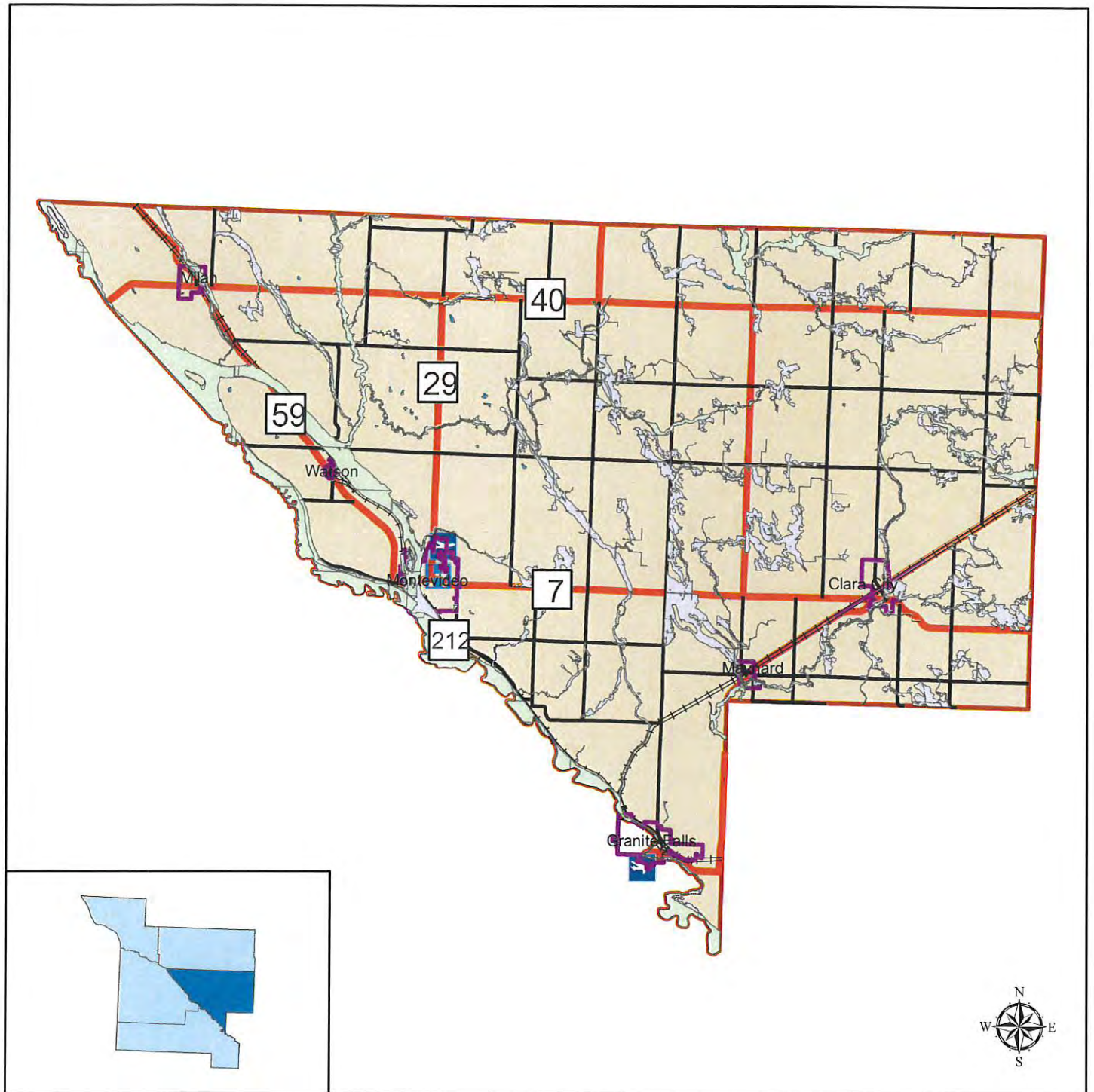
Impervious Surface  
Cropland and Pasture

Orchards/Vineyards/Nurseries	Water
Confined Feeding Operations	Forested Wetland
Pasture/Hay	Barn Land
Shrub and Brush	Sandy Areas
Forest	

Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR

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Miles

# A Flood Zones and Proposed Flood Zones 2023 Chippewa County All-Hazard Mitigation Planning



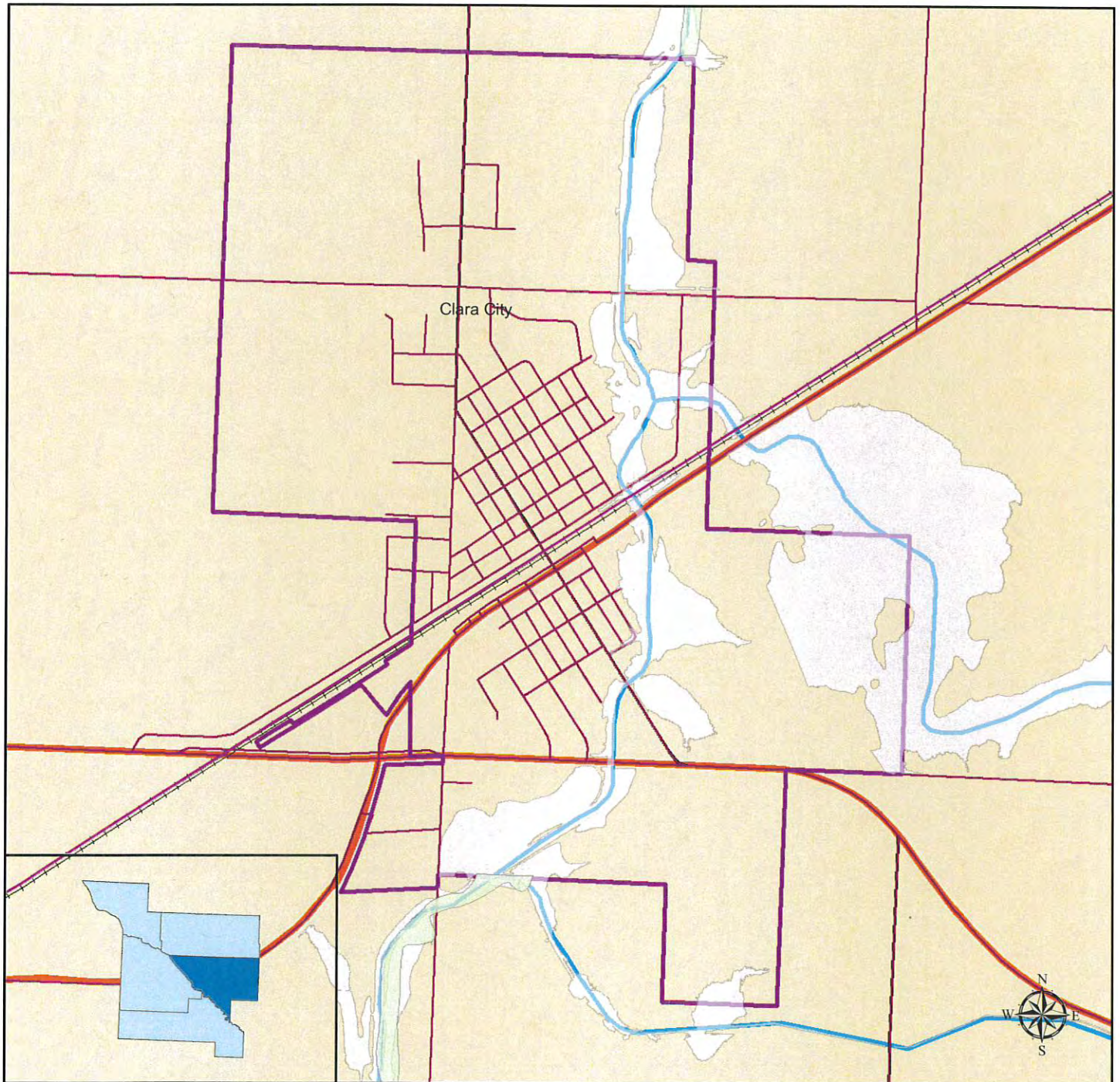
- A Flood Zones
- A Flood Zones (Proposed)
- CSAH
- Highways





Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR,  
Chippewa County

2.5 1.25 0 2.5 5 7.5 10  
Miles




Clara City  
A Flood Zones and  
Proposed Flood Zones 2023  
Chippewa County  
All-Hazard Mitigation Planning



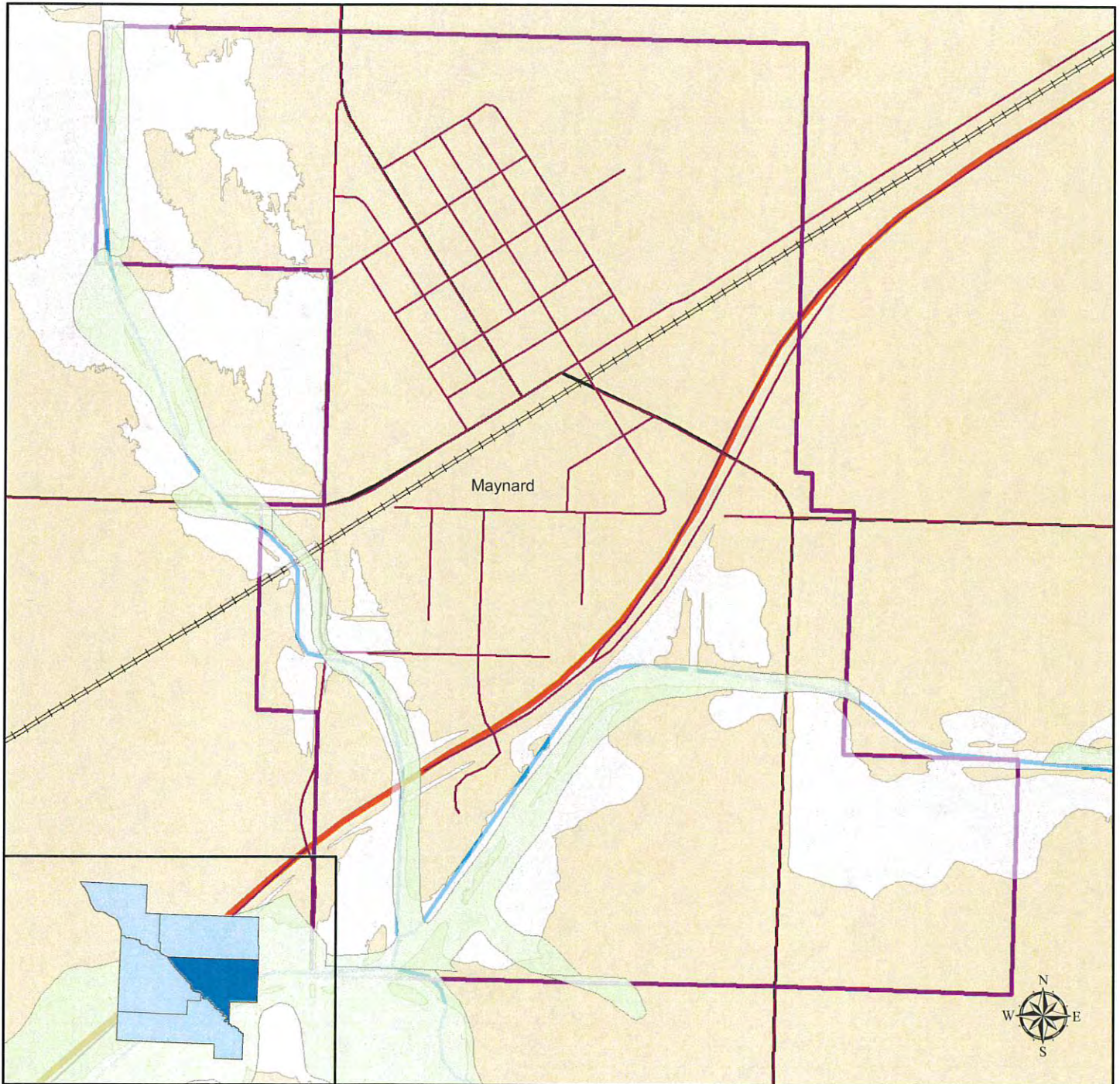
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|  | A Flood Zones (Proposed) |  | Highways |

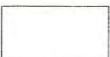



Map Created By: Chippewa County  
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Data Source: MN DNR,  
Chippewa County

0.10.05 0 0.1 0.2 0.3 0.4  
 Miles




Maynard  
A Flood Zones and  
Proposed Flood Zones 2023  
Chippewa County  
All-Hazard Mitigation Planning



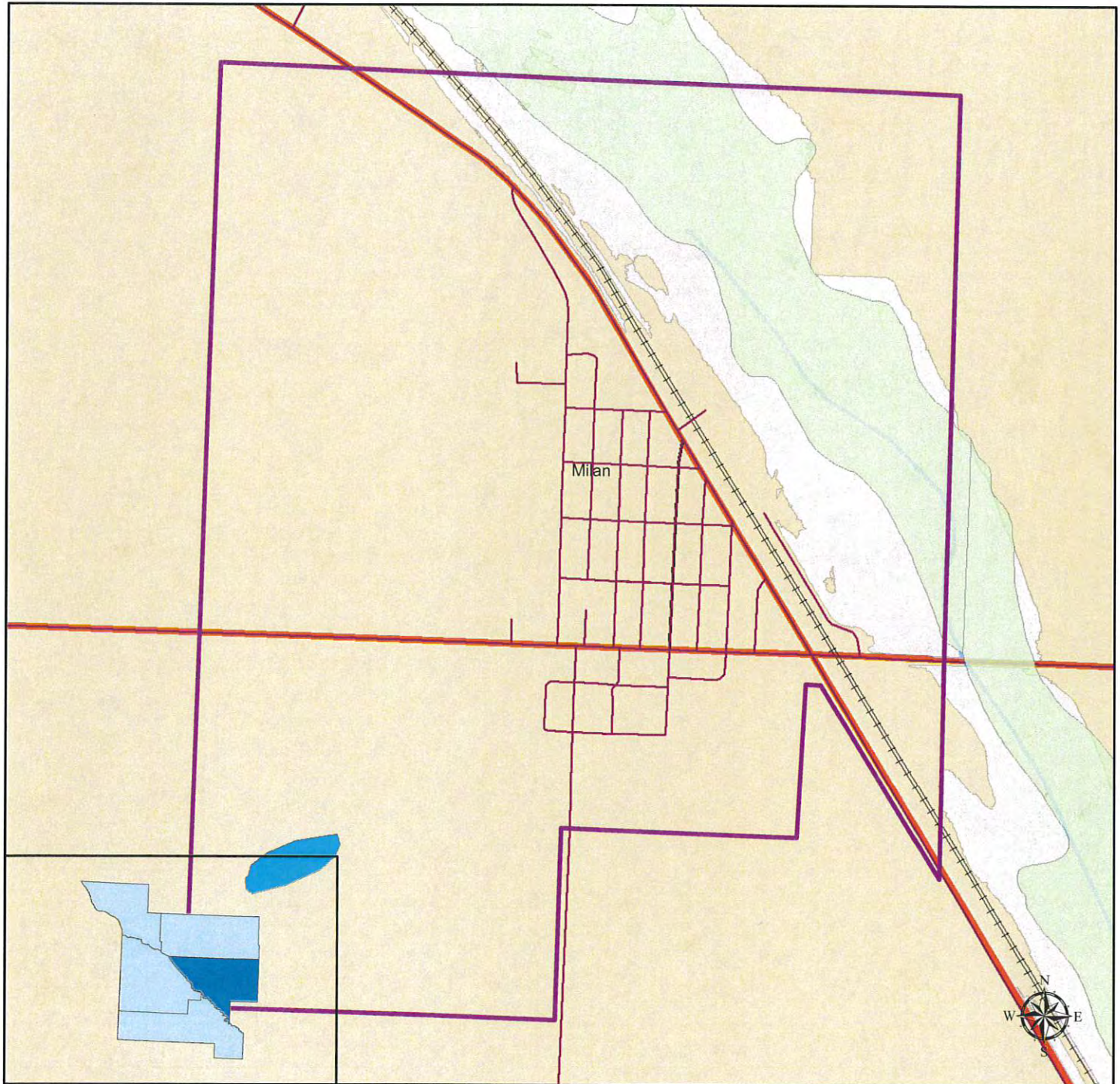
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|  | A Flood Zones (Proposed) |  | Highways |

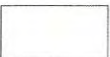



Map Created By: Chippewa County  
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Chippewa County

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 Miles



Milan  
A Flood Zones and  
Proposed Flood Zones 2023  
Chippewa County  
All-Hazard Mitigation Planning



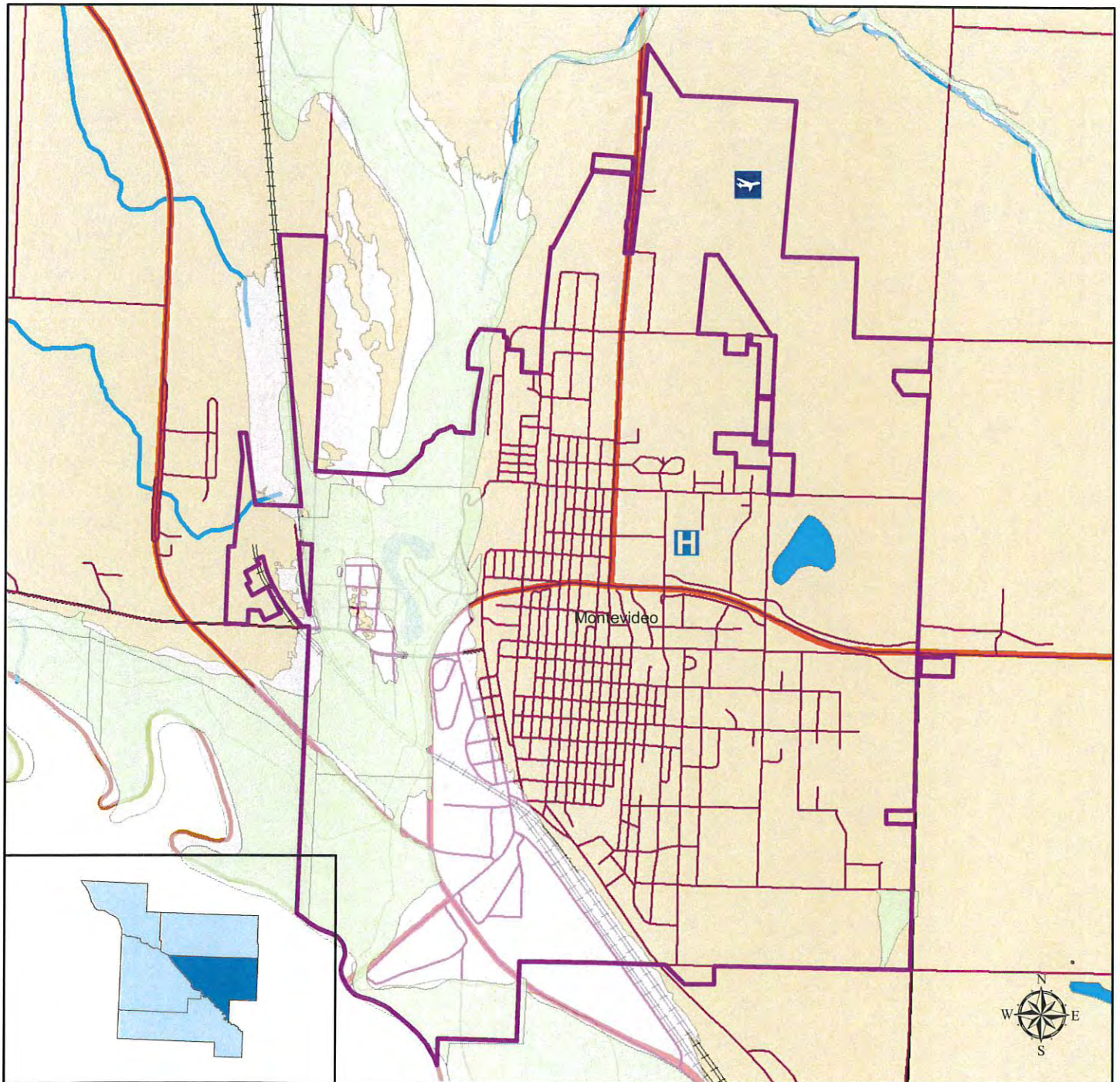
-  A Flood Zones
-  A Flood Zones (Proposed)
-  CSAH
-  Highways





Map Created By: Chippewa County  
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Data Source: MN DNR,  
Chippewa County

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Miles



Montevideo  
 A Flood Zones and  
 Proposed Flood Zones 2023  
 Chippewa County  
 All-Hazard Mitigation Planning



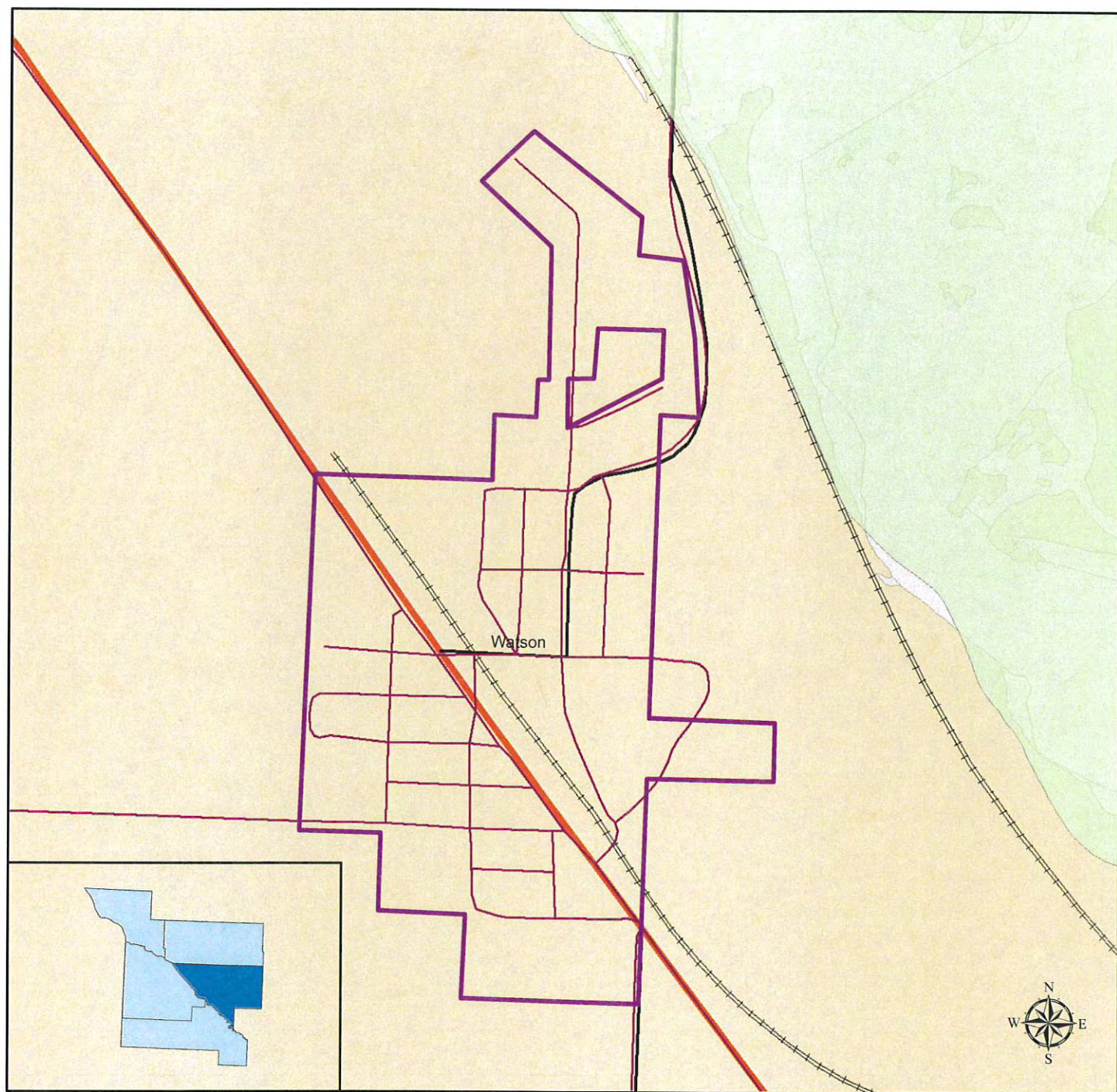
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|  | A Flood Zones (Proposed) |  | Highways |





Map Created By: Chippewa County  
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 Miles

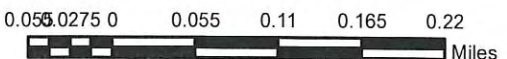


Watson  
A Flood Zones and  
Proposed Flood Zones 2023  
Chippewa County  
All-Hazard Mitigation Planning



-  A Flood Zones
-  A Flood Zones (Proposed)
-  CSAH
-  Highways

Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR,  
Chippewa County

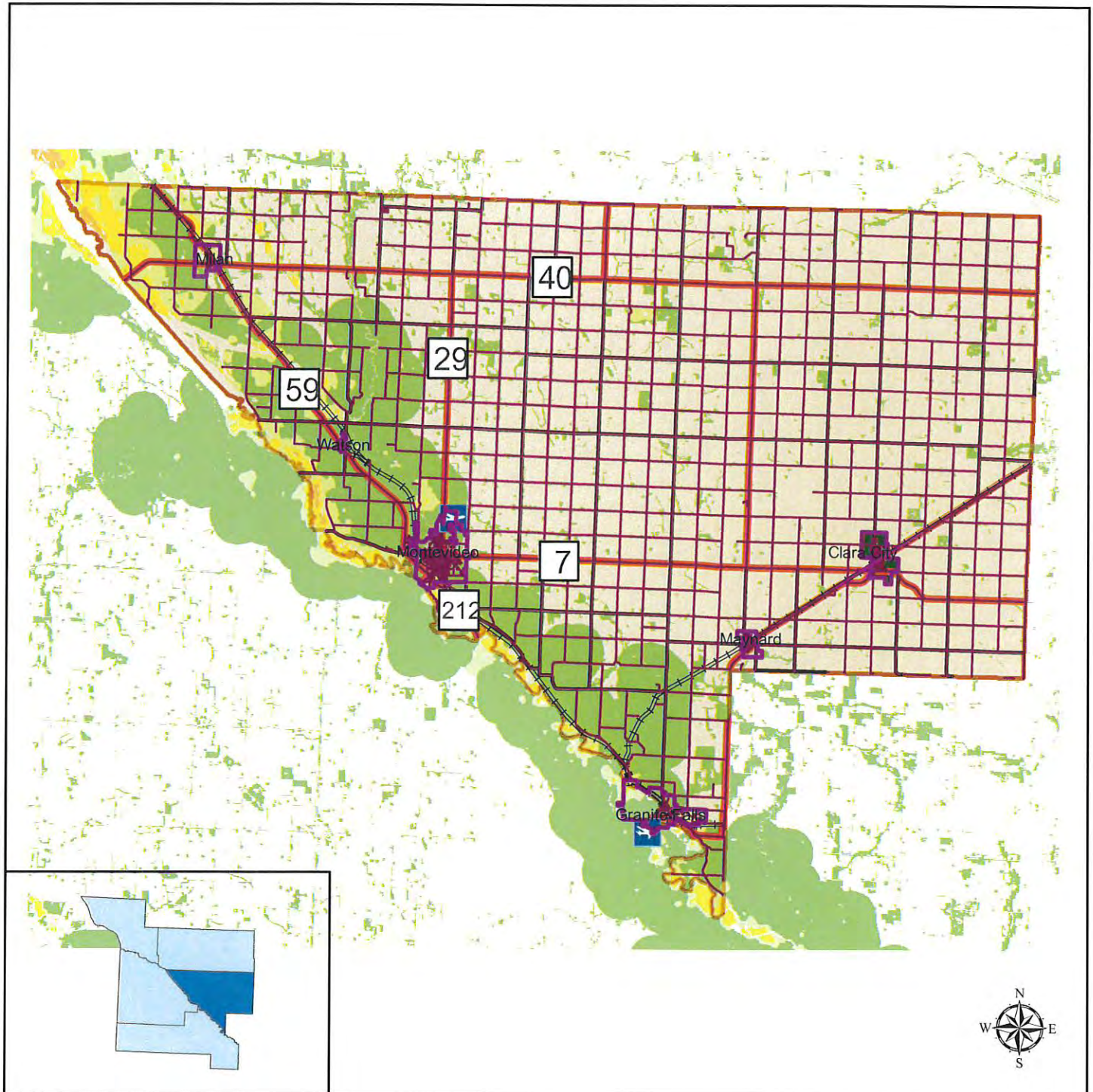




# Chippewa County Wildfire Hazards

## Chippewa County

### All-Hazard Mitigation Planning



Map Created By: Chippewa County  
 Data: 2023  
 Data Source: MN DNR,  
 Chippewa County

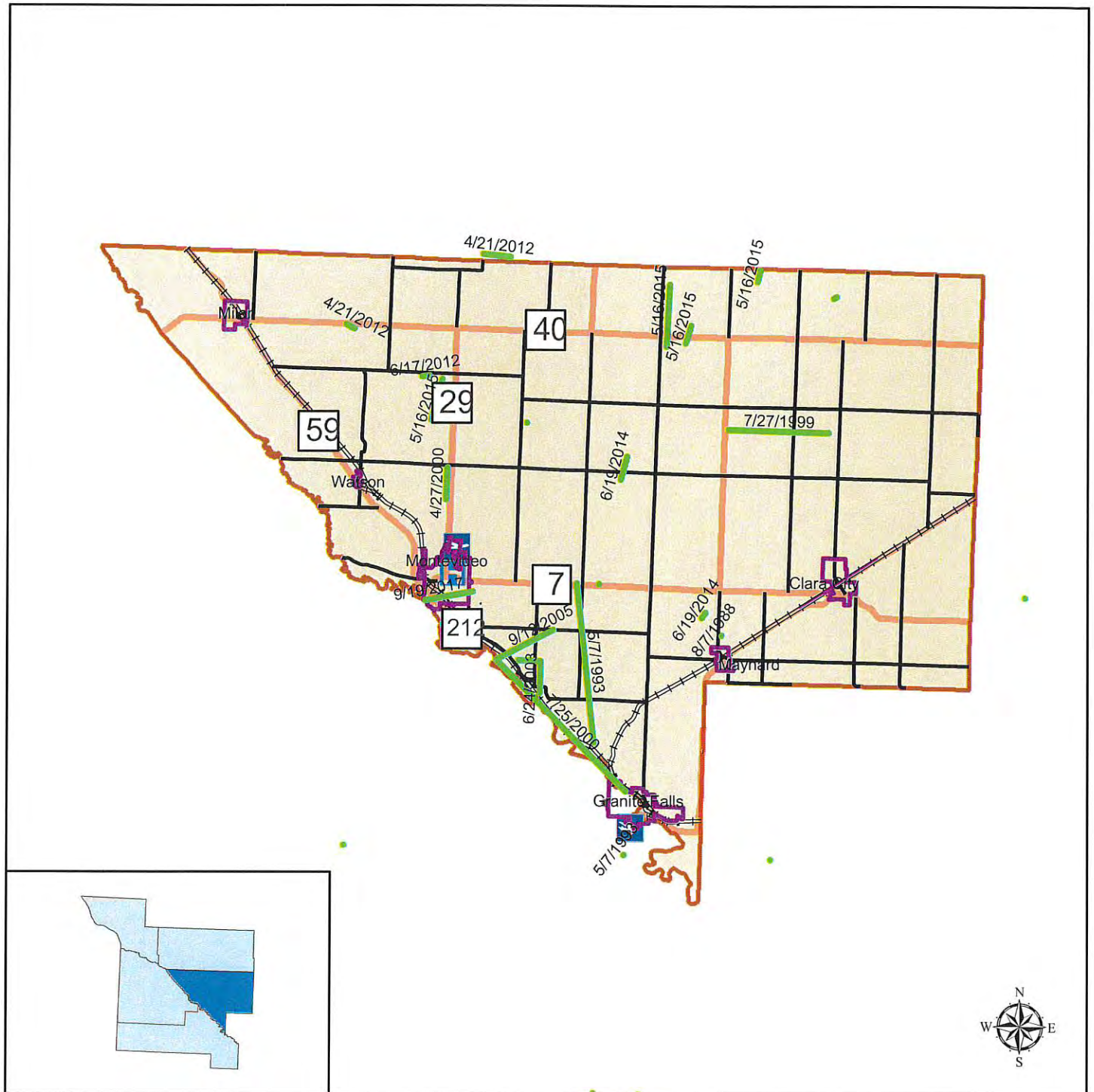




# Tornadoes 1956-2021

## Chippewa County

### All-Hazard Mitigation Planning



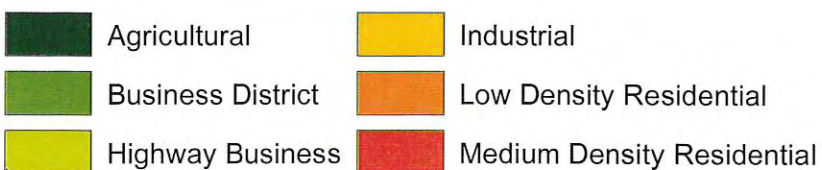
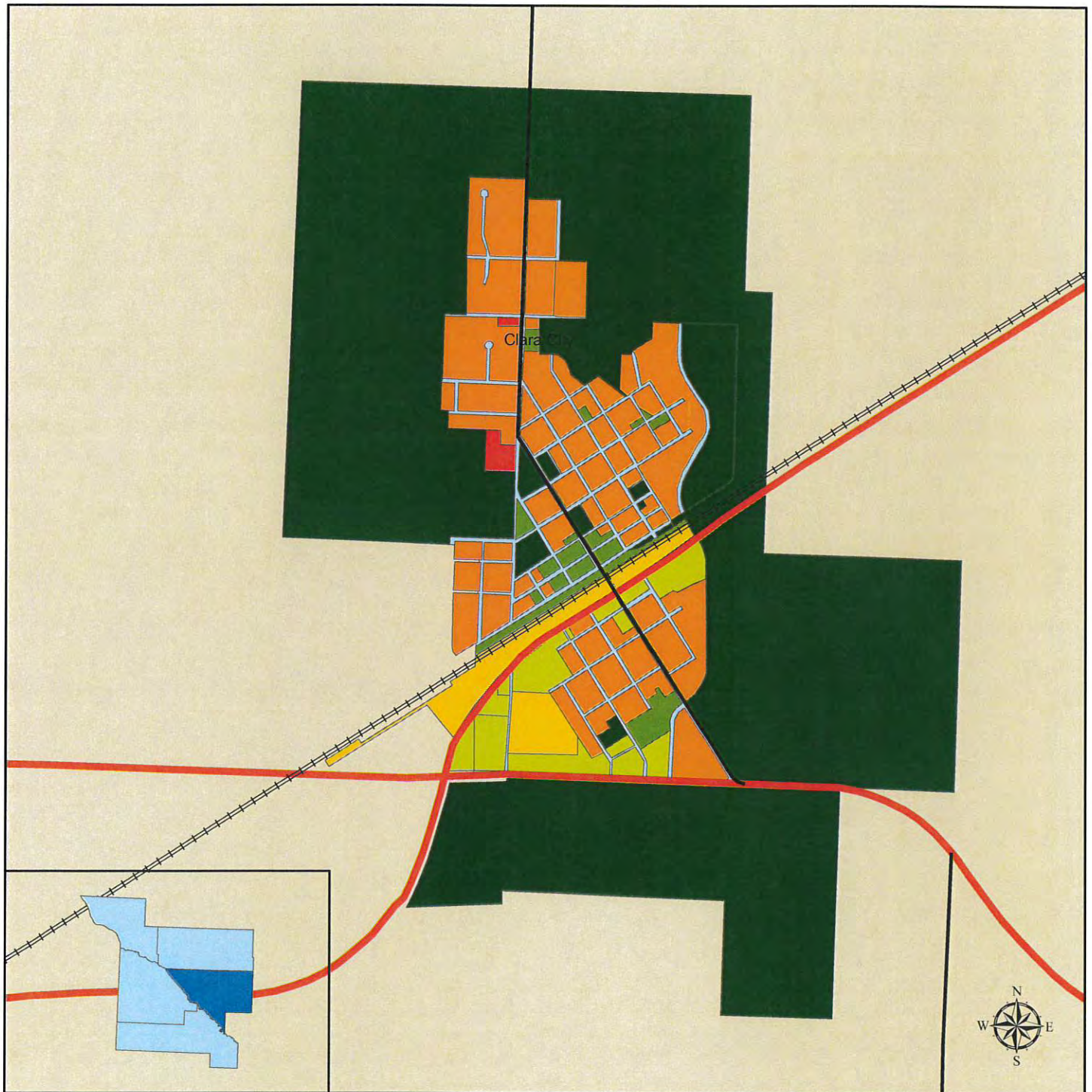
- Tornado\_Tracks
- Cities
- Railroads

Map Created By: Chippewa County  
 Data: 2023  
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 Chippewa County

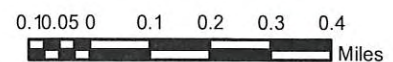
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 Miles



Clara City Land Classification  
Chippewa County  
All-Hazard Mitigation Planning

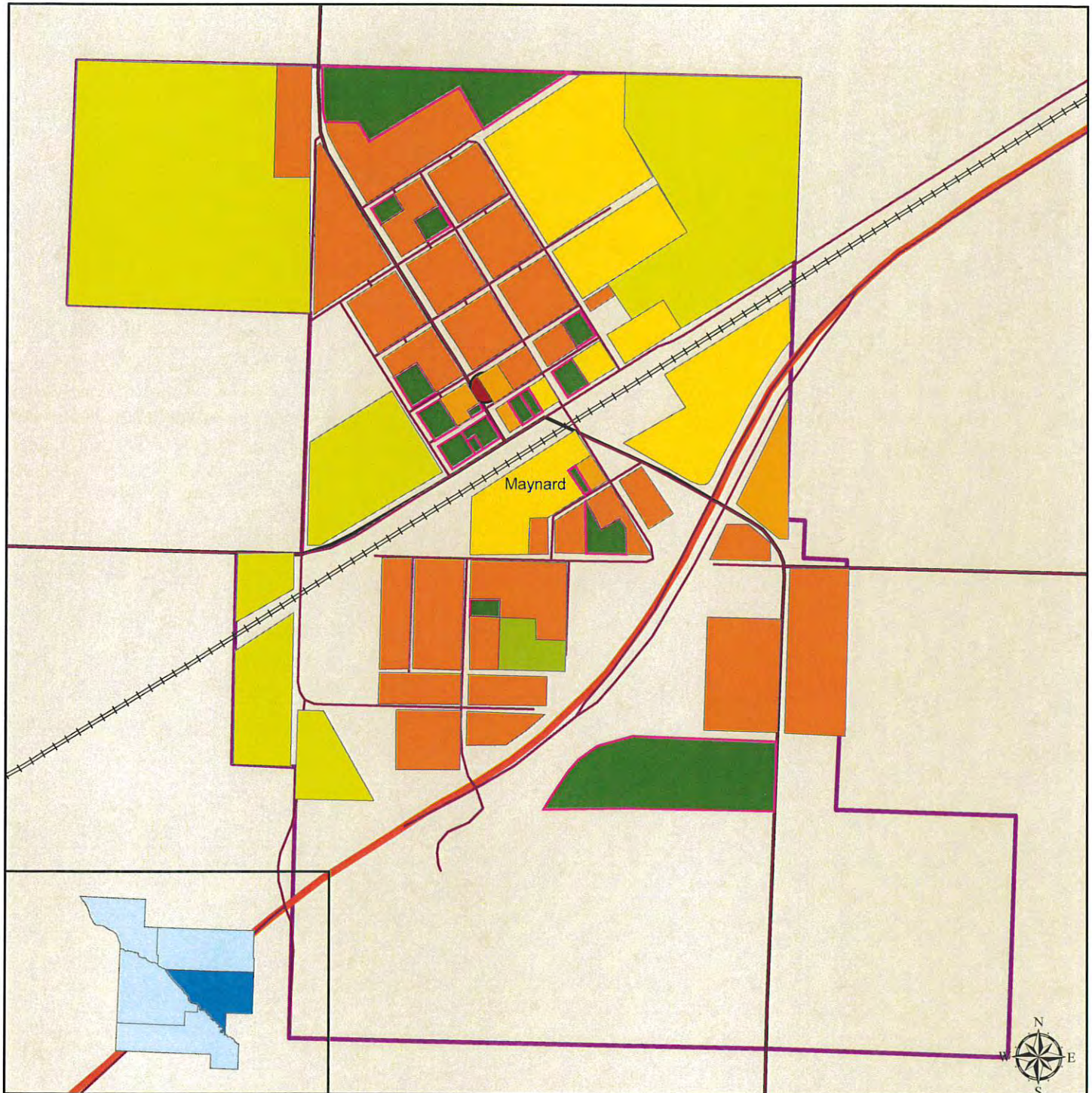


Map Created By: Chippewa County  
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Data Source: US Census 2020

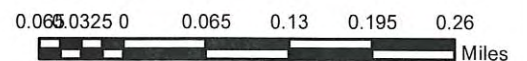




City of Maynard Land Use  
Chippewa County  
All-Hazard Mitigation Planning

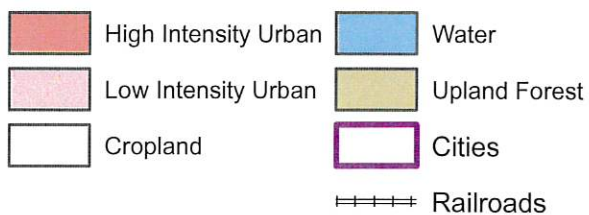
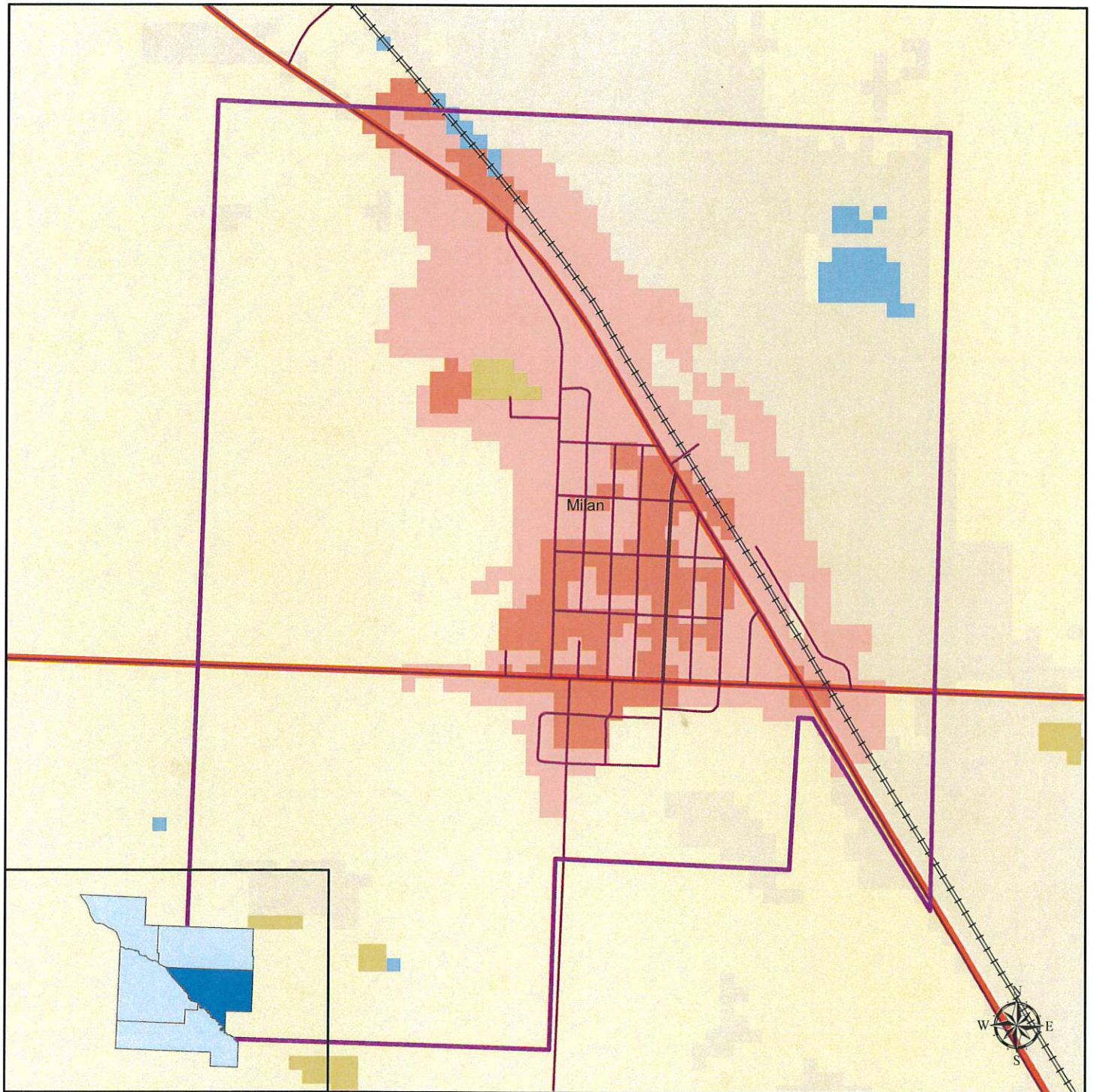


Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR,  
Chippewa County





City of Milan Land Cover  
Chippewa County  
All-Hazard Mitigation Planning

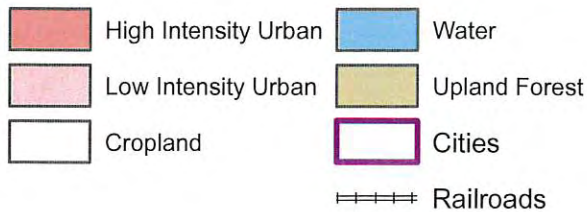
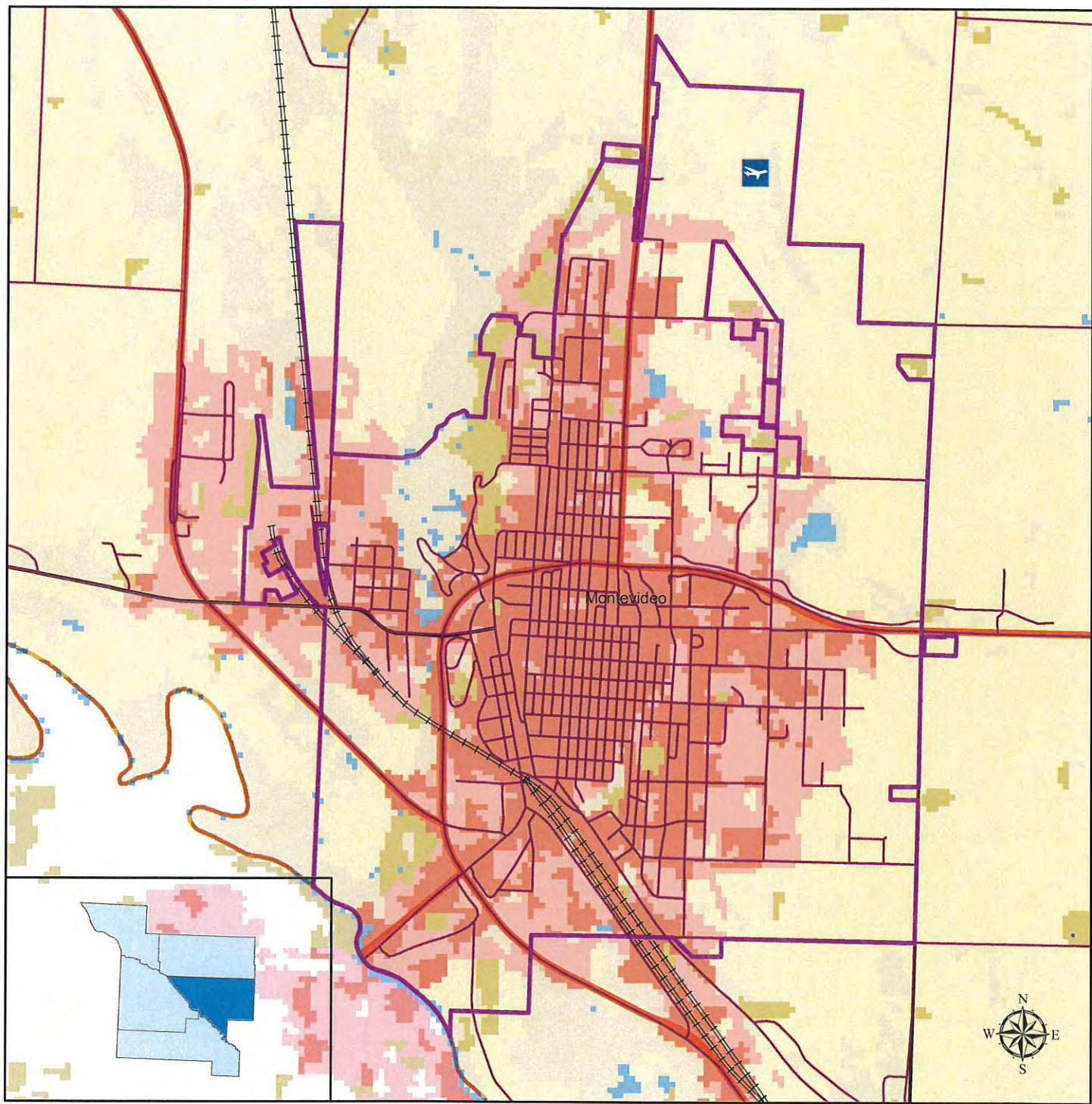


Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR,  
Chippewa County

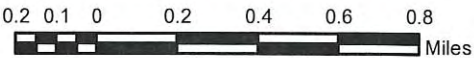




City of Montevideo Land Cover  
Chippewa County  
All-Hazard Mitigation Planning

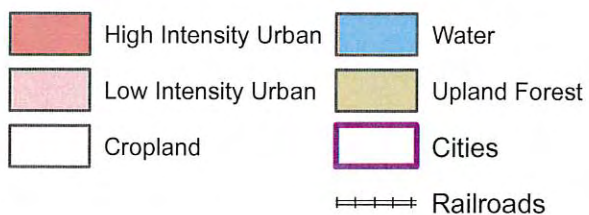
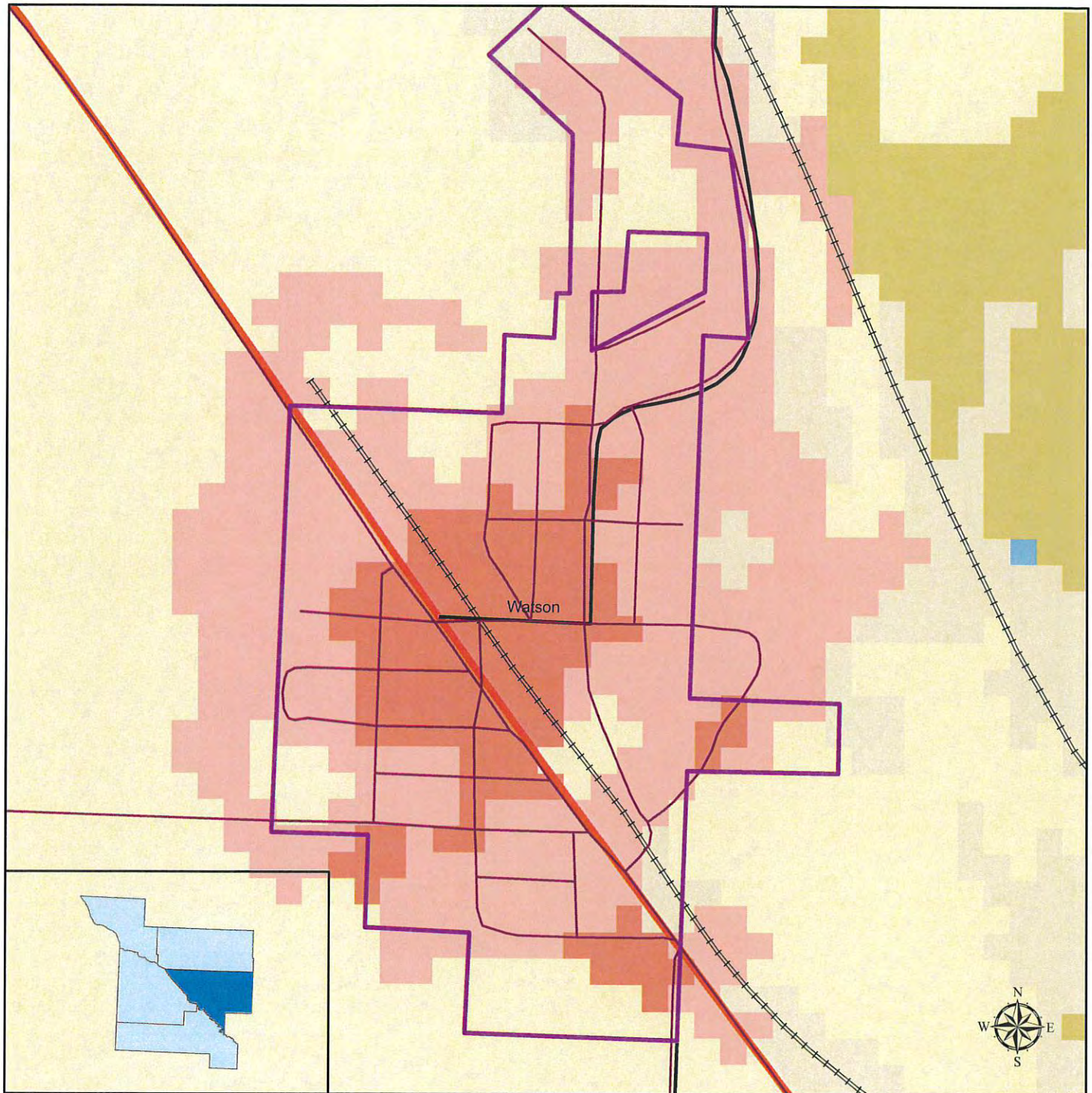


Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR,  
Chippewa County

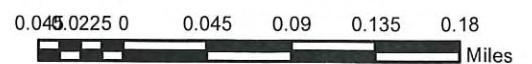




# City of Watson Land Use Chippewa County All-Hazard Mitigation Planning

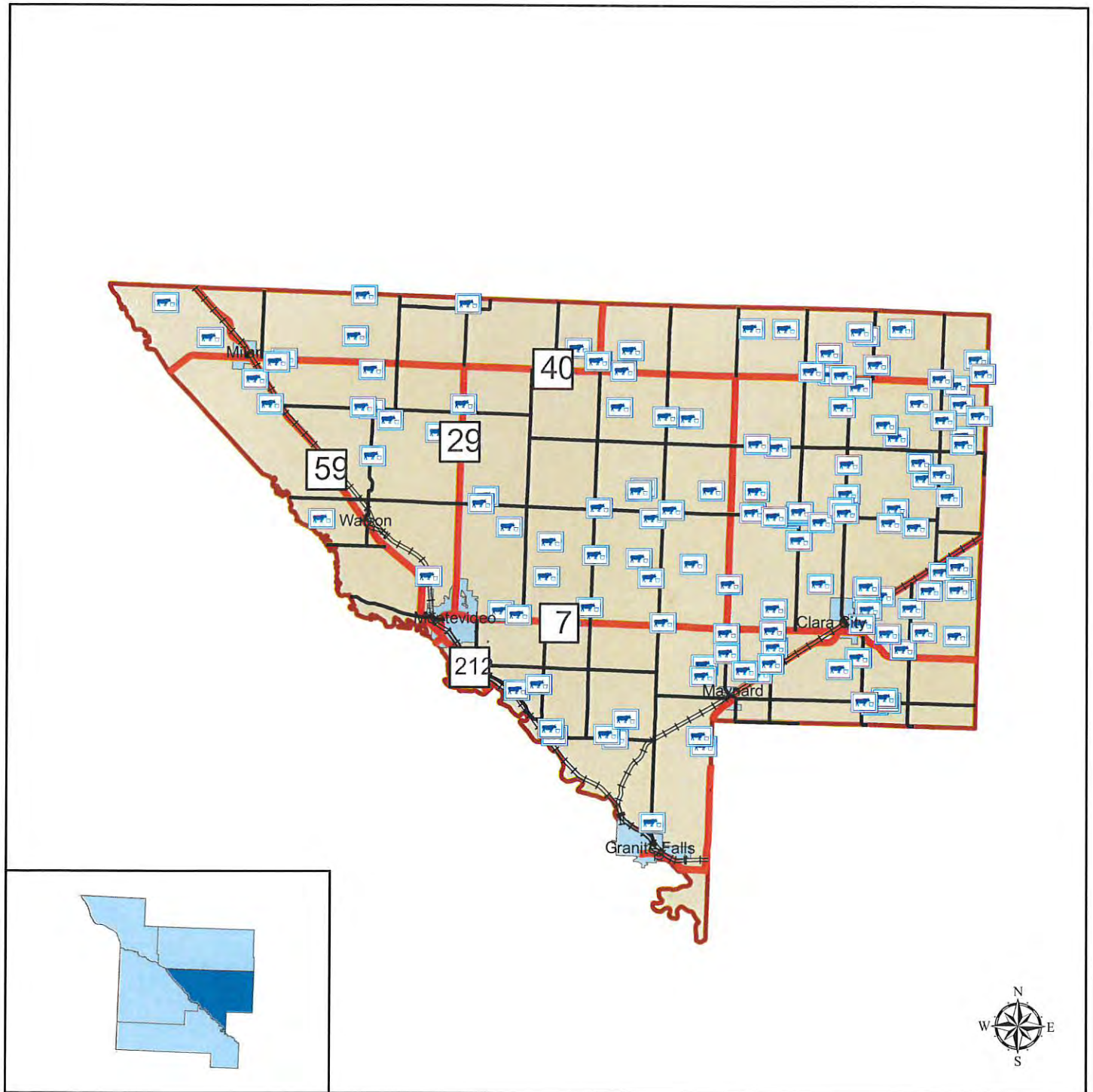






Map Created By: Chippewa County  
Data: 2023  
Data Source: MN DNR,  
Chippewa County





# Feedlots Chippewa County All-Hazard Mitigation Planning



-  Feedlots
-  Railroads
-  Highways
-  CSAH

Map Created By: Chippewa County  
Data: 2023  
Data Source: US Census 2020

2.5 1.25 0 2.5 5 7.5 10  
Miles

## **Appendix VI**

*Calculated Priority Risk Index Scoring Summaries  
(Communities)*

## Chippewa County Hazard Analysis Results

Hazard/Disaster	Probability (45%)	Magnitude/ Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
<b>Natural Disasters</b>					
Windstorms	3	3	4	1	<b>2.95</b>
Hail	3	3	4	1	<b>2.95</b>
Extreme cold	4	2	1	3	<b>2.85</b>
Winter storms	4	2	1	3	<b>2.85</b>
Tornados	2	4	4	1	<b>2.8</b>
Dam/Levee Failure	1	4	4	4	<b>2.65</b>
Drought	3	2	1	4	<b>2.5</b>
Flooding	2	3	2	4	<b>2.5</b>
Extreme Heat	3	2	1	3	<b>2.4</b>
Lightning	3	1	2	1	<b>2.05</b>
Wildfire	1	2	4	3	<b>1.95</b>
Erosion, landslides, and mudslides	1	1	1	3	<b>1.2</b>
Coastal erosion and flooding	N/A				
Land subsidence (sinkholes/Karst)					
Earthquakes					
<b>Human Caused Disasters</b>					
Hazardous materials incident	3	3	4	3	<b>3.15</b>
Water supply contamination	2	4	4	4	<b>3.1</b>
Structural Fire	3	3	4	2	<b>3.05</b>
Wastewater treatment failure	2	3	4	4	<b>2.8</b>
Infectious diseases	2	3	3	4	<b>2.65</b>
Civil disturbance/terrorism/ Cyber attack	2	2	3	2	<b>2.15</b>

## ProaClara City Hazard Analysis Results

Hazard/Disaster	Probability (45%)	Magnitude/ Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
<b>Natural Disasters</b>					
Windstorms	4	4	4	4	<b>4</b>
Hail	4	3	4	4	<b>3.7</b>
Lightning	4	2	4	1	<b>3.1</b>
Tornadoes	2	4	4	4	<b>3.1</b>
Extreme cold	4	2	1	3	<b>2.85</b>
Winter storms	4	2	1	3	<b>2.85</b>
Extreme Heat	3	2	1	4	<b>2.5</b>
Drought	3	2	1	4	<b>2.5</b>
Flooding	2	1	1	4	<b>1.75</b>
Wildfire	1	1	4	1	<b>1.45</b>
Dam/Levee Failure	0	0	0	0	<b>0</b>
Erosion, landslides, and mudslides	0	0	0	0	<b>0</b>
Coastal erosion and flooding	0	0	0	0	<b>0</b>
Land subsidence (sinkholes/Karst)	0	0	0	0	<b>0</b>
<b>Manmade or human</b>					
Hazardous materials incident	4	4	4	4	<b>4</b>
Structural Fire	3	3	4	1	<b>2.95</b>
Water supply contamination	1	3	4	4	<b>2.35</b>
Infectious diseases	1	4	1	4	<b>2.2</b>
Wastewater treatment failure	1	2	4	4	<b>2.05</b>
Civil disturbance/terrorism/ Cyber attack	1	1	4	4	<b>1.75</b>

## Maynard Hazard Analysis Results

Hazard/Disaster	Probability (45%)	Magnitude/ Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
<b>Natural Disasters</b>					
Windstorms	4	2	3	4	3.25
Extreme cold	4	2	1	3	2.85
Winter storms	4	2	1	2	2.75
Tornadoes	1	4	4	4	2.65
Lightning	2	2	4	4	2.5
Flooding	2	2	1	3	1.95
Hail	2	2	2	1	1.9
Wildfire	2	1	4	1	1.9
Drought	2	1	1	4	1.75
Extreme Heat	1	1	1	3	1.2
Dam/Levee Failure	-	-	-	-	
Erosion, landslides, and mudslides	-	-	-	-	
Coastal erosion and flooding	-	-	-	-	
Land subsidence (sinkholes/Karst)	-	-	-	-	
<b>Manmade or human</b>					
Hazardous materials incident	3	3	4	4	3.25
Water supply contamination	1	4	4	4	2.65
Structural Fire	2	3	4	2	2.6
Wastewater treatment failure	2	2	4	3	2.4
Infectious diseases	2	2	1	4	2.05
Civil disturbance/terrorism/ Cyber attack	1	2	4	1	1.75

Hazard Priority Risk Ranking Categories	
Score	Priority Level
3.0-4.0	High
2.0-2.99	Moderate
0-1.99	Low

## Milan Hazard Analysis Results

Hazard/Disaster	Probability	Magnitude/ Severity	Warning Time	Duration	Weighted score
<b>Natural Disasters</b>					
Windstorms	4	4	4	3	<b>3.9</b>
Winter storms	4	3	2	3	<b>3.3</b>
Tornadoes	2	4	4	4	<b>3.1</b>
Hail	3	3	4	2	<b>3.05</b>
Lightning	3	3	4	2	<b>3.05</b>
Extreme cold	3	3	1	4	<b>2.8</b>
Drought	3	2	1	4	<b>2.5</b>
Wildfire	2	2	4	2	<b>2.3</b>
Extreme heat	2	2	1	3	<b>1.95</b>
Flooding	1	1	1	2	<b>1.1</b>
Coastal erosion and flooding	-	-	-	-	-
Dam/Levee Failure	-	-	-	-	-
Erosion, landslides, and mudslides	-	-	-	-	-
Land subsidence (sinkholes/Karst)	-	-	-	-	-
<b>Manmade or human</b>					
Water supply contamination	2	4	4	4	<b>3.1</b>
Wastewater treatment failure	2	3	4	4	<b>2.8</b>
Hazardous materials incident	2	3	4	3	<b>2.7</b>
Infectious diseases	2	4	1	4	<b>2.65</b>
Structural Fire	2	3	4	2	<b>2.6</b>
Civil disturbance/terrorism/ Cyber attack	2	2	4	2	<b>2.3</b>

<b>Hazard Priority Risk Ranking Categories</b>	
<b>Score</b>	<b>Risk Priority Level</b>
3.0-4.0	High
2.0-2.99	Moderate
0-1.99	Low

## Montevideo Hazard Analysis Results

Hazard/Disaster	Probability (45%)	Magnitude/ Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
<b>Natural Disasters</b>					
Windstorms	4	3	2	4	3.4
Lightning	4	2	4	4	3.4
Erosion, landslides, and mudslides	2	4	4	4	3.1
Winter storms	4	3	1	3	3.15
Tornados	2	4	4	4	3.1
Hail	3	2	4	4	2.95
Dam/Levee Failure	1	4	4	4	2.65
Flooding	3	2	4	1	2.65
Drought	3	2	1	4	2.5
Wildfire	2	2	4	1	2.2
Extreme heat	2	2	1	3	1.95
Extreme cold	2	1	1	3	1.65
Coastal erosion and flooding	-	-	-	-	-
Earthquakes	-	-	-	-	-
Land subsidence (sinkholes/Karst)	-	-	-	-	-
<b>Manmade or human</b>					
Structural Fire	3	3	4	2	3.05
Water supply contamination	1	4	4	4	2.65
Wastewater treatment failure	1	4	4	4	2.65
Hazardous materials incident	2	2	4	2	2.3
Civil disturbance/terrorism/ Cyber attack	2	2	4	2	2.3
Infectious diseases	2	2	1	4	2.05



## Watson Hazard Analysis Results

Hazard/Disaster	Probability (45%)	Magnitude/ Severity (30%)	Warning Time (15%)	Duration (10%)	Weighted score
<b>Natural Disasters</b>					
Windstorms	3	3	4	3	3.15
Tornados	2	4	4	4	3.1
Extreme cold	4	2	1	3	2.85
Winter storms	4	2	1	3	2.85
Hail	3	2	4	2	2.75
Lightning	3	2	2	2	2.45
Extreme heat	3	2	1	3	2.4
Wildfire	2	2	4	2	2.3
Drought	2	2	1	4	2.05
Flooding	-	-	-	-	-
Coastal erosion and flooding	-	-	-	-	-
Dam/Levee Failure	-	-	-	-	-
Erosion, landslides, and mudslides	-	-	-	-	-
Land subsidence (sinkholes/Karst)	-	-	-	-	-
Earthquakes	-	-	-	-	-
<b>Manmade or human</b>					
Hazardous materials incident	2	3	4	3	2.7
Water supply contamination	1	4	4	4	2.65
Infectious diseases	2	4	1	4	2.65
Structural Fire	2	3	4	2	2.6
Wastewater treatment failure	2	2	4	4	2.5
Civil disturbance/terrorism/ Cyber attack	1	2	4	2	1.85

## **Appendix VII**

### *Community Mitigation Strategies*

## Clara City 2023 Hazard Mitigation Strategies Summary

### GOALS

- Goal 1: Minimize impacts of **flooding** along Hawk Creek
- Goal 2: Reduce impacts of **wildfire** on people and property
- Goal 3: Reduce impacts of **windstorms** on people and property
- Goal 4: Reduce impacts of **tornados** on people and property
- Goal 5: Reduce impacts of **hail** on people and property
- Goal 6: Reduce impacts of **extreme heat** on people
- Goal 7: Reduce impacts of **drought** on people and critical resources
- Goal 8: Reduce impacts of **lightning** on people and property
- Goal 9: Reduce impacts of **winter storms** on residents, property and travelers
- Goal 10: Reduce impacts of **extreme cold** on people and property
- Goal 11: Reduce impacts of **infectious disease** on residents, especially the vulnerable populations (elderly, young)
- Goal 12: Prevent and reduce **fire** related damage to people and properties
- Goal 13: Reduce impacts of a **hazardous materials** accident on people and property
- Goal 14: Protect the City's **water supply** to provide a safe source of water for businesses and residents
- Goal 15: Reduce probability of **wastewater treatment system failure**
- Goal 16: Protect residents, City staff and critical infrastructure from **Civil Disturbance/Terrorism/Cyber Attack**

### Clara City Mitigation Strategies/Actions

**Time Frame definitions:** Short term – 1-2 years; Mid term – 3-5 years; Long term - >5 years  
**Other definitions:** “Internal” – occurs as part of normal budgeted activities  
 County EM – County Emergency Management  
 DNR - Minnesota Department of Natural Resources  
 DPH – Minnesota Department of Health

ACTION #	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner(s)	Priority	Hazard
1.	Annually review the plan of action which addresses flooding. This plan includes early sandbagging and having equipment available to move ice which will reduce flooding.	Annually	Clara City, County, City of Montevideo	Internal	City	Medium	Flood
2.	Further investigate the cause and effect of ice dams on Hawk Creek	Long term	Cities of Clara City, Maynard, Willmar, Raymond; County, DNR,	Unknown	FEMA (HMGP, BRIC, FMA), DNR	Low	Flood

			Hawk Creek Watershed District				
3.	Conduct prescribed burns of the grassy natural area west of the school.	Every 3-5 years	Clara City Fire Dept.	Internal	City	Medium	Wildfire
4.	Continue to equip and train firefighters on wildfire response	Annually	Clara City Fire Dept.	Internal	City	High	Wildfire, structural fire
5.	Continue to trim trees around the community to prevent limbs from damaging property/utilities/blocking streets	Annually	Clara City Public Works	Internal	City	High	Windstorms Tornados
6.	Continue to equip and train city employees on tree trimming methods and safety	Annually	Clara City Public Works	Internal	City	High	Windstorms, tornados,
7.	Work with property owners in northwest part of the community to plant a living snow fence or other alternative windbreak such as snow piles	Mid-term	City, property owners	<\$1,000	City, SWCD	Medium	Windstorms
8.	Notify residents of shelter locations and other available resources via Nixle	Annually	City, School (safe room)	Internal	City	High	All
9.	Encourage residents to sign up for Nixle and CodeRed notifications	Annually	City, County EM	Internal	City and County EM	High	All
10.	Continue to train with County Emergency Management and neighboring jurisdictions on response plans	Annually	City, County EM, neighboring cities	Internal	City, County EM, MN HSEM	High	All
11.	Continue storm spotting training	Annually	Fire Dept.	Internal	City	High	Tornados, windstorms, hailstorms
12.	Continue to monitor City water supply levels on a regular basis	Annually	Clara City Public Works	Internal	City	High	Drought
13.	Communicate and encourage residents to conserve water during extremely dry conditions via Nixle and other communication outlets	As needed	City	Internal	City	Low	Drought
14.	Enact a water restriction ordinance If City water levels are nearing critically low	As needed	City Council	Internal	City	Low	Drought
15.	Continue to provide redundancy (alternative loops) when feasible in City water and sewer systems to avoid interruptions in service	Annually	Clara City, Public Works	Will depend on project size	City	Medium	Lightning
16.	Ensure all City buildings and electronics are grounded or equipped with surge protection	Annually	City	Internal	City	High	Lightning
17.	Work with Chippewa County, MNDOT to discuss possibility of windbreaks along State Highway 7 between Montevideo and Clara City	2023	City, Chippewa County	Internal	City	Low	Winter storms

			SWCD, MNDOT				
18.	Communicate with businesses along Highway 7 that the Community Building is available for shelter for stranded motorists during severe winter storms	2023	City, local businesses	Internal	City	Medium	Winter storms
19.	Continued winter rescue training for emergency response volunteers	Ongoing	City Fire Department	Internal	City	High	Winter storms
20.	Ensure City and Volunteer emergency responders have adequate PPE on hand and replace as needed	Annually	City	<\$500	City, MDH	Medium	Infectious disease
21.	Continue to work with County and State partners to train for potential disease outbreak	Annually	City, County EM, Countryside Public Health	Internal	City	Low	Infectious disease
22.	Continue to educate school children and community about fire prevention	Annually	Clara City Fire Dept.	<\$500	Clara City Fire Dept.	High	Structural fire, wildfire
23.	Continue to tour local industries and businesses to become familiar with layout	Annually	Clara City Fire Dept., local businesses	Internal	Clara City Fire Dept.	High	Structural fire
24.	Continue to work with County EM and school to prepare, plan and train for hazardous materials response	Annually	Clara City Fire Dept., County EM, MACCRAY School Dist.	Internal	Clara City Fire Dept., County EM	High	Hazardous materials
25.	Communicate and advocate for traffic changes around the State Highways 7/23 intersection to improve safety	Annually	Clara City, MNDOT	Internal	City	Medium	Hazardous materials
26.	Work to increase training opportunities with BNSF railroad	Annually	Clara City, BNSF	Internal	City	Low	Hazardous materials
27.	Continue to update the City's wellhead protection plan	Every 10 years	Clara City. Public Works	<\$2,500	City	High	Water supply contamination
28.	Increase protection/security of City wells, City Hall/Community Building by installing alarm and/or surveillance system	2024	Clara City Public Works	<\$2,000	City	High	Water supply contamination
29.	Continue to maintain and inspect the wastewater treatment and collection system to prevent interruption in service and potential environmental harm to Hawk Creek	Annually	Clara City Public Works	Internal	City	High	Wastewater treatment plant failure
30.	Continue to implement security efforts related to software, City facilities and services	Ongoing	City	<\$1,000	City	High	Civil disturbance /terrorism/ cyber attack

## **City of Clara City: Mitigation Goals and Strategies discussion summary**

### **Natural Disasters**

#### **Flooding**

Hawk Creek is located on the eastern side of the community and has been the focus of past flood-related events in the community. Clara City is a participant in the National Flood Insurance Program, but does not have a Special Flood Hazard Area identified, meaning the entire community is considered Zone C and at minimal risk. Chippewa County is expected to get new flood hazard boundary maps in 2023. The waterway is in a fairly deep channel, but has flooded as a result of ice dams in the spring. The City's main lift station is located along the creek and was recently protected from flooding as a result of rip rap on the banks along with a concrete berm and small levee. This was a strategy identified in the 2015 Plan Update. Also in the previous plan update was a strategy that called for working with the City of Willmar and the Hawk Creek Watershed District to divert water to Grass Lake upstream or look for ways to address Willmar's wastewater flow, which was believed to be a contributing factor to the ice dams. The planning committee no longer felt that much could be done about Willmar's wastewater discharge and also believed that the issue may stem from flow blockage from ice dams at bridges downstream. Other than Hawk Creek, the committee noted that there are a few small areas in town that experience some ponding, but do not result in any major damage, mainly minor inconveniences. The committee felt that the City was in a good place in terms of available resources that may be needed in the event of a flood. The County has a sandbagging machine and lights that are available for use. In addition, the City of Montevideo has pumps available to lend if Clara City should need them.

#### **Wildfire**

Fortunately, there have not been any wildfires in recent history in Clara City. Due to the surrounding agricultural fields, the area surrounding Clara City does not present much opportunity for wildfires to occur. The planning committee noted there was a small natural grassy area adjacent to the school on the western edge of the city as the only natural vegetation adjacent to the community. There is also a very slight chance that a cornfield could start on fire, but to date, that has not occurred and would not likely result in any significant property damage within the community. It was suggested that the fire department could conduct a prescribed burn of the grassy area near the school to reduce the amount of natural fuel.

#### **Windstorms**

Due to the flat topography surrounding Clara City, strong winds are an ever-present concern and nuisance. The City recently experienced some major wind damage in May 2022 resulting in several trees down. The City does a good job of keeping trees trimmed around the community to prevent damage during windstorms. The City does not actively enforce local building codes due to its small size and lack of personnel. The planning committee did not know the exact number of homes in the community without basements, but estimated it would be similar to the

approximate 10% countywide figure that was mentioned in the 2015 plan. The City had included the construction of a safe room at Lion's Park near the swimming pool as a strategy in the 2015 plan, but decided to remove it as the committee did not feel it would be utilized. It was mentioned that the MACCRAY school gym meets the requirements of a safe room and has a capacity of 1,666. This could be utilized by students and school staff if necessary. Discussions are needed with school administration as to whether it could be utilized as a community shelter, both during the school year and during summer months. Vulnerable populations identified by the committee include the elderly in the Clara City Care Center and adjacent senior living units. They have a storm plan in place for residents. The planning committee noted that there very few, if any, mobile homes located in the community and therefore did not feel any strategies were needed to address them, so they removed the 2015 strategy that would require mobile homes to use tie-downs. There is also an increasing number of Micronesians in the community, but the committee felt they have been a part of the community/area long enough that they understood warning sirens and the potential for severe weather.

The community has two outdoor warning sirens that are activated by County Emergency Management during storm warning events. City staff felt their coverage was good. In addition, the City provides emergency communication through Nixle. This system sends out alerts to residents via text message, email or over the web. City staff use Nixle to alert residents of timely events such as snow removal, interruptions in service, road closures, or other non-urgent notifications. It is not used for storm warnings as that is issued at the County level via CodeRed. Residents must sign up for both of these services to receive the alerts.

### **Tornados**

Fortunately, there have not been any tornadoes in Clara City's history. Similar to windstorms, keeping people safe is a top priority of the City. As discussed above, the City has multiple alert systems in place – outdoor warning sirens, CodeRed, and Nixle as well as local television and radio stations. The City does not have a formal designated community storm shelter and did not feel one would be utilized in the event of a tornado due to their quick onset. They felt that residents all had individual plans in the event of a tornado, whether it be to seek shelter in a basement or inner room of their own home or with a neighbor or relative. As with windstorms, the school and nursing homes have tornado plans in place (gymnasium is storm shelter) to keep students and the elderly safe.

Due to the potential rapid development of a tornado, it is important to alert residents as soon as possible. The local fire department undergoes storm spotter training on a regular basis and plans to continue doing so. A severe tornado through the heart of the community would be catastrophic and the need to respond quickly would be paramount. It is recommended that local emergency personnel continue to train with County Emergency Management and neighboring jurisdictions on response plans. The City could also send out educational informational material via Nixle during severe weather awareness week. The City is well equipped with back-up power in the form of generators to power critical facilities such as the water and wastewater systems as well as City Hall/Community Center for an emergency shelter



if needed. Keeping tree limbs trimmed is also important to prevent them from falling on powerlines and/or blocking streets.

### **Hail**

The planning committee could recall two severe hailstorms since 2015. There was one in 2016 and one in 2022. Both events resulted in roof, window and siding damage to homes throughout the community as well as damage to vehicles that were left exposed. Early warning and education are recommended to prevent bodily injury from hail. This could be done via Nixle during the spring months or during severe weather awareness week. Encouraging residents to sign up for Nixle and CodeRed would be beneficial in keeping residents safe. Since the City does not enforce a building code, it would be very difficult to require the use of storm-resistant roofing materials, but could include information about them in educational materials or on the City website.

### **Dam/Levee Failure**

This disaster was eliminated from Clara City's list of strategies as the planning committee did not feel a dam/levee failure could impact the community.

### **Extreme Heat**

Extreme heat tends to have the most impact on the extremely young and the elderly alike. Heat related illness is common with those who fail to take precaution during extreme heat events. This can be heat stroke, dehydration, and nausea to name a few. Perhaps the greatest risk associated with this disaster is having an extended period of time without power. One of the benefits of a smaller community like Clara City is that in most instances, residents are good about checking on friends, neighbors and families during extreme heat events and ensuring that people in need of assistance are cared for. While somewhat rare, a power outage during an extremely hot period of summer is possible either due to an overwhelming demand for electricity (as there tends to be more usage from people running air conditioning units) or perhaps immediately after a severe thunderstorm. The Clara City Care Center and Prairie Park Place are equipped with back-up power to provide comfortable accommodations to their residents. In the event of a prolonged power outage during extremely hot weather, the City is capable of establishing a community shelter at the community center if needed. The City has also offered free swimming days on extremely hot days to keep children and residents cool. City staff can utilize Nixle to notify residents of these opportunities.

### **Drought**

In recent years, Chippewa County has experienced periods of "severe" and "extreme" drought (source: Drought.gov), but as weather patterns change, timely rainfall usually helps to alleviate any major concerns. At the time of this plan, Chippewa County is considered to be in "moderate" drought conditions. The planning committee felt that why conditions are drier than

normal, the City's water supply levels are at a good level and would likely remain adequate due to their proximity to Hawk Creek and the higher water table levels in the area. Another factor is that there are no large industries in town that are large consumers of water. The City has a water restriction ordinance that it could enact and enforce if conditions require, but the planning committee felt the state would likely enact a statewide conservation order before the City would feel the need to do so. The planning committee also felt that the greatest impact a drought would have on Chippewa County would be on the local economy. Extreme drought conditions would undoubtedly have an impact on crop yields in the area, resulting in diminished income for farmers. Due to the local economy's heavy reliance on agriculture, local businesses in Clara City would likely feel the impact.

### **Lightning**

Lightning occurs very frequently across the Midwest including Chippewa County. The main impact lightning causes is fire, tree damage and property damage, specifically to electrical systems. While lightning occurs every year, most lightning strikes do not result in property damage. The City recently had lightning strike their lift station resulting in an inoperable pump. Fortunately, their system has some built-in redundancy and had another pump to continue operating the system. While this type of damage is fixable and inconvenient, the wastewater system is able to operate. The main issue recently has been that parts and equipment are difficult to obtain due to supply chain issues, product shortages and the specifications of the systems. It may now take several months to receive replacement parts and equipment, when it used to be a couple weeks. But again, the City's systems are becoming increasingly more redundant and able to accommodate potential interruptions in service. The City also has back up generation available to operate facilities during outages. City facilities are currently grounded and electronics are protected with surge protection. Both of these measures will help reduce the impact of lightning damage. It would be a good practice to continue to ensure that any new City facilities include electrical grounding and continue to provide surge protection for essential electronic equipment such as computers and communication equipment.

### **Winter Storms**

Minnesota winters can be very harsh and severe winter storms can be expected on an annual basis. Heavy snow can stress roofs, ice and blowing snow can make travel dangerous and those coupled with extreme cold can result in some of the most dangerous conditions the Midwest can offer. As mentioned earlier in this section, the City does not enforce a city building code, but relies on the State Building Code to guide construction practices. Probably the main impact that winter storm events have on the community is impeding transportation routes in and out of the community. Clara City is located along State Highway 7, an east-west route between the city and Montevideo. Many residents rely on this highway to commute to work on a daily basis. The flat topography of the area does little to stop snow from blowing across the highway, greatly reducing visibility. Clara City frequently hosts stranded travelers during bad snowstorms. December 23, 2020 was a recent storm that resulted in many stranded travelers between Montevideo and Clara City. Falling snow and 60mph winds produced extremely dangerous

conditions. In addition, the storm was not forecasted and caught the area by surprise. Events like this are possible in any given year. The planning committee could recall other similar storms throughout the years leaving motorists stranded in the community or along the highway. The committee felt that one mitigation action that could be done is to put up windbreaks along Highway 7 between Clara City and Montevideo as well as on the north part of Clara City. For a windbreak along Highway 7, the City would need to partner with the County and MNDOT to work on a solution since it is out of city limits. Another mitigation action would be to communicate with the gas stations and businesses along Highway 7 that in the event of severe weather, motorists are welcome to stay at the Community Building while they wait out the storm instead of lingering around the businesses. The community could also utilize Nixle to alert residents of available shelter at the Community Building if needed.

### **Extreme Cold**

Like winter storms, extremely cold temperatures are almost an annual occurrence as well. Freezing water pipes, frostbite, hypothermia are the greatest threats from extreme cold. In Minnesota, it is also common to see an increase in fires as people try heating their homes in unsafe ways. The planning committee could recall a couple of fire calls during -70°F and -50°F windchills which resulted in dangerous conditions for firefighters and was also tough on their equipment. The -70°F windchill fire was just outside of town at a diesel repair shop in 2015 and resulted in \$30,000 in firefighting equipment damage due to the extreme cold. Ensuring that firefighting equipment is well maintained and able to work in extreme conditions is something the department strives for on an ongoing basis. Educating residents on extreme cold weather safety is another way to keep people safe. Warning them about frostbite and hypothermia as well as how to keep water pipes from freezing and bursting would likely be beneficial.

## **Human-caused or Technological Disasters**

### **Infectious Diseases**

As the Coronavirus showed, infectious diseases can be quite disruptive to society and very unpredictable. Prior to the coronavirus pandemic, Clara City had not experienced a widespread disease outbreak of that magnitude in recent history. There are occasional outbreaks of influenza, but those are fairly isolated in nature and health providers and caregivers are familiar with treatment. Vaccinations for various illnesses have also helped to reduce the possibility of widespread outbreaks. In the event of a widespread outbreak, the community would likely rely on outside resources for assistance such as Countryside Public Health or MN Department of Health. The committee noted that during the recent pandemic, they realized how important having an adequate supply of personal protective equipment was. During an outbreak, the City's main goal would be to keep essential governmental functions operating as best they can. They also felt staying up to date with training for local emergency personnel would be beneficial. Having communication channels available would also be helpful to notify residents of important

updates should residents need to isolate or shelter in place. Again, getting residents to sign up for Nixle alerts would be one way to get updates out quickly.

### **Structural Fire**

Since the 2015 plan update, the planning committee could recall a couple of structural fires in the community, but both structures were saved and able to rebuild. The fire department works with the school and local businesses on education and prevention throughout the year and especially in the fall during fire prevention week. The department tries to take a proactive approach to working with local businesses by annually touring local businesses and facilities to become familiar with their layouts. The department also conducts monthly training for its volunteers. One challenge they face is that when they ask local businesses to provide information about their facilities, they rarely get a response and so collecting building information can be time consuming.

### **Hazardous Materials**

The potential for a hazardous materials incident in Clara City is real and the community has experienced a significant event in 2007 when 52 train cars derailed in town. Approximately one-third of the community had to be evacuated. The potential for another incident remains due to the high number of trains that go through town on a daily basis as well as the city's proximity to the intersection of State Highways 7 and 23. The planning committee estimates that there about one train an hour with many transporting hazardous materials. Traffic counts on the state highways are also fairly high for the area with traffic counts averaging anywhere between 2,600 and 5,500 vehicles per day. It is estimated that on average, there are about four vehicle accidents a month at the intersection of Highways 7 and 23. Mitigation strategies for this type of disaster include training, planning and equipment. One of the challenges for local responders is coordinating training or getting responses from the railroad. Ideally, it would be helpful to work with the railroad on response training on a regular basis. The MACCRAY school district is another entity that local emergency responders need to continue to involve in hazardous materials response training as the school complex is located about three blocks from the railroad. In the event of a haz mat incident during the school day, the staff and students may need to be evacuated quickly. Continued regular training involving the school would be a good way to stay prepared for this type of disaster and reduce additional harm to individuals should this disaster happen. Another action that the City would like to see done is to improve the traffic flow and/or at the intersection of State Highways 7 and 23 due to the high number of accidents that occur there. Since these are state highways, MNDOT would ultimately be responsible for any changes to the intersection. City officials could continue to communicate their concerns to MNDOT and work together on a solution to make the area safer.

### **Water Supply Contamination**

The City has fortunately not had any water supply contamination events in its past history. The City does its best to secure and protect its wells from tampering. Any contamination of the wells

would be fairly catastrophic as it most likely would be long lasting and a new water supply would need to be accessed. The City plans to continue to update its wellhead protection plan as required and secure and protect its wells from any harm. The City also plans to look into additional security for the wells such as alarms and/or security cameras. The State (MDH) has recommended security fencing around well facilities, but City staff is hesitant to install them as they feel it would draw more attention to their location than leaving them as they are.

### **Wastewater Treatment System Failure**

As mentioned earlier in this document, the City has experienced some failures related to its wastewater system as one of their pumps was recently struck by lightning and was offline. While not ideal, the outage did not result in any major damage. The planning committee felt the main impact on wastewater treatment failure would be on the environment as if there were complete system failure, it is designed to be gravity fed, and therefore the City could discharge untreated wastewater into Hawk Creek as a last resort to prevent sewage backups in the community. The planning committee did not feel that the entire community would be impacted if a failure of the system were to occur. Rather it would be a few neighborhoods in low lying areas. Also as mentioned earlier, replacement parts and equipment have been difficult to acquire in recent years and may increase the time parts of the system are offline. The planning committee felt there was not a lot they could do to lessen negative impacts of a failure. They would strive to fix the system as soon as possible to prevent backups and potential environmental harm to Hawk Creek.

### **Civil Disturbance/Terrorism/Cyber Attack**

The City has not had any past instances or significant threats of terrorism or attack within the community other than a few disruptive residents over the years. The planning committee felt they were in a rural enough area that they would not be a prime target for any kind of attack. They felt they were prepared about as good as feasibly possible and would continue with their efforts and modify them as new threats arise. The City's computer system has anti-virus/malware protection as well as protection from their internet service provider. The City's essential services of water and wastewater do not rely on the internet to operate, so there would be no threat of potential hackers.

## City of Maynard Hazard Mitigation Strategies Summary

### GOALS

- Goal 1: Minimize impacts of **flooding** along Hawk Creek
- Goal 2: Reduce impacts of **wildfire** on people and property
- Goal 3: Reduce impacts of **windstorms** on people and property
- Goal 4: Reduce impacts of **tornados** on people and property
- Goal 5: Reduce impacts of **hail** on people and property
- Goal 6: Reduce impacts of **extreme heat** on people
- Goal 7: Reduce impacts of **drought** on people and critical resources
- Goal 8: Reduce impacts of **lightning** on people and property
- Goal 9: Reduce impacts of **winter storms** on residents, property and travelers
- Goal 10: Reduce impacts of **extreme cold** on people and property
- Goal 11: Reduce impacts of **infectious disease** on residents, especially the vulnerable populations (elderly, young)
- Goal 12: Prevent and reduce impacts of **structural fire** on people and property
- Goal 13: Reduce impacts of a **hazardous materials** accident on people and property
- Goal 14: Protect the City's **water supply** from contamination
- Goal 15: Reduce probability of **wastewater treatment system failure**
- Goal 16: Protect residents, City staff and critical infrastructure from **Civil Disturbance/Terrorism/Cyber Attack**

## City of Maynard Hazard Mitigation Strategy Summary

**Time Frame definitions:** Short term – 1-2 years; Mid term – 3-5 years; Long term - >5 years

**Other definitions:** “Internal” – occurs as part of normal budgeted activities

County EM – County Emergency Management

DNR - Minnesota Department of Natural Resources

DPH – Minnesota Department of Health

	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner(s)	Priority	Hazard
1.	Encourage residents to sign up for CodeRed notifications through the County EM Department	Annually	City, County	Internal	City, County EM	High	All
2.	Annually review the plan of action which addresses flooding. This plan includes early sandbagging and having equipment available to move ice which will reduce flooding.	Annually	Maynard, County EM, City of Montevideo	Internal	City, County EM	High	Flooding

3.	Further investigate the cause and effect of ice dams on Hawk Creek	Long term	Cities of Clara City, Maynard, Willmar, Raymond; County, DNR, Hawk Creek Watershed District	Unknown	FEMA, DNR	Medium	Flooding
4.	Work with FEMA, MN DNR to update floodplain boundaries for the incorporated areas of Maynard.	Mid-term	City, DNR, FEMA	Internal	DNR, FEMA	High	Flooding
5.	Build a berm(s) along Hawk Creek to protect wastewater treatment plant, Lutheran Cemetery and residences	Long term	City, DNR, FEMA, County	Unknown	City, DNR, FEMA (HMGP, BRIC, FMA)	Medium	Flooding
6.	Continue to enforce the restrictive burning ordinance	Ongoing	City	Internal	City	High	Wildfire, structural fire
7.	Continue to equip and train firefighters on wildfire response.	Annually	Maynard Fire Dept.	Internal	N/A	High	Wildfire
8.	Replace Fire Department UTV	Mid-term	Maynard Fire Dept.	\$30,000	FEMA, DNR	Medium	Wildfire, structural fire
9.	Continue to trim trees around the community to prevent limbs from damaging property/utilities/blocking streets	Every 4-5 years	Maynard Public Works	Internal	City	High	Windstorms, tornados, winter storms
10.	Notify residents of available shelters and storm safety information through utility billings	Annually	City, County EM	Internal	City, County EM	Medium	Windstorms, tornados, winter storms, extreme heat/cold
11.	Continue discussions with Xcel Energy regarding the replacement of utility poles and transformer	Ongoing	City staff	Internal	City	High	Windstorms, tornados
12.	Work with County Emergency Management to develop an Emergency Operations Plan for the rodeo and 4th of July community events in case of tornado	Annually	City, County EM	<\$5,000	City, County EM	Low	Windstorms, tornados
13.	Continue storm spotting training	Annually	Maynard Fire Dept.	Internal	Maynard Fire Dept.	High	Tornados
14.	Public education regarding severe storms in school and for community via City website	Annually	City	Internal	City	High	Tornados, windstorms, lightning, hail, winter



							storms, extreme heat/cold,
15.	Notify residents that in the event of a disaster, the City Hall/Community Building and/or City Event Center can be utilized as a relief shelter if needed.	Annually	City	Internal	City	Medium	All
16.	Notify residents via utility billings of available shelters during winter storm events	Annually	City	Internal	City	Medium	Winter storms
17.	Continue to monitor City water supply levels on a regular basis	Annually	Maynard Public Works	Internal	City	High	Drought
18.	Enact a water restriction ordinance If City water levels are nearing critically low	As need	City Council	Internal	City	Low	Drought
19.	Provide redundancy when feasible in City water and sewer systems to avoid interruptions in service	Annually	Maynard Public Works	Depends on project size	City	Low	Lightning
20.	Ensure all City buildings and electronics are grounded or equipped with surge protection	Annually	City	Internal	City	High	Lightning
21.	Educate residents on extreme cold temperature safety either via communication outlets, i.e., utility billings, newspaper, website, social media, etc.	Annually	City	Internal	City	Medium	Extreme cold

### Human Caused Disasters

	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner(s)	Priority	Hazards
22.	Ensure City and Volunteer emergency responders have adequate PPE on hand and replace as needed	Annually	City	<\$500	City, FEMA, MN DPH	Medium	Infectious disease
23.	Continue to work with County and State partners for up-to-date training and coordination in the event of a potential disease outbreak	Annually	City, County EM, Countryside Public Health	<\$5,000	City, County, HSEM	Medium	Infectious disease
24.	Continue to educate school children and community about fire prevention	Annually	Maynard Fire Dept.	<\$500	Maynard Fire Dept.	High	Wildfire, structural fire
25.	Continue to tour Cargill, Impact Innovations and elementary school to become familiar with layouts in the event of a fire	Annually	Maynard Fire Dept., businesses, MACCRAY school	Internal	Maynard Fire Dept.	High	Structural fire
26.	Replace Tanker truck	Long term	Maynard Fire Dept.	\$300,000 - \$400,000	DNR, USDA (Comm.	Medium	Wildfire, structural fire

					Facilities), FEMA (AFG)		
27.	Evaluate needs for new fire hall	Long term	Maynard Fire Dept.	\$50,000	City, USDA	Medium	Wildfire, structural fire
28.	Construct new fire hall	Long term	Maynard Fire Dept.	\$1M	City, USDA (Comm. Facilities)	Medium	Wildfire, structural fire
29.	Continue to work with County EM to prepare, plan and train for hazardous materials response	Annually	Maynard Fire Dept., County EM	Internal	Maynard Fire Dept., County EM	High	Hazardous materials
30.	Encourage residents to sign up for CodeRed alerts through County Emergency Management	Annually	City, County EM	Internal	City, County EM	High	Hazardous materials
31.	Continue to update the City's wellhead protection plan	Every 10 years	Maynard. Public Works	<\$2,500	City	High	Water supply contamination
32.	Continue to maintain and inspect the wastewater treatment and collection system to prevent interruption in service and potential environmental harm to Hawk Creek	Annually	Maynard Public Works	Internal	City	High	Wastewater treatment system failure
33.	Continue to implement security efforts related to software, City facilities and services	Ongoing	City Admin.	<\$1,000	City	High	Civil Disturbance/ Terrorism/ Cyber Attack
34.	Install video surveillance/alarms at key locations in Maynard such as City Hall, wells, Event Center	Short term	City Admin., City Public Works	<\$5,000	City	High	Water supply contam./ Civil Disturbance/ Terrorism/ Cyber Attack

## **City of Maynard: Mitigation Goals and Strategies Discussion Summary**

### **Natural Disasters**

#### **Flooding**

Hawk Creek is located on the southern side of the community and has been the focus of past flood-related events in the community. The waterway is in a fairly deep channel, but has flooded as a result of ice dams in the spring. The planning committee could not recall any flood related events occurring since 2015. The City prepared for flooding in 2019, but fortunately water levels did not rise to the point of flooding. Maynard is a participant in the National Flood Insurance Program, but does not have a Special Flood Hazard Area identified, meaning the entire community is considered Zone C and at minimal risk, but residents have the option to purchase flood insurance if desired. Chippewa County is expected to get new flood hazard boundary maps in 2023. As of now, the City does not have a FEMA floodplain map to delineate where the floodplain boundaries are located. The City could further look into the process to develop a floodplain map for the community by contacting the MN DNR or FEMA regional office. In addition, it would be good to review their plan of action related to flooding and coordinate with the County Emergency Management department and City of Montevideo to ensure supplies and equipment are available should the need arise. Also, as mentioned in nearby Clara City's mitigation strategies, more investigation could be done to determine the causes of springtime flooding on Hawk Creek. The cities along the waterway could coordinate a study to see what exactly causes the flooding – ice jams or warm water from Willmar's wastewater treatment facility. The main threat flooding poses is toward the City's wastewater treatment facilities on the southwest part of town. The City would like to protect this critical facility by constructing a berm along Hawk Creek. The wastewater facilities are located at the confluence Hawk Creek and its tributary. In addition, the City would also like to prevent flooding to the nearby Maynard Lutheran Cemetery and residences in the area. This could also potentially be done by constructing a berm along the waterway.

#### **Wildfire**

Wildfires are not a significant threat to the community, but can occur periodically. The area most susceptible to wildfires are along the railroad right-of-way, which runs from the southwest, through the center of town and to the northeast. Sparks from the railcars sometimes ignite dry vegetation along the rails. The City has experienced these types of fires occasionally, but are quickly extinguished by the local fire department. Other susceptible areas include land consisting of set aside acres or natural vegetation. These areas are also located on the western, southern and eastern sides of the community. Within the city, burning is limited to small recreational fires, such as fire pits/rings, but large brush fires or other types of burning are prohibited by ordinance. The fire department is well equipped to handle most grass fires as they have two grass rigs and a UTV in their fleet of vehicles. The planning committee noted that the UTV is showing its age and is having some mechanical issues. The department would like to replace the unit if funding is available.

## **Windstorms**

Due to the flat topography surrounding Maynard, strong winds are an ever-present concern. The City recently experienced some major wind damage in May 2022 resulting in several trees down, roof damage, and a brief power outage (3-4 hours). The planning committee noted that they received 23 permit applications for shingling projects across the community. The City does a good job of keeping trees trimmed around the community to prevent damage during windstorms and usually trims trees every 4-5 years. The City does not actively enforce local building codes due to its small size and lack of personnel and therefore relies on the state building code. Also, there is a small number of mobile homes located in the community (less than five). The planning committee did not know the exact number of homes in the community without basements, but estimated it would be slightly less than the approximate 10% countywide figure that was mentioned in the 2015 plan. If needed, the Community Building/City Hall and the Event Center could be utilized as community shelters if power was out for an extended period of time or if homes were destroyed and/or considered unsafe. Both have access to back-up power. Notifying residents that these facilities are available during disasters as well as general storm safety information could be included in utility bill mailings in the spring.

City leaders have also noticed that utility poles in the community have not been replaced since they were installed in the late 1940s. Xcel Energy provides electricity to the community and has stated they only replace poles when they fail. Likewise, their transformer is also aging and could be in need of replacement. City leaders should continue discussions with Xcel to encourage them to replace parts of their system before it fails unexpectedly and results in a prolonged outage.

The community has two outdoor warning sirens, one that is activated by County Emergency Management and serves as the primary siren and the other is activated by City personnel if needed. The planning committee felt their siren coverage was good. Residents also have the option of signing up for CodeRed, which is an alert sent out to cell phones during severe weather warnings such as tornados, severe thunderstorms and blizzards. To receive alerts, residents must be signed up for this free service. The City could encourage residents to sign up by including information in their utility bill mailings or posting on their website.

## **Tornados**

Fortunately, there have not been any tornados in Maynard's history. Similar to windstorms, keeping people safe is a top priority of the City. As discussed above, the City has two alert systems in place – outdoor warning sirens and CodeRed as well as local television and radio stations. The City does not have a formal designated community storm shelter or saferoom, but thought that most homes had basements and those without, typically seek shelter with a friend, neighbor or family.

Due to the potential rapid development of a tornado, it is important to alert residents as soon as possible. The local fire department undergoes storm spotter training on a regular basis and plans to continue doing so. A severe tornado through the heart of the community would be catastrophic and the need to respond quickly would be critical. It is recommended that local emergency personnel continue to train with County Emergency Management and neighboring jurisdictions on response plans. The City is well equipped with back-up power in the form of generators to power critical facilities such as the water and wastewater systems as well as City Hall/Community Center for an emergency shelter if needed. Keeping tree limbs trimmed is also important to prevent them from falling on powerlines and/or blocking streets.

Maynard hosts an annual rodeo each summer which draws 1,800 to 2,000 visitors to the community. This event is held on the western edge of the community in a wide open area. The community has a large Fourth of July event as well. Should a tornado occur during either of these events, many people would be vulnerable. The City and County Emergency Management could work together to develop a small Emergency Operations Plan to prepare for a tornado during either of these events.

### **Hail**

The May 2022 storm mentioned earlier also produced large hail which resulting in roof, window and siding damage to homes throughout the community as well as damage to vehicles that were left exposed. Early warning and education are recommended to prevent bodily injury from hail. Public education could be done via utility billings during the spring months or during severe weather awareness week. Encouraging residents to sign up for CodeRed notifications through the County Emergency Management would be beneficial in making sure residents are alerted of impending severe weather.

### **Dam/Levee Failure**

This disaster was eliminated from Maynard's list of strategies as the planning committee did not feel a dam/levee failure could impact the community.

### **Extreme Heat**

Extreme heat tends to have the most impact on the extremely young and the elderly alike. Heat related illness is common with those who fail to take precaution during extreme heat events. This can be heat stroke, dehydration, and nausea to name a few. Perhaps the greatest risk associated with this disaster is having an extended period of time without power. One of the benefits of a smaller community like Maynard is that in most instances, residents are good about checking on friends, neighbors and families during extreme heat events and ensuring that people in need of assistance are cared for. While somewhat rare, a power outage during an extremely hot period of summer is possible either due to an overwhelming demand for electricity (as there tends to be more usage from people running air conditioning units) or perhaps immediately after a severe thunderstorm. The City Hall/Community Building and City

Event Center are equipped with back-up power to provide a cool shelter in the event of a prolonged power outage during extremely hot weather. Making residents aware of these facilities would be helpful should the situation arise.

### **Drought**

In recent years, Chippewa County has experienced periods of “severe” and “extreme” drought (source: Drought.gov), but as weather patterns change, timely rainfall usually helps to alleviate any major concerns. At the time of this plan, Chippewa County is considered to be in “moderate” drought conditions. The planning committee felt that why conditions are drier than normal, the City’s water supply levels have dropped a little, but remain at an adequate level and would likely remain there due to their proximity to Hawk Creek. Another factor that plays into relatively stable water levels is absence of larger industries in town that consume large amounts of water. The City has a water restriction ordinance that it could enact and enforce if conditions require and did so in 2021 at the request of the State. However, the planning committee felt that during most widespread drought periods, the state would likely enact a statewide conservation order before the City would feel the need to do so. The planning committee also felt that the greatest impact a drought would have on Chippewa County would be on the local economy. Extreme drought conditions would undoubtedly have an impact on crop yields in the area, resulting in diminished income for farmers. Due to the local economy’s heavy reliance on agriculture, local businesses would likely feel the impact.

### **Lightning**

Lightning occurs very frequently across the Midwest including Chippewa County. The main impact lightning causes is fire, tree damage and property damage, specifically to electrical systems. While lightning occurs every year and is possible at any location, most lightning strikes do not result in property damage. The City recently had lightning strike their water tower in 2014 and took out their variable frequency drive, which drives current to the motors that power the City’s wells. The City also has back up generation available to operate facilities during outages. City facilities are currently grounded and electronics are protected with surge protection. Both of these measures will help reduce the impact of lightning damage. It would be a good practice to continue to ensure that any new City facilities include electrical grounding and essential electronic equipment such as computers and communication equipment continue to be connected to surge protection. To prevent essential city services from being interrupted, the City could also work to provide redundancy within their water and wastewater systems.

### **Winter Storms**

Minnesota winters can be very harsh and severe winter storms can be expected on an annual basis. Heavy snow can stress roofs, ice and blowing snow can make travel dangerous and those coupled with extreme cold can result in some of the most dangerous conditions the Midwest can offer. As mentioned earlier in this section, the City does not enforce a city building code, but relies on the State Building Code to guide construction practices. The flat topography of the

area does little to stop snow from blowing across the farm fields, greatly reducing visibility. December 23, 2021 was a recent storm that developed with little warning and made travel in the area very difficult, if not impossible. Falling snow and 60mph winds produced extremely dangerous conditions. In addition, in 2018 the community also lost power on the southern and western parts of town as a result of a winter storm. Events like this are possible in any given year. As mentioned earlier, the City has the capability to open up the City Hall/Community Building or the City Event Center on Main Street as a community shelter if needed. Public education and notification are two areas the City could implement to keep residents safe. The City could encourage residents to sign up for CodeRed alerts through County Emergency Management. They could also notify residents that the City has the ability to open up the Community Building during power outages in the winter if people find themselves without heat and/or electricity.

### **Extreme Cold**

Like winter storms, extremely cold temperatures are almost an annual occurrence as well. Freezing water pipes, frostbite, hypothermia are the greatest threats from extreme cold. In Minnesota, it is also common to see an increase in fires as people try heating their homes in unsafe ways. Educating residents on extreme cold weather safety is one way to keep people safe. Warning them about frostbite and hypothermia as well as how to keep water pipes from freezing and bursting would likely be beneficial and reduce potential property damage. As mentioned earlier, the City has the capability to open up the City Hall/Community Building or the City Event Center as a community shelter if needed and could notify residents of this option should residents find themselves without heat and/or electricity during extremely cold weather.

## **Human-caused or Technological Disasters**

### **Infectious Diseases**

As the Coronavirus showed, infectious diseases can be quite disruptive to society and very unpredictable. Prior to the coronavirus pandemic, Maynard had not experienced a widespread disease outbreak of that magnitude in recent history. There are occasional outbreaks of influenza, but those are fairly isolated in nature and health providers and caregivers are familiar with treatment. Vaccinations for various illnesses have also helped to reduce the possibility of widespread outbreaks. In the event of a widespread outbreak, the community would likely rely on outside resources for assistance such as Countryside Public Health or MN Department of Health. During an outbreak, the City's main goal would be to keep essential governmental functions operating as best they can. Having an adequate supply of basic personal protective equipment on hand would help protect the health and safety of City staff. Keeping up to date with training for local emergency personnel and coordinating these efforts with other agencies would be beneficial.



### **Structural Fire**

Since the 2015 plan update, the planning committee could recall a couple of structural fires in the community. The fire department works with the school and local businesses on education and prevention throughout the year and especially in the fall during fire prevention week. The department tries to take a proactive approach to working with local businesses by annually touring larger businesses/facilities such as Cargill, the local elementary school and Impact Innovations to become familiar with their layouts should a fire occur at these locations. The department also conducts monthly training for its volunteers. Some of the department's current needs include a new fire hall and the replacement of two vehicles: the tanker truck and UTV grass rig. The current fire hall has limited space for vehicles and equipment and has forced the department to store vehicles and equipment at multiple locations. In addition, the department's current tanker trucks are approaching 40 and 50 years old. A new tanker truck for Maynard would cost more than a typical tanker as it would need to be custom made because of the low clearance of the bay doors on the current fire hall. As mentioned earlier, the department's UTV grass rig is also aging and becoming unreliable. Unfortunately, all of these items are quite costly to address and the City will need to prioritize their needs and look for potential funding sources including grant funds.

### **Hazardous Materials**

Maynard has a couple of hazardous materials threats located in or near the community. The Burlington Northern Santa Fe (BNSF) railroad runs about 12 trains per day through the heart of Maynard, from the southwest to the northeast. Approximately three miles east of Maynard is the Magellan Pipeline, which transports refined petroleum from Houston, TX up to northern Minnesota and throughout the Midwest. State Highway 23 also bisects the community from the southwest to northeast. This highway connects Sioux Falls, SD to Duluth with the regional centers of Marshall, Willmar and St. Cloud located along the highway as well. Near Maynard, the highway averages a little over 3,000 vehicles per day, including trucks carrying all kinds of materials, including hazardous materials. Fortunately, there are not a lot of major hazardous materials in Maynard as Cargill no longer stores any at their site in town. The bulk of hazardous materials threatening Maynard are transported through the community either by rail or truck, thus creating a challenge for local emergency responders as they never know what is being transported at any given time, making it difficult to prepare. Local responders should continue to train and be involved with related discussions with Chippewa County Emergency Management, state/federal agencies as well as the BNSF railroad. Encouraging residents to sign up for the CodeRed alerts through the County would also help residents know what to do in the event of a major accident.

### **Water Supply Contamination**

Since water supply is one of the most critical resources for communities, it is important that the City does what it can to protect their source wells from tampering. Depending on the contaminant, the water supply may not be safe for consumption and use for many years if at all

should it be compromised. The City has fortunately not had any water supply contamination events in its past history. The City has an alarm system in place for its well house and also recently updated its wellhead protection plan/ordinance in 2022. In addition, it may be advantageous for the City to install video surveillance and alarms for its wells. Cameras could easily be mounted near the wells to provide an additional layer of security.

### **Wastewater Treatment System Failure**

Similar to providing water to residents, another essential function of the City is providing wastewater collection and treatment. The City has not had any major problems with its wastewater system aside from a few back-ups and also has a back-up generator available during power outages. They have additional pumps available to use if the system is struggling to keep up with demand. Since the system is primarily gravity fed, there is not a lot the City needs to do to keep things operating. The main thing the City can do to prevent problems is to perform regular maintenance on the system to ensure that things are running smoothly.

### **Civil Disturbance/Terrorism/Cyber Attack**

The City has not had any major disturbances or attacks in their history. However, in 2020 there was a minor disturbance at the local post office, which involved the burning of mail and some vandalism. This was done by a group of high school students waiting for a bus. The planning committee did not feel that Maynard would be the target of any major attacks due to their rural location and small size. Like most businesses, the City relies on computers and the internet for its day to day operations, including the wastewater system controls. The City's computers are protected by antivirus software. As mentioned earlier, the City has an alarm system on its wellhouse. It is recommended that the City expand its surveillance of critical facilities by installing cameras near the City's wells and around entry points at City Hall and the Event Center downtown. Security video systems are becoming more affordable as technology advances and for a minimum expense, the City could provide an additional layer of security at key facilities, thus deterring vandalism, thefts and tampering with City property. Having cameras at some locations could also assist law enforcement with tracking down wanted criminals.

## City of Milan Hazard Mitigation Goals and Strategies Summary

Goal 1: Minimize impacts of **flooding** on people and property

Goal 2: Reduce impacts of **wildfire** on people and property

Goal 3: Reduce impacts of **windstorms** on people and property

Goal 4: Reduce impacts of **tornados** on people and property

Goal 5: Reduce impacts of **hail** on people and property

Goal 6: Reduce impacts of **extreme heat** on people

Goal 7: Reduce impacts of **drought** on people and critical resources

Goal 8: Reduce impacts of **lightning** on people and property

Goal 9: Reduce impacts of **winter storms** on residents, property and travelers

Goal 10: Reduce impacts of **extreme cold** on people and property

Goal 11: Reduce impacts of **infectious disease** on residents, especially the vulnerable populations (elderly, young)

Goal 12: Prevent and reduce **fire** related damage to people and properties

Goal 13: Reduce impacts of a **hazardous materials accidents** on people and property

Goal 14: Protect the City's **water supply**

Goal 15: Reduce probability of **wastewater treatment system failure**

Goal 16: Protect residents, City staff and critical infrastructure from **Civil Disturbance/Terrorism/Cyber Attack**

**Time Frame definitions:** Short term – 1-2 years; Mid term – 3-5 years; Long term - >5 years

**Other definitions:** “Internal” – occurs as part of normal budgeted activities

County EM – County Emergency Management

DNR - Minnesota Department of Natural Resources

DPH – Minnesota Department of Health

ACTION #	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner(s)	Hazards	Priority
1.	Ensure curb/gutter and stormwater intakes are clear of leaves, grass clippings to prevent blockage	Annually	City	Internal	City	Flooding	High
2.	Consider participation in the National Flood Insurance Program	Mid-term	City Council	Internal	City	Flooding	Low
3.	Continue regular fire training	Monthly	Milan FD	Internal	Milan FD	Wildfire, structural fire	High
4.	Continue to enforce City nuisance ordinance	Ongoing	City	Internal	City	Wildfire, structural fire	Medium
5.	Fire prevention education in schools and community	October, annually	Milan FD	<\$500	Milan FD	Wildfire, structural fire	High
6.	Continue to notify electric provider to trim trees around the community to prevent limbs from damaging property/utilities/blocking streets	As needed, Annually	Otter Tail Power, City staff	Internal	City	Windstorms, tornados, winter storms	Medium
7.	Encourage Ottertail Power to bury powerlines throughout the community	Ongoing	City, Otter Tail Power	Internal	City	Windstorms, tornados, winter storms	Low
8.	Encourage residents to sign up for CodeRed notifications	Annually	City, County EM	Internal	City, County EM	All	Medium
9.	Work to establish a designated local community shelter at the church basement and equip with new portable generator	Short term	City, local church	\$5,000	City, FEMA (HMGP, BRIC)	Windstorms, tornados, winter storms, extreme heat/cold	Medium
10.	Public education/awareness regarding storms via city utility billings, website	Annually, April	City, County EM	<\$500	City	Windstorms, tornados, winter storms, extreme heat/cold, hail, lightning	Medium
11.	Notify and encourage Farmers Mutual Telephone to repair or replace the telephone service generator	Short term	City, FMTC	Internal	City	All	High

12.	Develop a local communication plan to notify residents of community shelter availability during/after future storm events	Short term	City Council	Internal	City	All	Low
13.	Continue to monitor City water supply levels on a regular basis	Ongoing	City Public Works	Internal	City	Drought	High
14.	Communicate and encourage residents to conserve water during extremely dry conditions via mailings/website/conversations	As needed	City Council, City Clerk	Internal	City	Drought	Medium
15.	Enact a water conservation/restriction ordinance if City water levels near critically low levels	As needed	City Council	Internal	City	Drought	Medium
16.	Ensure all City buildings and electronics are grounded or equipped with surge protection	Annually	City	Internal	City	Lightning	High
17.	Identify an assistant street employee or alternative contractor to help with snow removal on an as-needed basis	Short term	City Council, City Public Works	Internal	City	Winter storms	Medium

### Manmade or human caused disasters

18.	Ensure City and volunteer emergency responders have adequate PPE on hand	Annually	City Emergency Response Depts.	<\$500	City, MN DPH	Infectious disease	Low
19.	Continue to work with County and State partners to train for potential disease outbreak	Annually	City, County EM, Countryside Public Health	Internal	City	Infectious disease	Medium
20.	Continue to tour local industries and businesses to become familiar with layouts	Annually	Milan FD, local businesses	Internal	Milan FD	Structural fire	High
21.	Continue to work with County EM and surrounding departments/agencies to prepare, plan and train for hazardous materials response	Annually	Milan FD, First Responders/ EMT, County EM	Internal	City	Hazardous materials	High
22.	Continue to update the City's wellhead protection plan	Every 10 years	Milan Public Works	<\$2,500	City	Water supply contam.	High
23.	Discuss and determine best security practices for water supply and distribution system	Short term	City Council, Milan Public Works	Internal	City	Water supply contam.	Medium
24.	Remove "City Water" signage near fire hydrants to reduce threat of tampering	Short term	Milan Public Works	Internal	City	Water supply contam.	Medium

25.	Continue to maintain and inspect the wastewater collection system, lift station, generator, and treatment ponds to prevent sewer backups in the community	Annually	City of Milan Public Works	Internal	City	Wastewater treatment system failure	High
26.	Continue to implement security efforts related to software, City facilities and services	Ongoing	City	<\$500	City	Civil Disturbance /Terrorism/ Cyber Attack	High

### Natural Disasters

#### Flooding

Milan does not experience flooding as a result of any nearby waterways and scored the lowest of the potential natural disasters during their Hazard Analysis discussion. Similar to nearby Watson, the community's location on higher ground allows stormwater to drain quickly and effectively. The nearby wetland on the eastern side of the community easily accommodates heavy precipitation amounts without leading to flooding. The planning committee noted that even during the worst flooding in the area in 1996-97, the city experienced little to no flood damage. The community also recently upgraded its stormwater collection infrastructure in 2012 to further improve drainage. The committee noted that the main damage resulting from flooding is that a limited number of homes may receive water in their basements periodically. Since flooding does not have a major impact on the community, there are a limited number of mitigation actions they can pursue. One would be to ensure that curbs, gutters and stormwater intakes are clear, especially in fall when leaves and other vegetative debris tend to pile up in these locations. Another action for the City to consider is participation in the National Flood Insurance Program. Currently, the City has a floodplain area mapped, but is not a participant in the NFIP. The floodplain area consists of the land on the east side of Highway 59. This land is currently undeveloped and is mostly wetlands/natural land and would be undesirable and unsuitable for development. However, participating in the NFIP would provide residents the opportunity to purchase flood insurance if desired. Participating in the NFIP would also require the City to adopt a floodplain management ordinance that meets or exceeds the minimum NFIP criteria, which would ensure that future development in the floodplain would be limited. The City has not participated in the NFIP as it does not foresee development occurring in the floodplain area and the area west of U.S. Highway 59 is on high ground and has not had a history of flooding.

#### Wildfire

Fortunately, there have not been any major wildfires in recent history in Milan. There have been a few in the rural areas outside of the community, including a small fire along the railroad in 2021. The main threat of wildfire would be on the eastern side of the community, east of U.S. Highway 59, where almost all of the land is natural vegetation. However, much of that area is considered wetland, so it would likely not pose much of a threat unless there were extremely dry conditions. A potentially vulnerable property to wildfire includes the Glacial Plains Co-op facilities, which has large grain storage structures, a weigh station/office and a natural gas storage tank. The planning committee felt the tank was far enough away from the area that there would be limited risk from fire. Another asset located near the Glacial Plains facility that could be at risk is the water filling station that the elevator uses for ag purposes and the fire department uses to fill tanker trucks. It should also be noted that for a wildfire to impact these facilities, the wind would have to be out of the northeast (which is fairly rare) to cause it to spread to this area. The other adjacent areas to Milan are used for agriculture



production and pose a very limited risk for wildfire. One way cities can reduce the chance of wildfires spreading to structures and homes is to enforce their nuisance ordinance which requires property owners to keep their properties maintained by mowing grass, preventing vegetative overgrowth and eliminating large stock piles of combustible materials.

The planning committee felt that the Milan Fire Department is currently well-equipped for grass fires. The department also has an adequate number of volunteers and train on a monthly basis. The department annually visits the local school during fire prevention week in October to educate students on fire safety and prevention.

### **Windstorms**

Milan's location in the Midwest makes it susceptible to occasional windstorms from spring to fall. Sometimes these storms can be as destructive as tornadoes. In May 2022, Milan, along with much of the surrounding area, was impacted by a derecho windstorm resulting in downed trees, damaged roofs, and a 27-hour period without power.

To mitigate for windstorms and prevent potential interruptions of electricity in the community, the planning committee felt that keeping tree limbs away from powerlines would be an easy action to take. Since the power system is owned by Otter Tail Power, residents and/or city officials would need to contact the utility if branches grew too close to the overhead lines to have them trimmed.

The City would also like to see the burying of powerlines throughout the community to reduce the threat of power outages and potential injury. However, the implementation of this action is out of their control, as it would be the responsibility of Otter Tail Power Company.

The city has one storm warning siren that is activated by County Emergency Management during severe weather events. The planning committee noted that it cannot always be heard in the southwestern part of the community. They would plan to look into this issue further with the County Management Director as the siren should be able to adequately cover the community due to its small size. If an additional siren or replacement siren is warranted, the City may apply for potential funding assistance such as USDA Rural Development.

In addition to activating the warning siren, the County Emergency Management department also issues notifications via the CodeRed emergency alerts to cell phones of county residents. However, only those who are signed up for this service receive the alerts, so encouraging residents to sign-up would provide another means of warning, especially for those who cannot always hear the outdoor warning siren.

During the planning process, there was some discussion on what facility could and should be used as a community shelter if one was needed during a prolonged power outage as the City currently does not have one established. The planning committee suggested the City Hall/Community Building and the local church basement as potential community shelter

locations. The City building would likely be the first choice as it is equipped to accommodate a portable generator. The planning committee planned to bring it up for discussion in an upcoming City Council meeting. There was also discussion on the need for a tornado saferoom, but since most homes in the community have basements and those that do not, typically seek shelter with a neighbor or nearby family member, they did not feel one would be utilized at this time.

### **Tornados**

Milan had a tornado near the community approximately two miles north of town as part of the severe weather events in late May 2022. The tornado was classified as a EF0 and had reported winds of up to 70mph. The tornado uprooted several trees and damaged farm outbuildings in the area.

Similar to windstorms, it is important to alert residents of impending tornados as soon as possible. As discussed above, the City has multiple alert systems in place – outdoor warning sirens, CodeRed as well as local television and radio stations. The local fire department undergoes storm spotter training on a regular basis and plans to continue doing so. A severe tornado through the heart of the community would be catastrophic and the need to respond quickly would be critical. Similar to the previous section, trimming trees, burying powerlines, keeping people safe and possibly preventing interruptions in essential services are the main priorities in mitigating tornados. Public education and awareness is also helpful to remind residents how to respond should a tornado occur. This can be done in early spring of each year during severe weather awareness week via the city's website and/or utility billings. Another mitigation action the planning committee noted was to encourage Farmers Mutual Telephone to replace their generator for the local phone lines. During the recent power outage in May 2022, the phone lines were also out, making communication difficult for some residents. During past power outages, phone lines were typically operable with the assistance of a back up generator.

### **Hail**

The aforementioned windstorm in May 2022 also produced significant hail damage in the surrounding area, but the planning committee noted that Milan was spared. They could not recall any major hailstorms in recent history. The most recent hailstorm they noted was in May 2012 which produced 2' diameter hailstones. Little can be done to reduce the impact hail on property. Personal property, especially vehicles, left outside during hailstorms tend to be damaged by 1" diameter hail or larger. Roofs, windows and siding are also susceptible to damage from large hailstones. Personal injury can be avoided by seeking shelter, so it is important for residents to be aware of impending storms. It should be noted that Milan is home to a large number of Micronesian residents. It is important that they are aware of the various weather patterns/storms that can occur in Minnesota as they differ significantly from the warmer western Pacific climate.

As with several other disasters, warning and educating residents are key to keeping residents safe. This can be done by encouraging residents to sign up for CodeRed notifications through the County Emergency Management Department and distributing storm warning information throughout the year. For summer storms, it would be good to send out information in April during severe weather awareness week. Both the CodeRed and storm material/information could be distributed via the City's utility billing or posted on the City's website.

### **Dam/Levee Failure**

The planning committee eliminated Dam/Levee Failure from their list of potential disasters as they did not feel it was a threat to the community as there are no dams upstream from Milan.

### **Extreme Heat**

Extreme heat tends to have the most impact on the extremely young and the elderly alike. Heat related illness is common with those who fail to take precaution during extreme heat events and those who work outside during the summer months. This can be heat stroke, dehydration, and nausea to name a few. Perhaps the greatest risk associated with this disaster is having an extended period of time without power. As mentioned earlier, the City does not have a formally designated community shelter where people could cool off, but the planning committee suggested the City Hall/Community Building or the local church as potential options. The City's building is wired to utilize a back-up power source such as a portable generator. The electrical system of the local church would need to be investigated to see if it could accommodate a portable generator. The City has two portable generators available, with one of them being quite a bit older than the other and may need some maintenance. Once the City Council decides and establishes a community shelter, they will need to notify residents of its availability during/after storm events. They may need to also establish a communication plan to get the word out during potential power outages letting residents know that it is available.

### **Drought**

In recent years, Chippewa County has experienced periods of "severe" and "extreme" drought (source: Drought.gov), but as weather patterns change, timely rainfall usually helps to alleviate any major concerns. At the time of this plan, Chippewa County is considered to be in "moderate" drought conditions. The planning committee said that while the area has been dry in recent years, the water supply levels are still adequate and the City has been told that their water supply comes from a good aquifer. If extreme dry conditions persist and the City's primary water levels drop significantly, the planning committee felt they would still have an adequate supply of water from the well near the wetlands on the east side of the community. While the water is discolored, it is safe for use. In addition, the City has a water conservation ordinance in place that they can enforce if needed, which would prohibit unnecessary water use such as washing cars, filling swimming pools, and watering lawns. The planning committee noted that they have not had to utilize this regulatory tool as residents typically don't

overconsume water, but if needed, they felt that most would quickly cooperate in conserving water if the City requested.

### **Lightning**

Lightning occurs very frequently across the Midwest including Chippewa County. The main impact lightning causes is fire, tree damage and property damage, specifically to electrical systems. While lightning occurs every year, most lightning strikes do not result in property damage. The planning committee could not recall any damaging lightning strikes in the community since the last plan update. As mentioned earlier, the City is equipped with back up generation to operate essential facilities during power outages and will work on establishing a community shelter that could be utilized during prolonged power outages. City facilities are currently grounded and electronics are protected with surge protection. Both of these measures will help reduce potential impacts of a lightning strike. It would be a good practice to continue to ensure that any new City facilities include electrical grounding and continue to provide surge protection for essential electronic equipment such as computers and communication equipment. Also, providing some public education during severe weather awareness week in April would remind residents to stay safe during severe thunderstorms. This could be done via utility billings or the City's website.

### **Winter Storms**

Minnesota winters can be very harsh and severe winter storms can be expected on an annual basis. Heavy snow loads can stress roofs, ice and blowing snow can make travel dangerous and those coupled with extreme cold can result in some of the most dangerous conditions the Midwest can offer. Due to the small size of Milan, the City does not have the staffing capacity to enforce building codes in the community. Another mitigation action that could prevent interruption in essential services is to trim tree limbs near overhead powerlines as mentioned in the windstorms and tornados sections. Since the City does not own the electric utility, they must notify Otter Tail Power or hire a tree removal contractor if there is an immediate need. The City's water and wastewater facilities are equipped with backup power, which will keep them operating during any power outage.

The planning committee felt the main issue facing the community is having an assistant snowplow operator available to help clear streets. Right now, the City has one individual that is responsible for clearing streets, but the planning committee thought it may be helpful to have another individual on call to assist during extreme snowfall events or in the case where the City employee is out of town or otherwise unavailable. The current labor shortage is an obstacle to finding a potential assistant or substitute. Another alternative could be to contact local snow removal companies or local farmers to see if they have the equipment and/or capacity to help clear streets on an as-needed basis. As mentioned with other disasters, a community shelter may be beneficial during or after severe winter storms. Finally, keeping residents notified of impending severe weather is key and can be done through the County's CodeRed notification system.

**Erosion, Landslides, and Mudslides**

The planning committee eliminated Erosion, Landslides, and Mudslides from their list of potential disasters as they did not feel it was a threat to the community as there are no highly erodible landforms in or immediately near Milan.

**Coastal Erosion and Flooding**

The planning committee eliminated this disaster from its strategy as there are no coastal areas located in or near the community.

**Land Subsidence (Sinkholes and Karst)**

The planning committee eliminated this disaster from its strategy as this type of landform is not present in the community.

**Extreme Cold**

Like winter storms, extremely cold temperatures are almost an annual occurrence in Minnesota. Freezing water pipes, frostbite, hypothermia are some of the greatest threats resulting from extreme cold. In Minnesota, it is also common to see an increase in fires as people try heating their homes in unsafe ways. Educating residents on extreme cold weather safety is another way to keep people safe. Warning them about frostbite and hypothermia as well as how to keep water pipes from freezing and bursting via mailings or the City website would likely be beneficial. Another way to keep residents safe is to notify them of available resources during prolonged periods of below normal temperatures. The City could provide this information via the City's website as conditions warrant. As mentioned earlier, the community has a large percentage of Micronesian residents and upon arrival to Minnesota, may not be familiar with the colder climate. To keep the new residents safe, the City could annually send out public information materials to educate those who have never experienced a cold climate. It could include information on proper clothing, safe ways to heat your home, and other threats mentioned above. Again, a designated community shelter would also be a great asset during prolonged periods of extreme cold. During winter storms, a shelter may prove even more useful for stranded motorists in the area. The planning committee noted Milan's location at the intersection of U.S. Highway 59 and State Highway 40 could make them more susceptible to stranded motorists and it would be nice to have a shelter available for them.

**Earthquakes**

The planning committee eliminated this disaster from its strategy due to the extremely low likelihood of an earthquake occurring.

## **Human-caused or Technological Disasters**

### **Infectious Diseases**

As the Coronavirus pandemic showed, infectious diseases can be very unpredictable and quite disruptive to society. Prior to the coronavirus pandemic, Milan had not experienced a widespread disease outbreak of that magnitude in recent history. There are occasional outbreaks of influenza or other viruses, but those cases tend to be somewhat isolated in nature and health providers and caregivers are familiar with treatment. Vaccinations for various illnesses have also helped to reduce the possibility of widespread outbreaks. In the event of a widespread outbreak, the community would likely rely on outside resources for assistance such as Countryside Public Health or MN Department of Health. The committee noted that during the recent pandemic, they realized having an adequate supply of personal protective equipment was important. With that in mind, they noted that it is important for them to have an adequate supply of PPE on hand in the event of another outbreak. They realize that being a smaller community, they would not likely be a high priority when it comes to the widespread distribution of emergency supplies, so having enough to get by for a while would be important in keeping city employees/volunteers safe. During an outbreak, the City's main goal would be to keep essential governmental functions operating as best they can. Having recently been through a pandemic, the City is better equipped and trained for this type of disaster. It would also be beneficial for emergency responders to continue to participate in any training opportunities related to this disaster. The planning committee noted that public communication is also important in keeping the public safe, but acknowledged that not everyone listens or adheres to state and local guidance.

### **Structural Fire**

In the past year, the planning committee could recall a couple of structural fires in the community, one being a complete loss. Structural fires in the community are somewhat rare, especially with fewer wood burning stoves serving as primary sources of heat in homes. As mentioned in the Wildfire section, the department is well staffed with volunteers, has mutual aid agreements in place with neighboring departments, is well equipped for their needs. The City also routinely checks their fire hydrants to ensure they are operable. The fire department works with the school and local businesses on education and prevention throughout the year and especially in the fall during fire prevention week. The department tries to take a proactive approach to working with local businesses by annually touring larger local businesses and facilities to become familiar with their layouts. The department also conducts monthly training for its volunteers.

### **Hazardous Materials**

Milan's location at the intersection of U.S. Highway 59 and State Highway 40 as well as having the Twin Cities and Western railroad running adjacent to Highway 59, present several opportunities for a transported hazardous materials event to occur. Fortunately, there have not been any hazardous materials events in recent history. The most recent accident involved a

train derailment over 20 years ago due to snow and ice buildup on the tracks. This accident resulted in spilled fuel from the derailed locomotive. In addition to the transportation routes, the planning committee noted a natural gas storage tank at the Glacial Plains Co-op as well as a few small businesses with small amounts on site.

Providing emergency responders with adequate equipment and gear as well as up to date training and planning are key to responding and keeping people safe. The fire and EMS departments currently participate in annual haz mat training exercises and plan to continue into the future.

### **Water Supply Contamination**

The City has fortunately not had any water supply contamination events in its past history. The planning committee noted that keeping their water supply safe was a high priority. Any contamination of the wells would be fairly catastrophic as it most likely would be long-lasting and a new water supply would need to be secured. They discussed measures such as improved security around their wells and treatment facility. However, sometimes installing additional security such as fencing around wells, draws more attention to their location and potentially puts them at greater risk of tampering. Similarly, the planning committee questioned the current “City Water” signs that are next to fire hydrants in town. They felt that this could also entice potential vandals into tampering with the water supply and should perhaps be removed. The City also plans to continually update its wellhead protection plan as required by the state to secure and protect its water supply from potential contamination.

### **Wastewater Treatment System Failure**

The City has not had experienced any major failures of its wastewater treatment system. Wastewater collections and treatment is one of the essential services the City provides. The City’s system is fairly simple in nature and consists of collection mains, a lift station and two treatment ponds. Any failures or interruptions in service would have a negative impact on households and/or businesses likely leading to costly clean up. The main threat to Milan’s wastewater system would be a power failure or mechanical failure of the lift station. Should this occur, wastewater would collect at the lift station and begin to back up in the collection system. As mentioned earlier, the City has permanent backup generator available at the lift station to mitigate for this potential disaster. The City is also diligent about regular maintenance and strives to keep everything in good working order. Any failure at the treatment ponds would likely involve mechanical failure of the transfer valves or discharge valve, which would likely be addressed before any negative impacts would be experienced as the City’s treatment ponds were designed with significant additional capacity (can accommodate a population of 550-600 people). The final treatment pond is discharged once or twice a year depending on weather conditions.

**Civil Disturbance/Terrorism/Cyber Attack**

The City has not had any past instances or significant threats of terrorism or cyber-attack within the community. The planning committee did not consider Milan to be a prime target for any kind of attack. The planning committee felt the City was about as prepared as feasibly possible and would continue with their efforts and adjust to new threats as they arise. The City office entry was considered to be fairly secure with sturdy doors and could be easily locked. In addition, the City's computer system is protected by anti-virus/malware software.



## City of Montevideo Hazard Mitigation Strategies Summary

Goal 1: Minimize impacts of **flooding** on people and property

Goal 2: Reduce impacts of **wildfire** on people and property

Goal 3: Reduce impacts of **windstorms** on people and property

Goal 4: Reduce impacts of **tornados** on people and property

Goal 5: Reduce impacts of **hail** on people and property

Goal 6: Reduce impacts of **dam failure** on people and property

Goal 7: Reduce impacts of **extreme heat** on people

Goal 8: Reduce impacts of **drought** on people and critical resources

Goal 9: Reduce impacts of **lightning** on people and property

Goal 10: Reduce impacts of **winter storms** on residents, property and travelers

Goal 11: Reduce impacts of **erosion, landslides and mudslides** on infrastructure and developed land

Goal 12: Reduce impacts of **extreme cold** on people and property

Goal 13: Reduce impacts of **infectious disease** on residents, especially the vulnerable populations (elderly, young)

Goal 14: Prevent and reduce **fire** related damage to people and properties

Goal 15: Reduce impacts of a **hazardous materials accidents** on people and property

Goal 16: Protect the City's **water supply**

Goal 17: Reduce probability of **wastewater treatment system failure**

Goal 18: Protect residents, City staff and critical infrastructure from **Civil Disturbance/Terrorism/Cyber Attack**

**Time Frame definitions:** Short term – 1-2 years; Mid term – 3-5 years; Long term - >5 years

**Other definitions:** “Internal” – occurs as part of normal budgeted activities

County EM – County Emergency Management

DNR - Minnesota Department of Natural Resources

DPH – Minnesota Department of Health

ACTION #	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner(s)	Priority	Hazard
1.	Continue to send out the Flood Protection Information packet to residents	Annually	City Admin.	\$500	City	High	Flooding
2.	Continued participation in NFIP and Community Rating System and enforcement of floodplain regulations	Ongoing	City Admin., City Council	Internal	City	High	Flooding
3.	Establish a stormwater utility program to collect revenue to fund future stormwater infrastructure projects	Short term	City Council	Internal	City	High	Flooding
4.	Regular maintenance and inspection of wastewater treatment plant levee	Annually	City Public Works, Public Utilities	Internal	City	High	Flooding, Dam Failure
5.	Work with State and Federal government to provide funding to acquire and remove non-conforming structures in the floodplain	As funding allows	City Admin., MN DNR	\$1 Million	FEMA (HMGP, BRIC, FMA), MN DNR (FHM)	High	Flooding/Dam Failure
6.	Keep yard waste and other debris free from gutters and stormwater sewer intake locations	Ongoing	City, Public Works	Internal	City	Medium	Flooding
7.	Continue regular fire training	Weekly	Monte FD	Internal	City	High	Wildfire, structural fire
8.	Continue to enforce City nuisance ordinance	Annually	City Admin.	Internal	City	Medium	Wildfire, structural fire
9.	Fire prevention education in schools and community	October, annually	Monte FD	<\$2,000	City	High	Wildfire, structural fire
10.	Upgrade or replace wildfire firefighting equipment and vehicles when needed	Long term	Monte FD	Will vary	MN DNR (VFA), FEMA (AFG)	Currently Low	Wildfire, structural fire
11.	Continue to trim trees around the community to prevent limbs from damaging property/utilities/blocking streets	Annually	Montevideo Public Works	Internal	City	High	Windstorms, tornados, winter storms
12.	Encourage Xcel to bury powerlines throughout the community	Ongoing	City, Xcel	Internal	Xcel	Medium	Windstorms, tornados, winter storms
13.	Encourage residents to sign up for Nixle and CodeRed notifications	Annually	City Admin., County EM	Internal	City, County EM	High	All
14.	Storm shelters/restrooms for the fairgrounds and Lagoon Park	Mid term	City, County Fair Board	\$1M/ \$75,000	FEMA (HMGP, BRIC), City, County Fair Board	Medium	Windstorms, tornados

15.	Distribute severe weather public education information via city utility billings, website or Nixle.	April/Oct. annually	City Admin.	Internal	City	<b>Medium</b>	All
16.	Develop an evacuation plan for the areas that would be impacted by dam failure.	Long term	City Admin. Public Works, Public Utilities, County EM	<\$5,000	County, MN HSEM	<b>Low</b>	Dam failure, flooding
17.	Continue to monitor City water supply levels on a regular basis	Annually	Montevideo Public Utilities	Internal	City	<b>High</b>	Drought
18.	Enact a water restriction ordinance If City water levels are nearing critically low	As needed	City Council	Internal	City	<b>High</b>	Drought
19.	Work with Rural Water or other local water sources to plan for water distribution should conditions warrant	As needed	Montevideo Public Utilities, City, Rural Water, local water suppliers	Internal	City	<b>Medium</b>	Drought
20.	Ensure all City buildings and electronics are grounded or equipped with surge protection	Annually	City Admin.	Internal	City	<b>High</b>	Lightning
21.	Provide back-up power source for Public Works Building so it could be used as a command center during disaster situations	Short term	City Admin., Public Works	\$50,000	FEMA (HMGP, BRIC), City	<b>Medium</b>	Lightning, winter storms, windstorms, tornados
22.	Keep main emergency routes to the hospital open during winter snowstorms	As needed	City Public Works	Internal	City	<b>High</b>	Winter storms
23.	Continue to enforce building code to ensure structures are built to withstand snow loads and winds	Annually	City Building Dept.	Internal	City	<b>Medium</b>	Winter storms, windstorms, tornados
24.	Continue regular inspection of retaining walls in downtown area	Annually	City Admin., Engineering consultant	Internal	City	<b>High</b>	Erosion, landslides and mudslides
25.	Investigate regulatory methods preventing future development on unstable or severely sloped property	Long term	City Admin., City Attorney	Internal	City	<b>Medium</b>	Erosion, landslides and mudslides
26.	Ensure City and Volunteer emergency responders have adequate PPE on hand and replace as needed	Annually	Montevideo FD	<\$500	City, MN DPH	<b>Medium</b>	Infectious disease
27.	Continue to work with County and State partners to train for potential disease outbreak	Annually	City Emergency Depts., County EM, Countryside Public Health	Internal	City	<b>Medium</b>	Infectious disease
28.	Continue to tour local industries and businesses to become familiar with layouts	Annually	Monte FD, local businesses	Internal	City	<b>High</b>	Structural fire
29.	Install fire suppression system at City Hall building	Long term	City Admin.	<\$7/sq.ft.	City, USDA (Comm. Facilities)	<b>Low</b>	Structural fire

30.	Continue to work with County EM and community partners to prepare, plan and train for hazardous materials response	Annually	Monte FD, County EM, School Dist.	Internal	City	<b>Medium</b>	Hazardous materials
31.	Continue to update the City's wellhead protection plan	Every 10 years	City Admin., Montevideo Public Utilities	<\$2,500	City	<b>High</b>	Water supply contamination
32.	Continue to secure and protect water supply, treatment and storage by securing and monitoring facilities	Ongoing	Montevideo Public Utilities	Internal	City	<b>High</b>	Water supply contamination; Terrorism/civil disturbance/cyber attack
33.	Continue to maintain and inspect the wastewater treatment and collection system to prevent interruption in service and potential environmental harm to the Chippewa/Minnesota Rivers	Annually	Montevideo Public Utilities	Internal	City	<b>High</b>	Wastewater treatment failure
34.	Continue to implement security efforts related to software, City facilities and services	Ongoing	City Admin.	<\$1,000	City	<b>High</b>	Terrorism/civil disturbance/cyber attack

## **City of Montevideo: Mitigation Goals and Strategies Discussion Summary**

### **Natural Disasters**

#### **Flooding**

Montevideo's location at the confluence of the Minnesota and Chippewa Rivers has resulted in a significant amount of flooding in the community's history. However, over the past several years, the City has implemented several flood mitigation projects and activities to greatly reduce the potential impacts of flooding in the community. The City is a participant in the National Flood Insurance Program and also participates in the Community Rating System, which means the City's floodplain management practices exceed the minimum requirements of the NFIP which results in reduced flood insurance premiums to residents. In addition, the City annually sends out a flood information packet to residents, which provides community flooding background, an overview of local floodplain management practices and other related resources. The recently completed wastewater treatment plant levee project was designed to protect a critical facility against significant flooding and should last for years to come. Regular maintenance and inspection will help to ensure the levee will continue to withstand future flood events. This project will result in new flood zone boundaries in the community and new maps will be released by FEMA soon. The City has also been active in acquiring homes and businesses located in the floodplain over the years and estimates there are 12 homes and 10 businesses that still need to be acquired. The City plans to continue to buyout these properties as funding and opportunities present themselves. Street flooding has also been an issue for Montevideo. The planning committee stated that some streets in low lying areas become flooded with as little as a half inch of rain. Fortunately, the impact of this flooding is rather short lived and more of an inconvenience. Keeping gutters and intakes clear of debris helps to alleviate some but not all of this issue. Street crews will continue to monitor gutters/intakes to keep them clear and the City can remind residents to keep yard waste and other debris out of the gutters as well. The downtown area has also experienced some stormwater flooding during heavy rain events and the City is currently close to establishing a stormwater utility fund to generate revenues to fund projects that will address this issue and other stormwater-related problems throughout the community.

#### **Wildfire**

Fortunately, there have not been any major wildfires in recent history in Montevideo. The planning committee recalled a grass fire on the west side of town near the highway that was the result of fireworks in 2021. Other than that, there have not been any significant wildfires within city limits. The main threat of wildfires around the community are along the rivers on the north and western parts of town, especially during dry conditions. The City is well-equipped for grass fires as they have two grass rigs and two UTVs that are both in good condition. One of the grass truck's capacity was recently upgraded to a 350-gallon tank from a 250-gallon tank. The fire department is currently well staffed with volunteers (35) and most work within the community and several are City employees, which provides for good response time. The department trains on a weekly basis and has mutual aid agreements with

neighboring departments. In addition to training and equipping the department, the City can also enforce its nuisance ordinance to keep properties from becoming overgrown with vegetation. This would help to prevent vegetative fires from jumping to nearby structures. The fire department also visits the local schools during fire prevention week to educate the students on how to prevent fires.

### **Windstorms**

Montevideo's location in the Midwest makes it susceptible to occasional windstorms from spring to fall. Sometimes these storms can be as destructive as tornados. Most recently in May 2022, Montevideo was impacted by a severe windstorm resulting in downed trees and powerlines, damaged roofs, communication failure, and miscellaneous structural damage. To mitigate for windstorms, the City conducts annual tree trimming throughout the community to prevent limbs from taking out powerlines and blocking roadways. They also enforce the state building code and have a building inspector on staff. While out of their control, the City would also like to see the continued burying of powerlines throughout the community to reduce the threat of power outages and potential injury.

Keeping people safe before, during and after severe windstorms is a top priority. A storm shelter was installed in the North Dale mobile home park on the north side of the community and can accommodate approximately 100 people. The planning committee also identified the Chippewa County Fairgrounds and Lagoon Park as two other locations that could benefit from saferooms or shelters. The fairgrounds have a few sturdy buildings including the grandstand that could be used as shelters, but would have limited capacity. A large shelter on the grounds could double as a community room or large restroom facility and serve a dual purpose. Lagoon Park is smaller park that could also benefit from a dual use shelter, potentially a restroom/shower facility. The park sees a number of campers in the warmer months and park visitors could be rather susceptible to strong storms. This shelter would need to accommodate approximately 25 individuals. Larger facilities such as schools, nursing homes, and large employers all have storm plans in place.

The community has four outdoor warning sirens that are activated by County Emergency Management during storm warning events. City staff felt their coverage was good. In addition, the City provides emergency communication through Nixle. This system sends out alerts to residents via text message, email or over the web. City staff use Nixle to alert residents of timely events such as snow removal, interruptions or changes in City services, road closures, or other non-urgent notifications. It is not used for storm warnings as that is issued at the County level via CodeRed. Residents must sign up for both of these services to receive the alerts.

### **Tornados**

Fortunately, there have not been any significant tornados in Montevideo's history. There was a smaller tornado reported in September 2017 that went through the western and southern part of town resulting in damage to trees, roofs, and siding. Thankfully, no injuries were reported.

Similar to windstorms, keeping people safe is the City's top priority. The planning committee estimated that close to 20% of residents did not have basements, which is slightly higher than the estimated percentage throughout the county (10%). There are a larger number of multi-family apartments structures in Montevideo compared to other communities in the county. There are also parts of town that have slab on grade construction due to the lower elevation and a higher water table.

Due to the potential rapid development of a tornado, it is important to alert residents as soon as possible. As discussed above, the City has multiple alert systems in place – outdoor warning sirens, CodeRed, and Nixle as well as local television and radio stations. The local fire department undergoes storm spotter training on a regular basis and plans to continue doing so. A severe tornado through the heart of the community would be catastrophic and the need to respond quickly would be critical. Similar to the previous section, trimming trees, burying powerlines, and providing shelter to vulnerable individuals by constructing/installing saferooms or shelters at the fairgrounds and Lagoon Park would help keep people safe during severe weather. Public education and awareness are also helpful in reminding residents how to prepare and respond should a tornado occur. This can be done in April of each year during severe weather awareness week via the city's website, utility mailings, or Nixle.

## **Hail**

The aforementioned windstorm of May 2022 also produced significant hail damage resulting in approximately 90% of homes having roof damage. The hail also damaged siding, vehicles, and windows. Other storms since the last plan update occurred in July 2016, July 2017 and June 2019 with hail measuring 1-2" in diameter. Hail is difficult to mitigate for as little can be done to prevent its impact on property. Public education and early notification are typically the most effective ways to prevent injury. Public education materials can be incorporated into the efforts mentioned in the previous section. The City can also encourage residents to sign up for CodeRed through the County Emergency Management and Nixle alerts from the City.

## **Dam/Levee Failure**

Dam or levee failure would have a devastating impact on the community. With three dams upstream from Montevideo, the city is perhaps more vulnerable to this disaster than most communities, but fortunately the dams are regularly inspected for their structural integrity. The Lac qui Parle dam poses the greatest risk to Montevideo should it ever fail as it holds back the largest volume of water (Lac qui Parle Lake). The Chippewa and Watson dams are smaller and hold back smaller volumes of water, but would still have an impact on the community. Any dam failure would likely impact approximately 100 residents, but it is difficult to predict the level of impact a failure would have. The City is hopeful that the flood mitigation projects it has undertaken in recent years would help mitigate for this disaster as well. The new levee at the wastewater treatment plant was designed to be 10-12" higher than the highest flood crest (1997) and should go a long way in preventing flooding to the facility. The planning committee estimated that the community had approximately 24 hours to prepare if the Lac qui Parle dam

should fail. This would give residents a chance to remove some personal belongings and evacuate. It may be helpful to have an evacuation plan in place to notify and give residents a chance to seek shelter elsewhere. While this disaster would be significant, the probability of it happening is quite low due to continuous monitoring mentioned above.

### **Extreme Heat**

Extreme heat tends to have the most impact on the extremely young and the elderly alike. Heat related illness, such as heat stroke, dehydration, and nausea are common effects on those who fail to take precaution during extreme heat events. Perhaps the greatest risk associated with this disaster is having an extended period of time without power. The planning committee said there have been periods of above normal heat in recent years that resulted in people calling City Hall asking where they could go to cool off. The City has historically directed residents to large stores such as Wal-Mart to cool off. They also noted that a few churches in the community have opened their doors as cooling stations if conditions warrant. The nursing homes, hospitals and other facilities that house vulnerable populations are equipped with back up generators to keep their residents safe and cool. The City could distribute public education materials via their website or utility billings in conjunction with the spring storms materials which would educate residents on how to stay safe during extremely hot, humid conditions. During extreme heat events, the City could also issue notifications via Nixle to inform residents on where they can seek shelter to stay cool.

### **Drought**

In recent years, Chippewa County has experienced periods of “severe” and “extreme” drought (source: Drought.gov), but as weather patterns change, timely rainfall has historically helped alleviate any major concerns. At the time of this plan, Chippewa County is considered to be in “moderate” drought conditions. The City’s utility department noted that the city water levels have dropped about 1.5’ in the past two years. The City has a water restriction ordinance that it could enact and enforce if conditions require. If dry conditions persist to the point of inadequate water levels, the City would enact their water conservation notice and likely engage in planning discussions with rural water on an alternative water source. The City has also had conversations with the National Guard Armory and local Culligan franchise about providing water buffalos or portable tanks for public use.

### **Lightning**

Lightning occurs very frequently across the Midwest including in Chippewa County. The main impact lightning causes is fire, tree damage and property damage, specifically to electrical systems. While lightning occurs every year, most lightning strikes do not result in property damage. The planning committee could not recall any damaging lightning strikes in the community since the last plan update. The City is equipped with back up generation to operate most essential facilities during power outages and has started to look into providing back-up power to the Public Works Building as it could be a good location for an emergency command



center in the event of a major disaster. City facilities' electrical systems are currently grounded, and electronics are protected with surge protection. Both of these measures will help reduce the impact of lightning damage. It would be a good practice to continue to ensure that any new City facilities include electrical grounding and continue to provide surge protection for essential electronic equipment such as computers and communication equipment. Also, providing some public education during severe weather awareness week in April would remind residents to stay safe during severe thunderstorms. This could be done via Nixle, utility billings or the City's website.

### **Winter Storms**

Minnesota winters can be very harsh and severe winter storms can be expected on an annual basis. Heavy snow can stress roofs, ice and blowing snow can make travel dangerous and adding extremely cold temperatures can result in some of the most dangerous conditions the Midwest has to offer. As mentioned earlier, the City enforces their building code which helps to ensure that roofs are built to withstand snow loads. Probably the main impact that winter storm events have on the community is impeding transportation routes within and outside of the community. Montevideo is the location of the intersections of U.S. Highways 59 and 212 as well as State Highways 7 and 29. State Highway 7 is a heavily travelled east-west route between Montevideo and Clara City. Many residents rely on this highway to commute between the two communities daily. The flat topography of the area does little to stop snow from blowing across the highway, greatly reducing visibility.

The planning committee noted a couple of major storms since the last plan update. In February of 2019, significant snowfall amounts along with strong winds and ice build-up. More recently on December 23, 2020 a winter storm producing heavy snow totals, strong winds and plummeting temperatures resulted in many stranded travelers outside of the community. The falling snow and 60mph winds produced extremely dangerous travel conditions. In addition, the storm was not forecasted and caught the area by surprise. Events like this are possible in any given year. Within the community, the City's main priority is to keep main arterial streets clear, especially routes to the hospital should they be needed. The City uses Nixle to inform residents when the snow removal ordinance is in effect. They also send out mailings to residents at the start of the winter season with helpful reminders about snow removal and keeping safe in inclement weather. As mentioned in the previous section, the City feels the Public Works building would be an ideal location for an emergency command center, but is currently lacking a back up power source. The City is investigating the possibility of providing back up power to the building in the near future.

### **Erosion, Landslides, and Mudslides**

Montevideo's location along the river valleys presents some steeply sloped areas throughout the community. The main area of concern would be the area to the east of downtown, behind the buildings on the east side of North First Street, where there is a steep slope. The area is currently supported with retaining walls, but they are beginning to be some signs of weakening.

If the wall would fail completely, the downtown area and nearby homes would be severely impacted. The City continues to monitor the structural stability of the wall and will address as needed. The City could also investigate regulatory ways, such as their zoning ordinance, to prevent future development on unstable grades or slopes.

### **Coastal Erosion and Flooding**

The planning committee eliminated this disaster from its strategy as there are no coasts located in or near the community.

### **Land Subsidence (Sinkholes and Karst)**

The planning committee eliminated this disaster from its strategy as this type of landform is not present in the community.

### **Extreme Cold**

Like winter storms, extremely cold temperatures are almost an annual occurrence as well. Freezing water pipes, frostbite, hypothermia are the greatest threats from extreme cold. In Minnesota, it is also common to see an increase in fires as people sometimes heat their homes in unsafe ways. Frozen water pipes are another common problem when there are extended periods of extremely cold temperatures and can result in significant property damage. Educating residents on extreme cold weather safety is the best way to keep people safe. Warning them about frostbite and hypothermia as well as how to keep water pipes from freezing and bursting via mailings or the City website would likely be beneficial. Another way to keep residents safe is to notify them of available resources during prolonged periods of below normal temperatures. The City could provide this information via Nixle and/or the City's website as conditions warrant. As mentioned earlier, facilities that house the vulnerable populations such as the elderly and disabled are equipped with back up power to provide heat and continued care.

### **Earthquakes**

The planning committee eliminated this disaster from its strategy due to the extremely low likelihood of an earthquake occurring.

## **Human-caused or Technological Disasters**

### **Infectious Diseases**

As the recent Coronavirus pandemic showed, infectious diseases can be quite disruptive to society and very unpredictable. Prior to the coronavirus pandemic, Montevideo had not experienced a widespread disease outbreak of that magnitude in recent history. There are occasional outbreaks of influenza, but those cases are fairly isolated in nature and health providers and caregivers are familiar with treatment. Vaccinations for various illnesses have also helped to reduce the possibility of widespread outbreaks. In the event of a widespread outbreak, the community would likely rely on outside resources for assistance such as Countryside Public Health or MN Department of Health. The committee noted that during the recent pandemic, they realized how important having an adequate supply of personal protective equipment was. During an outbreak, the City's main goal would be to keep essential governmental functions operating as best they can. Having recently been through a pandemic, the City is better equipped and trained for this type of disaster. They have established protocols for cleaning and sanitizing public spaces and playground equipment. Having communication channels available would also be helpful to notify residents of important updates should residents need to isolate or shelter in place. Again, getting residents to sign up for Nixle alerts would be one way to get updates out quickly. It would also be beneficial for emergency responders to continue to participate in any training opportunities with local agencies and departments related to this type of disaster.

### **Structural Fire**

In the past year, the planning committee could recall a couple of structural fires in the community, one being a complete loss. Structural fires in the community are somewhat rare, but do happen regularly. As mentioned in the Wildfire section, the department is well staffed with volunteers, has mutual aid agreements in place with neighboring departments, is well equipped for their needs and has an aerial truck for larger structural fires. The fire department works with the school and local businesses on education and prevention throughout the year and especially in the fall during fire prevention week. The department tries to take a proactive approach to working with local businesses by annually touring larger facilities to become familiar with their layouts. The department also conducts weekly training for its volunteers. Something that was identified in the 2015 plan was the lack of a fire suppression system at City Hall. The public works building, water treatment and wastewater treatment facilities are equipped with fire suppression systems, but the City Hall building is not. Installing this type of system is something that the City would still like to consider. While installing a system would be expensive and inconvenient, it would provide an added layer of safety for an essential community facility and those who work there.

### **Hazardous Materials**

Montevideo's location near several busy highways as well as having the Twin Cities and Western railroad on the southwestern part of the city, presents several opportunities for a

transported hazardous materials event to occur. There are also several stationary locations including within the industrial park, medical facilities and agricultural industries (anhydrous ammonia) that have larger quantities of hazardous materials. Staying up to date with training and planning is key to responding and keeping people safe. One potential issue involving a hazardous materials incident on one of the highways is that transportation routes in and out of town would be impacted as there are a limited number of entry/exit routes. The planning committee also noted that there are a couple of city well sites within proximity to one of the highways and could be at risk would an accident ever occur at that location. Keeping emergency responders well trained for this type of emergency is important as a quick response and coordination with other agencies can help limit the impact of this type of disaster.

### **Water Supply Contamination**

The City has fortunately not had any water supply contamination events in its past history. The City does its best to secure and protect its water source, treatment, storage and distribution from unwanted tampering. Any contamination of the wells would be fairly catastrophic as it most likely would be long lasting and a new water supply would need to be secured quickly. The water treatment plant is well secured as there are separate locked entries to each section within the structure as well an intrusion alarm. The City plans to continue to update its wellhead protection plan as required by the state and secure and protect its wells and facilities from tampering or contamination.

### **Wastewater Treatment System Failure**

The City has not experienced any major failures of its wastewater treatment system. Wastewater collections and treatment is one of the essential services the City provides. Any failures or interruptions in service would have a negative impact on households and/or businesses likely leading to costly clean up and health and safety issues. If this were to occur on a large scale and for a prolonged period of time, the City may be forced to bypass the treatment process and be forced to discharge wastewater directly into Chippewa River. If this last resort solution was necessary, the Public Utilities department would need to follow all state and federal requirements during this process as it would have a significant negative impact on the local waterways and environment.

### **Civil Disturbance/Terrorism/Cyber Attack**

The City has not had any past instances or significant threats of terrorism or attack within the community other than a few minor incidents involving local residents. The planning committee did not consider Montevideo to be a prime target for any kind of attack. However, Montevideo may be slightly more at risk due to the presence of the Chippewa County Courthouse as governmental facilities are sometimes the targets of upset individuals or groups. The planning committee felt the City was about as prepared as feasibly possible and would continue with their efforts and adjust to new threats as they arise. City Hall has improved their pedestrian access by securing and staffing the main entrance. In addition, the City's computer system is

protected by anti-virus/malware software to protect against external cyber attacks. The City prioritizes the health and safety of all its employees, especially those that work out in public spaces like the public works and utilities departments.

## City of Watson Hazard Mitigation Strategies Summary

### GOALS

- Goal 1: Reduce threat of wildfires in the community
- Goal 2: Reduce impacts of windstorms on structures and power supply
- Goal 3: Reduce impacts of tornados on people, properties and local economy
- Goal 4: Reduce the risk of bodily injury due to hail
- Goal 5: Reduce impacts of Extreme Heat on vulnerable residents
- Goal 6: Reduce impact of drought conditions on residents of Watson
- Goal 7: Reduce impacts of lightning on people and property
- Goal 8: Reduce impacts of Winter Storms on People, Property and Businesses
- Goal 9: Reduce impacts of Extreme Cold on People, Property and Businesses
- Goal 10: Keep residents safe during infectious disease outbreaks
- Goal 11: Reduce property damage and personal injury related to structural fire
- Goal 12: Reduce impact of hazardous materials incidents on residents and environment
- Goal 13: Reduce likelihood of public water supply contamination
- Goal 14: Provide continuous wastewater collection to residents and business while protecting local water quality
- Goal 15: Protect City data/records from online threats

### STRATEGIES/ACTIONS

**Time Frame definitions:** Short term – 1-2 years; Mid term – 3-5 years; Long term - >5 years  
**Other definitions:** “Internal” – occurs as part of normal budgeted activities  
 County EM – County Emergency Management  
 DNR - Minnesota Department of Natural Resources  
 DPH – Minnesota Department of Health

ACTION #	STRATEGIES	Time Frame	Responsible Entity	Estimated Cost	Funding Partner	Priority	Disaster
1.	Continue to enforce the City’s nuisance ordinance, especially related to overgrown lawns and vegetation/trees/bushes	Ongoing	City Council	Internal	City	Low	Wildfire
2.	Discuss possibility of housing firefighting equipment/vehicle in Watson with Montevideo Fire Dept.	Long range	City, Montevideo FD	Internal	City	Low	Wildfire
3.	Continued enforcement of State Building Code on new building/remodeling projects	Ongoing	City staff/City Council	Internal	City	Medium	Windstorms, tornados, winter storms, structural fire

4.	Continue to notify Xcel Energy of tree branches/limbs near powerlines	Ongoing	City	Internal	Xcel Energy	<b>Medium</b>	Windstorms, tornados, winter storms
5.	Investigate possibility of building a new City maintenance shop/emergency operations center	Long range	City	\$500,000	USDA (Comm. Facilities), City	<b>Low</b>	All
6.	Send out information about CodeRed and encourage sign-up via utility bills	Ongoing	City, County EM	Internal	City	<b>High</b>	All
7.	Provide a community safe room for residents without basements	Long term	City	\$40,000-\$50,000	City, FEMA (HMGP, BRIC)	<b>Low</b>	Windstorms, tornados
8.	Ensure that outdoor warning siren is in working order	Annually	County EM	Internal	County EM	<b>High</b>	Windstorms, tornados
9.	Distribute public education information in utility bills	Annually	City staff	Internal	City	<b>High</b>	Windstorms, tornados, extreme heat/cold, hail, lightning, fire
10.	Designate Community Building as community shelter if needed during or after disaster events and equip with basic supplies (water, non-perishable items, fans, blankets, etc.)	As needed	City, County EM	<\$250	City	<b>Low</b>	Windstorms, tornados, extreme heat/cold, winter storms
11.	Issue water restriction notice during times of drought to conserve water supply	As needed	City Council, City Clerk	Internal	City	<b>Low</b>	Drought
12.	Ensure that City-owned assets and facilities are insured to appropriate replacement values	Annually	City Council, City Clerk	Internal	City	<b>Medium</b>	All
13.	Encourage residents to sign up for CodeRed alerts through County Emergency Management	Annually	City, County EM	Internal	City, County EM	<b>High</b>	All
14.	Establish a community calling tree/chain to check on each other immediately after a disaster	2024	City Council	Internal	City	<b>Low</b>	Windstorms, tornados, extreme heat/cold, winter storms
15.	Distribute public education materials via utility billings to educate public on best practices during major disease outbreak	As necessary	City Clerk	<\$500	City	<b>Low</b>	Infectious disease outbreaks
16.	Public education campaign to have residents check smoke alarm batteries	October (annually)	City Council	Internal	City	<b>Medium</b>	Structural fire
17.	Provide new smoke alarms for all residents	2024	City Council	\$1,000	City/Grant funds (TBD)	<b>Low</b>	Structural fire

18.	Assess need for satellite fire station in Watson	2025	City Council	Internal	City	<b>Low</b>	Wildfire, structural fire
19.	Continue to secure and monitor water treatment facility	Ongoing	City Public Works	Internal	City	<b>High</b>	Hazardous materials, water supply contamination
20.	Update City's wellhead protection plan	2024	City Council, Public Works	<\$2,500	City	<b>High</b>	Water supply contamination
21.	Acquire back-up generator for wastewater lift station	2025	City Council	\$65,000	City, FEMA (HMGP, BRIC)	<b>Medium</b>	Wastewater
22.	Continue to protect City computer with anti-virus software	Annually	City Clerk	\$100	City	<b>High</b>	Terrorism/civil disturbance/cyber attack
23.	Continue to protect utility data by keeping data locally stored	Annually	City Clerk	Internal	City	<b>High</b>	Terrorism/civil disturbance/cyber attack



## **City of Watson: Mitigation Goals and Strategies Discussion Summary**

### **Natural Disasters**

#### **Flooding**

The City's planning committee did not feel that flooding was an issue in the community due to its location on high ground. It was noted that there are a few homes with sump pumps, but they could not recall a time when there had been any flooding in the community. The nearby Chippewa River is located at a much lower elevation than the city, so it is not considered a threat. Any ponding that has occurred has happened on undeveloped land within the city and has not resulted in any property damage.

#### **Wildfires**

The planning committee noted that the greatest risk for wildfire would be from the north and northeast areas of the community as these areas have more grasslands/natural vegetation, but is still a fairly minimal risk. Fire response services are provided by the nearby Montevideo Fire Department. The DNR also has firefighting equipment nearby at the Lac qui Parle State Park. No firefighting equipment is currently stored or housed in Watson. The committee said the City has been happy with Montevideo's response times as they have typically been under 10 minutes. With that in mind, the City may consider discussing the possibility of housing some basic firefighting equipment/vehicle in Watson with the Montevideo Fire Department to increase efficiencies.

#### **Windstorms**

The severe windstorm in May 2022 was fresh on the committee members' minds as there was significant damage in the community. The derecho windstorm resulted in several tipped utility poles (fortunately none broke), downed trees including two that fell on top of homes. The community was without power for one and a half days. Fortunately, there were no injuries reported. To reduce the impacts of windstorms, the City should continue to enforce the State Building Code as part of their building permit approval process to ensure structures are built properly and to withstand various limits of the Minnesota climate. In addition, keeping tree branches and limbs trimmed and away from powerlines will prevent them from falling on them and causing power outages and/or bodily injury. Xcel Energy is the electric provider for the community and handles all tree trimming around their powerlines. Many times, City staff or residents notify Xcel of branches nearing the lines. Xcel is usually responsive and sends out a trimming crew in a timely manner. Both actions can be done at little to no cost.

#### **Tornados**

Watson is fortunate not to have had any tornados in its history. City officials estimate that about one-third of the homes in Watson lack basements, making these residents more vulnerable to tornados. Due to the violent forces of tornados, sometimes little can be done to avoid the destruction caused by them. One way to protect residents from bodily harm is to ensure they are notified of impending severe weather. This can be

done locally by sounding the tornado siren. The local siren is operated by the County sheriff's office. Another warning system that is utilized by the County is CodeRed system, which sends alerts to cell phones for tornado and blizzard warnings only. The notifications are only sent to those who sign up for the service. According to the County Emergency Management Department, approximately 4,900 residents are signed up for CodeRed notifications at the time of this document. The City felt that they could send out information about CodeRed with their utility bills and encourage residents to sign up. Another way to protect residents is to provide an emergency shelter or safe room. With approximately 25-30 homes without basements, a community safe room would provide safety to those in the community during a tornado. The planning committee felt that the greatest need for a shelter would be on the north end of town as that is where the majority of the homes without basements are located. The City owns a couple of empty lots in that area that could serve as potential sites for a shelter. Based on the number of homes estimated without basements, the shelter would need to be approximately 300 to 400 square feet in area. Funding assistance would be necessary as the small community does not have the resources to fund a shelter on its own.

## **Hail**

In addition to the strong winds, the severe thunderstorms in May 2022 also produced some large hail causing widespread roof damage in the community. The planning committee estimated about half the town needed to have their shingles replaced due to hail damage. Little can be done to mitigate against large hailstones. To keep people safe, the City plans to educate the public about the dangers of hail and what to do in the event of a hailstorm. These efforts can be included in the City's utility bills at little to no extra cost.

## **Dam/Levee Failure**

This disaster was eliminated from Watson's list of strategies as the planning committee did not feel a dam/levee failure could impact the community.

## **Extreme Heat**

Extreme heat tends to have the most impact on the extremely young and the elderly alike. Perhaps the greatest risk associated with this disaster is having an extended period of time without power. One of the benefits of a smaller community like Watson is that in most instances, residents are good about checking on friends, neighbors and families during extreme heat events and ensuring that people in need of assistance are cared for. While somewhat rare, a power outage during an extremely hot period of summer is possible either due to an overwhelming demand for electricity (as there tends to be more usage from people running air conditioning units) or perhaps immediately after a severe thunderstorm. In these cases, it may be beneficial for the City to establish a community shelter and have it powered by a generator. The Community Building was mentioned as a possible location. A generator to power some fans and have the shelter equipped with water and a few essentials until power is restored would be

recommended. Public education efforts can make residents aware of this option and can also be utilized to educate them on how to stay safe during the summer months. There are also a couple of sources of support that can be accessed if need during a community disaster. The Chippewa County Emergency Management Department has a large portable generator that can be dispatched if necessary. Also, the City belongs to a consortium of local municipalities through MN Rural Water that shares community resources if needed, such as tools, equipment and machinery.

### **Drought**

Local officials state that they have been fortunate to have a reliable source of water for the community and that even during the driest of times, well levels remained fairly stable. The most the well level has dropped in recent years is around 1.5', but tend to rebound relatively quickly. During drought conditions, the City can issue water conservation or restriction notices in an effort to preserve existing water levels. However, the planning committee noted that many residents consider the current water rates to be high and as a result, very few homeowners water their lawns or use water needlessly.

### **Lightning**

Lightning has caused some damage to the City's infrastructure in recent history. In 2022, a lightning strike took out both pumps and the control board at the City's wastewater lift station causing \$60,000 in damage. In addition, the City's pumphouse which is critical in providing water to residents and businesses, was struck by lightning in 2017 causing a brief interruption in service. City employees were able to reset the system and get things running again with no notable damage. While there is little that can be done to offset the damage caused by lightning, the City plans to ensure their assets and facilities are adequately insured as lightning damage can cause.

### **Winter Storms**

As discussed elsewhere in this plan, winter storms can be very dangerous in Minnesota. Heavy snow amounts, blowing snow, ice and cold temperatures can all contribute to severe conditions. Winter storms can shut down transportation systems, cause power outages, and result in bodily harm (frostbite, hypothermia). Being aware of weather impending weather conditions is usually the best way to minimize the impacts of winter storms. Watson is not exempt from experiencing winter storms. Like much of the upper Midwest, the community tends to experience at least one or two major winter storms per year. December 23, 2020 was the most recent significant winter storm in the area as it came about with little warning. Strong winds blew snow creating drifts and limited visibility. Travel was not advised and many motorists were stranded in the area. As mentioned with other disasters, public education and advanced warning is key in keeping residents safe. As part of the City's public education efforts, information can be distributed about how to sign up for CodeRed notifications as it alerts cell phones during tornado and blizzard events and can advise residents to plan ahead or stay home.

during severe winter storm events. Another action the community could take is to organize a calling tree to check on everyone in the community. Given Watson's smaller size, this could be done relatively easily and would help to check on residents, especially those that may be more vulnerable. Utilizing the Community Building as a shelter was also included in the City's strategy, but was not a major priority as almost everyone has family, friends or neighbors nearby that look out for each other and can provide shelter if needed. To aid in this effort, the City could organize a calling chain to activate during severe events to have residents check on each other. Another action the City can take to reduce damage caused by winter storms is to enforce the Minnesota State Building Code. This will ensure that roofs are built to withstand the heavy snow loads that occur almost every winter season. Heavy, wet snow can be a major stress to roofs and frequently cause older, weaker roofs to collapse under the weight. Ensuring that appropriate trusses are being utilized will help minimize this from occurring.

### **Erosion, Landslides and Mudslides**

This disaster was eliminated from Watson's list of strategies as the City does not feel it is a threat to them due to their relatively flat topography.

### **Coastal Erosion and Flooding**

This disaster was eliminated from Watson's list of strategies as the City is not located near any coast or large bodies of water.

### **Land Subsidence (Sinkholes)**

This disaster was eliminated from Watson's list of strategies as the City is not located near landforms that are conducive to sinkholes. These areas are primarily located in the southeast part of Minnesota.

### **Extreme Cold**

Much like the Winter Storms section above, extreme cold shares many of the same strategies. While the disasters are different as this only involves temperature, the strategies are the same due to the similar threats they pose. During extreme cold temperatures, people are usually advised to stay home, limit travel and plan ahead. Cold weather events are typically forecasted days in advance which gives residents plenty of time to prepare. The Watson planning committee felt that most of the strategies from the winter storm section could also apply here with exception of CodeRed sign-ups as the County does not issue alerts for cold temperatures, just blizzards and tornados.

### **Earthquakes**

This disaster was eliminated from Watson's list of strategies due to the extreme unlikelihood of an earthquake occurring.

## **Human Caused Disasters**

### **Infectious Diseases**

The recent global pandemic brought this disaster to the forefront of almost every community's list of human-caused disasters. While there had been regional outbreaks of various diseases such as influenza, there had been nothing as widespread as the coronavirus pandemic. During the pandemic, our nation learned how to slow the spread of the virus by masking, distancing and sanitizing. Should a similar event occur in the coming years, the general public is now in a better position to slow the spread of aerosol spread diseases than they were prior to the coronavirus pandemic. Due to the small size of Watson, it would likely rely on outside resources such as Countryside Public Health or other public health agencies for assistance. The City could distribute educational materials via their utility billings if necessary, but other than that they lack the resources to adequately respond to a major disease outbreak.

### **Structural Fire**

As a small community, Watson does not have an extensive history of structural fires. The planning committee could only recall one structural fire in the last 20 years. The City no longer has its own fire department and is currently served by the Montevideo Fire Department. The City has been pleased with this arrangement and noted that the average response time has been approximately 10 minutes if not sooner. The City has considered looking into putting up a satellite fire station to house some firefighting equipment and maybe a vehicle, but due to the satisfactory fire response provided by the Montevideo Fire Department and lack of funding, it is not a high priority at this time. Since the City no longer has its own fire department, one activity they could do is look into providing residents with free smoke alarms for their homes. It was suggested that they could look for a small grant to help offset the cost of this activity. They also plan to remind residents to check their current smoke alarms each fall via the City utility bills.

### **Hazardous Materials**

The City has been fortunate not to have had any major hazardous materials incidents in recent history. The community may be slightly more at risk than an average community due to their location on U.S. Highway 59 and with the Twin Cities and Western Railroad running through the center of town. However, the planning committee noted that they did not feel that the amount of hazardous materials transported through the community was more than average and that it was mostly fuel tankers. Within the community, there are two known facilities that store hazardous materials. One is the water treatment facility which houses concentrated amounts of chemicals such as fluoride and chlorine, but the City has taken measures to secure and protect these chemicals and those working around them. The community also has a small gas station along Highway 59, which also poses a minor risk of a hazardous materials incident if a fuel spill were to occur. Should a spill or some kind of hazardous material release occur, County Emergency Management would be contacted to handle the situation. There is a response team out of Marshall that can be dispatched if necessary.

### **Water Supply Contamination**

The City of Watson provides water to the community. Fortunately, there have not been any past events related to water supply contamination. Its wells and tanks are secured and monitored to ensure the City's water supply is not compromised and is safe for consumption. In addition, the City has a wellhead protection plan in place to limit and prevent potential sources of contaminants to the City's water supply and respond in the event the supply is threatened. The City is slated to update their wellhead protection plan soon as communities are required to update their plans every ten years.

### **Wastewater Collection System Failure**

The City of Watson pipes its wastewater to Montevideo for treatment. To date, the City's system has performed adequately and has not caused any issues. The City's lift station can be operated by a portable generator in the event of a prolonged power outage. However, if the generator is needed at the pump house for the water system, the lift station is left somewhat vulnerable. The City would like to acquire an additional back-up generator for their wastewater lift station. This would ensure that all essential services could operate during a prolonged power outage. The cost of a new generator is estimated to be approximately \$65,000, so funding assistance would likely be required.

### **Civil Disturbance/Terrorism/Cyber Attack**

The City has not experienced any type of civil disturbance, terrorism or cyber-attack to date. Due to its small size and rural nature, the committee did not think any such event would be very likely. However, with the increased reliance on the internet, a large scale cyber attack would almost certainly have an impact on large geographic areas. Locally, the City has taken measures to protect its data as all of the utility information is stored locally and not remotely in the cloud or other external network. City computers are also protected with anti-virus/malware software to provide protection against most potential external threats. While these programs are not always 100% effective, they do provide good protection against most online threats.

## **Appendix VIII**

*FEMA Approval Letter*

*(January 23, 2024)*



U.S. Department of Homeland Security  
536 S. Clark St. 6<sup>th</sup> Floor  
Chicago, IL 60605

**FEMA**

January 23, 2024

Ms. Jennifer Davis  
Homeland Security and Emergency Management  
Minnesota Department of Public Safety  
444 Cedar Street, Suite 223  
Saint Paul, MN 55101

Dear Ms. Davis:

Thank you for submitting the adoption documentation for the Chippewa County Multi-Hazard Mitigation Plan. The plan was reviewed based on the local plan criteria contained in 44 CFR Part 201, as authorized by the Disaster Mitigation Act of 2000. The Chippewa County Multi-Hazard Mitigation Plan met the required criteria for a multi-jurisdictional hazard mitigation plan and the plan is now approved for Chippewa County. Please submit the adoption resolutions for any remaining jurisdictions who participated in the planning process.

The expiration date of the Chippewa County Multi-Hazard Mitigation Plan is five years from the date of this letter.

An approved local mitigation plan, including adoption by the local government, is one of the conditions for applying for and/or receiving FEMA mitigation grants from the following programs:

- Hazard Mitigation Grant Program (HMGP)
- HMGP Post-Fire
- Building Resilient Infrastructure and Communities
- Flood Mitigation Assistance

Having an approved mitigation plan does not mean that mitigation grant funding will be awarded. Specific application and eligibility requirements for the programs listed above can be found in each FEMA grant program's respective policies and annual Notice of Funding Opportunities, as applicable.

To avoid a lapsed plan, the next plan update must be approved before the end of the approval period, including adoption by the participating jurisdiction(s). Before the end of the approval period, please allow sufficient time to secure funding for the update, including the review and approval process. Please include time for any revisions, if needed, and for your jurisdiction to formally adopt the plan after the review, if not adopted prior to submission. This will enable you to remain eligible to apply for and receive funding from FEMA's mitigation grant programs with a mitigation plan requirement. Local governments, including special districts, with a plan status of "Approvable Pending Adoption" are not eligible for FEMA's mitigation grant programs with a mitigation plan requirement.



We look forward to discussing options for implementing this mitigation plan. If there are any questions from either you or the communities, please contact Meghan Cuneo at (202) 615-5294 or [Meghan.Cuneo@fema.dhs.gov](mailto:Meghan.Cuneo@fema.dhs.gov).

Sincerely,

John Wethington  
Chief, Risk Analysis Branch  
Mitigation Division

## **Appendix IX**

### *Adopting Resolutions*

RESOLUTION OF CHIPPEWA COUNTY BOARD OF COMMISSIONERS

ADOPTION OF THE  
CHIPPEWA COUNTY ALL-HAZARD MITIGATION PLAN

WHEREAS, Chippewa County has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000, and

WHEREAS, the Act establishes a framework for the development of a County Hazard Mitigation Plan; and

WHEREAS, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and

WHEREAS, the Chippewa County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and

WHEREAS, the Chippewa County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and

WHEREAS, the Chippewa County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Chippewa County will maintain public participation and coordination; and

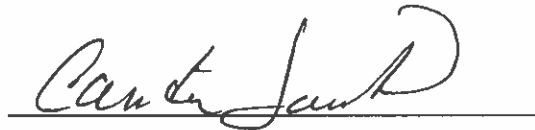
WHEREAS, the Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and

WHEREAS, the Chippewa County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and

WHEREAS, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

NOW THEREFORE BE IT RESOLVED that Chippewa County supports the hazard mitigation planning effort and wishes to adopt the Chippewa County All-Hazard Mitigation Plan.

This Resolution was declared duly passed and adopted and was signed by the Board Chair and attested to by the Auditor this 16th day of January, 2024.



Attest:



## RESOLUTION NO. 2024-004

### CITY OF CLARA CITY COUNTY OF CHIPPEWA STATE OF MINNESOTA

#### ADOPTION OF THE CHIPPEWA COUNTY ALL-HAZARD MITIGATION PLAN

**WHEREAS**, the City of Clara City has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000, and

**WHEREAS**, the Act establishes a framework for the development of a multi-jurisdictional County Hazard Mitigation Plan; and

**WHEREAS**, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and

**WHEREAS**, the Chippewa County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and

**WHEREAS**, the Chippewa County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and

**WHEREAS**, the Chippewa County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Chippewa County will maintain public participation and coordination; and

**WHEREAS**, the Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and

**WHEREAS**, the Chippewa County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and

**WHEREAS**, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

**NOW THEREFORE BE IT RESOLVED** that the City of Clara City supports the hazard mitigation planning effort and wishes to adopt the Chippewa County All-Hazard Mitigation Plan.

This Resolution was declared duly passed and adopted and was signed by the Mayor and attested to by the Administrator this 13<sup>th</sup> day of February, 2024.

  
Daniel Pieper, Mayor

  
Steven C Jones, City Administrator

RESOLUTION OF THE CITY OF MAYNARD

ADOPTION OF THE  
CHIPPEWA COUNTY ALL-HAZARD MITIGATION PLAN

WHEREAS, the City of Maynard has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000, and

WHEREAS, the Act establishes a framework for the development of a multi-jurisdictional County Hazard Mitigation Plan; and

WHEREAS, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and

WHEREAS, the Chippewa County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and

WHEREAS, the Chippewa County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and

WHEREAS, the Chippewa County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Chippewa County will maintain public participation and coordination; and

WHEREAS, the Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and

WHEREAS, the Chippewa County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and

WHEREAS, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

NOW THEREFORE BE IT RESOLVED that the City of Maynard supports the hazard mitigation planning effort and wishes to adopt the Chippewa County All-Hazard Mitigation Plan.

This Resolution was declared duly passed and adopted and was signed by the \_\_\_\_\_ and attested to by the \_\_\_\_\_ this 12th day of February, 2024.



Attest:





RESOLUTION OF THE CITY OF MILAN

ADOPTION OF THE  
CHIPPEWA COUNTY ALL-HAZARD MITIGATION PLAN

WHEREAS, the City of Milan has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000, and

WHEREAS, the Act establishes a framework for the development of a multi-jurisdictional County Hazard Mitigation Plan; and

WHEREAS, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and

WHEREAS, the Chippewa County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and

WHEREAS, the Chippewa County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and

WHEREAS, the Chippewa County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Chippewa County will maintain public participation and coordination; and

WHEREAS, the Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and

WHEREAS, the Chippewa County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and

WHEREAS, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

NOW THEREFORE BE IT RESOLVED that the City of Milan supports the hazard mitigation planning effort and wishes to adopt the Chippewa County All-Hazard Mitigation Plan.

This Resolution was declared duly passed and adopted and was signed by the Mayor Ronald Anderson and attested to by the City Clerk this 6<sup>th</sup> day of February, 2024.

Veronica Blommel

Ronald Anderson

Attest:

Veronica Blommel

RESOLUTION NO. 3928

A RESOLUTION ADOPTING THE  
CHIPPEWA COUNTY ALL-HAZARD MITIGATION PLAN

WHEREAS, the City of Montevideo has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000; and,

WHEREAS, the Act establishes a framework for the development of a multi-jurisdictional County Hazard Mitigation Plan; and,

WHEREAS, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and,

WHEREAS, the Chippewa County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and,

WHEREAS, the Chippewa County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and,

WHEREAS, the Chippewa County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Chippewa County will maintain public participation and coordination; and,

WHEREAS, the Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and,

WHEREAS, the Chippewa County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and,

WHEREAS, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MONTEVIDEO THAT the City of Montevideo supports the hazard mitigation planning effort and wishes to adopt the Chippewa County All-Hazard Mitigation Plan.

Passed and adopted this 20<sup>th</sup> day of February, 2024.

  
\_\_\_\_\_  
President - City Council

ATTEST:

  
\_\_\_\_\_  
City Clerk



RESOLUTION OF THE CITY OF WATSON  
NO. 2-13-24-1  
ADOPTION OF THE  
CHIPPEWA COUNTY ALL-HAZARD MITIGATION PLAN

WHEREAS, the City of Watson has participated in the hazard mitigation planning process as established under the Disaster Mitigation Act of 2000, and

WHEREAS, the Act establishes a framework for the development of a multi-jurisdictional County Hazard Mitigation Plan; and

WHEREAS, the Act as part of the planning process requires public involvement and local coordination among neighboring local units of government and businesses; and

WHEREAS, the Chippewa County Plan includes a risk assessment including past hazards, hazards that threaten the County, an estimate of structures at risk, a general description of land uses and development trends; and

WHEREAS, the Chippewa County Plan includes a mitigation strategy including goals and objectives and an action plan identifying specific mitigation projects and costs; and

WHEREAS, the Chippewa County Plan includes a maintenance or implementation process including plan updates, integration of the plan into other planning documents and how Chippewa County will maintain public participation and coordination; and

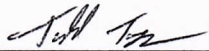
WHEREAS, the Plan has been shared with the Minnesota Division of Homeland Security and Emergency Management and the Federal Emergency Management Agency for review and comment; and

WHEREAS, the Chippewa County All-Hazard Mitigation Plan will make the county and participating jurisdictions eligible to receive FEMA hazard mitigation assistance grants; and

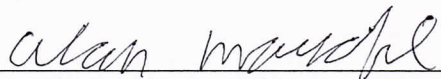
WHEREAS, this is a multi-jurisdictional Plan and cities that participated in the planning process may choose to also adopt the County Plan.

NOW THEREFORE BE IT RESOLVED that the City of Watson supports the hazard mitigation planning effort and wishes to adopt the Chippewa County All-Hazard Mitigation Plan.

This Resolution was declared duly passed and adopted and was signed by the Mayor and attested to by the Clerk this 13<sup>th</sup> day of February, 2024.

  
\_\_\_\_\_  
Mayor, Todd Tongen

Attest:

  
\_\_\_\_\_  
City Clerk, Alan Marohl