

Forest County All Hazards Mitigation Plan 2026



FOREST COUNTY ALL HAZARDS MITIGATION PLAN UPDATE

prepared for:

Forest County Emergency Management

by:

North Central Wisconsin Regional Planning Commission

adopted by Forest County Board on:

May 19, 2026

This update was prepared at the request and under the supervision of Forest County and its Emergency Management Director by the North Central Wisconsin Regional Planning Commission (NCWRPC). For more information, contact:

NORTH CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION
210 McCLELLAN STREET, SUITE 210
WAUSAU, WI 54403



Telephone: 715-849-5510

FAX: 715-849-5110

email: staff@ncwrpc.org

www.ncwrpc.org

TABLE OF CONTENTS

Part I – Update Planning Process

Introduction.....	1-1
Legislative Requirement for Mitigation Planning.....	1-1
The Five Parts of an All Hazards Mitigation Plan Update.....	1-3
Development of an All Hazards Mitigation Plan Update.....	1-3
Key Elements of the Update to the 2021 Plan.....	1-2
All Hazards Mitigation Plan Update Committee.....	1-4
Local Government Involvement.....	1-4
Neighboring Community Involvement.....	1-5
Local and Regional Agency Involvement.....	1-5
Public Review Process and Plan Update Adoption.....	1-7
Incorporated Plans, Studies, Reports and Technical Data.....	1-8
Contact Information.....	1-9

Part II – Planning Area

Introduction.....	2-1
General Geography.....	2-1
Location.....	2-1
Civil Divisions.....	2-1
Topography.....	2-2
Climate.....	2-2
Demographic and Economic Profile.....	2-4
Population and Households.....	2-4
Seasonal Population.....	2-7
Employment.....	2-8
Land Use/Land Cover and Development Patterns.....	2-9
Agriculture and Forestry.....	2-9
Commercial and Industrial Development.....	2-10
Residential Development.....	2-10
Surface Water.....	2-10
Floodplains.....	2-11
Wetlands.....	2-16
Other Land Cover /Uses.....	2-16
Future Growth and Development in Forest County.....	2-16
Impacts of Changes in Population, Land Use and Development.....	2-18
Public Facilities and Services.....	2-19
Transportation.....	2-19
Utilities.....	2-20
Emergency Services and Facilities.....	2-21
Critical Community Facilities.....	2-25
Inventory & Value of Structures / Property in Forest County.....	2-26

Part III – Risk Assessment

Introduction.....	3-1
Hazard Identification.....	3-1
Weather Variability & Hazard Risk Assessment.....	3-2
Hazard Analysis.....	3-5
Severe Thunderstorm/High Wind/Lightning/Hail.....	3-6
Tornado.....	3-9
Flooding/Dam Failure.....	3-14
Winter Storms/Extreme Cold.....	3-22
Forest Fire / Wildfire.....	3-26
Drought/Extreme Heat.....	3-30
Cyber Attack.....	3-32
Epidemic/Pandemic.....	3-35

Part IV – Mitigation Strategy

Introduction.....	4-1
Progress Report 2021 - 2025.....	4-1
Local Hazard Mitigation Goals.....	4-5
Prioritization of Strategies.....	4-6
Mitigation Action Plan.....	4-7
All Hazards.....	4-7
Severe Storms: Tornado & Thunderstorm/High Wind/Lightning/Hail.....	4-12
Flooding/Dam Failure.....	4-14
Winter Storms/Extreme Cold.....	4-16
Forest Fire/Wildfire.....	4-17
Drought/Extreme Heat.....	4-19
Cyber Attack.....	4-21
Epidemic/Pandemic.....	4-21

Part V – Plan Update Maintenance Procedures

Introduction.....	5-1
Plan Update Adoption.....	5-1
Plan Update Implementation.....	5-1
Jurisdiction Capability Assessment.....	5-4
Plan Update Evaluation and Maintenance.....	5-5

Tables

Table 1 – Geographical Size by Municipality.....	2-2
Table 2 – Population of Adjacent Counties.....	2-5
Table 3 – Population and Households of Civil Divisions.....	2-7
Table 4 – Estimated Seasonal Resident Population.....	2-8
Table 5 – Top Employers in Forest County.....	2-9

Table 6 – Land Use in Forest County	2-10
Table 7 – FEMA Community Status Book Report	2-13
Table 8 – Compliance with NFIP Requirements-Participating Jurisdictions	2-15
Table 9 – Equalized Value by Municipality	2-26
Table 10a – Value of County Owned Properties	2-27
Table 10b – Value of City Owned Properties	2-27
Table 10c – Value of Town Owned Properties	2-28
Table 10d – Value of Tribal Owned Properties.....	2-29
Table 11 – Tornado Wind and Damage Scale	3-10
Table 12 – Reported TORNADOS in Forest County	3-11
Table 13 – Dams in Forest County.....	3-16
Table 14 – Improvement Values of Structures in Floodplains	3-19
Table 15 – Benchmark for Progress 2021 - 2025 Plan	4-2
Table 16 – Mitigation Action Plan	4-25

Maps

Map 1 – Location Map.....	2-3
Map 2 – Generalized Land Use.....	2-6
Map 3 – Surface Water & Watersheds	2-11
Map 4 – Floodplains & Dams	2-14
Map 5 – Transportation	2-22
Map 6 – Utilities.....	2-23
Map 7 – Critical Community Facilities	2-24
Map 8 – Tornado Vulnerability	3-12
Map 9 – Flood Vulnerability.....	3-20
Map 10 – Wildfire Risk	3-29

Appendices

Appendix A – Update Meeting Notices.....	A-1
Appendix B – Resolutions of Plan Update Adoption	B-1
Appendix C – Sample Functional Needs Form	C-1

Introduction

Part I of the Forest County All Hazards Mitigation Plan (AHMP) Update describes and documents the process used to develop the Plan Update. This includes how it was prepared and who (committee, organizations, departments, staff, consultants, etc.) was involved in the update process. It also describes the local governments involvement, the time period in which the update was prepared, and who to contact to answer questions and make recommendations for future amendments to the Plan.

Legislative Requirement for Mitigation Planning

The development of the Forest County All Hazards Mitigation Plan Update is a response to federal regulations requiring the update of a local hazard mitigation plan every five years. The Disaster Mitigation Act of 2000 (DMA2K) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), creating the framework for state, local (counties and incorporated municipalities), tribal and U.S. territorial governments to engage in hazard mitigation planning to receive certain types of non-emergency disaster assistance. Requirements and procedures to implement hazard mitigation planning provisions may be found in the Code of Federal Regulations, Stafford Act Title 44, Chapter 1, Part 201 (44 CFR Part 201).

Since the DMA2K, additional laws have been passed that help to shape hazard mitigation policy. These are codified in amendments to the Sandy Recovery Improvement Act (SRIA) of 2013, the National Flood Insurance Act of 1968, and the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016.

The following grant programs have hazard mitigation plan adoption requirements: Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), Flood Mitigation Assistance (FMA), and Rehabilitation of High Hazard Potential Dams Grant Program (HHPD).

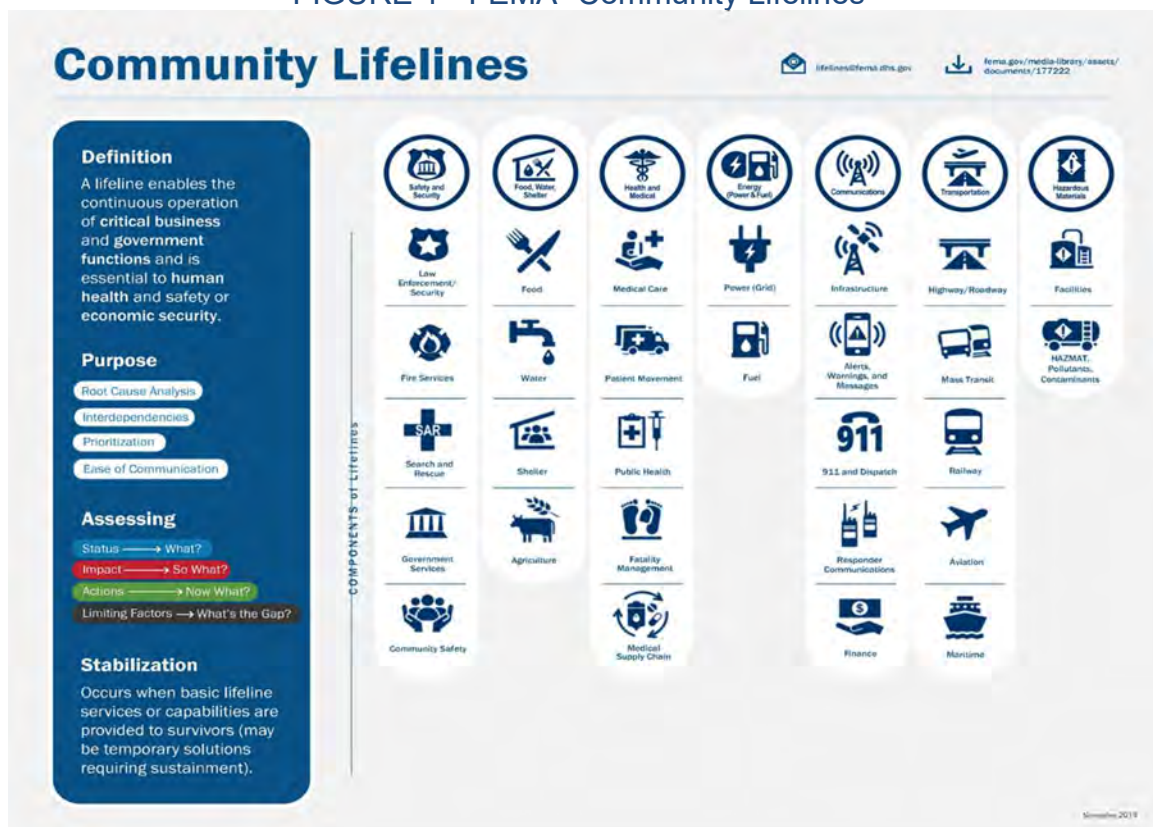
Local hazard mitigation plans form the foundation of a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction and repeat damage. The Federal Emergency Management Agency (FEMA) supports local mitigation planning to foster partnerships among all levels of government, to develop and strengthen non-governmental and private partnerships, to reduce the costs associated with disaster response and recovery by promoting mitigation activities, and to promote more disaster-resilient and sustainable communities.

Community resilience is the ability of a community to prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions. Activities such as disaster preparedness (which includes prevention, protection, mitigation, response and recovery) and reducing community stressors

(the underlying social, economic and environmental conditions that can weaken a community) are key steps to resilience.

"Community lifelines" (see Figure 1) are the infrastructure of resilience that enable the continuous operation of critical government and business functions and are essential to human health and safety or economic security. FEMA developed the community lifelines concept as a disaster response tool to highlight the priority areas of focus for initial incident stabilization. However, lifelines exist steady-state and enable all other aspects of society. As such, FEMA now incorporates community lifelines into all of its planning and reporting requirements including mitigation. Mitigation planning helps to understand risk to and vulnerability of lifelines, to prioritize mitigation investments, and to reduce the likelihood that lifelines will fail as a result of an incident.

FIGURE 1 - FEMA "Community Lifelines"



The Stafford Act lays out requirements for local mitigation plans which are further clarified by FEMA policy guidance.

The Five Parts of an All Hazards Mitigation Plan Update

The Forest County All Hazards Mitigation Plan Update was categorized into five parts in order to address FEMA’s local mitigation plan requirements. The five parts are as followed:

Part I:	Update Planning Process
Part II:	Planning Area
Part III:	Risk Assessment
Part IV:	Mitigation Strategy
Part V:	Plan Update Maintenance Process and Adoption

Development of an All Hazards Mitigation Plan Update

The Forest County Emergency Management Department received a Planning Grant in late 2024 to develop an All Hazards Mitigation Plan Update through the Building Resilient Infrastructure and Communities (BRIC) Grant Program.

The North Central Wisconsin Regional Planning Commission (NCWRPC) finalized a work agreement with Forest County and began preparation of the All Hazards Mitigation Plan Update at the request of the County Emergency Management Director in January of 2025.

The update process included planning committee meetings as well as extensive involvement from the local units of government within Forest County and the counties surrounding Forest. A variety of local and regional agencies were involved in the development of the update at various stages, and extensive opportunity for public participation was provided including public informational meetings. All sections of the plan update report were reviewed by the planning team at subsequent meetings and revised as established in the design of the update process for this Plan.

The remainder of this chapter expands on and provides more detail on key aspects of the update development process.

Key Elements of the Update to the 2021 Plan

The major enhancements to the Forest County All Hazards Mitigation Plan developed through this update are as follows:

- ✓ Review of Recommended Revisions - The final Crosswalk for the previous plan approval passed the plan with no recommended revisions.
- ✓ Review and update of planning area chapter - The planning area description and inventory was improved with additional information and updated statistics.
- ✓ Expanded hazard coverage – New hazards addressed in the Update include: epidemic/pandemic.

- ✓ Review and update of risk assessment - The risk assessment was updated with documentation on recent hazard events. The priority level of hazards facing the County was also reviewed and updated.
- ✓ High Hazard Dams - High hazard potential dams were specifically addressed in the risk assessment, as well as other areas of the Plan Update.
- ✓ Review and update of Mitigation Strategy - The mitigation strategies chapter begins with a complete progress report on the strategies from the 2021 plan, establishment of new set of strategies for next five-year cycle and an updated prioritization of projects.
- ✓ Community Lifelines – The concept of Community Lifelines is introduced into the Plan, see Chapter 1.
- ✓ New FEMA Plan Requirements – New FEMA plan requirements were addressed, including effects of development trends, participating capability assessment, and expanded NFIP requirements.

All Hazards Mitigation Plan Update Committee

The Forest County All Hazard Mitigation Plan Update was prepared under the guidance of an advisory committee that consisted of the current members of the County Emergency Government & 911 Committee. Periodic meetings were held with the NCWRPC staff, the County Emergency Management Director (Stephanie Montgomery), and the Committee to provide input on the types of hazards to be considered, appropriate mitigation strategies, and to review draft reports. Committee members are as follows:

- Terry Lukas, Chair
- Mike Miller
- John Potters

Local Government Involvement

There were a number of opportunities for the local units of government to become involved in the update process. All incorporated jurisdictions participated in the original plan as well as this update through one or more of these opportunities. In addition, unincorporated jurisdictions and school districts received a survey and may have participated in other opportunities during the process.

In February of 2025, a hazard mitigation issues survey was sent to each town chairperson and clerk, as well as each school district administrator, requesting which hazards are a concern, input on past and future mitigation measures, and to document other information that could be incorporated into the All Hazards Mitigation Plan Update. Responses were received from 7 of 14 towns. A

significant amount of information was gleaned from these questionnaires and incorporated into the update document.

Some of the primary issues identified in the survey results include the following:

- Heavily wooded areas / “surrounded by forest”: high wind/winter storm – trees falling on roads and powerlines, blocking access and cutting off fire & rescue / wildfire risk
- Flooding: due to snowmelt, low lying areas - roads impassable/access cut off from flooding
- Dam failure: dam replacements
- Rural / scattered population - limited roads going in & out / access to remote areas
- Large elderly population, presence of nursing home, pandemic risk
- Extreme cold temperatures
- Drought conditions: trees are possible fire hazards
- Access to heavy equipment & emergency management apparatus

The City of Crandon was formally introduced to the update process at a separate meeting on October 1, 2025. The participants at this meeting provided information on hazards that have significance to the City, discussed critical facilities and provided mitigation strategy ideas for the plan update. Participants in this meeting included the following:

- | | |
|------------------------|--------------------------------------|
| • George Stamper | Mayor |
| • Meagan Kevilus | Clerk/Treasurer |
| • Darrell Wilson | Fire Chief |
| • Mike Belgram | Street Foreman |
| • Eric Bath | Police Chief |
| • Ross Crum | Utility Supervisor |
| • Stephanie Montgomery | County Emergency Management Director |
| • Darryl Landeau | NCWRPC Senior Planner |
| • Christian Boulanger | NCWRPC Planner |

Discussion from this meeting indicated that the City's main hazard concerns are ice storms and tornados due to the potential for long-term power outage. Flooding is also an issue in certain areas of the City with heavy rainfall. Some facilities in the City such as lift stations and wells need back-up power to maintain operations and prevent problems when there is power outage. A generator is being installed at City Hall. The City talked about a need for emergency response “checklists”, for the City as well as residents.

Another issue identified is a high proportion of elderly or low-income residents; many of which may have difficulty handling emergency situations without

assistance. The City needs to have a discussion on how to target these populations with information and education outreach.

Staffing and turnover can be a challenge for the City to maintain adequate personnel for disaster response. Small size and budget constraints make it difficult to support competitive pay and benefits.

The City of Crandon identified only one asset property lying outside its corporate limits, its airport. Unique risks associated with the airport include aviation fuel storage and crash potential.

Neighboring Community Involvement

One of the requirements of the planning process was to include neighboring communities. In previous plans, the NCWRPC experienced low attendance in response to invitations to county emergency management staff from surrounding counties. As a result, NCWRPC staff e-conferenced during the course of the planning process with staff from Vilas, Oneida, Langlade, Oconto, Marinette, and Florence counties as well as Iron County, Michigan. In addition, Tribal emergency management officials for the Forest County Potawatomi and Sokaogon Chippewa Indian Nations were also included in the e-conference process. Ideas were exchanged about All Hazards Mitigation planning processes and strategies between the various counties.

Local and Regional Agency Involvement

Another requirement of the update planning process was to involve local and regional agencies that have a role in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and non-private interests. To meet this objective, the NCWRPC invited a diverse group of stakeholders to discuss potential hazard mitigation strategies.

The meeting was held on October 20, 2025 at the County Courthouse in Crandon. Agencies and organizations represented at this meeting include the following:

- | | |
|------------------------|---|
| • Stephanie Montgomery | Forest County Emergency Management |
| • Melinda Chaney | Crandon Area Rescue |
| • Tammi Boers | Forest County Health Department |
| • Hank Kratky | Goodman-Armstrong Rescue |
| • Kayla Littleton | Forest Co. Land Conservation/Land Info Dept |
| • Tammy Queen | Nu Roc Health & Rehab Center |
| • Charity Davis | Nu Roc Health & Rehab Center |
| • Thomas Richmond | SCC Mole Lake Emergency Management |
| • Darryl Landeau | N. Central WI Regional Planning Com. |
| • Tom Tallier | Wabeno Sanitary District |

A number of other agencies were invited but chose not to attend.

During the meeting, the Plan Update and its components were introduced to the attendees. Mitigation strategy ideas were solicited, and a number of ideas were discussed at length with the group. Part IV of the Plan was revised based on the meeting.

Meeting attendees had a good discussion on a wide range of topics. A number of issues were identified, including: entities across the county are still processing lessons learned from the 2025 ice storm. Functional needs populations were discussed extensively. Primarily, how to address coordinating and managing assistance to those with functional needs during an emergency situation? More outreach providing information for the public on emergency preparedness and post-storm safety is needed.

Another concern was a lack of unified messaging among agencies and organizations to ensure important information gets to the public and better counter misinformation. Transportation issues were also identified, including residents struggling to get to needed healthcare or obtain prescriptions and medical supplies during an active, on-going situation. Information and education is needed in the county on cyber security. The group also discussed ensuring fuel access to keep responding vehicles on the road.

Public Review Process and Plan Update Adoption

Opportunities for public comment were provided to review the Plan Update during the drafting stage and prior to Plan Update approval. See APPENDIX A for copies of public meeting notices. A copy of draft plan elements were made available on the Internet during the update process. Links that open an email submission were provided for questions or comments. The final Plan Update document will remain on the Internet until the next draft update is posted for review. The public can continue to submit questions or comments at any time via the email link. (See Contact Information, below, for web addresses.)

County Emergency Government and 911 Committee meetings are always open to the public (unless entering into legal closed session), and the public can bring questions or comments regarding this Plan Update to any regular meeting. Meeting schedules can be obtained by checking the County website, contacting the County Clerk's Office or the Emergency Management Director (see Contact Information, below).

A public informational meeting on the draft plan was held at the Forest County Courthouse on October 20, 2025. Notices were posted in the local newspaper and County social media. However, no members of the public chose to attend this meeting. In addition, no written comments were received via U.S. Mail or email as a result of this meeting.

The County Emergency Government & 911 Committee will review the Plan Update prior to forwarding it to County Board for approval. Meeting details will be included in APPENDIX A. Following that open, public review meeting, the Plan Update will be forwarded to the County Board for final adoption. The adopting resolution will be included in APPENDIX B along with details on any plan changes resulting from Committee and/or County Board action.

The City, Towns and School Districts were asked to adopt the Plan Update for their jurisdiction at their own properly posted and open public meeting, see APPENDIX B for the local units' resolution of adoption.

Incorporated Plans, Studies, Reports And Technical Data

Many plans, reports, and technical data sources were referenced and incorporated into the Forest County All Hazards Mitigation Plan Update. These sources include but are not necessarily limited to the following:

Wisconsin Department of Natural Resources, North Central Wisconsin Regional Planning Commission and Forest County geographic information system databases provided much of the base data for the mapping and analysis within the Update. Statistical reports and data from the US Census and Wisconsin Departments of Administration, Revenue and Workforce Development were used for the demographic background in Part 2 of this Update. Land use data in Part 2 was obtained from the Forest County Comprehensive Plan.

Wisconsin Department of Natural Resources Wetlands Inventory and Dams Database were used to identify and map wetlands and dams within the County in Parts 2 and 3. The WDNR Dams Database provided information on high hazard potential dams within the County. NFIP flood zone maps for Forest County provided the mapping of 100-year floodplain areas for flooding risk in Part 3. The FEMA Community Status Book was also referenced.

NOAA National Climatic Data Center severe weather event data was used extensively for the risk assessment in Part 3. The wildfire section of the risk assessment was based on the Wisconsin Department of Natural Resources' fire occurrence database and statewide Communities At Risk (CAR) assessment.

Other plans, reports, and documents were reviewed by staff during the update process including but not limited to the State of Wisconsin Hazard Mitigation Plan; the Hazard Analysis for the State of Wisconsin, the Wisconsin Repetitive Loss Report, the Forest County Zoning Ordinance, the Forest County Land and Water Resource Management Plan, the Forest County Emergency Operations Plan, the North Central Wisconsin Pandemic Assessment and Future Response Plan and the North Central Wisconsin Regional COVID-19 Recovery Plan and the All Hazards Mitigation Plans for the Mole Lake and Potawatomi Indian Nations. Although these may not have been directly incorporated, the review provided valuable insight and direction to the update process.

Contact Information

Stephanie Montgomery, Director - Forest County Emergency Management
Forest County Courthouse
200 East Madison Street
Crandon, WI 54520
715-478-3430

forestem@co.forest.wi.us

Go to:

www.ncwrpc.org/forest-county-all-hazards-mitigation-plan-update-2025/

<https://co.forest.wi.gov/em-depart>

INTRODUCTION

Part II of the Forest County All Hazards Mitigation Plan Update provides general geographical information, including demographic and economic characteristics. The general development patterns of the county are described in terms of current land use and future development trends.

In addition to developing an understanding of the planning area, this chapter represents the beginning stages of assessing vulnerability by inventorying the numbers, types and values of existing buildings, infrastructure and critical facilities within each participating jurisdiction in the planning area. This overall summary of each jurisdiction's vulnerability to hazards describes the potential impact on the community.

Land use and development trends are analyzed to project the number and type of potential future buildings, infrastructure and critical facilities within each jurisdiction so that mitigation options can be considered in future land use decisions.

The resulting information is an important element of the planning process, since sound alternative mitigation strategies cannot be formulated and evaluated without an in-depth knowledge of the relevant conditions in the study area.

GENERAL GEOGRAPHY

Location

Forest County is located in northern Wisconsin (See Map 1). The largest city and county seat is Crandon, in the south-central portion of the county. There are also several unincorporated places dispersed around the county. The county is bounded on the north by Iron County, Michigan on the east by Florence and Marinette Counties, on the south by Oconto and Langlade Counties, and on the west by Oneida and Vilas Counties.

Forest County lies approximately 107 miles northwest of Green Bay; 211 miles northwest of Milwaukee; and 212 miles north of Madison. Major metropolitan areas outside of Wisconsin are Chicago, 296 miles southeast; Minneapolis-St. Paul, 243 miles west; and Duluth, 241 miles northwest.

Civil Divisions

There are 15 municipalities (14 towns and 1 city) and 2 American Indian Reservations in the Forest County planning area. These units of government provide the basic structure of the decision-making framework. The county has a total surface area of 1,046.4 square miles, of which 3.1% is water. The area and proportion of the County within each civil division are presented in Table 1.

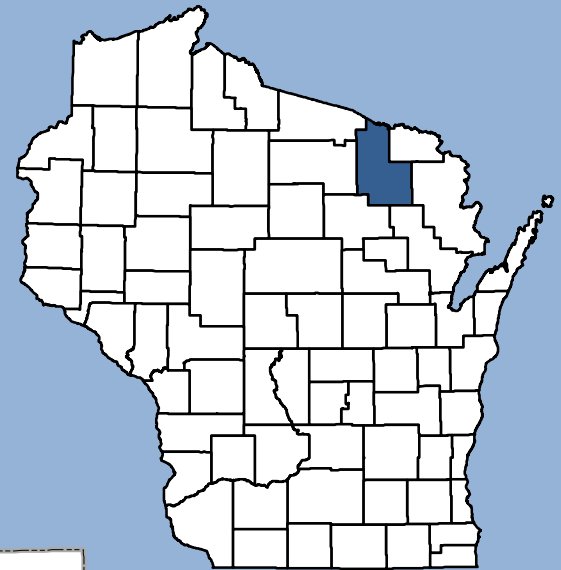
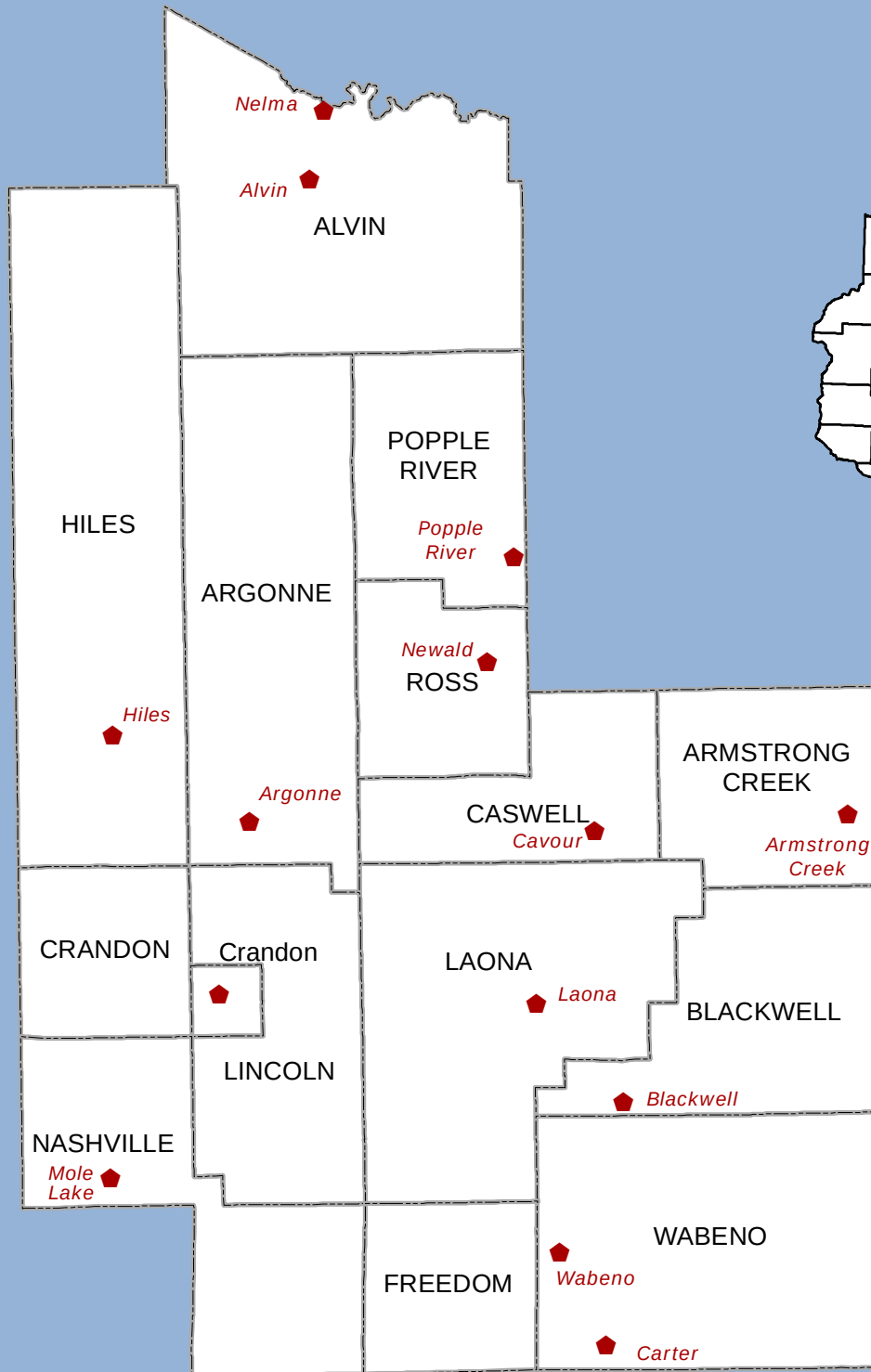
Table 1 Geographical Size by Municipality				
Municipality	Area in square miles			Area as % of County
	Water area	Land area	Total area	
Alvin town	1.01	114.98	115.99	11.1%
Argonne town	0.07	108.24	108.31	10.4%
Armstrong Creek town	0.65	47.99	48.64	4.6%
Blackwell town	0.37	66.00	66.37	6.3%
Caswell town	0.17	47.74	47.91	4.6%
Crandon town	1.99	33.79	35.78	3.4%
Freedom town	2.03	34.06	36.09	3.4%
Hiles town	9.52	131.44	140.96	13.5%
Laona town	4.15	103.39	107.54	10.3%
Lincoln town	4.80	58.12	62.92	6.0%
Nashville town	5.18	67.17	72.35	6.9%
Popple River town	0.39	50.09	50.48	4.8%
Ross town	0.10	38.49	38.59	3.7%
Wabeno town	0.95	107.34	108.29	10.3%
Crandon city	0.95	5.22	6.17	0.6%
Forest County	32.33	1,014.10	1,046.39	100.0%
<i>Source: U.S. Census</i>				

Topography

Forest County is part of the Northern Highlands geomorphic region, which is characterized by scattered outcroppings of older crystalline rock in a glaciated topography. The terrain, with high local relief occurring, is reminiscent of the northern Scandinavian countries. The landscape generally slopes from northwest to southeast. Elevations vary by more than 300 feet in many places. The fourth highest point in the state, Sugar Bush Hill, with an elevation of 1,939 feet above sea level, is located east of Crandon.

Climate

Winters in Forest County are very cold, and the short summers are fairly warm. The short frost-free period during the summer limits cropping mainly to forage crops, small grains, and adapted vegetables. Precipitation is fairly well distributed throughout the year but reaches a peak in the summer. Snow covers the ground much of the time from late fall through early spring.



Source: NCWRPC, Forest County

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.



In winter, the average temperature is 14 degrees F and the average daily minimum temperature is 4 degrees. The lowest temperature on record, which occurred on January 17, 1982, is -39 degrees. In summer, the average temperature is 63 degrees and the average daily maximum temperature is 76 degrees. The highest recorded temperature, which occurred on July 26, 1955, is 100 degrees.

The total annual precipitation is about 30 inches. Of this total, more than 21 inches, or about 70 percent, usually falls between April and September. The growing season for crops falls within this period. In two years out of ten, the rainfall in April through September is less than 18 inches. Thunderstorms occur on about 34 days each year.

The average seasonal snowfall is about 67 inches. The greatest snow depth at any one time during the period of record was 56 inches. On average, 93 days of the year have at least one inch of snow on the ground. The number of such days varies greatly from year to year.

The sun shines 65 percent of the time possible in summer and 45 percent in winter. The prevailing wind is from the southwest. Average wind speed of 12 miles per hour occurs in spring.

DEMOGRAPHIC AND ECONOMIC PROFILE

Population and Households

The official 2023 American Community Survey (ACS) population estimate for Forest County shows a population of 9,261 people. This is actually a slight decline from the 2010 ACS reported population of 9,534 people. Since 2010, the population of Forest County has decreased by about 2.9% or by 273 people. The decline is part of an on-going trend, among some counties in northern Wisconsin, since populations generally peaked in the late '90's/early '00's. Since 2010, Forest trails only Langlade County in percentage decline among its neighbor counties, see Table 2. Marinette has also seen this decline. The counties of Florence, Oconto, Oneida, and Vilas saw gains - supported by robust vacation/retirement home markets. If this trend continues, Forest County will have a population of 8,892 by 2036.

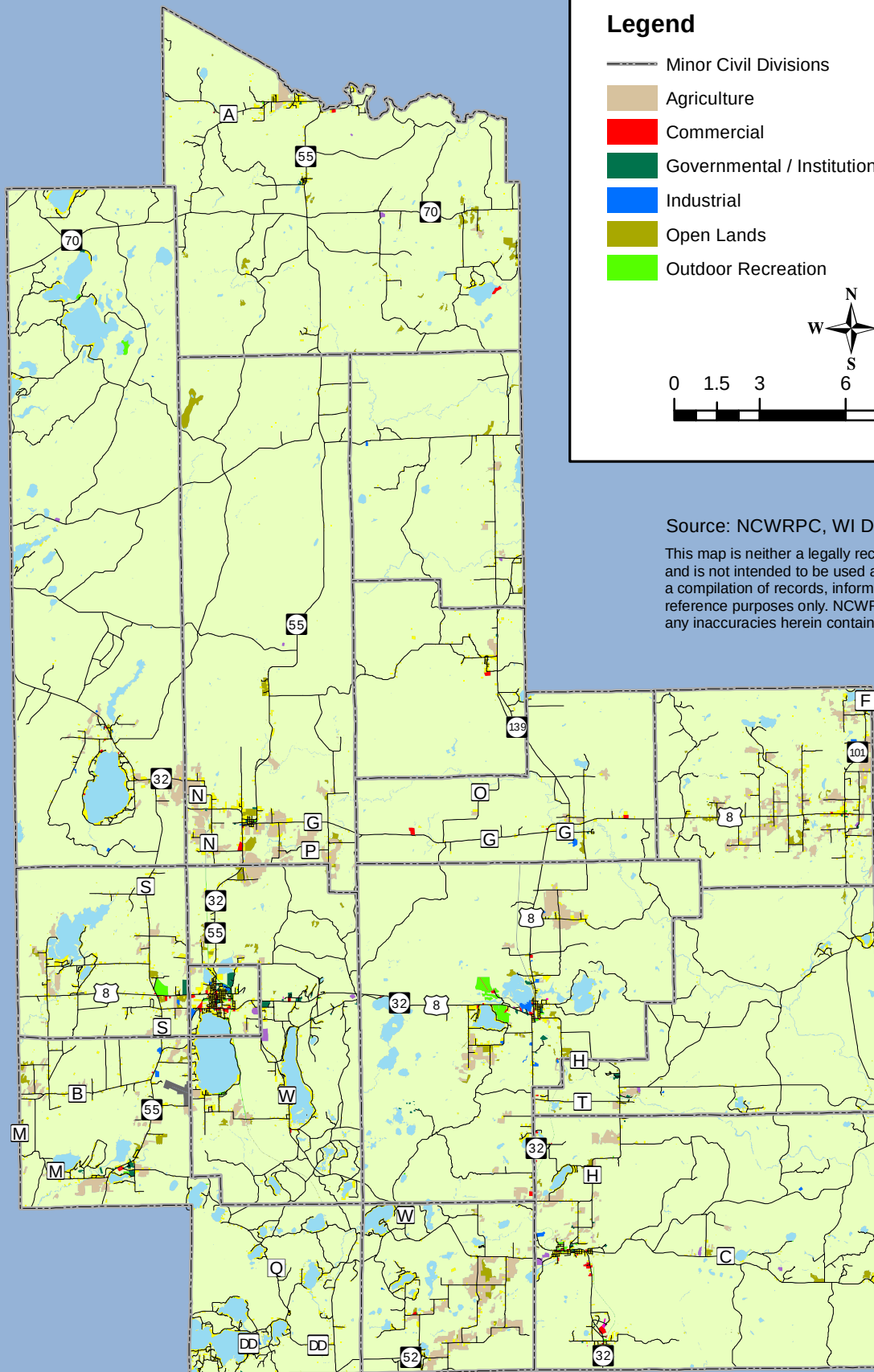
Tribal population in the county includes the Forest County Potawatomi and Sokaogon Chippewa (Mole Lake). The population total for the Potawatomi Reservation was 644 from the 2023 American Community Survey, up nearly 10 percent from 588 in 2010. The Mole Lake Reservation had a population of 450 in 2023, up from 414 in 2010, a 9 percent increase. A continued push for growth for these tribal areas may counteract some of the expected overall population decline in the County.

Table 2 Population of Adjacent Counties				
County	2010	2023	# Change	% Change
Forest	9,534	9,261	-273	-2.9%
Florence	4,587	4,617	30	0.7%
Marinette	42,019	41,907	-112	-0.3%
Oconto	37,737	39,329	1,592	4.2%
Langlade	20,218	19,473	-745	-3.7%
Oneida	36,379	38,007	1,628	4.5%
Vilas	21,750	23,410	1,660	7.6%
Wisconsin	5,637,947	5,892,023	254,076	4.5%
<i>Source: American Community Survey and NCWRPC</i>				

Between 2010 and 2023, the majority of the communities (8 of 14) within Forest County experienced an increase in population (refer to Table 3). The largest percentage increase, 59%, between 2010 and 2023, occurred in the Town of Alvin. The greatest amount of actual growth occurred in the Town of Lincoln, adjacent to, which added 207 new residents between 2010 and 2023.

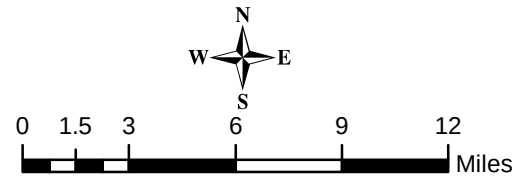
Population concentrations and trends are important when prioritizing hazard mitigation strategies. The City of Crandon is the most densely populated and developed area in the county. Other areas of population concentrations are waterfront development and 11 unincorporated places including Nelma, Alvin, Hiles, Argonne, Cavour, Armstrong Creek, Laona, Blackwell, Mole Lake, Wabeno and Carter. Map 2 (Land Use) shows areas of population concentrations in the County. Overall population density of the county is about 9.1 persons per square mile which ranges from a high of about 287 in the City of Crandon to a low of 0.78 in the Town of Popple River.

The median age in Forest County is about 49.1 years, making it relatively old in comparison to the State's median age of 40.1. The County has been identified as a retirement area resulting from being a vacation spot for many seasonal homeowners. The location of seasonal housing is a strong indicator in terms of retirement location. In Forest County 49% of all housing units have been identified as seasonal/recreational, which is among the highest percentages in the State.



Legend

- | | |
|------------------------------|----------------|
| Minor Civil Divisions | Quarry |
| Agriculture | Residential |
| Commercial | Transportation |
| Governmental / Institutional | Utility |
| Industrial | Water |
| Open Lands | Woodlands |
| Outdoor Recreation | |



Source: NCWRPC, WI DNR, Forest County

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.

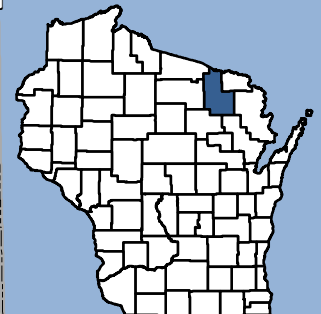


Table 3 Population and Households of Civil Divisions						
MINOR CIVIL DIVISION	2010 Population	2010 Households	2023 Population	2023 Households	2010 – 2023 % Change in Population	2010 – 2023 % Change in Households
Alvin town	132	78	210	81	59.1%	3.8%
Argonne town	532	238	474	197	-10.9%	-17.2%
Armstrong Creek town	416	174	477	215	14.7%	23.6%
Blackwell town	361	29	320	46	-11.4%	58.6%
Caswell town	71	34	72	35	1.4%	2.9%
Crandon town	745	327	591	243	-20.7%	-25.7%
Freedom town	370	179	441	216	19.2%	20.7%
Hiles town	353	197	428	213	21.2%	8.1%
Laona town	1,215	575	1,215	513	0.0%	-10.8%
Lincoln town	1,067	487	1,274	483	19.4%	-0.8%
Nashville town	1,097	477	1,199	504	9.3%	5.7%
Popple River town	31	20	39	24	25.8%	20.0%
Ross town	143	75	142	62	-0.7%	-17.3%
Wabeno town	1,017	462	880	405	-13.5%	-12.3%
Crandon city	1,984	830	1,499	715	-24.4%	-13.9%
Forest County	9,534	4,182	9,261	3,952	-2.9%	-5.5%
Source: U.S. Census						

Seasonal Population

In addition to the full-time population, Forest County has a substantial number of seasonal and temporary residents. This reflects a housing stock which is nearly half seasonal/recreational dwellings (49.4%). The impact of this seasonal population cannot be overlooked when planning for hazards. Table 4 shows an estimate of seasonal residents by municipality, based on average household size multiplied by the number of seasonal units. Determining when and for how long these seasonal residents will be in the county is problematic, but the numbers give some indication of what weekend or other peak period populations might be.

Another component of the seasonal population includes short-term accommodation such as campgrounds or hotel-style lodging. The scope of this plan did not provide for detailed inventory of accommodations, however, the Wisconsin DNR completed a general inventory as part of its statewide comprehensive outdoor recreation plan. That inventory identified 329 hotel/motel beds, 23 bed & breakfast beds, and 82 beds in tourist homes. The DNR also identifies 291 campsites in campgrounds throughout the county, as well as educational/recreational camps with a capacity of 525.

Table 4 Estimated Seasonal Resident Population		
Municipality	2023 Seasonal Housing Units	2023 Seasonal Population
Alvin town	341	883
Argonne town	163	393
Armstrong Creek town	187	385
Blackwell town	102	459
Caswell town	96	198
Crandon town	172	418
Freedom town	337	687
Hiles town	543	1091
Laona town	188	446
Lincoln town	625	1,594
Nashville town	775	1,845
Popple River town	115	187
Ross town	134	307
Wabeno town	341	740
Crandon city	173	353
County Total	4,292	9,829
<i>Source: U.S. Census and NCWRPC</i>		

Employment

Like seasonal housing, employment facilities represent concentrations of people. In Forest County the Education, health care and social service sector, which includes educational services and nursing and residential care, along with social workers and other human services, accounts for about 20 percent of total employment. The Arts, entertainment, and recreation, and accommodation and food services sector makes up about 13 percent of employment. Manufacturing and Retail Trade each represent about a tenth of the workforce (12% and 10%, respectively), and Construction (9.8%) and Public Administration (9.5%) round out the top six occupations in Forest County.

Table 5 identifies the top employers and their general location in the county. The location of a large employment center is important when prioritizing hazard mitigation strategies.

Table 5 Top Employers in Forest County			
Company	Product or Service	Size	Location
FC Potawatomi Community	Tribal Government	250-499	Towns of Lincoln and Wabeno
Mole Lake Casino and Lodge	Casino	100-249	Town of Nashville
Potawatomi Casino/Hotel	Casino	100-249	Town of Wabeno
Crandon School District	Elementary & Secondary Schools	100-249	Various Locations
Schaefer IGA Enterprises	Supermarkets	100-249	City of Crandon
County of Forest	County Public Employment	100-249	Various Locations
Wabeno School District	Elementary & Secondary Schools	50-99	Various Locations
Aspirus Crandon Clinic	Clinics	50-99	Crandon
Northern WI Bank Holding	Holding Companies	50-99	Laona

Source: Wisconsin DWD and NCWRPC.

LAND USE/COVER AND DEVELOPMENT PATTERNS

Land use is an important determinant in the potential impact a particular hazard may have, and in actions which may be taken to mitigate the impacts. An understanding of the amount, type, and spatial distribution of urban and rural land uses is an important consideration in the development of a sound hazard mitigation plan.

The North Central Wisconsin Regional Planning Commission (NCWRPC) has categorized land use in Forest County into general classifications using aerial photography to digitize a land use Geographic Information System (GIS) coverage. Map 2 shows the land use and development patterns in Forest County. Table 6 shows the acreage and percent of each classification.

Agriculture and Forestry

The dominant land-use in Forest County is forestry. Land area in the county is approximately 92 percent forested, comprised of approximately 612,298 acres of woodland, much of it within the Nicolet National Forest. Agricultural land covers another 12,208 acres or 1.8 percent of the county's land area, which is mostly located on previously forested tracts that were cleared by early settlers. Agricultural production in the county includes cattle & calves, egg chickens, horses & ponies, pheasants, elk, forage crops, corn for silage, oats, potatoes, and cut Christmas trees. A short growing season, irregular topography, and relatively low

soil productivity limits most of the agricultural production to the southern portions of the county.

Commercial, Industrial and Institutional Development

Commercial, industrial, institutional, utility, and quarry development makes up only about 0.2 percent of the total area of the county. Land use for commercial and industrial development is mostly located in the City of Crandon, but pockets are scattered around the county. Most industry is related to processing forest and agricultural products. There is one serviced industrial park in the county, an 18-acre site in Crandon. Government and other institutional facilities are also concentrated in Crandon, however there are a variety of facilities, such as rural schools and town halls, scattered throughout the county. Tribal facilities, including casino developments are located in three areas: Mole Lake in the Town of Nashville, the Potawatomi area in the Town of Lincoln, just east of Crandon and in the Town of Wabeno, at Carter. The U.S.F.S. Civilian Conservation Corps has a major facility on County Highway H in the Town of Blackwell.

Residential Development

Land in residential development makes up about 1.6 percent of the total county area. Residential concentrations are scattered throughout the county (see “Population and Households” above). Much of the scattered rural development is related to direct recreational demand as various types of housing have clustered along streams and lakes.

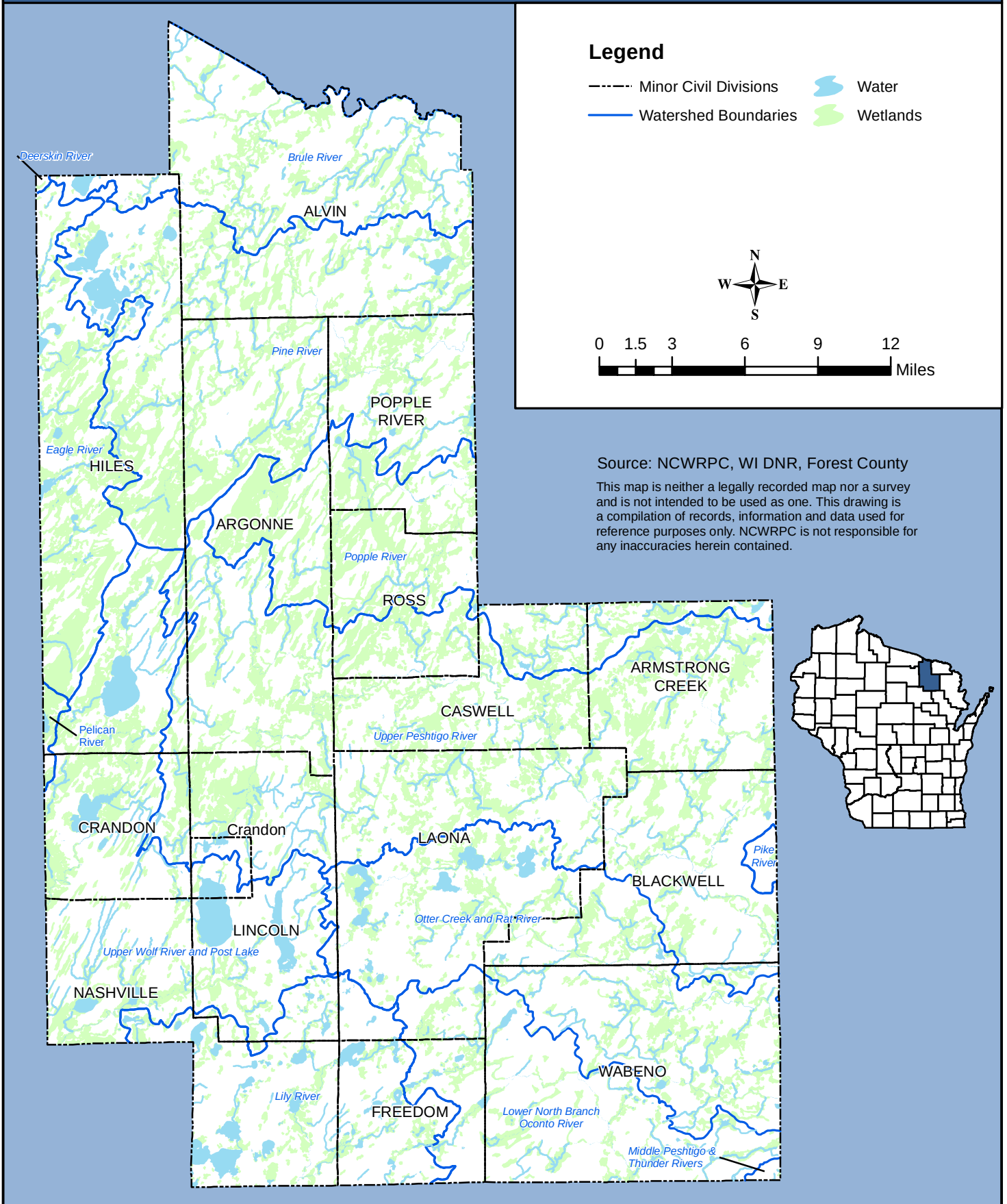
There are a number of mobile home parks in the county. According to the U.S. Census, there were 843 mobile homes in 2023. This is about 9.7 percent of housing units for the County compared to about 3.1 percent for the entire state. This is significant due to their vulnerability in natural hazards especially tornadoes. Map 11 (Tornado Vulnerability) displays the mobile home concentrations within the county.

Table 6	Land Use in Forest County		
Description		Acres	Percent
Agriculture		12,208	1.8%
Commercial, Industrial, Institutional, Utility, Quarry		1,945	0.2%
Forest/Woodland		612,298	91.5%
Recreation		923	0.1%
Residential		10,434	1.6%
Open Land		3,141	0.5%
Surface Waters		22,736	3.4%
Transportation		5,822	0.9%
Total		669,507	100.0%
Source: NCWRPC			

Surface Water

Forest County is part of three major basins partially containing thirteen watersheds (see Map 3). The Upper Green Bay Basin has eight, the Upper Wisconsin River basin has three and the Wolf River basin has two watersheds within the county. Surface waters comprise about 22,736 acres or 3.4 % of the county area.

Forest County, Wisconsin Surface Water, Watersheds & Wetlands



The county has 824 lakes and over 317 streams within the watersheds (see Map 3). Six of the lakes exceed 1,000 acres and account for nearly 40 % of total water surface area. The largest is Lake Metonga at 2,157 acres. Many of the lakes are small seepage lakes, particularly on the west side of the county. Major lakes number about 70 with the majority being drainage lakes, but about one-quarter are seepage lakes. Generally, greatest stream flow in the county occurs in late spring and autumn following increased periods of rainfall. Spring flooding is usually most pronounced in the western half of the county. All the streams, like the lakes, are important in the hydrological and ecological regime and should be protected by shoreland zoning and physical protective measures.

Floodplains and wetlands are important contributing components to the surface water system as described below.

Floodplains

The primary value of floodplains is their role in natural flood control. Flood plains represent areas where excess water can be accommodated whether through drainage to streams or through storage in wetlands and other natural detention/retention areas. Specific areas that will be inundated will depend upon the amount of water, the distance and speed that water travels, and the topography of the area. If uninterrupted by development, the areas shown on a map as floodplains should be able to handle the severest (regional) flood, i.e. those that have a probability of occurring once every one-hundred years.

There is a value in preserving and protecting these natural flood control areas from encroachment. First, by preventing development in the floodplain, the cost of building dikes, levees, or other man-made flood control devices will be saved. Second, for each structure that is constructed in a flood-prone area, that flood-prone area expands, potentially subjecting other structures originally built outside the delineated flood hazard area to the risk of flooding. Each new structure (or modification to existing) placed in the flood plain puts more life and property in danger.

Counties, cities, and villages are required to adopt reasonable and effective floodplain zoning ordinances. The requirement is found in section 87.30 of the Wisconsin Statutes and Chapter NR 116 of the Wisconsin Administrative Code. Floodplain zoning is designed to protect individuals, private property, and public investments from flood damage.

Floodplain zoning maps identify areas where major floods occur. Regulations prohibit development in the floodway, the most dangerous flood area. In other flood areas, the flood fringe, development that is built above flood levels and otherwise flood-protected is allowed if it is in accordance with local ordinances. For regulatory purposes, a floodplain is generally defined as land where there is a one percent chance of flooding in any year (also known as the 100-year floodplain).

In order to participate in the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP), the County and City of Crandon have each completed a Flood Insurance Study and a Flood Insurance Rate Map (FIRM) that encompasses Forest County, see Table 7 for summary of NFIP status. This FIRM delineates the "A" Zones including the floodway and flood fringe which are those areas inundated by the 100-year flood within the County. The FIRMs County have been updated to digital standards. The digital FIRMs are referred to as DFIRM.

The NCWRPC downloaded the DFIRM from FEMA's website for use in this plan. Although unofficial, the digital files indicate there are approximately 22,000 acres of floodplain in Forest County, or about 3.0 percent of the land area. Map 4 shows the approximate floodplains in Forest County. Floodplains in Forest are generally narrow and typically flood only during periods of exceptionally heavy rainfall.

Table 7 FEMA Community Status Book Report Communities Participating in the National Flood Insurance Program Wisconsin - Forest County				
Community	Initial FHBM	Initial FIRM	Current Map	Program Entry
Forest County	05/08/81	12/16/11	12/16/11	06/24/14
City of Crandon	06/07/74	01/02/87	12/16/11	01/02/87
<i>Source: FEMA</i>				

Currently, there are no repetitive loss structures, those with multiple flood insurance claims in Forest County.

Table 8 summaries NFIP compliance efforts for Forest County and the City of Crandon.

Third generation flood mapping is now underway across the country. Known as Risk MAP or Risk Mapping, Assessment and Planning, this process is being coordinated by the Department of Natural Resources in Wisconsin. The DNR has an active Risk MAP project underway in Forest County. This project is currently in data development and expected to have draft maps issued in 2026.

The Biggert-Waters Flood Insurance Reform Act was signed into law in July, 2012. This act implemented significant reforms to the structure of flood insurance under the National Flood Insurance Program (NFIP). Then, on March 21, 2014, President Obama signed the Homeowner Flood Insurance Affordability Act of 2014 (HFIAA) into law amending the NFIP further. These new laws impact the various elements of the NFIP, including Insurance, Flood Mapping, Mitigation, and Floodplain management.

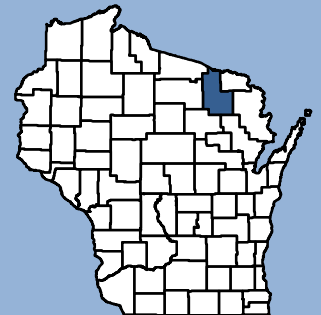
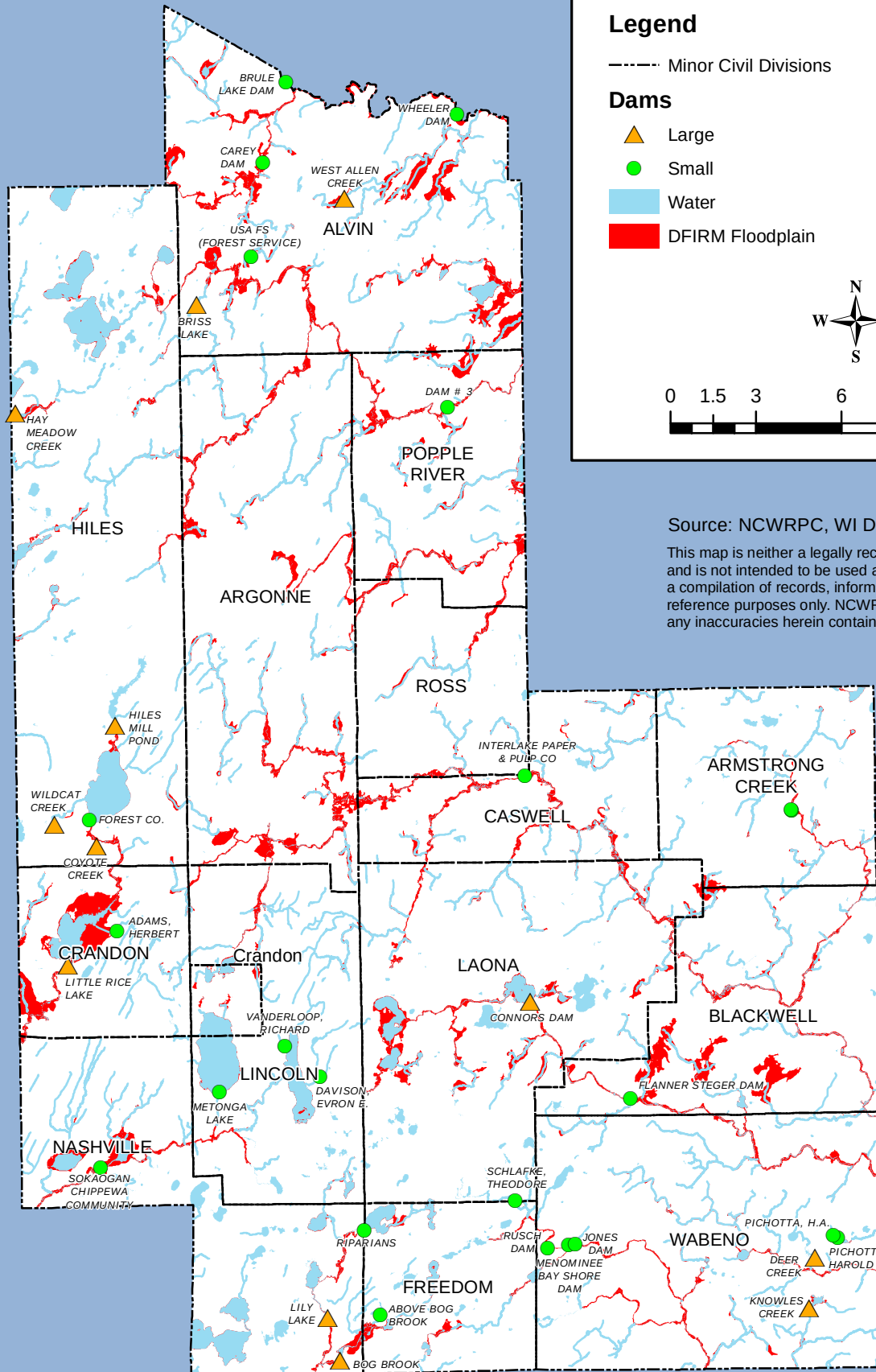


TABLE 8 Compliance with NFIP Requirements – Participating Jurisdictions		
	Forest County	City of Crandon
NFIP Status	Participating	Participating
Adoption of Minimum NFIP Criteria	Forest County has adopted floodplain zoning provisions and associated DFIRMs which incorporate all of the minimum FEMA and WDNR requirements for floodplain management.	Floodplain zoning adopted based on State Model.
Adoption of Latest FIRM	6/24/14 Risk Map Pending...	12/16/11
Implementation and Enforcement of floodplain regulations	County Zoning Administrator administers Forest County Zoning Code including floodplain regulations.	City Zoning Administrator does enforcement of floodplain regulations.
Designated Agency for NFIP Compliance	County Zoning Department / County Zoning Administrator	Clerk-Treasurer's Office / City Zoning Administrator
Implementation of Substantial Damage Provisions of Ordinance	County Zoning Administrator inspects all damaged floodplain structures to determine if substantial damage has occurred after an event.	City Zoning Administrator inspects all damaged flood plain structures to determine if substantial damage has occurred after an event.
Floodplain Management Efforts that Contribute to Continued Compliance with NFIP	Comprehensive Land Use Planning and Permitting to keep development from encroaching on floodplains. Enforcement of the County Floodplain Ordinance. Update ordinance as required in conjunction with WDNR state statutes.	Enforcement of Floodplain Ordinance. / Update ordinance as required in conjunction with WDNR.
Reasons for Nonparticipation	N/A	N/A
<i>Source: NCWRPC interviews and correspondence with local zoning officials, 2025.</i>		

HFIAA repeals and modifies certain provisions of the Biggert-Waters Flood Insurance Reform Act and makes additional program changes to other aspects of the program not covered by that Act. Many provisions of the Biggert-Waters Flood Insurance Reform Act remain and are still being implemented. The new law lowers the recent rate increases on some policies, prevents some future rate increases, and implements a surcharge on all policyholders. The Act also repeals certain rate increases that have already gone into effect and provides for refunds to those policyholders. Both of these laws are important to local floodplain managers and planners because rate structure increases may increase interest of policy holders that own floodprone properties in alternatives to mitigate both flood risk and flood insurance costs for those properties.

Wetlands

Wetlands perform many roles in the proper functioning of the hydrologic cycle and local ecological systems. In terms of hazard mitigation, they act as water storage mechanisms in times of high water. Like sponges, wetlands are able to absorb excess water and release it back into the watershed slowly, preventing flooding and minimizing flood damage. As more impermeable surfaces are developed, this capacity for water storage becomes increasingly important.

The DNR has identified the location of wetlands on their WISCLAND database according to which Forest County has 149,230 acres, or 23 percent of its total area. There are no main concentrations of wetlands, and Map 3 shows these wetland areas to be scattered throughout the county.

Destruction of wetlands can occur through the use of fill material. This can compromise the hydrological function of the site and open the area to improper development. The Wisconsin Department of Natural Resources (DNR) has promulgated minimum standards for managing wetlands.

Other Land Cover/Uses

Recreational lands including parks and outdoor sports facilities total about 923 acres or 0.1 percent of the county land area. Other lands may be used for recreational purposes, particularly woodlands. Open lands represent undeveloped land not wooded or part of a farm such as grassland. The transportation category is primarily the roadway travel corridors for federal, state, county and local highways and roads. Sometimes overlooked, transportation land use can be significant. In Forest County, surface transportation facilities consume about 5,822 acres of land or about 0.9 percent of total land area.

FUTURE GROWTH AND DEVELOPMENT IN FOREST COUNTY

According to the current Forest County Comprehensive Plan, completed in 2024, future land use reflects no major changes in land use over the next 20 years. Forestry (forest/woodland) will continue to be the major land use in the county, accounting for over 90 percent of the land area. No other land use category is expected to exceed 2 percent, including agriculture and residential.

Due to the continued projected decline in overall population within the county, there will be limited demand for new residential development. There will be shifting of population between towns as some add new residents while others lose residents. For example, the City of Crandon will maintain its position as the economic hub and largest community in the county but continue to decline in population while the adjacent towns of Lincoln and Nashville continue to see the strongest growth in the county.

The decline in population is in part a result of net, natural loss (births minus deaths) and weak in-migration. Forest County's population continues to age. The median age is 49.1 in Forest County, significantly higher than the state median, and a quarter of residents are over 65 years of age, also notably higher than the state average, so natural increase is unlikely to turn positive in the foreseeable future. Any growth will be dependent on in-migration.

Most of the in-migration to Forest County in recent decades can be attributed to the conversion of seasonal dwellings to year-round residences. The character of the county's housing stock changed during the 1980s, when seasonal dwellings increased by 589 percent, in a decade that saw a three percent drop in the county's population. During the 1990s while the population increased by 14 percent, the number of seasonal dwellings went up by 7.8 percent. Since 2000, seasonal dwellings continued to increase by 11.3 percent while population was declining 7.6 percent.

Natural features, including lakes, agricultural lands, and forested areas have largely dictated the county's land use pattern. The Nicolet National Forest takes up a significant portion of the county and is a limiting factor on growth. Development in Forest County has been historically driven by the logging and wood products industries. The last decade has been particularly hard on the wood products industry, so a revival may be difficult.

New commercial development has been limited in the face of the declining population and concentrated in the City. In the City of Crandon recent business development includes expansion of the Hometown Trolley manufacturing facility, a new Family Dollar discount retailer, and a remodel of a local tavern into a smokehouse restaurant. A Kwik Trip and a cafe are being planned.

Development of new infrastructure or public facilities remains somewhat restricted due to constraints on local government budgets. However, some needed projects do eventually move forward. For example, the Town of Hiles has replaced a dam. A new area rescue station was built in the Town of Blackwell. Town of Popple River upgraded its Town Garage. Popple River and Hiles have upgraded their townhalls to serve as shelters, while Laona upgraded its community center for shelter. City of Crandon has built new police and fire stations. Forest County added a new communications tower and is currently in progress on a major renovation/expansion of its courthouse facilities. Future facilities being planned include a new town shop and salt storage facility in Town of Laona, a dam replacement in Town of Nashville, and relocation & expansion of Popple River town hall/garage. The DNR station in Crandon is planning to relocate to a new facility on the south side of the city.

The tribal areas within Forest County have been working to build their communities by improving their reservations and recruiting dispersed members to return. The Potawatomi have seen their population grow over the 25-years and continue

developing tribal government and residential facilities in the Town of Lincoln. The Mole Lake Reservation's population in the Town of Nashville has grown slowly over the same period, while adding new tribal facilities, including a 24-unit elder housing facility, recreation center, fish hatchery, agricultural facility, insurance office and food distribution facility. Additional housing expansion, expansion of the tribal health clinic, and expansion of their wastewater treatment facilities.

IMPACT OF CHANGES IN POPULATION, LAND USE AND DEVELOPMENT

The dynamics of a given community's population, how land use changes over time and how local development trends affect population and land use have implications for emergency services and hazard mitigation. The Hazard Mitigation Planning Committee identified the following impacts from its assessment of the changes in population, land use and development trends within Forest County and the participating incorporated municipalities:

- Increases in new housing and other development can increase the vulnerability and risk to hazards. For example, growth and development can increase the risk of flooding by increasing stormwater runoff, disrupting natural drainage systems and reducing flood storage.
- Increases in population and/or housing also result in increasing demand for emergency services, which is a particular challenge during tight governmental budgetary conditions, as has been persistent in Wisconsin for some time now.
- With the majority of the County being sparsely populated rural areas, both costs to provide services and response times increase. In addition, communications and mitigating potential impacts are often more challenging (e.g., warning systems and public storm shelters).
- Forest County's population is aging. Demands for senior services in the County will only increase, including for emergency response. The aging population poses unique challenges for emergency preparedness and response services, such as sheltering in place and evacuation strategies. Seniors who reside in remote, rural areas may need special attention during a hazard event (e.g., transportation for dialysis during a winter storm, access to medicine or other medical needs).
- There is geographic variability across the County. Emergency service needs, mitigation priorities, and local resources will vary by community and area. Many residents have access to resources, tools, equipment, and friends or family that enable them to "weather the storm," clean up storm damage, and offer support to their neighbors and community.
- Although the number has been declining, there remains a significant number of mobile homes in the County, which are more vulnerable during certain types of storm events.
- Forest County's forestry and agricultural operations have unique hazard risks and vulnerabilities that must be considered, prepared for, and

mitigated, if possible. The large amount of forested land and shoreland development, with associated outdoor recreational uses and seasonal homes, also have unique risks and challenges.

- Manufacturing continues to be a significant part of the County's economy, particularly in the City of Crandon but does have inherent hazard risks and vulnerabilities, such as large-span buildings, concentrations of employees, or extreme operating parameters (temps, pressures, etc.).

PUBLIC FACILITIES AND SERVICES

Transportation

The transportation system of Forest County provides the basis for movement of goods and people into, out of, through, and within the county. An efficient transportation system is essential to the sound social and economic development of the county and the region. The analysis of transportation routes should be considered in the possible event of a disaster (See Map 5).

One major U.S. Highway, U.S.H. 8 serves Forest County, running east-west through Crandon and Laona. This highway links the county to Rhinelander, its closest regional service center and to U.S.H. 51.

Six state highways serve the county. Highway 55 is the principle north-south route traversing the entire county from the southern county line to the border with Michigan in the north. Other north-south routes include STHs 101 and 139, both of which link U.S.H. 8 with other highways outside Forest County, and S.T.H. 52 which links to S.T.H. 32 in the south central part of the county. East-west routes, in addition to U.S.H. 8, include S.T.H. 70 across the extreme northern end of the county and S.T.H. 32 which tracks northwest – southeast across the southwest corner of the county through Crandon. These highways link the county with neighboring communities and are vital to the tourism and recreation-based economy.

A network of County trunk highways collects traffic from rural areas. These County highways serve an important role in linking agricultural and timber resources to the county's service centers and major highways. Local roads provide access to local development, farming and forest areas, as well as the county's lakes.

The Wisconsin Department of Transportation maintains 11 bridges on U.S./State highways within the county. Forest County itself owns another 6 bridges on various County highways. The U.S. Forest Service has 17 bridges, primarily on forest roads, but three carry local roads. The various towns are responsible for 13 bridges. There is also one rail-bridge over U.S.H. 8.

The Forest County Commission on Aging coordinates transit services for the elderly and disabled. A mini-bus provides flexible-route service to various areas

of the county on a weekly rotation for trips to regional medical centers as well as local service centers for groceries and other needs. The bus is available for dial-a-ride or specially planned trips when not on one of the scheduled routes. The county also has an accessible van for specialized transportation of disabled residents. A volunteer driver network is also available.

The Fox Valley & Lake Superior has a track running east-west through Forest County but service has been suspended for some time, including a spur into Crandon which has been abandoned.

The Crandon Municipal Airport located south of the City of Crandon is the public-use airport serving the area. The airport provides general aviation service for private airplanes and daily airfreight. The Crandon Airport is a basic utility airport, which is designed to accommodate aircraft of less than 6,000 pounds gross weight, with approach speeds below 91 knots and wingspans of less than 49 feet. There are private landing strips located in the county. The nearest commercial passenger service is available in Rhinelander.

Utilities

Utility systems are important in hazard mitigation planning because of the community's reliance on water, wastewater treatment, gas service, electricity, and communications. Because of this reliance and vulnerability to hazards, utility systems must be identified for this Plan, see Map 6.

The protection of the public water supply facilities from potential contamination from flooding and other threats is a consideration for hazard mitigation planning. The City of Crandon and the Laona and Wabeno Sanitary Districts provide municipal water supplies for domestic and commercial use, while the Blackwell Civilian Conservation Corps Center provides water for its staff and visitors. Both the Potawatomi and the Sokaogon Chippewa have public water systems serving parts of their reservation area. The Potawatomi have two separate systems with one in Lincoln, and another in Wabeno which serves its Carter facilities and residents.

The protection of the wastewater systems is an important consideration for hazard mitigation planning because of its potential to contaminate nearby waterbodies in the event of flooding. Also of concern during periods of high water is the threat of damage to treatment plants. Three municipal wastewater treatment facilities, the City of Crandon and the Laona and Wabeno Sanitary Districts, provide wastewater services. Again the Tribes each have sanitary sewer services in Mole Lake, Lincoln and Carter.

The infrastructure of electric and telephone lines should be considered in the events of high wind, ice storms, tornadoes, flooding, and fire. Wisconsin Public Service provides Forest County with electric service throughout the County. As of 2001, an independent company, American Transmission Company LLC (ATC),

owns, maintains, and operates the major transmission facilities located in the State of Wisconsin, including Forest County. The general locations of the major electrical transmission facilities, owned by ATC are shown on Map 6. Multiple providers: AT&T, Verizon, CenturyLink, Bug Tussel Charter/Spectrum Communication, Fast-Air, Northwoods Connect, and Frontier supply internet and/or telephone service in the county.

Nationwide, cellular telephone systems account for about 80 percent of all 911 calls. Service coverage is based upon the handset receiving a direct line-of-sight signal from a system provider's antenna on a tower. Signals generally cannot travel well in dense forest cover, over tall hills, or through thick or multiple cement walls, so limitations for receiving a signal include topography and the thickness & type of building materials. Spotty cell service continues to be an issue in Forest County.

Natural gas transmission across Forest County generally follows USH 8 from the Town of Crandon through the Town of Armstrong Creek. This gas line is tapped by Wisconsin Public Service to provide local delivery in another pipeline that generally serves the City of Crandon, the downtowns of Laona and Wabeno, and a 32-mile pipeline from Argonne to Hiles. The remainder of the county depends upon bottled gas from local suppliers.

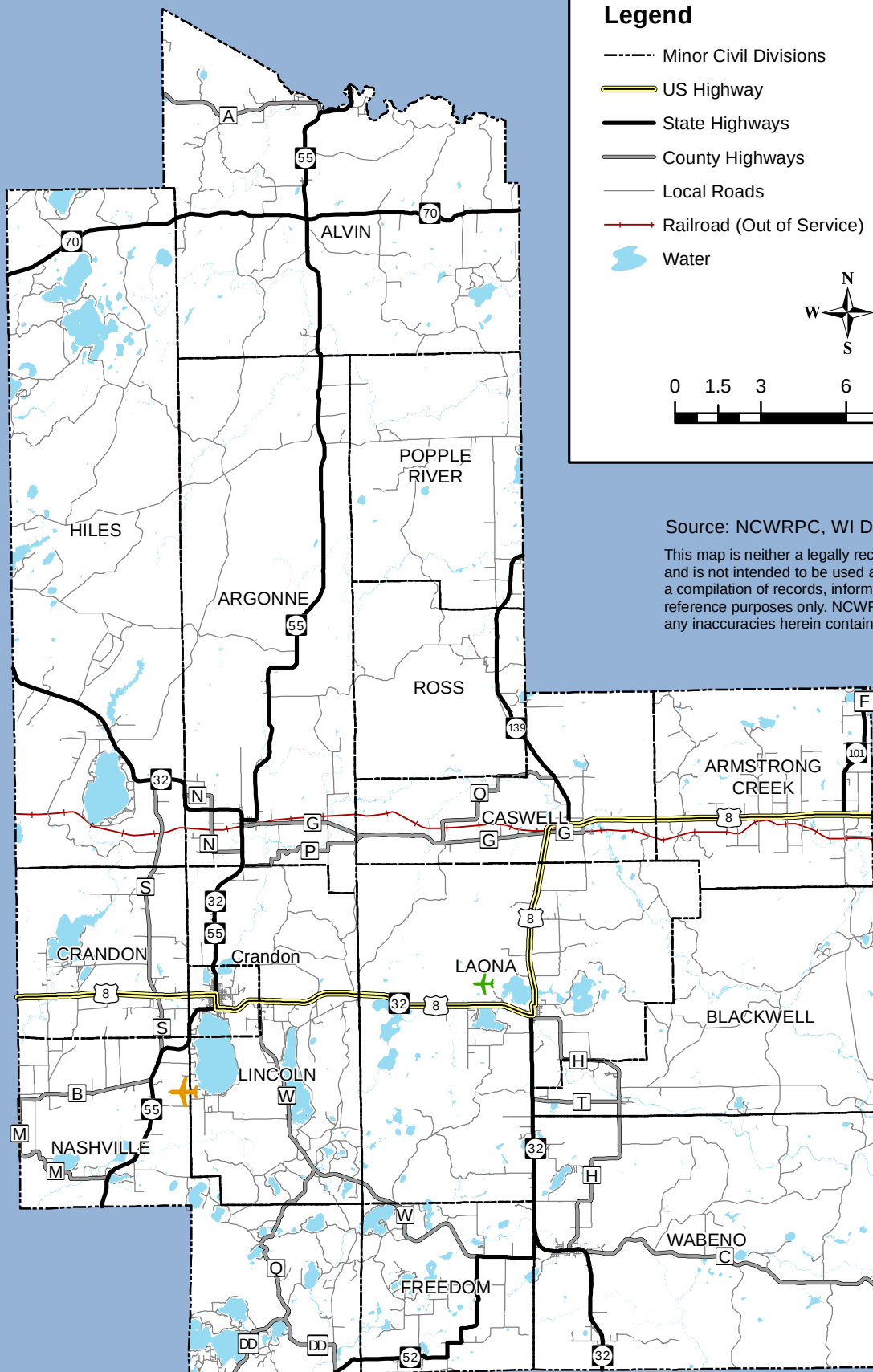
Emergency Services and Facilities

The type and location of public emergency services are important considerations in hazard mitigation planning, because of the crucial role of such facilities in certain hazard situations.

There are a number of fire departments within Forest County, see Map 7 for station locations. These departments serve the majority of the county, but some towns receive service from departments in surrounding areas.



Laona Area Rescue Station, Town of Blackwell

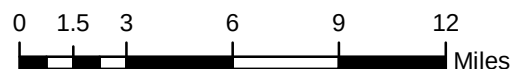


Legend

- Minor Civil Divisions
- == US Highway
- == State Highways
- == County Highways
- == Local Roads
- Railroad (Out of Service)
- Water

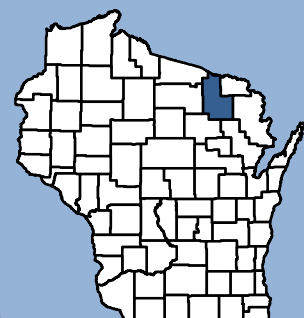
Airport Classification

- ✈ Small General Aviation
- ✈ Grass Strip (Private)



Source: NCWRPC, WI DNR, Forest County

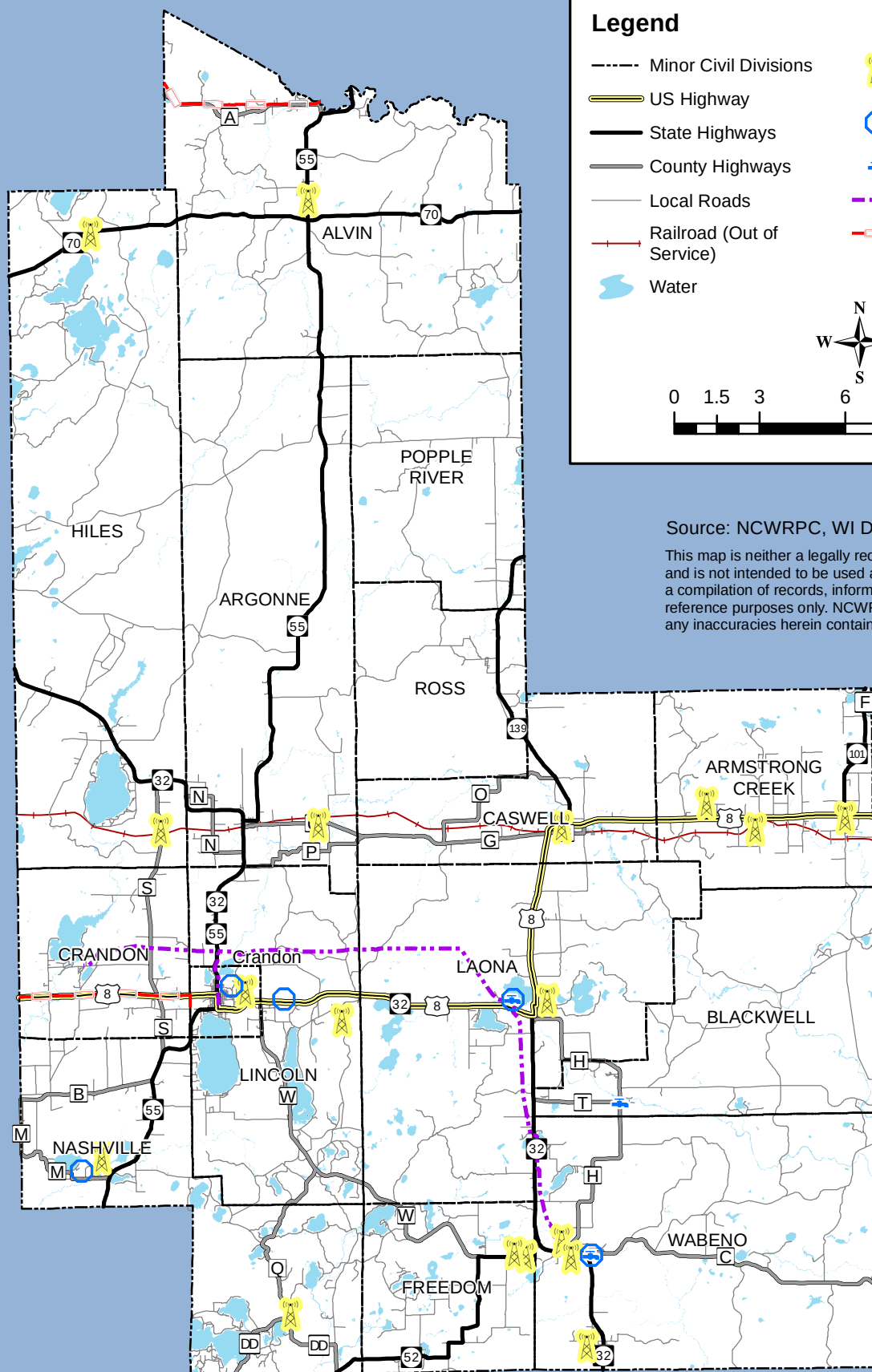
This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.



Prepared By:

North Central Wisconsin Regional Planning Commission

210 McClellan St., Suite 210, Wausau, WI 54403 715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org



Legend

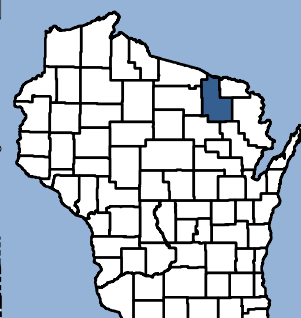
- Minor Civil Divisions
- == US Highway
- == State Highways
- == County Highways
- == Local Roads
- Railroad (Out of Service)
- Water
- Celltowers
- Waste Water Treatment Plant
- Public Water Supply
- Pipeline
- High Voltage Powerline



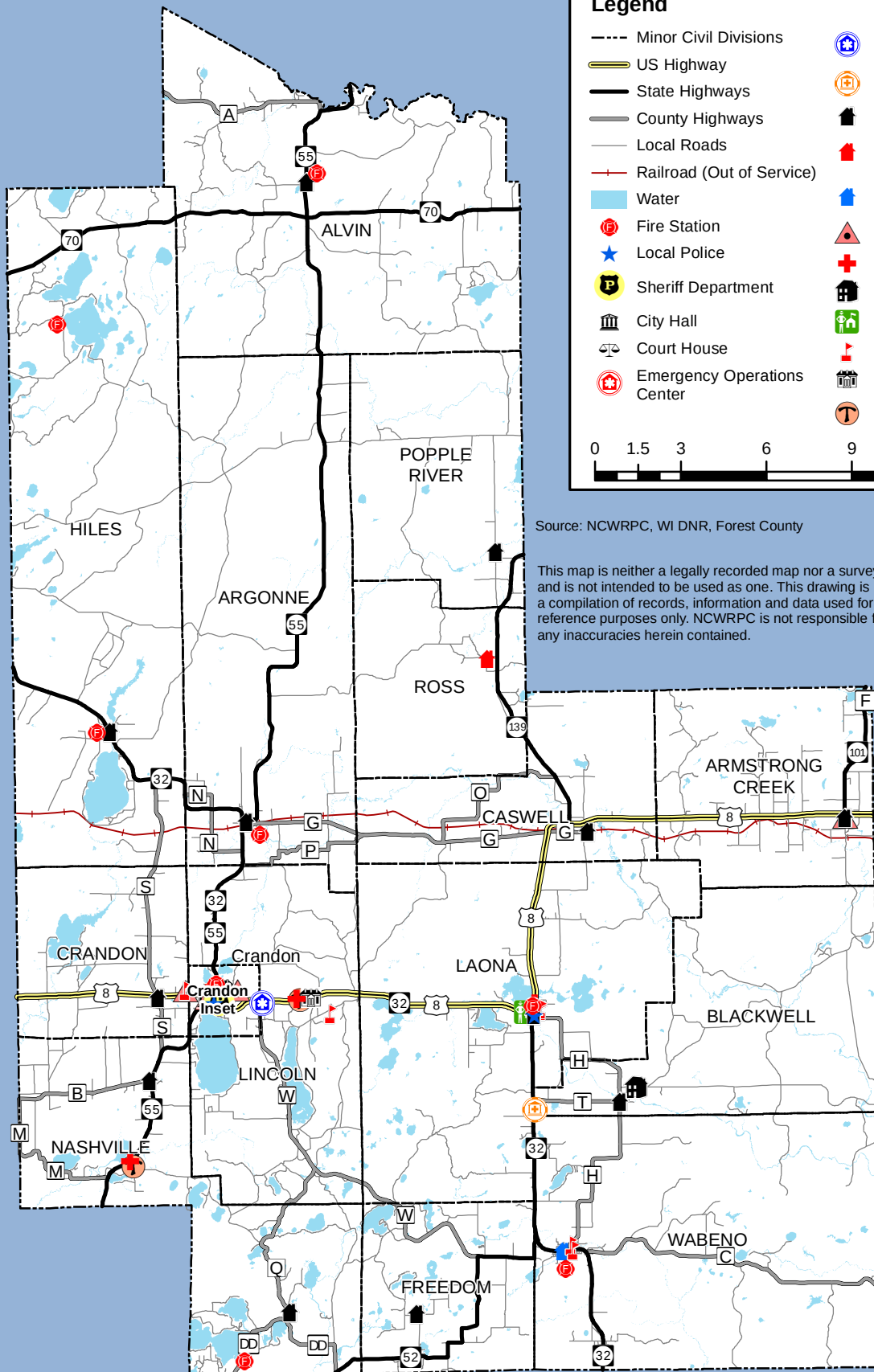
0 1.5 3 6 9 12 Miles

Source: NCWRPC, WI DNR, Forest County

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.



Prepared By:
North Central Wisconsin Regional Planning Commission
 210 McClellan St., Suite 210, Wausau, WI 54403 715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org



Legend

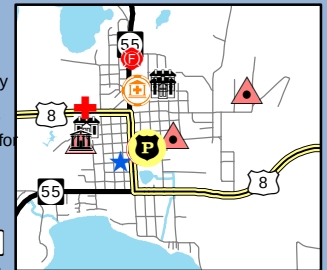
- | | |
|-----------------------------|-----------------------------------|
| --- Minor Civil Divisions | Emergency Operations Center (Alt) |
| US Highway | EMS |
| State Highways | Town Hall |
| County Highways | Town Hall / Fire Department |
| Local Roads | Town Hall / Police Department |
| Railroad (Out of Service) | Emergency Shelter |
| Water | Health Services |
| Fire Station | Nursing Home |
| Local Police | Ranger Station |
| Sheriff Department | Schools |
| City Hall | Senior Housing |
| Court House | Tribal Administration / Police |
| Emergency Operations Center | |

0 1.5 3 6 9 12 Miles

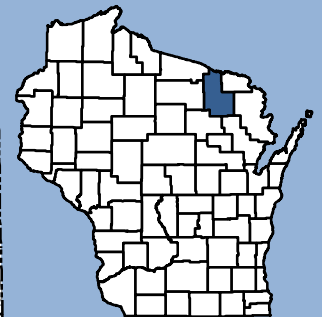


Source: NCWRPC, WI DNR, Forest County

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.



City of Crandon Inset



Prepared By:

North Central Wisconsin Regional Planning Commission

210 McClellan St., Suite 210, Wausau, WI 54403 715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

There are a number of EMS squads within the County, see Map 7 for station locations. These departments serve the majority of the county, but some towns receive service from squads in surrounding areas.

The Forest County Sheriff's Department provides service to all the towns and the city for law enforcement. The City of Crandon, Town of Laona and both Tribes also have their own police departments. Town of Wabeno recently added its own police. Station locations are shown on Map 7. The Forest County Jail in Crandon is the main correctional facility within the county.

Critical Community Facilities

In addition to emergency service facilities, other community facilities are also important in hazard mitigation planning. Government administration buildings serve as the headquarters that link to resources in helping solve potential problems. In the event of an emergency it is important to know the location of available medical facilities. Nursing homes are vulnerable because of the high level of assistance required by the residents who live there. Since hundreds of the county's children are there for most of the year schools are important. Map 7 shows the location of selected types of critical community facilities within Forest County. Clinic facilities are located in the City of Crandon, and the Potawatomi (T. Lincoln) and Mole Lake (T. Nashville) reservations.



Forest County Courthouse, Crandon, WI

INVENTORY & VALUE OF STRUCTURES/PROPERTY IN FOREST COUNTY

The value of the real estate and personal property reflects the upper end of the potential for property damages in each community. The annual equalized value of each municipality represents the Department of Revenue estimate of market value (Agricultural land is included at Use Value) of all taxable property. Property tax levies of jurisdictions are apportioned to each municipality on the basis of equalized value. Table 9 lists each municipality's total equalized values for real estate, personal property, and all property and the percent of the county total each municipality represents.

Table 9 Equalized Value by Municipality					
Municipality	Improvement Value	Land Value	Personal Property	Total	% of Total
Alvin	\$ 37,700,100	\$19,410,300	\$1,026,700	\$58,137,100	3.7%
Argonne	\$37,423,400	\$14,808,000	\$374,400	\$52,605,800	3.3%
Armstrong Creek	\$37,005,400	\$21,591,400	\$335,900	\$58,932,700	3.7%
Blackwell	\$17,429,300	\$15,812,800	\$161,100	\$33,403,200	2.1%
Caswell	\$10,417,400	\$4,626,900	\$275,900	\$15,346,800	1.0%
Crandon	\$55,676,200	\$27,416,400	\$393,400	\$83,553,300	5.3%
Freedom	\$64,050,600	\$49,810,300	\$84,300	\$113,945,200	7.2%
Hiles	\$120,599,500	\$108,615,500	\$750,600	\$229,965,600	14.6%
Laona	\$105,556,500	\$57,713,200	\$761,300	\$164,243,400	10.4%
Lincoln	\$138,793,700	\$143,733,700	\$876,900	\$283,404,300	18.0%
Nashville	\$170,696,900	\$154,057,400	\$1,791,600	\$326,592,100	20.8%
Popple River	\$7,882,200	\$8,608,100	\$89,600	\$16,579,900	1.1%
Ross	\$13,263,900	\$5,600,500	\$279,400	\$19,240,800	1.2%
Wabeno	\$75,314,900	\$41,386,200	\$688,900	\$117,522,700	7.5%
Crandon	\$103,629,900	\$35,190,000	\$2,089,400	\$140,995,900	9.0%
Forest	\$891,810,000	\$673,190,700	\$7,890,000	\$1,573,472,900	100.0%
<i>Source: WI Department of Revenue, 2024.</i>					

The valuation of property in a community reflects the potential for property damages across the community. However, only taxable properties are included in this valuation. Tax exempt government properties are not included. With Forest County owning many critical facilities that are needed in times of disaster the potential for damages to these structures could be devastating for the county. In Table 10a, the County owned critical facilities are listed with its general location and the value of the facilities. Estimates for local government facilities are given in Table 10b/c and Tribal facilities in Table 10d.

Table 10a Value of County Owned Properties		
Name	Value*	Location
Courthouse / Sheriff Office	\$24,851,257	Crandon city
Asphalt Plant	\$106,036	Crandon city
Salt Shed	\$136,776	Laona town
Salt Shed	\$63,497	Alvin town
Fairgrounds	\$323,116	Crandon city
Veteran's Memorial Park	\$588,327	Crandon city
Highway Department	\$5,610,537	Lincoln town
Misc. Other	\$3,650,666	Various Locations
Total	\$35,330,215	Above Locations
*Includes insured buildings, contents, and property in the open. Source: Statement of Values State of Wisconsin Local Government Property Insurance Fund and NCWRPC estimate.		

Table 10b Value of City Owned Properties	
Property	Value*
City Hall	\$1,192,437
Police Department	\$705,514
Police Department-Old	\$125,562
Fire Department	\$1,728,737
Steet Department	\$327,318
Salt Shed	\$188,598
Library	\$2,217,395
Old Library	\$231,030
Water/Sewer Plant	\$8,367,421
Well and Pump Houses	\$443,394
Water Tower & Reservoir	\$1,548,762
Lift Stations (12)	\$1,673,718
Booster Station – Hwy 8	\$196,452
Storage Building	\$188,394
Parks and Recreation	\$571,098
Airport Building	\$1,090,388
Cemetery	\$253,062
Industrial Park Building	\$1,242,972
Total	\$22,292,252
*includes insured building contents. Source: Local Government Property Insurance Statement of Values and NCWRPC estimate.	

Table 10c: Value of Town Owned Properties		
Municipality	Property	Value*
Alvin town	Town Hall	\$400,207
	Garage 2	\$80,041
	Garage 3 / Salt Shed	\$242,665
	Recreation Area & Other	\$81,312
Argonne town	Town Hall	\$631,154
	Fire Hall	\$488,166
Armstrong Creek town	Town Hall / Garage	\$529,798
Blackwell town	Town Hall	\$232,755
	Recycling Center	\$38,706
Caswell town	Town Hall / Buildings	\$433,240
Crandon town	Town Hall	\$412,912
Freedom town	Town Hall/Garage/Salt Shed	\$395,049
Hiles town	Town Hall	\$412,912
Laona town	Town/Community Hall	\$430,699
	Town Garage/Storage Bldgs	\$308,731
	Beach Shelter & Storage	\$107,992
	Municipal Building	\$963,039
	Cemetary Storage Building	\$149,919
	Wellhouse / Shed	\$531,069
	Library	\$144,837
	Water & Sewer Facility	\$416,724
	Multi-purpose Facility	\$543,774
	Parks Dept. & Other	\$1,405,173
Lincoln town	Town Hall/Garage	\$1,466,971
	Garage/Salt Shed	\$203,348
Nashville town	Town Hall (N)	\$412,912
	Community Bldg/FD/Garage	\$2,904,000
	Salt Shed	\$72,600
Popple River town	Town Hall	\$412,912
Ross town	Town Hall	\$412,912
Wabeno town	Town Hall	\$507,562
	Fire Hall	\$684,704
	Museum	\$484,264
	Library	\$334,249
	Town Shop	\$189,844
	Recycling Center	\$128,400
	Exhibition Facility	\$766,140
	Pavilion	\$102,300
*includes insured building contents and property in the open Source: Local Government Insurance Policy Declarations and NCWRPC estimates.		



Potawatomi Tribal Health and Wellness Center

Table 10d-1		Value of Tribal Owned Properties
Tribe	Property	Value
Potawatomi	Administration Building	\$10,164,000
	Convenience Store	\$1,905,750
	Accounting Building	\$190,575
	Office Building	\$317,625
	Casino / Hotel	\$22,566,500
	Health Center	\$2,541,000
	Head Start / Daycare	\$222,337
	Wee Care Daycare	\$158,812
	Natural Resources Bldg	\$254,100
	Public Works	\$635,250
	Aging / Housing	\$635,250
	Tribal Hall	\$254,100
	Ordinance Office	\$127,050
	Language & Culture Office	\$190,575
	Museum	\$2,541,000
	Recreation Center	\$317,625
	Total	\$43,021,549
Source: NCWRPC Estimate.		

Table 10d-2: Value of Tribal Owned Properties		
Tribe	Property	Value
Mole Lake	Casino/Restaurant	\$12,803,688
	Hotel Conference Ctr	\$12,288,738
	Casino/Hotel Storage	\$614,988
	Casino/Hotel Storage	\$161,689
	Rec Center	\$1,412,234
	Medical Clinic	\$2,324,794
	Water Tank	\$339,046
	C-Store Gas Station	\$531,035
	Historical Home	\$260,913
	SFI Office	\$393,800
	Storage Bldg	\$144,254
	Senior Housing	\$2,500,000
	Elder Apartments	\$1,906,410
	Day Care Center	\$250,000
	EPA Storage Garage	\$94,238
	Admin./Environmental	\$3,667,579
	Maintenance Bldg	\$419,320
	Food Distribution	\$178,710
	Fish Hatchery	\$308,400
	Pump House	\$337,885
	Recycling Bldg	\$224,556
	Family Services Bldg	\$289,816
	Brighter Days	\$1,056,550
	Water Tank	\$493,161
	Housing Office	\$520,497
	Housing Maint. Bldg	\$962,170
	Randall Apartments	\$475,200
	Insurance Office	\$350,000
	Agricultural Facility	\$300,000
	WW Treatment Plant	\$1,500,000
	Infrastructure	\$793,278
	Total	\$47,920,949
Source: SCC Mole Lake All Hazards Mitigation Plan, 2024.		



Mole Lake Community Health Clinic

INTRODUCTION

Analyzing the hazards facing a community is an important step in the mitigation plan update process. Before mitigation strategies can be determined, a risk assessment must be made. Part III of Forest County All Hazards Mitigation Plan Update will focus on the following:

- Identification of all types of natural hazards that can affect Forest County
- An analysis of each hazard identified as pertinent to Forest County

The hazard analysis will consist of:

- Background information
- History of previous occurrences of hazard events
- An analysis of the county's vulnerability to future events
- An estimate of future probability and potential losses from the hazard

HAZARD IDENTIFICATION

The process of identifying those hazards that should be specifically addressed in the Forest County All-Hazards Mitigation Plan Update was based on consideration of a number of factors. The process included a review of past hazard events to determine the probability of future occurrences and the threat to human safety and property damage.

Worksheets from the Wisconsin Guide to All-Hazard Mitigation Planning were used by the planning committee to evaluate and rank the list of possible hazards to identify which hazards should be included in the Plan Update based on threat to human safety and possible damage to property. The Plan Update Committee reviewed the results and agreed that the ranking was appropriate and without need of any adjustment. It should be noted that epidemic/pandemic was added to the list in response to the COVID-19 pandemic.

The resulting priority ranking of hazards accepted by the Mitigation Plan Update Committee is as follows:

1. Winter Storm/Extreme Cold
2. Tornado
3. Thunderstorm/High Wind/Lightning/Hail
4. Epidemic/Pandemic
5. Cyber-Attack
6. Forest Fire/Wildfire
7. Drought/Extreme Heat
8. Flooding/Dam Failure

This ranking is similar to the previous plan. In addition to the debut of pandemic at number 4, cyber attack moves up two spots, while flooding drops from the middle of the group to

the bottom. Flooding is still an issue in some areas, but it has been awhile since major flooding occurred, the City has made significant progress in mitigating its flood risk.

Although fog can be an issue, it is not covered directly in this Plan due to a lack of ways to effectively mitigate it. Low magnitude earthquakes do occur occasionally in Wisconsin, such as the 2.5 magnitude earthquake near Mole Lake in 2024. However, none have exceeded a magnitude of 3.9, which would have vibrations similar to the passing of a semi-truck, therefore, earthquakes are not covered in this plan. Forest County does not have avalanche, coastal hazard, hurricane, tsunami or volcano issues and conditions for landslides, subsidence or expansive soil problems are not significant in the County.

This Plan Update focuses on natural hazards that have or could cause disasters that can be mitigated on a local level. Hazards that are considered "technological" or "manmade" include things like transportation incidents, structure fire, hazardous material incidents, civil disturbances, mass casualty events, war, criminal activity and terrorism (including active shooter, biological, chemical, explosive and nuclear attack). Current mitigation planning regulations do not require inclusion of technological or manmade hazards, so they are not dealt with directly in this Plan. This is in part to maintain the manageability of the mitigation planning activity and to reduce redundancies. Due to Homeland Security requirements, counties already plan and prepare for many of these types of events, so they are not included in this planning process to avoid duplication.

Some events that may under certain conditions be considered technological or manmade hazards in and of themselves such as supply disruption (including fuel shortage), power outage, computer failure, communications disruption, and municipal water contamination or water system failure, are more commonly consequences of a hazard event, at least in north central Wisconsin. As such, they are dealt with indirectly in this Plan as they relate to an addressed hazard. For example, heavy snow/ice, high wind or tornadoes often result in power outages.

WEATHER VARIABILITY & HAZARD RISK ASSESSMENT

While the assessment of hazard risk is largely based on past weather events and existing development trends, projecting future risks and vulnerabilities is also subject to the influence of possible large-scale, longer-term variability in weather patterns. This section explores how the area's weather is changing and how weather variability may impact the probability and severity of natural hazards.

There is ongoing debate over the existence, causes, severity, and impacts of weather variability. According to the National Academy of Sciences, the Earth's surface temperature has risen by about 1 degree Fahrenheit in the past century, with acceleration during the past two decades. There is strong evidence that most of the variability over the last 50 years is attributable to human activities. Increasing global temperatures are expected to raise sea levels and impact local weather conditions such as precipitation levels. Changing regional weather could alter forests, crop yields, and water supplies. It

could also affect human health, animals, and many types of ecosystems. Most of the United States is expected to warm, although sulfates may limit warming in some areas. Scientists currently are unable to determine which parts of the United States will become wetter or drier, but there is likely to be an overall trend toward increased precipitation and evaporation, more intense rainstorms, and drier soils.

Regardless of the debate over the causes of weather variability, there is clear evidence that Wisconsin's weather is indeed changing. The 2003 report on weather in the Great Lakes Region, published by the Union of Concerned Scientists and the Ecological Society of America, projected that by 2050, summers in Wisconsin may resemble those in Illinois overall, in terms of temperature and rainfall. By 2100, the summer weather might generally resemble that of current-day Arkansas, and the winter may feel much like current-day Iowa.

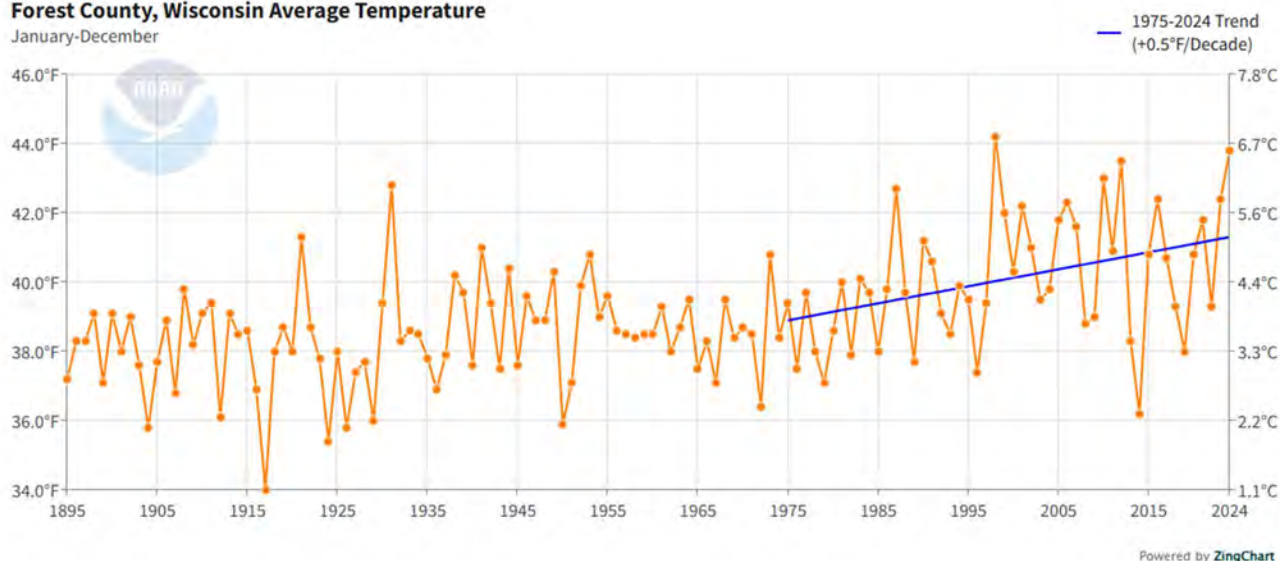
To further document this weather variability and explore its impacts on our State, the Wisconsin Initiative known as WICCI was formed as a collaborative effort of the University of Wisconsin and the Wisconsin Department of Natural Resources. The following are some of the key trends being experienced in Wisconsin according to their analysis (www.wicci.wisc.edu):

1. **RIISING TEMPERATURES** - Average temperatures are rising and are projected to continue to rise. Between 1975 and 2025, the annual average temperature in Forest County increased by about 2.4 degrees Fahrenheit. By 2055, annual average temperatures are projected to increase by six degrees across the County from the 1985 annual average temperature. More extreme heat events are also projected. The number of days projected to be 90° F or greater will increase by around 15 days in Forest County by 2055.
2. **MORE PRECIPITATION** – Forest County is experiencing more annual precipitation and is expected to get wetter in the future, but there is significant seasonal and geographic variation in the precipitation. The data shows that the annual average precipitation has increased across most of the County over the past fifty years by about 3.2 inches.
3. **HEAVIER PRECIPITATION EVENTS** - Heavy precipitation events appear to be increasing in frequency. In the past, the region experienced heavy precipitation events of two or more inches about ten times per decade (once each year). The County, including its municipalities, is projected to experience around 3 additional heavy precipitation events per decade by 2055.

Forest County Annual Average Temperature, 1895-2025, with 50-Year Trendline

Forest County, Wisconsin Average Temperature

January-December



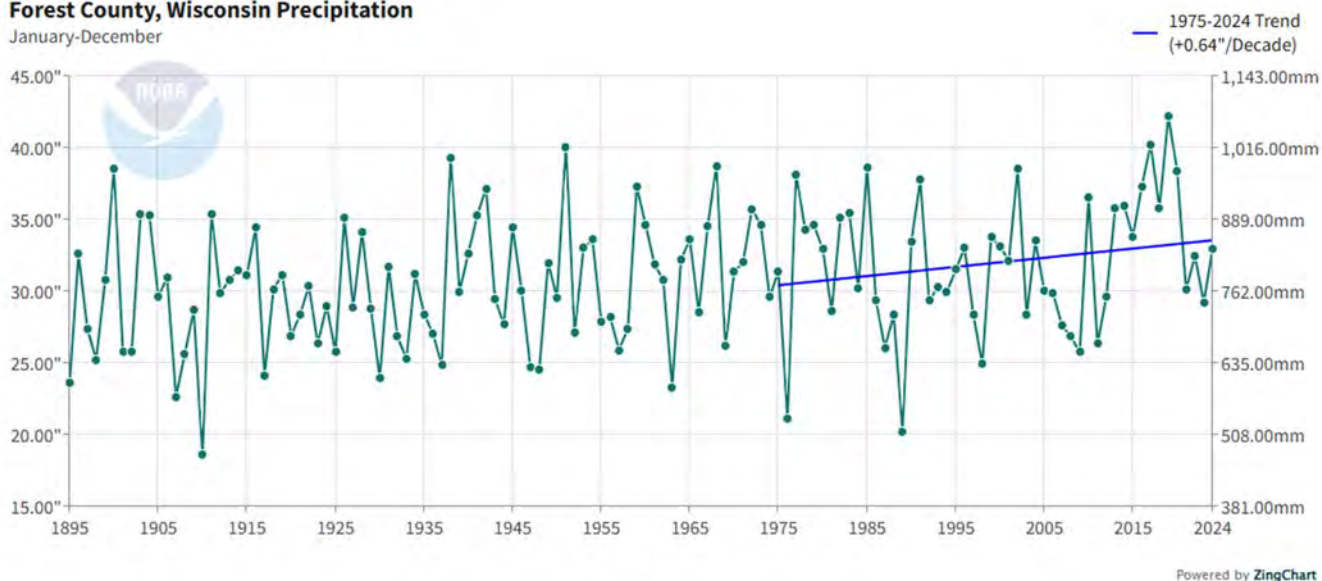
Some potential outcomes from these trends in Forest County may include the following:

- Wildfires are expected to be more frequent and burn more acres.
- Increased likelihood of droughts.
- Warmer winters reduce snowpack and accelerate snowmelt.
- Invasive species and forest pests will benefit from weather variability.
- Warmer winters, wetter springs, and extreme weather events are making agricultural production in Wisconsin less competitive and overwhelming conservation practices to keep soil in place and protect water quality.
- More freeze/thaw cycles, posing issues for existing infrastructure.
- More flooding.
- More frequent and severe weather events.

Forest County Annual Average Precipitation, 1895-2025, with 50-Year Trendline

Forest County, Wisconsin Precipitation

January-December



HAZARD ANALYSIS

The hazard analysis for each hazard included in this Plan Update is broken down into four components, as follows:

1. Background on Hazard - The next step after identifying a hazard is to define the hazard and give some general background behind it. This can include occurrence of hazard within the County or State. This section may also give some indication of the risk to public health and safety and to personal and public property.

2. History of Hazards - Past experiences of disasters is an indication of the potential for future disasters for which Forest County would be vulnerable. A review of past occurrences for each identified hazard in Forest County was completed.

Some disasters have had damages that exceeded the capabilities of local communities and state agencies. Federal assistance is then requested, which may be offered through a variety of programs. Assistance may be directed to agricultural producers, individuals and families, businesses, or local governments. A Presidential Declaration was requested for seven natural disasters in Forest County, from 1971 to 2024. They include the following:

- 1975 Army Worm Infestation
- 1976 Drought – Presidential Emergency Declaration
- 1977 High Winds / Hail – Presidential Emergency Declaration
- 2000 Severe Storms/Flooding/Tornado – Presidential Disaster Declaration
- 2010 Severe Storms – State Disaster Fund
- 2019 Tornado/High Winds/Flooding - Presidential Disaster Declaration
- 2020 Covid-19 Pandemic-Presidential Declaration

It should be noted that this significantly underestimates the number of hazard events that have occurred in Forest County. Almost every year significant weather events or disasters cause thousands of dollars in damage when no Federal disaster assistance is requested. Major indicators of hazard severity are the deaths, injuries, and economic losses resulting from natural hazards and disasters.

The National Oceanic and Atmospheric Administration (NOAA) and National Climatic Data Center (NCDC) publish the National Weather Service (NWS) data describing recorded weather events and resulting deaths, injuries, and damages. From September 3, 1958, to December 31, 2024, NCDC reported 352 severe weather events for Forest County.

Note that since the NCDC data is somewhat incomplete, this Plan Update focuses on the 10-year period from 2015 to 2024 for hazard analysis purposes. Other sources of data are used to supplement the NCDC data. These sources include Wisconsin Emergency

Management, Wisconsin Department of Natural Resources, Forest County Emergency Management, and local news reports.

3. Vulnerability Assessment For Hazards - For each hazard identified, a summary of the impact that may be caused to the community is given. When possible, existing buildings, infrastructures, and critical facilities located in the hazard areas are identified. Critical facilities are community buildings that are especially important to the health and welfare of the population following hazard events. Examples of such facilities include hospitals, police & fire stations, town halls, and shelters.

Because this is a multi-jurisdictional plan, FEMA requires that the plan assess each jurisdiction's risks where they vary from the risks facing the entire planning area. This section of the plan will identify variations in vulnerability for specific municipalities where they occur.

4. Future Probability and Potential Dollar Losses for Hazard - The historic data and vulnerability assessment for each hazard are used to project the potential future probability of such a hazard event occurring in the county, and the potential damages in dollars that might be reasonably expected. This section sets a benchmark amount for mitigation of each hazard.

HAZARD ANALYSIS: THUNDERSTORM/HIGH WIND/LIGHTNING/HAIL

Background on Severe Thunderstorm Hazard:

The National Weather Service definition of a *severe thunderstorm* is a thunderstorm event that produces any of the following: downbursts with winds of 58 miles per hour or greater (often with gusts of 74 miles per hour or greater), hail one inch (recently increased from $\frac{3}{4}$ of an inch) in diameter or greater, or a tornado. Strong winds, hail, and lightning will be addressed in this section, and tornadoes are discussed as a separate hazard.

Lightning results from discharge of energy between positive and negative areas within a thunderstorm separated by rising and falling air. This discharge heats the surrounding air to 50,000 degrees. Hail results as the warm rising air cools, forming ice crystals which are held by the updrafts until accumulating enough weight to fall. The hail size depends on strength of the updrafts keeping it suspended.

Thunderstorm frequency is measured in terms of incidence of thunderstorm days or days on which thunderstorms are observed. Wisconsin averages between 30 and 50 incidence days per year depending on location. A given county may experience ten or more thunderstorm days per year. The southwestern area of the state normally has more thunderstorms than the rest of the state.

History of Severe Thunderstorm in Forest County:

The NCDC database reported 17 severe thunderstorm events for Forest County between 2015 and 2024. These storms typically contain some form of heavy rain, strong winds,

hail and lightning. About 7 significant hail events, typically related to a severe thunderstorm, were listed during this time period. No major lightning incident was noted.

The most recent event in Forest County took place on June 17, 2024, when thunderstorms developed along a semi-stationary front during the mid-morning and tracked northeast along the boundary through the late morning across central and north-central Wisconsin. Thunderstorm winds downed trees west of Crandon.

Another significant event occurred on May 10, 2022, when strong to severe storms developed during the late afternoon and early evening hours across north-central and far northeast Wisconsin. Hail reports came in from across much of Forest County with golf ball size hail near Mole Lake, ping pong ball size in Laona, and quarter size in Crandon, among others.

On June 17, 2018, thunderstorms developed across the area as a cold front encountered a very warm and unstable air mass. Some of the storms produced large hail and damaging winds. Thunderstorm winds destroyed some bird pens as the storms passed north of Argonne. NCDC estimated damages at about \$2,500.

On July 8, 2013, severe thunderstorms brought high winds and hail into the Town of Nashville. The storms produced wind damage from a wet microburst, penny to nickel size hail, and heavy rainfall. The microburst, with winds estimated at 75 mph, downed about 30 trees. Numerous locations received more than two inches of rain in a three-to-four-hour period.

On May 20, 2012, a low-pressure system that passed through northwest Wisconsin dragged a cold front through the state. Severe thunderstorms developed in a moderately unstable air mass ahead of the front. The storms produced hail up to golf ball size, and downed trees and power lines. In downtown Wabeno, a band stand that was a community landmark for more than 50 years was destroyed. NCDC estimated damages at about \$10,000.

On June 23, 2010, unstable air combined with a surface front and an upper-level disturbance to produce severe thunderstorms across northern Wisconsin. High winds from the storms, some estimated as strong as 90 mph, caused considerable damage to trees and power lines as the storms moved through north-central and northeast Wisconsin. Roads across parts of northern Wisconsin were blocked by downed trees and power lines, including most of the roads in the Town of Nashville where numerous homes were also damaged. Power was knocked out to more than 15,000 Wisconsin Public Service customers in multiple counties, including Forest. Some did not have power restored until late afternoon the following day. NCDC estimated damages at about \$110,000.

On April 10, 2011, thunderstorms produced golf ball to half dollar size hail in the Argonne area and 2-inch diameter hail was reported near Crandon.

Forest County has been fortunate to not experience any notable lightning events between 2015 and 2024. The last lightning event in Forest County took place in 2000 in the Town of Alvin when lightning struck a house near the intersection of highway 55 and highway 70.



Forest County Hail

Severe Thunderstorm Vulnerability Assessment:

The National Weather Service can forecast and track a line of thunderstorms that may be likely to produce severe high winds, hail, and lightning, but where these related hazards form or touch down and how powerful they might be remains unpredictable. The distribution of thunderstorms and related hazard events has been widely scattered throughout the county.

Many thunderstorm events (without tornadoes) have caused substantial property and infrastructure damage and have the potential to cause future damage. In order to assess the vulnerability of the Forest County area to thunderstorms and related storm hazards, a review of the past events indicates significant impacts to:

- Infrastructure – hospitals, schools, street signs, police and fire departments
- Utilities – electric lines/poles/transformers, telephone lines, radio communication
- Transportation – debris clean-up
- Residential – mobile homes, garages, trees and limbs, siding, & windows
- Businesses – signs, windows, siding, & billboards
- Agricultural – buildings, crops, & livestock
- Vehicles – campers, boats, windshields, body, & paint

Based on review of the historic patterns of thunderstorms associated with high wind, hail, or lightning, there are no specific locations that have unusual risks. The events are spread uniformly across the landscape and are a countywide concern. However, the Town Mitigation Issues Survey for this Plan Update showed that thunderstorms are a concern to the Towns of Armstrong Creek, Hiles, Laona, Popple River. Lightning was a concern to the Towns of Armstrong Creek, Hiles, Laona, and Popple River. High wind was a concern to the Towns of Armstrong Creek, Hiles, Laona, Lincoln, Nashville, and Popple River. Hail was a concern to the Towns of Armstrong Creek, Hiles, Laona, and Popple River. Some of these towns expressed concern that the rural and wooded nature can result in tree fall that cause access issues due to road blockages and/or long-term power outages during severe thunderstorms. School District of Wabeno also expressed concern regarding potential for tree damage on its grounds.

Future Probability and Potential Dollar Losses – Severe Thunderstorm:

Based on historical frequency, Forest County can expect 1.7 thunderstorm events per year on average. In other words, the probability is 1.0 or a 100% chance of multiple storms in a given year. The probability of a thunderstorm with damaging hail in Forest

County is 0.7 or 70% chance of an incident in a given year. There is not enough data available regarding lightning events to indicate probability.

According to the NCDC, historical thunderstorm events with associated high winds generally reported no property damage per incident, with the exception of one event that recorded \$2,500 in damages. No crop damages were reported. There was insufficient data regarding historic hail and lightning events. Losses in Forest County associated with severe thunderstorms are likely to exceed \$50,000 over the next ten-year period.

Weather variability can be expected to lead to more frequent, higher intensity severe thunderstorms and resultant high winds, hail and lightning. This will affect more people over a wider area of the County, and the resulting damage will be higher.

HAZARD ANALYSIS: TORNADO

Background on Tornado Hazard:

A tornado is a relatively short-lived storm composed of an intense rotating column of air, extending from a thunderstorm cloud system. It is nearly always visible as a funnel, although its lower end does not necessarily touch the ground. Average winds in a tornado, although never accurately measured, are between 100 and 200 miles per hour, but some tornados may have winds in excess of 300 miles per hour.

A tornado path averages four miles but may reach up to 300 miles in length. Widths average 300 to 400 yards, but severe tornados have cut swaths a mile or more in width or have formed groups of two or three funnels travelling together. On average, tornados move between 25 and 45 miles per hour, but speeds over land of up to 70 miles per hour have been recorded. Tornados rarely last more than a couple minutes in a single location or more than 15 to 20 minutes in a ten-mile area.

Tornados are classified into six intensity categories, EF0-EF5. This scale is an updated or “enhanced” version of the Fujita Tornado Scale (“F Scale”), see Table 11. The scale estimates wind speeds within tornados based upon the damage done to buildings and structures. It is used by the National Weather Service in investigating tornados and by engineers in correlating building design and construction standards against anticipated damage caused by different wind speed.

Wisconsin lies along the northern edge of the nation's maximum frequency belt for tornados, known as “Tornado Alley”. Tornado Alley extends northeast from Oklahoma into Iowa and then across to Michigan and Ohio. Winter, spring, and fall tornados are more likely to occur in southern Wisconsin than in northern counties. Tornados have occurred in Wisconsin in every month of the year.

History of Tornados in Forest County:

Forest County has had seven confirmed tornados since 1963, with four occurring prior to 1995. In addition, five funnel cloud sightings have also been reported since 1963. The

most recent tornado in Forest County occurred on August 9, 2020, when an upper-level disturbance produced thunderstorms across north-central Wisconsin during the evening hours. A tornado formed at 9:12 PM CDT in a remote forested area in extreme northeast Forest County, east of the town of Alvin. The tornado moved northeast to about 0.3 miles north of Ransdell Lake, then turned east, reaching maximum width before crossing Huff Creek Road. The tornado produced a path of tree damage before entering Florence County at 9:18 PM CDT. Peak winds were estimated at 105 mph.

Table 11 Tornado Wind and Damage Scale		
TORNADO SCALE	WIND SPEEDS	DAMAGE
EF0	65 to 85 MPH	Some damage to chimneys, TV antennas, roof shingles, trees, and windows.
EF1	86 to 110 MPH	Automobiles overturned, carports destroyed, trees uprooted
EF2	111 to 135 MPH	Roofs blown off homes, sheds and outbuildings demolished, mobile homes overturned.
EF3	136 to 165 MPH	Exterior walls and roofs blown off homes. Metal buildings collapsed or are severely damaged. Forests and farmland flattened.
EF4	166 to 200 MPH	Few walls, if any, standing in well-built homes. Large steel and concrete missiles thrown far distances.
EF5	OVER 200 MPH	Homes leveled with all debris removed. Schools, motels, and other larger structures have considerable damage with exterior walls and roofs gone. Top stories demolished

Source: National Weather Service

A major tornado event occurred on April 10, 2011, with fifteen tornadoes across the state, ten of which were seen in northeast Wisconsin, which is a one-day record. Two twisters were spotted in Forest County that day. Both were spawned by major thunderstorms that developed along and ahead of a cold front as it encountered moist and unstable air across Wisconsin. These storms also produced straight line wind up to 100 miles per hour.



Tornado Damage, Forest County

The first tornado developed at 7:30 pm southeast of Argonne and travelled over nine miles to the northeast into Florence County. This was an EF2 storm. It downed hundreds of trees, many of which fell on vacation cabins, and blew the roof off a house east of Argonne. This storm did a reported \$200,000 in damage. A second funnel formed just after 8 pm at Armstrong Creek and travelled for about three miles to the north and west. It damaged two houses and did \$50,000 damage.

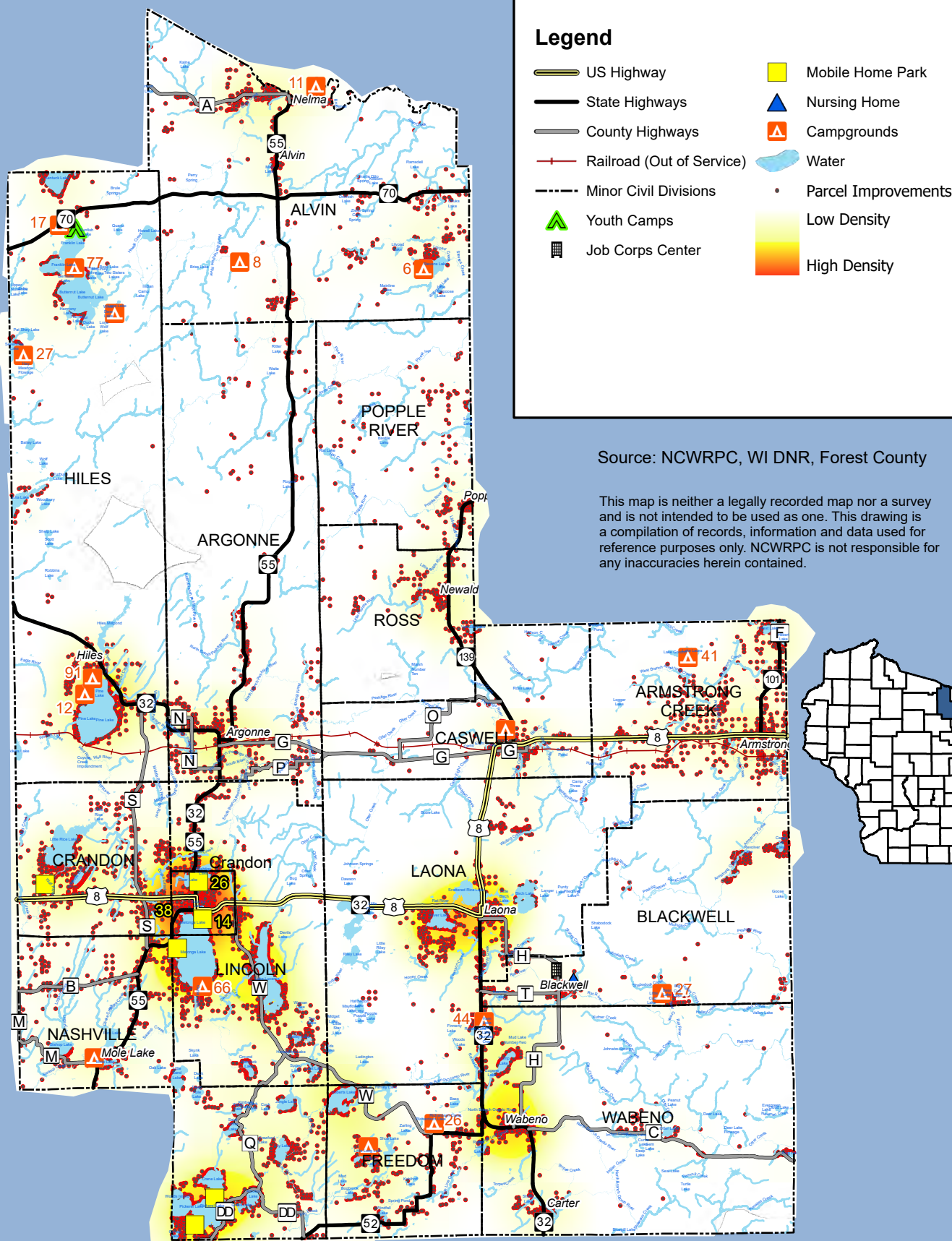
In June of 2010, a funnel cloud was observed near County Highway C in the town of Wabeno. This event took place in conjunction with severe thunderstorms and winds up to 90 mph, which damaged trees and power lines across north central Wisconsin, knocking out power for more than 15,000 Wisconsin Public Service customers.

In June of 2005, two supercell storms moved through the southern part of the county causing significant wind damage and producing a funnel cloud three-miles east of Crandon. Three square miles of trees in the Nicolet National Forest were heavily damaged as winds estimated at 90 mph hit the south part of Birch Lake. The roof was torn from a metal building in Laona. Large hail was also associated with this event.

In May of 1994, Forest County experienced a major EF2 tornado that cut a 12-mile path between Crandon and Laona causing \$5 million in property damages and \$50,000 in crop damage. Three mobile homes were destroyed, injuring three people. Another 25 houses were damaged or destroyed and 600 acres of timber were leveled.

Table 12 Reported Tornadoes/Funnel Clouds in Forest County							
DATE	TIME	LOCATION	LENGTH (miles)	WIDTH (yards)	DEATHS	INJURIES	SCALE
08/09/2020	9:12 PM	T. Alvin	2.85	250	0	0	EF1
9/19/2012	6:20 PM	T. Wabeno	n/a	n/a	0	0	n/a
7/6/2012	7:30 PM	T. Argonne T. Nashville	n/a	n/a	0	0	n/a
4/10/2011	7:30 PM	T. Argonne	9	250	0	0	EF2
4/10/2011	8:03 PM	T. Armstrong Cr.	3	150	0	0	EF1
6/23/2010	5:15 PM	T. Wabeno	n/a	n/a	0	0	n/a
6/7/2005	6:04 PM	T. Lincoln	n/a	n/a	0	0	n/a
6/28/1994	5:20 PM	C. Crandon	n/a	n/a	0	0	n/a
5/30/1994	8:50 PM	C. Crandon T. Lincoln T. Laona	12	800	0	3	EF2
9/16/1972	4:05 PM	T. Freedom T. Wabeno	53	200	0	0	EF2
6/30/1968	4:00 AM	T. Caswell	1	200	0	0	EF2
9/19/1963	6:00 PM	T. Laona	1	33	0	0	EF1

Source: National Climatic Data Center. n/a indicates funnel cloud.



The county also experienced EF2 tornadoes in 1972 and 1968. The September 1972 tornado cut a 53-mile long swath with \$250,000 in property damage. The June 1968 tornado had a one-mile path with \$25,000 in damages. In September of 1963, EF1 tornado with a one-mile path caused about \$25,000 in property damages.

Tornado Vulnerability Assessment:

Though Forest County is primarily rural, concentrations of population are scattered throughout the county. Subdivisions, rural unincorporated communities, and the City of Crandon can be regarded as more vulnerable, because tornadoes pose a greater threat to human safety and property damage in more concentrated areas, see Map 8.

Mobile homes are of significant concern in assessing the hazard risks from tornadoes. In general, it is much easier for a tornado to damage and destroy a mobile home than a site-built home. According to the U.S. Census Bureau, in 2023, Forest County had 843 mobile homes, approximately 10 percent of all housing units in the county. While mobile homes are scattered throughout the county, many are concentrated in mobile home parks. Map 8 also displays the location of the mobile home parks with approximate number of units.

In addition to mobile homes, campground patrons are vulnerable to tornadoes because minimal shelter is usually provided. The county is a popular camping destination with campgrounds throughout the Nicolet National Forest, and a number of public and private campgrounds. Refer to Map 8. The Forest Service CCC Camp in Blackwell and the youth camp in Hiles are also notable risk areas for tornadoes.

The following is a list of things that may be affected by a tornado. Much of this list can be referenced in Part II.

- Community facilities – hospitals, schools
- Public Service – police and fire departments
- Utilities – power lines, telephone lines, & radio communications
- Transportation – debris clean-up
- Residential – nursing homes, mobile homes/parks, trees and limbs, siding, & windows
- Businesses – signs, windows, siding, & billboards
- Agricultural – buildings, crops, & livestock

Based on review of the historic events of tornadoes, there are no specific areas in the county that have an unusual risk of occurrence. The events are a countywide concern. However, the Town Mitigation Survey for this Plan Update showed that tornado is a top hazard concern for the Towns of Hiles, Laona, Lincoln, and Popple River. In the mitigation planning meeting for the City of Crandon, City officials identified tornado as a major vulnerability concern due to potential for power outage. General vulnerability by geographic area is identified in Map 8.

Future Probability and Potential Dollar Losses – Tornadoes:

Based on the historic data presented here, between 2015 and 2024 Forest County experienced a tornado event about every 10 years. This equates to a probability of 0.10 or about a 10 percent chance in a given year. While tornadoes are not especially

common, funnel cloud sightings occur more often and serve as reminders of the potential threat of a tornado in Forest County. Not enough data exists to indicate the probability of tornados of a specific magnitude.

Historic data is again used to estimate potential future dollar losses due to a tornado. Estimated damages resulting from tornados in Forest County range from zero to \$5 million with \$50,000 in crop damages. On average, Forest County might expect damages of \$800,000 per tornado, however, only one of the seven historic tornados resulted in damages exceeding \$250,000. One tornado reported \$250,000 in damage, and another did \$200,000, while the rest were \$50,000 or less. Over the next ten-year period, tornado losses in Forest County could approach \$800,000.

Weather variability can be expected to lead to more frequent, higher intensity tornados. This will affect more people over a wider area of the County, and the resulting damage will be higher.

HAZARD ANALYSIS: FLOODING/DAM FAILURE

Background on Flood Hazard:

A variety of classifications are used to describe for flood events including coastal, dam failure, flash, lake, riverine, stormwater, and urban/small stream. Forest County has the potential for all these types of flooding, except coastal. The following descriptions of the types of flooding are compiled from various FEMA and other notable hazard planning sources:

Coastal – Different from other types of flooding which relate to movement of water through a watershed, coastal flooding is due to the effect of severe storm systems on tides resulting in a storm surge. Primarily known as an ocean-based event, the Great Lakes coastal areas can also be affected.

Dam Failure – More of a technology related hazard than a natural hazard, various factors can result in the failure of the structural components of a dam, thus causing flooding of areas downstream of the dam, often similar in effect to flash flooding.

Flash – Involves a rapid rise in water level moving at high velocity with large amounts of debris, which can lead to damage including tearing out of trees, undermining buildings and bridges, and scouring new channels. Dam failure, ice jams and obstruction of the waterway can also lead to flash flooding. Urban or built-up areas are increasingly subject to flash flooding due to removal of vegetation, covering of ground with impermeable surfaces, and construction of drainage systems.

Lake – Prolonged wet weather patterns can induce water-level rises that threaten lakeshore areas.

Riverine – Also known as overbank flooding, this is the most common type of flooding event. The amount of flooding is a function of the size and topography of the watershed, the regional climate, soil type, and land use characteristics. In steep valleys, flooding is usually rapid and deep, but of short duration, while flooding in flat areas is typically slow, relatively shallow, and may last for long periods.

The cause of flooding in rivers is typically prolonged periods of rainfall from weather systems covering large areas. These systems may saturate the ground and overload the streams and reservoirs in the smaller sub-basins that drain into larger rivers. Annual spring floods are typically due to the melting of snowpack.

Stormwater – Water from a storm event which exceeds the capacity of local drainage systems, either man-made or natural, can result in flooding. Inadequate storm sewers and drainage systems are often the primary factor resulting in this type of flooding.

Urban and Small Stream – Heavy rainfall can lead to flooding in smaller rivers and streams. Streams through urban or built-up areas are more susceptible due to increased surface runoff and constricted stream channels.

Flooding problems in Forest County tend to occur in the spring, when melting snow adds to normal runoff, and in summer or early fall, after intense rainfalls. Flooding occurs in the spring due to snowmelt and frozen soil. This build up continues until the river or stream overflows its banks, for as long as a week or two and then slowly recedes inch by inch. The timing and location of this type of flooding is fairly predictable and allows ample time for evacuation of people and protection of property.

Flooding is a potentially significant hazard in Forest County, particularly because of the extensive water features found throughout the County. As described in Part II, there are approximately 317 rivers and streams in Forest County within 13 main watersheds and 3 major drainage basins.

Floodplains are described in Part II and shown on Map 4. These floodplains are narrow along tributaries and lakes but extensive throughout the County. The Federal Emergency Management Agency (FEMA) identifies these floodplains on Digital Flood Insurance Rate Maps (DFIRMs) as downloaded by the NCWRPC from FEMA's website.

There are 26 dams in Forest County (see Map 4), but most do not pose a significant hazard if they fail. According to the DNR, Forest County has eleven large dams, fourteen small dams and the other one was not classified, see Table 13. Most of these dams are the “mill” type, built 50-plus years ago. There are also small dams for watering livestock and various recreational ponds around the County. The Wisconsin DNR regulates all dams on waterways to some degree, however the small dams are not stringently regulated for safety purposes.

A dam can fail for a number of reasons such as excessive rainfall or melting snow. It can also be the result of poor construction or maintenance, flood damage, weakening caused

by burrowing animals or vegetation, surface erosion, vandalism, or a combination of these factors. Dam failures can happen with little warning, resulting in the loss of life and significant property damage in an extensive area downstream of the dam.

Table 13 Dams in Forest County					
Name	Size	Hazard Rating	Stream Name	Owner	EAP Date
Above Bog Brook	n/a	-	Bog Brook	Private	n/a
Adams	Small	-	unnamed	Private	n/a
Alvin Creek	Small	Low	Alvin Creek	USFS	n/a
Bog Brook	Large	Low	Bog Creek	County	2017
Briss Lake	Large	Low	Pine Creek Tributary	USFS	n/a
Connor's Dam	Small	Significant	Rat River	Private	n/a
Coyote Creek	Large	Low	Coyote Creek	USFS	n/a
Davison	Small	-	Lake Lucerne Tributary	Private	n/a
Deer Creek	Large	Low	Otter Creek Tributary	USFS	n/a
Hay Meadow Creek	Large	Low	Hay Meadow Creek	USFS	n/a
Hiles Mill Pond	Large	Significant	Pine Creek	Town	2019
Klescewski 1	Small	-	no waterway	Private	n/a
Klescewski 2	Small	-	no waterway	Private	n/a
Knowles Creek	Large	Low	Knowles Creek Tributary	USFS	n/a
Lily Lake	Large	Low	Lily River	Town	2007
Little Rice Lake	Large	Low	Wolf River	DNR	2023
Metonga Lake	Small	Low	Swamp Creek Tributary	County	n/a
Pichotta 1	Small	-	Newman Creek	Private	n/a
Pichotta 2	Small	-	Newman Creek	Private	n/a
Pine Lake Outlet	Small	Low	Wolf River	Town	n/a
Roberts Lake	Small	Low	Lily River	Private	n/a
Rusch Dam	Small	-	N. Branch Oconto River	N/A	n/a
Schlafke	Small	-	no waterway	Private	n/a
Swamp Creek	Small	Low	Swamp Creek	Tribal	n/a
West Allen Creek	Large	Low	West Allen Creek	USFS	n/a
Wildcat Creek	Large	Low	Wildcat Creek	USFS	n/a
Source: WisDNR					

The WDNR assigns hazard ratings to dams within the state. When assigning hazard ratings, two factors are considered: existing land use and land use controls (zoning) downstream of the dam. Dams are classified into three categories that identify the potential hazard to life and property downstream should the dam fail. A high hazard indicates that a failure would most probably result in the loss of life. A significant hazard indicates a failure that could result in extensive property damage. A low hazard exists

where failure would result in only minimal property damage and loss of life is unlikely. In Forest County, none of the dams have a high hazard rating, however, two: Connor's Dam and Hiles Mill Pond, have a rating of significant. Fifteen other dams have a low hazard rating, while nine remain unrated. Four of the dams, Bog Brook, Hay Meadow Creek, Lily Lake and Little Rice Lake, have emergency action plans (EAPs) currently in place.

History of Flooding in Forest County:

Flooding was a principal cause of damage in only one of seven Presidential Disaster Declaration requests in Forest County from 1971 to 2024. This event occurred in 2000, when a nearly stationary front across Wisconsin combined with upper air and abundant moisture to produce a prolonged period of thunderstorms. Flooding from heavy rain caused the majority of problems, including flooded roads and basements.



Flood Damage. US Hwy 8

Rainfall totals ranged from 2 to 4 inches in a 24- hour period. Small streams and creeks overflowed their banks and rural areas suffered some crop damage.

The most recent flood event of note was in April 2002. Significant rainfall and snow melt resulted in flooding of roads and low-lying areas. In 1999, heavy rainfall caused flash flooding in the Town of Alvin. Roads were damaged and some homes and businesses suffered water damage to basements and minimal first floor inundation. In 1996, heavy runoff from spring snowmelt and rain resulted in widespread minor flooding across several northern counties including Forest. Numerous roads and culverts were washed out.

There are no records of significant dam failure within Forest County. However, Town of Nashville reports that Lily Lake Dam is failing, and they are working to replace the dam at this time. Some of the dams have developed holes or other damage but have not caused flooding problems.

Flood Vulnerability Assessment:

Flood events in the county have caused substantial property and infrastructure damage in the past and have the potential to cause future damage, since a significant number of structures still exist in the floodplain. Looking at past events, the following have been significantly impacted by flooding:

- Infrastructure – flooded public facilities, and schools
- Utilities - down electric lines/poles/transformers, telephone lines, and radio communication
- Roadways – washouts, inundated roadways, debris clean-up
- Residential structures – flooded basements, damaged septic systems
- Businesses – loss of commerce
- Agriculture - inundated cropland

To assess the vulnerability of Forest County to flooding hazards, basic inventory data in Part II must be analyzed. For this purpose, consideration should be given to structures (specifically critical facilities), infrastructure, and cropland within the flood plain.

One of the first reports to reference in assessing vulnerability to structures during flooding is the State of Wisconsin Repetitive Loss Report. This Report provides the status of repetitive loss structures by community. Repetitive loss structure means a structure covered under an NFIP flood insurance policy that (1) has incurred flood-related damage on two occasions, in which the cost of repair, on average, equaled or exceeded 25% of the value of the structure at the time of each such flood event; and (2) at the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage (44 CFR § 77.2(i)). Severe repetitive loss structure means a structure that is covered under an NFIP flood insurance policy and has incurred flood-related damage (1) for which four or more separate claims have been made under flood insurance coverage, with the amount of each claim (including building and contents payments) exceeding \$5,000 and with the cumulative amount of such claims payments exceeding \$20,000; or (2) for which at least two separate flood insurance claims payments (building payments only) have been made, with cumulative amount of such claims exceeding the value of the insured structure (44 CFR § 77.2(j)).

The information is used as a floodplain management tool and to supplement information provided by communities for flood mitigation grants administered WEM. According to the report, there are no repetitive loss structures in Forest County. Since no structures are listed in the Repetitive Loss Report, structures within floodplains were analyzed, see *methodology* outlined below. The floodplain boundaries within Forest County are shown on Map 4.

Methodology – Structures within Floodplains:

1. NCWRPC downloaded the DFIRM floodplain maps from the FEMA website into a GIS coverage for the County.
2. A building point cover was digitized from current digital aerial photography of the floodplain areas.
3. The floodplain coverage was then combined with the building point coverage to identify those structures within the floodplain boundary.
4. Total structures with the floodplain were then tabulated by municipality.
5. Land records data was used to determine the total value for the identified vulnerable structures by municipality.

Table 14 shows the number of structures in each municipality identified as "vulnerable to flooding" according to proximity to floodplains. There was a total of 496 structures (203 primary & 293 secondary) identified in the designated floodplain boundaries, see Map 9.

In addition to structural damage from flooding, there may also be significant damage to public roadways, particularly to roadway surfaces, culverts, and bridges. Flooding could inundate or close roadways from a period of a few days up to as much as three months.

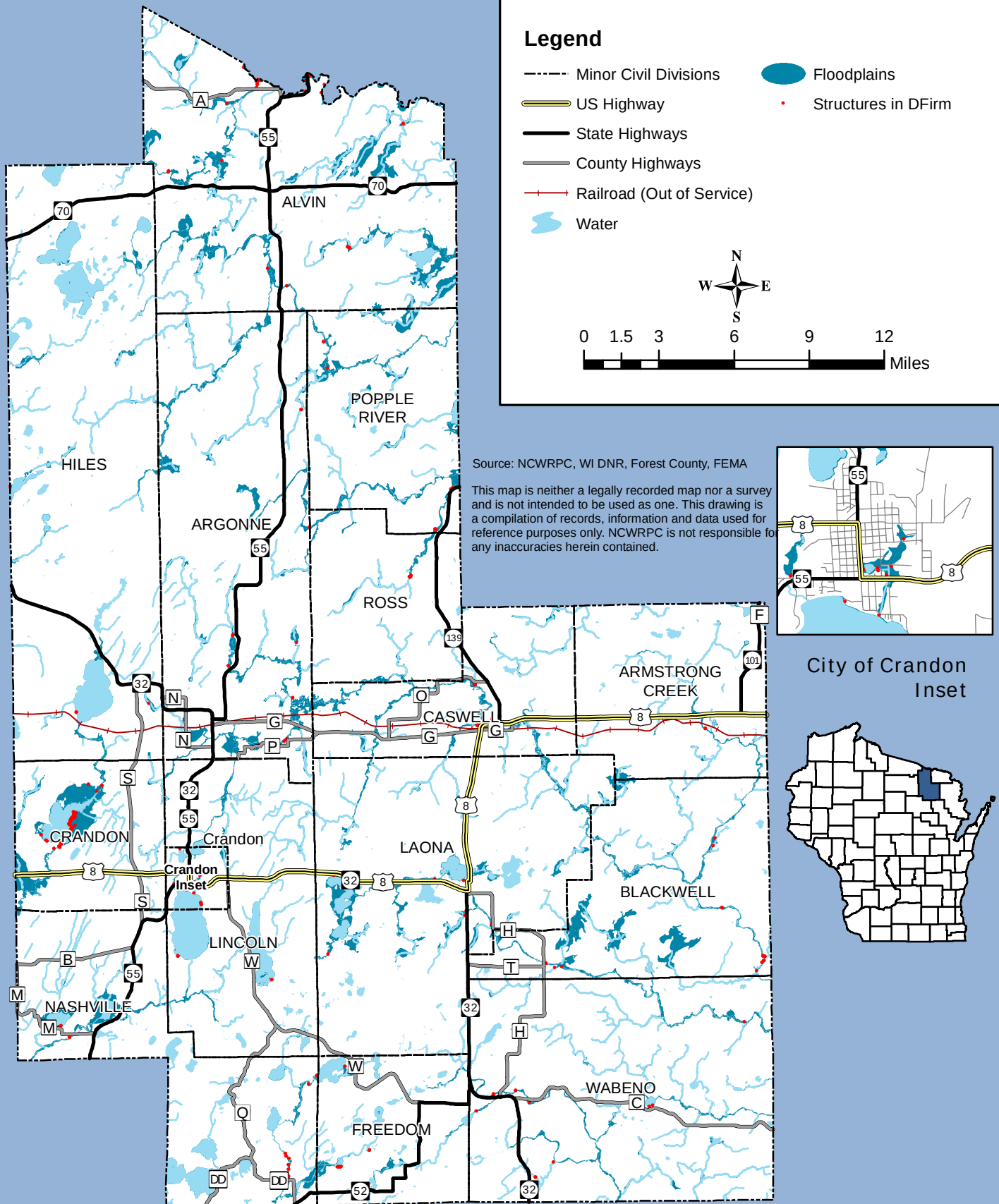
Such interruptions in the County transportation network would cause travel delays through detours.

Table 14 Improvement Values for Structures in Floodplains in Forest County				
Municipality	Number of Primary Structures	Est. Value Primary	Number of Secondary Structures	Est. Value Secondary
City Of Crandon	10	\$3,799,634	15	\$282,026
Town Of Alvin	29	\$7,588,495	31	\$695,907
Town Of Argonne	13	\$2,714,924	12	\$185,409
Town Of Armstrong Creek	1	\$531,887	6	\$297,922
Town Of Blackwell	11	\$2,501,611	17	\$184,779
Town Of Caswell	13	\$2,412,750	11	\$219,126
Town Of Crandon	48	\$10,098,827	60	\$1,540,822
Town Of Freedom	11	\$2,976,412	14	\$326,157
Town Of Hiles	4	\$784,720	11	\$188,877
Town Of Laona	8	\$4,394,429	30	\$889,790
Town Of Lincoln	7	\$1,976,789	18	\$287,486
Town Of Nashville	24	\$6,079,468	42	\$971,923
Town Of Popple River	11	\$2,430,474	12	\$302,000
Town Of Ross	3	\$1,057,689	1	\$1,948
Town Of Wabeno	10	\$2,226,045	13	\$829,385
Forest County	203	\$51,574,154	293	\$7,203,557
<i>Source: Forest County Land Records and NCWRPC, 2024</i>				

The primary impact from damages to roadways is to businesses. The monetary impact is unknown, but past floods have restricted public access and even closed businesses. Tourism is an important industry in the county and several campgrounds, lodges and restaurants may be affected by flooding.

The agriculture industry is a sector that faces substantial losses, during floods. Flood conditions cause the following economic setbacks for farmers:

- Delayed planting (reduced growing season)
- Prevention of fields from being seeded
- Seed and agricultural chemicals washing out of fields
- Rotting of plants due to excess moisture
- Areas where planted crops are left in the fields due to excessive moisture
- Crops not reaching full maturity or stunted growth
- Requirements of additional soil amendments by farmers causing expenditures of greater amounts of money
- Lower quality (nutritional value) of harvestable crops as a feed source.



Reductions in quantity can result in loss of revenues from cash crops and increased expenses for purchasing the needed livestock feed from outside sources. Additionally, reductions in crop quality result in lower prices received for cash crops and increased spending for nutritional supplements to animal feed, which need to be added even in much of the purchased feed.

Economic losses to farmers can generate a ripple effect in the local community as well. Reduction in farm income can curtail the farmers' ability to purchase new equipment and make other improvements. Farmers will have less money to spend at farm dealers, farm supplies, building/hardware suppliers, fertilizer, feed and seed dealers, and other agribusiness and retail establishments. The State itself will have reduced tax revenues. Farmers will have less money to save and invest and suffer increasing debt loads.

The forest products industry is affected similarly to agriculture. Forestlands become too wet for logging operations and many water-logged tree plantations suffer high mortality rates. Mill inventories become low, resulting in increased prices for consumers.

The areas considered to have a higher risk for impact from flooding include those communities with structures in floodplains as shown in Map 9. In addition, the City of Crandon identified flooding as a concern during the city mitigation planning meeting for this Update. The City continues to have flooding issues in certain areas. Wabeno School District also indicated that flooding from rivers adjacent to their facilities is a concern. The Town Mitigation Survey for this Update showed that the Towns of Laona, Lincoln, and Popple River list flooding as a top hazard concern citing low lying areas, snowmelt and roadway flooding/access cut off. Potential dam failure was also identified as a concern by the Towns of Hiles and Nashville.

Future Probability and Potential Dollar Losses – Flood:

The NCDC data reported that Forest County had two flood events from 2000-2024 (due to the limited number of flood events, a 25 year period is examined). Based on historic data presented here (frequency of past events), Forest County can expect a significant flood event about every 12.5 years on average. This equates to a probability of 0.08 or about an 8 percent chance in a given year. The percentage chance of a dam failure is estimated to be less than one percent.

Historic data on the dollar losses due to flood in Forest County is spotty. NCDC reported losses range from zero to \$154,000. Based on this, Forest County can anticipate at least \$154,000 in property and crop losses, on average, for each significant flood occurrence between the public and private sector. Over the next ten-year period, flood losses in Forest County could exceed \$154,000.

Potential losses for structures by jurisdiction are reflected in Table 14. While structures outside mapped floodplains may also be lost or damaged in a flood, structures within flood plains represent the greatest risk from flood damages.

Weather variability can be expected to lead to more annual precipitation with more frequent and heavier high precipitation events. This will lead to more flooding and the potential for dam failure. Flood damage will affect more people over a wider area of the County, and resulting damages will be higher.

HAZARD ANALYSIS: WINTER STORMS / EXTREME COLD

Background on Winter Storms/Extreme Cold Hazard:

A variety of weather phenomena and conditions can occur during winter storms. For clarification, the following are National Weather Service approved descriptions of winter storm elements:

Heavy snowfall – the accumulation of six or more inches of snow in a 12-hour period or eight or more inches in a 24-hour period.

Blizzard – the occurrence of sustained wind speeds in excess of 35 miles per hour accompanied by heavy snowfall or large amounts of blowing or drifting snow.

Ice Storm – an occurrence where rain falls from warmer upper layers of the atmosphere to the colder ground, freezing upon contact with the ground and exposed objects near the ground.

Freezing drizzle/freezing rain – the effect of drizzle or rain freezing upon impact on objects that have a temperature of 32 degrees Fahrenheit or below.

Sleet – solid grains or pellets of ice formed by the freezing of raindrops or the refreezing of largely melted snowflakes. This ice does not cling to surfaces.

Wind chill – an apparent temperature that describes the combined effect of wind and low air temperatures on exposed skin.

Winter storms can vary in size and strength and include heavy snowfall, blizzards, ice storms, freezing drizzle/freezing rain, sleet, wind chill, and blowing and drifting snow conditions. Extremely cold temperatures accompanied by strong winds can result in wind chills that cause bodily injury such as frostbite, and even death.

True blizzards are rare in Wisconsin. They are more likely to occur in the northwestern part of the state than in south-central Wisconsin, even though heavy snowfalls are more frequent in the southeast. However, blizzard-like conditions often exist during heavy snowstorms when gusty winds cause the severe blowing and drifting of snow. Heavy snow and ice storms are a part of nearly every winter in Forest County.

Dangerously cold conditions can be the result of the combination of cold temperatures and high winds, which creates a perceived sensation known as “wind chill”. Wind chill is the apparent temperature that describes the combined effect of wind and air temperatures

on exposed skin. When wind blows across the skin, it removes the insulating layer of warm air adjacent to the skin. When all factors are the same, the faster the wind blows the greater the heat loss, which results in a colder feeling. As winds increase, heat is carried away from the body at a faster rate, driving down both the skin temperature and eventually the internal body temperature.

The National Weather Service issues wind chill advisories when wind chill readings of -20 to -34 degrees are expected. Wind chill warnings are issued when wind chill values are expected at or below -35 degrees. Extreme cold events are most likely during the months of December, January and February.

History of Winter Storms/Extreme Cold in Forest County:

The NCDC has reported 33 major winter storm events and 4 cold temperature events for Forest County between 2015 and 2024. These storms typically contain some form of heavy snow, cold, freezing rain, sleet or ice.

The latest winter storm during the study period in Forest County began on April 2, 2024 when a rapidly intensifying area of low pressure moving across Illinois to southern Lake Michigan on the afternoon of April 2 brought copious amounts of rain and heavy wet snow, damaging winds, and thunderstorms. The storm left over 100,000 people across the state without power during the height of the storm. The highest snowfall total in Forest County was 6 inches near Argonne. The storm caused power outages throughout the county, with over 1,600 without power.

A fierce, late-winter storm produced heavy snow, freezing rain, and high winds across much of central and northern Wisconsin on February 23-24, 2019 as an area of low pressure rapidly deepened across the Great Lakes. At the height of the storm on the 24th, travel was not recommended across parts of central and northern Wisconsin as blizzard conditions made travel nearly impossible. New daily snowfall records were set in several areas. Snow and blowing snow caused whiteout conditions in Forest County for most of the afternoon. A gust to 41 mph was recorded near Wabeno. The combination of ice, snow, and strong winds caused power outages and tree damage in many locations. A storm total snowfall of 15.9 inches was measured near Argonne.

On February 3, 2019, freezing rain fell across northern Wisconsin as a low pressure system moved across the state. One-quarter to four-tenths of an inch of ice accumulated across far north-central Wisconsin during the overnight hours of the 3rd into the early afternoon of the 4th. Two-tenths of an inch of ice was measured near Armstrong Creek and 0.15 inch of ice was measured in Crandon. Roads became hazardous as the ice accumulated and hundreds of vehicles slid off roads. Icing also caused numerous power outages, and at the height of the event more than 5,000 customers across northeastern Wisconsin were without power.

Another notable heavy snow in Forest County took place in April 13 of 2018. A low pressure system that moved from the Plains, across Illinois, to the Ohio Valley brought two periods of heavy precipitation and strong northeast winds to the area. The historic

late season winter storm pummeled a large section of Wisconsin, including the northeast, from the evening of April 13th through the afternoon of April 15th. The storm brought near-blizzard conditions to much of the area and made roads impassable from time-to-time. Winds of 35 to 50 mph caused sporadic power outages and created waves of 10 to 16 feet on Lake Michigan.

New snowfall records were set at many locations as a large area of 15 to 30 inches of snow fell. Some of the highest recorded snowfall totals included, 31.6 inches in Door County, 30.6 inches in Shawano County and 30.5 inches in Oconto County. The heavy weight of the snow caused several structures to collapse or partially collapse, mainly across east-central Wisconsin. Snowfall totals were the highest ever recorded for an April storm in Rhinelander (18.2 inches). The highest reported snowfall total in Forest County was 14.1 inches near Argonne. This storm came on the heels of another major snow fall across much of the same area with 13.5 inches in Crandon on April 3 and 4.

A complex storm system affected the region November 10-11, 2014, bringing a swath of heavy snow to parts of northern Wisconsin. The main storm hit in two phases. The first phase was in the form of a long west to east band of snow which set up across Minnesota and northern Wisconsin early on November 10th. Low pressure then moved across far southern Wisconsin and produced another round of snow late on November 10th and into the 11th across central and northern Wisconsin. In addition to the long-duration storm, additional lake effect snow from Lake Superior pushed totals over 20 inches in some locations in the snowbelt. The highest reported snowfall total was 23.7 inches at Lac du Flambeau (Vilas Co.). Some of the highest snow totals outside the snowbelt included 15.2 inches near Alvin.

The most recent extreme cold event took place on January 10, 2022, when a surge of arctic air allowed morning low temperatures to fall to -10 to -20 degrees. The combination of the bitter cold and gusty northwesterly winds of 10 to 20 mph created wind chills of -35 to -41 across portions of north-central and central Wisconsin.

On February 7 2021, arctic air was entrenched across northern Wisconsin with morning low temperatures from -15 to -30 degrees. The combination of the bitter cold and light winds created wind chills of -35 to -45 degrees.

Between January 29 and 31, 2019, cold air moved into northern Wisconsin as a strong low-pressure system departed and high pressure over the Plains moved toward the region. Low temperatures on the morning of January 30th were mainly in the -15 to -30 degree range and wind chills mostly -35 to -55. Temperatures across the area remained below zero throughout the day on the 30th. Schools and many businesses closed, public transportation suspended or curtailed service, and the U.S. Postal Service even suspended deliveries due to the bitter cold. Several locations tied or broke their records for the coldest daytime high temperatures on January 30 and 31 including Antigo, Merrill and Wausau. Record low temperatures were tied or broken the morning of January 31. The low temperature near Crandon was -29 degrees on the morning of January 31.

From January 2 to 7, 2018, subzero low temperatures, highs mainly in the single digits, and wind chills in the -20 to -34 below zero range were common. One person died in the cold after going missing in the woods in Florence County near Niagara.

Between January 6-7, 2014, a bitterly cold arctic air mass, the coldest to impact the region in years, spread across the area following the passage of a cold front. Temperatures fell to lows in the 16 below to 32 below zero range. The cold temperatures, combined with west winds of 10 to 20 mph, produced wind chills in the 40 below to 55 below zero range. The coldest recorded temperature in Forest County was 27 degrees below zero near Laona. Wind chills were as low as 40 below zero.

During an historic event at least 20 record low temperatures were set across Central and Northeast Wisconsin during the early part of February 1996 as a frigid arctic air mass remained entrenched across the area for an extended period. The cold weather resulted in at least one hypothermia-related death outside of Forest County. Temperatures dropped to colder than 40 degrees below zero in parts of North Central Wisconsin. The coldest reading was 48 below at Lake Thompson in Oneida County. These extreme cold temperatures combined with west winds 10 to 15 mph to produce wind chill readings in the 50 to 70 degrees below zero range on February 2nd. The cold weather was responsible for numerous school closures, stalled vehicles, frozen pipes and broken water lines. Electrical and telephone outages occurred due to snapped wires and lines. All of the outdoor events of the Badger State games had to be cancelled, and some local ski hills were forced to close for a brief period.

Winter Storms/Extreme Cold Vulnerability Assessment:

Winter storms present a serious threat to the health and safety of affected citizens and can result in significant damage to property. Heavy snow or accumulated ice can cause the structural collapse of buildings, down power lines, motor vehicle accidents, or isolate people from assistance or services. Extreme colds include the risk of frostbite and hypothermia.

The following is a list of things that may be adversely affected by a winter storm. Many of these community assets can be referenced in Part II.

- Infrastructure – operation of emergency services, operation of public facilities and schools
- Utilities – down power and telephone lines
- LP Gas at residences freezing at temperatures below -40
- Septic system freezing
- Transportation – automobile accidents, roadway plowing, salting/sanding
- Residential – roofs
- Businesses –commerce
- Agricultural – livestock

Based on a review of the historic events of winter storms and extreme cold, there are no specific areas in the county that have an unusual risks. Winter storms cover a broad area

and are a region-wide concern. The extreme cold weather can affect the entire county. The risk to public health includes the chance of getting frostbite and hypothermia, and motor vehicle accidents. Everyone is at risk for becoming injured in extreme cold weather, either because of frail health or because of travel in a motor vehicle. However, during the mitigation planning meeting for this Update with the City of Crandon, winter storms with heavy snow or ice that can cause power outages were a concern. The Towns of Armstrong Creek, Hiles, Laona, Nashville, and Popple River also indicated in their mitigation survey results that winter storms (heavy snow / ice) are a top concern due to trees bring down power lines and blocking roads. The Survey also revealed that the Towns of Armstrong Creek, Laona, Nashville, and Popple River were concerned about extreme cold, particularly due to the risks posed to their large elderly populations.

Future Probability and Potential Dollar Losses – Winter Storms/Extreme Cold:

Based on historical frequency, Forest County can expect 3.3 major winter storms per year on average. In other words the probability is 1.0 or a 100% chance of winter storms in a given year.

For extreme cold temperatures, based on historical frequency, Forest County can expect about one about every 2.5 years. Although, because extreme cold temperatures often accompany winter storms, a probability of 100% chance in a given year cannot be ruled out.

Estimating potential future losses from winter storms is difficult. Damages and losses are typically widespread. Auto accidents and additional snow removal expense are typical impacts of winter storms, and such claims are not aggregated or tracked for monetary damage. Winter storms do have the potential to be extremely destructive, particularly in the case of ice storms. Potential future losses per incident might range from \$5,000 to \$2 million based on experiences from other counties.

Weather variability can be expected to lead to more frequent, more powerful winter storm events and occurrences of severe cold. Heavier, more frequent winter storms will increase the frequency of power outages, structural collapse and transportation impacts.

HAZARD ANALYSIS: FOREST FIRES/WILDFIRES**Background on Forest Fires/ Wildfires Hazard:**

A forest fire is an uncontrolled fire occurring in a forest or in woodlands outside the limits of an incorporated village or city. A wildfire is any instance of uncontrolled burning in brush, marshes, grasslands or field lands. For the purpose of this analysis, both of these kinds of fires are being considered together.

Forest fires and wildfires can occur at any time whenever the ground is not completely snow covered. The season length and peak months may vary appreciably from year to year. Land use, vegetation, amount of combustible materials present and weather

conditions such as wind, low humidity and lack of precipitation are the chief factors for fire season length.

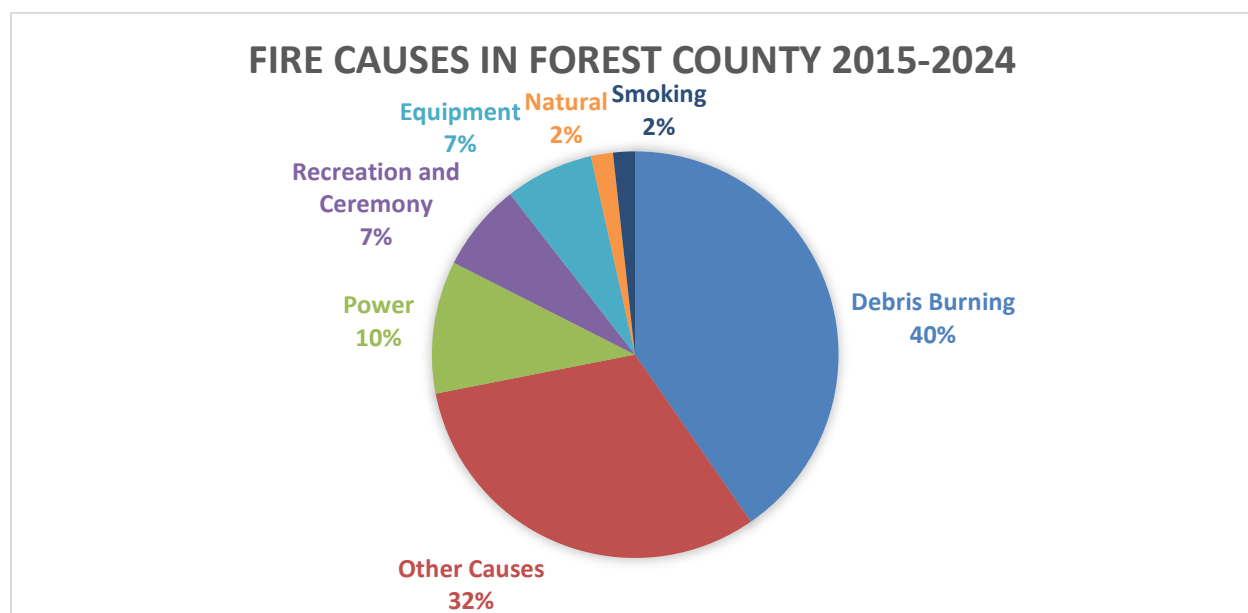
History of Forest Fires/Wildfires in Forest County:

The Wisconsin DNR maintains a database of wildfire data which represents the most comprehensive source of information for analyzing fire trends in an area such as Forest County. This data is now accessible through the DNR's Internet based Wildfire Dashboard. Between 2015 and 2024, 57 fires burned 34.26 acres of land. The typical fire in Forest County burns about 1.66 acres of land.

The principal reason these fires are small is the rapid response of municipal fire departments. This history of small fires is not indicative of the actual risk. There have been some larger fires in the area. In 2003, a single fire burned more than 36 acres in the Town of Nashville. The Duck Lake fire in the Upper Peninsula of Michigan may serve as an example of the potential threat. This fire, in May of 2012, was started by lightning and consumed over 21,000 acres, destroying 136 structures.

April is the leading month for wildfire in Forest County, with over 26 percent of the total number of fires between 2015 and 2024 taking place in April. Wildfires have occurred in each month of the year except January, February and December in Forest County. Forest County experienced both the most fires in a year and the most acres burned in a year in 2006, with 15 reported fires that burned a total of 19 acres of land.

The chart below breaks down the causes of wildfire within Forest County between 2015 and 2024, as classified by the WisDNR. The principal cause of wildfire in Wisconsin and in Forest County is debris burning. Of the 57 fires in Forest County during the study period, 23 of them, or 40 percent, were caused by debris burning. Other leading causes of wildfire include recreation, equipment and power related activities.



Source: WI DNR

Forest Fires/Wildfires Vulnerability Assessment:

Forest County has 612,298 acres of woodlands, or 92 percent of the area of the county. The potential for property damage from fire increases each year as more recreational and retirement homes are developed on wooded land.

Rural buildings may be more vulnerable because of lack of access. Building driveways off main roads are sometimes long and narrow with minimal vertical clearance and no turn around areas large enough for emergency vehicles making it hard to save individual dwellings. These buildings also may not have adequate forest clearance between the structure and the forest.

Campgrounds are also a concern because of campfires. Forest County has federal, state, county, and privately owned campgrounds throughout the County. Locations of the campgrounds are shown on Map 8.

The trend toward introducing more human development into fire prone areas has brought about the term wildland urban interface or WUI. The WUI identifies areas where structures and human development meet or intermingle with undeveloped wildlands. It is within these areas where wildfire poses the greatest risk to human lives and property.

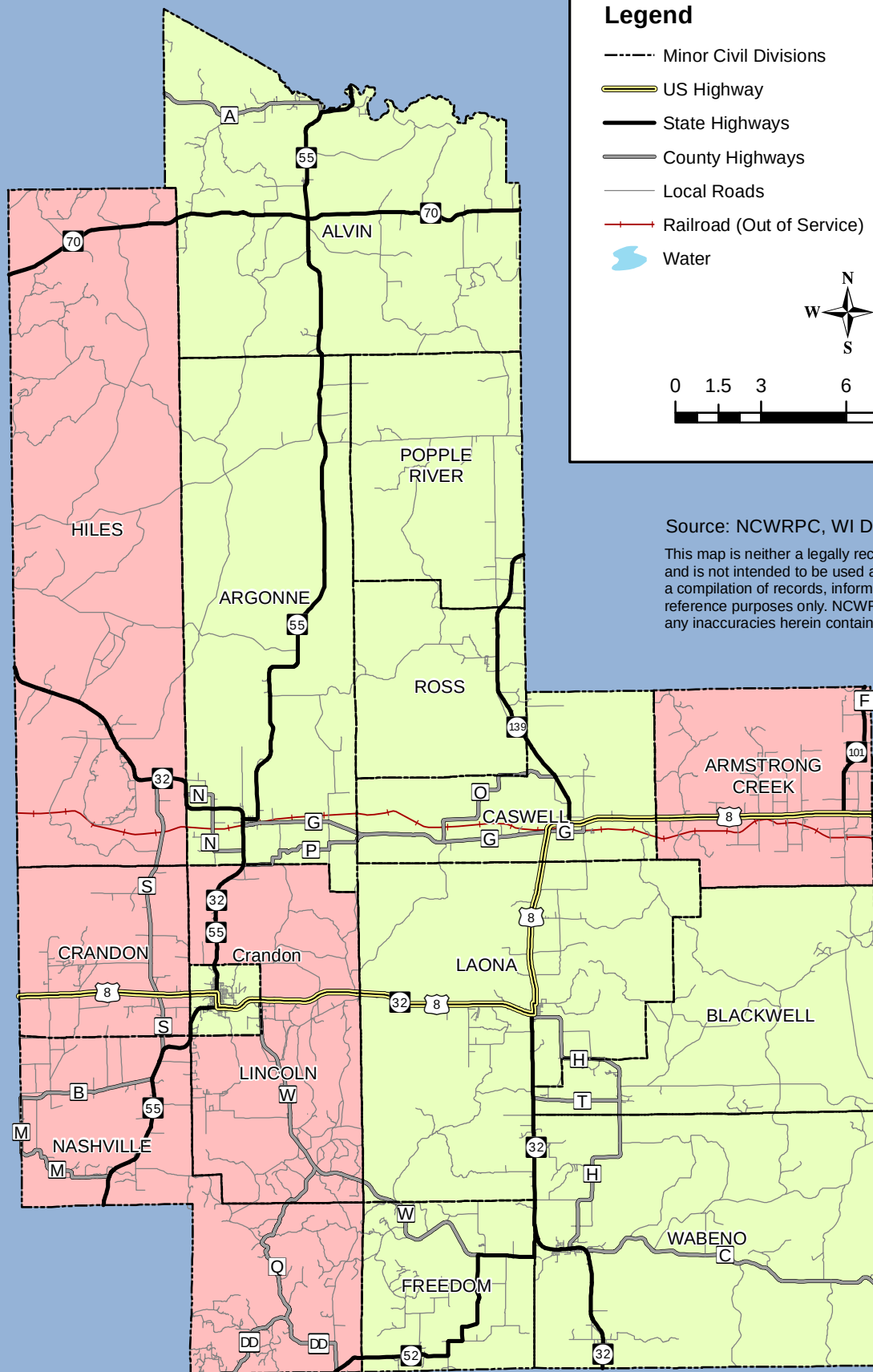
The WDNR has completed a statewide evaluation of fire risk, referred to as the CAR or Communities At Risk assessment. This assessment uses extensive DNR geo-databases to analyze and map hazardous woodland fuel types and the degree of the intermixing of development with wildlands. The maps identify the level of risk for each community on a scale of very high, high, moderate, or low, and also have a community of concern designation. Forest County has no Communities at Risk at either Very High or High levels. However, the Towns Armstrong Creek, Crandon, Hiles, Lincoln, and Nashville are designated as communities-of-concern.

Future Probability and Potential Dollar Losses – Forest Fires/Wildfires:

Forest and wildfires are relatively common occurrences in Forest County. In recent years, an average of about 5.7 fires per year in the County has burned, on average, 3.4 acres each year. In other words, the probability is 1.0 or a 100 percent chance of wildfire each year. However, these fires are typically contained rapidly and remain small, so that each has a minimal impact.

Because of the relatively small impact of typical individual fires in the County, loss data is not tracked. This makes it difficult to develop an estimate of potential future dollar losses. However, with over five fires per year, the County should expect some fires to "get out of hand" with the potential to easily meet or exceed the millions in damages of the Duck Lake Fire that occurred in the Upper Peninsula of Michigan in 2012. Annual losses would be maximized if a house was destroyed with each acre burned.

Weather variability can be expected to lead to an increase in wildfire occurrences and the conditions for any given fire to get out of control. Rising average annual temperatures will exacerbate drought conditions contributing to wildfire risk.

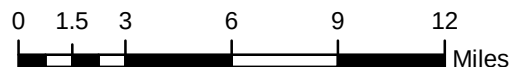


Legend

- Minor Civil Divisions
- == US Highway
- == State Highways
- == County Highways
- == Local Roads
- +--- Railroad (Out of Service)
- Water

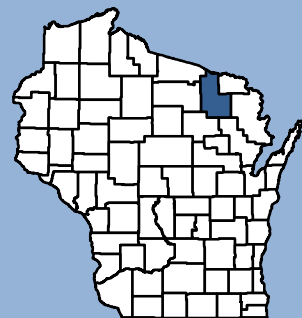
Risk Level

- Concern
- Low



Source: NCWRPC, WI DNR, Forest County

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only. NCWRPC is not responsible for any inaccuracies herein contained.



Prepared By:

North Central Wisconsin Regional Planning Commission

210 McClellan St., Suite 210, Wausau, WI 54403 715-849-5510 - staff@ncwrpc.org - www.ncwrpc.org

HAZARD ANALYSIS: DROUGHT/EXTREME HEAT**Background on Drought/Extreme Heat Hazard:**

A drought is an extended period of unusually dry weather, which may be accompanied by extreme heat (temperatures which are ten or more degrees above the normal high temperature for the period). There are basically two types of drought in Wisconsin: agricultural and hydrologic. Agricultural drought is a dry period of sufficient length and intensity that markedly reduces crop yields. Hydrologic drought is a dry period of sufficient length and intensity to affect lake and stream levels and the height of the groundwater table. These two types of drought may, but do not necessarily, occur at the same time.

Droughts, both agricultural and hydrologic, are relatively common in the state. Small droughts of shortened duration have occurred at an interval of about every ten years since the 1930's.

Extended periods of warm, humid weather can create significant risk for people, particularly the elderly who may lack air conditioning, proper insulation, or ventilation in their homes. Animals are also at risk during extended periods of heat and humidity. The National Weather Service issues a Heat Advisory when the heat index, during a 24-hour period, ranges from 105 to 114 degrees daytime and remains at or above 80 degrees at night. The heat index combines the effects of heat and humidity, better reflecting the risk of hot weather on people and animals. When heat and humidity combine to reduce the amount of evaporation of sweat from the body, outdoor activity becomes dangerous even for those in good shape. The index measures the apparent temperature in the shade. People in the sun would experience an even higher apparent temperature. A heat index of 105 is considered dangerous and prolonged exposure can result in heat stroke, exhaustion and cramps. People should be reminded to use extreme caution when the heat index is between 95 and 105. A heat index of 95 occurs when the temperature is 90 degrees and the relative humidity is fifty percent.

History of Drought/Extreme Heat in Forest County:

During the study period between 2015 and 2024, drought conditions set in from summer 2023 through winter 2024, beginning with below-normal rainfall in May and June. This led to abnormally dry and moderate drought conditions, which worsened due to continued dry weather and high temperatures. By late summer, severe drought affected areas south of Highway 10, while dry to moderate drought conditions remained to the north. In fall, severe drought was limited to the southwest third of Forest County, with moderate drought elsewhere. By November, most of the county was in moderate to severe drought, and by March, nearly all of Forest County was in severe drought, except for the far southeast, which remained moderate. Below-normal precipitation persisted into late March.

Below normal rainfall during the latter half of September resulted in severe drought conditions recurring across the entire county at the beginning of October. Warmer than normal temperatures and well below normal rainfall resulted in drought conditions continuing through November. Enough precipitation (rain and snow) fell during the first week of December to bring an end to the drought.

Previously, drought conditions were persistent for Forest County and much of Wisconsin between 2005 and 2010. Periods of below normal precipitation led to ongoing moisture deficits despite periodic storm events creating breaks in the dry pattern. In 2009 reports from County Agricultural Agents across northern Wisconsin indicated that crops were drought stressed and would have been in worse shape if temps had not been cooler than normal. The report from Forest County indicated a 20 to 25 % loss of the corn and soybean crop through July of 2009. During this period, the Governor declared a state of emergency to get assistance to the state's agricultural sectors. The extended dry conditions posed serious challenges for farmers from drought stressed crops to issues providing feed for livestock. NCDC reports indicate drought periods from September to October 2005, August through October 2007, September 2008 through April 2009, July through October 2009 and from April through August 2010.

The drought of 1976-1977 affected an area stretching from north to south across the state. Stream flow measuring stations recorded recurrence intervals from 10 to 30 years. Numerous private and municipal wells went dry due to the lowered groundwater tables and agricultural losses during this drought were set at \$624 million. Forest County was one of 64 counties that were declared federal drought areas and deemed eligible for assistance under the Disaster Relief Act.

Forest County was fortunate to experience no extreme heat waves from 2015 to 2024. The most recent extreme heat wave was in July of 1999 when, for over a week, extreme temperatures and humid weather swept across the state. In some places it was so hot that concrete roads began to buckle. Heat related illness was widespread and three deaths resulted outside Forest County.

Drought/Extreme Heat Vulnerability Assessment:

Droughts can have a dramatic effect on Forest County. The county has about 12,000 acres of farmland. With agriculture being an important sector of the county's economy, droughts can have serious effects. Even small droughts of limited duration can significantly reduce crop yields, adversely affecting farm income. More substantial events can decimate croplands and result in total loss, hurting the local economy.

Irrigation can negatively impact the water table by drawing water that comes from aquifers and can affect surface water. Drought can exacerbate the problem when high withdrawal rates and little precipitation deplete water bodies and aquifer supplies, thereby decreasing drinking water supplies, drying streams, and hindering aquatic and terrestrial wildlife. During severe droughts, some wells—mainly private wells—will go dry.

Droughts can trigger other natural and man-made hazards as well. They greatly increase the risk of forest fires and wildfires because of extreme dryness. In addition, the loss of vegetation that results from drought can cause flooding, even from average rainfall.

The following is a list of things that may be adversely affected by a drought. Many of these community assets can be referenced in Part II.

- Infrastructure – municipal water supplies
- Surface water –groundwater reserves, recreation, and wildlife
- Forests
- Agricultural – crops, livestock

The areas most susceptible to drought conditions would be agricultural communities, scattered throughout the south and southeast parts of the county. The Town Mitigation Survey for this Plan Update revealed that the Towns of Armstrong Creek, Laona, and Popple River identify drought as a top hazard concern with Popple River citing the impact on trees/woodlands as a fire hazard.

According to the Wisconsin Emergency Management, excessive heat has become the most deadly hazard in Wisconsin in recent times. Extreme heat can happen anywhere within Forest County affecting everyone, however the elderly and young are the ones with the highest risk of heat related conditions, which can lead to death. Ways to prevent injuries include wearing light-colored clothing, drink plenty of water, slow down, and do not stay in the sun for too long.

Future Probability and Potential Dollar Losses – Drought/Extreme Heat:

Based on the historic data presented here (frequency of past events), Forest County can expect a drought every every ten years on average, which is a probability of 0.10 or a 10 percent chance in a given year. Significant severe drought is somewhat less common, affecting Wisconsin once about every 15 years.

Drought is another hazard lacking good loss figures at the county level. However, a look at aggregate data for the last two major droughts can give some idea of potential impact. The last two major droughts in Wisconsin resulted in losses of \$9.6 million (1976-77) to \$18 million (1987-88) per county on average.

Normally, counties in northern Wisconsin are known for their cold winters, however, extreme heat waves will affect Forest County in the future. There is insufficient data regarding historic heat events to indicate probability or loss projections.

Weather variability can be expected to lead to rising average annual temperatures. The increased heat will fuel more extreme weather of all types, including excessive heat which is already one of the deadliest hazards in Wisconsin. Drought conditions will become more frequent and persistent.

HAZARD ANALYSIS: CYBER ATTACK

Background on Cyber Attack Hazard

A vast array of networks form the foundation of our means to communicate and travel, power our homes, run our economy, and provide government services. Yet, cyber-attacks have increased dramatically in the United States over the last decade, exposing

sensitive personal and business information, disrupting critical operations, and imposing high costs on the economy.

A cyber-attack is the actual or potential disruption of government information systems. Information technology systems are connected in networks or through the Internet, and thus are at risk of cyber-attack. An attack may be a deliberate effort to gain access to the system or processes; or it may be the result of a randomly initiated threat, such as a worm or virus. Unlike physical threats that prompt immediate action, cyber threats are often difficult to identify and comprehend. Among these dangers are viruses erasing entire systems, intruders breaking into systems and altering files, or intruders stealing confidential information.

Cyber-attacks may result in the loss of confidence in the government's ability to protect citizens. However, the support services performed in the aftermath of an event can rebuild the reputation of the government's ability to provide services to the people in time of need.

With the extensiveness of information technology (IT) and cyber networks in nearly all parts of society, effectively securing critical infrastructure requires investments in network resiliency as well as cyber infrastructure protection. As all levels of government now rely on cyber networks and assets to provide public safety and economic prosperity, their operations depend on information systems that are maintained, protected, and secured from exploitation and attack.

History of Cyber Attack in Forest County

Cyber-attacks have increased throughout the world and are a major issue due to the increasing reliance on computers and networked technology. The probability of Forest County experiencing cyber-attacks is based on the increase of cyber-attacks throughout the country.

In 2014, the Crypto-locker virus affected Forest County resulting in the loss of about one month's worth of data from the Sheriff's Department file server including documents, pictures, pdf files, etc. One database had to be rebuilt. There was also a denial of service issue about 20 years ago. Denial of Service attacks are designed to overload a network with useless traffic preventing legitimate users access and crashing the system. There was also a notable system intrusion in 2024.

Based on discussions of various county and agency experience with firewalls and network security appliances, they are under continuous hacking attacks. Other counties in the area have experienced viruses, ransomware and denial of service attacks.

In 2023, a serious cyberattack afflicted Forest County's next-door neighbor, Langlade County, highlighting the seriousness of this threat. Langlade's technology services faced catastrophic software failures caused by a LockBit ransomware attack. Specific details regarding the file encrypting malware attack have not been disclosed. The effects included emergency phone lines becoming non-operational along with disruption of email

and other communication channels. A strong back-up program has enabled the County to recover from this attack.

Cyber Attack Vulnerability Assessment

The impact of a cyber-attack on property, facilities, and infrastructure is dependent on the type of event and the location in which it occurs. Cyber-attacks, in all probability, will have limited effect on public properties, buildings, or infrastructure, but may severely affect the transportation of goods and services to and from critical facilities. Infrastructure damage or interruption of power or communication services could have a substantial impact; but effects are minimized through thorough planning on the part of the utility and its determination to resume critical services. Economic and financial systems could potentially be significantly impacted, depending on the scope, breadth, and success of the cyber-attack.

All government and personal computers and networks within Forest County are susceptible to cyber-attack. The County has an extensive computer and server network. Attention must be given to security education and awareness, so that undue faith is placed in technology's ability to protect data. Inadequate security awareness can facilitate access to critical computer systems, making them vulnerable to attacks. Secure off-site back-up is critical for reestablishing operations if a serious cyber-attack does occur.

Cyber-attacks may last from minutes to days depending upon the type of intrusion, disruption, or infection. Generally, no direct effects are felt by the built environment, but secondary effects may occur depending upon the system being attacked. Denial of service attacks can cripple all or part of a county computer system and are hard to protect against. The County should plan fail safes against denial-of-service type attacks.

The spectrum of cyber risks is limitless, and serious threats can have wide-ranging effects. Transportation, power, and other services may be disrupted by large scale cyber-attacks. The extent of the disruption is highly uncertain, as it will be determined by many unknown factors such as the target and size of the incident. Vulnerability to data breach and loss increases if a network is compromised. Information about citizens and employees can be at risk.

Future Probability and Potential Dollar Losses – Cyber Attack

Although there is currently insufficient data to determine an accurate probability, the data suggests that the percentage chance of a serious cyber-attack on Forest County in any given year is estimated to be 20 percent.

The threat of cyber-attack has been identified as a significant and growing threat to Forest County. The level of success or damage will vary greatly. Intrusion detection systems log attack attempts almost every day. There are constant probes by individuals and groups with intent to cause anything from total system shutdown to simply "seeing if they can do it."

No accurate method of estimating potential losses related to cyber-attack is available at this time for Forest County; however, the County is monitoring this issue.

Climate change affects cybersecurity by increasing the vulnerability of critical infrastructure and digital networks. As extreme weather events like floods, tornados, and wildfires become more frequent, they can disrupt power grids, damage data centers, and weaken communication networks, creating opportunities for cyberattacks. Additionally, the need for rapid technological adaptation in response to weather related crises can lead to rushed or inadequate security measures, leaving systems exposed. Moreover, increased geopolitical tensions may be caused by increasing frequency of extreme weather events may drive state-sponsored cyberattacks, targeting critical sectors like energy, water, and transportation.

HAZARD ANALYSIS: EPIDEMIC / PANDEMIC

Background On Epidemic / Pandemic Hazard

Communicable diseases, sometimes called infectious diseases, are illnesses caused by organisms such as bacteria, viruses, fungi and parasites. Sometimes the illness is not due to the organism itself, but rather a toxin that the organism produces after it has been introduced into a human host. Communicable diseases may be transmitted (spread) either by: one infected person to another, from an animal to a human, or from some inanimate object (doorknobs, table tops, etc.) to an individual. Some communicable diseases can be spread in more than one way.

Pandemic Influenza is a global disease outbreak. An outbreak occurs when a new influenza virus emerges for which people have little or no immunity, and for which there is no vaccine. The disease spreads easily from person to person, causes serious illness or death, and can sweep across the county and around the world in a very short time frame.

History of Epidemic / Pandemic in Forest County

COVID-19 is a disease caused by a new virus strain that began spreading in people in December 2019. On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization. Then on April 4, 2020, a Presidential Disaster Declaration was signed for the pandemic in the United States. Over the next three years, the pandemic was dynamic and constantly changing with cases surging in waves coinciding with new variants of the virus. However, On May 11, 2023, the federal government ended the Public Health Emergency in the U.S. as much of the population had returned to life as normal. A low level of COVID-19 virus activity remained in the community, and there were still concerns about surges or new variants. As of the end of the public health emergency, the U.S. Center for Disease Control has reported that there have been approximately 103,910,034 cases of COVID-19 in the United States alone with a death toll exceeding 1 million at 1,135,343.

Virus pandemics are naturally occurring events. Prior to COVID, global outbreaks have occurred four times in the last century, in 1918, 1957, 1968 and 2009. The greatest loss occurred in 1918 when the Spanish Flu (H1N1) killed an estimated 20-40 million people worldwide between 1918 and 1919. The mortality rate in the United States was 550,000. The Asian Flu (H2N2) occurred from 1957 to 1958 with a mortality rate of 70,000 in the United States. The Hong Kong Flu (H3N2) occurred from 1968 to 1969 with a mortality rate of 34,000 in the United States.

2009 saw the rise of a new variant of the H1N1 virus, popularly referred to as the Swine Flu. Lab confirmed deaths from Swine Flu total about 14,000 worldwide with 3,400 deaths in the United States. However, most experts now agree that the actual death toll attributable to the 2009 Swine Flu is 10 to 15 times the confirmed number. Spread of H1N1 flu occurs in the same way that seasonal flu spreads. Flu viruses are spread mainly from person to person through close range coughing or sneezing by people with influenza. As a result of preparation and mitigation strategies such as vaccinations and public education, the threat of a full blown H1N1 pandemic in the U.S. has receded. The possibility for a pandemic, though, still exists.

A previous pandemic flu threat that still looms is the avian flu. Birds can contract avian flu and pass it along to humans. Some strains of the avian flu are more virulent than others. Public health experts continue to be alert to the risk of a possible re-emergence of an epidemic of avian flu among people primarily in Asia. In 2003, people who had been in very close contact with infected birds (for example, people who lived with chickens in their houses or worked with them) contracted a virulent form of avian flu, and there were at least three human fatalities. More recently, since 2020 avian flu has been infecting thousands of wild birds and is causing outbreaks in domestic poultry populations which have spread to some dairy cattle herds. This has led to one human death in the U.S. in 2024. Thus far, the avian flu virus has not mutated to demonstrate easy transmission from person to person. However, were the virus to mutate in a highly virulent form and become easily transmissible from person to person, there would be significant potential for a pandemic that could disrupt all aspects of society and severely affect the economy.

The Forest County Health Department tracks communicable disease through a channel of communications at the local, state and regional levels between public health, private physicians, hospitals, and labs. This communication channel allows for prompt investigation of possible outbreaks and unusual situations, and to implement control measures to minimize further transmission of disease to others.

In Forest County, there have been 3,381 total cases of COVID -19 resulting in 56 deaths as of the end of the public health emergency in May of 2023. For Wisconsin, total cases reached 2,014,524 with 16,485 deaths. By comparison, there were 13,511 confirmed or probable cases of the 2009 H1N1 from April 2009 to March 2010 with 1,320 hospitalized and 55 deaths for Wisconsin.

The next epidemic / pandemic situation may not be a "flu" but could be a developing "super bug" such as antibiotic resistant MRSA or some as yet unknown bacteria or virus.

Epidemic / Pandemic Vulnerability Assessment

Most communicable diseases are dealt with through traditional health department activities. The complexity and magnitude of a Pandemic Influenza outbreak would tax the normal capabilities of the medical service community and the Emergency Management Department would assist in all activities surrounding an event of this severity.

The possibility of a communicable disease epidemic or pandemic outbreak is equal across the County, but the ability to predict where and when an event will occur is very difficult. As COVID-19 has demonstrated, even an isolated little county in northern Wisconsin cannot avoid the impacts of a global pandemic. Although Forest County's overall case rate was slightly higher than the state average (37,550 per 100,000 versus 34,599), the COVID death rate in the County was double the state rate (622 per 100,000 versus 283).

Future Probability and Potential Dollar Losses – Epidemic / Pandemic

Post COVID-19 the future probability of a communicable disease / pandemic outbreak is difficult to determine. The probability would appear low, but the threat exists, and the impact of a widespread event is very severe as displayed by the effects of COVID-19. Significant economic disruption can occur due to loss of employee work time and costs of treating or preventing spread of the pathogen.

The probability of an outbreak might be calculated across a hundred-year period. Based on the five major events identified here, the likelihood of an event occurring in any given year would be about 5%.

Weather variability can influence epidemic/pandemic origins by altering ecosystems and influencing disease vectors. Rising temperatures and altered precipitation patterns can expand the geographic range of disease-carrying insects like mosquitoes, bringing diseases such as dengue and Zika to new regions. This environmental shift also forces animal populations to migrate, increasing their contact with humans and creating new opportunities for pathogen spillover.

INTRODUCTION

Hazard mitigation is any action taken to reduce or eliminate the long-term risk to human life and property damage from natural hazards. This chapter describes the mitigation goals and actions to be taken by Forest County and the local units of government within the county for each of the hazards identified in Part III – Risk Assessment. The intention is to reduce or avoid long-term vulnerability to the identified hazards.

Part IV of the Forest County All Hazards Mitigation Plan Update will discuss the following factors in establishing the multi-jurisdictional mitigation strategies:

- Benchmark Progress of Previous Plan 2021-2025
- Review of Mitigation Goals
- Prioritize Identified Mitigation Strategies
- Establish Mitigation Action Plan

PROGRESS REPORT 2021 - 2025

Table 15 identifies the completed, deleted or deferred mitigation actions from the previous update in 2021. For each action recommendation, a brief status report is provided which describes the progress made on that measure. If an item remains unchanged, a description is provided as to why no action has been taken and whether that item is deferred to the new plan.

The table also provides the new status of each recommendation with regard to the updated plan alongside the previous timeframe target for comparison. Many of the recommendations are on-going efforts and are carried over as such in the updated action plan. Some have had significant progress or have been deferred, but are recommended for further action with new target date or on-going status. If the recommendation has been completed with no further specific action anticipated within the next five year planning period, it is shown as "deleted" and will not appear in the updated action plan. In some cases, an incomplete action is not selected for various reasons (noted) and is shown as deleted. In a few cases, related recommendations are combined as indicated.

This progress report serves as a benchmark for progress in achieving the multi-jurisdictional mitigation goals of Forest County and the local jurisdictions that participated in the Plan Update.

TABLE 15 BENCHMARK FOR PROGRESS 2021 - 2025 PLAN			
2021-2025 Plan Measure	Progress Report	Original Status	New Status
Continue to promote the use of National Oceanic and Atmospheric Administration (NOAA) weather radios.	Regularly promotes NOAA alert radios including special events. Supports Storm Spotter training.	On-going (1)	On-going (1)
Continue to add/update EM Dept link off existing County website.	Website regularly maintained with hazard information.	On-going (2)	On-going (2)
Acquire/install back-up generators. – various needs / locations...	Some facilities have had generators installed, but expanding needs have been identified.	On-going (3)	On-going (3)
Improve communications – work to develop cellular, internet & radio coverage...	On-going work has improved communications in the county but more is needed. New technologies need to be integrated.	On-going (4)	On-going (4)
Update City's warning siren including back up power generator.	No progress to date. City still identifies as a need.	2022 (5)	2028 (5)
Continue to improve county's rural addressing system as part of enhanced 911 development.	Work in progress – continual updates and improvements.	On-going (6)	On-going (6)
Update & reprint emergency response zone atlas.	Completed. DNR is handling these atlases and moving to a more modern tech based application at this time.	2022 (7)	Completed / Removed (-)
Assist local units with development of local emergency response plans...	Some communities maintain emergency plans while others have lagged. Some are in need of update.	On-going (8)	On-going (10)
Ensure manufactured homes follow code specs re tie-downs...	No progress to date. Not identified as a current issue. Determined to local development review process.	On-going (9)	Removed (-)
Establish / construct emergency shelters in various locations...	Some shelters have been established but expanding needs have been identified. Emerging relief center concept identified.	2023 (10)	2030 (12)

TABLE 15 <i>Continued</i>			
2021 - 2025 Plan Measure	Progress Report	Original Status	New Status
County/City continued compliance in the NFIP...	On-going efforts of the County and City.	On-going (11)	On-going (13)
Require stormwater plans for new development on the urban fringe.	Stormwater management is required via development regulations and permitting. Some actions have been taken to address flooding issues.	2024 (12)	Completed / Removed (-)
Continue to review & test EAPs for significant and high hazard dams...	EAPs continue to be maintained and updated for a number of dams in the County.	On-going (13)	On-going (15)
Town and tribal road / culvert improvements...	Some progress across towns, but more needs identified.	On-going (14)	On-going (16)
Study ways to improve storm water management & drainage problems in the City...	City has made significant storm water management improvements, but some trouble spots remain.	On-going (15)	2029 (17)
Rip-Rap projects to stabilize the shoreline & road ROW in the Town of Lincoln.	Town reports on-going progress in this area with additional work needed/planned.	2024 (16)	2030 (18)
Promote winter hazards awareness, including home and travel safety measures.	County does winter awareness as needed.	On-going (17)	Annual (19)
Use education programs aimed at mitigating fires.	WDNR and USFS do wildfire outreach but is on-going issue and more is needed.	Annual (18)	Annual (21)
Develop driveway ordinances and private road standards to ensure emergency vehicle access.	Some towns have developed / updated ordinances, but still identified as an issue.	On-going (19)	On-going (20)
Develop local wildfire protection plans in high risk towns and tribal areas.	DNR implements wildfire protection plans in County as needed.	On-going (20)	Removed (-)
Town and tribal roadway maintenance and brushing.	Progress has been made in many areas, but new needs have been identified.	Annual (21)	On-going (23)

TABLE 15 Continued			
2021 - 2025 Plan Measure	Progress Report	Original Status	New Status
Develop countywide drought mitigation plans...	No progress to date. However, persistent drought conditions across the state and country are a red flag.	As needed (22)	As needed (24)
Promote heat hazard awareness...	County does heat awareness as needed.	As needed (23)	As needed (26)
Implement multi-layered process...to prevent cyber attacks.	Some progress. Updated recommendation based on input.	On-going (24)	On-going (27)
Establish cyber attack warning and communications procedures...	County has been working to address cyber security, but limited resources slow progress.	On-going (25)	On-going (28)

LOCAL HAZARD MITIGATION GOALS

The mitigation strategy is based on a set of goals to reduce or avoid long-term vulnerabilities to the hazards identified in the Risk Assessment. The goals were established by the previous Mitigation Planning Committee during the development of the last update. The Plan Update Committee reviewed the goals and concurred that these goals continue to represent the desired conditions to strive for through the mitigation efforts of the County and municipalities with the addition of a new goal specifically addressing epidemic/pandemic.

The mitigation goals for reducing or avoiding the long-term vulnerability of Forest County are as follows:

- Prepare residents and visitors of Forest County for natural hazard events and protect from the effects of such events to the extent possible.
- Protect health, safety, and welfare of County residents and visitors, along with mitigating future loss of property from tornados.
- Protect health and safety of County residents and visitors during and after winter storm events or periods of extreme cold.
- Improve County preparedness for dealing with extended drought.
- Create safety awareness in citizens of Forest County to help protect themselves during extreme heat events.
- Continue compliance with the National Flood Insurance Program and work to reduce flood risk throughout Forest County and City of Crandon.
- Eliminate the loss of life and reduce the risk of property damage in downstream areas that result from a dam failure.
- Reduce long-term vulnerabilities from high hazard dams that pose a significant risk to the public.
- Minimize the threat to human life and property damages caused by severe storms and associated lightning and high wind and hail.
- Protect the safety and property of residents and visitors from forest and wildfires.
- Protect Forest County computer systems and data from cyber-attack.
- Improve countywide preparedness for handling and recovering from an epidemic or pandemic event.

PRIORITIZATION OF STRATEGIES

The Plan Update Committee considered a number of factors in identifying and ranking proposed mitigation strategies. The matrix, below, describes the factors incorporated into the prioritization process. The resulting priority of each strategy is shown in the strategy summary Table 16.

Prioritization Factors for Forest County Mitigation Strategies

<i>Strategy Prioritization Factor</i>	<i>Description of Factor Considerations</i>
Priority of Hazard Type	The ranking of hazard types, tornado, flooding, etc., accounts for threat to human safety and possible property damage and was carried over to groups of strategies by hazard type. Strategies believed to benefit multiple hazards (listed under "All Hazards") were valued higher.
Ease of Implementation	Strategies where existing staff and resources are adequate were valued higher than those where additional resources are necessary. Consideration was also given to strategies that meet other countywide goals or incorporated as part of another county project. Project timing was also a consideration as to when funding such as grant applications might be available and when various activities could be scheduled.
Perceived Cost versus Potential Benefit	Although a detailed cost-benefit analysis was deemed beyond the scope of this study, the Committee weighed the perceived costs of each strategy against the potential benefit anticipated. Proposals that seemed economically unfeasible were rejected.
Multi-jurisdictional Application	Strategies benefiting multiple jurisdictions were valued more than those pertaining to fewer jurisdictions.

Members of the Plan Update Committee scored each strategy based on these prioritization factors and assigned a high, medium or low rating to reflect their relative level of priority for that strategy. A 3-point weighted scale was used to average the scores into the overall high, medium or low priority for the County or local units as shown in Table 16.

MITIGATION ACTION PLAN

The mitigation strategies are organized by hazard beginning with some overall strategies that apply to a number of different hazards and are listed under the category, “all hazards”. For each hazard, a goal was established as to what the County intends to achieve by implementing the specific action strategies and is based on the risk assessment findings. Each action strategy is then briefly described and followed by a discussion of the jurisdictions/agencies that will pursue the action, including the proposed lead jurisdiction/agency.

Each section of this part is broken down as follows:

Goal:

Broad, long-term mitigation goals to reduce or avoid vulnerabilities to the identified hazard are stated.

Action:

Each action strategy proposed to aid in achieving the overall goal for the identified hazard is described. A given action strategy may be comprised of a number of related sub-actions.

Participating Jurisdictions:

The proposed lead agency or lead jurisdiction is identified along with a listing of the other agencies or jurisdictions that the recommended action applies to. This does not preclude other agencies or jurisdictions from participating in the action.

The chapter concludes with a summary of the recommended mitigation strategies shown in Table 16. Table 16 also contains project cost estimates where available and potential time frames.

ALL HAZARDS**Goal:**

Prepare residents and visitors of Forest County for natural hazard events and protect from the effects of such events to the extent possible.

Action 1:

The County and local units should continue to promote the increased use of National Oceanic and Atmospheric Administration (NOAA) weather radios. NOAA Weather Radio (NWR) is a nationwide network of radio stations broadcasting continuous weather information direct from a nearby National Weather Service office. NWR broadcasts National Weather Service warnings, watches, forecasts and other hazard information 24 hours a day. NWR is not only for storms, but also for other hazards as well, making it a single source for comprehensive weather and emergency information. NWR also

broadcasts warning and post-event information for all types of hazards--both natural and environmental (such as chemical releases or dam failures).

Participating Jurisdictions for Action 1:

Lead agency will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross & Wabeno, and all School Districts including: School District of Crandon, Laona School District, Goodman-Armstrong Creek School District & School District of Wabeno Area.

Action 2:

The County should continue to add and update information on an Emergency Management web page link off the existing County website. The web page should contain information describing the types of hazards and how to respond to a hazard threat. The site should also contain information on ordinances pertaining to hazards (i.e. County floodplain zoning), locations of shelters, and links to other sites that provide valuable information on weather conditions, burning permits, etc.

Participating Jurisdictions for Action 2:

Lead agency will be Forest County Emergency Management. The only directly participating jurisdiction will be Forest County.

Action 3:

Install back-up generators or wiring for portable hook up. / Acquire portable generator units. - The need for emergency back-up power has been identified for emergency shelters and community relief centers (such as local town hall or community center locations) to provide warming/cooling, device charging, etc. for residents as well as maintaining critical operations such as emergency services (fire/EMS/police), sewer and water, back-fuel supplies, public works (facility operation, lift stations, wells, etc.), city hall, etc. during power outage.

Participating Jurisdictions for Action 3:

Lead agencies will be Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and Towns of Armstrong Creek, Laona & Popple River. Jurisdictions participating in this action will include Forest County, the City, the Tribes, all Towns, and all School Districts.

Action 4:

Continue to address communications issues across the county including broadband and cellular service to provide a higher quality of coverage for emergency situations. Continue working with developing technology solutions such as FirstNet and other applications.

The County has added a communications tower and continues to work on expanding broadband service. Cell coverage is improving through Verizon. The County is exploring use of new technologies including FirstNet and use of satellite communications for 911.

Recommendations to address communications issues include: Forest County should work County Legal Counsel and County Board to obtain an agreement with local tower partners to install Public Safety Radio Equipment to expand Forest Counties Communications. Address radio equipment needs such as repeater, antennas, etc. Forest County Emergency Services Association should maintain the lease with IamResponding to supplement the emergency notifications and communications in Forest County. Forest County Dispatch should work with private partners to expand and install components necessary to connect cellular and radio communications.

Other recommendations include the following:

- 1) Obtain radio expansion equipment for Alvin and Newald.
- 2) Obtain radio/cell module for dispatch center.

Participating Jurisdictions for Action 4:

Lead agency will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns.

Action 5:

From the mitigation planning meeting for the City, the City of Crandon identified the need to update and modernize its warning siren system including addition of back-up power to maintain operation in case of power outage. The City also discussed the need to develop public information and outreach regarding siren operations.

Participating Jurisdictions for Action 5:

Lead agency will be the City of Crandon. The City will be the only directly participating jurisdiction.

Action 6:

The County should continue to improve its rural addressing system as part of Next Gen 911 development. With continual updates and improvements, this is a work progress. By improving the identification of existing roads and addresses and issuing more accurate addressing, emergency response will be facilitated.

Participating Jurisdictions for Action 6:

Lead agency will be Forest County. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns.

Action 7:

Ensure fire, rescue and other emergency responders across the county have back-up fuel options or an MOU for fuel access.

This question was raised during the Agency and Interest Group meeting for this Plan: “What is the back up fuel plan?” In a situation with an extended period of power outage,

refueling of response vehicles and equipment is a potential issue. Few gas stations have back-up power. Arrangements could be made (plan for in advance) to truck-in fuel, but there must be a method to dispense that fuel. The County Highway Shop has a fuel tank with generator, but this cannot support greater countywide needs for an extended period while also keeping the county fleet in service to meet its response obligations. Consider stand-by tank(s) to support agencies/areas across the county. This should be a joint/collaborative effort. Maintenance and monitoring of the tank(s) must be provided for.

Participating Jurisdictions for Action 7:

Lead agency will be Forest County Emergency Management Department. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns.

Action 8:

Develop emergency transportation plan to address evacuations and assisting residents with functional needs during an emergency situation.

During the Agency and Interest Group meeting for this plan, attendees identified a need to address emergency transportation and recommended the development of an emergency transportation plan.

The county's rural and remote nature results in limited transportation options. County aging and disabled transportation provides for some of this need. Nu Roc (nursing home) has a busing agreement with the County to provide busing for evacuation of residents in an emergency situation. Area agencies (aging, health, social services, etc) collaborate on community issues including transportation. These groups could coordinate on an emergency transportation plan to address evacuation needs as well as ensuring residents can get to medical appointments and obtain necessary medicine and supplies, as well as supporting those with functional needs during a prolonged emergency event.

Participating Jurisdictions for Action 8:

Lead agency will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, all Towns, and all School Districts.

Action 9:

Establish and develop a functional needs assistance list (registry) and procedures. The registry provides emergency responders with important information to ensure the safety of residents with special needs such as oxygen supply, ventilation, associated power requirements, critical medications, physical limitations, etc., as well as information like what type of heat source they have, if AC is available, etc. A GIS mapping component could be developed as well to assist with locating those in need and managing the response during a situation.

One area of concern identified during this planning process as needing to be addressed is the provision of aid and/or evacuation for elderly and other homebound in the event of

a disaster / emergency. One of the reasons for this concern is the potential for power outages affecting the area. Maintaining a functional needs registry will help local officials make sure residences with critical power requirements have working generators to power ventilators or other important medical devices. Consideration must be given to nursing homes, assisted living, and other facilities where vulnerable populations are congregated.

Many communities maintain these types of registries in varying forms. A resident survey could be created and distributed via email and/or US Mail to gather the base information to build the registry. Once the initial registry is established consideration must be given to maintaining and updating the information. One option might be to develop an online interface for individuals to enter and submit their information. Privacy considerations must also be factored in.

Communities approach these registries in different ways. For example, Juneau County, Wisconsin states that “The purpose of the Functional Needs Evacuation Registry is to provide Emergency Responders in your municipality with important information from individuals who may require Evacuation Assistance during an emergency, such as tornado, flood, blizzard, power outage, or disease outbreak.” Juneau County has a downloadable form (see APPENDIX C) available on their website that people can fill in and mail back to enter the registry or update their registry information.

Participating Jurisdictions for Action 9:

Lead agencies will be Forest County Emergency Management and County Health. Jurisdictions participating in this action will include: Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns.

Action 10:

Forest County Emergency Management will create an Emergency Operations Plan Template to share among all Forest County municipalities and communities to create uniformity in those operations plans and work towards a whole community approach. Forest County Emergency Management will coordinate training and tabletop exercises to support this action.

Forest County has fourteen townships and one city within the county. Each district faces its own challenges in response and recovery and each district has different responding agencies. Forest County Emergency Management will work with each town and city to create an Emergency Operations Plan to fit their specific needs to better prepare response and recovery strategies. The City of Crandon discussed the need to develop checklist(s) for emergencies as part of an update to its emergency response plan.

Forest County Potawatomi Community and Sokaogon Chippewa Community should update and consolidate their Emergency Operations plans for tribal government departments.

Participating Jurisdictions for Action 10:

Lead agency will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, all Towns, and all School Districts.

HAZARD: SEVERE STORMS: TORNADO & THUNDERSTORM/LIGHTNING/HAIL**Goal:**

Minimize the threat to human life and property damaged caused by severe storms and associated lightning, hail and high wind.

Goal:

Protect health, safety, and welfare of County residents and visitors, along with mitigating future loss of property from tornados.

Action 11:

Public Preparedness Messaging – Collaborate across jurisdictions to develop messaging for public preparedness education and outreach on tornados and severe storms.

Recent events have highlighted the need for clear, consistent and unified information dissemination to the public, so they may be better prepared in an emergency situation. Individuals, regardless of intentions, push out information that is incorrect, conflicting or misleading. On-going education of the public can help people in being prepared to manage an emergency situation for their unique circumstances and needs, as well as, after event safety for themselves and their families. Messaging planning must address how to get the word out to diverse groups within the population such as the elderly.

Forest County is a widespread county that is very rural and experiences a wide variety of weather events. The occurrence of some events such as extreme cold or heat are relatively predictable, however, more rapidly developing weather events such as tornadoes, high winds and flooding are a major threat to local infrastructure and resources. Therefore, public information and warning and public preparedness is a critical component of effective emergency planning. The City of Crandon discussed the idea of providing checklists to guide resident preparedness.

Forest County Emergency Management will engage other county agencies to increase community weather preparedness and awareness and seek to establish MOU's where needed to support community preparedness.

Also refer to Actions 19 and 26.

Participating Jurisdictions for Action 11:

Lead agencies will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns.

Action 12:

Establish / construct emergency shelters in the Towns of Armstrong Creek, Laona, Lincoln and Popple River, the City of Crandon, and all area School Districts. Establish relief centers in each community including backup generators to provide cooling/warming, charging, water, information, etc. during a severe storm situation.

The Town Mitigation Planning Survey for this plan explored sheltering needs. The Town of Laona indicated storm shelters are needed at the community building and near the ballfield on Elm Street. The Town of Lincoln indicated a need for a storm shelter with the town hall as a possible location. The Towns of Armstrong Creek and Popple River are in various stages of equipping their town halls or community centers to serve as relief centers. In each case, the need for a generator to provide back-up power was identified, see also Action 3. The Town of Armstrong Creek cited the most recent ice storm induced power outage as the impetus to equip its community center with a generator for warming after town residents had to go to a neighboring town hall for warming shelter.

School District participation identified the need for shelter facilities. Some school districts in the state have been able to supplement a school construction project with FEMA hazard mitigation grant funds to reinforce a portion of the project, such as a gymnasium, to higher wind resistance standards to serve as a community tornado shelter. This facility would provide storm shelter for the school/community in the case of a severe storm/tornado or other hazard event. School Districts in the County should incorporate these types of facilities in designs for future construction projects.

Towns should establish relief centers with necessary improvements to townhalls, fire stations, community centers or other town facility including back-up power generators installed to provide residents power for charging as well as heating/cooling and water. These sites would serve as gathering points for resources and information. Equipping these sites also typically includes weather radio, blankets and other emergency supplies.

Individual local communities are responsible for their sheltering needs. The County can help plan and support sheltering functions, but local emergency operations plans should account for sheltering. A hardened storm shelter may not be feasible in every community, but communities are encouraged to develop a central location where residents can get information, assistance and some temporary relief in an emergency situation.

Also refer to Actions 20 and 25.

Participating Jurisdictions for Action 12:

Lead agencies will be City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross & Wabeno, and all School Districts including: School District of Crandon, Laona School District, Goodman-Armstrong Creek School District & School District of Wabeno Area. Jurisdictions

participating in this action include the County, City, Tribes, all Towns and all School Districts.

HAZARD: FLOODING/DAM FAILURE**Goal:**

Continue compliance with the National Flood Insurance Program and work to reduce flood risk throughout Forest County and City of Crandon.

Goal:

Eliminate the loss of life and reduce the risk of property damage in downstream areas that result from a dam failure.

Goal:

Reduce long-term vulnerabilities from high hazard dams that pose a significant risk to the public.

Please note: actions denoted with an asterisk (*) relate to compliance with the NFIP.

Action 13*:

County/City continued compliance in the NFIP. - Including voluntary buyout through mitigation grants of residential structures in the floodplain when flood damaged.

Communities within Forest County currently participating in the National Flood Insurance Program (NFIP) should work to ensure continued compliance. Compliance primarily entails adopting and enforcing floodplain management regulations that meet minimum criteria. Forest County and the City of Crandon are in the program. All towns are included under the umbrella of the County through the state mandated county shoreland zoning.

Participating Jurisdictions for Action 13:

Lead agency will be the Forest County Zoning Office. Jurisdictions participating in this action will include Forest County and City of Crandon.

Action 14:

Replace Lily Lake Dam in the Town of Nashville. The Town of Nashville reported that Lily Lake Dam is failing in its Town Mitigation Planning Survey for this plan.

Participating Jurisdictions for Action 14:

Lead agency will be the Town of Nashville. The only participating jurisdiction in this action will be the Town.

Action 15:

Continue to review and test dam failure Emergency Action Plan (EAP) for each significant and high hazard dam within Forest County. Review conditions for all significant and high hazard dams for rehabilitation needs and evaluate for potential HHDP grant application.

FEMA guidelines for dam safety indicate that training and exercises are necessary to maintain operational readiness, timeliness and responsiveness. The status of training and levels of readiness should be evaluated in periodic simulated emergency exercises for response personnel and the dam owner.

Emergency situations and/or dam failures are not common events. The EAP can become outdated, lose its effectiveness and no longer be workable if the plan is not practiced. Those involved may become unfamiliar with their roles and responsibilities, especially with the turn over of local officials. If the plan is not updated, the information contained in it may become outdated and useless.

There are five types of exercises, including: orientation seminar, drill, tabletop exercise, functional exercise and full-scale exercise. They range in complexity from simple to more complex, but it is not required that every exercise program include all five types.

Participating Jurisdictions for Action 15:

Lead agencies will be Forest County Emergency Management and Land Conservation Departments. Participating jurisdictions will include those communities: Town, City, Tribe that could be affected. Federal and state officials should also be invited including USFS, DNR, etc., as well as dam owners/operators.

Action 16:

The Towns and Tribal governments should look at maintenance and improvement of drainage of town / tribal roads and culverts to help reduce/eliminate erosion and washouts. The Town of Lincoln specified this as an action item in the All Mitigation Hazard Mitigation Local Government Survey, but the recommendation applies to all Towns and the Mole Lake and Potawatomi tribes, which have their own tribal roads. This is particularly important in areas that could become isolated and inaccessible during or after a disaster event hampering access by law enforcement or rescue personnel.

Participating Jurisdictions for Action 16:

Lead agencies will be each town and tribe. Jurisdictions participating in this action will include City of Crandon, Sokaogon Chippewa Tribe, FC Potawatomi Tribe and all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross, and Wabeno.

Action 17:

Study ways to improve storm water management and drainage problems in the City of Crandon. Implement necessary storm sewer and drainage improvements.

The City indicates that past stormwater and flood prevention projects have significantly improved problems, but certain areas still have flooding issues with heavy rainfall.

Participating Jurisdictions for Action 17:

Lead agency will be the City of Crandon. The only participating jurisdiction in this action will be the City.

Action 18:

Continue rip-rap projects to stabilize the shoreline and road right-of-way in the Town of Lincoln.

The Town has accomplished a number of projects and continues to monitor and address needs as they arise. A number of new projects are being planned for future years.

Participating Jurisdictions for Action 18:

Lead agency will be the Town of Lincoln. The only participating jurisdiction in this action will be the Town.

HAZARD: WINTER STORMS/EXTREME COLD**Goal:**

Protect health and safety of county residents and visitors during and after winter storm events or periods of extreme cold.

Action 19:

Public Preparedness Messaging – Collaborate across jurisdictions to develop messaging for public preparedness education and outreach on winter storms and extreme cold events.

Recent events have highlighted the need for clear, consistent and unified information dissemination to the public, so they may be better prepared in an emergency situation. Individuals, regardless of intentions, push out information that is incorrect, conflicting or misleading. On-going education of the public can help people in being prepared to manage an emergency situation for their unique circumstances and needs, as well as, after event safety for themselves and their families. Messaging planning must address how to get the word out to diverse groups within the population such as the elderly.

Forest County is a widespread county that is very rural and experiences a wide variety of weather events. The occurrence of some events such as extreme cold or heat are relatively predictable, however, more rapidly developing weather events such as tornadoes, high winds and flooding are a major threat to local infrastructure and resources. Therefore, public information and warning and public preparedness is a critical component of effective emergency planning. The City of Crandon discussed the idea of providing checklists to guide resident preparedness.

Forest County Emergency Management will engage other county agencies to increase community weather preparedness and awareness and seek to establish MOU's where needed to support community preparedness.

Also refer to Actions 11 and 26.

Participating Jurisdictions for Action 19:

Lead agency will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, Sokaogon Chippewa Tribe, FC Potawatomi Tribe and all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross, and Wabeno.

Action 20:

Establish relief centers in each community including backup generators to provide warming, charging, water, information, etc. during a winter storm or extreme cold situation.

The Towns of Armstrong Creek and Popple River are in various stages of equipping their town halls or community centers to serve as relief centers. In each case, the need for a generator to provide back-up power was identified, see also Action 3. The Town of Armstrong Creek cited the most recent ice storm induced power outage as the impetus to equip its community center with a generator for warming after town residents had to go to a neighboring town hall for warming shelter.

Towns should establish relief centers with necessary improvements to townhalls, fire stations, community centers or other town facility including back-up power generators installed to provide residents power for charging as well as heating and water. These sites would serve as gathering points for resources and information. Equipping these sites also typically includes weather radio, blankets and other emergency supplies.

Individual local communities are responsible for their sheltering needs. The County can help plan and support sheltering functions, but local emergency operations plans should account for sheltering. A hardened storm shelter may not be feasible in every community, but communities are encouraged to develop a central location where residents can get information, assistance and some temporary relief in an emergency situation.

Also refer to Actions 12 and 25.

Participating Jurisdictions for Action 20:

Lead agencies will be City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns. Jurisdictions participating in this action include the County, City, Tribes, and all Towns.

HAZARD: FOREST FIRE / WILD FIRES**Goal:**

Protect the safety and property of residents and visitors from forest and wildfires.

Action 21:

The County should develop education and information for homeowners on protecting their homes and other structures from wildfires. Since Forest County is mostly rural with vast woodlands, emphasis should be placed on construction and establishing defensible areas around structures. Roofs and exterior siding should be made of ignition-resistant materials. At least 30 feet should be left between homes and surrounding combustible vegetation. Outreach efforts can exist in the form of web sites, local newspaper articles, and pamphlets to homeowners.

Participating Jurisdictions for Action 21:

Lead agency will be Forest County Emergency Management. The only directly participating jurisdiction will be Forest County.

Action 22:

Local units of government should develop driveway ordinances and minimum standards for private roads to support emergency vehicle access in conjunction with countywide uniform addressing. The ability of emergency response units to reach a site is often the critical factor in the effectiveness of the response. Inadequate private access roads or driveways are common problems in rural areas. In some cases emergency units cannot physically reach a target site due to narrowness, tight corners, steep slopes, etc. Other problems include lack of space to maneuver or turn around.

Participating Jurisdictions for Action 22:

Lead agencies will be the Towns of Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross, and Wabeno. Jurisdictions participating in this action will include all Towns.

Action 23:

Roads that are narrow with vegetative encroachment do little to mitigate fire hazard or impede fire movement, hinder evacuation, and provide poor access for fire trucks and apparatus. Treatment options include widening the open right-of-way by cutting back and brushing encroaching vegetation, establishing mineral soil barriers, or converting fuel types adjacent to the roadway from high hazard fuels like pine to more fire resistive types like hardwood.

The Towns of Hiles and Popple River specified this as an action item in the All Mitigation Hazard Mitigation Local Government Survey, but the recommendation applies to all Towns and the Mole Lake and Potawatomi tribes, which have their own tribal roads. This is particularly important in areas that could become isolated and inaccessible during or after a disaster event hampering access by law enforcement or rescue personnel.

Participating Jurisdictions for Action 23:

Lead agencies will be Town of Hiles, Popple River & all Towns and the FC Potawatomi Tribe & Sokaogon Chippewa Tribe. Jurisdictions participating in this action will include

the Tribes and all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross, and Wabeno.

HAZARD: DROUGHT/EXTREME HEAT**Goal:**

Create safety awareness in citizens of Forest County to help protect themselves during extreme heat events.

Goal:

Improve County preparedness for dealing with extended drought.

Action 24:

Develop countywide drought mitigation plans to encourage multi-agency approaches to water conservation, drought prediction and stream and groundwater monitoring. Drought can have a significant impact on tourism and forest products; both major sectors of the County's economy. Drought probably has the greatest impact on agricultural areas, and ag-production has been on the increase in the County. Based on the potential significance of the impact on the County's economy, drought becomes an important hazard to prepare for.

Even droughts of limited duration can reduce crop growth and yields, adversely affecting farm income. More substantial events can decimate croplands and result in total loss, negatively impacting both the individual producer and the local economy. Similarly, drought can stress and damage forest crops. Drought impact on lake levels, for example, can curtail tourism. Continuous monitoring of hydrologic conditions is important to identify and assess drought conditions.

Participating Jurisdictions for Action 24:

Lead agency will be Forest County Land and Water Conservation Department and County UW-Extension. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross, and Wabeno.

Action 25:

Establish relief centers in each community including backup generators to provide cooling, charging, water, information, etc. during an extreme heat situation.

The Towns of Armstrong Creek and Popple River are in various stages of equipping their town halls or community centers to serve as relief centers. In each case, the need for a generator to provide back-up power was identified, see also Action 3.

Towns should establish relief centers with necessary improvements to town halls, fire stations, community centers or other town facility including back-up power generators

installed to provide residents power for charging as well as cooling and water. These sites would serve as gathering points for resources and information. Equipping these sites also typically includes weather radio, blankets and other emergency supplies.

Individual local communities are responsible for their sheltering needs. The County can help plan and support sheltering functions, but local emergency operations plans should account for sheltering. A hardened storm shelter may not be feasible in every community, but communities are encouraged to develop a central location where residents can get information, assistance and some temporary relief in an emergency situation.

Also refer to Actions 12 and 20.

Participating Jurisdictions for Action 25:

Lead agencies will be City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all Towns. Jurisdictions participating in this action include the County, City, Tribes, and all Towns.

Action 26:

Public Preparedness Messaging – Collaborate across jurisdictions to develop messaging for public preparedness education and outreach on drought and extreme heat events.

Recent events have highlighted the need for clear, consistent and unified information dissemination to the public, so they may be better prepared in an emergency situation. Individuals, regardless of intentions, push out information that is incorrect, conflicting or misleading. On-going education of the public can help people in being prepared to manage an emergency situation for their unique circumstances and needs, as well as, after event safety for themselves and their families. Messaging planning must address how to get the word out to diverse groups within the population such as the elderly.

Forest County is a widespread county that is very rural and experiences a wide variety of weather events. The occurrence of some events such as extreme cold or heat are relatively predictable, however, more rapidly developing weather events such as tornadoes, high winds and flooding are a major threat to local infrastructure and resources. Therefore, public information and warning and public preparedness is a critical component of effective emergency planning. The City of Crandon discussed the idea of providing checklists to guide resident preparedness.

Forest County Emergency Management will engage other county agencies to increase community weather preparedness and awareness and seek to establish MOU's where needed to support community preparedness.

Also refer to Actions 11 and 19.

Participating Jurisdictions for Action 26:

Lead agency will be Forest County Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, Sokaogon Chippewa Tribe, FC Potawatomi Tribe and all Towns.

HAZARD: CYBER ATTACK**Goal:**

Protect Forest County computer systems and data from cyber-attack.

Action 27:

The Agency and Interest Group meeting for this plan indicated a lack of IT security training across the County. The County should implement a process of training to prevent cyber-attacks. Preventive training measures include: educating staff, elected officials, and all others who access the network about the risks of cyber-attacks and what they can do to keep the network safe. Other local units should review their IT and cyber security training needs.

Participating Jurisdictions for Action 27:

Lead agency will be Forest County. Other jurisdictions with significant computer infrastructure should also follow this recommendation. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, and Sokaogon Chippewa Tribe, all Towns, and all School Districts including: School District of Crandon, Laona School District, Goodman-Armstrong Creek School District & School District of Wabeno Area.

Action 28:

Establish cyber-attack warning and communications procedures; eg: antivirus programs that notify staff when an intrusion is detected, staff monitoring of the system, and automated alert systems.

Participating Jurisdictions for Action 28:

Lead agency will be Forest County. Other jurisdictions with significant computer infrastructure should also follow this recommendation. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, and all School Districts.

HAZARD: EPIDEMIC / PANDEMIC**Goal:**

Improve countywide preparedness for handling and recovering from an epidemic or pandemic event.

Action 29:

Develop a pandemic preparedness response and recovery plan based on lessons from the Covid-19 Pandemic. Integrate and optimize use of the Regional Health Care Coalition. Lessons or issues identified during the Covid Pandemic include, but are not limited to, the following:

- Funding for contact tracing
- Testing sites plan
- Vaccine distribution plan
- Mass vaccination plan
- Personal protective equipment stockpile
- Messaging and message consistency

Each jurisdiction should make its own pandemic preparedness plan that coordinates with the County and adjacent municipalities. This effort should address/include development of memorandums of understanding for intergovernmental coordination and cooperation for testing sites, vaccine distribution/mass vaccination, and supply/distribution of personal protective equipment. The process should include an information and education program to lay the groundwork regarding welfare of the community as a whole.

Participating Jurisdictions for Action 29:

Lead agency will be Forest County Health Department in conjunction with Emergency Management. Jurisdictions participating in this action will include Forest County, City of Crandon, FC Potawatomi Tribe, Sokaogon Chippewa Tribe, all Towns including: Alvin, Argonne, Armstrong Creek, Blackwell, Caswell, Crandon, Freedom, Hiles, Laona, Lincoln, Nashville, Popple River, Ross & Wabeno, and all School Districts including: School District of Crandon, Laona School District, Goodman-Armstrong Creek School District & School District of Wabeno Area.

Action 30:

Work to implement the recommendations of the North Central Wisconsin Pandemic Assessment and Future Response Plan and the North Central Wisconsin Regional COVID-19 Recovery Plan. Both of these plans were prepared by the North Central Wisconsin Regional Planning Commission.

The purpose of the North Central Wisconsin Pandemic Assessment and Future Response Plan is to analyze various county and tribal response efforts related to the COVID-19 pandemic and to identify approaches to better address future pandemics. The overarching goal is to better prepare the region for future public health related disruptions.

The Regional Health Pandemic Assessment and Future Response Committee included a group of experts representing every county throughout the region. The committee included those directing county health departments and tribal health departments. In addition, coordinators from various agencies including those dealing with healthcare emergency readiness, seniors, persons with disabilities, and other specialty populations served on the committee. This group responded to a questionnaire and met virtually

throughout the 2021 calendar year. During these meetings, the committee was able to analyze the response to the COVID-19 global pandemic and identify strengths and weaknesses. Through this process, recommendations were created to better respond to pandemics and similar health related disruptions in the future, as follows:

Recommendation 1: Meet Public Health Mission Objectives

1. Modernize and streamline data management and monitoring technology. Local public health relied on the state through the Wisconsin Electronic Disease Survey System (WEDSS). Managing this system was staff intensive. Infrastructural improvements are needed.
2. Continue to explore ways to improve metrics within rural communities.
3. Encourage specific state-level guidance related to recommendations for business, educational and municipal facilities best practices in real time during communicable disease threats.
4. Strengthen the department's collection and dissemination of information that connects determinants of health with health outcomes.

Recommendation 2: Build on Intergovernmental and Interagency Collaboration

1. Continue to forge robust partnerships among health agency department and staff.
2. Continue to improve and enhance internal and external communication.
3. Continue to investigate opportunities for horizontal collaboration (among local health departments) and vertical collaborations (at the federal, state, and local levels).
4. Continue create and enhance interagency partnerships to enhance local public health services.
5. Explore opportunities for larger public health departments to partner with smaller local health departments to share services, where and when this would allow a reduction in duplication and offer enhanced services to smaller departments.
6. Consider a regional approach to establish uniformity and consistency across county and tribal lines.

Recommendation 3: Advance Health Planning

1. Weave comprehensiveness into all aspects of health planning and policy.
2. Engage interested members of the community to be trusted partners on health planning concepts.
3. Continue to engage and include stakeholders with a focus on health into all regional and state initiatives. This could include community members and nontraditional partners associated with social determinants of health (SDOH) such as planners, law enforcement, schools, and community organizations.
4. Continue to prioritize health and meaningful community engagement.
5. Continue to ensure that outreach and educational efforts address social and structural determinants of health outcomes.

Recommendation 4: Invest in Public Health

1. Encourage federal and state investment in local public health foundational capabilities.

2. Encourage legislatures to actively protect public health authority at the state and local levels so that experts can continue to promote solutions that encourage economic growth, reduce inequities, and address chronic health conditions.
3. Increase per capita health funding in the State of Wisconsin.
4. Secure more sustained and flexible local public health funding.
5. Bolster recruitment and retention of employees to continue to attract and maintain a talented and diverse workforce.
6. Continue to provide those in leadership roles with training and resources they need to lead a strong and diversified public health department.
7. Explore dynamic staffing models that allow local health departments to expand staffing resources in response to communicable disease threats.

In the aftermath of disasters, the most important questions typically center around recovery, how to become less vulnerable to a disaster, and how to be better prepared to deal with a disaster event in the future. When attempting to find answers to these questions, it is clear that the COVID-19 pandemic has brought many issues and vulnerabilities to the forefront, as communities, businesses, residents, and the entire world-at-large were not well-prepared to deal with the health emergencies and economic shocks that resulted from the pandemic.

The purpose of North Central Wisconsin Regional COVID-19 Recovery Plan is to guide economic stabilization, recovery, and resiliency efforts within the North Central Wisconsin Region in the face of the current pandemic as well as future events that cause economic shocks. The plan promotes activities that prevent, prepare for, and respond to the COVID-19 pandemic, and in particular, to the economic injury caused by the pandemic, within North Central Wisconsin.

The plan puts forth a set of strategies that will help the Region's local economies recover from and become more resilient to economic shocks by identifying best practices that help spur economic stabilization and recovery in the wake of economic shocks and that will help build local economic resilience. Helping local recovery and resiliency efforts will help the regional economy as a whole recover and grow back even stronger than before the disaster struck.

Participating Jurisdictions for Action 30:

Lead agency will be each respective jurisdiction. Participating jurisdictions will include: Forest County, the City of Crandon, Tribes, and all Towns.

Table 16 - Summary of Mitigation Strategies - Forest County All Hazards Mitigation Plan Update

#	Mitigation Measures (See Expanded Description in Plan Text)	Cost Estimate	Existing and Potential Resources to Implement	Responsible Units	Project Timeframe*	Priority Level
All Hazards						
1	Continue to promote the use of National Oceanic and Atmospheric Administration (NOAA) weather radios.	Staff Time	Radio sales cover cost of radios.	County EM Dept. / City / All Towns / Tribes / School Districts	On-going	MEDIUM
2	Continue to add/update Emergency Management Department link off existing County website.	Staff Time	Dept. Budget	County EM Dept.	On-going	MEDIUM
3	Install back-up generators or wiring for portable hook up / Acquire portable generator units - The need for emergency back-up power has been identified for emergency shelters and community relief centers (such as local town hall or community center locations) to provide warming/cooling, device charging, etc. for residents as well as maintaining critical operations such as emergency services, sewer and water, back-fuel supplies, public works, city hall, etc. during power outage.	Costs to be Determined (vary by size & application)	Dept. Budgets / Capital Improvements Program / FEMA - Mitigation Grants	Forest County / City of Crandon / Towns of Armstrong Creek, Laona, Popple River & others as needed / Tribes / School Districts	On-going	HIGH
4	Continue to address communications issues across the county including broadband and cellular service to provide a higher quality of coverage for emergency situations. Continue working with developing technology solutions such as First Net and other applications.	Costs to be Determined	Dept. Budgets / Capital Improvements Program	Forest County / City of Crandon / All Towns / Tribes	On-going	MEDIUM
5	Update City's warning siren including back-up power generator. Develop public information and outreach regarding siren operations.	\$45,000 per unit	City Budget	City of Crandon	2028	MEDIUM
6	Continue to improve county's rural addressing system as part of Next Gen 911 development.	Staff Time	Dept. Budgets	Forest County	On-going	HIGH
7	Ensure rescue, fire and other emergency responders have back-up fuel options or MOU.	Staff Time	Dept. Budgets	County / City / All Towns / Tribes	2029	MEDIUM
8	Develop emergency transportation plan to address evacuations and assisting residents with functional needs during an emergency situation.	Staff Time	Dept. Budgets	County / City / All Towns / Tribes / School Districts	2029	MEDIUM

#	Mitigation Measures	Cost Estimate	Existing and Potential Resources to Implement	Responsible Units	Project Timeframe*	Priority Level
9	Establish and develop functional needs list and procedures to provide emergency responders with important information to ensure safety of residents with special needs like oxygen, ventilation, other power dependent devices, medicines, physical limitations, etc.	Staff Time	Dept Budgets	County EM Dept. / Co. Health Dept. / City of Crandon / All Towns / Tribes	2028	MEDIUM
10	County EM should work w/ local units to develop / update local emergency operations/response plans. County-wide training and exercises should be conducted regularly.	Staff Time	Dept. Budgets / WEM training grants	County EM Dept. / City of Crandon / All Towns / Tribes / School Districts	On-going	MEDIUM
Severe Storms: Tornado / Thunderstorm / High Wind / Lightning / Hail						
11	Public Preparedness Messaging - Collaborate across jurisdictions to develop messaging for public preparedness education and outreach on severe storms.	Staff Time	Dept Budgets	County EM Dept. / City of Crandon / Tribes / All Towns	On-going	MEDIUM
12	Establish / construct emergency shelters in the Towns of Armstrong Creek, Laona, Lincoln and Popple River. Establish relief centers in each community including backup generators to provide cooling/warming, charging, water, information, etc. during a severe storm situation.	Costs to be Determined	General Funds / Mitigation Grants / CDBG	City of Crandon / Towns of Armstrong Creek, Laona, Lincoln and Popple River / School Districts and others where need is identified.	2030	HIGH
Flooding / Dam Failure						
13	County/City continued compliance in the NFIP. - Including voluntary buyout through mitigation grants of residential structures in the floodplain when flood damaged. **	Costs to be Determined	Dept Budgets / Mitigation Grants - Flood Mitigation Assistance	County Zoning Office / City of Crandon	On-going	LOW
14	Replace Lily Lake Dam in Town of Nashville.	Costs to be Determined	DNR Municipal Dam Grant Program	Town of Nashville	2027	MEDIUM
15	Continue to review and test Emergency Action Plan (EAP) for each significant and high hazard dam. Identify rehabilitation needs of high hazard dams.	Staff Time	Dept Budgets	County EM Dept. / County Land Conservation Dept.	On-going	LOW
16	Town and Tribal Road / Culvert Maintenance and Improvements (re drainage). Town of Lincoln cited need for on-going culvert / drainage work to prevent road washouts.	Costs to be Determined	City/Town Budgets / Local Road Aids / LRIP / DOT Disaster Damage Aids / Tribal Funds (BIA)	All Towns / City / Tribes	On-going	MEDIUM

17	Study ways to improve storm water management and drainage problems in the City of Crandon. Implement necessary storm sewer and drainage improvements.	Costs to be Determined	City Funds / Mitigation Grants	City of Crandon	2029	MEDIUM
#	Mitigation Measures	Cost Estimate	Existing and Potential Resources to Implement	Responsible Units	Project Timeframe*	Priority Level
18	Continue Rip Rap Projects to stabilize the shoreline and road right-of-way in the Town of Lincoln.	Costs to be Determined	Town Funds / DNR Grants	Town of Lincoln	2030	MEDIUM
Winter Storm / Extreme Cold						
19	Public Preparedness Messaging - Collaborate across jurisdictions to develop messaging for public preparedness education and outreach on winter storms / extreme cold events.	Staff Time	Dept. Budget	County EM Dept. / City of Crandon / Tribes / All Towns	Annual	MEDIUM
20	Establish relief centers in each community including backup generators to provide warming, charging, water, information, etc. during a winter storm or extreme cold situation.	Costs to be Determined	General Funds / Mitigation Grants	All Towns and others where need is identified.	2030	HIGH
Forest Fire / Wild Fire						
21	Use education programs aimed at mitigating fires.	Staff Time	Dept. Budgets	County EM Dept.	Annual	MEDIUM
22	Develop driveway ordinances and private road standards including uniform addressing to ensure emergency vehicle access.	Staff Time	Town Funds	All Towns	On-going	MEDIUM
23	Town and Tribal Road right-of-way maintenance and brushing.	Staff Time	Town Funds / Tribal Funds / Maint. Crews	Towns of Hiles and Popple River / All Towns / Tribes	On-going	LOW
Drought / Extreme Heat						
24	Develop countywide drought mitigation plans for multi-agency approaches to water conservation, drought prediction, stream and groundwater monitoring.	Staff Time	Dept. Budgets	County UWEX / County Land Conservation Dept.	As Needed	MEDIUM
25	Establish relief centers in each community including backup generators to provide cooling, charging, water, information, etc. during an extreme heat situation.	Costs to be Determined	General Funds / Mitigation Grants	All Towns and others where need is identified.	2030	HIGH
26	Public Preparedness Messaging - Collaborate across jurisdictions to develop messaging for public preparedness education and outreach on drought / extreme heat events.	Staff Time	Dept. Budgets	County EM Dept. / City of Crandon / Tribes / All Towns	As Needed	MEDIUM

Cyber Attack						
27	Implement IT cyber security training to prevent and respond to cyber attacks.	Costs to be Determined	Dept. Budgets	County / City / Tribes / Towns / School Districts	On-going	MEDIUM
28	Establish cyber attack warning and communications procedures; eg: antivirus programs that notify staff when an intrusion is detected, staff monitoring of the system, and automated alert systems.	Costs to be Determined	Dept. Budgets	County / City / Tribes / School Districts	On-going	HIGH
#	Mitigation Measures	Cost Estimate	Existing and Potential Resources to Implement	Responsible Units	Project Timeframe*	Priority Level
Epidemic / Pandemic						
29	Develop a pandemic preparedness plan based on lessons from the Covid-19 Pandemic.	Staff Time	Dept. Budgets	Co. Health & EM Depts. / City / Tribes / All Towns / School Districts	2028	MEDIUM
30	Work to implement recommendations of the North Central WI Pandemic Assessment & Future Response Plan and the North Central WI Regional COVID-19 Recovery Plan.	Costs to be Determined	General Funds / EDA, USDA, CDBG, Mitigation and other programs	Forest County / City of Crandon / Tribes	On-going	MEDIUM

*Actual project implementation dependent on funding and staff availability.

** Denotes action related to NFIP compliance requirements.

INTRODUCTION

Part V of the Forest County All Hazards Mitigation Plan Update describes the Update adoption, implementation, and evaluation & maintenance processes.

PLAN UPDATE ADOPTION

The adoption of the Forest County All Hazards Mitigation Plan Update lends itself to serve as a guiding document for all local government officials. It also certifies to program and grant administrators from FEMA and WEM that the plan's recommendations have been properly considered and approved by the governing authority and the jurisdiction's citizens. Finally, it helps to ensure the continuity of mitigation programs and policies over time because elected officials, staff, and other community decision-makers can refer to the official document when making decisions about the community's future.

Before adoption of the Plan Update by participating jurisdictions, the Update must be sent to the state and federal level to verify that all FEMA requirements are met. Once a draft of the updated Plan has been completed, it is submitted to the State Hazard Mitigation Officer (SHMO) at the state level at WEM. Previous drafts of the Update have already been reviewed prior to this submittal. The SHMO will determine if the updated Plan meets requirements. Upon approval of the draft by WEM, the SHMO is responsible for showing the Update to the FEMA Region V Office for review.

Prior to final approval by WEM and FEMA, the Plan Update must be formally adopted by Forest County and its participating jurisdictions by resolution. Jurisdictions that do not adopt the Update cannot apply for mitigation grant funds unless they opt to prepare, adopt, and submit their own plan. Adoption of the Update gives the jurisdiction a basis to enact ordinances, policies, or programs to reduce hazard losses and to implement other mitigation actions.

All general purpose units of government (i.e. city and towns) and school districts within Forest County were offered one or more avenues to participate in the development of this Plan Update. Adoption of the Plan by a local unit of government certifies their participation. The Forest County Board has adopted this Update. Resolutions of adoption are contained in APPENDIX B.

PLAN UPDATE IMPLEMENTATION**Administrative Responsibilities**

Once the Plan Update has been approved, stakeholders must be informed. The County Emergency Management Director will distribute notice of availability to stakeholders. The County should make the Plan Update available to the public by linking the report on the Internet.

Along with monitoring the progress of the action projects, the County Emergency Management Director and Committee(s) of jurisdiction should also work to secure funding to implement the Plan Update. State and federal agencies, nonprofit organizations, and foundations continually make grants available. Emergency Management should research these grant opportunities to determine eligibility for the County and its local units of government.

When implementing this Plan Update, the Committee and staff team should consider innovative ways to involve active participation from nonprofit organizations, businesses, and citizens to implement the Plan Update. The relationship between these groups will result in greater exposure of the Plan Update and provide greater probability of implementation of the action projects listed.

The role of department administrators, elected officials, and local administrators are to ensure that adopted actions from Part IV are considered in their budgets. It is understood that projects may not be carried out as they are scheduled in Part IV due to budget constraints. However, since many of these action projects are considered an investment in safeguarding the publics' health, safety, and property, they should be carefully considered as a priority.

Promote Success of Identified Projects

Upon implementing a project covered by this Plan Update, it is important to promote the accomplishment to the stakeholders and to the communities. This will help inform people that the Plan Update is being implemented and is effective.

Community Disaster Resilience

There has been a growing movement in emergency management planning circles toward a "new" buzz word: resilience. There is a wide range of definitions for community resilience and what it entails, but in 2012 the National Academy of Sciences looked at the major federal agencies and independent organizations with work efforts related to resilience and determined that *"resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events. Enhanced resilience allows better anticipation of disasters and better planning to reduce disaster losses—rather than waiting for an event to occur and paying for it afterward."*

Many weather experts now expect severe weather events to become increasingly more frequent and intense. Recent events seem to corroborate this condition with multiple "short duration - high volume" rainfalls causing devastating flooding around the state in 2015, 2016, 2017 and 2018.

It is recommended that the County acknowledge these changing conditions and begin working toward an approach to incorporating a community resilience component into its planning and operations. Forest County should coordinate with the City of Crandon and its other local units of government on resiliency efforts.

Incorporation into Other Local Planning Mechanisms

FEMA requires a process by which the mitigation plan is incorporated into other planning mechanisms where appropriate. When undergoing any planning process, County departments, local units of government and/or any professional staff assisting them, typically review and incorporate any related pre-existing plans as a matter of course.

The most applicable planning process outside of the mitigation plan is the local comprehensive plan for each community. The County's current comprehensive plan was completed in 2024. The 2024 Comprehensive Plan incorporates the 2021 (previous) mitigation plan as outlined below. In addition, the local comprehensive plan for the City of Crandon was updated in 2025 and also incorporated the 2021 hazard mitigation plan in a similar fashion as outlined below. The NCWRPC, the facilitator of the countywide hazard mitigation plan and updates, also assisted with the county and city local comprehensive plan updates and works to integrate both plans as part of its standard planning process. The next updates for these comprehensive plans are anticipated in 8 and 9 years, respectively, and will incorporate the new mitigation plan that is in effect at that time.

With regard to towns within Forest County, the NCWRPC provided assistance in the creation of original town comprehensive plans for all but four towns (Crandon, Caswell, Ross and Popple River) within the county as part of a countywide planning effort from 2009 to 2011 and integrated the mitigation plan similar to the above. Those plans become outdated between 2019 and 2021. The NCWRPC has worked with the Towns of Hiles (2017), Lincoln (2020), Blackwell (2020), and Wabeno (2021) to update their comprehensive plans with integration of the active mitigation plan. The Towns of Alvin, Argonne, Armstrong Creek, Nashville, Laona, and Freedom have not yet updated their comprehensive plans. The NCWRPC continues to work with these towns, as well as the four without comprehensive plans to develop or update their comprehensive plans and will integrate the mitigation plan as they occur.

The following outlines ways the mitigation plan is incorporated into each of the nine elements of these county and local comprehensive plans:

- *Issues and Opportunities Element* – a summary of major hazards local government is vulnerable to, and what is proposed to be done to mitigate future losses from the hazards.
- *Housing Element* – an inventory of the properties that are in the floodplain boundaries, the location of mobile homes, recommendation on building codes, shelter opportunities, and a survey of homeowners that may be interested in a voluntary buyout and relocation program.
- *Utilities and Community Facilities Element* – identify critical facilities such as shelters, schools, medical, water infrastructure, etc. and make recommendations on how to mitigate specific risks factors.

- *Transportation Element* – identify any transportation routes or facilities that are more at risk during flooding, winter storms, or hazardous material spills.
- *Agricultural, Natural Resources, and Cultural Resources Element* – identify the floodplains and agricultural areas that area at risk to hazardous events. Incorporate recommendations on how to mitigate future losses to agricultural areas.
- *Economic Development Element* – describe the impact past hazards have had on County and municipal economies.
- *Intergovernmental Cooperation Element* - identify intergovernmental police, fire, and rescue service sharing agreements that are in effect, or which may merit further investigation, consider cost-sharing and resource pooling on government services and facilities.
- *Land Use Element* - describe how flooding has impacted land uses and what is being done to mitigate negative land use impacts from flooding; map and identify hazard areas such as floodplains, hazardous materials areas, and soils with limitations.
- *Implementation Element* – have action plans from this Plan Update implemented into comprehensive plans.

Continuing Incorporation of Mitigation Plan into Other Local Planning Mechanisms

To ensure that the countywide mitigation plan (previous/current/updates moving forward) will continue to be incorporated into other planning mechanisms, the NCWRPC works with county and local officials and staff to schedule comprehensive plan updates. All of these updates have been identified for incorporation of the updated countywide All Hazards Mitigation Plan. County and Regional Planning Commission Staff will also work with county and local community planners to incorporate the mitigation plan into other future planning processes as appropriate.

JURISDICTION CAPABILITY ASSESSMENT

Forest County, the City of Crandon and the Towns are relatively small communities in rural Wisconsin with limited resources and funding. However, they each have some capacity to support mitigation strategies. This section describes the existing authorities, policies, programs, funding and resources that the County and local jurisdictions have available to support hazard mitigation.

The County and City each have professional staff available to implement and manage mitigation programs. Most directly, Forest County has an Emergency Management Director whose responsibilities include mitigation. In addition, the County has a number of departments including Sheriff, Health, Highway, Land Conservation / Land Information, and Zoning with expertise that can assist with mitigation. The City of Crandon has administrative, police, fire, public works, and zoning/building inspector staff that can assist with mitigation. Mitigation work is

often made a part of the annual work plans for many of these departments/individuals.

Another way County and City Staff support mitigation is through involvement in various local planning activities and implementation of projects resulting from those plans. In addition to this countywide All Hazards Mitigation Plan, the County and City maintain comprehensive plans that guide development and facilities based on risk and hazard areas. Other County plans include the County Emergency Operations Plan and the Community Health Assessment and Improvement Plan. Crandon also maintains emergency operations plans, and some departments such as Public Works develop plans to mitigate potential hazards that may affect their water systems.

Forest County and the City of Crandon also have regulatory authority for programs that control development to minimize risk and avoid hazard areas. These regulatory authorities include the comprehensive planning law, zoning ordinances (including shoreland and floodplain regulations), subdivision and platting ordinances, and building codes.

Funding for mitigation programs comes primarily through taxing authority, annual County and municipal budgets, and Capital Improvements Programming. However, the County and City often rely on federal and state grant programs for any significant expenditures.

With regard to towns in Forest County, with the exception of Laona, which has expanded staff including a police department, capacity is very limited with small budgets and little or no staff. Towns are almost entirely dependent on grant funding or support from outside entities such as the County for any mitigation activities.

Ability to Expand and Improve Mitigation Capabilities

Forest County and the City of Crandon have been facing serious budget constraints for years, exacerbated by state-imposed levy limits. As a result, each of the communities is heavily dependent on grant funding. These conditions limit each jurisdiction's ability to expand or improve its mitigation capabilities, and budget conditions restrict the ability of all jurisdictions to increase staffing levels for mitigation activities.

Similarly, towns in Forest County face serious restrictions on expanding mitigation capabilities. One way they can do this is by working with others such as WDNR on Firewise programming or community wildfire protection plan development and implementation.

PLAN UPDATE EVALUATION AND MAINTENANCE

Planning is an ongoing process. Because of this, this document should grow and adapt in order to keep pace with growth and change of the County and its local

jurisdictions. FEMA rules require that local plans be evaluated and updated at least every five years to remain eligible for assistance.

The Plan will be reviewed and evaluated on an annual basis as needed by Emergency Management. The Forest County Emergency Management Director will evaluate incoming information against the contents of the Plan to determine possible need for revisions; and bring that information to the County Committee to discuss the evaluation and potential revisions to the Plan as needed. The Emergency Management Director is encouraged to consult/coordinate with the NCWRPC in the event of any revision.

County Committee meetings are always open to the public, and the public can bring questions or comments regarding this Plan Update to any regular meeting. The final plan document will be available on the internet until the next draft is posted for review. The public can continue to submit questions or comments at any time via an email link.

Plan monitoring also includes evaluating and revising following disaster events to determine if the recommended actions are appropriate given the impact of the event. The risk assessment (Part III) should also be reviewed to see if any changes are necessary based on the pattern of disaster damages.

Full updates are required every five years. As a result, every fifth year, the annual review will be expanded to an overall plan update to meet FEMA requirements. All stakeholders and the public will again be involved in the update. The County will conduct a survey and open comment meeting. This also provides an opportunity to inform on the progress of any projects.

The County Emergency Government & 911 Committee and County Board must approve all changes and updates to the Plan.

Appendix A – Meeting Notices

County Board
May 19, 2026
County Board Room
6:00 P.M.

CALL TO ORDER

I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation, under God, indivisible, with liberty and justice for all.

AGENDA

This is a public meeting of the Forest County Board of Supervisors. Prior to this meeting, notice was given to the public by posting of notice on the east and west entrance doors of the Forest County Courthouse and in the office of The Forest Republican on April 23, 2026. The Forest Republican was notified by email, Radio Stations WERL-WRJO, WHDG, and COYOTE were notified by e-mail on April 23, 2026.

ROLL CALL

APPROVAL OF AMENDED AGENDA

APPROVE MINUTES FROM THE APRIL 21, 2026 ORGANIZATIONAL MEETING

PUBLIC COMMENT ON AGENDA ITEMS

COMMUNICATIONS ON FILE WITH THE BOARD

Resolutions from other Counties

1. Winnebago County – Solar Power
2. Buffalo County – Greater Local Control
3. Price County – Greater Local Control

APPOINTMENTS OR ELECTIONS

1. District #12, District 16, District 17
2. Steering Committee Appointments

PERSONAL APPEARANCES

- Chairpersons Report

RESOLUTIONS

1. Forestry & Recreation – Off Highway Motorcycle Trails
2. Forestry & Recreation – Food Vendor Policy; Park Vendor Permit
3. Finance – Park Improvements fund transfer
4. Zoning – Updates to Zoning Ordinance; Updated Ordinance
5. Human Service Board – Client Collections Policy Resolutions; Policy
6. Emergency Government – All Hazard Mitigation updates; Plan

ORDINANCES

ANNUAL REPORTS

1. Highway – 2025 Financial Report

ADJOURNMENT

AGENDA POSTED May 14, 2026 at 4:30 p.m., by Nora Kevilus, Forest County Clerk

Microsoft Teams meeting

Join: <https://teams.microsoft.com/join/235388835037616?p=TLhhoGYdxVivAt33ZR>

Meeting ID: 235 388 835 037 616

Passcode: PK63rY9z

EMERGENCY GOVERNMENT & 911

COMMITTEE: EMERGENCY GOVERNMENT & 911

DATE: Wednesday April 29, 2026

TIME: 1:00PM

PLACE: COUNTY BOARD ROOM

1. CALL TO ORDER

Lukas calls the meeting to order at 1:00PM

2. ROLL CALL

Members Present: Terry Lukas, Mike Miller & John Potters

Others Present: Stephanie Montgomery, Rob Huettl & Jeff Marvin

3. APPROVAL OF AGENDA

Motion by Miller, second by Potters to approve the agenda. All present voting (AYE), Motion carried.

4. APPROVE MINUTES FROM THE PREVIOUS EMERGENCY GOVERNMENT - 911 MEETING

Motion by Potters, second by Miller to approve Emergency Government - 911 April 8, 2026 meeting minutes. All present voting (AYE), Motion carried.

5. PUBLIC COMMENT ITEMS: NONE

6. DISCUSSION AND POSSIBLE ACTION ITEMS:

- a. NCWRPC HAZARD MITIGATION PLAN UPDATE: NCWRPC has made minor edits as discussed at the last meeting. Motion by Miller to approve the Forest County Hazard Mitigation Plan Update and forward to Full County Board for final approval & resolution, second by Potters. All in favor. Motion carried.
- b. TITLE III Funding: Since SRS funding has been reauthorized through 2026, projects must now be initiated by September 2028 and obligated by September 2029. Forest County has received 2024 and 2025 payment, and as of right now there is approximately \$127,000 in the Title III reserve account, created specifically for Title III projects. Sheriffs' office does have some project ideas and Lt Crum plans to attend next meeting.
- c. TRAVEL REQUESTS: Montgomery has none at this time.
- d. EM Schedule: Montgomery requesting her office hours change to 7-4:30M-Th & 7-11 F, WEM usually wants reports for incidents early in morning, also better for weather incidents to start collecting data early. Montgomery previously worked 4/10 schedule however understands that committee wanted office open 5 days a week, this will give 5-day week coverage, when not using PTO. Hours will give a more consistent & practical structure for office. Motion by Potters to approve request to change Emergency Management office hours to 7-4:30M-Th & 7-11 F and forward to Personnel/Finance for approval, second by Miller. All in favor. Motion carried.
- e. EM DIRECTOR UPDATES: Montgomery will share WPS grant with Forest County Emergency Services Association. Montgomery is planning a round table after action discussion regarding most recent incident fire/evac at Nu Roc Nursing Home. Wisconsin Emergency Management plans to do a federal declaration for the most recent flooding/severe weather event.

7. DISPATCH

- a. PSAP GRANT: Huettl reports that 2025 payment should be to County in a few weeks, they are getting an additional \$2,600 for eligible costs that can be covered at 100%. 2026 PSAP is finishing up final project of 911 call handler, ended up being an extra cost of \$10,000 but Huettl is confident a grand modification will cover the costs, so it would only be a 10% increase. Huettl reports \$20,000 budgeted for maintenance agreement with old call handler will not be used as they are not paying that fee.
- b. RADIO INTEROPERABILITY GRANT: Waiting for award announcements.
- c. DISPATCH SERGEANT UPDATES: Dispatch was at full staff, but foresees a loss of one or two in the near future. Third dispatch station is fully equipped and functional.

**Please note that the meeting minutes provided are not finalized and are subject to approval at the next committee meeting.
Any corrections or amendments will be made at that time. **

EMERGENCY GOVERNMENT & 911

8. Budget Status: Montgomery shared latest budget reports. Committee has no other questions.
9. FUTURE AGENDA ITEMS: *May Committee Meeting Canceled, Next meeting will be Friday, June 12, 2026 at 9:30AM.*
10. ADJORNMENT: Motion by Potters to adjourn, second by Miller. All present voting (AYE). Motion carried. Meeting adjourned at 1:52PM.

**Please note that the meeting minutes provided are not finalized and are subject to approval at the next committee meeting.
Any corrections or amendments will be made at that time. **

FOREST COUNTY MEETING NOTICE

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: April 29, 2026
TIME: 1:00PM
PLACE: COUNTY BOARD ROOM

AGENDA

1. Call to Order
2. Roll Call
3. Approve Agenda
4. Approve meeting [minutes from April 8, 2026 Emergency Government – 911 Committee.](#)
5. Public Comment
6. Emergency Management Discussion and possible actions:
 - a.) [NCWRPC Hazard Mitigation Plan APPROVAL](#)
 - b.) Title III Funding
 - c.) Travel Requests
 - d.) EM Schedule
 - e.) EM Director Updates (*S Montgomery*)
7. Dispatch and Sheriff Discussion and possible action:
 - a.) PSAP Grant Update
 - b.) Interoperable Radio Grant Update
 - c.) Dispatch Sergeant Updates (*R Huettl*)
8. Budget Status
9. Future Agenda items
(*Next meeting: June 10, 2026 @ 10:30am*)
10. Adjournment.

Notice was emailed to committee members, the media, Forest Republican, Radio Stations WERL/WRJO and Coyote Radio, on April 27, 2026 at 10:00AM.

The agenda was posted to the public at the east/west entrance of the Forest County Courthouse on April 27, 2026 at 10:00AM. Every effort will be made to reasonably accommodate persons with special needs. Please contact the County Clerk's Office at (715) 478-2422 to address your concerns.

A majority of the members of the County Board of Supervisors or of any of its committees may be present at this meeting to listen, observe and participate. If a majority of any such body is present, their presence constitutes a "meeting" under the Open Meeting Law as interpreted in State ex rel. Badke v. Greendale Village Board, 173 Wis. 2d 553 (1993), even though the visiting body will take no action at this meeting.

Posted on April 27, 2026 at 10:00AM by Stephanie Montgomery.

EMERGENCY GOVERNMENT & 911

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: Wednesday April 8, 2026
TIME: 10:30AM
PLACE: COUNTY BOARD ROOM

CALL TO ORDER

Lukas calls the meeting to order at 10:30AM

ROLL CALL

Members Present: Terry Lukas, Mike Miller & John Potters

Others Present: Stephanie Montgomery, Alex Walrath & Darryl Landeau

APPROVAL OF AGENDA

Motion by Miller, second by Potters to approve the agenda. All present voting (AYE), Motion carried.

APPROVE MINUTES FROM THE PREVIOUS EMERGENCY GOVERNMENT - 911 MEETING

Motion by Potters, second by Miller to approve Emergency Government - 911 February 11, 2026 meeting minutes. All present voting (AYE), Motion carried.

PUBLIC COMMENT ITEMS:

NONE

DISCUSSION AND POSSIBLE ACTION ITEMS:

- a. NCWRPC HAZARD MITIGATION PLAN UPDATE: Darryl Landeau sent the draft 2026 hazard mitigation plan for the committee to review. Darryl presented an overview on what updates were made and asks the committee to look over and send him any edits or questions. Montgomery has a few new photos to share, and some notes she will send over. The committee will plan to approve and forward the plan to full county board at the next committee meeting in May.
- b. TITLE III Funding: Nelma project is complete. Since SRS funding has been reauthorized through 2026, projects must now be initiated by September 2028 and obligated by September 2029. As of right now there is approximately \$50,000 left in the Title III reserve account, created specifically for Title III projects. Montgomery will have project ideas for the next meeting.
- c. TRAVEL REQUESTS: Montgomery has not at this time.
- d. EM DIRECTOR UPDATES: Emergency Management has received check for 2025 EPCRA Grant and 2025 EMPG grant check is expected to be sent in May.

DISPATCH

- a. PSAP GRANT: 2026 PSAP grant working to purchase of equipment are installing new Ztron CAD system, should hopefully be live mid may.
- b. RADIO INTEROPERABILITY GRANT: Sheriff's office submitted a to purchase some radios, they will hopefully hear soon if they are awarded the grant.
- c. DISPATCH SERGEANT UPDATES: Dispatch is at full staff.

BUDGET STATUS:

Montgomery shared latest budget reports. Committee has no other questions.

FUTURE AGENDA ITEMS:

(Next Meeting- TBD with assigned committee members)

ADJOURNMENT:

Motion by Potters to adjourn, second by Miller. All present voting (AYE). Motion carried. Meeting adjourned at 11:22AM.

**Please note that the meeting minutes provided are not finalized and are subject to approval at the next committee meeting. Any corrections or amendments will be made at that time. **

FOREST COUNTY MEETING NOTICE

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: April 8, 2026
TIME: 10:30AM
PLACE: COUNTY BOARD ROOM

AGENDA

1. Call to Order
2. Roll Call
3. Approve Agenda
4. Approve [Minutes from the February 11, 2026 EM Gov't – 911 Committee Meeting](#).
5. Public Comment
6. Emergency Management Discussion and possible actions:
 - a.) [NCWRPC Hazard Mitigation Plan Update](#)
 - b.) Title III Funding
 - c.) Travel Requests
 - d.) EM Director Updates (*S Montgomery*)
7. Dispatch and Sheriff Discussion and possible action:
 - a.) PSAP Grant Update
 - b.) Interoperable Radio Grant Update
 - c.) Dispatch Sergeant Updates (*R Huettl*)
8. Budget Status
9. Future Agenda items
(*Next meeting: May13, 2026 @ 10:30am*)
10. Adjournment.

Notice was emailed to committee members, the media, Forest Republican, Radio Stations WERL/WRJO and Coyote Radio, on April 6, 2026 at 1:00PM.

The agenda was posted to the public at the east/west entrance of the Forest County Courthouse on April 6, 2026 at 1:00PM. Every effort will be made to reasonably accommodate persons with special needs. Please contact the County Clerk's Office at (715) 478-2422 to address your concerns.

A majority of the members of the County Board of Supervisors or of any of its committees may be present at this meeting to listen, observe and participate. If a majority of any such body is present, their presence constitutes a "meeting" under the Open Meeting Law as interpreted in State ex rel. Badke v. Greendale Village Board, 173 Wis. 2d 553 (1993), even though the visiting body will take no action at this meeting.

Posted on April 6, 2026 at 1:00PM by Stephanie Montgomery.

EMERGENCY GOVERNMENT & 911

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: WEDNESDAY FEBRUARY 11, 2026
TIME: 10:30AM
PLACE: COUNTY BOARD ROOM

1. CALL TO ORDER

Lukas calls the meeting to order at 10:40AM

2. ROLL CALL

Members Present: Terry Lukas, Mike Miller & John Potters

Others Present: Stephanie Montgomery, Rob Huettl & Darryl Landeau (via Phone)

3. APPROVAL OF AGENDA

Motion by Miller, second by Potters to approve the agenda. All present voting (AYE), Motion carried.

4. APPROVE MINUTES FROM THE PREVIOUS EMERGENCY GOVERNMENT - 911 MEETING

Motion by Potters, second by Lukas to approve Emergency Government - 911 January 12, 2026 meeting minutes. All present voting (AYE), Motion carried.

5. PUBLIC COMMENT ITEMS: NONE

6. DISCUSSION AND POSSIBLE ACTION ITEMS:

- a. NCWRPC HAZARD MITIGATION PLAN UPDATE: Darryl Landeau discusses hazard mitigation strategies and recommendations. Landeau asks that the committee rank the 30 recommendations high, medium or low. Members will rank the items and return to NCWRPC. Next meeting committee will review the plan and send to WEM for approval, then take it to full County Board send to FEMA for final acceptance.
- b. TITLE III Funding: Agreement has been accepted by the board. The only thing left for Alvin/Nelma Tower is that Northway needs to program in dispatch and on the sheriff patrol radios. Once that is finished and all final bills are paid out for attorney and Northway committee can evaluate how much remains and what projects to do next.
- c. TRAVEL REQUESTS: Montgomery has two training requests for Intermediate EOC course, class will be held in Lincoln County, and second for ASIM training in Vilas County. Motion by Miller to approve Intermediate EOC and ASIM training, second by Potters. All present voting (AYE), Motion carried.
- d. EM DIRECTOR UPDATES: EM and Sheriff's Office SERT team, along with EMS reps will be attending an active threat incident management training this Friday in Vilas County. Working with Crandon SD, Law, Fire and EMS planning for summer exercise. Waiting on updated grant details to close out 2025 grant.

7. DISPATCH

- a. PSAP GRANT: 2025 PSAP grant has been closed out and submitted for reimbursement for approximately \$118,000. 2026 PSAP grant has just began the purchasing of equipment. The Finance committee approved to do a grant modification to 2026 PSAP to potentially include a firewall that is needed.
- b. RADIO INTEROPERABILITY GRANT: Sheriff's office submitted a to purchase some radios, they will hopefully hear by April if they are awarded the grant.
- c. DISPATCH SERGEANT UPDATES: Dispatch staffing updates: 1 resignation, 1 moved to the Jail, and two in training. Dispatch only needs to hire their fill shift position.

8. Budget Status: Budget reports do not get send to departments until the 15th, however, there have not been any unbudgeted costs so far for 2026. Committee has no other questions.

9. FUTURE AGENDA ITEMS: (Next Meeting- March 11th, 2026 @10:30AM)

10. ADJORNMENT: Motion by Miller to adjourn, second by Potters. All present voting (AYE). Motion carried. Meeting adjourned at 11:37AM.

**Please note that the meeting minutes provided are not finalized and are subject to approval at the next committee meeting.
Any corrections or amendments will be made at that time. **

FOREST COUNTY MEETING NOTICE

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: February 11, 2026
TIME: 10:30AM
PLACE: COUNTY BOARD ROOM

AGENDA

1. Call to Order
2. Roll Call
3. Approve Agenda
4. Approve [Minutes from the January 12, 2026 EM Gov't – 911 Committee Meeting.](#)
5. Public Comment
6. Emergency Management Discussion and possible actions:
 - a.) [NCWRPC Hazard Mitigation Plan Update](#)
 - b.) Title III Funding
 - c.) Travel Requests
 - d.) EM Director Updates (*S Montgomery*)
7. Dispatch and Sheriff Discussion and possible action:
 - a.) PSAP Grant Update
 - b.) Interoperable Radio Grant Update
 - c.) Dispatch Sergeant Updates (*R Huettl*)
8. Budget Status
9. Future Agenda items
(*Next meeting: March 11th, 2026 @ 10:30am*)
10. Adjournment.

Notice was emailed to committee members, the media, Forest Republican, Radio Stations WERL/WRJO and Coyote Radio, on February 6, 2026 at 10:30AM.

The agenda was posted to the public at the east/west entrance of the Forest County Courthouse on February 6, 2026 at 10:30AM.

Every effort will be made to reasonably accommodate persons with special needs. Please contact the County Clerk's Office at (715) 478-2422 to address your concerns.

A majority of the members of the County Board of Supervisors or of any of its committees may be present at this meeting to listen, observe and participate. If a majority of any such body is present, their presence constitutes a "meeting" under the Open Meeting Law as interpreted in *State ex rel. Badke v. Greendale Village Board*, 173 Wis. 2d 553 (1993), even though the visiting body will take no action at this meeting.

Posted on February 6, 2026 at 10:30AM by Stephanie Montgomery.

EMERGENCY GOVERNMENT & 911

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: Wednesday November 12, 2025
TIME: 10:00 AM
PLACE: COUNTY BOARD ROOM

1. CALL TO ORDER

Skallerud calls the meeting to order at 10:00 A.M.

2. ROLL CALL

Members Present: Ron Skallerud, Terry Lukas & Mike Miller

Others Present: Stephanie Montgomery, Christian Boulanger, Rob Huettl, Jeff Marvin & Adam Boney

3. APPROVAL OF AGENDA

Motion by Lukas second by Skallerud to approve the agenda. All present voting (AYE), Motion carried.

4. APPROVE MINUTES FROM THE PREVIOUS EMERGENCY GOVERNMENT - 911 MEETING

Motion by Lukas, second by Skallerud to approve Emergency Government - 911 September 17th, 2025 meeting minutes. All present voting (AYE), Motion carried.

5. PUBLIC COMMENT ITEMS: NONE

6. DISCUSSION AND POSSIBLE ACTION ITEMS:

- a. HAZARD MITIGATION PLAN UPDATE: NCWRPC provided a hazard review packet with risk matrix & maps. Committee questions the wildfire risk map and how DNR decides low vs concern areas, also if there is a more localized map, not township boundaries. Motion by Lukas, to approve the Risk Assessment Matrix Evaluation, second by Miller. All present voting (AYE), Motion Carried.
- b. USE AGREEMENT: Montgomery drafted a use agreement for the star link that the county purchased for emergencies. Skallerud suggested adding any and all equipment to the list, including any equipment the other departments may have. Motion by Lukas to approve with adding all equipment and having the County Corporation Counsel review and approval, second by Miller. All present voting (AYE), Motion Carried.
- c. EMPG FUNDING: Montgomery send email to committee 10/22/2025 providing a letter from WEMA regarding EMPG funding and challenges that the state is facing with the funding dates, government shutdown and open litigations regarding the funding.
- d. Travel Requests: Motion by Lukas, to approve Travel Request for 2026 Quarterly NEWCOM Meetings, second by Miller. All present voting (AYE). Motion carried.
- e. EM DIRECTOR UPDATES: Montgomery Completed the Annual review the County Emergency Operations Plan, all departments and chair required have signed off. LEPC meeting held last month and Forest County Strategic plan was approved and submitted to the state. Nelma tower project is coming to an end, the LG repeater is live. Northway just needs to finish the Sheriffs repeater programing into dispatch and the officer radios. Montgomery questions where the WE energies bill for the tower should be charged. Committee believes for now it can be taken out of EM budget. Public Health and Emergency Management working on a table top exercise in January. Montgomery would like to schedule the 2026 meetings; committee would like to stick with the second Wednesday and move it to at 10:30am, however since there is an election in 2026 Montgomery should revisit schedule in April after elections to ensure it works with assigned committee members.

7. DISPATCH

- a. PSAP GRANT: Huettl provided grant award info to committee, Forest County was authorized \$542,823.40 with 10% match reimbursement from the 2026 PSAP Grant. 2025 PSAP has one final item to complete before they can submit reimbursement, Huettl is hoping by the end of the year Total Response training will be complete. Huettl is also starting to think of 2027 grant ideas, possibly a mobile dispatch center.

**Please note that the meeting minutes provided are not finalized and are subject to approval at the next committee meeting.
Any corrections or amendments will be made at that time. **

EMERGENCY GOVERNMENT & 911

- b. DISPATCH SERGEANT UPDATES: Huettl provided Interop Radio grant information, Marvin and Huettl explain that they are considering applying for the radio grant, would use money from the budget already allocated to radios as their match money, department could then possibly get 7 radios instead of 4. Grant application is due January 15, 2026. Motion by Miller, to preliminary approve looking into the interop grant as long as match doesn't exceed the current 2026 radio budget which is roughly \$40,000. Huettl would need final approval when grant application is ready to submit, second by Lukas. All present voting (AYE), Motion Carried. Dispatch staff is at 6 of 9 trained with one in training. Received one PT application and one FT application. Jail staff is down two, they need a female. Patrol promoted Deputy Doane and Deputy Kelly to Sergeants, and have hired two replacements for their positions, patrol at full staff.

8. Budget Status: Montgomery shared the monthly budget reports. Discussion on grant funding implications. Committee has no other questions.

9. FUTURE AGENDA ITEMS: Next meeting December 12th at 10:30, agenda items TBD

10. ADJORNMENT: Motion by Lukas, second by Miller, to adjourn. All present voting (AYE). Motion carried. Meeting adjourned at 10:58 AM.

FOREST COUNTY MEETING NOTICE

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: November 12, 2025
TIME: 10:00AM
PLACE: COUNTY BOARD ROOM

AGENDA

1. Call to Order
2. Roll Call
3. Approve Agenda
4. Approve [Minutes from the September 17, 2025 EM Gov't – 911 Committee Meeting](#).
5. Public Comment
6. Emergency Management Discussion and possible actions:
 - a.) [Hazard Mitigation Plan Update](#)
 - b.) [Use Agreement](#)
 - c.) [EMPG Funding](#)
 - d.) Travel Requests
 - e.) EM Director Updates (*S Montgomery*)
7. Dispatch and Sheriff Discussion and possible action:
 - a.) PSAP Grant
 - b.) Dispatch Sergeant Updates (*R Huettl*)
8. Budget Status
9. Future Agenda items (*Next meeting December 10, 2025 at 10:00AM*)
10. Adjournment.

Notice was emailed to committee members, the media, Forest Republican, Radio Stations WERL/WRJO and Coyote Radio, on November 5, 2025 at 11:00AM.

The agenda was posted to the public at the east/west entrance of the Forest County Courthouse on November, 2025 at 11:00AM.

Every effort will be made to reasonably accommodate persons with special needs. Please contact the County Clerk's Office at (715) 478-2422 to address your concerns.

A majority of the members of the County Board of Supervisors or of any of its committees may be present at this meeting to listen, observe and participate. If a majority of any such body is present, their presence constitutes a "meeting" under the Open Meeting Law as interpreted in *State ex rel. Badke v. Greendale Village Board*, 173 Wis. 2d 553 (1993), even though the visiting body will take no action at this meeting.

Posted on November 5, 2025 at 11:00AM by Stephanie Montgomery.

Forest County All Hazards Mitigation Plan Update

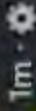
Public Informational Meeting SIGN-IN

October 20, 2025 - 5:30 PM

	Name	Area of Residence	Email
1	Stephanie Montgomery	Forest County	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			



Forest County Emergency Management



All Hazards Mitigation Plan Public Informational Meeting

October 20, 2025 at 5:30PM

Forest County Courthouse - County Board Room

<https://www.ncwrpc.org/forest-county-all-hazards/>

FOREST COUNTY ALL HAZARDS MITIGATION PLAN PUBLIC INFORMATIONAL MEETING

Notice is hereby given by the Forest County Emergency Management Department that there will be a public informational meeting at the Forest County Courthouse - County Board Room in Crandon, 200 E Madison St., Crandon, WI on Monday, October 20, 2025 beginning at 5:30 p.m. to discuss the updating of the County's All Hazards Mitigation Plan.

The meeting will be an open house format and will provide information about natural hazards that can affect the County and the strategies being developed to mitigate against future losses and reduce public expenditure for response and recovery. For information on the Forest County Hazard Mitigation Plan visit <https://www.ncwrpc.org/forest-county-all-hazards-mitigation-plan-update-2025/>. If you are unable to attend the meeting you may provide comments at staff@ncwrpc.org.

All interested parties are encouraged to attend. Please contact the Forest County Emergency Management Director, Stephanie Montgomery at forestem@co.forest.wi.us for more information.

LEGAL NOTICES WNAIXLP

ORDER SETTING TIME TO HEAR PETITION FOR ADMINISTRATION AND DEADLINE FOR FILING CLAIMS

(FORMAL ADMINISTRATION)
STATE OF WISCONSIN

CIRCUIT COURT, FOREST COUNTY

Case No. 25-PR-14

IN THE MATTER OF THE ESTATE OF Glenda Conn

A Petition for Formal Administration was filed

THE COURT FINDS:

The decedent, with date of birth October 1, 1939 and date of death April 30, 2025 was domiciled in Forest County, State of Wisconsin, with a mailing address of 615 East Madison Street, Crandon, Wis. 54520.

THE COURT ORDERS:

1. The Petition be heard at the Forest County Courthouse, Crandon, Wisconsin, before Circuit Court Judge Leon D. Stenz, on October 1, 2025 at 1:40 p.m.

You do not need to appear unless you object. The application may be granted if there is no objection.

2. The deadline for filing a claim against the decedent's estate is December 1, 2025.

3. A claim may be filed at the Forest County Courthouse, Crandon, Wisconsin.

4. Heirship will be determined at the hearing on petition for final judgment.

5. Publication of this notice is notice to any persons whose names or addresses are unknown.

If you require reasonable accommodations due to a disability to participate in the court process, please call prior to the scheduled court date. Please note that the court does not provide transportation.

SIGNED BY: Leon D. Stenz, Circuit Court Judge

DATE SIGNED: September 2, 2025

Robert A. Kennedy, Jr.

209 East Madison Street

Crandon, Wis. 54520

715-478-3386

Bar No. 1009177

WNAIXLP

FOREST COUNTY ALL HAZARDS MITIGATION PLAN PUBLIC INFORMATIONAL MEETING

Notice is hereby given by the Forest County Emergency Management Department that there will be a public informational meeting at the Forest County Courthouse - County Board Room in Crandon, 200 E Madison St., Crandon, WI on **Monday, October 20, 2025 beginning at 5:30 p.m.** to discuss the updating of the County's All Hazards Mitigation Plan.

The meeting will be an open house format and will provide information about natural hazards that can affect the County and the strategies being developed to mitigate against future losses and reduce public expenditure for response and recovery. For information on the Forest County Hazard Mitigation Plan visit <https://www.ncwrpc.org/forest-county-all-hazards-mitigation-plan-update-2025/>. If you are unable to attend the meeting you may provide comments at staff@ncwrpc.org.

All interested parties are encouraged to attend. Please contact the Forest County Emergency Management Director, Stephanie Montgomery at forestem@co.forest.wi.us for more information.

WNAIXLP

NOTICE TO CREDITORS

(INFORMAL ADMINISTRATION)
STATE OF WISCONSIN

CIRCUIT COURT, FOREST COUNTY

Case No. 2025PR13

IN THE MATTER OF THE ESTATE OF Christof Ian Everts DOD

2/28/2024

PLEASE TAKE NOTICE:

1. An application for informal administration was filed
2. The decedent, with date of birth 3/21/1975 and date of death 2/28/2025, was domiciled in Los Angeles County, State of California, with a mailing address of 2370 Via Fresca, San Dimas, CA

3. All interested persons waived notice.

4. The deadline for filing a claim against the decedent's estate is 12/03/2025.

5. A claim may be filed at the Forest County Courthouse, 200 E. Madison St., Crandon, Wisconsin.

SIGNED BY: Leon D. Stenz Circuit Court Judge

DATE SIGNED: September 4, 2025

Amanda L. Wleckowicz

PO Box 720

Chelek, WI 54728

715-924-4801

Bar Number 1046203

WNAIXLP

TFR 9-11, 9-18 9-25-25

NOTICE AND ORDER FOR NAME

CHANGE HEARING

STATE OF WISCONSIN

CIRCUIT COURT, FOREST COUNTY

Case No. 25CV53

IN THE MATTER OF THE NAME CHANGE OF Jackson James Stefoniak

By Kinsey Rae Queen

NOTICE IS GIVEN:

A Petition was filed asking to change the name of the person listed above:

From: Jackson James Stefoniak

To: Maniya Jackson James Queen

Birth Certificate: Jackson James Stefoniak

IT IS ORDERED:

This Petition will be heard in the Circuit Court of Forest County, State of Wisconsin, by Honorable Judge Leon D. Stenz, Forest County Courthouse, 200 E Madison Street, Crandon, WI 54520.

Date: 11-03-2025

Time: 1:30 p.m.

If you require reasonable accommodations due to a disability to participate in the court process, please call 715-478-3323 prior to the scheduled court date. Please note that the court does not provide transportation.

IT IS FURTHER ORDERED:

Notice of this hearing shall be given by publication as a Class 3 notice for three (3) weeks in a row prior to the date of the hearing in the Forest Republican, a newspaper published in Forest County, State of Wisconsin.

WNAIXLP

FMM 9-18, 9-25, 10-2-25

NOTICE AND ORDER FOR NAME

CHANGE HEARING

STATE OF WISCONSIN

CIRCUIT COURT, FOREST COUNTY

Case No. 25CV52

IN THE MATTER OF THE NAME CHANGE OF Liliana Renn Stefoniak

By Kinsey Rae Queen

NOTICE IS GIVEN:

A Petition was filed asking to change the name of the person listed above:

From: Liliana Renn Stefoniak

To: Maniya Liliana Renn Queen

Birth Certificate: Liliana Renn Stefoniak

IT IS ORDERED:

This Petition will be heard in the Circuit Court of Forest County, State of Wisconsin, by Honorable Judge Leon D. Stenz, Forest County Courthouse, 200 E Madison Street, Crandon, WI 54520.

Date: 11-03-2025

Time: 1:30 p.m.

If you require reasonable accommodations due to a disability to participate in the court process, please call 715-478-3323 prior to the scheduled court date. Please note that the court does not provide transportation.

IT IS FURTHER ORDERED:

Notice of this hearing shall be given by publication as a Class 3 notice for three (3) weeks in a row prior to the date of the hearing in the Forest Republican, a newspaper published in Forest County, State of Wisconsin.

WNAIXLP

FMM 9-18, 9-25, 10-2-25

Public Notice

Shop Stall Addition

Town of Popple River, Forest County, Wisconsin

The Town Popple River will be performing the following work:

Garage Stall Addition, 20ft wide, 30ft long and height matching the existing building. Needs concrete pad, electrical run, 12ft garage door opening (garage door not needed) and a service side door.

The Town of Popple River will receive quotes for the work through mail at Town of Popple River, PO Box 193, Long Lake, WI 54542 postmarked no later than October 8th, 2025. Quotes will be reviewed and contracts will be awarded to the vendor whose quote is most responsive to the solicitation and are most advantageous to the Town Of Popple River, considering price, quality and other factors. The Town of Popple River reserves the right to reject any and all quotes. Please forward any questions to Clerk@poppleriverwi.gov.

Katherine A Haen

Town Clerk Popple River

Submitted September 17th, 2025

WNAIXLP

Request for Bids

Town of Lincoln

The Town of Lincoln is accepting sealed bids for gravel and repair work on the following town roads:

- Johnson Road 4.15 Miles
- Bradley Lake Road from Pavement end to Fire tower Rd
- Otter Creek Road 4.23 miles

All roads should have 6" of gravel 18' wide and use a ¾ DOT spec gravel. Roads may not need the whole road graveled and bids should be priced accordingly. Please bid each road separately as we may not do them all and work should be completed by winter 2025.

Bid Deadline:

**All bids must be received by
October 6 at 5:00 PM.**

Submission Options:

Mail to:

Town of Lincoln

5376 County W

Crandon, WI 54511

Drop Off:

Use the drop box at the above address

For more information, please contact the Town Clerk 715-478-2985 or Chairman Jason Headson

715-966-1699

WNAIXLP

Notice of Public Hearing

The Sokaogon Chippewa Community, Natural Resources Board, will hold an in-person public hearing on October 14, 2025 at 10:00 a.m. at 3051 Sand Lake Road, Crandon, WI. We are seeking input regarding the 401 certification request for the US Army Corps of Engineers, Nationwide Permits and Regional Conditions.

Interested tribal members, public officials and private citizens are welcome to attend. The meeting documents can be obtained by contacting Tina L. Van Zile, Sokaogon Environmental Director at (715) 478-7605 or email tina.vanzile@scc-nsn.gov.

WNAIXLP

We've got news for you!
Plug into the power
of NEWSPAPER ADVERTISING

715-478-3315

Forest County All Hazards Mitigation Plan Update

Agency and Interest Group Meeting SIGN-IN

October 20, 2025 – 2:30 PM

	Name	Department/Organization	Email
1	Charity Davis	Nu Roc Health & Rehab	administrator@nu-rec-health.com
2	Tammy Queen	Nu Roc Health & Rehab	bomd@nu-rec-health.com
3	Tammi Boers	F.C. Health Dept.	tammiboersdirector@co.forest.wi.us
4	Hank Kratky	Goodman ARMSTRONG Rescue	henry.kratky@yohog.com
5	Kayla Littleton	Land Con/Land Info	Kayla.L@co.forest.wi.us
6	Thomas Richmond	SCC EM	thomas.richmond.scc.gov
7	Tom Tallin	Wabeno S. Dist.	
8	Stephanie Montgomerie	Forest County EM	forestem@co.forest.wi.us
9	Melinda Chasley	Cranden Area Rescue	melinda21carsi@gmail.com
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

NORTH CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION

210 McClellan Street, Suite 210, Wausau, Wisconsin 54403
Telephone: (715) 849-5510 Fax: (715) 849-5110
Web Page: www.ncwrpc.org Email: staff@ncwrpc.org



SERVING ADAMS, FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, VILAS AND WOOD COUNTIES

MEMORANDUM

TO: Government agencies, County department staff, and other private or non-profit organizations within Forest County
FROM: Darryl L. Landeau, AICP: Senior Planner *DLL*
DATE: September 22, 2025
RE: Forest Co. All-Hazards Mitigation Plan Update Interest Group Meeting Notice

Forest County has received a grant through the Federal Emergency Management Agency (FEMA) to complete an update of its All-Hazards Mitigation Plan to protect the health and safety of residents from the impacts of natural hazards and to minimize and prevent damages caused by these events. The North Central Wisconsin Regional Planning Commission (NCWRPC) is assisting Forest County with this plan.

As a requirement of the planning process, an opportunity must be provided to local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as business, academia and private and non-profit interests to be involved. To meet this requirement, a stakeholder / interest group meeting is scheduled for the following date and place:

When: Monday, October 20, 2025 at 2:30 p.m.
Where: Forest County Courthouse – County Board Room
200 E Madison Street, Crandon, WI

In addition to meeting FEMA requirements, this meeting will be a way to gather ideas on how to safeguard the residents and visitors of Forest County and protect property in the event of natural disasters. Since you live and/or do business in or around Forest County, your input in this process is very valuable.

Please call or email me if you have any questions regarding this meeting. My number is 715-849-5510 ext. 308, and my email is dlandeau@ncwrpc.org. Or, contact Stephanie Montgomery, the County's Emergency Management Director at 715-487-3430 or forestem@co.forest.wi.us. I highly encourage at least one staff person from your department or agency with responsibilities relating to or potentially impacted by natural hazards / disaster to attend.

Thank you.

Kathy Fohrman, Director
Forest Co. Department on Aging
300 A South Lake Avenue
Crandon, WI 54520

Travis Wollenberg, Administrator
Forest Co. Forestry & Rec. Dept.
200 E. Madison St.
Crandon, WI 54520

Mike Brown, District Ranger
US Forest Service-Laona Ranger Dist.
4978 US Highway 8/32
Laona, WI 54541

Forest County ED Partnership
PO Box 96
Crandon, WI 54520

Melissa Ison, Interim Director
Forest Co. Social Services Dept.
200 E. Madison St.
Crandon, WI 54520

Jean Fannin, Director
Forest County Zoning Dept.
200 E. Madison Street
Crandon, WI 54520

Amber Rehberg, Area Director
UW Extension Forest County
200 E. Madison St.
Crandon, WI 54520

Tammi Boers, Director
Forest County Health Dept.
200 E. Madison St.
Crandon, WI 54520

Mark Chrisman, Commissioner
Forest County Highway Dept.
5350 County Hwy W
Crandon, WI 54520

Goodman/Armstrong Rescue Squad
506 Mill Street
Goodman, WI 54125

Wabeno Fire Department
Jeff Rosio, Chief
4461 N Branch Street
Wabeno, WI 54566

Crandon Area Rescue Squad
PO Box 302
Crandon, WI 54520

Laona Rescue Unit
PO Box 97
Laona, WI 54541

Alvin Fire & Rescue
Gene Miller, Chief
16962 State Highway 55
Alvin, WI 54542

Argonne Fire Department
Mark Sprenger, Chief
PO Box 245
Argonne, WI 54511

Crandon Fire Department
Darrell Wilson, Chief
PO Box 335
Crandon, WI 54520

Hiles Fire Department South
Mark McCloskey, Chief
9193 N Main Street
Hiles, WI 54511

Hiles Fire Department North
Bill Prening, Chief
15065 Babcock Road
Three Lakes, WI 54562

Laona Fire Department
Edwin Slimmer, Chief
PO Box 36
Laona, WI 54541

Newald Fire Department
Paul Behrens, Chief
10170 Cypress Street
Newald, WI 54511

Sam Blake, Forester
Wisconsin DNR Crandon Station
404 North Lake Avenue
Crandon, WI 54520

Ron Skallerud, Chair
Forest County Board
200 E. Madison Street
Crandon, WI 54520

Jeffery Marvin, Sheriff
Forest County Sheriff's Office
100 S Park Avenue
Crandon, WI 54520

Kayla Littleton, Director
Forest Co. Land Con./Information Dept.
200 E. Madison Street
Crandon, WI 54520

Jamie Zarda, Regional Manager
ADRC of the Northwoods
300 A South Lake Street
Crandon, WI 54520

Charity Davis
Nu Roc Health & Rehab Center
3576A Nu Roc Ln
Laona, WI 54541

Larry Palubicki, Administrator
Laona School District
5216 Forest Avenue
Laona, WI 54541

William Taylor, Administrator
Wabeno Area School District
4346 Mill Lane
Wabeno, WI 54566

Jason Bertrand, Administrator
School District of Crandon
9750 US Hwy 8 West
Crandon, WI 54520

Bobbi Irocky, EM Director
FC Potawatomi Community
7876 US Hwy 8
Crandon, WI 54520

Thomas Richmond, EM Director
Sokaogon Chippewa Community
3051 Sandlake Road
Crandon, WI 54520

Forest County All Hazards Mitigation Plan Update

City of Crandon Planning Meeting SIGN-IN

October 1, 2025 - 10:30 AM

	Name	Title	Department
1	Meagan Hevilus	Clerk / Treasurer	City Hall
2	Parvell B. Wilson Sr	Fire Chief	city Fire Dept
3	George Stanger	Mayor	City Hall
4	Mike Belgram	street Foreman	Public works
5	Stephanie Montgomery	Forest County EM	Forest County
6	Eric Bath	Crandon P.D.	Crandon P.D.
7	Ross Cram	Crandon Utility super	Water/Sewer Utility
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

EMERGENCY GOVERNMENT & 911

COMMITTEE: EMERGENCY GOVERNMENT & 911

DATE: Wednesday July 9th, 2025

TIME: 10:00 AM

PLACE: COUNTY BOARD ROOM

1. CALL TO ORDER

Skallerud calls the meeting to order at 10:00 A.M.

2. ROLL CALL

Members Present: Ron Skallerud, Terry Lukas, Mike Miller

Others Present: Stephanie Montgomery, Rob Huettl, Darryl Landeau, Christian Boulanger & Sam Wurtinger

3. APPROVAL OF AGENDA

Motion by Lukas second by Miller to approve the agenda. All present voting (AYE). Motion carried.

4. APPROVE MINUTES FROM THE PREVIOUS EMERGENCY GOVERNMENT - 911 MEETING

Motion by Lukas, second by Miller to approve Emergency Government - 911 May 14th meeting minutes. All present voting (AYE). Motion carried.

5. PUBLIC COMMENT ITEMS: NONE

6. DISCUSSION AND POSSIBLE ACTION ITEMS:

- a. INTRO TO COUNTY MITIGATION PLAN UPDATE: Montgomery introduces Daryl Landeau and Christian Boulanger with the North Central Wisconsin Regional Planning Commission (NCWRPC). Forest County is using NCWRPC to update their Hazard Mitigation Plan which is required by FEMA to be updated every 5 years. Landeau discusses the process to update the plan and shares the Town survey results. Landeau also request the committee to fill out the Hazard Matrix and return to Stephanie over the next few weeks, as this is a required item for the plan update. Committee discusses some county hazards.
- b. TITLE III – PROJECT: Montgomery gives update of Title III Projects. Public Notice time requirement for latest project has just finished and she will order the equipment. County is still waiting for radio equipment to do the Alvin Radio expansion project; the building has been delivered and is set.
- c. WPS RADIO REPAIRS: Montgomery is waiting for WAVE to get Forest County on the schedule, hoping for some time next week. They wanted to come this week but the Northway Tech was not available.
- d. EM DIRECTOR UPDATES: County Highway & County Finance Admin completed the application. Montgomery presented the assurances for reimbursement for signature by County Board Chair. School Exercise in Wabeno is scheduled for this month. The town of Crandon requested Montgomery to attend town board meeting to discuss their Emergency Planning efforts. Motion by Skallerud to have Montgomery sign the assurances for the Wisconsin Disaster Fund Reimbursement, second by Lukas. All present voting (AYE). Motion carried.

7. DISPATCH

- a. PSAP GRANT: 2026 grant is due Aug 31st, it anticipated there will be \$18 million for the grant, max for each application is \$750,000. Huettl and Wurtinger discuss changing call handler for the dispatch center as the current handler does not have great customer services and wanted them to update equipment to frequently. Skallerud discusses the availability of dark fiber to the county and its possible uses. Huettl is waiting on some equipment for power phone, but that should go live in the next month or so. Other projects Huettl has in mind are outfitting the 3rd dispatch station, portable radios, and adding two more monitors to each station. Skallerud recommends looking into getting a dual band (900) radio to be able to communicate with MI since we are a border state.
- b. DISPATCH SERGEANT UPDATES: Huettl is working to get Rapid SOS live, they gave him a 6 to 8 week timeline for implementation. 1 in the hire process, once they are trained dispatch will be full staff.

EMERGENCY GOVERNMENT & 911

8. Budget Status: Montgomery shared the monthly budget reports. Committee has no questions or concerns.
9. FUTURE AGENDA ITEMS – *(Next meeting is August 13th, 2025 @ 10:00AM)*
10. ADJORNMENT: Motion by Lukas, second by Miller, to adjourn. All present voting (AYE). Motion carried. Meeting adjourned at 11:01 AM.

**Please note that the meeting minutes provided are not finalized and are subject to approval at the next committee meeting.
Any corrections or amendments will be made at that time. **

FOREST COUNTY MEETING NOTICE

COMMITTEE: EMERGENCY GOVERNMENT & 911
DATE: July 9, 2025
TIME: 10:00AM
PLACE: COUNTY BOARD ROOM

AGENDA

1. Call to Order
2. Roll Call
3. Approve Agenda
4. Approve Minutes from the [May 14th, 2025 Committee Meeting](#).
5. Public Comment
6. Emergency Management Discussion and possible actions:
 - a.) Intro to County Mitigation Plan Update (*NCWRPC*)
 - b.) Title III –Projects
 - c.) WPS Radio Repairs
 - d.) EM Director Updates (*S Montgomery*)
7. Dispatch and Sheriff Discussion and possible action:
 - a.) PSAP Grant
 - b.) Dispatch Sergeant Updates (*R Huettl*)
8. Budget Status
9. Future Agenda items (*Next meeting August 13th, 2025 at 10:00AM*)
10. Adjournment.

Notice was emailed to committee members, the media, Forest Republican, Radio Stations WERL/WRJO and Coyote Radio, on July 2nd 2025 at 1:00PM.

The agenda was posted to the public at the east/west entrance of the Forest County Courthouse on July 2nd, 2025 at 1:00PM.

Every effort will be made to reasonably accommodate persons with special needs. Please contact the County Clerk's Office at (715) 478-2422 to address your concerns.

A majority of the members of the County Board of Supervisors or of any of its committees may be present at this meeting to listen, observe and participate. If a majority of any such body is present, their presence constitutes a "meeting" under the Open Meeting Law as interpreted in *State ex rel. Badke v. Greendale Village Board*, 173 Wis. 2d 553 (1993), even though the visiting body will take no action at this meeting.

Posted on July 2nd, 2025 at 1:00PM by Stephanie Montgomery.

Appendix B – Resolutions of Plan Update Adoption

RESOLUTION

23.2024

Resolution offered by the Emergency Management Committee:

WHEREAS, Forest County recognizes the threat that natural hazards pose to people and property; and

WHEREAS, undertaking hazard mitigation actions before disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and

WHEREAS, an adopted all hazards mitigation plan is required as a condition of future grant funding for mitigation projects; and

WHEREAS, all hazard mitigation plans are required to be updated every 5-years; and

WHEREAS, the County of Forest adopted the last 5-year All Hazards Mitigation Plan Update on January 19, 2021; and

WHEREAS, Forest County participated jointly in the planning process with other local units of government within the County to prepare an update to its All Hazards Mitigation Plan, a copy of said plan is on file with the County Clerk and the Emergency Management Director.

NOW, THEREFORE, BE IT RESOLVED, that the Forest County Board of Supervisors, hereby adopts the Forest County All Hazards Mitigation Plan Update as an official plan of the County; and

BE IT FURTHER RESOLVED that the Forest County Emergency Management Department will submit, on behalf of the participating municipalities, the adopted All Hazards Mitigation Plan Update to Wisconsin Emergency Management and Federal Emergency Management Agency officials for final review and approval.

I, County Clerk, in and for the said County of Forest, State of Wisconsin, do hereby certify that the foregoing is a true and correct copy of a Resolution adopted by the County Board of Supervisors of Forest County, Wisconsin, in legal session on the 15 day of May, 2024.


Nora Matuszewski, Forest County Clerk

Dated this 15 day of May, 2024.


Supervisor

ALL HAZARD Mitigation

ROLL CALL SHEET			
COUNTY BOARD			
Date <u>5/19/26</u>			
No. <u>23-2026</u>			
Resolution <u>X</u>	Ordinance _____		
Motion:	Adopted _____		
1st <u>Lukas</u>	Lost _____		
2nd <u>Tallier</u>	Tabled _____		
	Aye	No	Absent
Augustin	X		
Berdan	X		
Daniels			X
Dehart	X		
Dewing, Brooke	X		
Dewing, Micah ~~W~~	X		
Fulcer	X		
Goode	X		
Karl	X		
Landru			X
Lukas	X		
Miller			X
Piasini	X		
Potters	X		
Spencer	X		
Tallier	X		
Thompson	X		
Dist#12 - Vacant			
Dist#14 - Vacant			
Dist#16- Vacant			
Dist#18 - Vacant			
TOTAL	14		3

RESOLUTION # _____

ADOPTING THE FOREST COUNTY ALL HAZARDS MITIGATION PLAN UPDATE

WHEREAS, the City of Crandon recognizes the threat that natural hazards pose to people and property; and

WHEREAS, undertaking hazard mitigation actions before disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and

WHEREAS, an adopted all hazards mitigation plan is required as a condition of future grant funding for mitigation projects; and

WHEREAS, all hazard mitigation plans are required to be updated every 5-years; and

WHEREAS, the City of Crandon adopted the last update of the All Hazards Mitigation Plan on May 5, 2021; and

WHEREAS, the City of Crandon participated jointly in the planning process with Forest County and the other local units of government within the County to prepare an update to the county-wide All Hazards Mitigation Plan;

NOW, THEREFORE, BE IT RESOLVED, that the City of Crandon Common Council, hereby adopts the Forest County All Hazards Mitigation Plan Update as an official city plan; and

BE IT FURTHER RESOLVED, that the Forest County Emergency Management Department will submit, on behalf of the City of Crandon, the adopted All Hazards Mitigation Plan Update to Wisconsin Emergency Management and Federal Emergency Management Agency officials for final review and approval.

PASSED:_____.

Certifying Official

RESOLUTION # _____

ADOPTING THE FOREST COUNTY ALL HAZARDS MITIGATION PLAN UPDATE

WHEREAS, The Town of _____ recognizes the threat that natural hazards pose to people and property; and

WHEREAS, undertaking hazard mitigation actions before disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and

WHEREAS, an adopted all hazards mitigation plan is required as a condition of future grant funding for mitigation projects; and

WHEREAS, all hazard mitigation plans are required to be updated every 5-years; and

WHEREAS, The Town of _____ participated jointly in the planning process with the other local units of government within the County to prepare an update to its All Hazards Mitigation Plan;

NOW, THEREFORE, BE IT RESOLVED, that the Town of _____ Board of Supervisors, hereby adopts the Forest County All Hazards Mitigation Plan Update as an official plan; and

BE IT FURTHER RESOLVED, that the Forest County Emergency Management Department will submit, on behalf of the participating municipalities, the adopted All Hazards Mitigation Plan Update to Wisconsin Emergency Management and Federal Emergency Management Agency officials for final review and approval.

PASSED: _____.

Certifying Official

Appendix C – Sample Functional Needs Form

Juneau County

Functional Needs Evacuation Registry Application

The purpose of this "Functional Needs Evacuation Registry" is to provide emergency responders in your municipality with important information for individuals who may require assistance with **Evacuation, Emergency Notification, or Emergency Response** during an emergency, such as tornado, flood, blizzard, and power outage or disease outbreak.

Application Date _____ ☐ New Application ☐ Update Application

PERSONAL INFORMATION

Last Name	First Name, MI	Date of Birth	Sex
Street Address	City or Village		Zip Code
Township	Name of Subdivision, Mobile Home Park, Apartment Building, etc.		
Primary Phone	Alternate Phone	Primary Language	

EMERGENCY CONTACT INFORMATION

Last Name	First Name	Phone
Last Name	First Name	Phone

EVACUATION INFORMATION

Will you require <u>specialized</u> vehicle transportation to a shelter in an emergency	☐ yes	☐ no
If so, identify which vehicle types you can ride in.		
☐ bus or van with wheelchair lift ☐ ambulance ☐ bariatric transport		

FUNCTIONAL OR PHYSICAL NEEDS IMPACTING EVACUATION

☐	Wheelchair bound	☐	Portable Oxygen or Oxygen Concentrator	☐	Developmentally Disabled
☐	Bedridden	☐	Ventilator	☐	Socially Impaired
☐	Walker, canes, crutches	☐	Suction	☐	Psychologically Impaired
☐	Hearing Impaired	☐	CPAP	☐	Other:
☐	Visually Impaired	☐	Necessary medications	☐	Other:

ADDITIONAL INFORMATION

--

PREPARATION

The CODE RED community notification system will send me alerts concerning time-sensitive and/or emergency information that will impact my area, so I may start my personal emergency plan. () I choose to opt out.

AUTHORIZATION

I (or legal guardian) agree that my information will be added to the Functional Needs Registry. I give my municipality and Juneau County authorization to share this information with community emergency responders in the event of an emergency to facilitate an effective evacuation or emergency response. I grant emergency responders permission to enter my home during or following an emergency event or disaster situation if necessary to assist with my safety and welfare.

Applicant Signature	Date
Authorized Guardian Signature	Date

Mail completed form to: Juneau County Health Department, 200 Hickory St, Mauston, WI 53948.
For questions regarding this form or program, contact Mary Crowley, JCHD Preparedness Coordinator, at 608-847-9588.