

Langlade County All Hazards Mitigation Plan 2026



LANGLADE COUNTY ALL HAZARDS MITIGATION PLAN UPDATE

prepared for:

Langlade County Emergency Management

by:

North Central Wisconsin Regional Planning Commission

adopted by Langlade County Board on:

June 22, 2026

This update was prepared at the request and under the supervision of the Langlade County Public Safety Committee 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 the All Hazards Mitigation Plan Update..... 1-3
- Key Elements of the Update to the 2020 Plan..... 1-3
- All Hazards Mitigation Plan Update Taskforce 1-4
- Local Government Involvement 1-5
- Neighboring Community Involvement 1-8
- Local and Regional Agency Involvement 1-8
- Public Review Process and Plan Update Adoption..... 1-9
- Incorporated Plans, Studies, Reports and Technical Data 1-10
- Contact Information 1-11

Part II – Planning Area

- Introduction 2-1
- General Geography 2-1
 - Location 2-1
 - Civil Divisions..... 2-3
 - Topography..... 2-4
 - Climate 2-4
- Demographic and Economic Profile 2-4
 - Population and Households 2-4
 - Seasonal Population 2-6
 - Employment 2-8
- Land Use/Land Cover and Development Patterns..... 2-10
 - Agriculture and Forestry..... 2-10
 - Commercial, Industrial & Institutional Development 2-11
 - Residential Development 2-11
 - Surface Water 2-11
 - Floodplains 2-12
 - Wetlands..... 2-15
 - Open Lands/Outdoor Recreation 2-18
- Future Growth and Development in Langlade County..... 2-18
- Impact of Changes in Population, Land Use and Development 2-20
- Public Facilities and Services..... 2-21
 - Transportation 2-21
 - Utilities 2-22
 - Emergency Services and Facilities..... 2-25
 - Critical Community Facilities 2-28
- Inventory & Value of Structures/Property in Langlade County 2-29

Part III – Risk Assessment

- Introduction 3-1
- Hazard Identification 3-1
- Weather Variability & Hazard Rise Assessment 3-2
- Hazard Analysis..... 3-5
 - Tornado/High Wind 3-6
 - Winter Storms/Extreme Cold 3-12
 - Drought/Extreme Heat 3-17
 - Flooding/Dam Failure 3-21
 - Severe Thunderstorms/Lightning/Hail 3-30
 - Forest Fires/Wildfires..... 3-32
 - Epidemic / Pandemic..... 3-35

Part IV – Mitigation Strategies

- Introduction 4-1
- Progress Report 2020-2025..... 4-1
- Local Hazard Mitigation Goals 4-5
- Prioritization of Strategies..... 4-6
- Mitigation Action Plan 4-7

Part V – Plan Update Maintenance Procedures

- Introduction 5-1
- Plan Update Adoption 5-1
- Plan Update Implementation 5-2
- Jurisdiction Capability Assessment 5-5
- Plan Update Evaluation and Maintenance 5-6

Tables

- Table 1 – Geographical Size by Municipality 2-3
- Table 2 – Population of Adjacent Counties 2-5
- Table 3 – Population and Households of Civil Divisions 2-5
- Table 4 – Estimated Seasonal Resident Population 2-7
- Table 5 – Top Employers in Langlade County 2-8
- Table 6 – Land Use in Langlade County 2-11
- Table 7 – FEMA Community Status Book Report 2-14
- Table 8 – Compliance with NFIP Requirements-Participating Jurisdictions..... 2-17
- Table 9 – Property Valuation by Municipality..... 2-29
- Table 10a – Value of County Owned Properties 2-30
- Table 10b – Value of City Owned Properties 2-31
- Table 10c – Value of Village Owned Properties 2-31
- Table 10d – Value of Town Owned Properties 2-32

Table 11 – Tornado Wind and Damage Scale..... 3-8
Table 12 – Reported Tornadoes in Langlade County..... 3-9
Table 13 – Dams in Langlade County 3-23
Table 14 – Values of Structures in Floodplains in Langlade County 3-28
Table 15 – Bench Mark for Progress 2020- 2025 Plan 4-2
Table 16 – Summary of Mitigation Strategies 4-31

Maps

Map 1 – Location..... 2-2
Map 2 – Generalized Land Use 2-9
Map 3 – Surface Water & Wetlands..... 2-13
Map 4 – Floodplains & Dams 2-16
Map 5 – Transportation..... 2-23
Map 6 – Utilities..... 2-24
Map 7 – Critical Community Facilities..... 2-27
Map 8 – Areas of Vulnerability 3-13
Map 9 – Flood Vulnerability..... 3-27
Map 10 –Wildfire Risk..... 3-35

Appendices

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

Introduction

Part I of the Langlade 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 government's 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 Langlade 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.

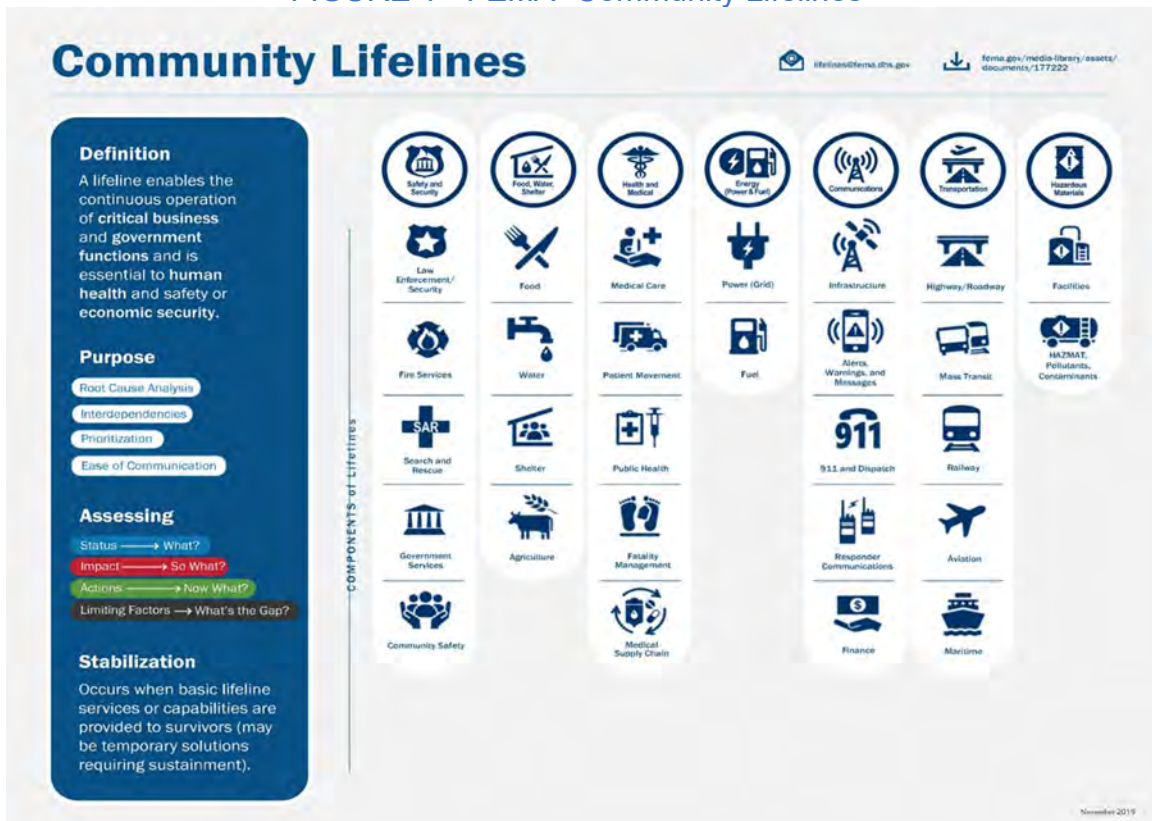
The following grant programs have hazard mitigation plan adoption requirements: Hazard Mitigation Grant Program (HMGP), Building Resilient Infrastructure and Communities (BRIC), Flood Mitigation Assistance (FMA), and Rehabilitation of High Hazard Potential Dams Grant Program (HHPD).

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"



Source: FEMA.

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 Langlade County All Hazards Mitigation Plan Update was categorized into five parts to address FEMA's local mitigation plan requirements. The five parts are:

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

Development of the All Hazards Mitigation Plan Update

The Langlade 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 Langlade County and began updating the All Hazards Mitigation Plan at the request of the County Emergency Management Director in January of 2025.

The update process included planning taskforce committee meetings as well as extensive involvement from the local units of government within Langlade County and the counties surrounding Langlade. 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 2020 Plan

The major enhancements to the Langlade 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 expanded and 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 2020 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 Taskforce

The Langlade County All Hazards Mitigation Plan Update was prepared under the authorization of the Langlade County Public Safety Committee:

- Douglas Curler, Chair
- Warren Wagner, Vice-Chair
- Daniel Persen
- Teresa Poltrock
- Joel Wagner

This Committee of the County Board delegated oversight of the update process to the County's Local Emergency Planning Committee or LEPC which consists of a broad cross section of government, agency and interest

group representatives from across the County. Periodic meetings were held with the NCWRPC staff, the County Emergency Management Director Travis Krueger, and the LEPC (dba Mitigation Planning Task Force) to provide guidance and input on the types of hazards to be considered, appropriate mitigation strategies, and to review draft reports. Task Force members and their representation are as follows:

- Brian Braun, County Highway Commissioner - Chair
- Travis Krueger, County EM Director – Vice Chair
- Mark Westen, County Sheriff
- Dan Duley, Antigo Chief of Police
- Jake Cross, WI DNR
- Meghan Williams, County Health Dept.
- Donna Wiegert, County Health Dept.
- Kevin McFadden, Langlade Hospital
- Tommy Horswill, Antigo Wastewater Treatment Plant
- Mike Winski, Citizen
- Tyler Eades, Waukesha Bearings
- Cory Arndt, Waukesha Bearings
- Todd Jelinski, Sartori Cheese
- Tyler Martin, Amron
- Tim Seubert, Amron
- Jake Leiterman, Antigo School District
- Corey Smith, Antigo Fire Dept.
- Carole Benzschawel, Volm Companies
- Hanna Butler, Volm Companies
- Teresa Poltrock, County Board Supervisor

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 10 of 17 towns and 1 of 3 school districts. A significant amount of information was gleaned from these questionnaires and incorporated into the planning document.

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

- Fire Risk: heavily wooded areas, significant brush on ground (2019 storm), large rural/remote areas that are difficult to access
- Flooding: swampy/wet areas / wetlands / many lakes, streams / dams, spring snowmelt / runoff, Spring Brook Creek, road washouts, north side of city (3 of last 4 years) / recent construction / other areas adjacent to city
- Tornado / High Wind: some properties (recreational/seasonal) lack basements for shelter, fallen trees blocking roadways or downing power lines, long term power outage
- Winter Storm / Heavy Snow / Ice: downing powers lines, long term power outage
- Communication between school officials and communities / public safety representatives

The City of Antigo was formally introduced to the update process at a separate meeting on October 9, 2025. City officials were provided information on hazards that have significance to the City, discussed critical facilities and provided mitigation strategy ideas for the plan update. The following City officials participated in this planning meeting:

- Charley Brinkmeier, Public Works Director
- Corey Smith, Fire Chief
- Dan Duley, Police Chief
- Beth McCarthy, Building Inspector / Zoning Administrator

Discussion from this meeting indicated that the City is most concerned about spring flooding and straight line winds or an ice storm resulting in long term power outage. The City has been engaged in addressing the effects of flooding on the Spring Brook. Extensive work has been accomplished upstream including building removal as well as vegetation and debris clearing. Dam operations have also been addressed, and lake levels are lowered in the fall to maximize capacity for snowmelt. The focus is now rehabilitating Spring Brook south of the dam to stabilize the stream banks and remove sediment for improved water flow and carrying capacity. Floodplain zoning and NFIP were also discussed.

The City does not have good storm sheltering. The potential for power outage is a significant concern for city officials with regard to space for sheltering large numbers of people (such as the high school or armory) plus power generation capability for heating. In addition, the City noted that

its firefighting vehicles and equipment is becoming dated and in need of replacement.

The City of Antigo identified several asset properties lying outside its corporate limits in the surrounding towns. These include 2 wells, the city land fill, and its old dump site now a recreation area with trails. No extraordinary or unique risks were identified for these areas.

The Village of White Lake 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 village, discussed critical facilities and provided mitigation strategy ideas for the plan. The following Village officials participated in this planning meeting:

- Scott Popelka, Public Works Director
- Bill Frash, Village Trustee
- Carol Blawat, Village Clerk/Treasurer
- Brandon Tegen, Fire Chief
- Patsy Listle, Village Trustee

Discussion from this meeting indicated that the Village is most concerned about straight line winds or ice storms resulting in long term power outage. The Village has been developing its community center to function as an emergency operations center, shelter / relief center with back-up power generator acquired through a mitigation grant. In addition, the Village is more concerned about potential wildfire than flooding. Floodplain zoning and the NFIP were also discussed.

The Village discussed its limited resources and its need for outside support in a major incident, particularly involving environmental factors such as protecting the lake from contaminated runoff. One primary concern being the saw dust silo for the local sports flooring manufacturer that sits adjacent to the lake.

The Village of White Lake identified only one asset property lying outside its corporate limits, its sewage lagoon system. No extraordinary or unique risks were identified for this area.

Neighboring Community Involvement

One of the requirements of the update 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 teleconferenced with staff from Forest, Oneida, Lincoln, Marathon, Shawano, Menominee

and Oconto counties. 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 is 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 9, 2025 at County Courthouse in Antigo. Agencies and organizations represented include the following:

- Dave Jennings - Town of Peck Fire Dept.
- Dennis Resch - Town of Norwood Fire Dept.
- Kendra Jansky - WDNR Forester
- Eric Borchert - Town of Antigo Fire Dept.
- Alan Horzewski - Langlade County Airport
- Amber Ryan - Langlade County Land Conservation
- Matt Sumnicht - Langlade County Land Records-GIS
- Travis Krueger - Langlade County Emergency Mgmt
- Darryl Landeau - NC WI Regional Planning Commission

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

During the meeting, the Plan and its components were introduced to the attendees. A summary of proposed mitigation strategies was given to each person present. The mitigation measures were discussed at length with the group. Part IV of the Plan was revised based on the meeting.

Meeting attendees identified a number of issues including how to use the limited resources across the county to support communities during large scale, longer duration incidents. The group felt there needs to be discussions about creating a countywide all hazard incident management team to provide a coordinated response to assist communities when a major disaster event occurs.

Another issue discussed was the need to look at some improvements to sheltering. However, the conversation did not focus on standard protective type of shelters, but rather the concept of relief centers. These are central points where local residents can go for water, power (charging, heating, cooling), information and other resources to help them cope with the situation. These should be community based, potentially at each town hall.

Some communities across the county are already making moves to establish this type of operation in their areas.

The group also discussed the need to have (create) and maintain a “list” (often referred to as a functional needs list or registry) of residents across the county who have special needs with regard to surviving a hazardous situation such as medical conditions, dependance on medicines, oxygen, or devices that require power (in a power outage situation), or have communication or mobility issues, etc. This information helps emergency responders locate and be prepared with what they need to assist those individuals.

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 Update 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 LEPC and Public Safety 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 Update was held in the Langlade County Courthouse on October 9, 2025. Notice was published in the local newspaper. Unfortunately, no members of the public chose to attend this meeting. In addition, no comments were received via U.S. Mail or email as a result of this meeting.

The County Public Safety Committee will review the Plan Update prior to forwarding it to County Board for approval. Following this open, public meeting, the 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, Village, 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' resolutions of adoption.

Incorporated Plans, Studies, Reports And Technical Data

Many plans, reports, and technical data sources were referenced and incorporated into the Langlade 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 Langlade 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 Langlade 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. FEMA FIRM NFIP flood zone maps for Langlade County provided the mapping of 100-year floodplain areas for the flooding risk assessment 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 Langlade County Zoning Ordinance, the Langlade County Land and Water Resource Management Plan, and the Langlade County Emergency Operations Plan, the North Central Wisconsin Pandemic Assessment and Future Response Plan and the North Central Wisconsin Regional COVID-19 Recovery Plan. Although these may not have been directly incorporated, the review provided valuable insight and direction to the update process.

Contact Information

Questions or comments related to this Plan Update can be directed to the County Emergency Management Director at any time. For more information contact:

Deputy Travis Krueger, Director
Langlade County Emergency Management
840 Clermont Street
Antigo, WI 54409

715-627-6257

tkrueger@co.langlade.wi.us

Go to:

<http://www.co.langlade.wi.us/departments/sheriffs-office/emergency-management/>

<https://www.ncwrpc.org/langlade-county-all-hazards-mitigation-plan-update-2025/>

<https://dma.wi.gov/DMA/wem/mitigation/hazard-mitigation>

<https://www.fema.gov/hazard-mitigation-planning>

INTRODUCTION

Part II of the Langlade County All-Hazard Mitigation Plan Update provides general geographical information on Langlade County 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.

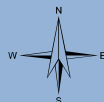
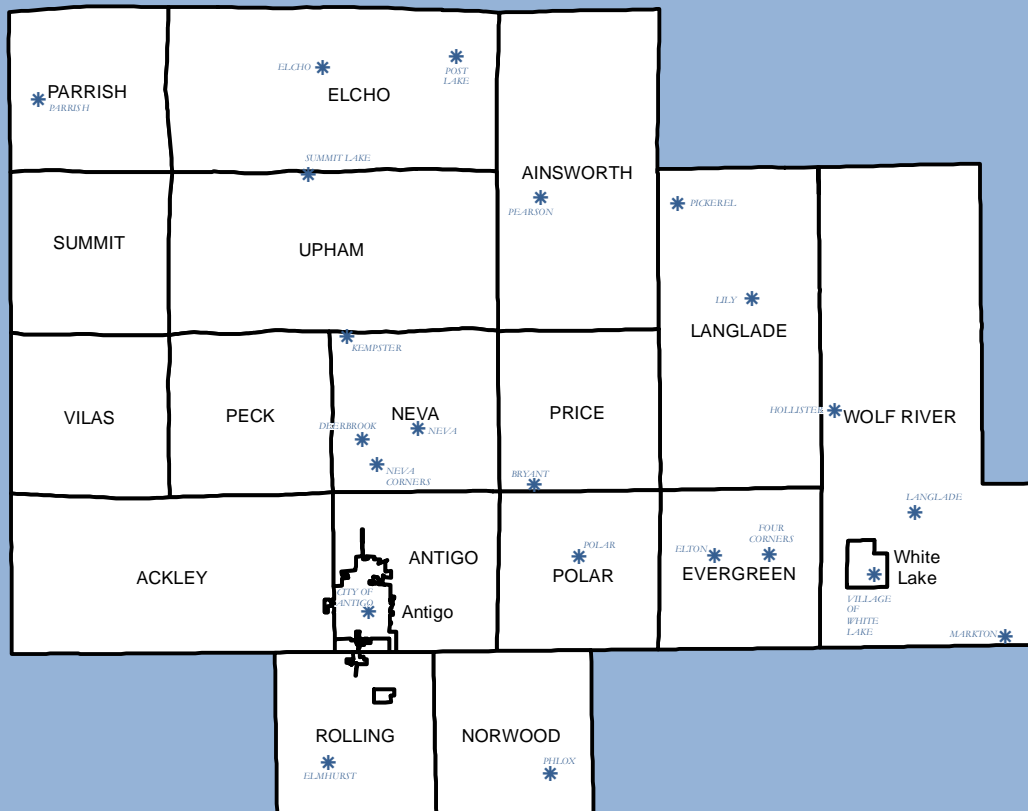
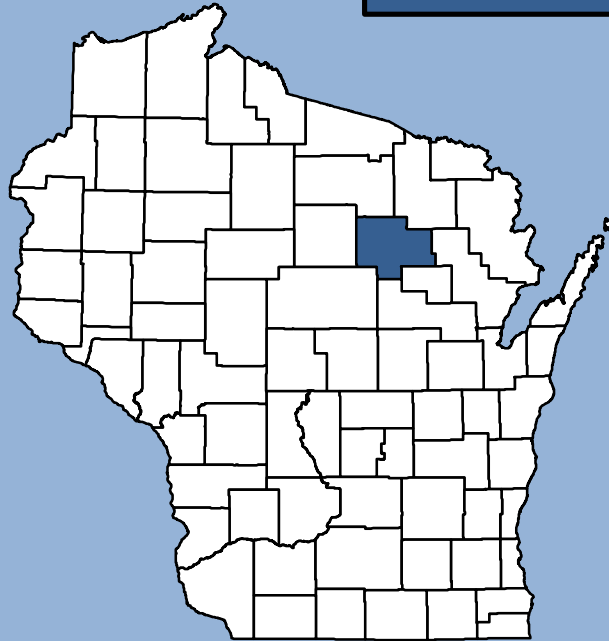
The resulting information is an important element of the planning process, since sound alternative mitigation strategies cannot be formulated and evaluated without an in-depth knowledge of the relevant conditions in the study area.

GENERAL GEOGRAPHY**Location**

Langlade County is located in northern Wisconsin (See Map 1). The largest city and county seat is Antigo in the south-central portion of the county. The Village of White Lake is located in the eastern part of the county. There are also several unincorporated places dispersed around the county. The county is bounded on the north by Oneida and Forest Counties, on the east by Oconto County, on the south by Menominee, Shawano and Marathon Counties, and on the west by Lincoln County.

Langlade County lies approximately 81 miles northwest of Green Bay; 181 miles northwest of Milwaukee; and 170 miles north of Madison. Major metropolitan areas outside of Wisconsin are Chicago, 267 miles southeast; Minneapolis-St. Paul, 207 miles west; and Duluth, 229 miles northwest.

All Hazard Mitigation Plan



Source: NCRWPC, Langlade County, WIDNR

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. NCRWPC 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

Civil Divisions

There are 19 municipalities (17 towns, one village and one city) in the Langlade County planning area. These units of government provide the basic structure of the decision making framework. The county has a total area of about 888 square miles, of which 1.9 percent is water. The area and proportion of the county within each civil division are presented in Table 1.

Table 1 - Geographical Size by Municipality				
	Area in square miles*			
Municipality	Water area	Land area	Total area	Area as % of County*
Ackley town	0.35	70.63	70.98	8.0%
Ainsworth town	2.80	69.14	71.94	8.1%
Antigo town	0.04	31.03	31.08	3.5%
Elcho town	4.28	70.97	75.24	8.5%
Evergreen town	0.46	35.78	36.24	4.1%
Langlade town	1.00	71.42	72.42	8.2%
Neva town	0.45	37.29	37.74	4.3%
Norwood town	0.56	35.57	36.13	4.1%
Parrish town	0.41	36.18	36.58	4.1%
Peck town	0.18	37.04	37.22	4.2%
Polar town	0.37	35.55	35.92	4.0%
Price town	0.12	36.12	36.32	4.1%
Rolling town	0.05	35.91	35.96	4.1%
Summit town	0.02	36.40	36.43	4.1%
Upham town	3.61	70.31	73.92	8.3%
Vilas town	0.03	35.81	35.84	4.0%
Wolf River town	2.08	116.78	118.86	13.4%
White Lake village	0.29	2.18	2.47	0.3%
Antigo city	0.05	6.54	6.59	0.7%
Langlade County	17.24	870.64	887.88	100.0%

Source: U.S. Census and NCWRPC * Totals may not add due to rounding.

Topography

The landscape of Langlade County is primarily the result of glaciation. The relief is characterized by moraines, outwash plains, and a variety of other glacial features. The moraines are primarily gently sloping to very steep. The outwash plains are smooth and level. The Antigo Flats, a major outwash plain, in the south-central part of the county was an area not covered by ice during the most recent glaciation. Elevations range from about 1,070 feet above sea level in the southeast corner (Wolf River) to 1,903 feet above sea level in the Town of Langlade.

Climate

Langlade County has a continental climate characterized by cold, snowy winters, warm summer days and cool summer nights. The short frost-free period during the summer restricts suitable crops mainly to forage, small grain, and vegetables. Precipitation is fairly well distributed throughout the year, reaching a peak in summer. Snow covers the ground much of the time from late fall until early spring. The average annual precipitation is about 29.35 inches and average annual snowfall of 53 inches. June was the wettest month 3.9 inches of rain and December was the month with the most snow of 15 inches. The prevailing wind is from the southwest. Average wind speed is highest in spring at 12 miles per hour.

DEMOGRAPHIC AND ECONOMIC PROFILE**Population and Households**

The 2023 ACS 5-year population estimate reported a population base of 19,473 people. This represents a decrease of 2.6 percent or 504 residents from the 2010 Census reported population of 19,977 people. Langlade County has underperformed along with most of its neighbor counties versus the overall state average (refer to Table 2). Within Langlade County itself, most of the individual municipalities lost population. Only seven towns: Ainsworth, Langlade, Norwood, Polar, Price, and Wolf River townships saw growth between 2010 and 2023 (refer to Table 3).

Wisconsin Applied Population Lab reports indicate that this decline in population is part of a larger pattern of rural population loss across the Midwest. In Wisconsin, the northern counties were the most affected. One big factor was the experiencing more deaths than births in these areas. In addition, young people are tending to move out of more rural areas for multiple reasons including: job opportunities, educational opportunities, the excitement of city-life, and desire for diversity and cultural amenities.

County	2010	2023	Change	% Change
Langlade	19,977	19,473	-504	-2.6
Forest	9,304	9,261	-43	-0.5
Oconto	37,660	39,329	1,669	4.2
Menominee	4,232	4,256	24	0.6
Shawano	41,949	40,927	-1,022	-2.5
Marathon	134,063	138,067	4,004	2.9
Lincoln	28,743	28,403	-340	-1.2
Oneida	35,998	38,007	2,009	5.3
Wisconsin	5,686,986	5,892,023	205,037	3.5

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

MINOR CIVIL DIVISION	2010 Population	2010 Households	2023 Population	2023 Households	2010 – 2023 % Change in Population	2010 – 2023 % Change in Households
Ackley town	524	211	501	180	-4.4	-14.7
Ainsworth town	469	222	616	304	31.3	36.9
Antigo town	1,412	580	1,364	569	-3.4	-1.9
Elcho town	1,233	579	1,199	565	-2.8	-2.4
Evergreen town	495	209	485	214	-2.0	2.4
Langlade town	473	223	516	227	9.1	1.8
Neva town	902	369	829	336	-8.1	-8.9
Norwood town	913	360	975	365	6.8	1.4
Parrish town	91	36	59	23	-35.2	-36.1
Peck town	349	144	303	119	-13.2	-17.4
Polar town	984	384	1,047	377	6.4	-1.8
Price town	228	94	347	104	52.2	10.6
Rolling town	1,504	576	1,344	489	-10.6	-15.1
Summit town	163	71	118	53	-27.6	-25.4
Upham town	676	320	592	303	-12.4	-5.3
Vilas town	233	93	171	71	-26.6	-23.7
Wolf River town	731	347	745	367	1.9	5.8
White Lake village	363	156	204	115	-43.8	-26.3
Antigo city	8,234	3,613	8,058	3,825	-2.1	5.9
Langlade Co. Total	19,977	8,587	19,473	8,606	-2.6	0.2

Source: U.S. Census Bureau, 2018-2023 American Community Survey 5-Year Estimates

Between 2010 and 2023, the most significant growth occurred in the Town of Price a 52.2% increase. The Town of Ainsworth was second with a 31.3% increase. Also notable was Town of Langlade with a 9.1% increase. Significant losses were experienced by the Village of White Lake down 43.8%, Town or Parrish down 35.2% and Town of Summit down 27.6%. The City of Antigo also exhibited a decline of about 2.1%.

Population concentrations and trends are important when prioritizing hazard mitigation strategies. Approximately 41% of the population is classified by the Census as urban and 59% is rural. The City of Antigo is the most densely populated and developed area in the county. Other areas of population concentrations are the Village of White Lake, and 17 unincorporated places including Bryant, Deerbrook, Elcho, Elmhurst, Elton, Holister, Kempster Langlade, Lily, Neva, Neva Corners, Parrish, Pearson, Phlox, Pickeral, Polar and Summit Lake. Map 2 (Land Use) shows areas of population concentrations in the county. Map 8 Tornado Vulnerability also shows development density throughout the county to help show areas of full and seasonal populations. Overall population density of the county is 22 persons per square mile which ranges from a high of 1,232 in the City of Antigo to a low of 2 in the Town of Parrish.

According to the US Census 2018-2023 American Community Survey 5-year estimates the median age of residents in Langlade County is 49.0. The combination of negative natural increase combined with the outflow of younger residents will likely continue the aging of the county population compared to the state as a whole.

Seasonal Population

In addition to the regular full-time resident population, the impact of seasonal population cannot be overlooked when planning for hazards. Although not as significant as in neighboring counties, 22% of Langlade's housing stock has been identified as seasonal/recreational. Table 4 shows estimated seasonal residents by municipality. 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 population levels might be. Seven of the nineteen municipalities can see their populations more than double with seasonal population. Towns of Elcho, Upham and Wolf River see the largest percentage increases in seasonal population.

Another component of the seasonal population includes short-term accommodations such as campgrounds or hotel-style lodging. The scope of this plan did not provide for a detailed inventory of accommodations;

however, the Wisconsin DNR completed a general inventory as part of its statewide comprehensive outdoor recreation plan. That inventory identified 430 hotel/motel beds, 7 bed and breakfast beds and 42 other types of beds available around the county. The DNR also identified 546 campsites in various campgrounds across the county, not including significant expansion of available sites in recent years, as well as educational/recreational camps with capacity for 1,752 individuals. The seasonal population can increase the total population of the count by more than 30% at peak times.

Table 4 - Estimated Seasonal Resident Population		
Civil Division	Seasonal Housing Units	Estimated Seasonal Population
Ackley town	41	114.0
Ainsworth town	224	454.7
Antigo town	67	160.8
Elcho town	838	1,776.6
Evergreen town	49	111.2
Langlade town	170	380.8
Neva town	79	195.1
Norwood town	84	222.6
Parrish town	67	160.1
Peck town	51	130.1
Polar town	63	173.9
Price town	20	66.8
Rolling town	55	151.3
Summit town	95	211.9
Upham town	542	1,056.9
Vilas town	55	132.6
Wolf River town	522	997.0
White Lake village	53	93.8
Antigo city	521	1,073.3
Langlade County	2,647	5,902.8

Source: U.S. Census 2018-2023 American Community Survey 5-Year Estimates and NCWRPC

Employment

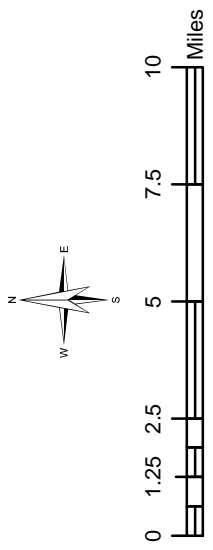
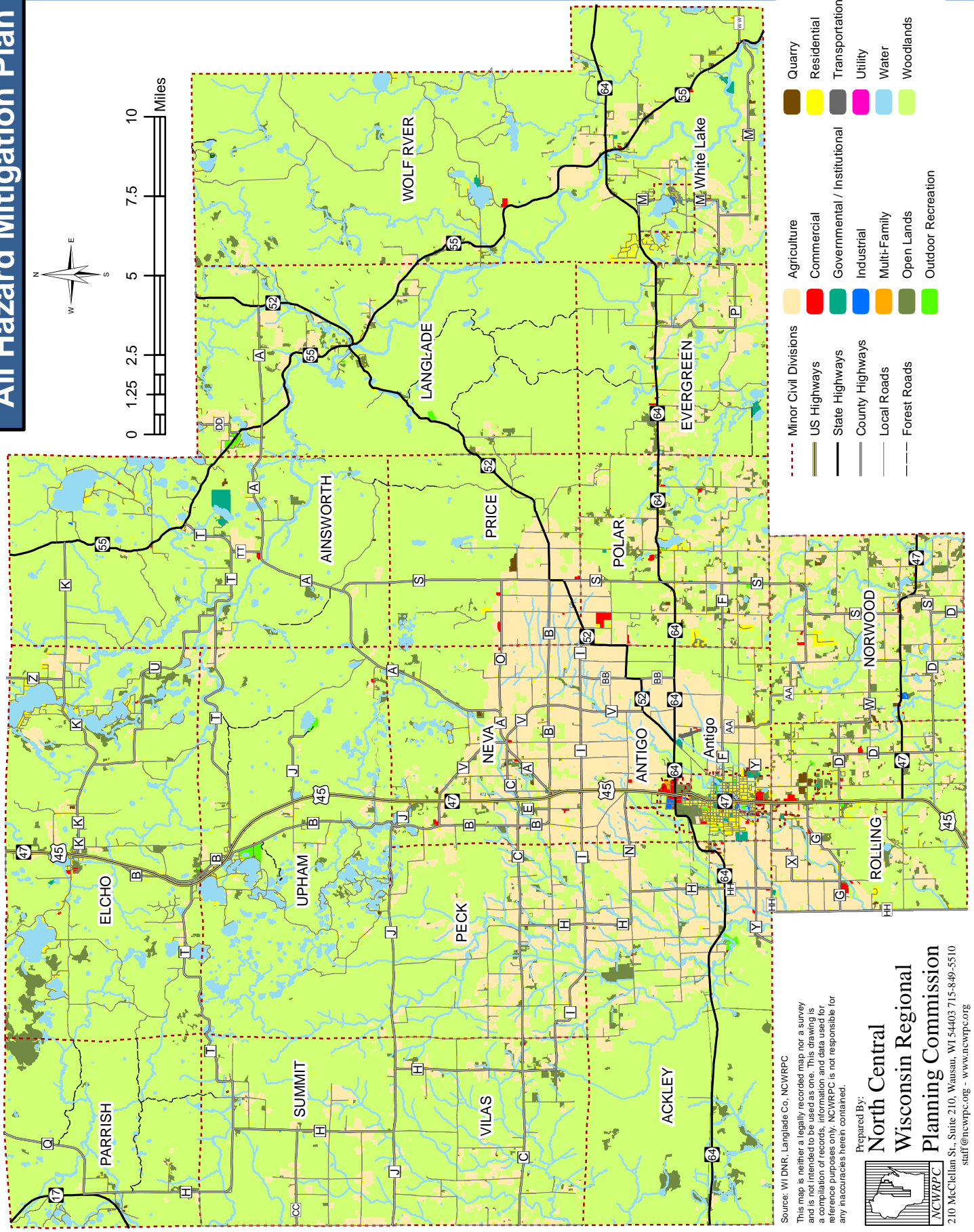
In addition to seasonal swells in employment, the number of people working in a given locality fluctuates on a daily basis. Of the county’s working residents, about 4,216 (54.5%) travel to work outside the county, while about 2,543 (41.9%) of available jobs inside the county are filled by residents of other counties. The top five counties from which workers flow into Langlade County are Marathon, Shawano, Oneida, Lincoln and Portage. The top five destination counties for Langlade commuters are Marathon, Brown, Outagamie, Oneida, and Dane.

There is a cluster of seasonal leisure and hospitality employment within the county, however, three employment sectors have the greatest impact on Langlade County's economy, comprising over 50% of the job base in the county or about 4,601 workers. The Manufacturing sector employs 19% of the workforce, the Education and Health Services sector employs 17% and the Retail Trade sector employs 15%. The importance of these sectors can be seen in the listing of the county's top employers. Table 5 identifies the top employers and their general location in the county.

Company	Product or Service	Size	Location
Aspirus Langlade Hospital	General Medical/ Surgical Hospitals	250-499	City of Antigo
Antigo School District	Elementary & Secondary Schools	250-499	Various Locations
Amtec Corp. (Amron)	Military Metal Components	100-249	City of Antigo
Antigo Neon	Sign Mfg	100-249	City of Antigo
Kretz Lumber Co Inc	Sawmill	100-249	City of Antigo
County of Langlade	Exec. & Legislative Offices - Gov't	100-249	Various locations
Pick'N Save	Supermarket	100-249	City of Antigo
Plaspack USA Inc	Plastic Packaging Mfg	100-249	City of Antigo
Robbins Sports Surfaces	Sports Floors	100-249	Village of White Lake
Waukesha Bearing Corp	Mechanical Equipment Mfg	100-249	City of Antigo
Covantage Credit Union	Credit Union	100-249	City of Antigo

Source: Wisconsin DWD County Workforce Profile and NCWRPC


All Hazard Mitigation Plan



- Minor Civil Divisions
- US Highways
- State Highways
- County Highways
- Local Roads
- Forest Roads
- Agriculture
- Commercial
- Governmental / Institutional
- Industrial
- Multi-Family
- Open Lands
- Outdoor Recreation
- Quarry
- Residential
- Transportation
- Utility
- Water
- Woodlands

Source: WI DNR, Langlade Co, NCWRPC
 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



Manufacturing is the largest employment industry in the county and is represented by Amron and Antigo Neon in the City of Antigo. The Education and Health Care Centers sector is well represented on the top employers list with the number one spot in Langlade Hospital and the Antigo School District at number two, as well as Eastview Rehab Center. These are primarily located within the City of Antigo.

Amtech Corporation, Plaspack Inc., and Waukesha Bearings are the Counties' major manufacturing employers located in the City of Antigo Industrial Park on the north side of the city. Manufacturing has direct and indirect links to employment in natural resources, business services, transportation and wholesale trade.

Identifying locations of large employment is important when prioritizing hazard mitigation strategies. From the list of top employers, the City of Antigo is clearly the primary employment and service hub in the county.

LAND USE / COVER AND DEVELOPMENT PATTERNS

Land use is an important determinant in the potential impact a particular hazard may have, and in the actions which may be taken to mitigate that impact. An understanding of the amount, type, and spatial distribution of urban and rural land uses within the county 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 Langlade County into general classifications using 2020 aerial photography to digitize a land use Geographic Information System (GIS) coverage. Map 2 shows the land use and development patterns in Langlade County. Table 6 shows the acreage and percent of each classification. Map 8 Areas of Vulnerability also shows development density throughout the county to help show areas of potential impact.

Agriculture and Forestry

The dominant land-use in Langlade County is forestry. Land area in the county is approximately 77 percent forested, with about 435,000 acres of woodland. Forest products are a significant element of the county's economy from saw logs to veneer, to cordwood and pulp, to Christmas trees and boughs, and even maple syrup. Agricultural land, which is mostly located on previously forested tracts that were cleared by early settlers, covers another 14.5 percent of the county's land area. Agriculture is also an important part of the county's economy. Langlade County is one Wisconsin's leading producers of both potatoes and oats. Wheat, barley,

snap beans and forage hay are also significant crops. Dairy and beef production continues to be significant but have been declining over time.

Commercial, Industrial and Institutional Development

Commercial, industrial and institutional development makes up only about 0.6 percent of the total area of the county. Commercial and industrial land uses are mostly located in the City of Antigo, but pockets are scattered around the county. Much of the industry is related to processing forest and agricultural products. There are three serviced industrial parks in Langlade County including a 146 acre site in the City of Antigo, a 20 acre site in the Town of Elcho and a 10 acre site in the Village of White Lake. A number of non-metallic mining sites, or quarries, are also included with industrial. Government and other institutional facilities are concentrated in the City of Antigo, however a variety of facilities are scattered throughout the county, such as rural schools, town halls and the Langlade County airport just east of Antigo.

Residential Development

Residential development makes up approximately two percent of the total county land area. Residential concentrations are scattered throughout the county (see “Population and Households” above). Much of the rural development is related to 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 about 756 mobile homes in 2023. This is 6.2% of housing units for the County compared to 3.1 percent for the entire state. This is significant due to their vulnerability in natural hazards especially tornadoes. Map 8 (Areas of Vulnerability) includes areas of mobile home concentrations in the County.

Table 6 - Land Use in Langlade County

Description	Acres	Percent
Agriculture	82,233	14.5%
Commercial, Industrial, Institutional	3,255	0.6%
Open Lands	16,785	3.0%
Outdoor Recreation	849	0.1%
Residential	12,403	2.2%
Transportation	5,866	1.0%
Water	11,121	2.0%
Woodlands	435,310	76.7%
Total	567,822	100.0%

Source: NCWRPC 2020 Generalized Land Use

Surface Water

Langlade County is part of three major river basins partially containing fourteen watersheds. The Wolf River

and Upper Wisconsin River basins each have six watersheds within the county, while the Upper Green Bay Basin has two.

The county has 843 lakes and 225 streams within the watersheds (see Map 3). Most of the lakes are spring or seepage lakes with some drainage or drained lakes. The majority of the lakes are small. Only 13 lakes are 100 acres or larger, but these account for about half of the surface area of lakes. White Lake is the largest spring lake. Sawyer Lake and the other spring lakes are landlocked. Upper Post Lake, an impoundment and drainage lake, is the largest in the county. The deepest lake is Goto Lake, which is up to 82 feet deep. All the streams, like the lakes, are important in the hydrological and ecological regime and are protected by shoreland zoning and physical protective measures.

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

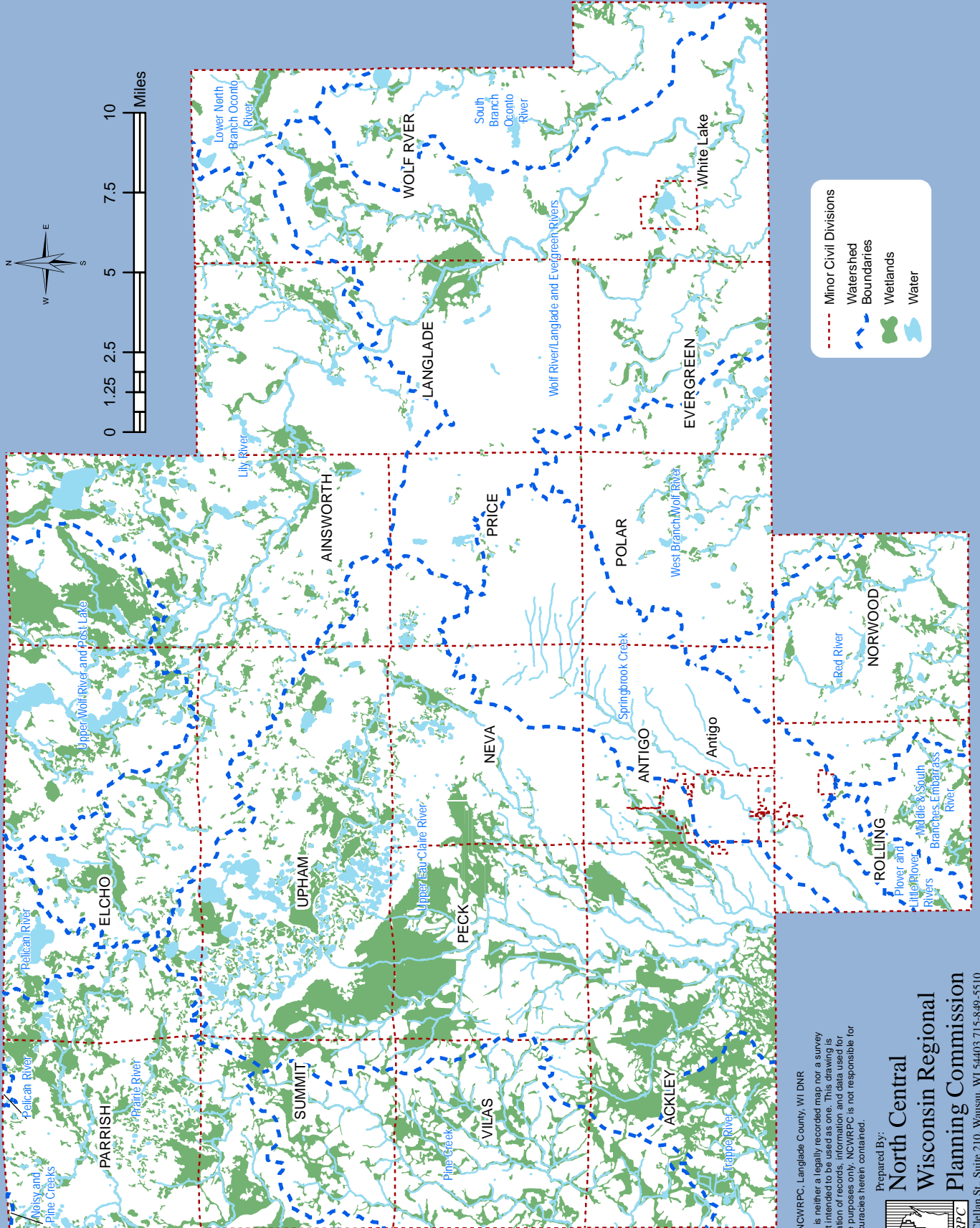
Floodplains

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 by streams or storage by 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 left clear of 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 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 floodplain 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.

All Hazard Mitigation Plan



Source: NCRWPC, Langlade County, WI DNR

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. NCRWPC 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

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 the City of Antigo, have each completed a Flood Insurance Study and Flood Insurance Rate Maps (FIRMs) that encompass most of Langlade County, see Table 7 for a summary of NFIP status. The FIRMs delineate the “A” Zones including the floodway and flood fringe, those areas inundated by the 100-year flood within the county. The Village of White Lake had flood hazard areas identified within its boundaries but never participated in the program. Langlade County is not yet undergone map modernization at this time, so upgraded Digital Flood Insurance Rate Maps or DFIRMs are not yet available for the County.

Table 7 FEMA Community Status Book Report Communities Participating in the National Flood Insurance Program Wisconsin - Langlade County				
Community	Initial FHBM	Initial FIRM	Current Map	Program Entry
Langlade County	05/14/82	09/28/90	09/28/90	09/28/90
City of Antigo	11/30/73	11/30/73	10/31/75	11/30/73
Village of White Lake	10/01/76	n/a	10/01/76	n/a
<i>Source: FEMA, 2025</i>				

The NCWRPC digitized the existing county FIRMs for use in this plan. Although unofficial, this digital file indicates there are 25,495 acres of floodplain in Langlade County, or 4.5 percent of the land area. Map 4 shows these approximate floodplains. Floodplains in Langlade County are small and floods occur only during periods of exceptionally heavy rainfall or snowmelt. Currently, there are no repetitive loss structures, those with multiple flood insurance claims, in Langlade County. Table 8 summarizes NFIP compliance efforts for Langlade County and the participating incorporated municipalities.

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.

Langlade County has nearly completed its Risk MAP project at the time of this writing; however, the project was in the adoption phase with the effective date of March 17, 2026 anticipated. This project will provide updated floodplain maps in the DFIRM format.

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.

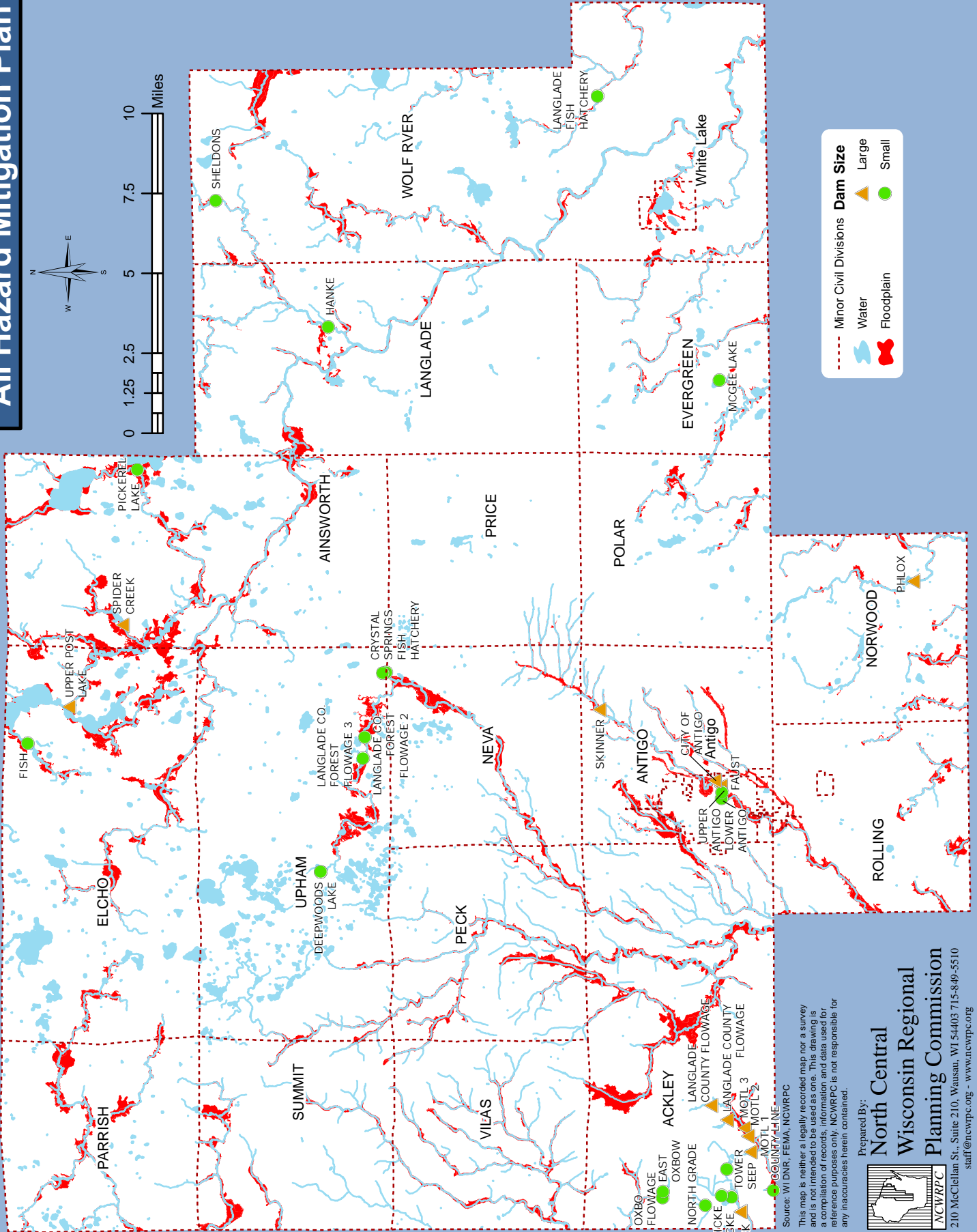
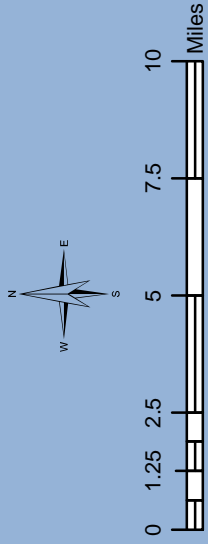
HFIAA repeals and modifies certain provisions of the Biggert-Waters Flood Insurance Reform Act, and makes additional program changes to other aspects of the program not covered by that Act. Many provisions of the Biggert-Waters Flood Insurance Reform Act remain and are still being implemented. The new 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 indispensable roles in the proper function 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 excess capacity for water runoff storage becomes increasingly important.

The DNR has identified the location of wetlands on their digital wetland GIS database. According to this, Langlade County has 107,440 acres, or about 18.9 percent of its total area. Map 3 shows these wetland areas to be scattered throughout Langlade County. Wetlands are more extensive in the northwestern half of the county including the towns of Ackley, Vilas, Peck, Summit, Upham, Parrish, Elcho and Ainsworth.

All Hazard Mitigation Plan



Minor Civil Divisions

- Water (light blue)
- Floodplain (red)

Dam Size

- Large (yellow triangle)
- Small (green triangle)

Source: WI DNR, FEMA, NCRWPC
 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. NCRWPC 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

TABLE 8 Compliance with NFIP Requirements – Participating Jurisdictions			
	Langlade County	City of Antigo	Village of White Lake
NFIP Status	Participating	Participating	Not-Participating
Adoption of Minimum NFIP Criteria	Langlade County has adopted floodplain zoning provisions and associated FIRMs which incorporate all of the minimum FEMA and WDNR requirements for floodplain management.	Floodplain zoning adopted based on State Model	N/A
Adoption of Latest FIRM	9/28/90 Risk Map Pending...	10/31/75	N/A
Implementation and Enforcement of floodplain regulations	County Code Administrator administers Langlade County Zoning Code including floodplain regulations.	Zoning Administrator administers Chapter 14 Article III Municipal Code – Floodplains	Zoning Committee developing new floodplain zoning ordinance.
Designated Agency for NFIP Compliance	Land Records and Regulations Department / County Code Administrator	Engineering Department / City Engineer	N/A
Implementation of Substantial Damage Provisions of Ordinance	County Code Administrator inspects all damaged floodplain structures to determine if substantial damage has occurred after an event.	Zoning Administrator inspects all damaged floodplain structures to determine if substantial damage has occurred after an event.	Pending implementation of new ordinance...
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. / Extensive program to remove flood prone structures and restore floodplain areas.	N/A
Reasons for Nonparticipation	N/A	N/A	Issues with floodplain maps.

Source: NCWRPC interviews and correspondence with local zoning officials, 2025.

Destruction of wetlands can occur through the use of fill material, which can destroy 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.

Open Lands/Outdoor Recreation

Recreational lands including parks and outdoor sports facilities total about 849 acres or 0.1 percent of the county land area. Other lands may have recreational aspects, particularly woodlands. Open space and other lands are a catch all for open 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 Langlade County, surface transportation facilities consume about 5,866 acres of land or about 1.0 percent of total land area. Note that this is almost two times as much land area as is used for commercial, industrial and institutional uses in the county.

FUTURE GROWTH AND DEVELOPMENT IN LANGLADE COUNTY

According to the current Langlade County Comprehensive Plan completed in 2019, future land use reflects no major changes in land use over the next 20 years. Forestry will continue to be the major land use in the County, accounting for over 56% of the land area, followed by preservation areas and open space (much of which is wooded wetland) at about 20% and agriculture at about 16%.

Residential growth is planned to the east and west of the City of Antigo in the Towns of Ackley and Antigo. The northern fringe of the City is expected to be more mixed uses with commercial and industrial. Elsewhere, scattered, low-density development is found in many parts of the County. Outside the city and village, there is some concentration of residential development around many of the larger lakes in the northern part of the County.

The Comprehensive Plan projects overall residential land demand based on the addition of 225 units for year round residents. This does not account for seasonal housing making up about 20 percent of the housing stock. Assuming a county wide average of about 2 acres of land needed per unit, 23 acres per year on average is expected to be needed to accommodate anticipated housing unit growth by the year 2040.

Commercial and industrial development is subject to market forces and difficult to predict, however, the Comprehensive Plan projects future development of about 221 acres for commercial uses and about 179 acres for industrial uses over the next 20 years.

Therefore, between 2020 and 2040 based on projections presented in the County Comprehensive Plan, it is anticipated that approximately 250 acres will be needed every five-years to support residential, commercial and industrial development demands in Langlade County. Over the twenty-year period about 1,000 acres will be needed to meet overall development demands. However, the backlog of parcels currently available will buffer the amount of "new" acreage taken for development.

New infrastructure or public facilities will be somewhat minimal as budget constraints will continue to curtail local government's ability to develop new facilities and result in a tendency to make do with existing infrastructure and delay expansion plans. While no major new county projects are anticipated there have been developments in the background. New county activity in the last several years includes upgrades to county parks and fairgrounds, two new county campgrounds that will see ongoing development in the future, highway building remodel and expansion, and new communications towers with more planned.

On the private side, development is limited / sporadic outside the city and village. A new propane storage facility has been built at Highways 45 & C. WPS installed a small solar farm southwest of the city. Broadband expansion includes ongoing installation of fiber around the county. Two campgrounds have expanded in Town of Ainsworth. A few new homes / small subdivisions have disbursed across the rural areas of the county.

In the Village of White Lake, a new fire station was built in 2021, and a new park was developed with playground, restrooms and boat landing. A new ballpark is being planned. A few duplex and miscellaneous single-family homes have been developed.

In the City of Antigo, a municipal water tower was replaced, and the city installed a solar array to help power its WWTP. The City is also planning to lease a 50-acre site for a solar development in the northwest part of the city. A new elementary school is under construction to replace three older buildings which are expected to be razed.

A new 50-unit apartment building has been developed along with a few houses and duplexes.

New commercial developments include new Kwik Trip and Aldi stores, as well as addition of new warehouse structures for Karl's Transportation. Future planned developments at Karl's include additional warehouses, a new shop and offices. A new Dollar General Store is planned to reuse the old McDonald's site.

The county's population is generally older with a median age of 49 years, versus statewide median age of 40.1 years. Over the next few decades, the population will become even older, aging much more quickly than the state as a whole. In fact, based on previous projections which under the new population trends are unlikely to change directions, the number of persons 65 and older will exceed the population under 25 by 2030. This will have implications affecting the demand for emergency services.

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 Taskforce identified the following impacts from its assessment of the changes in population, land use and development trends within Langlade County, the City of Antigo and Village of White Lake:

- 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).
- The growing Amish and Mennonite population in the south-central part of the county may present cultural barriers with regard to emergency response and management, including differences in communication, how they receive emergency information and decision making.

- Langlade 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.
- Langlade County's many farming and agricultural operations have unique hazard risks and vulnerabilities that must be considered, prepared for, and mitigated, if possible. The large amount of public forest 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 Antigo and Village of White Lake but it 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 Langlade County provides the basis for movement of goods and people into, within and out of the County. An efficient system is essential to the sound social and economic development of the county and region. The analysis of transportation routes is important in the possible event of a disaster (See Map 5).

The principal highway serving Langlade is the north-south U.S. Highway 45 which bisects the county through the City of Antigo. State Highway 64 provides the main east-west route across the southern part of the county through both Antigo and the Village of White Lake. State Highways 17, 47,

52 and 55 also serve the county. These highways link the county with neighboring communities and are vital to the county's tourism and recreation-based economy.

Networks of county trunk highways collect traffic from rural land uses. These county highways serve an important role in linking the area's agricultural and timber resources to population centers and major highways. Local roads provide access to local development, farming and forest areas, as well as the county's lake areas.

The Wisconsin Department of Transportation maintains 13 bridges on U.S./State highways within the county. Langlade County itself owns another 26 bridges on various county highways. Local roads include forty bridges with ten in the City of Antigo and thirty in various towns.

Through the Aging and Disability Resource Center of Central Wisconsin, Langlade County coordinates transit services for the elderly and disabled in the county, both in the city and to rural towns. The service is also open to the general public including service to the Northcentral Technical College. Other transportation is coordinated on an as needed basis for groups such as children and veterans.

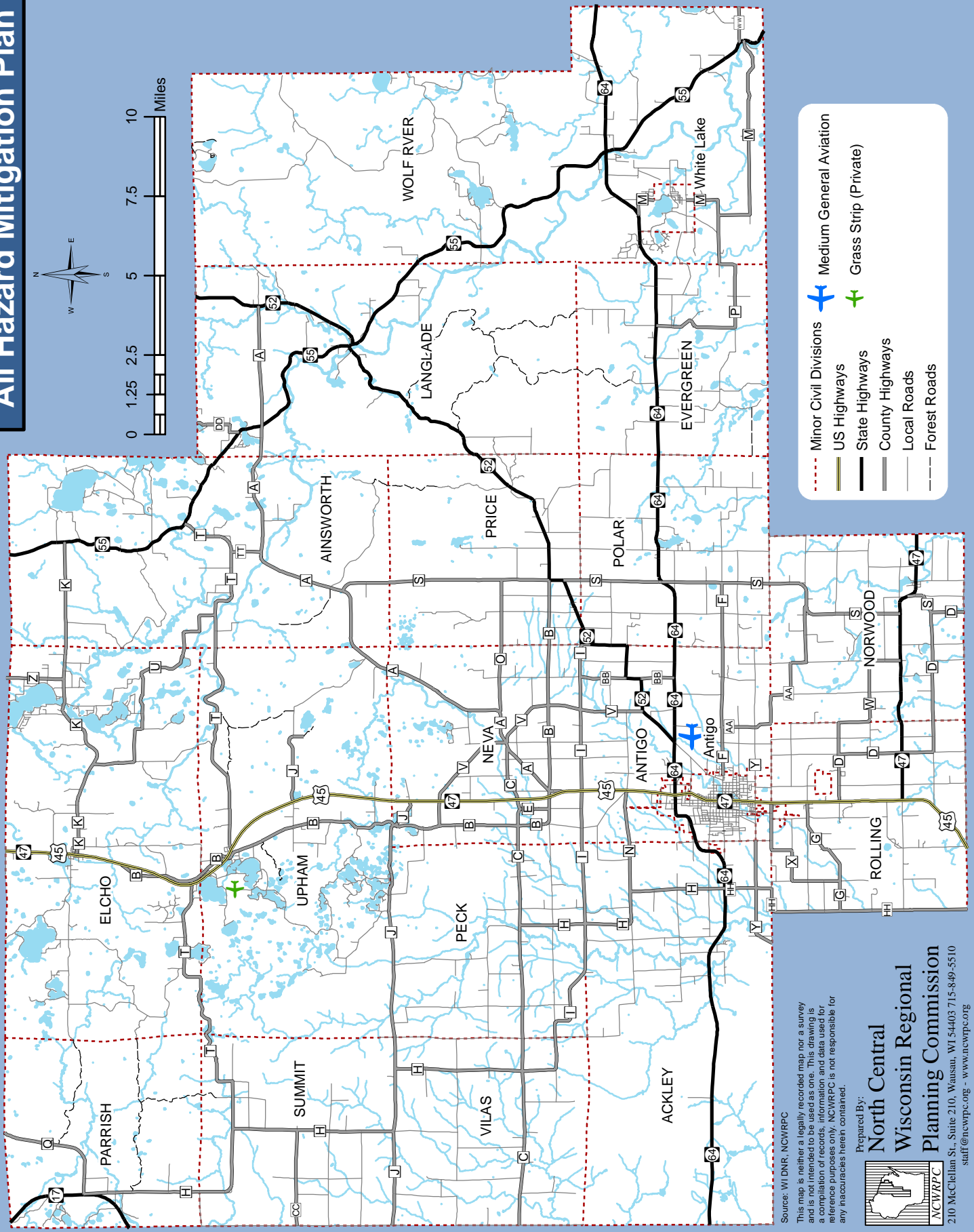
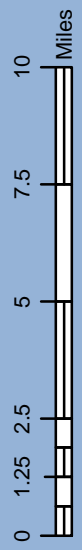
The Langlade County Municipal Airport, located just east of the City of Antigo, serves the area. The airport provides general aviation service for private airplanes and daily airfreight. The airport is classified as a Transport/Corporate airport. This category includes corporate jets, small passenger and cargo jets used in regional service and small airplanes used in commuter air service. These aircraft generally have a gross take-off weight of less than 60,000 pounds and wingspans of less than 118 feet with approach speeds below 141 knots. There are private landing strips located in the Towns of Norwood and Upham, as well as a heliport at the Antigo hospital. The nearest commercial passenger service is located in Rhinelander or Wausau.

There are currently no active rail lines within Langlade County. The nearest access to freight rail would be the east-west line through Rhinelander or the north-south line through Wausau.

Utilities

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

All Hazard Mitigation Plan

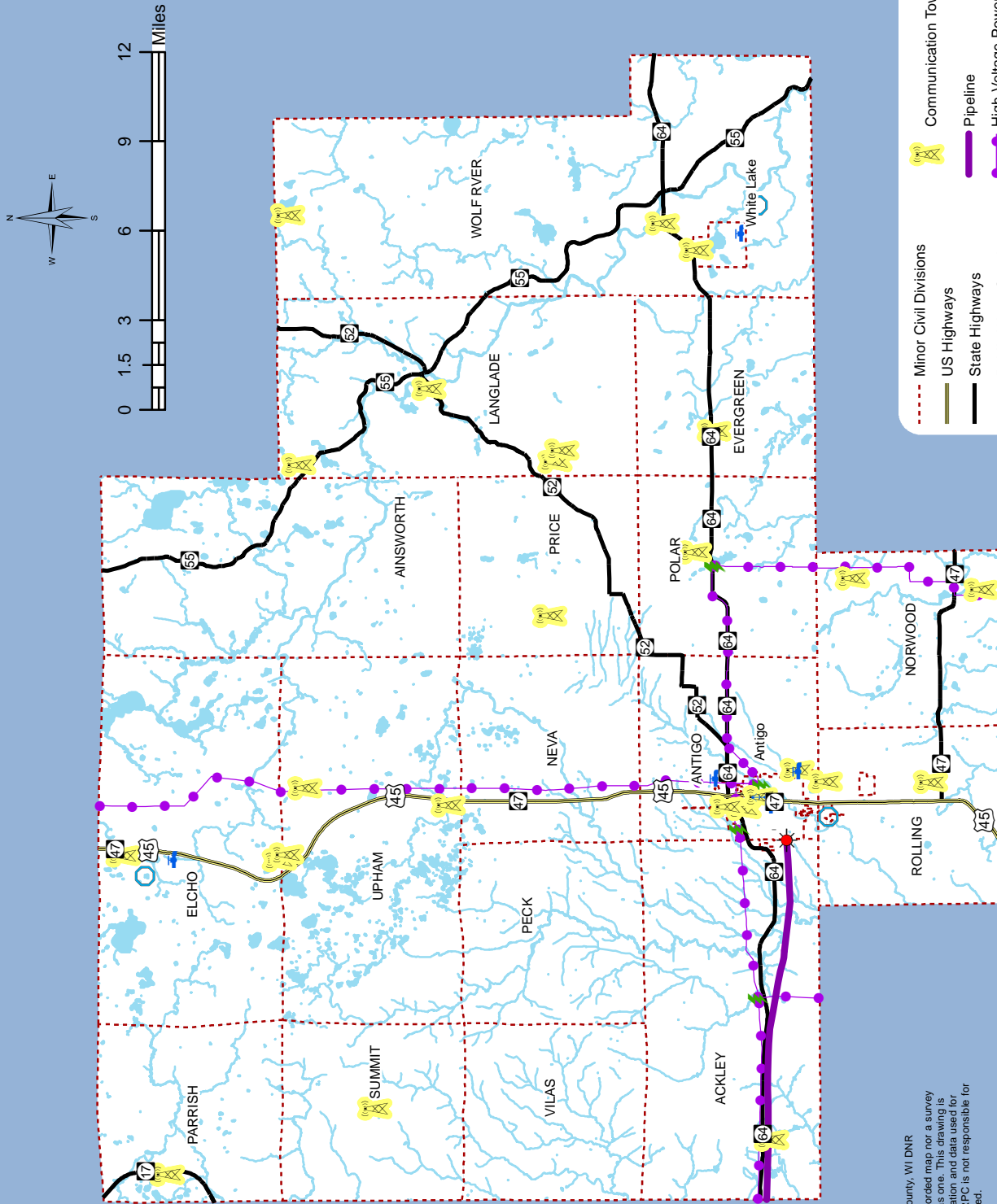


- Minor Civil Divisions
- US Highways
- State Highways
- County Highways
- Local Roads
- Forest Roads
- Medium General Aviation
- Grass Strip (Private)

Source: WI DNR, NCWRPC
 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

All Hazard Mitigation Plan



- Minor Civil Divisions
- US Highways
- State Highways
- Public Water Supply
- Waste Water Treatment Plant
- Water Tower
- Natural Gas
- Pipeline Substation
- Communication Tower
- Pipeline
- High Voltage Powerline
- Electric Substations

Source: NCRWPC, Langlade County, WI DNR
 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. NCRWPC 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

The protection of the public water supply facilities from potential contamination from hazards such as flooding is a consideration for hazard mitigation planning. The City of Antigo, Village of White Lake and the Town of Elcho provide municipal water supplies for domestic and commercial use.

The protection of the wastewater facilities is an important consideration for hazard mitigation planning because of its potential to contaminate nearby waterbodies in the event of high water. Also of concern during periods of flooding is the threat of damage to infrastructure of associated facilities. Three municipal wastewater treatment facilities serve Langlade County: the City of Antigo, the Village of White Lake and the Town of Elcho.

The infrastructure of electric and telephone lines can be threatened in the events of high wind, ice storms, tornadoes, flooding, and fire. Wisconsin Public Service and Alliant Energy provide electric service throughout the county. Since 2001, an independent company, American Transmission Company LLC (ATC), has owned, maintained, and operated the major transmission facilities located in the State of Wisconsin, including Langlade County. The general locations of the major electrical transmission facilities, owned by ATC are shown on Map 6. Frontier is the primary provider of 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. See Map 6 for tower locations within the County. Limitations for receiving a signal include topography and the thickness & type of building materials. Signals generally cannot travel well in dense forest cover, over tall hills, or through thick or multiple cement walls. There are remote areas of the County where there are gaps in cellular coverage or service is spotty.

The ANR pipeline is the main source of natural gas for Langlade County. A main line runs north-south between Lincoln and Marathon counties. A spur line serves the City of Antigo in Langlade County, branching off the main near the Lincoln-Marathon border. From this spur, City Gas Company provides residential and commercial gas service in Antigo and the surrounding area.

Emergency Services and Facilities

The type and location of public emergency services are an important consideration in hazard mitigation planning, because of the potential direct involvement of such facilities in certain hazard situations. The

locations of fire stations, police departments and ambulance services in Langlade County are shown on Map 7.

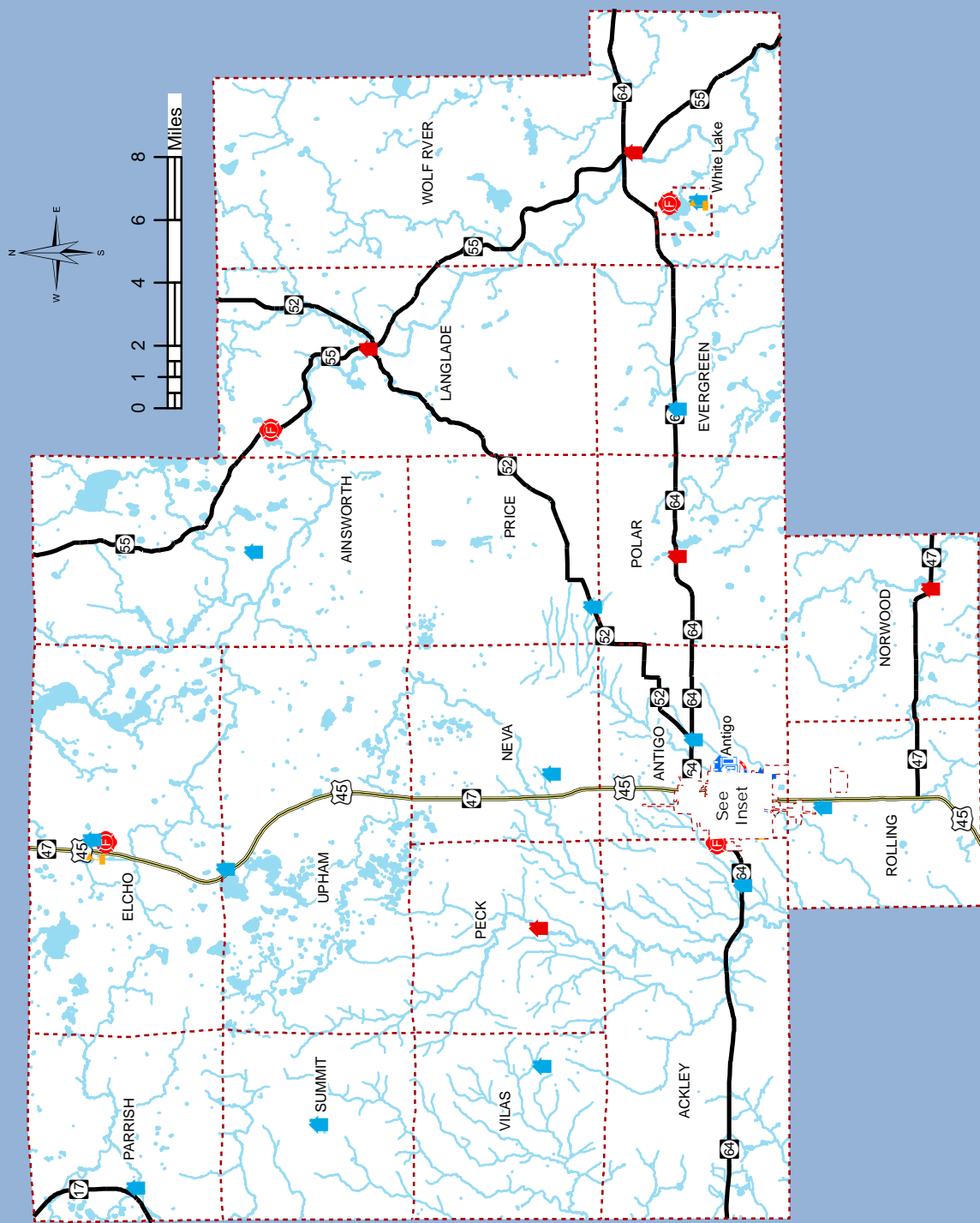
There are a number of fire stations located within Langlade County. Certain areas of the county are served by fire departments stationed outside the county. These include the Towns of Parrish and Summit that are served by the Town of Russell Fire Department located in Lincoln County, and remote parts of the Town of Wolf River that receive service from the Doty Fire Department (Oconto County), Wabeno Fire Control (Forest County) or the Townsend Fire Department. The Pickerel Fire Department covers the Town of Ainsworth within Langlade County and part of the Town of Nashville in Forest County. The Town of Antigo Fire Department has two stations to cover the Towns of Antigo, Polar and Price. The City of Antigo Fire Department is the only force in the county that provides full-time, paid service, while the rest of the departments rely on volunteers for this service.

There are several EMS providers based in the County. City of Antigo EMS provides service to Antigo and most towns. Pickerel EMS serves the Towns of Ainsworth and Langlade. Troutland Rescue Squad is based in White Lake and serves the village and the Towns of Evergreen and Wolf River for rescue services but ambulance services are handled by City of Antigo. From outside the county, the Town of Parrish is served by Rhinelander EMS, and Town of Norwood is serviced by Birnamwood EMS.

The Langlade County Sheriff's Department provides service to all the towns and the village for law enforcement. The Sheriff's Department has eighteen officers, eight dispatchers and sixteen jail employees. The City of Antigo has its own police department. The main correctional facility within the county is the Langlade County Jail in Antigo.

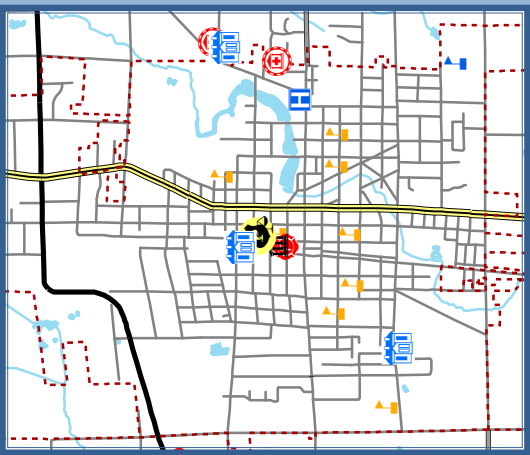
To coordinate these services, Langlade County has created an *Emergency Operations Plan (EOP)*. This provides a general overview for county and municipal emergency response personnel during response to a number of disasters. This document serves to coordinate the County and local units of government during times of response and recovery. It also provides a link between the county and municipal plans.

All Hazard Mitigation Plan



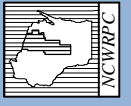
- US Highways
- State Highways
- County Highways
- Local Roads
- Minor Civil Divisions
- Assisted Living
- City Hall
- Court House
- Fire Station
- Health Services
- Hospital
- Police/Sheriff Department
- Schools
- Technical College
- Town Halls
- Town Hall/Fire Dept
- Water

City of Antigo - Inset



Source: NCWRPC, Langlade County, WI DNR
 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



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. Hospitals are very important for knowing where to transport injured residents and as to how many people can be accommodated if a hazard occurs.



Aspirus Langlade Hospital in the City of Antigo is a 25-bed, 95,000 square feet two-story level 4 trauma center facility affiliated with over 50 health care providers. There two clinics also in the city as well as one located in Elcho. There are three nursing homes within the City and a number of other facilities dedicated to the care and sheltering of the elderly and

disabled around the county. Nursing homes are vulnerable, because of the high level of services required by the residents. The schools are facilities that are important, since hundreds of the county's children are there for most of the year. Map 7 shows the location of selected types of critical community facilities within Langlade County.

INVENTORY & VALUE OF STRUCTURES/PROPERTY IN LANGLADE COUNTY

The value of the real estate and personal property in a community reflects the upper end of the potential for property damages in each community. The assessed value of each municipality represents the estimate of market value. Table 9 lists each municipality’s assessed values for real estate, personal property, and land. The term personal property includes: all goods, wares, merchandise, chattels and effects of any nature or description having any marketable value and not included in the term “real property.”

Table 9					
Property Valuations by Municipality					
Municipality	Improvement Value	Land Value	Personal Property	Total	% of Total
Ackley town	\$41,062,400	\$15,138,800	\$95,700	\$56,296,900	2.3%
Ainsworth town	\$78,652,700	\$44,976,500	\$977,500	\$124,606,700	5.1%
Antigo town	\$124,192,600	\$27,418,200	\$1,062,500	\$152,673,300	6.3%
Elcho town	\$202,565,800	\$173,566,100	\$7,196,900	\$383,328,800	15.7%
Evergreen town	\$33,920,900	\$16,542,800	\$81,600	\$50,545,300	2.1%
Langlade town	\$58,523,900	\$26,968,600	\$620,800	\$86,113,300	3.5%
Neva town	\$71,621,200	\$24,546,700	\$165,100	\$96,333,000	4.0%
Norwood town	\$79,012,200	\$25,417,400	\$365,200	\$104,794,800	4.3%
Parrish town	\$12,798,100	\$7,305,500	\$174,700	\$20,278,300	1.0%
Peck town	\$27,710,900	\$15,150,100	\$9,100	\$42,870,100	1.8%
Polar town	\$92,063,200	\$27,299,200	\$124,300	\$119,486,700	4.9%
Price town	\$21,171,600	\$8,371,400	\$173,500	\$29,716,500	1.2%
Rolling town	\$118,470,700	\$25,584,800	\$2,039,200	\$146,094,700	6.0%
Summit town	\$14,231,000	\$13,755,900	\$523,300	\$28,510,200	1.2%
Upham town	\$146,233,600	116,144,600	\$1,789,600	\$264,167,800	10.8%
Vilas town	\$22,881,200	\$15,651,900	\$326,400	\$38,859,500	1.6%
Wolf River town	\$115,877,500	\$60,488,000	\$235,100	\$176,600,600	7.2%
White Lake village	\$21,811,700	\$4,768,500	\$481,900	\$27,062,100	1.1%
Antigo city	\$414,032,100	\$65,260,400	\$12,381,900	\$491,674,400	20.2%
Langlade County	\$1,696,833,300	\$714,355,400	\$28,824,300	\$2,440,013,000	100.0%

Wisconsin Dept. of Revenue, 2023.

As stated above, 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 Langlade 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 the general location they are in and the value of the facilities. Estimates for local government facilities are given in Table 10b - d.

Table 10a Value of County Owned Properties		
Property	Value*	Location
Airport	\$4,229,706	Antigo town
Camp Lyle	\$494,645	Elcho
Camp Susan	\$692,952	Deerbrook
Courthouse	\$7,686,537	Antigo city
Fairgrounds	\$11,492,397	Antigo city
Health Services Center	\$7,330,354	Antigo city
Highway Department	\$8,836,842	Antigo city
Highway Department	\$196,478	Lily
Jack Lake	\$2,017,219	Deerbrook
Kettlebowl Ski Hill	\$496,916	Price town
Other Misc. Property	\$111,551	Various locations
Other Parks & Rec	\$754,426	Various locations
Post Lake Dam Area	\$493,882	Elcho
Resource Center	\$1,620,026	Antigo city
Safety Building	\$15,787,090	Antigo city
Sheriffs Storage	\$569,175	Antigo city
Total	\$62,810,202	Above Locations

*Includes insured buildings, contents, and property in the open.
 Source: County Property Statement of Values & NCWRPC estimates.



Langlade County Courthouse and Safety Building



Table 10b: Value of City Owned Properties	
Property	Value*
City Hall	\$7,557,300
Fire Department	\$346,900
Library (inc. White Lake Branch)	\$7,186,700
Parks & Recreation	\$10,468,479
Police Department	\$218,600
Public Works/Street	\$10,496,900
Sewage Treatment Plant	\$38,221,400
Water Works	\$20,862,400
Total	\$95,318,679

*=Includes insured buildings, contents, and property in the open.

Source: Statement of Values City Property Insurance

Table 10c: Value of Village Owned Property	
Property	Value*
Municipal Bldg	\$1,573,914
Village Shop	\$515,735
Fire Station	\$2,254,704
Well Locations	\$715,691
Ball Park	\$280,459
Pavilion Lake Park	\$1,295,865
Storage Garage	\$106,433
Erdman Road Lagoon	\$87,806
Water Tank/Misc. Properties	\$1,851,517
Siren System	\$27,652
Total	\$8,709,776

*Includes insured buildings, contents, and property in the open.

Source: Statement of Values Village Property Insurance.

Table 10d: Value of Town Owned Properties		
Town	Property	Value*
Ackley town	Town Hall	\$218,027
Ainsworth town	Town Hall	\$257,959
Antigo town	Town Hall / Fire Dept.	\$605,922
Elcho town	Town Hall & Misc. Facilities	\$2,402,043
Evergreen town	Town Hall	\$297,892
Langlade town	Town Hall / Fire Dept.	\$605,922
Neva town	Town Hall & Storage Bldg	\$158,906
	School Building	\$33,831
Norwood town	Town Hall / Shop & Fire Dept.	\$513,112
Parrish town	Town Hall	\$257,959
Peck town	Town Hall	\$257,959
Polar town	Town Hall	\$257,959
Price town	Town Hall	\$257,959
Rolling town	Town Hall/Concession Stand/Pavillion	\$427,700
Summit town	Town Hall	\$257,959
Upham town	Town Hall	\$257,959
Vilas town	Town Hall	\$257,959
Wolf River town	Town Hall	\$257,959
*Includes insured buildings, contents, and property in the open. Source: Town Insurance Statements of Value and NCWRPC Estimates.		

INTRODUCTION

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

- Identification of all types of natural hazards that can affect Langlade County
- An analysis of each hazard identified as pertinent to Langlade 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 Langlade County All-Hazards Mitigation Plan 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 threat to human safety and property damage.

Worksheets from the Wisconsin Guide to All-Hazards Mitigation Planning were used by the Planning Taskforce to evaluate and rank the listing of possible hazards to help identify which hazards should be included in the Plan according to threat to human safety and possible damage to property. This hazard scoring exercise resulted in the selection of the following hazards listed in priority order:

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

This ranking is similar to the previous plan. The main difference is flooding drops from the top spot. Flooding is still an issue in some areas, but its been awhile since major flooding, and the City has made significant progress in mitigating its flood risk. In addition, the committee chose to move drought up from last place because of the potential impact on agriculture and tourism which are important

sectors of the county's economy, and pandemic is newly added to the plan since COVID-19.

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; 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. Langlade 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 central Wisconsin. As such, they are dealt with indirectly in this Plan as they relate to an addressed hazard. For example, heavy snow, 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

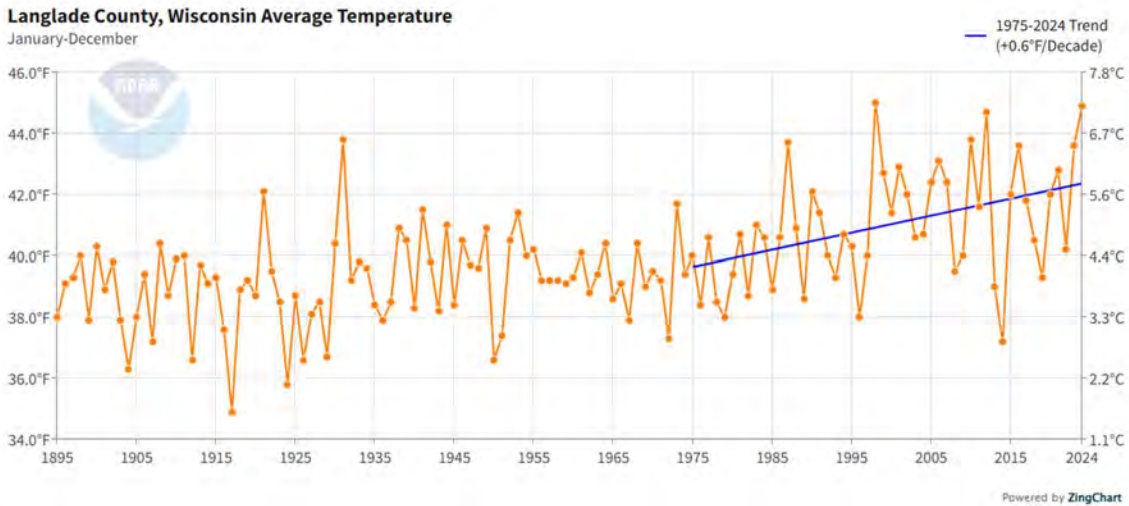
most of the variability over the last 50 years is attributable to human activities. Increasing global temperatures are expected to raise sea levels and impact local weather conditions such as precipitation levels. Changing regional weather could alter forests, crop yields, and water supplies. It could 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. A 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, a 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. **RISING TEMPERATURES** - Average temperatures are rising and are projected to continue to rise. Between 1975 and 2024, the annual average temperature in Langlade County increased by about 2.6 degrees Fahrenheit. By 2055, annual average temperatures are projected to increase by up to 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 18 days in Langlade County by 2055.
2. **MORE PRECIPITATION** – Langlade 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 1 inch.
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 2 additional heavy precipitation events per decade by 2055.

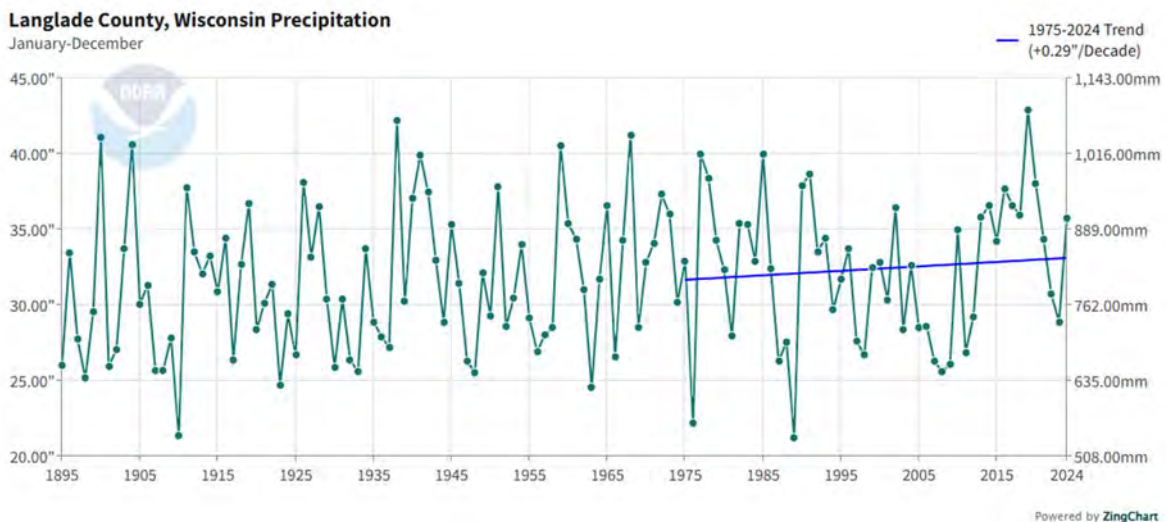
Langlade County Annual Average Temperature, 1895-2024, with 50-Year Trendline



Some potential outcomes from these trends in Langlade 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.

Langlade County Annual Average Precipitation, 1895-2024, with 50-Year Trendline



HAZARD ANALYSIS

The hazard analysis for each hazard included in this plan 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 experience of disasters is an indication of the potential for future disasters to which Langlade County would be vulnerable. A review of past occurrences for each identified hazard in Langlade County was completed.

Some disasters have had damage that exceeded the capabilities of local communities and state agencies. Federal assistance is then requested. Federal assistance may be offered through a variety of programs. Assistance may be directed to agricultural producers, individuals and families, businesses, or local governments. There have been ten natural disasters in Langlade County, where a Presidential Declaration was requested since 1971 (5 received a Presidential Declaration). They include the following:

- 1971 Flooding
- 1971 Tornado
- 1973 Flooding – Presidential Disaster Declaration
- 1975 Army Worm Infestation
- 1976 Drought – Presidential Emergency Declaration
- 2002 Severe Storms/Flooding/ – Presidential Disaster Declaration
- 2004 Flooding
- 2007 Tornado
- 2019 Severe Storms, Tornadoes, Strait-Line Winds and Flooding - Presidential Disaster Declaration
- 2020 Covid-19 Pandemic- Presidential Disaster Declaration

It should be noted that this significantly understates the number of events that have occurred in Langlade County. Almost every year there are significant weather events or disasters that cause millions of dollars in damage for which 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 February 1, 1959, to December 31, 2024, NCDC reported 392 severe weather events for Langlade County. Over that 65 year period that is around 6 severe weather events per year.

Note, that this report 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, Langlade 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 is used to project the potential future probability of that hazard occurring in the county, and the potential damages in dollars that might be reasonably expected. This section sets a benchmark for mitigation for each hazard.

HAZARD ANALYSIS: TORNADOS/HIGH WIND

Background on Tornado/High Wind 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 traveling 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 few minutes in one location or 15 to 20 minutes in a ten-mile area.

Tornados are classified into six intensity categories, EF0-EF5, see Table 11. This scale is an updated or "enhanced" version of the Fujita Tornado Scale (or "F Scale"). 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 standards against anticipated damage caused by different wind speeds.

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 every month of the year with the first ever February tornado occurring in 2024.

High wind events, although technically not tornados, are included here due to the similarity of damages. Measured wind speeds are typically in the range of a EF0 tornado and may even approach EF1 speeds. High or strong wind events can be associated with tornadic episodes, thunderstorms or even winter storms. The effects are often widespread, impacting areas hundreds of miles from the actual areas of thunderstorms or snow. Trees, signs and power poles are the most commonly affected by high wind events, but significant damage and bodily injury or death can occur.

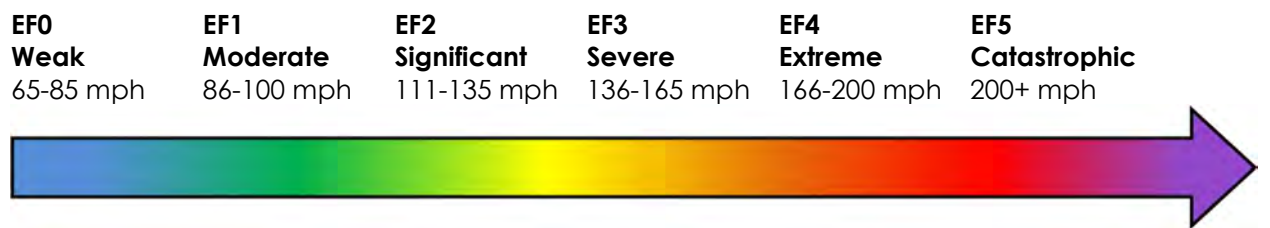


Table 11 Tornado Wind and Damage Scale		
Tornado Scale	Wind Speeds	Damage
EF0	65 to 85 MPH	Some damage to chimneys, TV antennas, roof shingles, trees, and windows.
EF1	86 to 110 MPH	Automobiles overturned, carports destroyed, trees uprooted
EF2	111 to 135 MPH	Roofs blown off homes, sheds and outbuildings 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

History of Tornadoes/High Wind in Langlade County:

Langlade County has had 8 reported tornados from 1959 to 2024, with none occurring within the study period between 2015 and 2024, see Table 12. The most recent tornadic event occurred on July 22, 2013. The storms produced a funnel cloud, isolated wind damage, and large hail as they moved across northeast Wisconsin. A funnel cloud was spotted west of Deerbrook (Langlade Co.), and thunderstorms winds downed trees near Keshena (Menominee Co.) and Oconto Falls (Oconto Co.). Golf ball size hail fell near Summit Lake (Langlade Co.), and quarter size hail fell near Abrams (Oconto Co.) and Byrant (Langlade Co.).

On July 9, 2013, A tornado formed near the Lincoln/Langlade County line and moved east shortly after 3:30 PM CDT. The tornado track was not continuous and

damage was restricted to trees, tree limbs and power lines. The average path width was 75 yards.

On April 10, 2011 an EF1 tornado formed about five miles south of Parrish at 6:50 pm CDT and moved just east of north for a little over five miles. The tornado affected about 1600 acres of hardwood and softwood trees. It was estimated that over one million trees were snapped, uprooted, or suffered serious damage. The loss to timber alone is estimated at over one million dollars. One cabin was destroyed by fallen trees. The tornado was seen by a storm chaser at 6:55 pm CDT. The average width of the tornado was 250 yards.

DATE	TIME	LOCATION	LENGTH (miles)	WIDTH (yards)	DEATHS	INJURIES	EF-SCALE
7/22/2013	4:44 PM	Deerbrook	N/A	N/A	0	0	*
7/9/2013	2:32 PM	Parrish	9.52	100	0	0	EF0
4/10/2011	5:50 PM	Parrish	5.3	400	0	0	EF1
6/7/2007	3:48 PM	V. White Lake	7.4	1,000	0	1	EF3
7/8/1994	2:50 PM	V. White Lake	N/A	N/A	0	0	*
4/27/1984	2:50 PM	Ackley, Vilas, Peck	7.5	75	0	1	EF2
6/13/1976	9:00 AM	Ackley, Peck, Neva	4.7	33	0	0	EF1
6/13/1976	8:10 AM	Rolling, Norwood, Polar, Evergreen	17.2	50	0	0	EF1
9/28/1971	4:10 PM	Rolling, Antigo, C. Antigo, Polar, Evergreen, V. White Lake, Wolf River	29.5	200	0	1	EF3
5/4/1959	11:45 AM	Neva	1	100	0	0	EF0

Source: National Climatic Data Center
 * Funnel Cloud

On June 7, 2007, a powerful EF3 tornado with winds estimated at 150 to 160 mph caused significant damage in the White Lake area. The Bear Paw Outdoor Adventure Resort was severely damaged with every building (10) destroyed or damaged, including the three-story inn which pushed over by the high winds. One employee sustained minor injuries. Fortunately, there were only 9 people on site during the tornado; hundreds of visitors were due to arrive the next day. In addition, hundreds of acres of trees were flattened and 9 homes were damaged. Damages were estimated at approximately \$2.2 million. This tornado persisted for an extended amount of time crossing several counties and was one of a 5-tornado outbreak that resulted in over \$60 million in total damages and 4 injured. Presidential disaster declaration was applied for but not awarded.

A reported funnel cloud in 1994 formed over White Lake, but did not touch down until reaching Marathon County. Thunderstorm winds associated with this funnel cloud damaged trees and power lines. Another funnel cloud was reported in 2013

in Deerbrook. On April 27, 1984, a F2 tornado touched down for 8 miles causing \$2.5 million in damages and injuring one person. Three barns, several cattle and two houses were destroyed, along with extensive tracts of timber. Two tornados actually occurred on the same day in 1976 within less than an hour as two separate F1 tornados. No one was injured in these events and property damage was relatively light at about \$6,000. In September of 1971, the County experienced a powerful F3 tornado that cut a 30-mile long 200-yard wide path injuring 1 and causing \$250,000 in damages. Request for Presidential disaster declaration was not approved. Little information is available on the 1959 tornado.

The National Climatic Data Center database shows 4 high or strong wind events from 2015 to 2024. The 2019 event resulted in Langlade County being included in a presidential disaster declaration.

The latest high wind event happened on December 16, 2021, when a strong storm system tracked across the central Plains and through the Upper Mississippi Valley, sweeping a cold front through the region during the late evening hours of Friday (12/15) and early morning hours of Saturday (12/16). High winds downed trees and power lines in Langlade County. Peak winds of 53 mph were measured at the Antigo airport with sustained winds over 40 mph for over an hour.

On July 19, 2019 a line of severe thunderstorms moved across much of central, north central, and eastern Wisconsin during the evening hours. Widespread tree and power line damage was reported from central Wisconsin into the Fox Valley and lake shore. WPS reported over 50,000 outages at the height of the storm. The worst damage was associated with a macro-burst, a large downburst of straight-line winds that affected a large swath from Pelican Lake in Oneida County, southeast through Langlade and Oconto counties. Hundreds of thousands of trees were snapped or uprooted, resulting in damage to dozens of homes and cottages. The damage path was about 60 miles long and up to 10 miles wide at times. Winds were likely near 100 mph in the hardest hit areas near Lily in northeast Langlade County and near the Langlade-Oconto County line southwest of Boot Lake.

On June 10, 2019, when a line of showers and strong winds downed several trees around Antigo. Winds were estimated near 55 mph.

On March 7, 2017 a strong low pressure system moved in creating a wind gust measured at 68 mph near Antigo.

Tornado / High Wind Vulnerability Assessment:

Though Langlade County is mostly a rural county, there are concentrations of population scattered throughout. Subdivisions, rural unincorporated communities, the City of Antigo and Village of White Lake can be regarded as

more vulnerable because tornados pose more of a 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 tornados. In general, it is much easier for a tornado to damage and destroy a mobile home than a site-built home. Mobile homes comprise 6.2 percent of Langlade County's housing units. Research by NWS shows that a total of 72 percent of all tornado-related fatalities are in homes and 54 percent of those are fatalities are in mobile homes. When you are in a mobile home, you are 15 to 20 times more likely to be killed in comparison to when you are in a permanent home.

The 2023 American Community Survey estimated 756 mobile homes in Langlade County. While mobile homes are scattered throughout the county, many are in mobile home parks. Map 8 also displays the location of the mobile home parks with approximate number of units in the density calculations to create Map 8.

In addition to mobile homes, campground patrons are vulnerable to tornados because there usually is little shelter provided. Camp Susan is a summer, youth camp that holds programs for area youth. Dormitories are located on-site for extended stays. Emergency shelter is built into these facilities. There are a number of other public and private recreational campgrounds / camps around the County, refer to Map 8.

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 communication
- Transportation – debris clean-up
- Residential – nursing homes, garages, trees and limbs, siding, & windows
- Businesses – signs, windows, siding, & billboards
- Agricultural – buildings, crops, & livestock

Based on a review of the historic events of tornadoes and high wind, there are no specific areas in the county that have an unusual risk of occurrence. The events are a countywide concern. In mitigation planning meetings for this Plan, both the City and Village noted that high, straight-line winds were a top hazard concern. In the mitigation survey results, high winds and tornados were top hazard concerns in the Towns of Ainsworth, Evergreen, Langlade and Wolf River; while Town of Summit and White Lake School District considered tornadoes to be a top concern, and the Towns of Rolling and Upham, mentioned high winds as a top concern. Key issues include trees and power lines down blocking roads and

causing power outages along with no basements for shelter in some areas. Tornado / high wind vulnerability by geographic area (local unit of government) is identified in Map 8.

Future Probability and Potential Dollar Losses – Tornadoes / High Wind:

Based on the historic data presented here (frequency of past events), between 2015 and 2024 Langlade County did not experience a tornado. However, over the last 20 years, there have been 3 tornadoes, or about 1 every 7 years. The historic pattern between 1959 and 2024 (65 years) a total of eight tornadoes have been reported. Over the past 10 years, tornado frequency has declined compared to the previous decade, which saw three tornado events. So, Langlade County can likely expect a tornado about once every 10 years on average. This equates to a probability of 0.14 or about a 14 percent chance in a given year. There is not enough data to indicate the probability of tornadoes of a specific magnitude.

High wind events are more common in Langlade County with 4 occurring in the last 10 year period from 2015 to 2024. Thus, the County can expect .4 high wind events per year. In other words, the probability to have a high wind event is 40 percent chance in a given year.

Historic data is again used to estimate potential future dollar losses due to a tornado or high winds. Estimated damages resulting from various tornadoes in Langlade County range from \$0 to \$2.5 million. On average, Langlade County might expect damage of \$756,250 per tornado; however, three of the historic tornadoes resulted in damages of \$1 million or more. High wind damages are typically spread over a wide area making it difficult to single out a specific county. Damage estimates range between \$0 and \$14.3 million per incident.

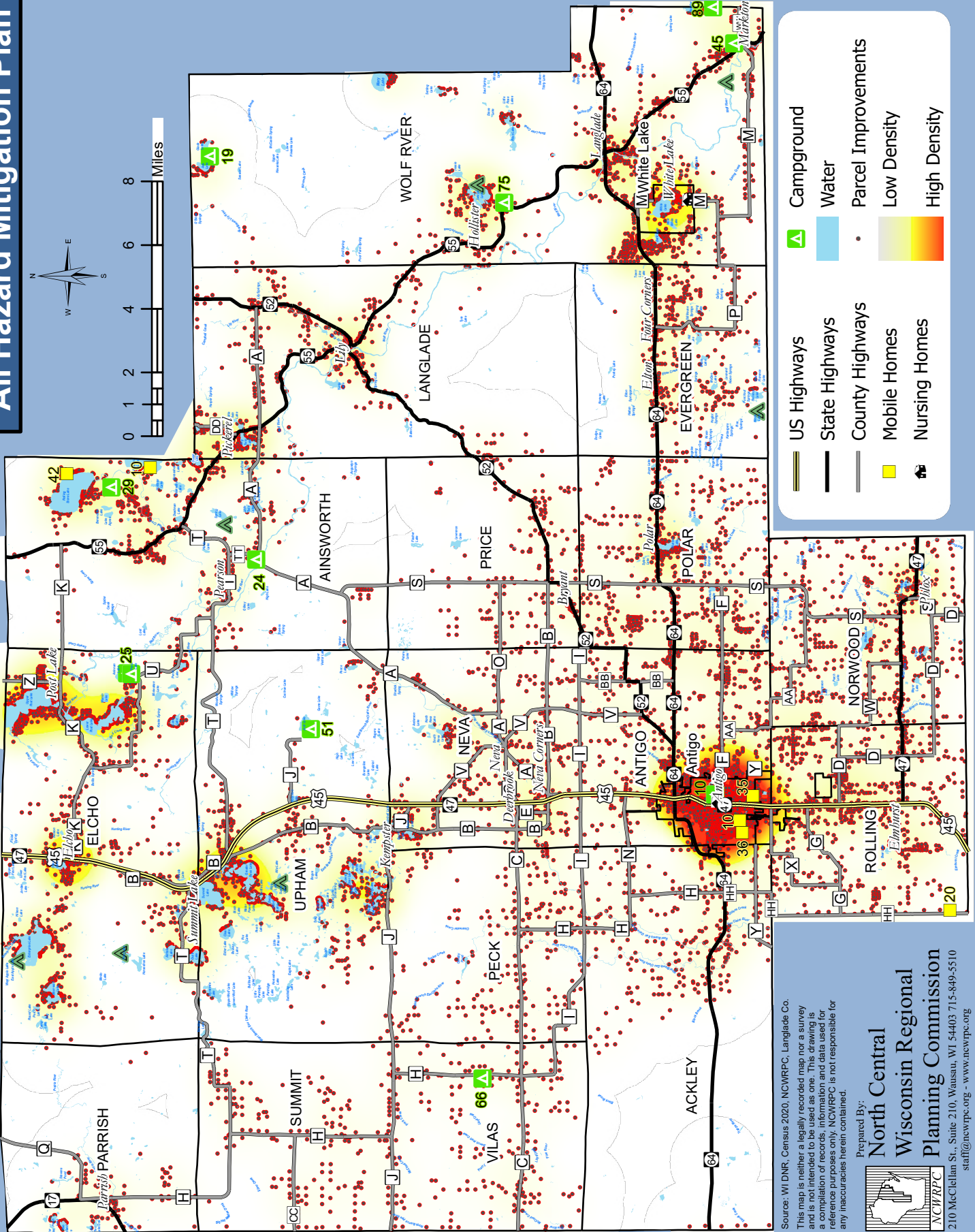
Weather variability can be expected to lead to more frequent, higher intensity tornadoes and wind events. This will affect more people over a wider area of the County, and the resulting damage will be higher.

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, below 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.

All Hazard Mitigation Plan



Sources: WI DNR, Census 2020, NCWRPC, Langlade Co.
 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**
 NCWRPC
 210 McClellan St., Suite 210, Wausau, WI 54403 715-849-5510
 staff@ncwrpc.org - www.ncwrpc.org

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 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 have been part of nearly every winter in Langlade County.

Dangerously cold conditions can be the result of the combination of cold temperatures and high winds. The combination of cold temperatures and high wind creates a perceived temperature 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 January and February.

History of Winter Storms/Extreme Cold in Langlade County:

The NCDRC has reported 34 major winter storm events for Langlade County since 2015. These storms typically contain some form of heavy snow, blowing snow, ice, freezing rain or drizzle, or glaze. Below are some highlight events over the last 10 years.

Most recently on April 4, 2024, 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 totals across Langlade County included 6.5 inches in Antigo, 6.3 inches in White Lake, and 6 inches in Summit Lake. Winds gusted to 30 to 40 mph at times Tuesday afternoon (4/2) into Wednesday morning (4/3).

On December 10, 2021, a surface low tracked northeast from the central Plains through the western Great Lakes region late Friday night (12/10) into Saturday morning (12/11), bringing 8 to 14 inches of snow to northern Wisconsin and portions of central and northeast Wisconsin. Gusty winds of 30 to 40 mph led to blowing and drifting of snow and power outages across portions of northern Wisconsin with over 14,000 customers reported without power. The highest snowfall totals across Langlade County included 10.0 inches in Summit Lake, 9.0 inches in Post Lake, 8.6 inches in White Lake, and 7.5 inches in Antigo.

On April 4, 2019 a strong low pressure system over the Plains moved across northwest Wisconsin on its way to Quebec. The system brought heavy snow, freezing rain, and gusty winds to central and northern Wisconsin. Thunderstorms and some sleet were also reported in parts of central Wisconsin. The highest measured snowfall totals in Langlade County were 12.5 inches near White Lake, and 12.0 inches in Antigo. The 12.0 inches of snow in Antigo breaks the previous snowfall record for April 11th of 4.0 inches that was set in 2007.

On February 29, 2012 a low pressure system out of Colorado produced a broad area of heavy snow over Minnesota and Wisconsin. This system deposited 18 to 20+ inches of snow between Rhinelander and Crandon, including parts of Langlade County.

Between December 11 and 12 of 2010, a strong winter storm developed as low pressure moved from Wyoming to Lake Michigan causing numerous cancellations and rescheduling. The pressure difference between an arctic high over southern Canada and the low pressure storm system generated strong winds resulting in severe blowing snow and blizzard conditions across the State. Fourteen inches of snow fell in western Langlade County with winds gusting up to

46 mph recorded near Antigo. The Governor declared a state of emergency in all 72 counties and the state's Emergency Operations Center was activated. The State Patrol advised against traveling as it was difficult to keep the blowing and drifting snow off the highways. There were numerous slide-offs and accidents across the state. Frigid temperatures followed the storm with actual air temps dropping to -23 degrees in some areas.

From the NCDC, four extreme cold temperature events have affected Langlade County from 2015 to 2024. Most recently, on January 10, 2022, a surge of arctic air allowed temperature to fall to -15 to -20 degrees during the morning of January 10th. The combination of the bitter cold and gusty northwesterly winds created wind chills of -35 to -41 degrees.

Winter Storms/Extreme Cold Vulnerability Assessment:

Winter storms and extreme cold present serious threats 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 cold includes the risk of frostbite and hypothermia.

The following is a list of things that may be adversely affected by a winter storm or extreme cold. Much 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
- 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 unusually high risk. The risk for winter storms and extreme cold is relatively uniform and a county-wide concern. In their mitigation planning meeting, the City of Antigo and Village of White Lake identified the potential risk of power outage associated with a major winter/ice storm as a significant concern. The Towns of Ackley, Evergreen, Rolling, Summit, Upham, and Wolf River also indicated winter storms are a top hazard concern citing road blockage and power outage. Towns of Ackley and Wolf River also identified extreme cold as a top hazard concern.

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

Based on historical frequency, Langlade County can expect 3.4 major winter storms per year on average. In other words the probability is 1.0 or a 100% chance of multiple storms in a given year.

For extreme cold temperatures, based on historical frequency, Langlade County can expect an occurrence about every 3 years. Although, extreme cold temperatures may also accompany winter storms, so a probability of 100% chance in a given year cannot be ruled out.

Estimating potential future losses for winter storms is difficult. Damages and losses are typically widespread. Auto accidents and additional snow removal time 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: 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 10 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 risks for people, particularly the elderly who may lack air conditioning or 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 ranges from 105 to 114 degrees daytime and remains at or above 80 degrees at night, during a 24-hour period. The heat index combines the effects of heat and humidity to better reflect the risk of warm weather to 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 exposed to 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 50 percent.

History of Drought/Extreme Heat in Langlade County:

Much of Langlade County experienced persistent drought conditions from spring 2023 through early 2024. The drought began in May and June 2023 with below-normal rainfall, leading to Abnormally Dry (D0) and Moderate Drought (D1) classifications. Conditions worsened by August, with Severe Drought (D2) across the northwest and Extreme Drought (D3) emerging by fall. The western two-thirds of the county remained in Severe Drought, while the eastern third stayed in Moderate Drought.

Drought conditions persisted into the winter, with precipitation continuing to fall below normal. By early 2024, the northwest third of the county remained in Severe Drought (D2), while the rest was classified as either Moderate Drought (D1) or Abnormally Dry (D0). February was notably mild and dry, resulting in a low snowpack. Although a late March winter storm brought 1 to 2.5 inches of precipitation, it followed several months of well below normal rainfall.

Drought conditions returned in September 2024, when conditions turned drier than normal during the latter half of September, resulting in severe Drought (D2) conditions across the northeast half of the county, and Moderate Drought (D1) conditions over the southwest half of the county at the beginning of October. Drought that developed in September continued across northern Wisconsin into November. Above normal precipitation from October 29th through November 7th brought an end to the Severe Drought (D2) across the county.

An extended period of drought conditions is recorded going back to 2005 for Langlade County and much of Wisconsin but, eased a bit in 2011. 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 Langlade 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 May through June 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. Langlade County was one of 64 counties that were declared federal drought areas and deemed eligible for assistance under the Disaster Relief Act. Federal monies totaled only 19% of losses attributed to the drought.

Langlade County also experienced the drought of 1987-1988 and a dry spell in 1999.

Looking back to the 1990's, the county has experienced three notable heat events. The first of these was recorded in July 1995 when a heat wave came across Wisconsin for three days. Temperatures across the state reached highs of 100 to 109 degrees. During this heat wave, 141 lives were claimed with 70 directly related and 71 in-directly related in the state of Wisconsin. Most deaths occurred in the major urban centers.

A heat wave was recorded on July 23, 1999, when over a week of extreme temperatures and humid weather swept across the state. In some places it was so hot that concrete roads began to buckle. There was widespread heat related illness, and three deaths resulted outside Langlade County. More recently, on July 31, 2006, temperatures near 100 and dew points in the lower 70s led to heat indexes near 110 degrees.

Drought/Extreme Heat Vulnerability Assessment:

Droughts can have a dramatic effect on Langlade County. The County has 82,000 acres of farmland. With agriculture being a critical sector of the County's economy, droughts have disastrous effects. Even small droughts of limited duration can significantly reduce crop growth and 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 environment by drawing water that naturally goes to aquifers and surface water. Drought can exacerbate the problem when

high withdrawal rates versus 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 in the absence of sufficient water can result in flooding, even from average rainfall, following drought conditions.

The following is a list of things that may be adversely affected by a drought. Much 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. Agricultural land is scattered throughout the south and southeast parts of the County, refer to Map 2. The primary towns include Ackley, Antigo, Neva, Norwood, Peck, Polar, Price, Rolling, and Vilas, but several other towns also contain varying amounts of agricultural land. The Town of Wolf River indicated drought as a top vulnerability concern in the mitigation survey.

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 Langlade County affecting everyone, however the elderly and young are the ones with the highest risk of getting heat related injuries, 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. The Towns of Ackley and Wolf River indicated extreme heat as a top vulnerability concern in the mitigation survey.

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

Based on the historic data presented here (frequency of past events), Langlade County can expect droughty conditions every five years on average, which is a probability of 0.2 or a 20 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

indication 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, northern Wisconsin is known for its cold winters, however, extreme heat waves will affect Langlade County in the future. Langlade County can expect a heat wave once about every 5 years or a 20 percent chance in a given year based on the historic data presented.

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: FLOODING/DAM FAILURE

Background on Flooding/Dam Failure Hazard:

There are a variety of classifications for flooding including coastal, dam failure, flash, lake, riverine, stormwater and urban/small stream. Langlade County has the potential for all these types 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 technology that is 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 /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 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 that 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 – Locally 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 Langlade 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 significant hazard in Langlade County, particularly because the Springbrook runs right through the middle of the county's principle city. As described in Part II, there are approximately 225 rivers and streams in Langlade County within 14 main watersheds and 3 major river basins.

These floodplains are narrow along tributaries and lakes, but extensive throughout the county. Floodplains are described in Part II and shown on Map 4. The North Central Wisconsin Regional Planning Commission digitized these floodplains from FEMA Flood Insurance Rate Maps (FIRMs). While not official, these digital floodplains are useful planning tools.

Table 13 Dams in Langlade County				
Dam Name	Size	Ownership	Hazard Rating	Stream
Phlox Pond	Large	Town	Significant	Red
Skinner	Large	County	High	Spring Brook
Spider Creek	Large	DNR	Low	Spider Creek
Lower Trappe	Large	DNR	Low	Trappe River
Middle Trappe	Large	DNR	Low	Trappe
Upper Trappe	Large	DNR	Low	Trappe
Fourth Avenue	Large	City	Low	Spring Brook
Upper Post Lake	Large	Private	Low	Wolf River
Pot Flowage	Large	DNR	Low	Trappe River Tributary
Section 27 Dike	Large	DNR	Low	Trappe River Tributary
Skunk Creek	Large	County	Low	Skunk Creek
Sheldons	Small	Private	Low	East Branch Lily
Greater Bass Lake	Small	Private	Low	Outlet
Pickerel Lake	Small	Private	Low	Pickerel Creek
Fish (Schuett)	Small	Private	Low	Pollock Creek
Langlade Fish Hatchery	Small	DNR	Low	Dalton Creek
Lower Antigo	Small	City		Spring Brook
Upper Antigo	Small	City		Spring Brook
Crystal Springs Fish Hatchery A	Small	DNR		E Branch Eau Claire Trib
Crystal Springs Fish Hatchery B	Small	DNR		E Branch Eau Claire Trib
Hanke	Small	Private	Low	Lily
Deepwoods Lake	Small	Private	Low	East Branch Eau Claire
McGee Lake	Small	DNR		Outlet of McGee Lake
Upper Wicke	Small	DNR		Skunk Creek Tributary
County Line	Small	DNR		Trappe River Tributary
Lower Wicke	Small	DNR		Skunk Creek Tributary
Tower Seep	Small	DNR		Trappe River
North Grade	Small	DNR		Pine River Tributary
Middle Eau Claire Flowage	Small	DNR		East Branch Eau Claire
Upper Eau Claire Flowage	Small	DNR		East Branch Eau Claire
Oxbo Flowage	Small	DNR	Low	Oxbo Creek
Gleason	na	DNR		Skunk Creek
White Lake	na	Village		White Lake Outlet
Mikkelson	na	Private	Low	Drew Creek
Neva Dam	Small	Town		East Branch Eau Claire
Ackley Wildlife Area Dam	na	DNR		na

Source: WisDNR on-line database & NCWRPC, 2025

There are 36 dams in Langlade County (see Map 4/Table 13), but most do not pose a significant hazard if they were to fail. According to the DNR, Langlade County has 11 large dams, 21 small dams and the other 4 were not classified. 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.

The WDNR assigns hazard ratings to large dams within the state, see Table 13 for Langlade County. 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 could result in significant property damage. A low hazard exists where failure would result in only minimal property damage and loss of life is unlikely. Only one dam, Skinner, has a high hazard rating while Phlox Pond dam has a significant hazard rating while the rest are low or unrated.

FEMA has a grant program for rehabilitation of high hazard potential dams (HHPD). However, applicants must be a non-federal, governmental organization or an eligible nonprofit organization as described under section 501(c)(3) of the Internal Revenue Code of 1986 (IRC) and exempt from tax under section 501(a) of such code. For example, if a community has a municipal dam that needs to be rehabilitated, they can apply to the state to receive the grant as a sub-recipient. There could also be a community that has a private dam that poses unacceptable risk, and they may want to be the applicant that would work directly with the state to execute a subaward for the rehabilitation of that dam.

All dams perceived as posing a threat to downstream development have a dam failure analysis performed in order to identify the hydraulic shadow (that area of land downstream from a dam that would be inundated by water upon failure of the dam during a regional flood). This information is used to develop an Emergency Action Plan (EAP) for the dam, which includes provisions for notifying emergency personnel and warning affected downstream residents of a failure.

History of Flooding/Dam Failure in Langlade County:

Flooding was a principal cause of damage in four of ten Presidential Disaster Declaration requests in Langlade County since 1971.

The most recent flooding event occurred on July 26, 2020, when thunderstorms dumped 4 to 8 inches of rain over Langlade County during the morning hours. This caused several roads to be closed due to flash flooding as well as culverts becoming full or washed out across much of Langlade County. Several roads and culverts were damaged as a result of the flooding. An estimated \$318,500 worth of damage was reported from this event.

On June 11, 2017, thunderstorms developed in the afternoon in the vicinity of a surface frontal boundary. The storms downed trees and power lines across parts of northern Wisconsin and produced torrential rainfall that caused street flooding in several locations including the City of Antigo.



Flooding in Antigo, 2004

One of the worst flood events experienced by Langlade County was the flooding of 2004. News reports identified this flooding in the City of Antigo as the worst flooding in four decades. Rapid snowmelt and a heavy weekend rainfall caused the Springbrook (Skinner) Dam to overflow. The Governor declared a state of emergency in Langlade County and sent in the

National Guard. About 99 homes and 39 businesses were evacuated and schools were closed. Parts of US Highway 45 were flooded and closed. The local street network was extensively damaged including several bridges. Overall damages exceeded \$1 million, however; a Presidential Disaster Declaration was not awarded.

In addition to the 2004 flood, NCDC data shows flood events in Langlade County in 1999 and 2000. In 1999, urban and small stream flooding affected Antigo on July 8 and again on July 16. Over topping of Spring Brook Dam was a major factor. Streets were flooded and homes experienced basement flooding. In July of 2000, Antigo had significant flooding and Deerbrook experienced urban and small stream flooding. Surrounding rural areas experienced some crop damage.

In 1971, Langlade was one of 24 counties included in a request for Presidential declaration for flooding. That request was denied. Then in 1973, significant flooding affected a total of 35 counties, including Langlade, and a request for Presidential Disaster Declaration was awarded. One person drowned. Total private and public damage losses were set at \$24 million across the 35 counties. Again in 2002 a combination of severe storms and flooding included Langlade and 19 other counties in a Presidential Disaster Declaration.

Additional information from the County shows that flood damage has been recorded in Antigo in 1961, 1965, 1967 and 1988. These events were all a result of rapid snowmelt and heavy rain exceeding Springbrook Dam's storage capacity and overtopping.

Flooding/Dam Failure 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 Langlade 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.

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 by WEM. According to the report, there are no repetitive loss structures in Langlade County. Since no structures are listed in the Repetitive Loss Report, structures within floodplains were analyzed. The floodplain boundaries within Langlade County are shown on Map 4.

Table 14 shows the number of structures in each municipality identified as “vulnerable to flooding” according to proximity to floodplains. There were a total of 578 structures identified in the designated floodplain boundaries, see Map 9.

Methodology – Structures within Floodplains:

1. NCWRPC digitized (electronically traced) the individual FEMA FIRM floodplain maps into a GIS coverage for the County.
2. A building point cover was digitized from current aerial photos.
3. The floodplain coverage was then combined with the building point coverage and County parcel data to identify those parcels within the floodplain boundary.
4. Total parcels within the floodplain were then tabulated by municipality.
5. Land records data for those parcels was used to tabulate the total value for the identified vulnerable properties.

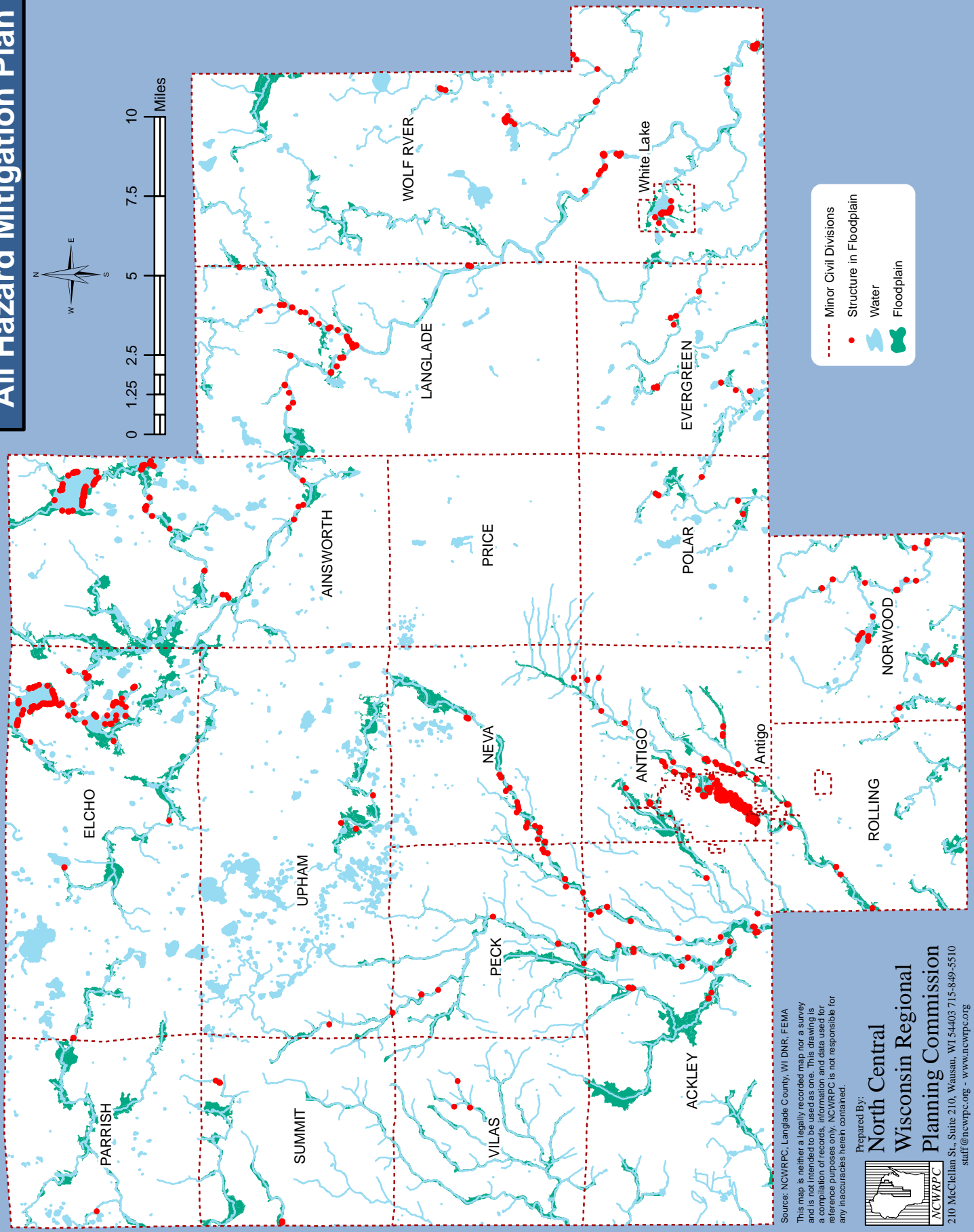
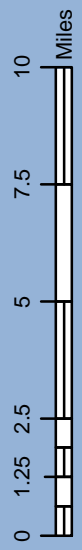
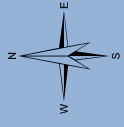
Table 14 Approximate Values of Structures in Floodplains in Langlade County			
Municipality	Number Parcels	Improved Value	Average Improved Value
Ackley town	25	\$2,619,461	\$104,778.43
Ainsworth town	72	\$6,587,077	\$91,487.17
Antigo town	39	\$4,909,591	\$125,886.94
Elcho town	91	\$9,257,128	\$101,726.69
Evergreen town	9	\$926,276	\$102,919.58
Langlade town	31	\$3,021,368	\$97,463.48
Neva town	17	\$1,996,641	\$117,449.45
Norwood town	25	\$3,075,949	\$123,037.96
Parrish town	1	\$93,115	\$93,114.77
Peck town	12	\$1,395,095	\$116,257.92
Polar town	4	\$521,694	\$130,423.57
Price town	0	\$0	
Rolling town	5	\$686,535	\$137,306.92
Summit town	3	\$248,976	\$82,991.89
Upham town	3	\$540,238	\$180,079.18
Vilas town	3	\$314,285	\$104,761.81
Wolf River town	35	\$3,447,564	\$98,501.83
White Lake Village	21	\$2,142,704	\$102,033.54
Antigo city	182	\$19,011,457	\$104,458.56
Langlade County	578	\$65,347,091	\$113,057.25

Source: NCWRPC & Langlade County Tax Pacels

In addition to structural damage from flooding, there may also be significant damages to public roadways, particularly to roadway surfaces, culverts and bridges. Floods may inundate roadways in the county for varying periods. Such interruptions in the county transportation network may cause travel delays through detours.

The agriculture industry is one sector that faces substantial losses during floods. Cool, rainy/wet, cloudy weather in the spring and summer can create a general condition of high water and saturated soils throughout the county.

All Hazard Mitigation Plan



- Minor Civil Divisions
- Structure in Floodplain
- Water
- Floodplain

Source: NCRWPC, Langlade County, WI DNR, FEMA
 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. NCRWPC 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

Flood conditions can leave farmers with these economic obstacles:

- Delayed planting (reduced growing season)
- Seed and agricultural chemicals washing out of fields
- Rotting crops 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 by farmers to expend higher amounts of money on additional soil amendments
- Lower quality (nutritional value) of harvestable crops as a feed source.

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

Economic losses to farmers can generate a ripple effect to the local community as well. Reduction in farm income curtails farmers' ability to purchase new equipment and make other improvements. Farmers 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 will have reduced tax revenues. Farmers increase their debt load and have less money to save and invest.

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 very low, resulting in increased prices for consumers.

Considering both the agricultural and forestry sectors, virtually the entire county faces significant risk due to flooding, however; the areas most considered to have a higher risk for impact from flooding include those communities with structures in floodplains as shown in Map 9. The City of Antigo and the Towns of Antigo, Rolling, Summit, and Upham indicated that flooding is a top hazard concern with Upham noting the presence of a dam within the town.

Future Probability and Potential Dollar Losses – Flooding/Dam Failure:

The NCDC data shows that Langlade County had two floods 2015-2024, however, this data does not include the 1973, 2002, and 2004 flooding, which received Presidential Disaster Declaration, nor the 1961, 1965, 1967, 1971 or 1988 flooding. Based on this combination of historic data (frequency of past events), Langlade County can expect a significant flood event about every five years on average. This equates to a probability of 0.20, or about a 20 percent chance in a given year.

Historic data is again used to estimate potential future dollar losses from flooding. Based on the past flood events for which we have loss figures, Langlade County can anticipate property and crop losses of approximately \$1 million, on average, between the public and private sector for each significant flood occurrence. Over the next ten-year period, flood losses in Langlade County could exceed \$2.3 million.

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 for 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: SEVERE THUNDERSTORMS/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 1 inch in diameter or greater, or a tornado. Hail and lightning will be addressed in this section; however, tornadoes are discussed as a separate hazard due to their potential level of severity.

Lightning results from discharge of energy between positive and negative areas separated by rising and falling air within a thunderstorm. 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 up.

Thunderstorm frequency is measured in terms of incidence of thunderstorm days or days on which thunderstorms are observed. Wisconsin averages between 30 and 50 thunderstorm 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 Thunderstorms in Langlade County:

The NCDRC has reported 45 severe storm events for Langlade County since 2015. These storms typically contain some form of heavy rain and strong winds and

often lightning or hail. Back in 2002, a combination of severe storms and flooding resulted in a Presidential Disaster Declaration for Langlade and 19 other counties.

The latest severe storm happened on July 30, 2024, when thunderstorms developed along an outflow boundary during the late afternoon and early evening hours on Tuesday (7/30). The strongest storms produced large hail around a quarter size near Parrish.

On July 19, 2019, a line of severe thunderstorms moved across much of central, north central, and eastern Wisconsin. Winds were likely near 100 mph in the hardest hit areas near Lily in northeast Langlade County and near the Langlade-Oconto County line southwest of Boot Lake. Thunderstorm winds snapped and uprooted tens of thousands of trees across northern Langlade County. One hundred thirty-five structures in the county sustained damage. The hardest hit area was near Lily. Over \$350,000 in property damage was reported.

In June, August, September, and October of 2018, storms downed trees and power lines in White Lake, Phlox, and Antigo areas.

On May 2012, thunderstorms developed in unstable air as cold fronts passed through northern Wisconsin. The storms produced heavy rains, golf balls sized hail (5-20-12) and numerous trees and power lines blown down around Antigo, destroyed a bandstand in Neva, and near Summit Lake (5-24-12) downed trees and produced a funnel cloud in Marathon County.

On July 30, 2011, a bow echo squall line passed through northeast Wisconsin, blowing down trees and knocking out power to 36,000 customers. Downed trees damaged the Bass Lake Country Club and Golf Course. Strong winds lifted a paddle boat out of Summit Lake and deposited it up a hill. On June 10, 2005, a thunderstorm knocked a tree onto a house in Pickerel. On July 31, 2003, a thunderstorm downed trees and power lines in eastern Langlade County.

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 strike and how powerful they might be remains unpredictable. The distribution of thunderstorms and related hazard events have 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 Langlade County area to thunderstorms and related storm hazards, review of the past events indicate 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 a review of the historic patterns of thunderstorms associated with high wind, hail, or lightning, there are no specific municipalities that have unusual risks. The events are relatively uniform and a countywide concern. The City of Antigo expressed concern about the effects of straight-line winds during thunderstorms. The Towns of Ainsworth, Evergreen, Langlade, Upham, and Wolf River indicated that severe thunderstorms were a top hazard concern in their mitigation surveys. Ainsworth, Langlade, and Wolf River noted lightning as an issue, while Langlade and Wolf River also noted hail as an issue.

Future Probability and Potential Dollar Losses – Severe Thunderstorms:

Based on historical frequency, Langlade County can expect 4.5 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 (0.75 inch diameter or greater) in Langlade County is also at 1.0 or 100% chance with about 1.3 incidents in a given year. There is not enough data available regarding lightning events to indicate probability.

According to the NCDC, historic thunderstorm events with associated high wind and reported damages ranged from \$1,000 to \$350,000 in property damage per incident, and \$5,000 in reported crop damage. Historic thunderstorm events with associated hail that reported property damage averaged \$1,000. Historic thunderstorm events with associated lightning that reported property damage averaged \$25,000. Losses in Langlade County associated with severe thunderstorms could approach \$1,200,000 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: FOREST FIRES/WILDFIRES

Background on Forest Fires/ Wildfires Hazard:

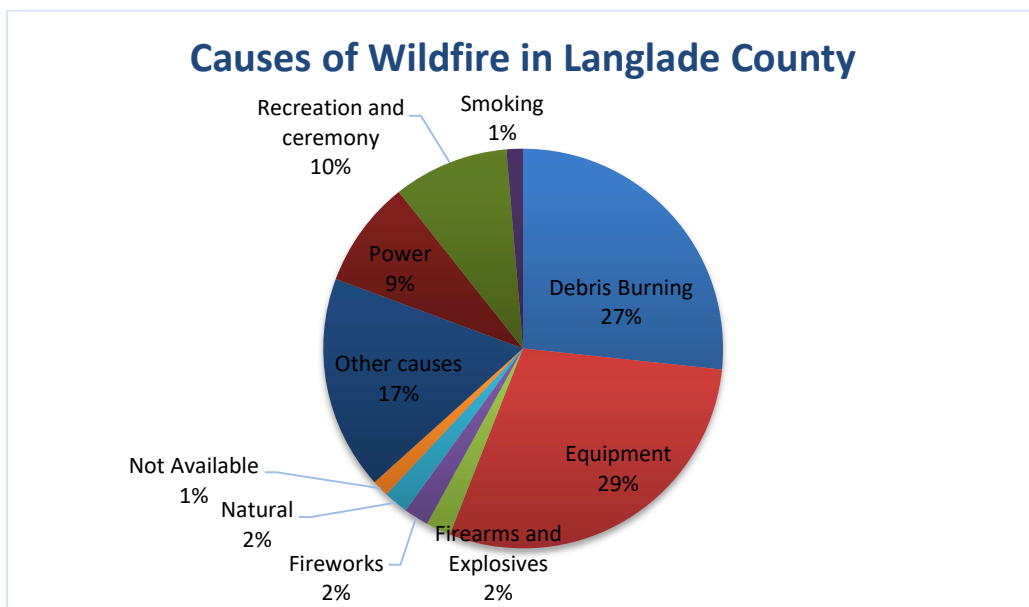
A forest fire is an uncontrolled fire occurring in a forest or in woodlands outside the limits of incorporated villages or cities. A wildfire is any instance of uncontrolled burning in brush, marshes, grasslands or field lands. For the purpose of this analysis, both of these kinds of fires are being 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 Langlade 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 Langlade County. This data is now accessible through its Internet based Wildfire Dashboard. From 2015 to 2024 there have been about 15 fires annually. However, there is significant annual variability ranging from 5 fires in 2015 and 2016 to 21 in 2018 and 2022. The typical fire in Langlade County burns around 1.7 acres. The largest recorded wildfire burned 65 acres in 2021.

Six of the 19 total municipalities in the County had 10 or more wildfires between 2015 and 2024: Ainsworth (15), Elcho (25), Norwood (11), Polar (12), Upham (11), and Wolf River (22). Elcho and Wolf River stand out with 25 and 22, respectively.



Source: Wisconsin DNR

The chart above breaks down the causes of wildfire within Langlade County as classified by the Wisconsin DNR. The principle cause of wildfire in the County which resulted in 29% of wildfires within the County was caused by equipment which includes vehicle, motor and other machinery related causes except railroad. Debris burning came in second with 27%. Other causes were 17% which includes causes such as arson or railroads. Recreation and ceremony which includes fireworks, causes 10% of wildfires.

Despite being in a period of drought between 2023-2024, it does not appear to have had an influence on wildfire activity in the County.

Forest Fires/Wildfires Vulnerability Assessment:

Langlade County has about 435,000 acres of forestland scattered throughout the County, or 77 percent of the land area. The potential for property damage from fire increases each year as more recreational and retirement homes are developed on wooded land.

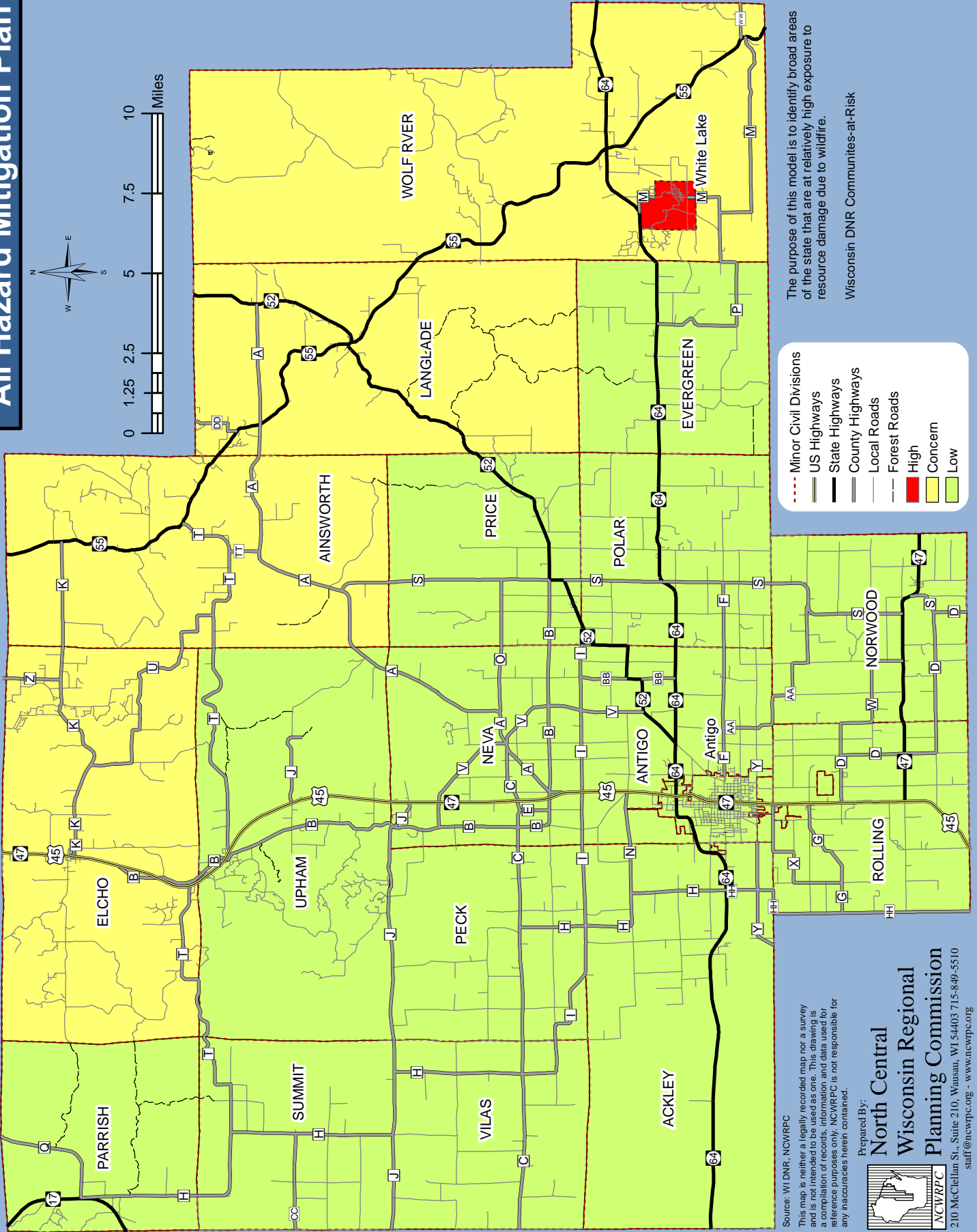
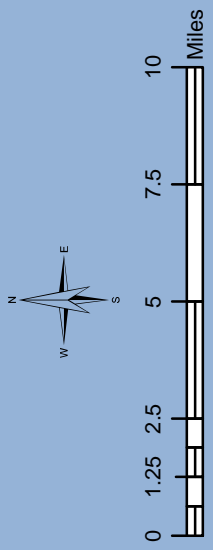
Rural buildings may be more vulnerable because of lack of access. Access to buildings off main roads is often via long and narrow driveways with minimal vertical clearance and no turn around areas large enough for emergency vehicles making it difficult to combat fires. These buildings also may not have much of a defensible space because of little area between the structures themselves and highly flammable vegetation.

Campgrounds are also a concern because campfires cause 7 percent of fires. Langlade County has many public and private campgrounds with a total of more than 550 campsites (see 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 developments 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 geodatabases 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. The Village of White Lake is rated high. The Towns of Elcho, Ainsworth, Langlade and Wolf River are designated as communities of concern. The remaining towns and the City of Antigo are rated low risk for wildfire. See Map 10.

All Hazard Mitigation Plan



Minor Civil Divisions

- US Highways
- State Highways
- County Highways
- Local Roads
- Forest Roads

Risk Levels

- High
- Concern
- Low

The purpose of this model is to identify broad areas of the state that are at relatively high exposure to resource damage due to wildfire.

Wisconsin DNR Communities-at-Risk

Source: WI DNR, NCWRPC
 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

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

Forest and wildfires are relatively common occurrences in Langlade County. Over the period analyzed here, there has been an average of 15 fires per year in the County. In other words, the probability is 1.0 or 100% chance of wildfire each year.

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 15 fires per year, the County should expect some fires to "get out of hand" with the potential to exceed the \$1.4 million in damages of the Cottonville Fire that occurred in Southern Wisconsin



Cottonville Fire, 2005

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.

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 Lantlode 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 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 Lantlade 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 Lantlade County, there have been 6,790 total cases of COVID -19 resulting in 109 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 central Wisconsin cannot avoid the impacts of a global pandemic. Although Langlade County's overall case rate was slightly higher than the state average (35,385 per 100,000 versus 34,599), the COVID death rate in the County was double the state rate (568 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 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 Langlade County and its local units of government 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 Langlade County All Hazards Mitigation Plan will discuss the following factors in establishing the multi-jurisdictional mitigation strategies:

- Benchmark Progress of Previous Plan 2020-2025
- Review of Mitigation Goals
- Prioritize Identified Mitigation Strategies
- Establish Mitigation Action Plans

PROGRESS REPORT 2020 - 2025

Table 15 identifies the completed, removed or deferred mitigation actions from the previous 2020 plan update. 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 original 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 "Removed from list" and will not appear in the updated action plan. In some cases, an incomplete action is not selected for various reasons (noted) and is also shown as "Removed from list."

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

Table 15 Benchmark For Progress 2020 - 2025 Plan			
2020-2025 Plan Measure	Progress Report	Original Status	New Status
Promote the increased use of National Oceanic and Atmospheric Administration (NOAA) weather radios.	The County and City of Antigo have supplied radios in the past and have worked to ensure that radios are located in high risk areas and at critical facilities such as elderly and disabled housing, etc.	On-going (1)	On-going (1)
Continue to add/update Emergency Management Department link off existing County website.	The Emergency Management site is continually updated with relevant information.	On-going (2)	On-going (2)
Maintain County Emergency Response Zone Atlas on a five-year update cycle.	The County has become less involved in atlas maintenance as the WDNR has moved to a more modern tech based application.	2021 (3)	Completed /Removed (-)
Continued development of county-wide early warning systems including expanded use of current and emergency technologies such as EAS and IPAWS. Evaluate utilization of the Everbridge System.	The County has evaluated use of Everbridge and will maintain at this time with on-going work to enhance. Further efforts to expand awareness and utilization are planned. County will continue to develop other technologies such as EAS, IPAWS and First Net.	On-going (4)	On-going (4)
Update county-wide shelter plans including i.d. available shelter options, procedures for activation & use, trailer park sheltering, event sheltering, power, heating/cooling & transportation needs and maintenance.	County continues working with other agencies, communities and Red Cross on shelter issues. Some communities are working on their own shelter initiatives	On-going (5)	On-going (6)
Each Town should develop an EOP to help prepare for disasters; including developing a system for welfare checks as well as addressing debris management.	This is an on-going issue. Some communities have developed or are working on their local plans. Some still need work. Intergovernmental coordination is also needed. The County is working to encourage and assist the towns.	2021 (6)	2027 (9)
Update aerial photography every 5 years to be used by Langlade County, City and Village emergency services.	Aerial photography was obtained in 2025, Recommend to update aerial photography every 5 years.	2024-25 (7)	2030 (12)
Establish emergency "tornado" shelters in the Towns of Langlade, Norwood, Polar, Upham and Parrish.	Some communities have taken steps toward developing emergency shelters. Others have identified shelter(s) as a need. See strategies 6 & 7.	2017 (8)	2029(15)

Table 15 Continued			
2020-2025 Plan Measure	Progress Report	Original Status	New Status
Promote winter hazards awareness including home and travel safety measures.	County continues to use social media and local outreach to promote awareness.	Annual (9)	Annual (16)
Develop countywide drought mitigation plans.	No progress to date. However, persistent drought conditions across the state and country are a red flag.	As needed (10)	As Needed (17)
Assist population with reducing heat disorders through awareness program as needed.	County continues to use social media and local outreach to promote awareness.	As needed (11)	As needed (18)
Require stormwater management 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. See strategy 19.	On-going (12)	Completed / Removed (-)
Continue to work with dam owners to review Emergency Action Plan (EAP) for each significant and high hazard dam.	County continues to work with each dam owner to review EAP.	On-going (13)	On-going (20)
County / City continued compliance in the National Flood Insurance Program (NFIP). - Village of White Lake NFIP compliance *	Langlade County is in final stages of updating its floodplain maps with WDNR and FEMA. County continues to work on updating its floodplain zoning regulations in accordance with current DNR model language. Village of White Lake is considering NFIP.	On-going (14)	On-going (21)
If evidence of recurring flooding is an issue with specific properties after a significant flood event, investigate, as a possible solution, the voluntary acquisition / removal of buildings in a floodplain with flood damage.* (FEMA NFIP requirement)	Has not been needed since last major flooding in Antigo. City completed extensive clearing of floodplain following that flood, but a few properties remain for potential relocation.	As needed (15)	As needed (22)
Town Road Improvements / Flood Proofing.	Projects have been completed by some towns. Additional projects identified in current town surveys.	As needed (16)	As needed (23)
Town of Parrish / STH 17 Culvert.	WisDOT completed drainage / culvert upgrades on STH 17 in Parrish.	2022 (17)	Completed / Removed (-)

Table 15 Continued			
2020-2025 Plan Measure	Progress Report	Original Status	New Status
Determine if critical facilities are adequately grounded to eliminate lightning damage	Limited progress to date. Some of the facilities have had grounding updated. Continue to work on as budgets allow.	2022 (18)	2027 (27)
Promote Firewise program and related educational material to increase community awareness of wildfire risk within the County.	County continues to use social media and local outreach to promote awareness.	On-going (19)	On-going (28)
Develop Community Wildfire Protection Plans (CWPP) for high-risk towns.	WDNR reports that area is not a priority for wildfire protection planning based on relatively low risk compared to other parts of the state.	On-going (20)	Removed (-)
Develop driveway ordinances and private road standards to ensure emergency vehicle access.	Limited progress to date. Identified as an on-going issue. Some communities have taken steps to address while others have not.	On-going (21)	On-going (30)

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 Planning Taskforce during the development of the last update. The Plan Update Taskforce 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 a new goal specifically addressing epidemic/pandemic.

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

- Prepare residents and visitors of Langlade 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 and high wind events.
- Create safety awareness in citizens and travelers of Langlade County to protect them during and after winter storm events.
- Improve County preparedness for dealing with extended drought.
- Create safety awareness in citizens of Langlade County to help protect themselves during extreme heat events.
- Lessen the impact floods have on people, property and the environment.
- Prevent 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 hail and lightning.
- Protect the safety and property of residents and visitors from forest and wildfires.
- Improve countywide preparedness for handling and recovering from an epidemic or pandemic event.

PRIORITIZATION OF STRATEGIES

The Plan Update Taskforce 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 Langlade 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 were 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 Task Force 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 Update Taskforce 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 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 (responsible unit) is identified along with a listing of the other agencies or jurisdictions which 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, existing resources (authority, policies, programs. etc.) and potential time frames.

ALL HAZARDS

Goal:

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

Action 1:

The county and city should continue to promote the increased coverage and use of National Oceanic and Atmospheric Administration (NOAA) weather radios. NOAA weather radios receive signals from a nationwide network of radio stations broadcasting continuous weather information from the nearest National Weather

Service office. All National Weather Service forecasts, watches, warnings, and other hazard information like dam failures are broadcast 24 hours / 7 days a week. The NOAA weather radio is a single source for comprehensive weather and emergency information, because the Emergency Alert System (formerly the Emergency Broadcast System) broadcasts use the same network of radio stations as one of many electronic methods to broadcast other hazard information.

Participating Jurisdictions for Action 1:

Lead agencies will be Langlade County Emergency Management and City of Antigo. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River, and all School Districts including Antigo, Elcho and White Lake.

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 / links on ordinances pertaining to hazards (i.e. County floodplain zoning), and links to other sites that provide valuable information on weather conditions, burning permits, etc.

Participating Jurisdictions for Action 2:

Lead agency will be Langlade County Emergency Management in conjunction with the County I.T. Department. The only directly participating jurisdiction will be Langlade County.

Action 3:

School districts operating within Langlade County should work with the County and local officials to develop communications protocols for alerting school district officials of an emergency situation and maintaining channels for the flow of information between the district and emergency responders. This recommendation was identified through the local mitigation survey distributed to area school districts.

Participating Jurisdictions for Action 3:

Lead agencies will be the School Districts in conjunction with County and local officials. Jurisdictions participating in this action will include the School Districts of Antigo, Elcho and White Lake, Langlade County, City of Antigo, Village of White Lake, and all Towns including corresponding police, fire and EMS departments that have school facilities within their jurisdictions.

Action 4:

Maintenance and potential expansion of early warning and communication systems should be sought, including ATT First Net, Emergency Alert System (EAS) capabilities and expanded use of emerging technologies such as IPAWS. Currently, NOAA weather radio is the primary trigger for activating the EAS on commercial radio, television and cable systems. Local access to these types of warning systems could facilitate more timely notification of a hazard situation as well as the ability to tailor important information or instructions for the specific area.

The City of Antigo and Langlade County have implemented and evaluated the use of the Everbridge emergency alert and information system. This is a subscriber-based system that can be used to notify subscribers via telephone, cell phone, text, email, etc. Residents register and choose the type of information to receive such as: emergency alerts, public safety notifications, weather alerts, school notifications, community news, etc. The service allows the users to determine the level of information they find important. It has been working well, and the communities plan to continue with the service at this time. The County and City should expand promotion efforts to increase awareness and utilization of the Everbridge system. These efforts should include education and support to assist with sign-up and work to address public issues with sign-up and use. The fact that it supports more than just emergency alerts enhances its value to the public and can encourage user sign-up.

Jurisdictions within the county should consider support for the Everbridge subscription in order to maintain the benefit of the service for everyone within the county long-term.

Participating Jurisdictions for Action 4:

Lead agencies will be Langlade County and City of Antigo. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River, and all School Districts including Antigo, Elcho and White Lake.

Action 5:

The City of Antigo and Village of White Lake should consider installation of new warning siren systems in their communities. Aging siren systems have been decommissioned.

In White Lake, local officials expressed concern that sign-up for Everbridge can be difficult, particularly with the high elderly population that may struggle with technology. In Antigo, a local group of residents is leading push to reestablish a siren system. However, local officials point to a number of issues including cost of installation and maintenance, operational responsibilities and liability and coverage. Outdoor sirens don't necessarily reach individuals in buildings and effective range can be affected by a range of external conditions. A siren installation is approximately \$25,000 each, and a community would need several for full coverage even assuming a maximum 2 mile radius of coverage. Annual maintenance costs can be up to \$1,000 per installation.

Refer to recommendation 4.

Participating Jurisdictions for Action 5:

Lead agencies will be City of Antigo and Village of White Lake. The only directly participating jurisdictions will be the City and the Village.

Action 6:

Update county-wide shelter plans including identification of available shelter options, procedures for activation & use, trailer park sheltering, event sheltering, power, heating/cooling & transportation needs and maintenance. This would also include public information and awareness and inter-agency coordination components including communication protocol to aid in incident management and dissemination of timely sheltering information to the public. Sheltering is an appendix (annex) component of the County's Emergency Operations Plan (EOP) as a critical public health task.

Shelter related concerns were identified during the development of this All-Hazards Plan Update. To address these concerns, the County should work with American Red Cross to review and update shelter plans as needed. One issue with shelters may stem from lack of knowledge regarding existence of shelters and procedures for activation / use. Public informational efforts are recommended.

Shelters vary by type and function. The sheltering plan should identify available shelters by function and determine where coverage is deficient. The purpose of a shelter is to protect people during a disaster event, to accommodate displaced people in the aftermath, or both. Existing facilities (schools, churches, public buildings, etc.) should be evaluated for suitability or locations determined for new structures. Mobile home parks, campgrounds and county parks within the county lack shelters and are a particular concern. Sheltering needs for an incident occurring during a festival event that attracts significant numbers of visitors must also be considered.

A community building (or buildings) often looked to is the local school. However, it is important to remember that school buildings can sustain significant damage or be destroyed as well. Officials should evaluate the most appropriate use for school buildings to meet the community's sheltering needs. Agreements would have to be put in place between the school district and the community / disaster relief agency. Schools often have a variety of useful resources that should be evaluated when planning for shelters, such as large prep kitchens and cold storage facilities. A recent trend in Wisconsin involves collaboration between local municipalities and school districts to supplement a school construction project with FEMA hazard mitigation grant funds to build part of the facility, such as the gymnasium, into a community tornado shelter.

It is also important to evaluate shelters for suitability for various types of hazards. For example, a shelter located within a floodplain may not be the best place to send people during a storm that could result in flooding. Adequate heat (and back-up source of energy to run it) is an important consideration when seeking to shelter people during a winter weather power outage. Cooling capability may be needed in an extreme heat event. Local sponsors should be identified to help maintain shelters and ensure they are open in times of need. Transportation options should also be considered especially for the elderly and those with disabilities. The transportation and subsequent shelter of persons with special medical or other needs are critical factors to address. Many patients will need to be moved in a timely fashion due to medical issues. Nursing homes should be prepared in advance with transportation and shelter options to handle their residents. Some nursing homes or assisted living facilities may not know what to do with their residents if their building is extensively damaged.

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. This relief center concept is addressed in recommendation 7. Emergency and back-up power support for shelters and/or relief centers is addressed in recommendation 8. See also recommendation 15.

Participating Jurisdictions for Action 6:

Lead agencies will be Langlade County Emergency Management, County Health, City of Antigo and Village of White Lake. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River.

and all School Districts including Antigo, Elcho and White Lake. The American Red Cross Chapter should also be consulted.

Action 7:

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. The Village should continue to outfit its community center to serve as a relief center and EOC. The City should establish relief center locations in conjunction with a sheltering plan. The Antigo High School has been used as a warming center (and charging station) in the past.

This would also include public information and awareness and inter-agency coordination components including communication protocol to aid in incident management and dissemination of timely relief and sheltering information to the public.

The Village of White Lake received a mitigation grant to acquire back-up power generators. The grant was in response to the significant number of power outages experienced by the Village including 13 in 2023 alone and culminating in the March 2025 ice storm induced outage. One will be installed at the Community Center/Village Hall and the other at the new Village Fire Station. The Village has been developing the Community Center to serve as a relief center / shelter and emergency operations center for the Village, including warming shelter for future winter-time power outages.

Town of Norwood is installing a generator as part of its effort to establish a relief center. The Town of Neva has been working setting up a warming shelter, but they have run into cost concerns. The Town of Langlade reports setting up their town hall as an “evac. Center” and Town of Wolf River reports establishing an “emergency shelter” which they are planning to stock with “cots, blankets, food, etc.”

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. Refer to recommendation 6. Emergency and back-up power support for shelters and/or relief centers is addressed in recommendation 8. See also recommendation 15.

Participating Jurisdictions for Action 7:

Lead agencies will be City of Antigo, Village of White Lake and all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, and all Towns.

Action 8:

Install backup generators and/or wiring for portable connection to maintain operations at critical community facilities during power outage. Shelters and relief centers, EOC locations, town halls, city and village halls, and fire stations should be considered for backup generators. Town halls often become a gathering point for response personnel and the public in an emergency situation, but many do not have generators to support response or relief functions in the event of a power outage.

Concerns were identified throughout this planning process about the potential for frequent short-duration or even long-term power outages from storms throughout the county. A number of communities are looking to emergency power generators to help keep up operations and provide relief for residents during a power outage.

There should be a countywide effort to ensure backup power systems are operational and implement backup power systems if they do not exist at all critical facilities. Critical facilities need operational power for communications, heating/cooling, water and sewer, refrigeration of food supplies and medicines, etc. to function effectively. Generators can be used for back-up power at critical facilities. The need for back-up generators in the event of a power outage at each facility should be examined. Back-up power systems need to be maintained to ensure operation in time of need.

The Towns of Elcho, Polar and Upham, the City of Antigo and the School Districts of Antigo, Elcho and White Lake need generators for shelter facilities. Antigo School District and White Lake School have backup power, but should be checked to ensure adequate capacity for sheltering needs. The Village of White Lake received a mitigation grant to install generators at its community center for relief center and EOC operations as well as its fire station. The Village's lift stations have the wiring to connect to portable generators. Town of Norwood is installing a generator as part of its effort to establish a relief center.

The Langlade County Airport plays an important role in Flight for Life operations and airlifting personnel and material in an emergency situation. It also has significant interior and exterior space for staging or sheltering. Based on these

factors, it is recommended that appropriate generator(s) be installed at the Airport.

Refer to recommendations 6, 7 and 15.

Participating Jurisdictions for Action 8:

Lead agencies will be Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas and Wolf River, and the School Districts of Antigo, Elcho and White Lake. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns and all School Districts.

Action 9:

Each Town should develop a local emergency operations plan (EOP) (or update its existing EOP). The Village of White Lake should update its EOP. An EOP helps the community determine the roles to be played by each emergency service, how communication channels will be utilized, lines of authority, and strategies or “game plans” for responding to different kinds of hazard situations. Wisconsin Emergency Management has plan templates that towns can use to fill in the blanks and begin formulating their own local EOP.

EOP's should conform to the State and National Operations Plans, which are organized by emergency support functions and incorporate the provisions of the National Incident Management System (NIMS). The NIMS is a comprehensive system that incorporates operations through the use of the Incident Command System (ICS) and application of standardized procedures and preparedness measures. It promotes development of cross-jurisdictional, statewide and interstate regional mechanisms for coordinating response and obtaining assistance during a large-scale or complex emergency incident.

One area these plans should look at is developing a system for welfare checks for elderly, disabled or otherwise disadvantaged residents within each town. Local town officials have better knowledge of who these people are within their own towns and can more quickly ensure they have been checked on.

Another issue brought to light by recent tornados across the state is that of debris management. Towns should address debris management in their Local EOPs. This should include identification of debris management sites within the town for temporary storage of storm debris for later separation and transport to permanent disposal sites. A little advance preparation can avoid conflicts between residents and the town, reduce development of nuisance situations such as breeding sites

for insects and rodents, and minimize the accumulation of debris in the road right-of-way.

Participating Jurisdictions for Action 9:

Lead agency will be each town and the Village of White Lake. Jurisdictions participating in this action will include all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River and the Village of White Lake. Langlade County Emergency Management is working with towns to assist in developing these plans.

Action 10:

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.” The 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 10:

Lead agencies will be Langlade County Emergency Management and County Health. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, and all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River.

Action 11:

Langlade County and its local government units should work to develop an on-going incident management team as a county-wide cooperative effort. In a small rural area such as Langlade County, a significant incident can strain local resources and can continue to be a challenge not just for the initial response but for a longer duration depending on the severity of the event. Such events can be overwhelming for the many volunteer responders relied upon throughout Langlade County. The incident management team could be activated for those extreme cases where demands exceed the capacity of local resources. Areas of concern include hazardous materials releases, runoff and other environmental factors, and evacuation.

For example, the 2019 storms required outside physical resources to assist in the County. In addition to this type of larger scale natural disaster that simultaneously impacts multiple communities, other types of situations present in the County show the need for a higher level of cooperative response including group events and special facilities. Festival type community events where larger numbers of people congregate in a relatively small area occur in the city and out in the rural towns and are vulnerable to severe storms. The large number of people involved can quickly overwhelm local resources when a storm hits. There are facilities around the County where local responders are not equipped to handle the scale of the impacts that may result if the facility is compromised during an incident.

Although Langlade County has a good history of coming to each other's aid in time of need, creating a county-wide all hazards team can help improve initial and long-term response to an incident and help manage the strain on local resources. A team can bring together the mission critical expertise available within the County to assist communities in need so that the burden does not end up all shouldered by just one person (or a select few people).

A team can work between incidents to plan, train and prepare. A team provides the best opportunity to discuss how to support the various communities during a significant incident. The team can identify the needs for other resources and how

to access those resources in an emergency. A team can plan for addressing issues such as overtime and overworking (managing fatigue/burnout) for the limited numbers of personnel with specialized skill sets critical to response and incident management such as GIS.

Participating Jurisdictions for Action 11:

Lead agencies will be Langlade County, City of Antigo, Village of White Lake and all Towns. Jurisdictions participating in this action will include Langlade County, the City, the Village, and all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River.

Action 12:

The County, City and Village should obtain new aerial photography to include LIDAR for use in emergency planning and response and for improvement in flood zone mapping. LIDAR stands for light detection and ranging which uses a laser beam to map physical features with a very high resolution. Updated aerial photography in conjunction with GIS applications is also crucial to emergency planning and incident management.

Adding LIDAR, with its increased precision, to the County's next generation of aerial photos will be a very effective tool for use in risk assessment, disaster response and mitigation activities over the full spectrum of hazards facing the County. The one issue with LIDAR is the additional cost which can be double the cost of standard imagery. Periodic updating of the aerial photo / lidar imaging enables time comparison which can enhance assessment of change and trends. Participating with the Wisconsin Regional Orthophotography Consortium (WROC) can help reduce the cost of obtaining the aerial imagery.

Participating Jurisdictions for Action 12:

Lead agency will be Langlade County Land Records and Regulations Department in conjunction with Langlade County Emergency Management. Jurisdictions participating in this action will include Langlade County, City of Antigo and Village of White Lake.

Action 13:

Improve roads into wooded areas for emergency vehicles. / Work on brushing road rights-of-way to maximize widths in order to reduce instances of trees bringing down powerlines and causing power outages or blocking the roads and preventing access for emergency responders and residents during high wind or winter storm / icing events as well as access for fire control. This issue was identified by Towns in their mitigation issues survey responses.

Participating Jurisdictions for Action 13:

Lead agencies will be the Town of Ainsworth and Town of Rolling. Jurisdictions participating in this action will include all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River as needed.

Action 14:

The City of Antigo has identified a need to replace its aging fire and rescue trucks and update its firefighting equipment. In addition, the Town of Polar has a water tanker (firefighting supply) that is nearing the end of its service life. Replacement cost for the tanker is about \$300,000, which is a significant financial burden for the small town.

Participating Jurisdictions for Action 14:

Lead agencies will be the City of Antigo and Town of Polar. The City and the Town will be the only directly participating jurisdictions. Other communities may choose to participate as needed.

HAZARD: TORNADO/HIGH WINDS

Goal:

Protect health, safety, and welfare of county residents and visitors, along with mitigating future loss of property from tornados and high wind events.

Action 15:

Establish emergency “tornado” shelters in the Towns of Elcho, Polar and Upham, the City of Antigo and the School Districts of Antigo, Elcho and White Lake facilities.

The Town Mitigation Planning Survey for this plan explored sheltering needs. These towns indicated the need for shelters in their area in response to the mitigation planning survey distributed at the beginning of this process. The Polar Ball Park and/or Mueller’s Lake Park were indicated as possible locations in the survey response for Polar, while Upham listed Summit Lake and/or Bass Lake Golf Course as potential need locations. Elcho was recommended as another town for shelter location in planning meetings. Some properties in the county were noted as lacking basements for shelter.

During the mitigation planning meeting with the City of Antigo a lack of good storm shelters was identified as a need to be addressed.

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 have been exploring incorporation of these types of facilities in designs for recent construction projects.

Participating Jurisdictions for Action 15:

Lead agencies will be the Towns of Elcho, Polar and Upham, City of Antigo and the School Districts of Antigo, Elcho and White Lake. Jurisdictions participating in this action include the Towns of Elcho, Polar and Upham, City of Antigo and the School Districts of Antigo, Elcho and White Lake. Langlade County Emergency Management and the American Red Cross Chapter should also be consulted.

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

Create safety awareness in citizens and travelers of Langlade County to protect them during and after winter storm events.

Action 16:

The County should promote winter hazards awareness, including home and travel safety measures, such as avoiding travel during winter storms. If travel cannot be avoided, stocking of vehicles with a shovel, sand, warm clothing, food, water, etc. should be encouraged. This effort should also include suggestions regarding checking on neighbors or others known to live alone or that may be at a disadvantage in fending for themselves. Other winter / extreme cold problems common in northwoods counties include freezing of septic systems and residential LP Gas (extreme cold).

Participating Jurisdictions for Action 16:

Lead agencies will be Langlade County Emergency Management, City of Antigo, Village of White Lake and all Towns. Jurisdictions participating in this action will include Langlade County, the City, the Village, and all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River.

Hazard: Drought/Extreme Heat**Goal:**

Improve County preparedness for dealing with extended drought.

Goal:

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

Action 17:

Develop a countywide drought mitigation plan to encourage multi-agency approaches to water conservation, drought prediction and stream and groundwater monitoring for ready implementation if needed. Rising average annual temperatures could drive more persistent drought. Droughts probably have the greatest impact on agricultural and tourism areas and given the significance of the tourism sector of 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.

Participating Jurisdictions for Action 17:

Lead agency will be Langlade County Land Conservation department with assistance from County UWEX specialists. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas and Wolf River, and all School Districts including Antigo, Elcho and White Lake.

Action 18:

The County should promote heat hazards awareness, including home and travel safety measures. Include suggestions regarding checking on neighbors or others known to live alone or that may be at a disadvantage in fending for themselves.

Participating Jurisdictions for Action 18:

Lead agency will be Langlade County Emergency Management in conjunction with the County Health Department. Participating jurisdictions include Langlade County, City of Antigo, Village of White Lake and all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River.

HAZARD: FLOODING/DAM FAILURE

Goal:

Lessen the impact floods have on people, property and the environment.

Goal:

Prevent 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.

Action 19:

Conduct a hydrology / engineering study to evaluate causes and solutions for areas of recurring flooding in Town of Antigo / north side of city. In its mitigation issues survey response Town of Antigo reported that the main risk to the Town is flooding when there is a large rainfall or Spring runoff on the north side of the city. With the recent construction in that area, the Town has flooded three of the last four years. The Town is concerned about the water coming off these new developments and flooding neighboring properties in the Town. There is also concern about the potential for a similar flooding situation on the east side if further city development occurs there in the future. This issue was also discussed during the Agency and Interest Group Meeting for this plan.

The area has been looked at and some things have been done to improve storm water management and drainage, for example, WisDOT made some improvements on Highway 64. However, more is needed to fully address the situation, and a comprehensive study would allow for analysis of multiple contributing factors over the wider geographic area involved.

Participating Jurisdictions for Action 19:

Lead agency will be Town of Antigo. The Town will be the only directly participating jurisdiction.

Action 20:

Continue to work with dam owners to review Emergency Action Plan (EAP) for each significant and high hazard dam within Langlade County. 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 turnover 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 20:

Lead agencies will be Langlade County Emergency Management, Land Conservation, and Highways (Skinner Dam). Participating jurisdictions will include the City of Antigo, and those Towns that could be affected, including Ackley, Ainsworth, Antigo, Elcho, Norwood, Peck and Rolling. Federal and state officials should also be invited including DNR and State Patrol, as well as dam owners/operators.

Action 21*:

Communities within Langlade 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. Langlade County and the City of Antigo are in the program. All towns are included under the umbrella of the state mandated County Shoreland Zoning.

The Village of White Lake is not currently participating in the NFIP, however, Village officials are aware of the program and have been looking at participation. This Plan recommends the Village of White Lake take the necessary steps to come into compliance for participation in the NFIP. By not participating in the program, residents of the Village are not eligible for flood insurance and certain types of disaster aid in the event of a flood event. To enter the program, the Village would have to adopt a compliant floodplain zoning ordinance and the floodplain boundary map from FEMA by resolution and file forms with the WisDNR.

Participating Jurisdictions for Action 21:

Lead agencies are communities that are eligible to participate in the NFIP including Langlade County Land Records and Regulation Department, the City of Antigo, and the Village of White Lake. Currently, only Langlade County and the City of Antigo participate in the NFIP and both communities are in good standing.

Action 22*:

To mitigate the long-term impacts of flooding, if evidence of recurring flooding is an issue with specific properties after a significant flood event, the County or other appropriate jurisdiction should investigate, as a possible solution, the voluntary acquisition and removal of buildings in the floodplain with flood damage. The City has done this in flood prone areas along Spring Brook. Property owners should be informed of their floodplain status and related insurance issues. A survey to gauge interest in buy-out and relocation of properties within the floodplain is recommended to help evaluate the County's options in capturing part of a major stream of federal mitigation dollars.

Following the 2004 flooding, the City of Antigo removed approximately 50 structures from the floodplain. Currently, the Antigo Block Company is the only identified property that remains in the floodplain. At some point this could be considered for a buy-out / relocation project to complete the floodplain clearing within the city.

Participating Jurisdictions for Action 22:

Lead agencies include Langlade County Land Records and Regulations and Emergency Management, the City of Antigo and the Village of White Lake. Participating jurisdictions will include: Langlade County, the City of Antigo and the Village of White Lake.

Action 23:

Affected Towns should look at improving drainage around, elevating or other floodproofing measures for town roads at risk of washout or overtopping during flood conditions. In the Town of Rolling, Brookside Road bridge was overtopped, cutting off access to Silent Heights subdivision, and Stoney Road was overtopped. In the Town of Antigo, East 8th Avenue was experiencing flooding issues which were addressed through an engineering study and subsequent improvements by the Town. Summit and Upham have also had reports of roads washing out. These areas may 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 the respective Towns such as Antigo, Rolling, Summit and Upham. Participating jurisdictions include all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River as needed.

Action 24:

Conduct a hydrology / engineering study to control water flow from Summit Lake. Implement recommendations from that study. The Town of Upham identified “slow the water flow coming from Summit Lake” as a mitigation action or project need in its mitigation issues survey response. To evaluate the causes and identify the appropriate solutions to address this problem, an engineering study should first be conducted.

Participating Jurisdictions for Action 24:

Lead agency will be the Town of Upham. The Town will be the only directly participating jurisdiction.

Action 25

Rehabilitation of Spring Brook south of dam to stabilize the banks and remove sediment to improve stream flow and flood water carrying capacity. The City of Antigo has invested significant resources in addressing flood risk along Spring Brook, and this project is part of the City’s long term plan for the stream.

Participating Jurisdictions for Action 25:

Lead agency will be the City of Antigo. The only directly participating jurisdiction will be the City in conjunction with Langlade County Land and Water Conservation Department.

Action 26

Install new SCADA (supervisory control and data acquisition) automated system for village water and wastewater systems for monitoring and management to avert failures. This need was identified by the Village at the village mitigation planning meeting for this plan.

Participating Jurisdictions for Action 26:

Lead agency will be the Village of White Lake. The only directly participating jurisdiction will be the Village.

Hazard: Severe Thunderstorm/Lightning/Hail**Goal:**

Minimize the threat to human life and property damages caused by severe storms and associated hail and lightning.

Action 27:

Determine if critical facilities such as hospitals, police buildings, fire halls, administration buildings, schools, and telecommunication antennas are adequately grounded to mitigate lightning damage. Langlade County Emergency Management could coordinate efforts with cooperation from local units and private operators such as the hospitals.

Where necessary, install lightning grade surge protection devices for critical electronic components used by government, public service and public safety facilities, such as warning systems, control systems, communications and computers.

Participating Jurisdictions for Action 27:

Lead agency will be individual local units for their respective areas. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas and Wolf River, and the School Districts of Antigo, Elcho and White Lake.

Hazard: Forest/Wild Fires**Goal:**

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

Action 28:

The County, in conjunction with the WDNR, should promote the Firewise program and related educational materials to increase community awareness of wildfire risk within the County. A number of towns identified wildfire risk as a major concern in their mitigation issues survey responses for this plan.

Outreach efforts should include information on how to protect homes and structures from wildfires. Since Langlade County is mostly rural with vast woodlands, emphasis should be placed on building 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 28:

Lead agency will be Langlade County Emergency Management. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham,

Vilas and Wolf River, and all School Districts including Antigo, Elcho and White Lake.

Action 29:

Clean ground cover to reduce wildfire fuels in wooded areas. The Town of Ainsworth identified the large amount of brush remaining on the ground from the 2019 storm as a significant fire risk with the entire town area being woodlands/forested, noting that a simple lightning strike could ignite a massive fire. Much of the County was affected by the 2019 storm and may have similar issues at least in some areas. The Towns of Langlade, Summit and Wolf River also talked about wildfire risk in their mitigation issues survey responses for this plan.

Participating Jurisdictions for Action 29:

Lead agencies will be the Town of Ainsworth. Jurisdictions participating in this action will include all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River as needed.

Action 30:

Local units of government should develop driveway ordinances and minimum standards for private roads to support emergency vehicle access. 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 30:

Lead agency will be the Town governments. Jurisdictions participating in this action will include: all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas, and Wolf River.

Hazard: Epidemic / Pandemic**Goal:**

Improve County preparedness for handling and recovering from an epidemic/pandemic.

Action 31:

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 31:

Lead agency will be Langlade County Health Department in conjunction with Emergency Management. Jurisdictions participating in this action will include Langlade County, City of Antigo, Village of White Lake, all Towns including: Ackley, Ainsworth, Antigo, Elcho, Evergreen, Langlade, Neva, Norwood, Parrish, Peck, Polar, Price, Rolling, Summit, Upham, Vilas and Wolf River, and all School Districts including Antigo, Elcho and White Lake.

Action 32:

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 32:

Lead agency will be each respective jurisdiction. Participating jurisdictions will include: Langlade County, the City of Antigo, the Village of White Lake, and all Towns.

**TABLE 16 SUMMARY OF MITIGATION STRATEGIES
LANGLADE COUNTY ALL HAZARDS MITIGATION PLAN UPDATE**

MITIGATION MEASURES	RESPONSIBLE UNITS	COST ESTIMATE	EXISTING AND POTENTIAL RESOURCES TO IMPLEMENT	PROJECT** TIMEFRAME	PRIORITY LEVEL
ALL HAZARDS					
1. Promote the increased use of National Oceanic and Atmospheric Administration (NOAA) weather radios.	City of Antigo / County EM Dept.	Staff Time	Radio sales cover cost of radios. Possible mitigation grants.	On-going	HIGH
2. Continue to add/update Emergency Management Department link off existing County website.	County EM Dept.	Staff Time	Dept. Budget	On-going	MEDIUM
3. Develop communications protocols for alerting school district officials of an emergency situation and maintaining channels for the flow of information between the district and emergency responders.	School District of White Lake / All Area School Districts	Staff Time	Dept. Budgets	2027	HIGH
4. Continued development of county-wide early warning systems including expanded use of current and emergency technologies such as EAS and IPAWS. Expand awareness of the Everbridge System.	Langlade County / City of Antigo / Village of White Lake / All Towns / All School Districts	Costs to be determined	Dept. Budgets	On-going	HIGH
5. The City of Antigo and Village of White Lake should install new warning siren systems in their communities.	City of Antigo / Village of White Lake	\$25,000 per unit	Dept. Budgets / Capital Improvements Program	2028	HIGH
6. Update county-wide shelter plans including I.D. available shelter options, procedures for activation & use, trailer park sheltering, event sheltering, power, heating/cooling & transportation needs and maintenance. This would also include public information and awareness and inter-agency coordination components.	County EM Dept. / Co. Health Dept. / Red Cross / City / Village / All Towns / All School Districts	Staff Time	Dept. Budgets	On-going	MEDIUM
7. Towns should establish relief centers with necessary improvements to townhalls, 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. The Village should continue to outfit its community center to serve as a relief center and EOC.	City of Antigo / Village of White Lake / All Towns	Costs to be determined	Dept. Budgets	2029	HIGH

MITIGATION MEASURES	RESPONSIBLE UNITS	COST ESTIMATE	EXISTING AND POTENTIAL RESOURCES TO IMPLEMENT	PROJECT** TIMEFRAME	PRIORITY LEVEL
8. Install back up generators and/or wiring for portable connection to maintain operations at critical community facilities during power outage.	Langlade County / City of Antigo / Village of White Lake / All Towns / All School Districts	Costs to be determined (vary by size & application)	Dept. Budgets / Capital Improvements Program / FEMA – Hazard Mitigation Grants	2030	HIGH
9. Each Town should develop an EOP (or update existing) to help prepare for disasters; including developing a system for welfare checks as well as addressing debris management. Village of White Lake should update its EOP.	Town of Evergreen / All Towns / Village of White Lake	Staff Time	Dept. Budgets	2027	HIGH
10. Establish and develop functional needs assistance 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.	County EM Dept. / Co. Health Dept. / City / Village / All Towns	Staff Time	Dept. Budgets	2028	MEDIUM
11. Develop and maintain an on-going countywide incident management team...	Langlade County / City / Village / All Towns	Staff Time	Dept. Budgets	2029	MEDIUM
12. Update aerial photography every 5 years to be used by Langlade County, City and Village emergency services.	Co. Land Records Dept. / City of Antigo / Vill. of White Lake	\$75,000	Dept. Budgets / WI Land Information Program Funds / WROC cost sharing	2030	MEDIUM
13. Improve roads into wooded areas for emergency vehicle access. / General brushing along town road right-of-ways to maximize functional widths.	Town of Ainsworth / Town of Rolling / Other Towns as needed	Costs to be determined	Dept. Budgets / Local Road Aids	On-going	LOW
14. Obtain new fire and rescue trucks and firefighting equipment to replace dated equipment.	City of Antigo / Town of Polar / Other as needed	Costs to be determined	Dept. Budgets / Capital Improvements Program / Assistance to Firefighters	2030	MEDIUM
TORNADO / HIGH WINDS					
15. Establish emergency "tornado" shelters in the Towns of Elcho, Polar and Upham, City of Antigo, and School Districts of Antigo, Elcho and White Lake facilities.	Towns of Polar, Elcho, & Upham / City of Antigo / School Districts of Antigo, Elcho and White Lake	Costs to be determined (vary by size & scope of project)	Capital Improvement Program / FEMA – Hazard Mitigation Grants / CDBG program	2029	MEDIUM

MITIGATION MEASURES	RESPONSIBLE UNITS	COST ESTIMATE	EXISTING AND POTENTIAL RESOURCES TO IMPLEMENT	PROJECT** TIMEFRAME	PRIORITY LEVEL
WINTER STORMS / EXTREME COLD					
16 Promote winter hazards awareness including home and travel safety measures.	County EM Dept. / City / Village / All Towns	Staff Time	Dept. Budgets	Annual	MEDIUM
DROUGHT / EXTREME HEAT					
17. Develop countywide drought mitigation plans.	Co. Land & Water Conservation Dept. / Co. UW Extension	Staff Time	Dept. Budgets	As needed	LOW
18. Assist population with reducing heat disorders through awareness program as needed.	County EM Dept. / Co. Health Dept. / City / Village / All Towns	Staff Time	Dept. Budgets	As needed	LOW
FLOODING / DAM FAILURE					
19. Conduct a hydrologic / engineering study to evaluate causes and solutions for areas of recurring flooding.	Town of Antigo	Costs to be determined	Local Budget	2028	LOW
20. Continue to work with dam owners to review Emergency Action Plan (EAP) for each significant and high hazard dam.	County EM Dept.	Staff Time	Dept. Budget	On-going	MEDIUM
21. County / City continued compliance in the National Flood Insurance Program (NFIP). - Village of White Lake: join NFIP program.*	Co. Land Records & Regulations Dept. / City of Antigo / Village of White Lake	Staff Time	Dept. Budgets	On-going	MEDIUM
22. If evidence of recurring flooding is an issue with specific properties after a significant flood event, investigate, as a possible solution, the voluntary acquisition / removal of buildings in a floodplain with flood damage.* (FEMA NFIP requirement)	Co. Land Records & Regulations Dept. / City of Antigo / Village of White Lake	Costs to be determined	Mitigation Grants – Flood Mitigation Assistance	As needed	MEDIUM
23. Town Road Improvements / Flood Proofing.	Town of Antigo, Rolling, Summit, Upham / other towns as needed	Costs to be determined	Local Budgets / WisDot funding programs / Mitigation Grants	As needed	MEDIUM

24. Conduct hydrology / engineering study to control water flow from Summit Lake. Implement recommendations from study.	Town of Upham	Costs to be determined	Local Budget	2030	LOW
25. Rehabilitation of Spring Brook south of dam to stabilize the banks and remove sediment to improve stream flow and flood water carrying capacity.	City of Antigo / County Land & Water Conservation Dept.	Costs to be determined	Local Budget / Capital Improvements Program / Pre-Disaster Flood Resilience Grant (PDFRG) Program	2029	MEDIUM
26. Install new SCADA (automated control system) for village water & wastewater systems for monitoring and management to avert failures.	Village of White Lake	\$100,000	Dept. Budgets / Capital Improvements Program	2028	MEDIUM

SEVERE THUNDERSTORMS / LIGHTNING / HAIL

27. Determine if critical facilities are adequately grounded to eliminate lightning damage	Langlade County / City / Village / All Towns/ All School Districts	Staff Time	Dept. Budgets	2027	HIGH
--	--	------------	---------------	------	------

FOREST FIRE / WILDFIRE

28. Promote Firewise program and related educational material to increase community awareness of wildfire risk within the County.	Langlade County / City / Village / All Towns/ All School Districts	Staff Time	Dept. Budgets	On-going	LOW
29. Clean ground cover to reduce wildfire fuels in wooded areas	Town of Ainsworth / Other Towns as needed.	Costs to be determined	Local Budgets	2030	MEDIUM
30. Develop driveway ordinances and private road standards to ensure emergency vehicle access.	Various Towns	Costs to be determined	Local Budgets	On-going	LOW

EPIDEMIC / PANDEMIC

31. Develop a pandemic preparedness plan based on lessons from the Covid-19 Pandemic.	County Health and EM Depts. / City & Village	Staff Time	Dept. Budgets	2027	MEDIUM
32. Work to implement recommendations of the North Central WI Pandemic Assessment & Future Response Plan and the North Central WI Regional COVID-19 Recovery Plan.	Langlade County / City of Antigo / Village of White Lake / All Towns	Costs to be determined	General Funds / EDA, USDA, CDBG, Mitigation and other programs	On-going	MEDIUM

*Denotes actions related to compliance with NFIP. **Actual project implementation depends on funding and staff availability.

INTRODUCTION

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

PLAN UPDATE ADOPTION

The adoption of the Langlade 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 the 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 Langlade 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 Plan Update gives the jurisdiction a legal 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. cities, villages, towns) and school districts within Langlade 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 Langlade 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 will also make the Plan Update available to the public by linking the report on their web site.

Along with monitoring the progress of the action projects, the County Emergency Management Director and Public Safety Committee 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 County Public Safety 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. County could coordinate with the City of Antigo 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 2019 (with unrelated updates in 2024 and 2025). The 2019 Comprehensive Plan incorporates the 2014 mitigation plan as outlined below with reference to the 2020 update in process at the time. In addition, the local comprehensive plans for the City of Antigo and Village of White Lake were updated in 2018 and 2017 respectively. Both of these processes also incorporated the 2014 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, city and village 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 2027-2029 and will incorporate this new mitigation plan which will be in effect through 2030.

With regard to towns within Langlade County, the NCWRPC has provided assistance for Towns of Antigo, Polar and Rolling comprehensive plans and integrated the mitigation plan similar to the above. The other towns within the county do not have plans or their plans are out of date. The NCWRPC

continues to work with Towns in Langlade County to develop or update their comprehensive plans and will integrate the mitigation plan as they occur.

The following outlines how 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 shelter, 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 business.
- *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 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

Langlade County, the City of Antigo, the Village of White Lake, 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, City and Village each have professional staff available to implement and manage mitigation programs. Most directly, Langlade County has an Emergency Management Director whose responsibilities include mitigation. In addition, the County has a County Administrator and a number of departments including Sheriff, Health, Highway and Land Records and Regulation (GIS Mapping, Conservation, and Zoning & Land Use) with expertise that can assist with mitigation. The City of Antigo and Village of White Lake each have 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. For example, since the 2004 flood, the City has undertaken extensive flood mitigation work including flood plain property acquisition and implementation of dam operations procedures and flood notification protocols.

Another way County and City/Village 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, City and Village 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. Antigo and White Lake also maintain emergency operations plans, and some departments such as Public Works develop plans to mitigate potential hazards that may affect their water systems.

Langlade County, the City of Antigo and the Village of White Lake 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. The Village has been exploring participation in the NFIP.

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

With regard to towns in Langlade County, 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

Langlade County, the City of Antigo and the Village of White Lake 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. Being the smallest, the Village of White Lake has fewer staff to carry the load, and budget conditions restrict the ability of all three jurisdictions to increase staffing levels for mitigation activities.

Similarly, towns in Langlade County face serious restrictions on expanding mitigation capabilities. One way they can do this is by working with others such as the County to develop and coordinate a network of emergency relief centers.

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 the 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 monitored and evaluated on an annual basis as needed by Emergency Management. The Langlade 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 Public Safety 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.

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 damage.

Full updates are required every five years. As a result, every fifth year, the 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 process. The County will conduct a survey and open comment meeting. This also provides an opportunity to inform about the progress of any projects.

The Langlade County Public Safety Committee and County Board must approve all changes and updates to the Plan.

Appendix A – Meeting Notices

**LANGLADE COUNTY BOARD OF SUPERVISORS MONTHLY MEETING
MONDAY, JUNE 22, 2026, 5:30 P.M.
LANGLADE COUNTY BOARDROOM
LOWER LEVEL OF THE SAFETY BUILDING
840 CLERMONT STREET, ANTIGO, WI 54409**

The Chair requests that all cell phones and pagers be silenced for the duration of the meeting.

THE COUNTY BOARD MAY DISCUSS AND TAKE ACTION ON ANY OF THE AGENDA ITEMS LISTED BELOW:

- A. Meeting of the County Board called to order
- B. Roll call
- C. Pledge of Allegiance
- D. A moment of silence
- E. Citizens and Delegations, Recognize others in Attendance
- F. Approve or Amend the Agenda
- G. Approve or Amend the Minutes of May 18, 2026
- H. Recognition of County Employees and Langlade County Staffing Status Lists
- I. Correspondence to the County Board
- J. County Department Updates to the County Board
- K. Old Business:
 - Update on hiring process for the Corporation Counsel Position
- L. New Business:
 - IT Director Widder: Discuss the TIC (Technology, Incident Response, and Change) Group
 - Corporation Counsel: Identifying and Addressing Conflicts of Interest
- M. CONSENT AGENDA:
 - 1. Elections or Appointments:
 - Confirm appointments to Special Boards:
 - Supervisor Curler to the Antigo Public Library Board
 - Supervisor Detert to ADRC of Central Wisconsin
 - Supervisor Schremp to the Humane Society Board
 - 2. Letters, Petitions, and Communications
 - 3. Proclamation:
 - 4. Zoning Ordinances:
 - ORD #12-2026Z** Request for Zone Change: Taylor Rank, Town of Vilas
 - ORD #13-2026Z** Request for Zone Change: Kevin Bula, Town of Ackley
 - ORD #14-2026Z** Request for Zone Change: Andrea Huss, Town of Ackley
 - 5. Resolutions:
- N. ORDINANCES:
- O. RESOLUTIONS:
 - RS #18-2026** Resolution to Adopt Langlade County Hazard Mitigation Plan 2026-2031
 - RS #19-2026** Resolution to Establish an Administrative Coordination Team (ACT)
- P. Committee Referrals: Referral of any matters to committees having proper jurisdiction, with no discussion or action taken on the referral
- Q. Committee Reports:
 - Report from Supervisors that attended the Public Land Survey System Forum on May 14, 2026
- R. Any other business that may lawfully come before the Board
- S. Administrative Coordinator Report
- T. Adjournment

Additional items may be discussed, with no action taken during the meeting, for the purpose of preparing future meeting agendas.

Judy Nagel
Langlade County Clerk

Steve Maier, Chairman
Langlade County Board

MEETING MINUTES

Committee: Special Public Safety Committee Meeting
Date: Thursday, June 11, 2026
Time: 9:00 a.m.
Location: County Board Room, Lower Level of the Safety Building

The following discussion was held by the Committee at the meeting detailed above:

1. Meeting called to order at 9:00 a.m. by Chairman Curler
2. The Committee recited the Pledge of Allegiance
3. Silence Cell Phones
4. **Roll call was conducted:** Motion by Persen, second by Hoffman, to excuse J. Wagner and Baumgartner. All ayes, motion carried.

Public Safety Committee		
Name	Role	Status
Doug Curler	Chairman	Present
Ben Baumgartner	Vice-Chair	Absent
Joel Wagner	Member	Absent
Roseann Hoffman	Member	Present
Dan Persen	Member	Present
Non-Committee Members Present		
Name	Interest	
Dan Bauknecht	Chief Deputy	
Travis Krueger	Emergency Management Director	
Kelly Hays	District Attorney	
Nancy Benish	Diversion Coordinator	
Becky Rank	Deputy County Clerk/ Recording Secretary	

5. **Approve the previous meeting minutes of May 14, 2026:** Motion by Hoffman, second by Persen, to approve the previous meeting minutes of May 14, 2026. All ayes, motion carried.
6. **Update from the Treatment, Alternatives and Diversion (TAD) Coordinator Nancy Benish.** Diversion Coordinator Benish reported that Committee approval is required before applying for the 2027 Treatment Alternative and Diversion (TAD) Program Grant. Benish also provided an update on the Diversion Program. The program began in 2023 and has served 30 participants. To date, 17 participants have successfully graduated from the program, while 7 participants have been terminated. Of those terminated, 6 absconded and 1 failed to comply with the terms of their agreement. The program currently has 5 active participants. Benish noted that 1 participant is scheduled to graduate next month, 1 opening is pending a participant's release, 5 individuals are awaiting acceptance into the program, and 2 individuals are awaiting a response regarding their assessment. Benish stated that the Diversion Program is still relatively new and that, given the population it serves, building trust with participants takes time. She explained that the program's goal is to address the underlying issues that contribute to criminal behavior, such as substance abuse and mental health needs, rather than relying solely on incarceration. Motion by Persen, second by Hoffman, to approve the Diversion Coordinator applying for the 2027 Treatment, Alternative and Diversion Grant. All ayes, motion carried.

District Attorney Hays presented the Committee with a written report covering data from June 2026. Hays stated Jennifer Harper will be starting on July 13, 2026, as the Assistant District Attorney, bringing with her extensive experience to the position. Attorney Harper currently serves as the District Attorney for Richland County. Hays also provided information regarding upcoming jury trials and aged cases. She asked the

Committee to let her know if there was any additional information they would like to be included in future reports.

Aged cases: Not in Warrant Status

- 2001 & 2013 (1 defendant was arrested this week on a 10-year-old warrant)
- 2017-1 case
- 2018-5 cases
- 2019-9 cases

Upcoming jury trial dates:

- June 17
 - June 24-25
 - June 30-July 2
 - July 15
 - July 17 (out-of-county Judge)
- 7. Hazard Mitigation Plan: EM Director and NCWRPC Darryl Landeau: Review the Hazard Mitigation Plan and Resolution:** Emergency Management Director Krueger presented the Committee with a draft Resolution to Adopt the Langlade County Hazard Mitigation Plan for 2026–2031. Krueger explained that the Hazard Mitigation Plan must be updated and reapproved every five years to ensure local jurisdictions remain eligible for hazard mitigation funding. The plan was developed in accordance with the guidelines of the Wisconsin Department of Military Affairs, Division of Emergency Management, and the Federal Emergency Management Agency (FEMA), as well as the requirements and procedures established under the Disaster Mitigation Act of 2000. Discussion held on municipalities creating their own Hazard Mitigation Plan. Motion by Persen, second by Hoffman, to approve the Langlade County Hazard Mitigation Plan 2026-2031. All ayes, motion carried.
 - 8. Next meeting date:** Thursday, July 9, 2026, at 9:00 a.m.
 - 9. Adjourn the meeting:** Motion by Hoffman, second by Persen, to adjourn the meeting at 9:54 a.m. All ayes, motion carried.

Respectfully submitted by:

Becky Rank, Deputy County Clerk, Recording Secretary



Committee Members:

Doug Curler,
Chair

Ben Baumgartner,
Vice Chair

Joel Wagner

Roseann Hoffman

Dan Persen

Langlade County Board of Supervisors

800 Clermont Street • Antigo, WI 54409

www.co.langlade.wi.us • 715-627-6200 • Fax 715-627-6303

Langlade County Board: Special Public Safety Committee

Notice of Meeting

DATE: June 11, 2026

TIME: 9:00 A.M.

PLACE: County Board Room, Lower Level of the Safety Building

Notice: A quorum of the Langlade County Board and various County Board committees may be present at this meeting. No business will be discussed, nor any action taken by the Langlade County Board or any other County Board committee, other than the committee listed on this notice. It is anticipated that discussion and action may occur regarding all items posted on this agenda.

Agenda

The Chairperson shall determine the order that agenda items are considered.

1. Call the meeting to order
2. Conduct Roll Call
3. Please silence all cell phones
4. Recite the Pledge of Allegiance
5. Approve the previous meeting minutes of May 14, 2026
6. Update from the Treatment, Alternatives and Diversion (TAD) Coordinator Nancy Benish. Discussion on the 2027 Grant Application.
7. Hazard Mitigation Plan: EM Director and NCWRPC Darryl Landeau: Review the Hazard Mitigation Plan and Resolution
8. Next meeting date
9. Adjourn the meeting

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Ms. Judy Nagel, Langlade County Clerk, 800 Clermont Street, Antigo, WI 54409. Telephone: (715) 627-6200.

Approved: June 4, 2026

NOTICE OF POSTING: June 4, 2026

800 CLERMONT STREET
ANTIGO, WI 54409-1948
WWW.CO.LANGLADE.WI.US

LANGLADE COUNTY



TELEPHONE: (715)627-6200
FAX: (715)627-6303

MEETING MINUTES

Committee: Local Emergency Planning Committee
Date: February 4, 2026
Time: 9:30 A.M.
Location: County Board Room, 840 Clermont Street.

The following discussion was held by the Committee at the meeting detailed above:

1. Chairman Braun called the meeting to order at 9:30 a.m.

LOCAL EMERGENCY PLANNING COMMITTEE APPOINTMENT LIST

Name	Role	Status
Brian Braun	LC Highway Commissioner, Chairperson	Present
Travis Krueger	Langlade County EM Director, LEPC Vice-Chair	Present
Mark Westen	Langlade County Sheriff	Absent
Dan Duley	Antigo Chief of Police	Present
Joe Husnick	Antigo Police Dept	Present
Jake Cross	WI DNR	Absent
Meghan Williams	Langlade County Health Director/Officer	Present
Donna Wiegert	Langlade County Health Dept.	Present
Kevin McFadden	Langlade Hospital	Absent
Tommy Horswill	Antigo Treatment Plant	Present- By Zoom
Mike Winski	Citizen	Absent
Tyler Eades	Waukesha Bearings	Present
Cory Arndt	Waukesha Bearings	Absent
Todd Jelinski	Sartori Cheese	Present
Tyler Martin	Amron	Absent
Tim Seubert	Amron	Absent
Jake Leiterman	Antigo Schools	Absent
Corey Smith	City of Antigo Fire Dept.	Present- By Zoom
Carole Benzschawel	Volm Companies	Absent
Hanna Butler	Volm Companies	Absent
Teresa Poltrock	County Board Supervisor	Absent
Others Present		
Becky Rank	Deputy County Clerk, Recording Secretary	
Darryl Landeau	North Central WI Regional Planning Commission- By Zoom	

2. **Approve October 23, 2025, LEPC Minutes:** Motion by Chief Duley, second by Health Director/Officer Williams, to approve the previous meeting minutes of October 23, 2025. All ayes, motion carried.
3. **Public comment on agenda items and consideration of requests for items to be added to future agendas:**
No public comment.
4. **Hazard Mitigation Planning**
 - a. **Darryl Landeau, North Central WI Regional Planning Commission:** NCWRPC Senior Planner Landeau presented the Committee with a draft 2026 Langlade County All Hazards Mitigation Plan.

Meeting Minutes (Continued)

The adoption of the Langlade County All Hazards Mitigation Plan serves as a guide 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.

Landeau stated that the All Hazards Mitigation Plan consists of five parts:

- Update planning process
- Planning area
- Risk assessment
- Mitigation strategies
- Plan update maintenance procedures.

Landeau updated the Committee on the planning process. The update process included planning task force committee meetings as well as extensive involvement from the local units of government within Langlade County and the counties surrounding Langlade. A variety of local and regional agencies were involved in the development of the update at various stages, and an 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 major enhancements to the Langlade 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 were expanded and 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 2020 plan, establishment of a new set of strategies for the next five-year cycle, and an updated prioritization of projects.
- Community Lifelines - The concept of Community Lifelines is introduced into the Plan.
- New FEMA Plan Requirements - New FEMA plan requirements were addressed, including effects of development trends, participating capability assessment, and expanded NFIP requirements.

Landeau stated 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 mitigation goals for reducing or avoiding the long-term vulnerabilities of Langlade County are as follows:

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

Meeting Minutes (Continued)

- Protect the health, safety, and welfare of county residents and visitors, along with mitigating future loss of property from tornadoes and high wind events.
- Create safety awareness in citizens and travelers of Langlade County to protect them during and after winter storm events.
- Improve County preparedness for dealing with extended drought.
- Create safety awareness in citizens of Langlade County to help protect themselves during extreme heat events.
- Lessen the impact floods have on people, property, and the environment.
- Prevent 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 hail and lightning.
- Protect the safety and property of residents and visitors from forest and wildfires.
- Improve countywide preparedness for handling and recovering from an epidemic or pandemic event.

Planning is an ongoing process. Because of this, this document should grow and adapt in order to keep pace with the 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 monitored and evaluated on an annual basis as needed by Emergency Management. The Langlade 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 Public Safety 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. 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 should also be reviewed to see if any changes are necessary based on the pattern of disaster damage. Full updates are required every five years. As a result, every fifth year, the 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 process. The County will conduct a survey and a comment period.

A discussion was held to address questions and concerns. Chairman Braun proposed several changes to be forwarded to Landeau. Upon WEM's approval of the Draft All Hazards Mitigation Plan, it will proceed to the Public Property Committee and then to the full County Board for adoption.

5. **Set next meeting date:** To be determined
6. **Adjourn:** Motion by Jelinski, second by Chief Duley, to adjourn the meeting at 10:05 a.m. All ayes, motion carried.

Minutes recorded and transcribed by:

Becky Rank, Deputy County Clerk



AGENDA

COMMITTEE: Local Emergency Planning Committee (LEPC)

DATE: February 4, 2026

TIME: 9:30am

LOCATION: Small Hearing Room- 840 Clermont St., Antigo, WI

THE COMMITTEE MAY DISCUSS AND TAKE ACTION ON ANY OF THE AGENDA ITEMS LISTED BELOW.

1. Call Meeting to Order/Pledge of Allegiance/Introductions
2. Approve October 23, 2025 Minutes
3. Public comment on agenda items and consideration of requests for items to be added to future agendas
4. Review Langlade County Mitigation Plan
5. Set next meeting date
6. Adjourn

Additional items may be discussed, with no action taken during the meeting, for the purpose of preparing future meeting agendas.

If there is a quorum of any other governmental body present at the meeting, the existence of the quorum shall not constitute a meeting as no action of such body is contemplated.

Travis Krueger, Coordinator of Information
Local Emergency Planning Committee

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Deputy Travis Krueger, EM Director, 840 Clermont Street, Antigo, Wisconsin, 54409. 715-627-6257.

800 CLERMONT STREET
 ANTIGO, WI 54409-1948
WWW.CO.LANGLADE.WI.US

LANGLADE COUNTY



TELEPHONE: (715)627-6200
 FAX: (715)627-6303

MEETING MINUTES

Committee: Local Emergency Planning Committee
Date: October 23, 2025
Time: 1:30 P.M.
Location: Langlade County Highway Department Conference Room

The following discussion was held by the Committee at the meeting detailed above:

1. Chairman Braun called the meeting to order at 1:30 p.m.

LOCAL EMERGENCY PLANNING COMMITTEE APPOINTMENT LIST		
Name	Role	Status
Brian Braun	LC Highway Commissioner, Chairperson	Present
Travis Krueger	Langlade County EM Director, LEPC Vice-Chair	Present
Mark Westen	Langlade County Sheriff	Absent
Dan Duley	Antigo Chief of Police	Absent
Jake Cross	WI DNR	Absent
Meghan Williams	Langlade County Health Dept.	Present
Donna Wiegert	Langlade County Health Dept.	Present
Kevin McFadden	Langlade Hospital	Present- By Zoom
Tommy Horswill	Antigo Treatment Plant	Absent
Mike Winski	Citizen	Absent
Tyler Eades	Waukesha Bearings	Absent
Cory Arndt	Waukesha Bearings	Absent
Todd Jelinski	Sartori Cheese	Absent
Tyler Martin	Amron	Absent
Tim Seubert	Amron	Absent
Jake Leiterman	Antigo Schools	Absent
Corey Smith	City of Antigo Fire Dept.	Present- By Zoom
Carole Benzschawel	Volm Companies	Absent
Hanna Butler	Volm Companies	Absent
Teresa Poltrock	County Board Supervisor	Present
Others Present		
Becky Rank	Deputy County Clerk, Recording Secretary	
Darryl Landeau	North Central WI Regional Planning Commission	

2. **Approve July 29, 2025, and August 26, 2025, LEPC Minutes:** Motion by Poltrock, second by Wiegert, to approve the previous meeting minutes of July 29, 2025, and August 26, 2025. All ayes, motion carried.
3. **Public comment on agenda items and consideration of requests for items to be added to future agendas:** No public comment.
4. **Hazard Mitigation Planning**
 - a. **Darryl Landeau, North Central WI Regional Planning Commission:** Landeau presented the Committee with a 2025 Langlade All-Hazard Mitigation Plan Risk Assessment Matrix Evaluation. Landeau asked the Committee to review the Risk Assessment Matrix. Per the current data, Landeau

Meeting Minutes (Continued)

stated the current risks are listed as: 1. Thunderstorms (wind, lightning, hail); 2. Tornado; 3. Flood (stormwater, flash flooding, river flooding, lake flooding, dam failure); 4. Winter (ice storm, heavy snow, blizzard, extreme cold); 5. Pandemic; 6. Wildfire (forest fire, Wildfire); 7. Drought (extreme heat, drought). Discussion was held, and the Committee agreed to move drought to number 5, moving pandemic to number 6, and wildfire to number 7.

Landeau presented the Committee with a draft Mitigation Action Plan. Landeau went through each section, discussing each item. Landeau stated that FEMA requires the Committee to prioritize the strategies recommended in the All-Hazard Mitigation Plan. Landeau requests that members of the Committee review the mitigation projects/strategies summarized in the Mitigation Action Plan, rating them to reflect the relative level of importance that should be placed on each recommendation by assigning them H (high), M (medium), or L (low). Please return the completed table at your earliest convenience, no later than mid-November, to Travis Krueger or Darryl Landeau.

5. Set next meeting date: To be determined

6. Adjourn: Motion by Poltrock, second by Wiegert, to adjourn the meeting at 2:25 p.m. All ayes, motion carried.

Minutes transcribed by:

Recording Secretary,

Becky Rank, Deputy County Clerk



AGENDA

COMMITTEE: Local Emergency Planning Committee (LEPC)

DATE: October 23rd, 2025

TIME: 01:30pm

LOCATION: Langlade County Highway Dept Conference Room 1521 Arctic St

THE COMMITTEE MAY DISCUSS AND TAKE ACTION ON ANY OF THE AGENDA ITEMS LISTED BELOW.

1. Call Meeting to Order/Pledge of Allegiance/Introductions
2. Approve Previous Meeting Minutes
3. Public comment on agenda items and consideration of requests for items to be added to future agendas
4. Hazard Mitigation Planning
 - a. Darryl Landeau North Central WI Regional Planning Commission
5. Set next meeting date
6. Adjourn

Additional items may be discussed, with no action taken during the meeting, for the purpose of preparing future meeting agendas.

If there is a quorum of any other governmental body present at the meeting, the existence of the quorum shall not constitute a meeting as no action of such body is contemplated.

Travis Krueger, Coordinator of Information Local Emergency Planning Committee

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Deputy Travis Krueger, EM Director, 840 Clermont Street, Antigo, Wisconsin, 54409. 715-627-6257.

Langlade County All Hazards Mitigation Plan Update

Public Informational Meeting SIGN-IN

October 9, 2025 - 5:30 PM

	Name	Area of Residence	Email
1	Travis Kueger	Langlade Co Em	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

**LANGLADE COUNTY
ALL HAZARDS MITIGATION PLAN
PUBLIC INFORMATIONAL MEETING**

Notice is hereby given by the Langlade County Emergency Management Department that there will be a public informational meeting at the Langlade County Safety Building – County Board Room in Antigo, 840 Clermont St., Antigo, WI on Thursday, October 9, 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 Langlade County Hazard Mitigation Plan visit <https://www.ncwrpc.org/langlade-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 Langlade County Emergency Management Director, Travis Krueger at tkrueger@co.langlade.wi.us for more information.

Langlade County All Hazards Mitigation Plan Update

Agency and Interest Group Meeting SIGN-IN

October 9, 2025 – 2:30 PM

	Name	Department/Organization	Email
1	DAVE JENNINGS	Town of Peck F.D	DAVEJENNINGS1130@GMAIL
2	DENNIS Resch	Town of No. Wood ^{fire}	dennisresch54@yahoo.com
3	KENDRA JANSKY	WI DNR-DIV FORESTRY	kendra.jansky@wisconsin.gov
4	Eric Borchert	Town of Antigo FD	to9fd51@gmail.com
5	Alan Horzowski	Langlade County Airport	aig15214c@gmail.com
6	Amber Ryan	Langlade county land conservation	aryan@co.langlade.wi.us
7	Matt Sumnicht	Land Records - GIS	msumnicht@co.langlade.wi.us
8	Travis Krueger	Langlade CO EM	tKrueger@co.langlade.wi.us
9			
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 Langlade County
FROM: Darryl L. Landeau, AICP: Senior Planner *DL*
DATE: September 17, 2025
RE: Langlade Co. All-Hazards Mitigation Plan Update Interest Group Meeting Notice

Langlade 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 Langlade 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: Thursday, October 9, 2025 at 2:30 p.m.
Where: Langlade County Safety Building – County Board Room
840 Clermont Street, Antigo, 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 Langlade County and protect property in the event of natural disasters. Since you live and/or do business in or around Langlade 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 Travis Krueger, the County's Emergency Management Director at 715-627-6445 or tkrueger@co.langlade.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.

Alex Hafner, Chief
Town of Antigo Fire Dept
W9291 State Hwy 64
Antigo, WI 54409

Gerald Waldvogel
Norwood Fire Department
N1112 Co. Hwy S
Antigo, WI 54409

Mark Sambs, Chief
Rural Fire Control
611 Lincoln Street
Antigo, WI 54409

Sheriff Mark Westen
Langlade Co. Sheriff's Office
840 Clermont Street
Antigo, WI 54409

Meghan Williams
Langlade County Public Health
1225 Langlade Road
Antigo, WI 54409

Kendra Preusser, Ranger
WI Dept. Natural Resources
223 East Steinfest Rd
Antigo, WI 54409

Amanda Dornfeld, Area Director
UW Extension Langlade County
1225 Langlade Rd, Door #7
Antigo, WI 54409

Al Murray, Administrator
Langlade Co. Forestry, Parks & Rec
1633 Neva Road
Antigo, WI 54409

Chris Arrowood, Director
Langlade Co. Land Rec's & Reg's
837 Clermont Street
Antigo, WI 54409

Rachel Lemanczyk, Administrator
Elcho School District
PO Box 800
Elcho, WI 54428

Geoff Kupfer, Chief
Elcho Fire Department
PO Box 121
Elcho, WI 54428

Clayton Walrath, Chief
Peck Fire Department
W11628 County Rd C
Deerbrook, WI 54424

Brandon Tegen, Chief
White Lake Fire Dept
N3903 Pine Dr
White Lake, WI 54491

Steve Maier, Chair
Langlade County Board
800 Clermont Street
Antigo, WI 54409

Alan Horzewski, Manager
Langlade Co. Airport
N3689 Langlade Rd
Antigo, WI 54409

Corie Zelazoski, Director
Antigo/Langlade Housing Authority
535 Third Avenue
Antigo, WI 54409

Eric Borchardt
WI Dept. Natural Resources
223 East Steinfest Rd
Antigo, WI 54409

Kathryn Bahr-Bender
Langlade Co. Land Conservation
837 Clermont Street
Antigo, WI 54409

Corey Smith, Chief
City of Antigo Fire Dept.
700 Edison St
Antigo WI 54409

Lance Bagstad, Superintendent
White Lake School District
PO Box 67
White Lake, WI 54491-0067

Greg Steenweg, Chief
Langlade Fire Department
N7770 State Hwy 55
Lily, WI 54491

Ted Jacobsen, Chief
Pickerel Fire Department
W6671 County Hwy T
Pearson, WI 54462

Alex Emerich, Chief
Wolf River Fire Department
W1974 Buettner Lane
White Lake, WI 54491

Brian Braun, Commissioner
Langlade Co. Highway Dept.
1521 Arctic Street
Antigo, WI 54409

Jerry Rice, Manager
City Gas Company
809 5th Avenue
Antigo, WI 54409

Deena Grabowsky
Antigo/Langlade Co. Chamber
1005 S. Superior Street
Antigo, WI 54409

Angie Close, Director
Langlade County EDC
312 Forrest Avenue
Antigo, WI 54409

John Zenkovich, Director
Langlade Co. Health & Social Serv.
1225 Langlade Road
Antigo, WI 54409

Wanda Hose, Administrator
Eastview Health & Rehab. Center
729 Park Street
Antigo, WI 54409

Brandon Quig
Pickerel Rescue
PO Box 10
Pickerel, WI 54465

Glenda Oginski, Administrator
Antigo School District
120 S. Dorr Street
Antigo, WI 54409

Langlade County All Hazards Mitigation Plan Update

City of Antigo Planning Meeting SIGN-IN

October 9, 2025 - 11:00 AM

	Name	Title	Department
1	Travis Krueger	EM Director	Langlade Sheriff
2	Beth McCarthy	Building Inspect/zoning Admin	City of Antigo
3	Corey Smith	Fire Chief	City of Antigo
4	Dan Dewey	Police Chief	Antigo PD
5	CHARLEY BRINKMEIER	PROJECT MANAGER	CITY OF ANTIGO
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

Langlade County All Hazards Mitigation Plan Update

Village of White Lake Planning Meeting SIGN-IN

October 1, 2025 - 10:30 AM

	Name	Title	Department
1	Scott Popelka	DPW - Village of White Lake	
2	BILL KRASCH	VILLAGE BOARD	VILLAGE OF WHITE LAKE
3	Travis Krueger	EM Director	Langlade County
4	Carol Blawat	Clerk-Treasurer	Village
5	Brandon Tegen	fire chief	village
6	Patsy Listle	Trustee	Village
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

800 CLERMONT STREET
 ANTIGO, WI 54409-1948
WWW.CO.LANGLADE.WI.US

LANGLADE COUNTY



TELEPHONE: (715)627-6200
 FAX: (715)627-6303

MEETING MINUTES

Committee: Local Emergency Planning Committee
Date: Tuesday, August 26, 2025
Time: 9:30 A.M.
Location: County Board Room (lower level of the Safety Building)

The following discussion was held by the Committee at the meeting detailed above:

1. Vice-Chairman Travis Krueger called the meeting to order at 9:36 a.m. Informational Meeting only. No Quorum.

LOCAL EMERGENCY PLANNING COMMITTEE APPOINTMENT LIST

Name	Role	Status
Brian Braun	LC Highway Commissioner, Chairperson	Absent
Travis Krueger	Langlade County EM Director, LEPC Vice-Chair	Present
Mark Westen	Langlade County Sheriff	Absent
Dan Duley	Antigo Chief of Police	Absent
Jake Cross	WI DNR	Absent
Meghan Williams	Langlade County Health Dept.	Absent
Donna Wiegert	Langlade County Health Dept.	Present
Kevin McFadden	Langlade Hospital	Absent
Tommy Horswill	Antigo Treatment Plant	Absent
Mike Winski	Citizen	Absent
Tyler Eades	Waukesha Bearings	Absent
Cory Arndt	Waukesha Bearings	Absent
Todd Jelinski	Sartori Cheese	Absent
Tyler Martin	Amron	Absent
Tim Seubert	Amron	Absent
Jake Leiterman	Antigo Schools	Absent
Corey Smith	City of Antigo Fire Dept.	Absent
Carole Benzschawel	Volm Companies	Absent
Hanna Butler	Volm Companies	Absent
Teresa Poltrock	County Board Supervisor	Present
Others Present		
Becky Rank	Deputy County Clerk, Recording Secretary	
Christian Boulanger	North Central WI Regional Planning Commission	
Darryl Landeau	North Central WI Regional Planning Commission	

2. **Approve July 29, 2025, LEPC Minutes:** No action taken, no quorum.
3. **Public comment on agenda items and consideration of requests for items to be added to future agendas:**
 No public comment.
4. **Hazard Mitigation Planning**
 - a. **Darryl Landeau, North Central WI Regional Planning Commission:** Landeau stated he would like to divide the Hazard Mitigation Plan into 5 parts. Due to low turnout, Landeau asked that

Meeting Minutes (Continued)

the Committee review Chapters 2 and 3, directing any questions to Krueger to be discussed at the next meeting. Krueger stated that only two Natural Hazard Identification and Risk Assessment Matrix have been received. Landeau asked that a reminder be sent to the Committee to please complete the Matrix and return it to Krueger before the next meeting. With the data collected currently, the Matrix has ranked the following: Thunder Storms, Tornado, Flood, Winter, Pandemic, Fire, and Drought. Public Health Nurse Wiegert stated she believed drought should be higher on the ranking, with Krueger agreeing. Landeau handed out maps on Tornado Vulnerability, Flood Vulnerability, and Wildfire Risk. Krueger will email these maps out to the Committee for review.

Landeau asked the Committee if any new infrastructure had been established since the last Hazard Mitigation Plan. Committee stated: Camp De Langlade Campground, two Solar Farms (Antigo Solar DER and City of Antigo Solar), Nowinsky's Propane Company on Hwy 45/CTH C, Fairview Campground at the Fairgrounds, Highway Shop/Office, and Antigo Unified School District Elementary School. Landeau stated he will be meeting with the City and Village to get any other infrastructure in those areas.

5. Set next meeting date: October 23, 2025, at 1:30 p.m.

6. Adjourn: Meeting adjourned at 10:12 a.m.

Minutes transcribed by:

Recording Secretary,

Becky Rank, Deputy County Clerk



AGENDA

COMMITTEE: Local Emergency Planning Committee (LEPC)

DATE: August 26th 2025

TIME: 09:30am

LOCATION: Safety Building, Basement, County Boardroom 840 Clermont St., Antigo, WI

THE COMMITTEE MAY DISCUSS AND TAKE ACTION ON ANY OF THE AGENDA ITEMS LISTED BELOW.

1. Call Meeting to Order/Pledge of Allegiance/Introductions
2. Approve Previous Meeting Minutes
3. Public comment on agenda items and consideration of requests for items to be added to future agendas
4. Hazard Mitigation Planning
 - a. Darryl Landeau North Central WI Regional Planning Commission
5. Set next meeting date
6. Adjourn

Additional items may be discussed, with no action taken during the meeting, for the purpose of preparing future meeting agendas.

If there is a quorum of any other governmental body present at the meeting, the existence of the quorum shall not constitute a meeting as no action of such body is contemplated.

Travis Krueger, Coordinator of Information Local Emergency Planning Committee

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Deputy Travis Krueger, EM Director, 840 Clermont Street, Antigo, Wisconsin, 54409. 715-627-6257.

800 CLERMONT STREET
ANTIGO, WI 54409-1948
WWW.CO.LANGLADE.WI.US

LANGLADE COUNTY



TELEPHONE: (715)627-6200
FAX: (715)627-6303

MEETING MINUTES

Committee: Local Emergency Planning Committee
Date: Tuesday, July 29, 2025
Time: 9:30 A.M.
Location: County Board Room (lower level of the Safety Building)

The following discussion was held by the Committee at the meeting detailed above:

1. Chairman Brian Braun called the meeting to order at 9:30 a.m. The Pledge of Allegiance and brief Introductions were done.

LOCAL EMERGENCY PLANNING COMMITTEE APPOINTMENT LIST

Name	Role	Status
Brian Braun	LC Highway Commissioner, Chairperson	Present
Travis Krueger	Langlade County EM Director, LEPC Vice-Chair	Present
Mark Westen	Langlade County Sheriff	Present
Dan Duley	Antigo Chief of Police	Present
Jake Cross	WI DNR	Present
Meghan Williams	Langlade County Health Dept.	Present
Donna Wiegert	Langlade County Health Dept.	Present
Kevin McFadden	Langlade Hospital	Absent
Tommy Horswill	Antigo Treatment Plant	Absent
Mike Winski	Citizen	Absent
Tyler Eades	Waukesha Bearings	Absent
Cory Arndt	Waukesha Bearings	Absent
Todd Jelinski	Sartori Cheese	Present
Tyler Martin	Amron	Present
Tim Seubert	Amron	Absent
Jake Leiterman	Antigo Schools	Present
Corey Smith	City of Antigo Fire Dept.	Absent
Carole Benzschawel	Volm Companies	Absent
Hanna Butler	Volm Companies	Present
Teresa Poltrock	County Board Supervisor	Present
Others Present		
Becky Rank	Deputy County Clerk, Recording Secretary	
Christian Boulanger	North Central WI Regional Planning Commission	
Darryl Landeau	North Central WI Regional Planning Commission	

2. **Approve May 7, 2025, LEPC Minutes:** Motion by Cross, second by Poltrock, to approve the previous meeting minutes of May 7, 2025. All ayes, motion carried.
3. **Public comment on agenda items and consideration of requests for items to be added to future agendas:**
No public comment.
4. **Review and approve LEPC By-Laws:**

Meeting Minutes (Continued)

- a. Copies remain on file with EM Director: EM Director Krueger presented the current LEPC By-Laws. Krueger stated that within the By-Laws, it is stated that a County Board member must be appointed. Public Comment must appear on agendas. Krueger stated he has no changes or corrections to the current By-Laws. Motion by Poltrock, second by Duley, to approve the current LEPC By-Laws with no changes or corrections. All ayes, motion carried.

5. Designate Compliance Inspector

- a. **State of Wisconsin/WEM is designated for enforcement of EPCRA violations:** EM Director Krueger stated the State of Wisconsin/WEM is designated for enforcement of EPCRA (Emergency Planning and Community Right-to-Know Act) violations. Krueger stated EPCRA is a US federal law designed to help communities protect themselves from chemical hazards. It does this by requiring facilities that handle certain chemicals to provide information to the public and emergency responders, and by promoting emergency planning at the local level. Motion by Krueger, second by Duley, to approve the State of Wisconsin/WEM as a designee for enforcement of EPCRA violations. All ayes, motion carried.

6. Review Off-Site Plans: EM Director Krueger presented the Committee with an Off-Site Plan Summary:

- Amron: Chemicals in use/Hazards: Hydrite, Sulfuric Acid, Nitric Acid, Forprep Acid 3, Liquid Nitrogen, Muriatic Acid 20 Deg Inhibited, Omega BP-4123, Resingard Pellets, Sodium Hydroxide Solution 50%, Omega MP-5165.
- Fleet Farm: Chemicals in use/Hazards: Sulfuric Acid, Kerosene.
- Kretz Lumber: Chemicals in use/Hazards: Sulfuric Acid, Lead Acid Batteries, Diesel Fuel, Sawdust.
- Langlade County Multi-Purpose Building: Chemicals in use/Hazards: Ammonia.
- Sartori: Chemicals in use/Hazards: Ammonia Anhydrous, Bright Solve Plus, Lead-Acid Batteries, LFA Red No. 189 Nitric Acid, Reflux, Sulfuric Acid, Sustain, Hydroxyzan Plus, Sulfuric Acid 66 BE, Chelated Caustic (Sodium Hydroxide), Apex, Fuel Oil No. 2
- Walmart: Chemicals in use/Hazards: Sulfuric Acid (Batteries).
- Waukesha Bearing: Chemicals in use/Hazards: Nitric Acid, sulfuric Acid.

Krueger discussed the vulnerability zone for each off-site plan. Todd Jelinski stated Sartori Company has done upgrades to all systems involving Ammonia.

7. Hazard Mitigation Planning

- a. **Darryl Landeau, North Central WI Regional Planning Commission:** Landeau presented the Committee with a PowerPoint presentation. Landeau stated North Central Regional Planning has contracted with Langlade County to update the All Hazards Mitigation Plan. Landeau stated this plan needs to be updated every 5 years. The benefits of mitigation is to protect the health and safety of citizens, protect property and infrastructure, preserve or expand the tax base, attract or retain business/industry, revitalize a depressed area, enhance recreation and tourism, increase community pride & improve quality of life, and save tax dollars. The benefits of mitigation to Langlade County is to protect the health and safety of residents from impacts of hazards, prevent or reduce damages caused by hazards, the Disaster Mitigation Act of 2000 (to maintain eligibility for certain FEMA grants and State/Federal aid. Landeau stated in recent past there have been 5 Langlade County disasters: March of 2004, flood in Antigo area resulting in dozens evacuated and over \$1 million in damages - 99 residences and 39 businesses were affected; June of 2007, F3 Tornado injured 1 and caused \$2.2 million in damages; April 2011, F1 Tornado caused over \$1 million in damages and injured at least 1; July 2019, high winds downed over 1,000 trees and damaged 135 structures across the county; July 2020, flooding across the county washed out culverts and closed roads.

Landeau stated that this Committee will be the oversight for the 2025 Hazards Mitigation Plan. The local planning elements include the planning process, planning area, risk assessment, mitigation strategy and plan maintenance process, and adoption. Landeau stated that for the plan

Meeting Minutes (Continued)

to progress, it will need the involvement of the Oversight Committee, local government, neighboring communities, local & regional agencies, and public review.

Boulanger with North Central WI Regional Planning Commission presented the Committee with a handout on Langlade County All Hazards Mitigation Plan Update Town Survey Highlights 2025 (10 out of 17) towns returned. Issues identified are Fire Risk, Flooding, Winter Storms, and Power Outage. Projects Identified: Improve roads into wooded area for emergency vehicles; Cleanup ground cover; Update emergency response plan; Shelter needs in the Town of Polar, Town of Upham.

Landeau presented the Committee with a Natural Hazard Identification and Risk Assessment Matrix. Landeau asked the Committee to fill out the Matrix and email it back to EM Director Krueger. Information only.

8. **Such Other Matters as May Legally Be Brought Before the Committee:** Discussion held on how new businesses coming in with hazardous material are reported to Emergency Management. EM Director Krueger stated they are flagged at the State level and reported out. Information only.
9. **Set next meeting date:** August 26, 2025, at 9:30 a.m.
10. **Adjourn:** Motion by Duley, second by Cross, to adjourn the LEPC meeting at 10:33 a.m. All ayes, motion carried.

Minutes transcribed by:

Recording Secretary,

Becky Rank, Deputy County Clerk



AGENDA

COMMITTEE: Local Emergency Planning Committee (LEPC)

DATE: July 29th 2025 0930

TIME: 1:30pm

LOCATION: Safety Building, Basement, County Boardroom 840 Clermont St., Antigo, WI

THE COMMITTEE MAY DISCUSS AND TAKE ACTION ON ANY OF THE AGENDA ITEMS LISTED BELOW.

1. Call Meeting to Order/Pledge of Allegiance/Introductions
2. Approve Previous Meeting Minutes
3. Public comment on agenda items and consideration of requests for items to be added to future agendas
4. Review and approve LEPC By-Laws
 - a. Copies remain on file with EM Director
5. Designate Compliance Inspector
 - a. State of Wisconsin/WEM is designated for enforcement of EPCRA violations
6. Review Off Site Plans
7. Hazard Mitigation Planning
 - a. Darryl Landeau North Central WI Regional Planning Commission
8. Such Other Matters as May Legally Be Brought Before the Committee
9. Set next meeting date
10. Adjourn

Additional items may be discussed, with no action taken during the meeting, for the purpose of preparing future meeting agendas.

If there is a quorum of any other governmental body present at the meeting, the existence of the quorum shall not constitute a meeting as no action of such body is contemplated.

Travis Krueger, Coordinator of Information Local Emergency Planning Committee

Please note that, upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service, contact Deputy Travis Krueger, EM Director, 840 Clermont Street, Antigo, Wisconsin, 54409. 715-627-6257.

Appendix B – Resolutions of Plan Update Adoption

LANGLADE COUNTY



RESOLUTION #18-2026

INTRODUCED BY: PUBLIC SAFETY COMMITTEE

INTENT: ADOPT LANGLADE COUNTY HAZARD MITIGATION PLAN 2026-2031

WHEREAS, the mitigation planning requirements of 44 Code of Federal Regulations, Section 201.6(d) call for local hazard mitigation plans to be reviewed and updated to reflect changes in development, progress in local mitigation plan efforts, and changes in priorities; and re-approved every five years for local jurisdictions to be able to receive hazard mitigation funding; and

WHEREAS, the Langlade County Hazardous Mitigation Plan Update was guided by a planning team consisting of elected and appointed officials from the County and municipalities in the County; agency and business representatives; and citizens from throughout the County knowledgeable in hazard mitigation matters; and

WHEREAS, the plan was designed to be consistent with the guidelines of the Wisconsin Department of Military Affairs, Division of Emergency Management, and the Federal Emergency Management Agency (FEMA); and with the requirements and procedures defined in the Disaster Mitigation Act of 2000; and

WHEREAS, to remain eligible for hazard mitigation project funding, the Langlade County Board of Supervisors must adopt the updated plan.

NOW THEREFORE, BE IT RESOLVED that the Langlade County Board of Supervisors hereby adopts the Langlade County Mitigation Plan Update dated 2026-2031. A copy of the Plan is on file in the County Clerk's Office.

PUBLIC SAFETY COMMITTEE:

Doug Curler

Doug Curler, Public Safety Committee Chair

FISCAL NOTE: No Fiscal Note.

APPROVED BY:

Vacant
LANGLADE COUNTY ADMINISTRATOR

**APPROVED AS TO LEGALITY
AND FORM BY:**

Robin Stowe

Robin Stowe
CORPORATION COUNSEL

CERTIFICATION: I hereby certify this to be a true and exact copy of Resolution #18-2026

Ayes 19 Nays ___ Abstained ___ Excused ___ Absent 2

Approved and adopted this 22nd day of June, 2026

Denied this ___ day of _____

Judy Nagel, County Clerk

Judy Nagel
COUNTY CLERK

RESOLUTION # _____

ADOPTING THE LANGLADE COUNTY ALL HAZARDS MITIGATION PLAN UPDATE

WHEREAS, the City of Antigo 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 Antigo adopted the last update of the All Hazards Mitigation Plan on October 14, 2020; and

WHEREAS, the City of Antigo participated jointly in the planning process with Langlade 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 Antigo Common Council, hereby adopts the Langlade County All Hazards Mitigation Plan Update as an official city plan; and

BE IT FURTHER RESOLVED, that the Langlade County Emergency Management Department will submit, on behalf of the City of Antigo, 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 LANGLADE COUNTY ALL HAZARDS MITIGATION PLAN UPDATE

WHEREAS, the Village of White Lake 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 Village of White Lake adopted the last update of the All Hazards Mitigation Plan on September 8, 2020; and

WHEREAS, the Village of White Lake participated jointly in the planning process with Langlade 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 Village of White Lake Board of Trustees, hereby adopts the Langlade County All Hazards Mitigation Plan Update as an official village plan; and

BE IT FURTHER RESOLVED, that the Langlade County Emergency Management Department will submit, on behalf of the Village of White Lake, 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 LANGLADE 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 Langlade County All Hazards Mitigation Plan Update as an official plan; and

BE IT FURTHER RESOLVED, that the Langlade 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 <i>specialized</i> vehicle transportation to a shelter in an emergency	___yes	___no
If so, identify which vehicle types you can ride in.		
<input type="checkbox"/> bus or van with wheelchair lift <input type="checkbox"/> ambulance <input type="checkbox"/> 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.