LAKE COUNTY
UPDATE TO
PRE-DISASTER MITIGATION PLAN

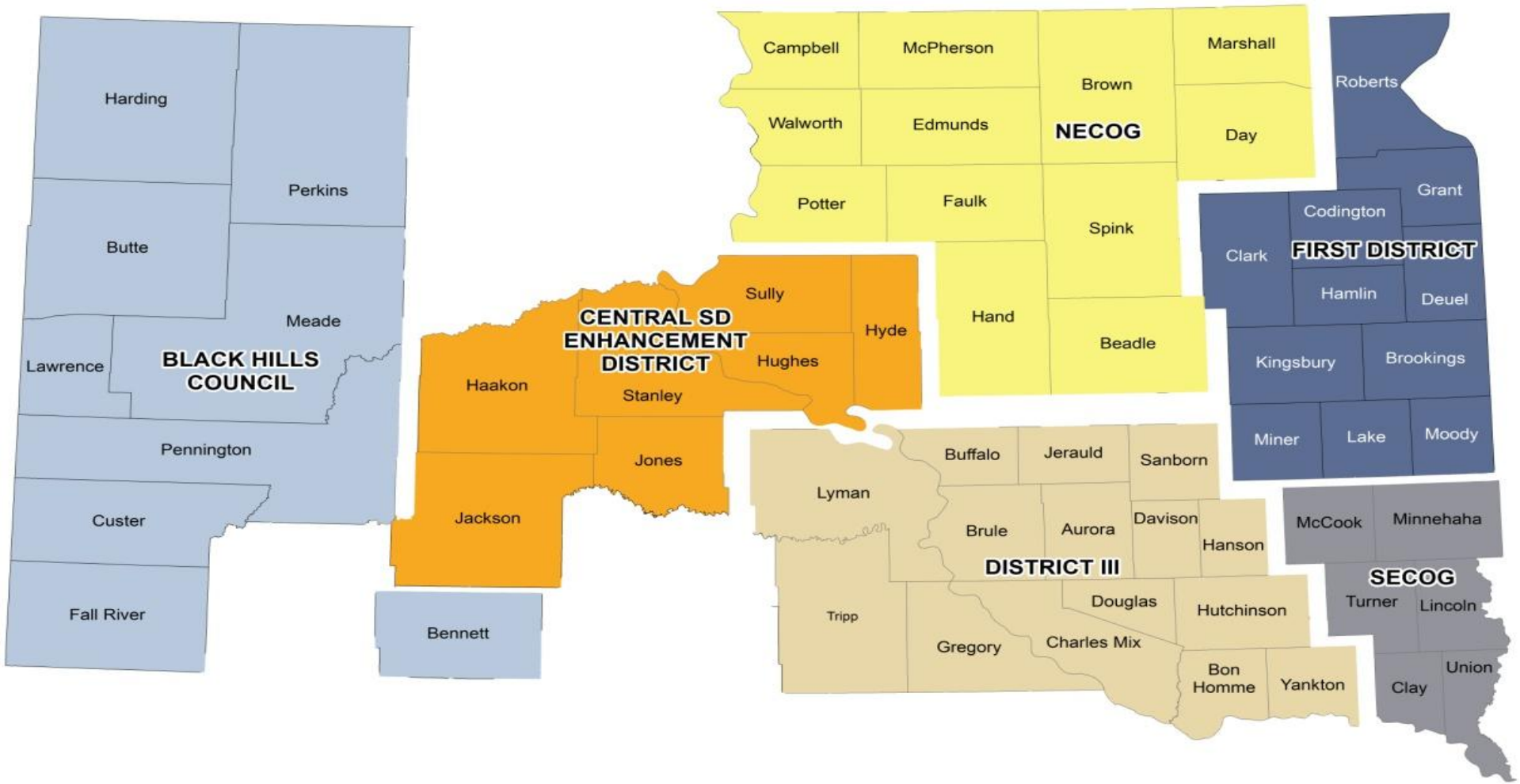
PDM TEAM KICKOFF

OCTOBER 29, 2026

LAKE COUNTY 4-H BUILDING

MADISON, SD

FIRST DISTRICT ASSOCIATION OF LOCAL GOVERNMENTS



AGENDA

- Introduction of team members
- Why are we updating PDM?
- What is mitigation planning?
- Review plan components
- Review Timeline/scope

PDM'S COMPLETED:

- Brookings – 2014, 2019, & 2025
- Codington – 2012, 2017, & 2022
- Hamlin – 2014, 2019, & 2025
- Kingsbury – 2014, 2019, & 2025
- Miner –2014, 2019, & 2025
- Moody – 2015, 2020, & 2026
- Roberts – 2014, 2019, & 2024
- Deuel – 2017, 2022 & 2026-27
- Lake – 2018, 2023, & 2027
- Clark – 2019 & 2024
- Grant – 2014, 2020, & 2026
- Flandreau Santee Sioux Tribe - 2022

WHY ARE WE HERE?

- Existing PDM Plan approved April 2023.
- Plan will expire in April 2028.
- County applied for HMGP funds in 2025.
- Notice of Grant Award in May 2026 for PDM Development to complete all requirements.

TEAM PLAYERS

Municipalities

Townships

County Commissioners

Utilities

Lake County Emergency Management

First District

State of South Dakota

FEMA

Emergency Service Providers

WHAT IS MITIGATION PLANNING?

- Hazard mitigation planning is defined as any cost-effective action(s) that has the effect of reducing, limiting, or preventing vulnerability of people, property, and the environment to potentially damaging, harmful, or costly hazards.

WHAT IS A PRE-DISASTER MITIGATION PLAN?

- Allows a community to plan for a disaster before it occurs
- Helps reduce risk and minimize impact from future events
  - Protects people and structures
  - Preserves life, health, safety of residents
  - Protects the economic health and vitality of the community
- Breaks the cycle of disaster-repair-disaster in a community
- Makes the participants eligible to apply for Hazard Mitigation and other FEMA funding



DISASTER MITIGATION ACT OF 2000

- Establish a national program for pre-disaster mitigation
- Effective November 1, 2004, communities and tribes must have mitigation plans in place to be eligible for Hazard Mitigation Grant Program and Pre-Disaster Mitigation funding



ACT STRESSES PUBLIC PARTICIPATION

- An open public involvement process that is comprehensive, starts early, and is continuous
- Coordination with neighboring communities and various interest groups in plan development
- Counties, Cities, and Townships may participate to develop multi-jurisdictional plans.
- Survey:
  - https://survey.alchemer.com/s3/8988359/Lake-County-PDM

COMPONENTS OF THE PRE-DISASTER MITIGATION PLAN

- Background/Community Profile
- Risk Identification and Assessment (Hazard Profile)
- Mitigation Goals/Strategies/Specific Actions
- Plan Maintenance

BACKGROUND/COMMUNITY PROFILE

- Similar to a county comprehensive land use plan – "Who is your community?"
- Details about a community
- Defines the people and the land
- Identifies key community investments



CRITICAL INFRASTRUCTURE

- What, where?
- Will it impact the community?
- Timeframe – How long will it impact community?
- Examples: Bridges, water and wastewater facilities, fire stations.





CRITICAL INFRASTRUCTURE

- Government Buildings
  - Post Office, Highway Department, Courthouse, Maintenance Buildings, Fire Departments, Schools, Community Center
- Airport
- Public/Private Utilities
  - Water, Sewer
  - Towers, Substations
- Major Employers
- Elderly Housing
- Hospitals, Clinics
- Emergency Fuel/Power
- Township halls, community centers, arenas, cultural and historic areas.

CREATING A RISK ASSESSMENT

- Risk assessment draws on community profile and hazard profile
- What assets (Critical Infrastructure) in the community will be affected by the hazard event?
- To what extent?



HAZARD PROFILE

- Risk Assessment - Identifies what natural hazards impact a community/county
- Use historical data
- Map areas affected by hazards



HAZARD VULNERABILITY

- Hazard description
- Frequency
- Magnitude
- Location
- Spatial extent
- Duration
- Seasonal pattern
- Speed of onset
- Availability of warnings



HAZARD RISK ASSESSMENT

- Risk Assessment
  - Listed natural hazards or events related to natural hazard
- Frequency (F)
  - Identify how often you think this event occurs
- Personal Vulnerability (P.V.)
  - How vulnerable are you or the citizens of the community to (the big version of) this event?
- Community Wide Vulnerability (C.V.)
  - How vulnerable/what would be the effect on community services/infrastructure if "the big one" happened in this community?
- Vulnerability Score
  - Vuln. Score = Vulnerability Score (Vuln. Score = (F) x (P.V.) x (C.V.))
  - Determine whether mitigation projects are necessary and how specific they need to be.

HAZARD RISK ASSESSMENT

Frequency

How often does it seem these hazards occur? *Please mark one for each*
(KEY)

0 – Does not occur in this jurisdiction
1 – Am aware this occurred but has not while I lived here
2 – Remember this happening once
3 – This has happened a few times, but not every year
4 – This seems to happen every year
5 – This seems to happen more than once every year

Personal Vulnerability

How Vulnerable is your community to the following hazards? *Please mark one for each*
(KEY – Description with anecdotal description in *parentheses*.)

0 – Does not occur in this jurisdiction
1 – I do not recall the community or anyone in this community experiencing property damage or personal damage from this hazard. (*"I'm sure this has happened, but nobody is concerned about what would happen if it occurs again."*)
2 – If this hazard occurs, it is unlikely it will be noticed as more than a nuisance. (*"I expect this hazard to occur, and am not concerned with any damage or injury that could occur."*)
3 – If this hazard occurs, some properties may experience minor damage and/or minor injuries may occur. (***"I worry about certain properties and/or people that may be significantly vulnerable to this hazard, but not everyone is."***)
4 – If this hazard occurs, several people affected will need financial assistance, assistance in repairing/cleaning up property, and/or treating physical harm. (***"I worry what could happen if this hits us wrong."***)
5 – If this hazard occurs it may destroy or nearly destroy all property in its path, and result in injury to those experiencing it. (***"I worry about what would happen if this happened in town, no matter where.)"***

Community Vulnerability

How Vulnerable is your community to the following hazards? *Please mark one for each*
(KEY – Description with anecdotal description in *parentheses*.)

0 – Does not occur in this jurisdiction
1 – I do not recall the community or anyone in this community experiencing property damage or personal damage from this hazard. (*"This would not affect normal community operations."*)
2 – If this hazard occurs, it is unlikely it will be noticed as more than a nuisance. (*"Any damage could be addressed with normal staff/community time dedicated at this time."*)
3 – If this hazard occurs, some properties may experience minor damage and/or minor injuries may occur. (*"Any damage could be addressed with normal staff/community involvement, but would be noticed as a temporary notice to residents outside the affected area."*)
4 – If this hazard occurs, several people affected will need financial assistance, assistance in repairing/cleaning up property, and/or treating physical harm. (*"Damage would require over-time or extra assistance in some form to recover from, assist those affected. Daily life by most residents in the town would be affected negatively during recovery."*)
5 – If this hazard occurs it may destroy or nearly destroy all property in its path, and result in injury to those experiencing it. (*"Normal government business or daily life could not resume until significant recovery occurs."*)

RISK ASSESSMENT WORKSHEET - HAZARD IDENTIFICATION

Hazard	Bryant				Castlewood				Estelline				Hayti				Hazel				Lake Norden				Hamlin County			
	F	P.V.	C.V.	Vuln. Score	F	P.V.	C.V.	Vuln. Score	F	P.V.	C.V.	Vuln. Score	F	P.V.	C.V.	Vuln. Score	F	P.V.	C.V.	Vuln. Score	F	P.V.	C.V.	Vuln. Score	F	P.V.	C.V.	Vuln. Score
Dam Failure																												
Drought																												
Earthquake																												
Extreme Cold																												
Extreme Heat																												
Flood																												
Freezing Rain/Sleet/ Ice																												
Hail																												
Heavy Rain																												
Heavy Snow																												
Ice Jam																												
Lightning																												
Rapid Snow Melt																												
Strong Winds																												
Tornado																												
Urban Fire																												
Wild Fire																												

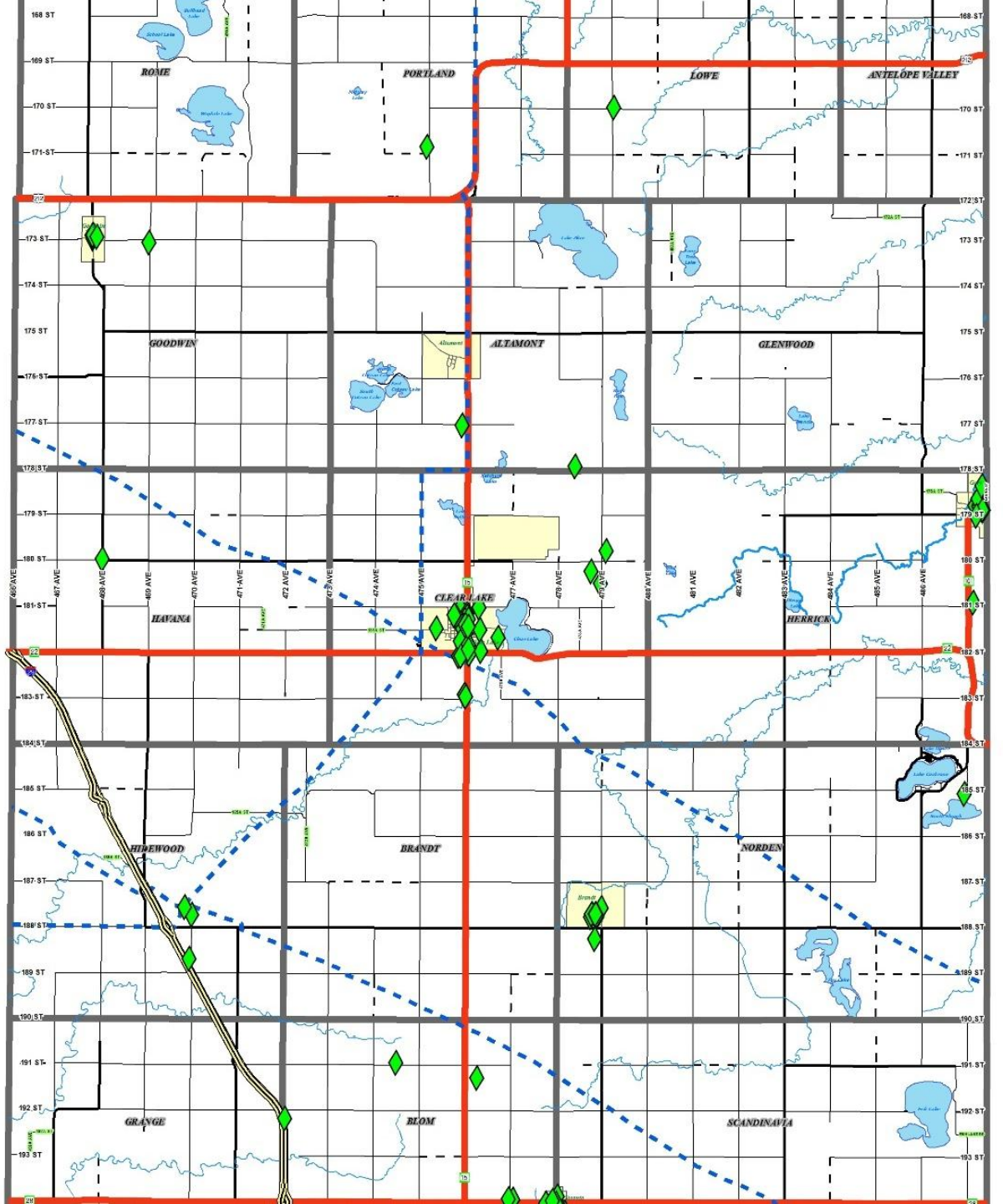
F = Frequency or Probability of a hazard

P.V. = Personal Vulnerability to a hazard

C.V. = Community Wide Vulnerability to a hazard

Vuln. Score = Vulnerability Score (Vuln. Score = (F) x (P.V) x (C.V.))

FIGURE 4.2: COUNTY HAZARD VULNERABILITY MAP



MITIGATION GOALS/STRATEGIES/SPECIFIC ACTIONS

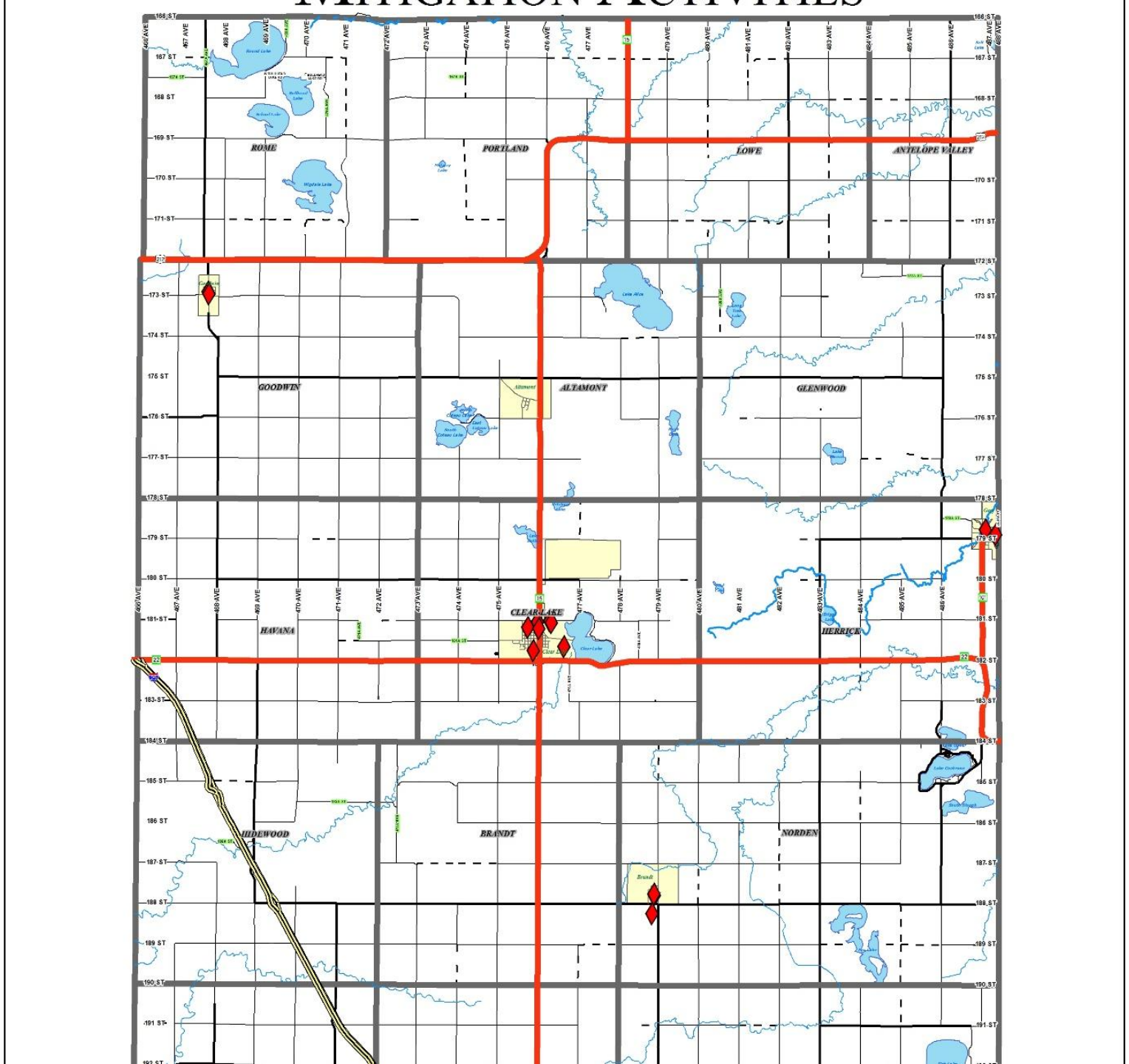
- After the Risk Assessment – Goals/strategies/and specific actions are identified
- Action Plan
  - Prioritize strategies
  - Identify responsible parties
  - Estimate cost
  - Establish timeframe
  - Maintenance of Plan



PRINCIPLE GOALS

- **Reduce the loss of life, property, infrastructure, critical facilities, cultural resources and impacts from severe weather, flooding and other natural disasters.**
- **Improve public safety during severe weather, flooding and other natural disasters.**
- **Improve the County's Emergency Preparedness and Disaster Response and Recovery capabilities.**
- **Mitigation Activities for Flooding Hazards**
  - **Goal #1:** Protect specific areas of Lake County from flooding.
  - **Goal #2:** Educate and inform Lake County residents regarding flooding safety.
  - **Goal #3:** Reduce the extent to which utility interruptions affect areas during flooding events.

FIGURE 5.1: COUNTY POTENTIAL MITIGATION



NON-MUNICIPAL/NON-UTILITY MITIGATION ACTIONS

LAKE COUNTY PROBLEM STATEMENTS	LAKE COUNTY ACTIONS	RATING	TIMEFRAME	CONTACT	COST	FUNDING SOURCE	HAZARD	GOAL
Public is unfamiliar with certain disaster preparation measures.	Enhance public education. Develop outreach programs, curriculum for schools, and public assistance materials. Encourage individual and family preparedness.	Medium	Ongoing	County EM/County Commission	$Unknown	County, City, Local	All	Increase public awareness and education on severe weather issues.
Public is unfamiliar with certain disaster preparation measures.	Distribute public education materials for evacuation routes during road closure.	Medium	Short	County EM	Unknown	County	Severe Weather Hazards	Increase public awareness and education on severe weather issues.
Public is unfamiliar with certain disaster preparation measures.	Publish periodic newspaper articles promoting the purchase and usage of NOAA weather radios.	Medium	Ongoing	County EM	$100	County	All	Improve public safety during severe weather.
Disaster mitigation goals and projects have not always been incorporated into other plans.	Incorporate disaster mitigation actions into appropriate local and regional plans – land use, transportation, master plans, and zoning ordinance.	Medium	Ongoing	Zoning/County Commission	Unknown	County	All	Improve the County's Emergency Preparedness and Disaster Response and Recovery capabilities.

NON-MUNICIPAL/NON-UTILITY MITIGATION ACTIONS

LAKE COUNTY PROBLEM STATEMENTS	LAKE COUNTY ACTIONS	RATING	TIMEFRAME	CONTACT	COST	FUNDING SOURCE	HAZARD	GOAL
The county lacks funding mechanisms to apply for and administer funding sources for mitigation projects.	Identify and pursue funding that builds local capacity and supports grant-writing for mitigation actions identified in the PDM.	Medium	Ongoing	County EM/ Highway Supt.	Unknown	County	All	Improve public safety during severe weather, flooding, and other natural disasters.
Utility lines and structures are subject to failure in high wind, heavy rain, and ice events.	Upgrade emergency communications to full P25 compliance. Invest in necessary upgrades.	Medium	Medium	County 911 Communications/ County Sheriff/ Local Emergency Responders/ County EM	Unknown	County, Municipal, Private, PDM, HMCP, DHS	All	Reduce the extent to which utility mishaps affect areas during severe weather situations.
Storm sirens and other emergency warning systems can become outdated.	Develop a protocol for maintaining and testing warning sirens. Invest in necessary upgrades. Enhance communication capabilities between weather spotters and emergency services.	High	Short	County EM	Unknown	County, Municipal, Private, PDM, HMCP, DHS	Severe Storms and Tornado	Improve public safety during severe weather.

NON-MUNICIPAL/NON-UTILITY MITIGATION ACTIONS

LAKE COUNTY PROBLEM STATEMENTS	LAKE COUNTY ACTIONS	RATING	TIMEFRAME	CONTACT	COST	FUNDING SOURCE	HAZARD	GOAL
Structures constructed in the floodplain prior to identification of flood hazard areas.	Work with property owners to mitigate repetitive loss residences through elevation, acquisition, relocation, or other mitigation activities.	Medium	Medium	County EM/ Zoning/Floodplain Administrator	Dependent on Number of Structures	County	Flooding	Protect specific areas of Lake County from flooding.
Potential for development in flood prone areas.	Evaluate elevation requirements & consider raising the base elevation. Identify alternatives to preserve open space along creeks.	Low	Medium	Zoning/Floodplain Administrator	Unknown	County	Flooding	Protect specific areas of Lake County from flooding.
Many roads were built prior to identification of flood hazard areas.	Elevating roads in flood-prone areas to maintain safety and access.	Medium	Long	County Highway Dept	Unknown	County, HMGP, OEM	Flooding	Protect specific areas of Lake County from flooding.
Jurisdiction lacks data on floodplain and flood-prone areas.	Use mapping software to identify floodplain, flood-prone areas and culverts in unincorporated areas of the County.	Low	Medium	Zoning/Floodplain Administrator	Unknown	County	Flooding	Protect specific areas of Lake County from flooding.

NON-MUNICIPAL/NON-UTILITY MITIGATION ACTIONS

LAKE COUNTY PROBLEM STATEMENTS	LAKE COUNTY ACTIONS	RATING	TIMEFRAME	CONTACT	COST	FUNDING SOURCE	HAZARD	GOAL
Potential for development in areas vulnerable to wildfire or urban fire.	Adoption and enforcement of property regulations in areas vulnerable to wildfire.	Low	Medium	Zoning	Unknown	County and Municipal	Fire	Reduce the negative effects wildfires have on Lake County.
Jurisdiction lacks data on fire-prone areas.	Conduct risk analysis using GIS technology to create maps relating to high fire hazard areas.	Low	Medium	Zoning/Local Fire Dept Chiefs	Unknown	County and Municipal	Fire	Reduce the negative effects wildfires have on Lake County.
Jurisdiction is vulnerable to debris accumulation during severe weather events.	Develop debris management policies for de-icing roads, plowing snow, and removing fallen trees on public and private property.	Medium	Short	County Highway Dept/Municipal Public Works	Unknown	County and Municipal	Severe Storms and Tornado	Improve public safety during severe weather.
Certain areas and populations are not served by storm shelters.	Construct storm shelters at manufactured home and RV parks. Ensure mobile homes are properly secured and anchored to ground.	Medium	Ongoing	Zoning/County Commission	Unknown	County, HMGP	Severe Storms and Tornado	Improve public safety during severe weather.

GOALS…

- **Mitigation Activities for Severe Weather Hazards (Summer and Winter)**
  - **Goal #1:** Increase public awareness and education on severe weather issues.
  - **Goal #2:** Improve public safety during severe weather.
  - **Goal #3:** Reduce the extent to which utility interruptions affect areas during severe weather situations.
  - **Goal #4:** Reduce crippling effects of winter storms, especially regarding smaller communities.

- **Mitigation Activities for Fire and Drought Hazards**
  - **Goal #1:** Increase fire fighting capabilities.
  - **Goal #2:** Reduce the negative effects droughts have on Lake County.
  - **Goal #3:** Reduce the negative effects wildfires have on Lake County.

PROCESS/TIMELINE

- June 2026 – September 2026 – Plan to Plan
  - Establish PDM Team
  - PDM Team Kickoff Meeting
  - Review existing PDM
  - Develop PDM Template/Plan Process
- October 2026 – 2027 June Risk Assessment/Project Identification/Prioritization
  - Community/Township Meetings
  - Draft Preparation
- August 2027
  - PDM Team Meeting #2 – Review of PDM Draft
- October 2027 – November 2027 – Draft Review and Approval
  - PDM Team Meeting Reviews/Approves Draft
  - Draft submitted to State and FEMA
- November – December 2027
  - State and FEMA approval
- January – February 2028
  - Approval by County and municipalities

QUESTIONS?

SEE FIRST DISTRICT PDM PAGE: *HTTPS://ASSOCIATION.1STDISTRICT.ORG/PDMPLANS/*

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