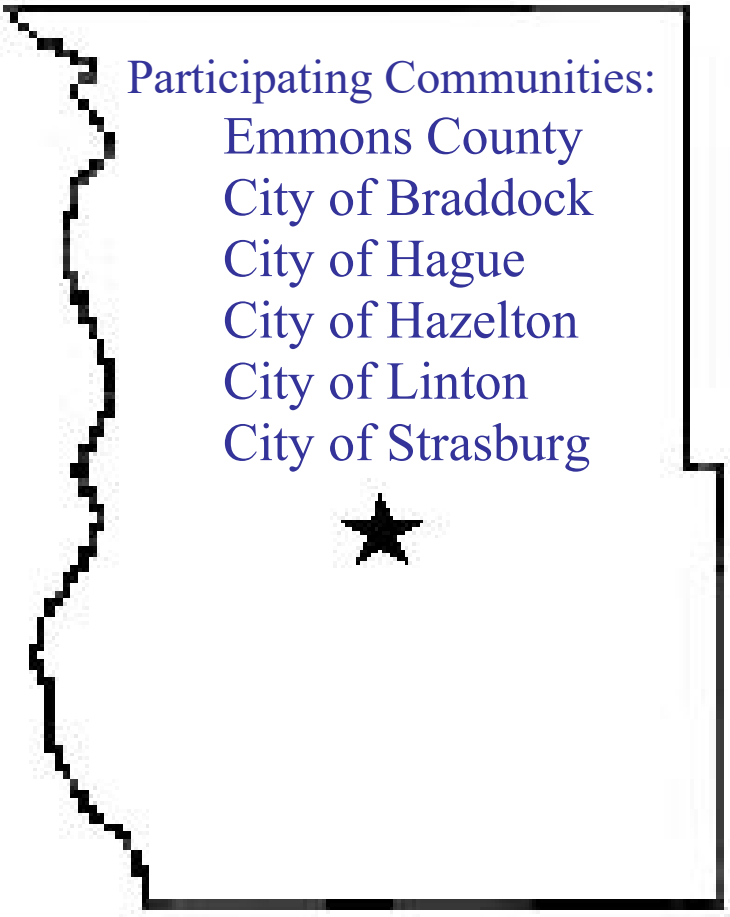
Emmons County
Multi-Hazard Mitigation Plan

Draft



FEMA Approved: Pending

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Introduction

The Emmons County Multi-Jurisdictional Multi-Hazard Mitigation Plan (MHMP) was originally developed and approved by the Federal Emergency Management Agency (FEMA) in 2003 and subsequently approved in 2010 and 2015 to address the needs of the community of Emmons County and the five incorporated cities: Braddock, Hague, Hazelton, Linton and Strasburg. The communities of Kintyre, Temvik, and Westfield are unincorporated cities and fall under the jurisdiction of Emmons County.

Purpose: Reduce the vulnerability of potential harm to life, information, operations, environment, and/or property in Emmons County from the impacts of natural, technological, or human-caused occurrences.

Authority: The Emmons County Multi-Hazard Mitigation Plan has been prepared in accordance with federal laws, including:

Laws
Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), as amended
National Flood Insurance Act of 1968, as amended
National Dam Safety Program Act (Pub. L. 92-367), as amended

Regulations
44 CFR Part 201 Mitigation Planning
44 CFR, Part 60, Subpart A, including § 60.3 Flood plain management criteria for flood-prone areas
44 CFR Part 77 Flood Mitigation Grants
44 CFR Part 206 Subpart N. Hazard Mitigation Grant Program

Section 322 of the Disaster Mitigation Act of 2000 requires each mitigation plan developed by a local government shall:
(1) describe actions to mitigate hazards, risks, and vulnerabilities identified under the plan; and
(2) establish a strategy to implement those actions.

The North Dakota Century Code 37-17.1-07 (Local or regional emergency management organizations.) states that "Each local or regional emergency management organization shall prepare and keep current a local disaster or emergency operational plan for its area." Emmons County and incorporated cities consider the Mitigation Plan an integral part of the Emmons County Emergency Management Program.

Planning Process

The planning process included the following activities:

- Public Input Survey
- Public Meetings
- Meetings with jurisdictions (review data, risk assessment, and mitigation actions)
- Jurisdictional review of proposed MHMP

Additional emails and conversations were completed via phone and email to complete the final draft. Throughout the process, research was completed along with data gathering and outreach (phone calls, meetings, and/or emails) to regulatory agencies and other governmental entities (US Army Corps of Engineers, ND Department of Water Resources, Emmons County Water Resource Board, ND Forest Service, ND Fire Marshal's Office, US National Weather Service).

Planning Team Members

Jurisdiction	Contact	Title	Agency
Emmons County	Mary Senger	Emergency Manager	Emmons County Emergency Mgt
Emmons County	Dan Materi	Commissioner	Emmons County Commission
Emmons County	Lisa Edholm-Moch	Administrator	Emmons County Public Health
Emmons County	Russ Lawler	Road Supervisor	Emmons County Road Dept
Emmons County	Gary Sanders	Sheriff	Emmons County Sheriff's Dept
Emmons County	Glenn Geffre	Chair, Floodplain Administrator	Emmons County Water Board
City of Linton	Dan Imdieke	Mayor	City of Linton
City of Linton	Sharon Jangula	Administrator, Development Coordinator, Floodplain Administrator	City of Linton
City of Linton	Tyler Gorss	Supervisor	Linton Public Works
City of Linton	Nolan Anderson	Chief	Linton Fire Dept
City of Braddock	Ted Reamann	Mayor	City of Braddock
City of Braddock	Audrey Rambough	Auditor	City of Braddock
City of Hague	Chris Baumgartner	Mayor	City of Hague
City of Hague	Joyce Pfeifer	Auditor	City of Hague
City of Hazelton	Gary Griffin	Mayor	City of Hazelton
City of Hazelton	Terry Macdonald	Auditor	City of Hazelton
City of Strasburg	Sonya Schumacher	Mayor	City of Strasburg
City of Strasburg	Mary Vickers	Auditor	City of Strasburg
City of Strasburg	Kevin Gabriel	Chief	Strasburg Fire Department

Multi-hazard mitigation planning is a continuous process whereby risk analyses, updating the situation assessment, research, coordinating, disaster response or other activities are occurring simultaneously.

The goal is to maintain the Emmons County Hazard Mitigation Plan and obtain federal approval every five years. The original plan was developed in 2003 and subsequently updated in 2009, 2015, and 2020. The current plan update process began 2025 with the Emergency Manager collecting data and soliciting technical advice and guidance from the ND Department of Emergency Services' Mitigation Division prior to the beginning of the official update plan process. In addition, throughout 2025-2026, the Emergency Manager hosted and/or attended public meetings to revisit the current Multi-Hazard Mitigation Plan and incorporate information where applicable.

The plan update process began early in 2025. Ensuing months involved research, data gathering and outreach to regulatory agencies and other governmental entities (US Army Corps of Engineers, ND Department of Water Resources, Emmons County Water Resource Board, ND Forest Service, ND Fire Marshal's Office, US National Weather Service). Additionally, a vast amount of phone calls and emails were utilized to elicit feedback from the participating jurisdictions.

Participating Jurisdictions

Jurisdictions Located within Emmons County	Jurisdictions Asked to Participate in the Plan	Jurisdictions Represented in the Plan	Participation Status
Emmons County	Emmons County	Emmons County	Continuing Participation (2003, 2009, 2014, 2020, 2025)
City of Braddock	City of Braddock	City of Braddock	Continuing Participation (2003, 2009, 2014, 2020, 2025)
City of Hague	City of Hague	City of Hague	Continuing Participation (2003, 2009, 2014, 2020, 2025)
City of Hazelton	City of Hazelton	City of Hazelton	Continuing Participation (2003, 2009, 2014, 2020, 2025)
City of Linton	City of Linton	City of Linton	Continuing Participation (2003, 2009, 2014, 2020, 2025)
City of Strasburg	City of Strasburg	City of Strasburg	Continuing Participation (2003, 2009, 2014, 2020, 2025)

All jurisdictions were invited to participate in the update process. If they were unable to attend, the Emergency Manager did outreach to obtain input on the overall plan and mitigation opportunities.

Outreach to contiguous counties was accomplished through phone, meeting invites, and online survey invitation.

Adoption

Emmons County

2026 Emmons County Multi-Hazard Mitigation Plan

Whereas Emmons County recognizes the threat that natural, man-made or technological hazards pose to people and property within Emmons County; and

Whereas Emmons County has prepared the 2026 "Emmons County Multi-Hazard Mitigation Plan" in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

Whereas the 2026 "Emmons County Multi-Hazard Mitigation Plan" identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Emmons County from the impacts of future hazards and disasters; and

Whereas adoption by Emmons County demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2026 "Emmons County Multi-Hazard Mitigation Plan".

Now, therefore, be it resolved, by the Emmons County Commission, North Dakota, that:

The Emmons County Commission adopts the 2026 "Emmons County Multi-Hazard Mitigation Plan". While content related to Emmons County may require revisions to meet the plan approval requirements, changes occurring after adoption will not require Emmons County to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Signed this _____ day of _____ 2026

_____
Dan Materi, Chairperson
Emmons County Commission

City of Braddock

2026 Emmons County Multi-Hazard Mitigation Plan

Whereas the City of Braddock recognizes the threat that natural, man-made or technological hazards pose to people and property within the City of Braddock; and

Whereas Emmons County has prepared the 2026 "Emmons County Multi-Hazard Mitigation Plan" in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

Whereas the 2026 "Emmons County Multi-Hazard Mitigation Plan" identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Braddock from the impacts of future hazards and disasters; and

Whereas adoption by the City of Braddock demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2026 "Emmons County Multi-Hazard Mitigation Plan".

Now, therefore, be it resolved, by the City of Braddock, North Dakota, that:

The City of Braddock Commission adopts the 2026 "Emmons County Multi-Hazard Mitigation Plan". While content related to the City of Braddock may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Braddock to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Signed this _____ day of _____, 2026

_____
Theodore Naaden, Mayor
City of Braddock Commission

City of Hague

2026 Emmons County Multi-Hazard Mitigation Plan

Whereas the City of Hague recognizes the threat that natural, man-made or technological hazards pose to people and property within the City of Hague; and

Whereas Emmons County has prepared the 2026 "Emmons County Multi-Hazard Mitigation Plan" in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

Whereas the 2026 "Emmons County Multi-Hazard Mitigation Plan" identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Hague from the impacts of future hazards and disasters; and

Whereas adoption by the City of Hague demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2026 "Emmons County Multi-Hazard Mitigation Plan".

Now, therefore, be it resolved, by the City of Hague, North Dakota, that:

The City of Hague Commission adopts the 2026 "Emmons County Multi-Hazard Mitigation Plan". While content related to the City of Hague may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Hague to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Signed this _____ day of _____, 2026

_____
Christopher Baumgartner, Mayor
City of Hague Commission

City of Hazelton

2026 Emmons County Multi-Hazard Mitigation Plan

Whereas the City of Hazelton recognizes the threat that natural, man-made or technological hazards pose to people and property within the City of Hazelton; and

Whereas Emmons County has prepared the 2026 "Emmons County Multi-Hazard Mitigation Plan" in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

Whereas the 2026 "Emmons County Multi-Hazard Mitigation Plan" identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Hazelton from the impacts of future hazards and disasters; and

Whereas adoption by the City of Hazelton demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2026 "Emmons County Multi-Hazard Mitigation Plan".

Now, therefore, be it resolved, by the City of Hazelton, North Dakota, that:

The City of Hazelton Commission adopts the 2026 "Emmons County Multi-Hazard Mitigation Plan". While content related to the City of Hazelton may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Hazelton to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Signed this _____ day of _____, 2026

_____
Joshua Malard, Mayor
City of Hazelton Commission

City of Linton

2026 Emmons County Multi-Hazard Mitigation Plan

Whereas the City of Linton recognizes the threat that natural, man-made or technological hazards pose to people and property within the City of Linton; and

Whereas Emmons County has prepared the 2026 "Emmons County Multi-Hazard Mitigation Plan" in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

Whereas the 2026 "Emmons County Multi-Hazard Mitigation Plan" identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Linton from the impacts of future hazards and disasters; and

Whereas adoption by the City of Linton demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2026 "Emmons County Multi-Hazard Mitigation Plan".

Now, therefore, be it resolved, by the City of Linton, North Dakota, that:

The City of Linton Commission adopts the 2026 "Emmons County Multi-Hazard Mitigation Plan". While content related to the City of Linton may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Linton to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Signed this _____ day of _____, 2026

_____
Dan Imdieke, Mayor
City of Linton Commission

City of Strasburg

2026 Emmons County Multi-Hazard Mitigation Plan

Whereas the City of Strasburg recognizes the threat that natural, man-made or technological hazards pose to people and property within the City of Strasburg; and

Whereas Emmons County has prepared the 2026 "Emmons County Multi-Hazard Mitigation Plan" in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

Whereas the 2026 "Emmons County Multi-Hazard Mitigation Plan" identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Strasburg from the impacts of future hazards and disasters; and

Whereas adoption by the City of Strasburg demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2026 "Emmons County Multi-Hazard Mitigation Plan".

Now, therefore, be it resolved, by the City of Strasburg, North Dakota, that:

The City of Strasburg Commission adopts the 2026 "Emmons County Multi-Hazard Mitigation Plan". While content related to the City of Strasburg may require revisions to meet the plan approval requirements, changes occurring after adoption will not require the City of Strasburg to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Signed this _____ day of _____, 2026

_____
Sonya Schumacher, Mayor
City of Strasburg Commission

Existing Plans, Studies, Reports, and Technical Information

The Emmons County Multi-Hazard Mitigation Plan was developed in coordination with local, state, and federal agencies, non-profit organizations, local businesses, schools and the public. The Cities of Braddock, Hague, Hazelton, Linton, and Strasburg support county-led planning initiatives. Additionally, the Planning Team will continue to ensure the Mitigation Plan informs the plans and programs listed below by incorporating risk assessment data and mitigation actions.

Agency	Plans and Programs
American Red Cross (West Dakota)	• Shelter • Mass Care • Windshield Damage Assessment • Disaster Recovery
Braddock City Commission	• Disaster/Emergency Declarations • Budget Allocations • City Ordinances
Emmons County Emergency Management	• Local Emergency Operations Plan • Multi-Hazard Mitigation Plan • Evacuation Annex • Shelter Annex • Mass Care Annex • Public Information Officer • Social Media Coordination • Disaster Recovery • Audit Lead • Local Emergency Planning Committee • Grants Coordination • Emergency Notification
Emmons County Auditor	• Fiscal Management • Emergency Reserve Fund
Emmons County Board of Health	• Public Health Programs
Emmons County Commission	• Disaster/Emergency Declarations • Budget Allocations • County Ordinances • Planning and Zoning
Emmons County Extension Service	• Animal Health • Plant Health • Community Education
Emmons County GIS	• Hazard Mapping • Site Map Assistance
Emmons County Ministerial Association	• Mental Health • Disaster Recovery

Agency	Plans and Programs
Emmons County Planning Commission	• Revive meetings • Develop Comprehensive Plan
Emmons County Public Health	• Shelters • Community Education • Vulnerable Populations
Emmons County Road Department	• Primary Routes • Bridges • Debris Removal • Self-Fill Sandbag Sites
Emmons County School Superintendent	• Curriculum Standards (safety drills)
Emmons County Schools	• Curriculum Standards (safety drills)
Emmons County Sheriff's Department	• Traffic Control and Safety • Evacuation Routes • Emergency Notification
Emmons County State's Attorney	• Legal Review
Emmons County Zoning Ordinance	• Permitted Uses • Planning and Zoning Commission
Emmons County Water Resource Board	• Floodplain Management • Voices for Lake Oahe/Beaver Bay Project • South Central Regional Water Project • Missouri River Joint Water Resource • ND Flood Risk Management Study • Beaver Creek Impediments
Hague City Commission	• Disaster/Emergency Declarations • Budget Allocations • City Ordinances
Hazelton City Commission	• Disaster/Emergency Declarations • Budget Allocations • City Ordinances
Lewis and Clark Regional Development Council	• Comprehensive Economic Development Strategy
Linton City Attorney	• Legal Review
Linton City Commission	• Disaster/Emergency Declarations • Budget Allocations • Building Inspector • City Ordinances • Zoning and Planning
National Climatic Data Center (NCDC	• Weather Event Statistics
National Fire and Incident Reporting System (NFIRS)	• Fire Incident Statistics

Agency	Plans and Programs
ND Department of Agriculture	• Plant and Animal Statistics
ND Department of Emergency Services	• Enhanced Multi-Hazard Mitigation Plan • Review • Technical Assistance
ND Department of Health	• Disease Statistics
ND Department of Transportation	• Traffic Statistics
ND Forest Service	• Fire Incident Statistics
ND Pipeline Association	• Maps • Education/Training • Planning and Zoning
ND State Water Commission	• Dam Inventory • NFIP Data • Water Basin Data • Strasburg Slough Preliminary Findings Report
Salvation Army	• Shelter • Mass Care • Windshield Damage Assessment • Disaster Recovery
South Central Regional Water	• Rural Water • Planning
Southwest Central Emergency Preparedness	• Points of Distribution • Mass Inoculation • SWC Regional Strategic National Stockpile • SWC Regional EOP Mental Health • SWC Regional EOP Pandemic Influenza • SWC Regional EOP Mass Fatality
Strasburg City Commission	• Disaster/Emergency Declarations • Budget Allocations • City Ordinances
US Army Corps of Engineers	• Planning Assistance (Section 22) • Beaver Creek Study (underway)
US Census	• Demographics • Population Estimates
US Drought Monitor	• Drought Statistics • Maps
US Geological Survey	• Creek/River Gages
US National Weather Service	• Weather Advisories • Hazard Advisories

The American Red Cross includes the shelter information provided by Emmons County Emergency Management within their National Shelter System.

The Emmons County Commission and Emmons County Road Department utilize the mitigation projects as appropriate when developing future budgets and road priorities.

Flood mitigation projects are closely tied to the Emmons County Water Resource Board and their continuing discussions as well as the Emmons County Flood Annex. The Emmons County Zoning Floodplain Ordinance is evaluated and based on NFIP guidelines.

Emmons County updated their floodplain ordinance:
January 2, 2024, after the FEMA Flood Insurance Rate Maps were updated.
March 2, 2026, Emmons County Water Board approved an ordinance to update the authority language as provided by the State Floodplain Coordinator in accordance with SB2027.
March 2, 2026, City of Linton also approved an ordinance to update the authority language.

Communicable Disease activities parallel the Southwest Central Emergency Preparedness planning efforts.

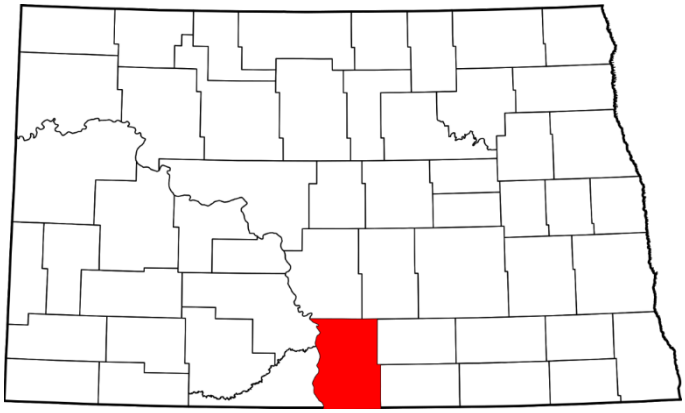
The US National Weather Service (Bismarck Office) remains in close contact with Emmons County Emergency Management and Skywarn Spotters to “truth” forecasts and/or impacts.

All jurisdictions have a Planning and Zoning Board/Commission except Braddock, Hague, and Strasburg (rely on City Ordinances).

Other integrations that correlate, not primarily based on this plan, are based on established rules, regulations and/or codes.

Community Profile

Emmons County is in south-central North Dakota with the Missouri River as the western boundary. The County seat is Linton.



Picture Source: Wikipedia website

City	Population
Braddock	18
Hague	70
Hazelton	223
Linton	1,071
Strasburg	379

Source: US Census Bureau

Emmons County has 1,510 square miles of land area and is the 14th largest county in North Dakota by total area with a population of 3,301

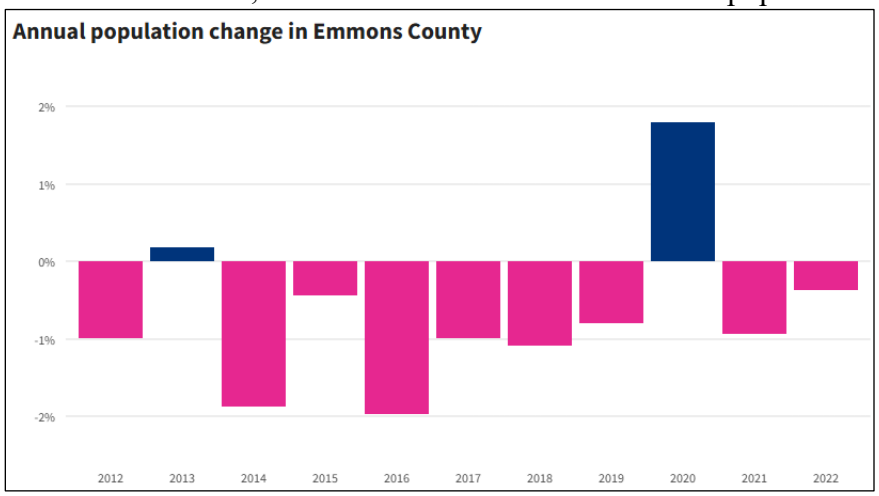
Emmons County is on the western side of the continental divide and drains through the Missouri River drainage system.

Rivers
Missouri River, Beaver Creek, and Spring Creek

Emmons County serves as a drainage basin for water flowing from McIntosh, Logan, and Emmons Counties to the Missouri River. The Beaver Creek Watershed (483,000 acres of land) and Spring Creek drain through Linton, located in the center of Emmons County.

Demographics

The 2024 population estimate is 3,209: a 2.8% decrease from the 2020 population of 3,301.



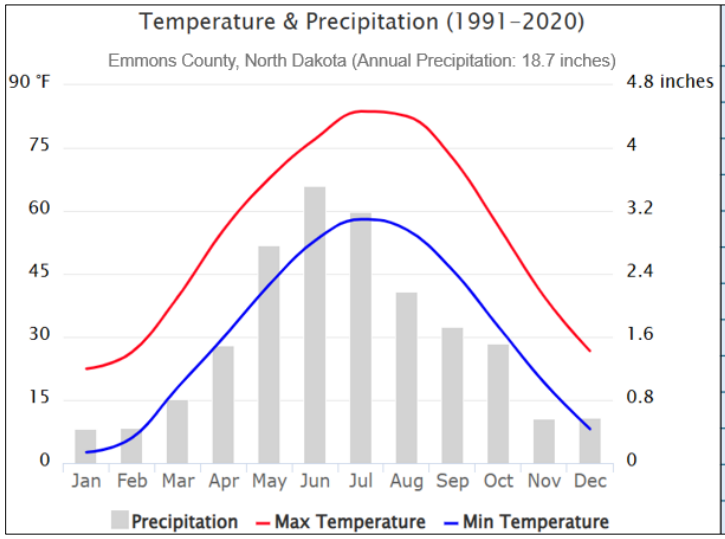
Source: US Census Bureau

Climate

General Climate Type - Continental. Temperature and precipitation are the two parameters traditionally used to describe general, large-scale climate types

Temperature. The Northern Great Plains (NGP) region in general and South-central North Dakota (Emmons County) in particular, has an extreme continental climate characterized by a very high annual variation in temperature (warm summers and cold winters) and a high daily range in temperatures, as compared to maritime climates. These high ranges in temperature are mainly due to the area's location: in the mid-north latitudes (between 45.935º and 49.00 º N), along the north border of the continental United States, centered in the North American Continent, and far from the modifying effect of oceans.

Precipitation. Moisture is a second key component of climate, with North Dakota effectively straddling "the transition from the moist eastern United States and the semiarid West" (Frankson, 2022). A high daily range in temperature is primarily due to the lower heat capacity of dry air and dry soils as compared to humid air and either moist soils or large bodies of water, so that dryer air and dryer soil will both warm and cool at a faster rate than wetter air or soil (Wikipedia: Climate of ND, 2023).

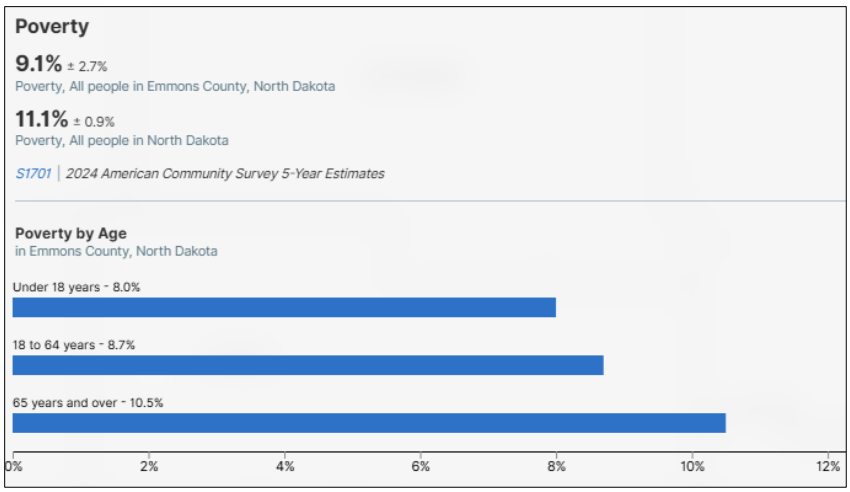


Month	Pcpn(in.) Normal	Tmax(F) Normal	Tmin(F) Normal	Tavg(F) Normal
Jan	0.43	22.3	2.4	12.4
Feb	0.42	26.3	5.9	16.1
Mar	0.82	39.4	17.9	28.7
Apr	1.49	55.3	29.8	42.6
May	2.76	67.6	42.3	55.0
Jun	3.48	77.0	52.8	64.9
Jul	3.19	83.5	57.8	70.7
Aug	2.16	82.3	55.3	68.8
Sep	1.35	72.4	45.7	59.1
Oct	1.42	56.2	32.3	44.3
Nov	0.56	39.4	19.0	29.2
Dec	0.57	26.5	7.9	17.2
Annual	18.65	54.0	30.8	42.4

The figure above shows the average monthly precipitation and the range of monthly average high and low temperatures for the Emmons County area during the most recent 30-year climate normal period, 1991-2020 (XM-ACIS, 2025; Climate Toolbox, 2024; NOAA/CAAG, 2025).

Economy

According to the US Census Bureau 2024 American Community Survey, the largest percentage of the population 48.6% is employed in the category of "Employee of private company workers" followed by 21.8% in the category of "Self-employed in own not incorporated business workers and unpaid family workers".



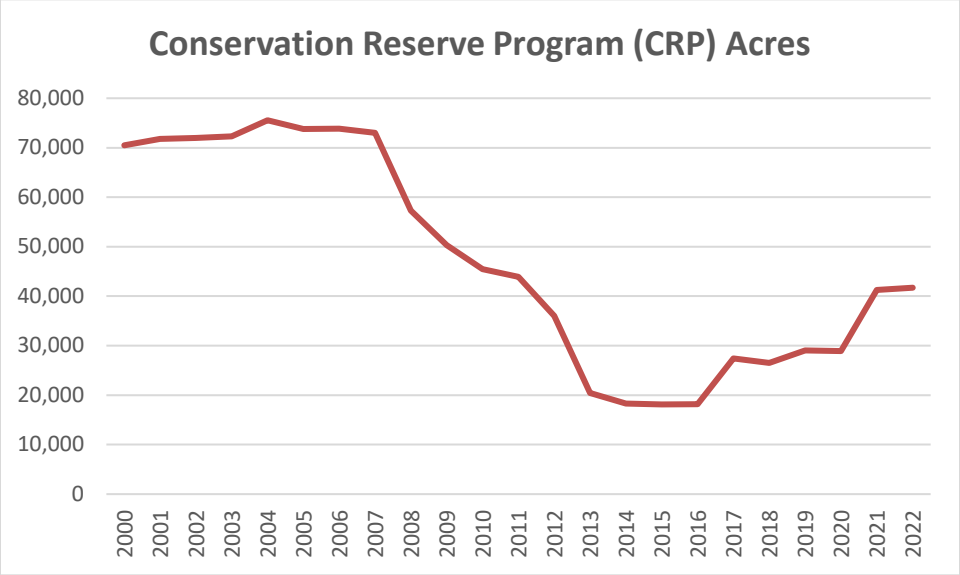
Source: US Census Bureau 2024 American Community Survey

Linton is the County seat.

Land Use Concerns

The predominant landscape of Emmons County, 94%, is split between rolling cropland (55%) and pastureland (39%). Of the remainder, less than 3 percent is developed as residential or commercial property and about 3 percent is wetlands, sloughs, or small lakes (USDA, 2022; Wroblewski, 1980). Woodlands make up less than 1 percent of the landscape in the county, primarily as homestead shelterbelts or urban plantings (Claeys, 2020). Corn and soybeans are the leading crops, with sunflowers, wheat, and hay/forage all vying for third place.

There were 510 farms in 2012 (1% decrease from 2017) that average 1,885 acres per farm. (Source: USDA Census of Agriculture) Soil erosion due to wind and water remains a problem. On steep gradients, rain washes out gullies in cultivated fields, and fields cultivated in the fall suffer extensive damage from wind. The county has 41,744 acres enrolled in the Conservation Reserve Program (CRP) which has helped mitigate the erosion problem.



Data Source: US Department of Agriculture, Farm Service Agency

Emmons County continues to study a variety of mitigation activities. Soil erosion, water supply, and water quality are major land use concerns of the county.

The Emmons County floodplain ordinance was last updated in 2024. Additionally, the Emmons County Water Resource District utilizes previous flood event data when considering flood control projects and includes non-structural project recommendations such as amending floodplain ordinances in direct correlation with National Flood Insurance Program recommendations and FEMA's flood insurance rate map data.

Development

The Linton Industrial Development Corporation leads economic development in the Linton area. The nonprofit corporation was formed in 1984 and is focused on assisting new business development and moving or expanding businesses into the community.

Many of the local jurisdictions have economic development committees to attempt to bring industry to their jurisdiction. Emmons County has many miles of lake and river shore, respectively, along the Oahe Dam and Missouri River, which are being developed for recreational purposes.

Building Permits				
Year	**Type**	**Buildings**	**Housing Units**	**Construction Cost**
2020	Single Family		7	$1,400,000
2021	Single Family		19	$5,625,000
2022	Single Family		4	$1,334,000
2023	Single Family		16	$5,708,000
2024	Single Family		15	$4,479,000
2020	Commercial	2		$2,040,000
2021	Commercial	3		$230,000
2022	Commercial	0		0
2023	Commercial	0		0
2024	Commercial	5		$7,264,200

(Source: Emmons County Tax Director)

Emmons County is experiencing a decrease in population due to outmigration and aged population. The 2024 census data identifies persons 65+ at 17.6% in North Dakota, and Emmons County is at 29.7%. (Source: US Census Bureau 2024 American Community Survey)

Outreach to the Linton City Administrator and Linton Industrial Development Corporation provided information on lack of housing ability coupled with outside investors buying the properties as secondary homes and/or renting them. In the last five years, the Family Dollar store closed in 2024. Other closures resulted in new buyers and business development. The housing industry is extremely tight with many homes being sold before going on the market. Buyers are from out-of-state as well as local. City of Linton staffing is at 100% with no issues filling vacant positions. Commercial development included the 2020 oil pumping station and 2024 grain receiving plant.

The ND Public Service Commission approved a $181M, 140-megawatt battery energy storage project (Emmons-Logan Energy Storage) which will be the state's first facility. Developed by NextEra, it will cover 10-24 acres near Linton (20 miles northeast of Linton) to store excess wind emergency, with operation targeted for late 2026. In 2025, the Emmons County Board of Commissioners voted to approve a conditional use permit for the Emmons County Logan Energy Storage Project, a battery energy storage facility proposed by NextEra, and accepted a negotiated permit fee of $3,960,000 (3% of the project's infrastructure cost) in August 2025.

Emergency Management and first responders are waiting for the emergency response plan which will address potential "thermal runaway" risk.

Source: Emmons County Record

Risk Assessment

The 15 hazards identified by the ND Department of Emergency Services were utilized for the risk assessment. (Source: ND Enhanced Mitigation Mission Area Operations Plan, 2024-2029)

Natural Hazards	Technological Hazards	Human-Caused Incidents
Drought	Dam Failure	Civil Disturbance
Flood	Hazardous Materials Release	Criminal Attack
Geologic Hazards	Transportation Incident	Cyberattack
Infectious Disease and Pest Infestation		Terrorist or Nation-State Attack
Severe Summer Weather		
Severe Winter Weather		
Space Weather		
Wildfire/Urban Fire		

- **Natural hazards**: acts of nature. The natural hazards identified in this plan are Flood, Fire, Drought, Severe Winter Weather, Severe Summer Weather, Infectious Disease and Pest Infestation, Space Weather and Geologic Hazards.
- **Technological hazards**: accidents or the failures of systems and structures. Technological hazards in this plan include Dam Failure, Hazardous Material Release, and Transportation Incidents.
- **Human-caused incidents**: the intentional actions of an adversary. Human-caused incidents in this plan include Cyberattack, Criminal Attack, Civil Disturbance and Terrorist or Nation-State Attack.

Risk Assessment by Jurisdiction						
Hazard	**Emmons County**	**Braddock**	**Hague**	**Hazelton**	**Linton**	**Strasburg**
Civil Disturbance	X	X	X	X	X	X
Criminal, Terrorist, or Nation-State Attack	X	X	X	X	X	X
Cyberattack	X	X	X	X	X	X
Dam Failure	X					
Drought	X	X	X	X	X	X
Fire (urban and wildland)	X	X	X	X	X	X
Flood	X	X	X	X	X	X
Geologic Hazards	X					
Hazardous Materials Release	X	X	X	X	X	X
Infectious Disease and Pest Infestations	X	X	X	X	X	X
Severe Summer Weather	X	X	X	X	X	X
Severe Winter Weather	X	X	X	X	X	X
Space Weather	X	X	X	X	X	X
Transportation Incident	X	X	X	X	X	X

The jurisdictions are affected by the hazards with slight variances in susceptibility. Changes in development and land use has not affected community vulnerability.

Civil Disturbance and Criminal, Terrorist, or Nation/State Attack
All jurisdictions could be impacted; however, greater vulnerability would be anticipated in the most populous city—City of Linton. The greatest threat would be significant impact to critical facilities and/or infrastructure.

Dam Failure
The western portion of Emmons County would be most to vulnerable dam failure from Garrison Dam, located approximately 130 miles northwest of the City of Linton, Emmons County.

All the dams in Emmons County are classified as "Low Hazard Potential" with the exception of Nieuwsma Dam which is classified as "Significant" and has an Emergency Action Plan which identifies 11 homes in the area. Dam failure for "Low Hazard" dams may result in low economic, environmental, and lifeline losses generally limited to the owner with no expected loss of human life. Failure of the Nieuwsma Dam would result in economic, environment, and lifelines losses with no expected loss of human life.

Drought
Although many rural residents have their own wells, rural Emmons County would suffer great agricultural losses in drought. Grain elevators in Braddock, Hague, Linton, and Strasburg as well as Hazelton's Cenex-Agronomy may suffer losses due to drought and loss of crops.

Water Supplies: The South Central Regional Water District is the major supplier for Emmons County along with Web Water (rural water) for the southern half of Emmons County. The incorporated cities (excluding Hazelton) have access to a water treatment plant along the Missouri River at Beaver Bay into Lake Oahe (2.5 million gallon per day water treatment plant and a 500,000-gallon storage reservoir). Water supply is adequate with rare requests to decrease water consumption during periods of drought/extreme heat.

In addition to South Central Regional Water:

- The City of Hazelton has a 50,000-gallon water tower with a backup generator.
- The City of Linton has two underground water tanks—one holds 150,000 gallons and the other holds 250,000. The tanks are fed from South Central Regional Water.
- Strasburg has a 75,000-gallon water tank which can be hooked up to a portable generator.
- Braddock and Hague rely solely on Web Water.

Resources for potable water supplies are identified in the Emmons County Emergency Operations Plan.

Fire
The impacts of drought and wildland fire could impact city residents in a number of ways; however, rural Emmons County is more susceptible to these hazards due to open prairie and agricultural activities. The areas around the cities (wildland urban interface) have increased opportunity to sustain damage from prairie fires. The incorporated cities are more vulnerable to urban fire with losses greater in the more populated cities.

Fire Departments continue to lose volunteers and could run the risk disbanding. All fire department in Emmons County are 100% volunteer personnel. Additional and/or replacement equipment is always needed and sought through fundraising, donations, and grants.

Flood
The following figure displays that no jurisdiction is immune to flood vulnerability and has either experienced the vulnerability or has the increasing susceptibility to experience the vulnerability. Additionally, inundation maps show the vulnerability and can be found in the Attachments.

Emmons County remains prepared through review and update of the Emmons County Flood Annex.

Flood Vulnerabilities by Jurisdiction

	Emmons County	Braddock	Hague	Hazelton	Linton	Strasburg
River Flooding	X				X	X
Overland Flooding	X	X	X	X	X	X
Ice Jam Flooding	X				X	
Lift Stations					X	
Lagoon Overruns			X			X
Road Washouts	X	X	X	X	X	X

Geological Hazards
No jurisdictions have significant history of this hazard; however, the western edge of Emmons County is the most susceptible along the Missouri River.

The only jurisdiction affected would be rural Emmons County. Approximately 30 farmsteads could experience some land erosion as well as the following recreational areas: Badger Bay, Bayside Resort/Beaver Bay, Cattail Resort, Hazelton Recreation Area, and Langeliers Bay.

Hazardous Materials Release and Transportation Accident
Varied levels of susceptibility are apparent for all jurisdictions. Highway 83 runs through the middle of Emmons County (including Hazelton, Linton, and Strasburg). Additionally, County Highway 34 runs through Hazelton, and County Highway 10 runs through Hague. Railroad tracks run through Braddock. Throughout the year, farmers transport anhydrous ammonia in pup tanks. (See Attachment 3, Major Roadways Map in Emmons County)

The City of Linton is far more susceptible to the hazards due to being an urban center with the highest population density in Emmons County. Other factors increasing susceptibility include:

- County Seat
- Governmental Buildings (local, state, and federal)
- Hospital
- Increased Transportation Flow

Hazardous Materials Release and Transportation Accident						
	Emmons County	Braddock	Hague	Hazelton	Linton	Strasburg
Anhydrous Ammonia	**X**	**X**	**X**	**X**	**X**	**X**
Bulk Fuel	**X**	**X**	**X**	**X**	**X**	**X**
Bulk Fertilizer	**X**	**X**	**X**	**X**	**X**	**X**
Farm Chemicals	**X**		**X**		**X**	
Propane	**X**			**X**		**X**
Fuel and Gas	**X**	**X**	**X**	**X**	**X**	**X**
Natural Gas					**X**	
Major Transportation Route	**X**		**X**	**X**	**X**	**X**
Railroad	**X**	**X**				

Infectious Disease
Each jurisdiction is susceptible to infectious diseases and pest infestations; however, the more rural communities of Braddock, Hague, and unincorporated Emmons County are particularly susceptible to diseases that impact plants and animals. The cities are more susceptible to communicable disease due to population density.

Severe Summer Weather
All jurisdictions are impacted. Severe summer weather incidents may cause major economic losses based on the level of impact. Rural Emmons County residents have backup power sources (generators and/or coal or wood-burning stoves) and extra fuel sources (gas and propane).

The communities of Braddock, Hague, and Hazelton each maintain an outdoor warning siren with manual operation, while Linton and Strasburg each maintain an outdoor warning siren with remote activation. All sirens are utilized to alert fire or ambulance crews and to signify a tornado. The Cities of Braddock and Hazelton do not maintain an outdoor warning siren and relay on alternate resources (all-hazards radio, traditional media).

The Emmons County Courthouse Auditorium is available as a shelter during periods of power outages caused by extreme summer weather events.

Severe Winter Weather
All jurisdictions are impacted by severe winter weather and its subtypes with frequency generally during the period from mid-November through early April. Rural Emmons County residents have backup power sources (generators and/or coal or wood-burning stoves) and extra fuel sources (gas and propane). Windstorms may result in downed power lines coupled with damage from flying debris and damage to facilities.

The Emmons County Courthouse Auditorium is available as a shelter or temporary warming center during periods of power outages caused by extreme winter weather events.

Space Weather
No jurisdictions have any significant history of this hazard. Disruption of critical facilities and infrastructure would have a significant effect on each jurisdiction to include medical, law, fire and facilities dependents on satellite data. Emergency services will continue to operate in a diminished capacity if there is a disruption to communications technology.

Critical facilities with backup power:

Linton/Emmons: Linton Hospital, Linton City Hall, Linton Lift Station, and the Emmons County Courthouse (Sheriff's Department, Emergency Operations Center). The Emmons County Road Department also has two, portable generators.

Braddock: None

Hague: None

Hazelton: Fire Department

Strasburg: Strasburg Care Center

Critical Facilities

Critical facilities and infrastructure are assets essential to public safety and continuity of government operations. Damaged or destroyed facilities or infrastructure could have debilitating effects on safety, security, public health, or the economy in Emmons County, including Braddock, Hague, Hazelton, Strasburg, and Linton.

The hazards most likely to impact critical facilities are cyberattack, flood, hazardous materials release, severe summer weather, severe winter weather, and space weather.

- Cyberattack: Critical facilities utilize computerized system(s) as a main function of providing services.

- Flood: Flooding of Beaver Creek would mainly cause damage to the areas south of the Emmons County Courthouse as well as farmland and rural homes along the creek areas until it meets the Missouri River. During flooding events, roads may become inundated with water and cut off accessibility to critical facilities.

- Hazardous Materials Release: Hazardous materials are transported into and within Emmons County through Highways Dependent upon location of release, critical facilities could be affected with damage or complete loss.

- Space Weather: Solar flares would impact communications, solar radiation storms will impact satellites, and geomagnetic storms will cause the greatest damage—disrupting navigation systems such as the Global Navigation Satellite System (GNSS) and creating harmful geomagnetic-induced currents (GICs) in the power grid and pipelines. It's possible for these storms to cause power grid energy spikes, which could trigger fires, power blackouts and physically harm individuals coming into contact with storm-spiked wires or pipelines.

- Summer Weather: Extreme heat, hail, lightning, high winds, and tornadoes may cause damage or complete loss to some critical facilities in Emmons County.

- Winter Weather: Major arterials are vulnerable to becoming blocked with snow making them impassible. Many county and township roads become blocked during winter storms and cities are largely affected by winter storms.

Major facilities and infrastructure:

Category	Type
Communications	Cell Towers Communication Towers Media
Emergency Services	Law Fire Emergency Medical Services (EMS) ND National Guard Public Works
Energy/Utility	Electric Power Generation and Substations Pipelines Transmission Lines Utility Companies Water Distribution Systems Water Towers Lagoons/Water Treatment
Financial Institutions	Banks Credit Unions
Government	Courthouses Jail Schools
Industrial and Storage	Food Processing and/or Storage Fuel Health and Medical Supplies Major Industries
Medical	Clinics Hospitals Long-Term Care Facilities Pharmacies
Transportation	Airport Highways/Bridges Railroad

Hazards Excluded from this Plan

Hazard	Notes
Avalanche	Avalanches require slopes that generally do not exist in Emmons County. Emmons County is not covered by the National Avalanche Center and has no history of declared avalanche disasters.
Climate Change	Climate change is addressed as a condition that impacts most hazards and not as a separate hazard.
Coastal Erosion	Emmons County does not have an ocean coastline.
Coastal Storm	Emmons County does not have an ocean coastline.
Hurricane	Emmons County does not have an ocean coastline.
Public Utility Failure	Utility failure is viewed as a consequence of other hazards and not as a separate hazard.
Shortage/Outage of Critical Materials	Lack of critical materials is viewed as a consequence of other hazards and not as a separate hazard.
Tsunami	Emmons County does not have an ocean coastline.
Volcano	Emmons County has no identified volcanoes; however, volcanic ashfall can occur over Emmons County, but the frequency is rare, and the potential impacts are not expected to exceed local capabilities. The impact of an external volcano is discussed in geologic hazards.
Windstorm	Windstorms are identified in severe summer and severe winter weather hazards.

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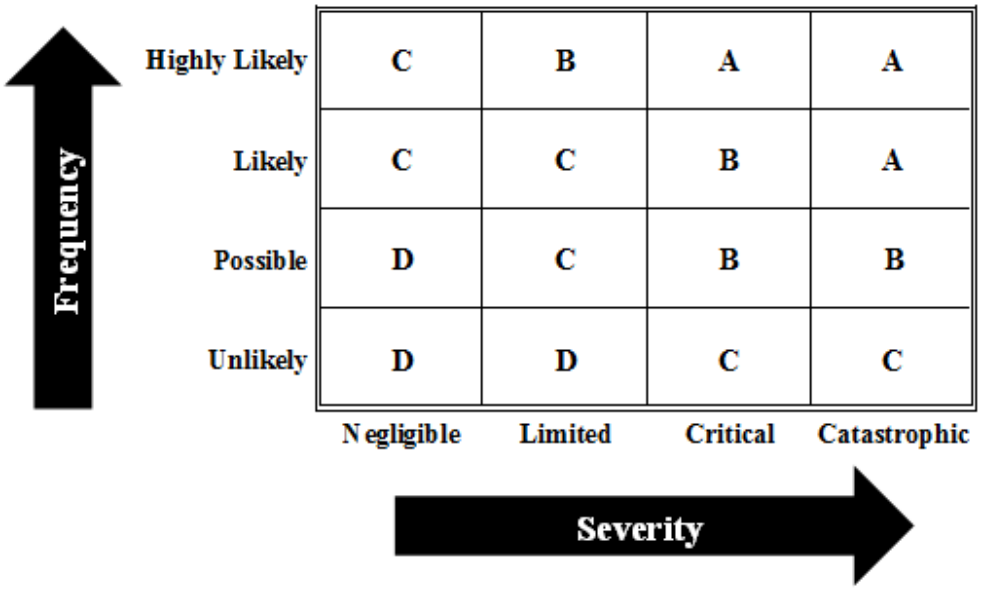
Risk Analysis Worksheet

Frequency: How often is this hazard likely to develop in this area?

Highly Likely	Nearly 100% probability in the next year
Likely	10–100% probability in the next year, or at least 1 chance in next 10 years
Possible	1–10% probability in the next year, or at least 1 chance in next 100 years
Unlikely	Less than 1% probability in next 100 years

Severity: What is the expected extent of damage caused by this type of hazard?

Catastrophic	More than 50% of jurisdiction affected
Critical	25–50% of jurisdiction affected
Limited	10–25% of jurisdiction affected
Negligible	Less than 10% of jurisdiction affected



(Source: Risk Assessment Matrix and FEMA Multi-Hazard Identification and Risk Assessment, January 1, 1997, Risk Assessment Approaches – Chapter/Section Number: Part 3)

Risk Class: Classification of the overall risk posed to the jurisdiction and immediacy of necessary action:

Seasonal Pattern: When is the type of hazard most likely to occur?

Probable Duration: How long will this event typically have an impact on the community?

Speed of Onset: How much advance warning does the community have for this type of event?

Location/Jurisdiction: Which areas are affected?

Risks: Types of situations that might result from the hazard.

Hazard
Frequency: _____ **Severity:** _____ **Risk Class:** _____ **Seasonal Pattern:** _____ **Duration:** _____ **Speed of Onset:** _____

DESCRIPTION:

IDENTIFIED IMPACTS:

HISTORY:

Emmons County Hazard Risk Analysis Chart with Vulnerabilities for each Hazard

Risk Class:	C	C	A	D	B	D	C	C	B	B	B	A	B	C
HAZARD	Civil Disturbance	Criminal, Terrorist, or Nation/State Attack	Cyberattack	Dam Failure	Drought	Fire	Flood	Geologic Hazards	Hazardous Materials Release	Infections Disease and Pest Infestations	Severe Summer Weather	Severe Winter Weather	Space Weather	Transportation Accident
Agriculture	X		X	X	X	X	X	X	X	X	X	X	X	X
Blocked Roads	X	X	X	X		X	X	X			X	X	X	X
Building Collapse				X		X		X			X	X		X
Business Interruptions	X	X	X	X	X	X	X	X		X	X	X	X	X
Delayed Emergency Response	X	X	X	X		X	X	X		X	X	X	X	X
Downed Power Lines		X		X		X	X	X			X	X		
Downed Trees				X		X	X	X			X	X		
Evacuation (Full)		X												
Evacuation (Localized)	X	X		X		X	X	X	X	X	X	X		X
Explosion		X				X		X	X					X
Flooding (Street)				X			X				X			
Flooding (Structure)				X			X				X			
HAZMAT Release		X		X		X	X	X	X		X	X		X
Increased Fire Potential		X			X	X	X	X	X		X	X	X	X
Increased Public Safety Runs	X	X		X		X	X	X	X	X	X	X	X	X
Livestock Injury/Death		X		X	X	X	X		X	X	X	X		
Loss of Economy		X	X	X	X	X	X	X	X	X	X	X	X	X
Loss/Overcrowded Medical Facilities		X				X	X	X	X	X	X		X	X
Loss of Potable Water		X		X	X		X	X	X	X	X	X		X
Loss of Power		X	X	X		X	X	X			X	X	X	
Mass Casualties		X		X		X		X	X	X	X		X	X
Personal Injury/ Death Risk	X	X		X	X	X	X	X	X	X	X	X	X	X
Property Damage		X		X	X	X	X	X	X		X	X	X	X
School Closure		X		X		X		X	X	X	X	X		X
Sewer Backup				X			X				X			
Wind Chill	X											X		

Overall Vulnerability Summary

HAZARD	Description
Civil Disturbance	No change.
Criminal, Terrorist or Nation-State Attack	No change.
Cyberattack	Changed from Possible to Highly Likely due to history and trends
Dam Failure	No change.
Drought	No change.
Fire	No change.
Flood	No change.
Geologic Hazards	Changed from Likely to Highly Likely due to radon inclusion
Hazardous Materials Release	No change.
Infectious Diseases and Pest Infestations	No change.
Severe Summer Weather	No change.
Severe Winter Weather	No change.
Space Weather	Change from Possible to Likely due to history
Transportation Accident	No change.

THIRA Survey Results

		Very Likely	Likely	Possible	Unlikely	Improbable
	Score	5	4	3	2	1
Catastrophi	5				• Nuclear Terrorism Attack	
Significant	4					
Moderate	3			• Animal Disease Outbreak	• Chemical Terrorism Attack • Explosives Terrorism Attack • Biological Terrorism Attack	
Minor	2			• Armed Assault • Human Pandemic Outbreak • Biological Food Contamination • Chemical Substance Spill/Release	• Chemical/Biological Food or Food Production Attack • RDD Terrorism Attack	
None/ Negligible	1	• Winter Storms • Wildfire	• Summer Storms • Flood	• Cyber Attack	• Dam Failure • Aircraft as a Weapon • Radiological Substance Release	

*Based on 9 responses

THIRA Step 2 complete. THIRA Steps 3-4 completed in 2020 and reviewed in 2024.

Emmons County Disaster Declarations

Number	Declared	State	Description
4895	10-22-2025	North Dakota	Severe Storms, Straight-Line Winds
4888	09-11-2025	North Dakota	Severe Storm, Tornadoes, and Straight-line Winds
4613	09-01-2021	North Dakota	Severe Storms and Wind
4509	04-01-2020	North Dakota	Covid-19 Pandemic
4475	01-21-2020	North Dakota	Flooding
4444	06-12-2019	North Dakota	Flooding
1907	04-30-2010	North Dakota	Flooding
1879	02-26-2010	North Dakota	Severe Winter Storm
1829	03-24-2009	North Dakota	Severe Storms, Flooding
1334	06-27-2000	North Dakota	Severe Storms, Flooding
1279	06-08-1999	North Dakota	Severe Storms, Tornadoes, Snow and Ice, Flooding, Ground Saturation, Landslides and Mudslides
1174	04-07-1997	North Dakota	Severe Storms, Flooding
1157	01-12-1997	North Dakota	Severe Winter Storms, Blizzards
1118	06-05-1996	North Dakota	Flooding
1050	05-16-1995	North Dakota	Flooding, Ground Saturation
1001	07-26-1993	North Dakota	Flooding, Severe Storms
581	04-26-1979	North Dakota	Snowmelt, Flooding
554	04-17-1978	North Dakota	Ice Jams, Snowmelt, Flooding
434	05-14-1974	North Dakota	Heavy Rains, Snowmelt, Flooding
287	06-05-1970	North Dakota	Severe Storms, Flooding
256	04-18-1969	North Dakota	Flooding

Source: Source: http://www.fema.gov/disasters

Emmons County Emergency Declarations

Number	Declared	State	Description
3477	03-13-2020	North Dakota	North Dakota Covid-19
3309	03-14-2010	North Dakota	Flooding
3247	09-13-2005	North Dakota	Hurricane Katrina Evacuation
3061	02-16-1978	North Dakota	Blizzard, Snowstorms
3016	07-21-1976	North Dakota	Drought

Source: Source: http://www.fema.gov/disasters

US Department of Agriculture Secretarial Disaster Declarations

USDA Secretarial Disaster Declarations – Emmons County Crop Disaster Losses by Crop Year														
Crop Year	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Primary	X	X		X	X	X	-		-	X	X	-		
Contiguous		-				-			X				-	

Source: USDA/FSA, 2025. (https://www.fsa.usda.gov/resources/disaster-assistance-program/disaster-designation-information)

Hazards

Civil Disturbance

Frequency	Likely (10-100% probability in the next year, or at least 1 chance in next 10 years)
Severity	Limited (10-25% of jurisdiction affected)
Risk Class	C
Seasonal Pattern	None
Duration	Hours/Days
Speed of Onset	No warning
Location	Countywide
Impacts	Blocked Roads, Business Interruptions, Delayed Emergency Response, Increased Public Safety Runs, Property Damage

Description
Civil disturbances are defined as group acts of violence and disorders prejudicial to public law and order; terrorist incidents, a form of civil disturbance, are defined as distinct criminal acts committed or threatened to be committed by a group or individual to advance a political objective. (Source: U.S. Department of Justice Office of Justice Programs)

Civil disturbances can occur anywhere in Emmons County. Most civil disturbances are local in scale and within the capability and responsibility of local law enforcement. It is not possible to predict the location of a civil disturbance; however, large venue locations such as stadiums, government facilities, industrial facilities, and locations with correctional facilities may be more susceptible to such incidents.

History
Smaller-scale protests can and have occurred in within Emmons County:

- Emmons County Courthouse
- DAPL (pipeline pad located west of Temvik along the Missouri River)

November 13-14, 2019: The ND Public Service Commission held a public hearing regarding the addition of a pump station to the existing Dakota Access Pipeline. The public hearing started on November 13th at the Emmons County Courthouse and ended at ended at 12:30 AM on November 14, 2019. The event involved approximately 40 entities and included protestors in favor and against the pump station.

2016: The Dakota Access Pipeline (DAPL) project resulted in multiple criminal activities including acts of vandalism, trespassing, riots, vehicles, hay bales and tires set on fire, and the arrest of 709 protesters. The protestors gathered to express concern about the installation of an 1134-mile-long crude oil pipeline across North Dakota and other states. The protest transitioned into an unlawful assembly and civil disorder on August 10, 2016, when individuals attempted to block access to construction activities associated with the pipeline. Originally an environmental-focused event, it quickly grew from a few hundred participants to numbers estimated near 10,000. It also expanded its scope to include real or perceived concerns surrounding Native American rights, as well as a myriad of other environmental concerns not necessarily associated with construction of the DAPL. Widespread criminal activity spawned from the protest, to include vandalism, terroristic threats, and intimidation tactics directed at local landowners as well as law enforcement and their families, doxing of law enforcement and other officials (doxing is the Internet-based practice of researching and broadcasting private or identifiable information), arson, poaching, and the theft and killing of livestock in the area. The majority of activities occurred in Morton and Sioux Counties; however, Burleigh and Emmons Counties also experienced activity on a smaller scale. (Source: ND State Emergency Operations Plan, December 2018)

Criminal, Terrorist, or Nation/State Attack

Frequency	Likely (10-100% probability in the next year, or at least 1 chance in next 100 years)
Severity	Limited (10-25% of jurisdiction affected)
Risk Class	C
Seasonal Pattern	None
Duration	Hours/Days
Speed of Onset	No warning
Location:	Countywide
Impacts	Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Evacuation (Localized), Explosion, HAZMAT Release, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Loss of Power, Mass Casualties, Property Damage, School Closure

Description

International Humanitarian Law defines attacks as acts of violence against the adversary, whether in offense or defense in whatever territory conducted Criminal attack can occur anywhere, including a residence. Mass attacks, such as shooting, are more likely to occur where there is a gathering of people with the potential to be victims.

The Federal Bureau of Investigation (FBI) identifies two categories:

> **International terrorism**: Violent, criminal acts committed by individuals and/or groups who are inspired by, or associated with, designated foreign terrorist organizations or nations (state-sponsored)
>
> **Domestic terrorism**: Violent, criminal acts committed by individuals and/or groups to further ideological goals stemming from domestic influences, such as those of a political, religious, social, racial, or environmental nature

The most populated area, City of Linton, is far more susceptible to this risk than other jurisdictions within the County.

History
Although there have been no National Security Emergencies specific to Emmons County, any suspicious activity is reported to the ND State and Local Intelligence Center.

Jurisdiction	Number of Crimes		
	2023	2022	2021
Emmons County Sheriff's Office	125	126	128

Source: ND Bureau of Criminal Investigation

August 10, 2016 - March 23, 2017: One of the longest unlawful assemblies and civil disorders in United States history occurred in response to the construction of the Dakota Access Pipeline, which connected the Bakken and Three Forks production areas in North Dakota to Patoka, Illinois. Individuals first lawfully protested this construction project, believing that a pipeline leak would contaminate the water supply on the nearby Standing Rock Reservation. The protest escalated December 20, 2018, 56 into an unlawful assembly and civil disorder on August 10, 2016. This occurred along North Dakota State Highway 1806, just north of Cannonball, North Dakota. The majority of activities occurred in Morton and Sioux Counties; however, Burleigh and Emmons Counties also experienced activity on a smaller scale. (Source: ND State Emergency Operations Plan, December 2018)

Cyberattack

Frequency	Highly Likely (Nearly 100% probability in the next year)
Severity	Critical (25-50% of jurisdiction affected)
Risk Class	A
Seasonal Pattern	None
Duration	Days/Weeks
Speed of Onset	None
Location	Countywide
Impacts	Agriculture, Blocked Roads, Business Interruptions, Delayed Emergency Response, Loss of Economy, Loss of Power

Description
Hacker, attacker, or intruder — These terms are applied to the people who seek to exploit weaknesses in software and computer systems for their own gain. Although their intentions are sometimes benign and motivated by curiosity, their actions are typically in violation of the intended use of the systems they are exploiting. The results can range from mere mischief (creating a virus with no intentionally negative impact) to malicious activity (stealing or altering information). Source: Cybersecurity and Infrastructure Security Agency

Unified Cybersecurity Approach
April 11, 2019: Senate Bill 2110 was signed by the Governor to make ND the first state to authorize a central, shared service approach to cybersecurity strategy across all aspects of state government including state, local, legislative, judicial, K-12 education and higher education. The state network has 252,000 daily users and more than 400 entities.

History
Cyberattacks against North Dakota state government nearly tripled last year. "Shawn Riley, North Dakota's chief information officer and head of the information technology department, said there were more than 15 million cyberattacks against the state's government per month in 2019, a 300 percent increase since 2018. In 2018, there were about 5 million attempted cyberattacks per month." (Source: The Hill, January 18, 2020)

Cyberattacks occur on a daily basis and are mitigated through protected networks and servers through the ND Department of Information Services. State officials estimate the state sees roughly five million cyberattack attempts each month. (Source: Government Technology, April 12, 2019)

Known attacks:

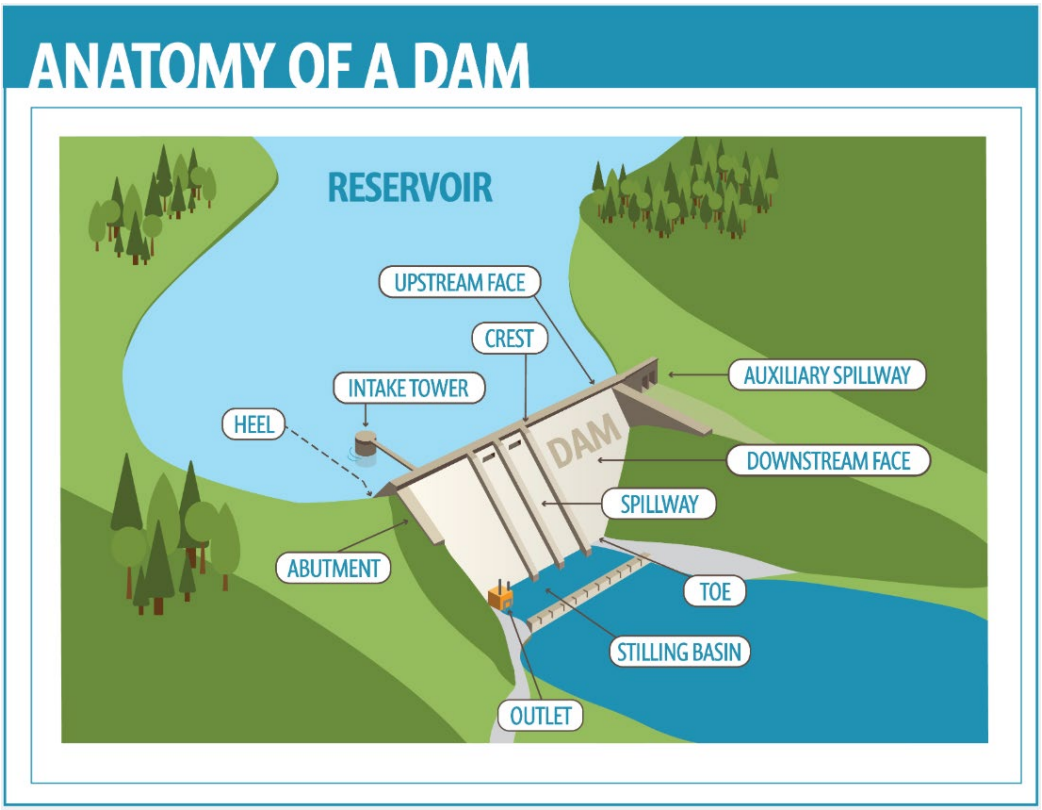
In May 2020, the state's largest fiberoptic network, Dakota Carrier Network (DCN), was hit with a ransomware attack launched by the Maze cybercriminal outfit (Martin, 2020). Among DCN's clients are the state government and 400 other public entities. The data being held for ransom was determined not to be critical to protecting customers; the company refused the ransom request.

2016: During the Dakota Access Pipeline (DAPL) criminal protests, unknown individual(s) released personally identifying information of local officials and law enforcement officers who assisted in the protest response with the intent to have others harass and/or intimidate them or their families. This attack was accomplished through Doxing emails and social media posts, which publicly identifies or publishes private information about someone, especially as a form of punishment or revenge.

Dam Failure

Frequency	Possible (1-10% probability in next year, or at least 1 chance in next 100 years)
Severity	Less than 10% of jurisdiction affected
Risk Class	D
Seasonal Pattern	Spring/Summer
Duration	Days/Weeks
Speed of Onset	Little Warning
Location	Western Boundary of Emmons County and Nieuwsma Dam Area
Impacts	Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Downed Trees, Evacuation (Localized), Flooding (Street), Flooding (Structure), HAZMAT Release, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss of Potable Water, Loss of Power, Mass Casualties, Property Damage, School Closure, Sewer Backup

Description
A dam is a structure that is built across a river or body of water to hold, divert, or regulate water. Often the body of water stored behind a dam is referred to as the reservoir or lake.



Source: United States Army Corps of Engineers National Inventory of Dams

Two low-head dams are located in Emmons County (all within five miles from the City of Linton). The ND Department of Water Resources definition: "Low head dams are usually simple concrete or rock masonry structures that span the width of the river or stream, raising the water level behind them until it reaches a height sufficient to flow over the dam. These low head dams can create dangerous conditions that the public may not be aware of or may underestimate. Under the right conditions, water flowing over the dam can cause a "roller effect" on the downstream side of the dam. Strong recirculating currents can trap and drown boaters, swimmers, or other members of the public."

Because low head dams are known to be dangerous, the ND Department of Water Resources provides free cautionary safety signs to the owners of these dams. Multiple signs per dam will be provided; however, installation is a local responsibility.

Beaver Creek low-head dam west of the City of Linton.

The ND Department of Water Resources identifies 187 dams (structure type) in Emmons County. All dams have an element of hazard to cause loss of life and property damage should the dam fail. Emmons County does not have any dams currently classified as high-hazard, but it does contain one significant-hazard dam (Nieuwsma Dam has an Emergency Action Plan) and several low-hazard structures. Rural Emmons County and the Cities of Hague and Linton are at risk for dam failure while dams do not pose a threat to the cities of Hazelton and Strasburg. No other dam failures in the jurisdiction affect critical infrastructure but may cause agricultural or environmental damage.

Dam failure hazard classifications (High, Significant, Low) assess the potential consequences of a dam failure, specifically risks to human life and economic/environmental damage downstream, rather than the dam's physical condition or structural integrity. These classifications determine maintenance standards, emergency action planning, and regulatory oversight.

Hazard Classifications (FEMA Federal Guidelines for Dam Safety**)**

- LOW HAZARD POTENTIAL Dams assigned the low hazard potential classification are those where failure or misoperation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.
- SIGNIFICANT HAZARD POTENTIAL Dams assigned the significant hazard potential classification are those dams where failure or mis-operation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or can impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas but could be located in areas with population and significant infrastructure.
- HIGH HAZARD POTENTIAL Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

The Nieuwsma Dam is classified as "Significant" and is located 5 miles south, 1 mile east, and 1 mile north of the intersection of US Highway 83 & ND 11. It's a recreational purpose dam and a popular fishing area in Emmons County. Failure of the rural dam would most likely result in agricultural loss due to location and three farmsteads with multiple structures.

Location	Type	Structure Name	Purpose	Federal Hazard Class
12907527AAA	Dam	Nieuwsma Dam	Recreation	Significant

Source: ND Game and Fish website

History

July 15, 1995—Dam Failure. Reports of up to 10 inches of rain during the first part of July caused the Appert Lake Dam (Located southeast of Hazelton. . Latitude: 46.446656, **Longitude:** -100.2120562) to fail. Parts of Highway 13 were flooded for a time. No reports of property damage were received.

Drought

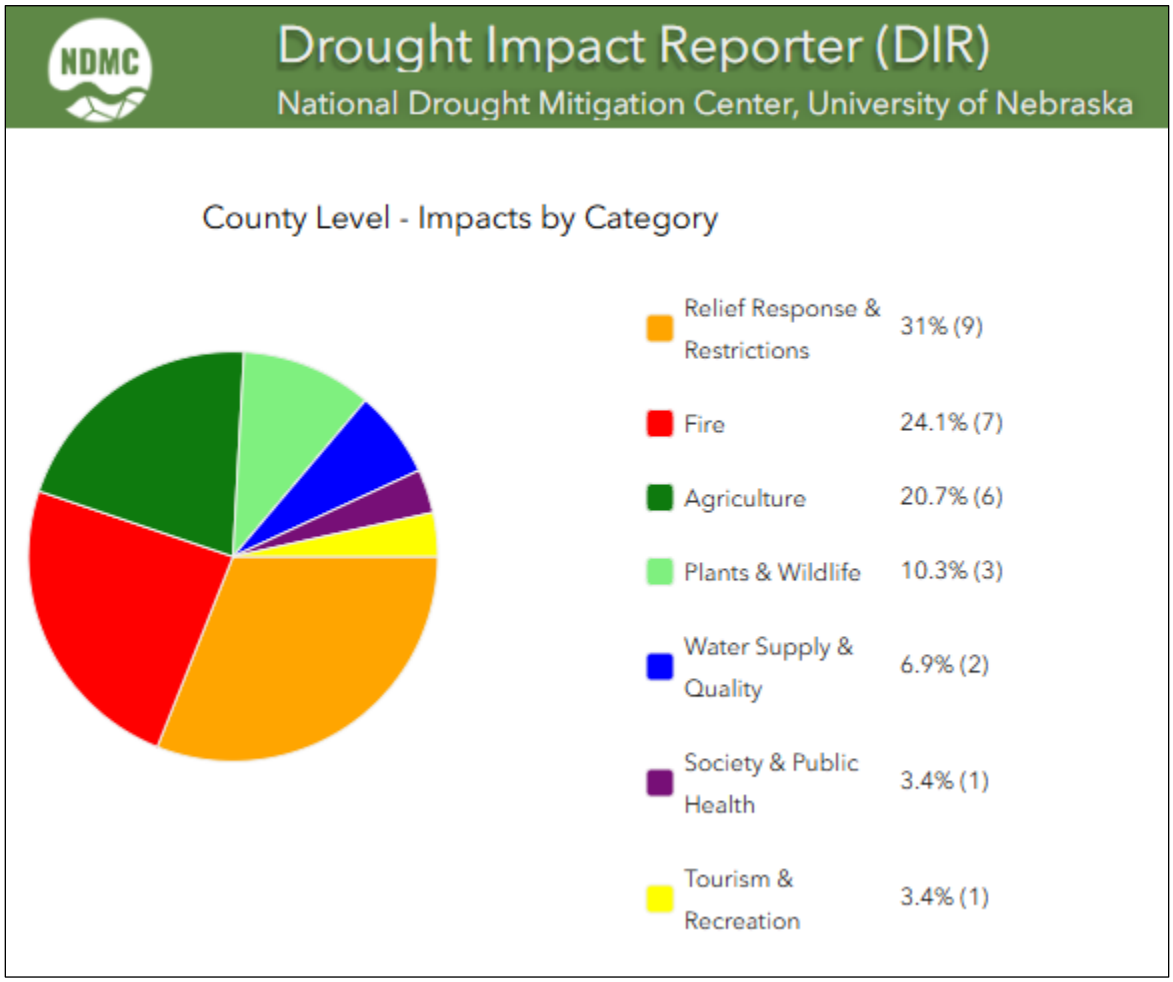
Frequency	Likely (10-100% probability in the next year, or at least 1 chance in next 10 years)
Severity	Critical (25-50% of jurisdiction affected)
Risk Class	B
Seasonal Pattern	Summer
Duration	Weeks/Months
Speed of Onset	Slow Onset
Location	Countywide
Impacts	Business Interruptions, Increased Fire Potential, Livestock Injury/Death, Loss of Economy, Loss of Potable Water, Property Damage

Description
In the most general sense, drought is defined as a deficiency of precipitation over an extended period of time(usually a season or more), resulting in a water shortage. (Source: National Drought Mitigation Center)

The National Integrated Drought Information System identifies types of drought:

- **Meteorological Drought** is based on the degree of dryness or rainfall deficit and the length of the dry period.
- **Hydrological Drought** is based on the impact of rainfall deficits on the water supply such as stream flow, reservoir and lake levels, and ground water table decline.
- **Agricultural Drought** refers to the impacts on agriculture by factors such as rainfall deficits, soil water deficits, reduced ground water, or reservoir levels needed for irrigation.
- **Socioeconomic Drought** considers the impact of drought conditions (meteorological, agricultural, or hydrological drought) on supply and demand of some economic goods such as fruits, vegetables, grains and meat. Socioeconomic drought occurs when the demand for an economic good exceeds supply as a result of a weather-related deficit in water supply.

The Drought Impact Reporter presents drought impacts recorded for states, counties, and cities with earliest impacts dated 1850.



Emmons County ten-year impact
Source: National Drought Mitigation Center

History
June-August, 2017—Extreme drought in Emmons County. Severity similar to 2006.

June 26, 2006—Emmons County declared a drought emergency. Extreme dry conditions caused lack of feed and water shortages for livestock, crop failures, water quality problems, and extreme danger of rural fires. Emmons County was declared a disaster area due to drought conditions.

June, 2002—Emmons County declared a drought emergency. Extreme dry conditions caused lack of feed and water shortages for livestock, crop failures, water quality problems, and extreme danger of rural fires.

June 12, 1992—Emmons County was declared a disaster area due to drought conditions.

May 1, 1990—Emmons County continues to experience drought since 1988 and was again declared a disaster area.

June 7, 1988—Emmons County was declared a disaster area due to drought conditions because of high temperatures and lack of rain. A burning ban was issued for all private and public fireworks. Cattlemen were forced to sell some of their livestock because of lack of feed. This drought extended into 1989.

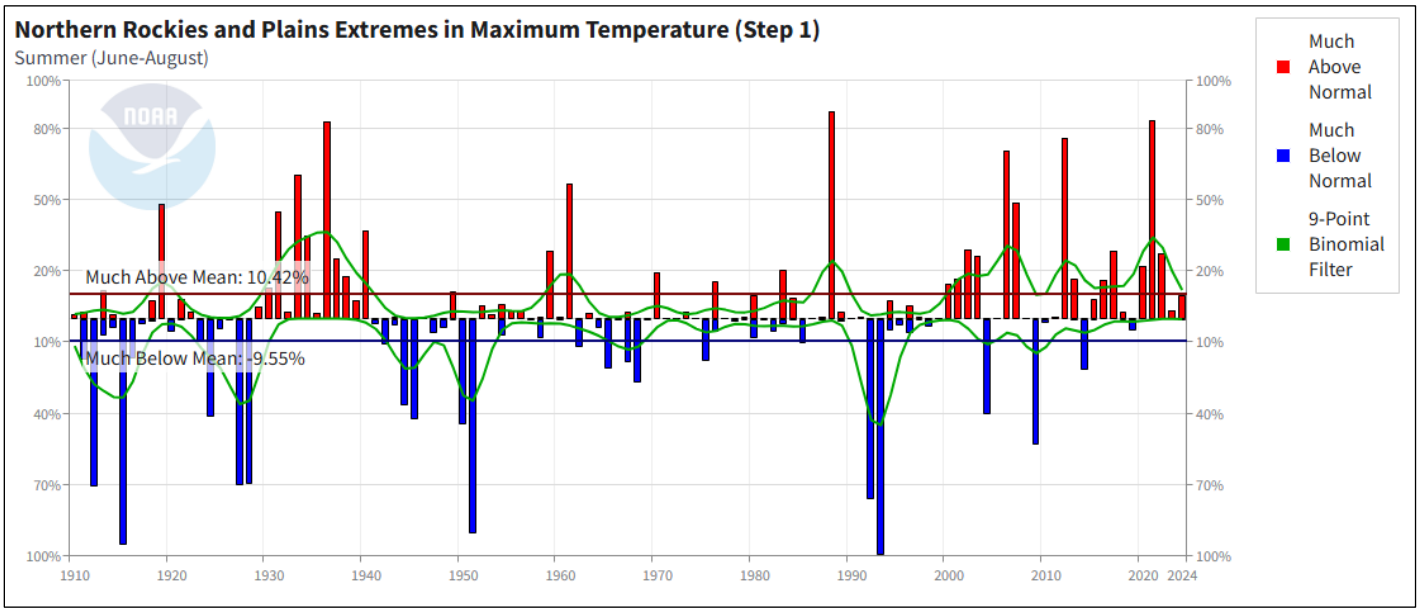
July 21, 1976—Emmons County included in Federal Emergency Declaration.

Excessive Heat

Location	Date	Time	T.Z.	Type	Dth	Inj	PrD	CrD
EMMONS (ZONE)	07/16/2011	11:00	CST-6	Excessive Heat	0	0	0.00K	0.00K
Totals:					0	0	0.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center Website (01/1950 to 10/2025)

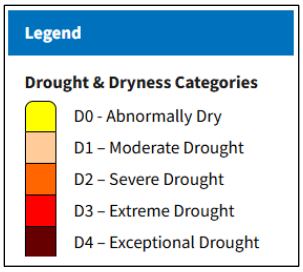
U.S. Climate Extremes Index (CEI)

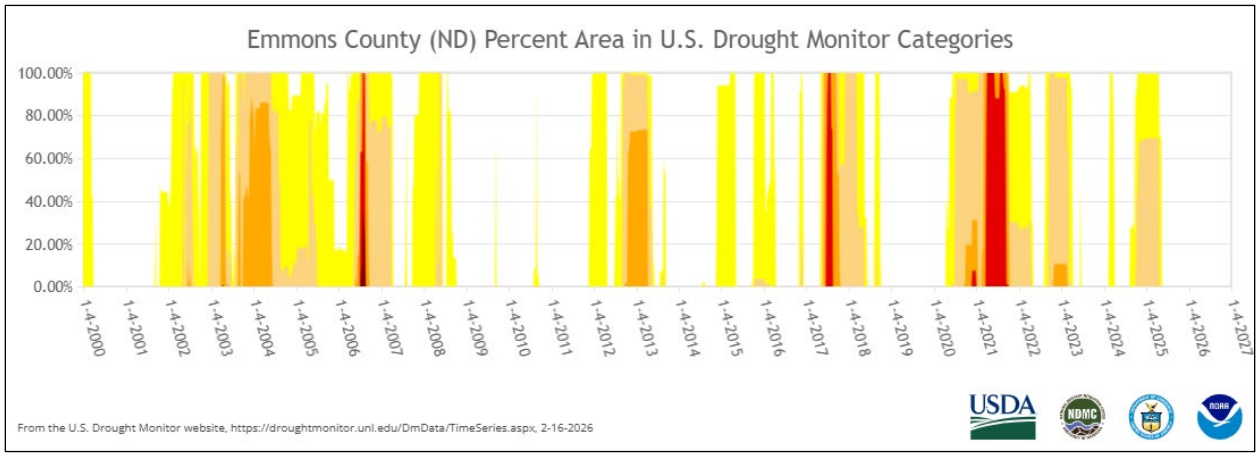


Source: National Centers for Environmental Information

United States Drought Monitor

The U.S. Drought Monitor started in 2000. The longest and most intense drought period in Emmons County was 75 weeks (April 6-2020 through September 18, 2021).





Source: www.drought.gov

Fire

Frequency	Highly Likely (Nearly 100% probability in the next year)
Severity	Negligible (Less than 10% of jurisdiction affected)
Risk Class	D (Low risk condition, to be considered in planning)
Seasonal Pattern	None
Duration	Hours
Speed of Onset	No warning
Location	Countywide
Impacts	Agriculture, Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Downed Trees, Evacuation (Localized), Explosion, HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Power, Mass Casualties, Personal Injury/Death Risk, Property Damage, School Closure

Descriptions
Source: National Fire Protection Association Glossary of Terms

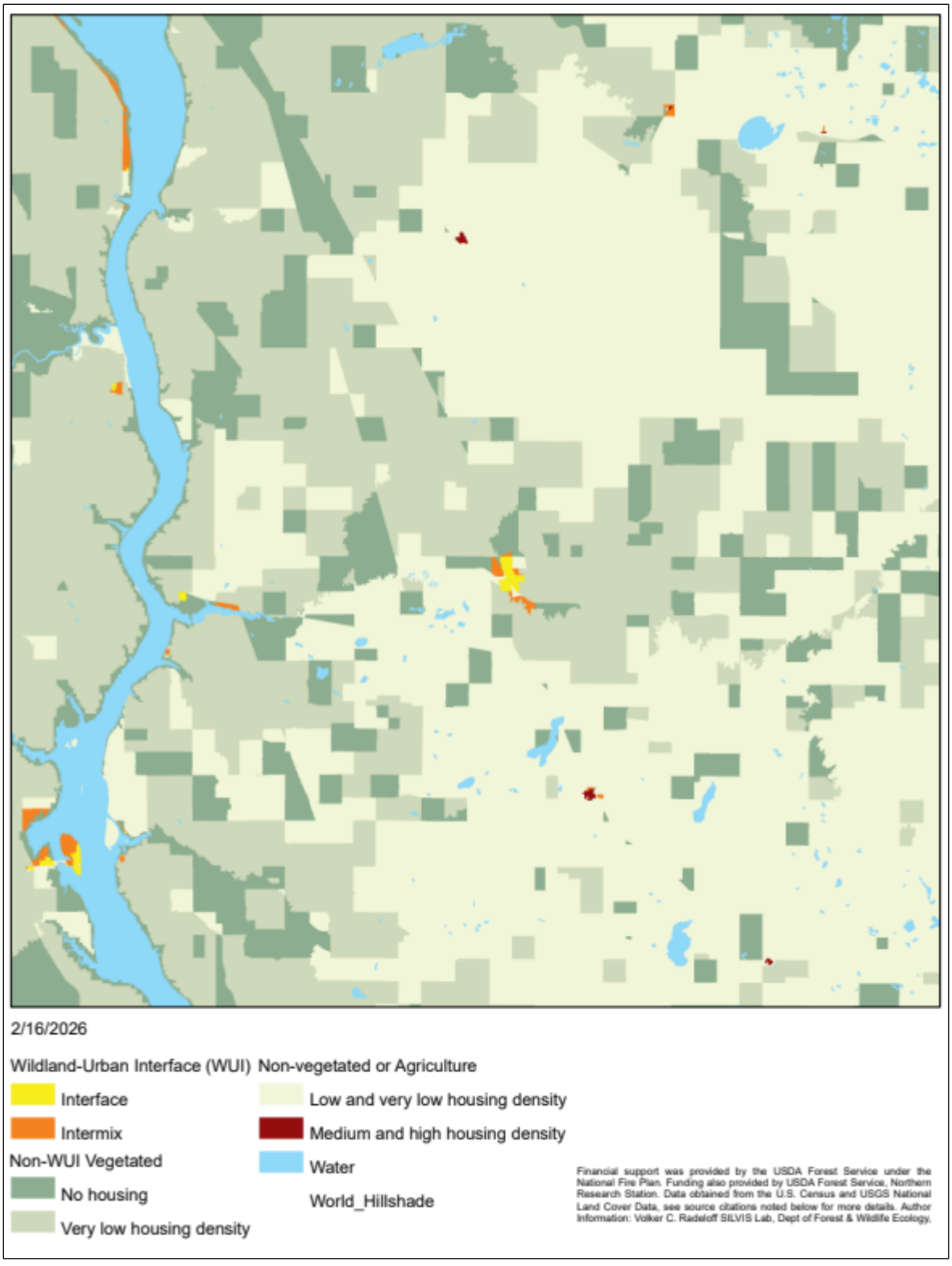
Urban
"An incorporated or unincorporated area with a population of over 30,000 people and/or a population density over 1,000 people per square mile but less than 2,999."

Structure Collapse (Fire Fighting)
"The activities of rescue, fire suppression, and property conservation in buildings or other structures, vehicles, rail cars, marine vessels, aircraft, or like properties."

Wildland Fire (Wildfire)
"An event dealing with a fire in the wildland; originating from an unplanned ignition, such as lightning, volcanos, unauthorized and accidental human-caused fires, and prescribed fires that are declared wildfires."

Wildland/Urban Interface
"A geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels, resulting in the potential for ignition of the structures within the area from flames or firebrands of a wildland fire."

Emmons County Wildland Urban Interface



Source: USDA US Forest Service

History
Urban fires are rare in occurrence and affect the more populated areas with the City of Linton having the highest population density.

Rural Emmons County experiences wildland fires every year. Factors influencing the potential include amounts and conditions of fuel supply (vegetation), temperatures, wind conditions, precipitation patterns, humidity levels, topography, and levels of human activity on the land.

The main fire season normally begins when weather warms significantly, and precipitation is limited. This longer and more dangerous season extends until about October 30th or until the first significant snow cover.

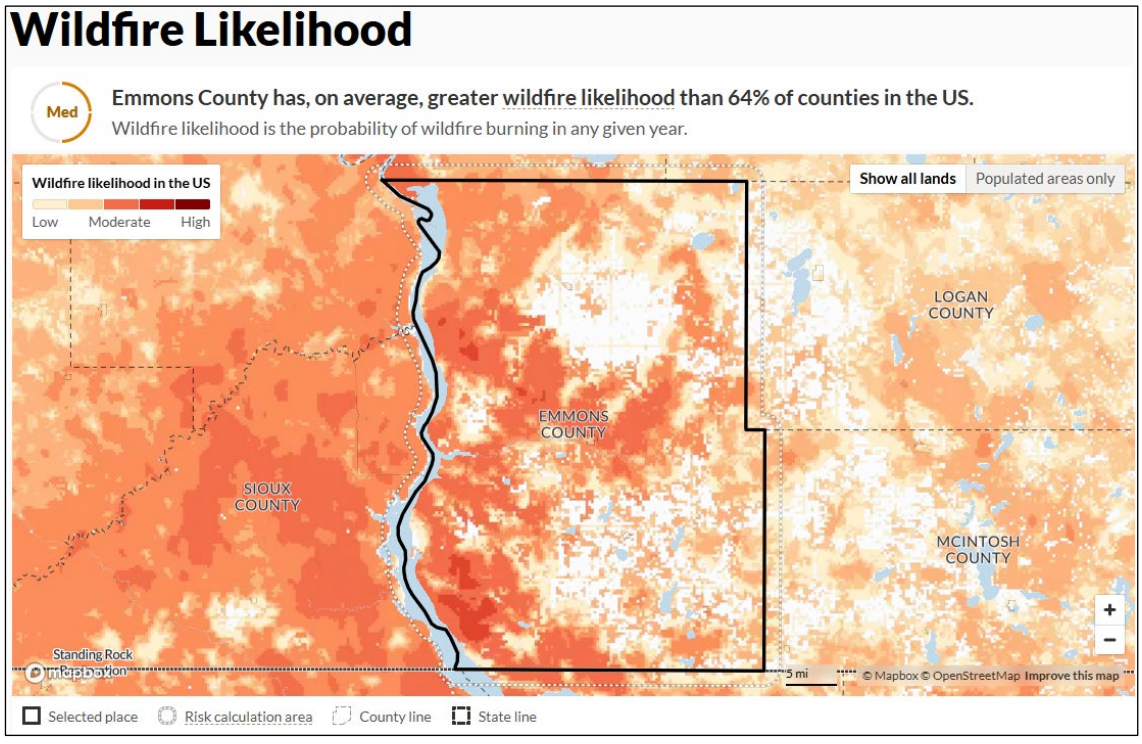
Most wildland fires result from activities such as: controlled burns of sloughs, ditches, and fields by landowners; recreational activity such as camping, hunting, and other off-road vehicle travel; and use of fireworks preceding and immediately following the 4th of July.

National Risk Index Data

COUNTY	POPULATION	BUILDVALUE	AGRIVALUE	AREA
Emmons	3,301	$ 5,490,769,998.00	$ 208,655,227.00	1571.013

Source: FEMA National Risk Index Data

Wildfire Risk to Communities



Source: USDA, US Forest Service

Response to Wildfire 8.5 Miles Southwest of Moffit

Resources (Central Dakota Communications Center, Burleigh and Emmons Emergency Management, Hazelton Fire, Braddock Fire, Linton Fire, Sterling Fire, Bismarck Rural Fire, Mandan Rural Fire, ND Forest Service, ND State Radio Task Force, Emmons County Sheriff's Department, Emmons County Ambulance, ND Game and Fish, ND Highway Patrol, ND National Guard, Crisis Care Chaplaincy) responded to a wildfire on April 12, 2025, during a "High" Fire Danger Index.

Location	County/Zone	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
LINTON	EMMONS CO.	04/09/2003	14:14	CST	Wildfire		0	0	0.00K	0.00K
Totals:							0	0	0.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center Website (01/1950 to 10/2025)

In the past there have been a number of urban structures that burned in Emmons County. Elevators in the cities of Linton, Braddock, Strasburg, and Hague have all been destroyed due to fire.

Several wildland fires occur annually; some of the more significant incidents are listed below and were obtained from the Fire Districts and the Emmons County Record:

04-12-25 Wildfire southwest of Moffit during High Fire Index causing response from local, state, and mutual aid—include National Guard Blackhawk support. Compensation for expenses sought from four individuals responsible for the fire.

07-05-23 Electrical service line pole and two garbage containers on fire in Linton (alley on East Walnut Avenue) due to fireworks that were not properly discarded.

03-31-21 Pipe bomb found along ND Highway 1804 near mile maker 45 by employee doing maintenance. Object rendered safe by the Bismarck Bomb Squad and turned over to Bureau of Alcohol, Tobacco, Firearms and Explosives for examination.

07-03-19 Flash fire from pickup truck and all-terrain vehicle collision. The accident was on a gravel roadway near 88th Street and 12th avenue (east of Strasburg). The collision cased the fuel cap of the ATV to break and create a flash fire. One person suffered burns to scalp and leg.

03-26-17 Prairie fire 12 miles west and 6 miles north of Linton. Fire from a garbage pit escaped and spready to a nearby stubble field.

11-26-16 A vehicle was destroyed by fire at a Linton residence near NE 3rd Street and Oak Avenue. Linton Fire & Rescue and the Emmons County ALS Ambulance responded to find a smoke-filled garage and pushed the vehicle out of the garage. Car was a total loss, and garage sustained light smoke damage. Fire was caused when the vehicle's engine and exhaust ignited cardboard pieces that were under the engine compartment to catch oil drips.

10-11-16 Several hay bales burned in fire about five miles northeast of Linton. Cause of fire suspected to be either a cigarette thrown out of passing vehicle or spark from tractor exhaust system.

08-18-16 Combined destroyed by fire in field two miles south of Hazelton. Approximately 40 acres (50 bushels) of remaining crop burned.

07-19-16 Linton business complex (Lisa McCrory, CPA, Dakota Eye Institute, Wangler Chiropractic Clinic, and John R. Beck Insurance) on North Broadway damaged by fire caused by an outlet short circuit which operated a timer for an eyeglass heater.

07-14-16 Exterior fire at Road Hawg Grill in Hazelton was contained and caused damage to siding and insulation and minor smoke damage inside the restraint. Cause of fire was thought to be a smoldering cigarette in dry grass.

03-30-16 Two hours after 'not guilty' verdict issued, defendant's home and vehicle are destroyed in Hazelton. State Fire Marshal initial determination was a suspicious fire started on the exterior of the building.

Flood

Frequency	Likely (10-100% probability in the next year, or at least 1 chance in next 10 years)
Severity	Limited (10-25% of jurisdiction affected)
Risk Class	C
Seasonal Pattern	Spring and Summer
Duration	1 to 10 days
Speed of Onset	More than 24 hours warning
Location	Countywide
Impacts	Agriculture, Blocked Roads, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Downed Trees, Evacuation (Localized), Flooding (Street), Flooding (Structure), HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Loss of Power, Personal Injury/Death Risk, Property Damage, School Closure, Sewer Backup

Description

Flooding is the flow of water over normally dry land areas. It can be caused by the overflow of inland waters, heavier rainfall than normal during a particular period, snowmelt, or the runoff of surface waters from any source. Floods are typically a natural phenomenon but are often intensified by the alteration of natural conditions by human activities

Three types common to Emmons County are Riverine, Overland, and Flash Flooding. Where Riverine is constrained to the river and creek channels and immediate area (flood when their levels rise enough to cover normally dry land areas), Overland and Flash Flooding (fast-moving, high volume of water flows into a normally dry area causing water levels to rapidly increase in a short period of time) can occur anywhere in the county. The main difference being that Flash Flooding has a more rapid onset (within 6 hours of the cause) and shorter duration (usually less than 12 hours) than Overland Flooding.

In simple terms, a flood is an excess of water on land that normally is dry. For example, water damage to your home from a river that overflowed into nearby streets and yards would be a direct result of flooding. (Source: Federal Emergency Management Agency, National Flood Insurance Program

Floodplain Management in North Dakota

Flood control development had its beginning with the Flood Control Act of 1936. This Act provided a basic plan and an authorized program for the control of water resources. In the early 1940's the North Dakota State Water Commission cooperated with the Federal agencies to plan and engineer the overall program for North Dakota.

The U.S. Army Corps of Engineers occupies one of the major roles in flood control planning and construction. Two reservoirs built by the U.S. Soil Conservation Service have contributed materially to flood control by the construction of watershed projects in North Dakota. These watershed projects include channel work and flood retention structures. In such projects, the Soil Conservation District has the responsibility for assuring that 50 percent of the farms above a structure are under a basic conservation plan.

Floodplain Management in North Dakota: North Dakota has recognized that good floodplain management involves the utilization of a variety of tools to reduce the impact of flood disasters. It is also recognized that a balance must be reached between the three aspects of floodplain management which are: structural works designed to modify the flood itself, regulatory functions which may reduce susceptibility to flooding, and emergency preparedness actions which may reduce susceptibility to flooding, and emergency preparedness actions which minimize a flood's effect during a disaster.

The Federal Disaster Protection Act of 1973 requires state and local government to participate in the National Flood Insurance Program (NFIP) as a condition to the receipt of any federal loan or grant for construction projects in flood prone areas.

Participation in the NFIP requires communities to adopt floodplain regulations that meet NFIP objectives, which are: new buildings must be protected from flooding damages that occur as a result of the 100-year flood, and new development must not cause an increase in flood damages to other property.

Communities have been aided through passage, in 1981, of the state's first Floodplain Management Act which directs the State Engineer to aid local governments to reduce flood damages through sound floodplain management. As a start, the state legislature provided the State Engineer with an appropriation to be used in assisting communities to obtain base flood (100-year) elevation data. With appropriate planning, we will see continued reduction in flood damage susceptibility across the state, but it will likely take many years to achieve the established goals.

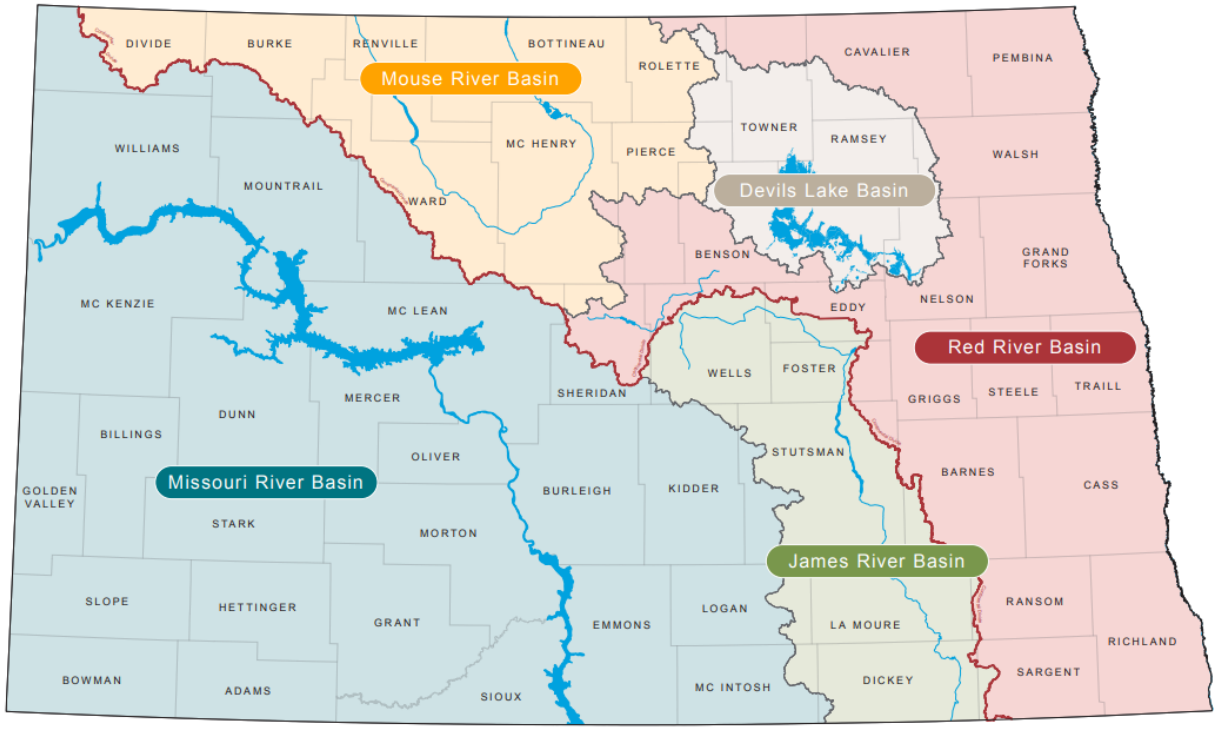
Missouri River Basin

The Missouri River was once free flowing with meandering braided channels, sand bars, and expansive tree-covered riparian areas. The river was free to make its own banks, which were ever changing, and seasonal flooding was a common occurrence.

Today, six dams and reservoir projects make up the Missouri River reservoir system. All of these dams were constructed by the federal government and are maintained and operated by the USACE for the following authorized purposes:

- Flood Control
- Water Supply
- Recreation
- Irrigation
- Hydropower
- Water Quality
- Fish and Wildlife
- Navigation

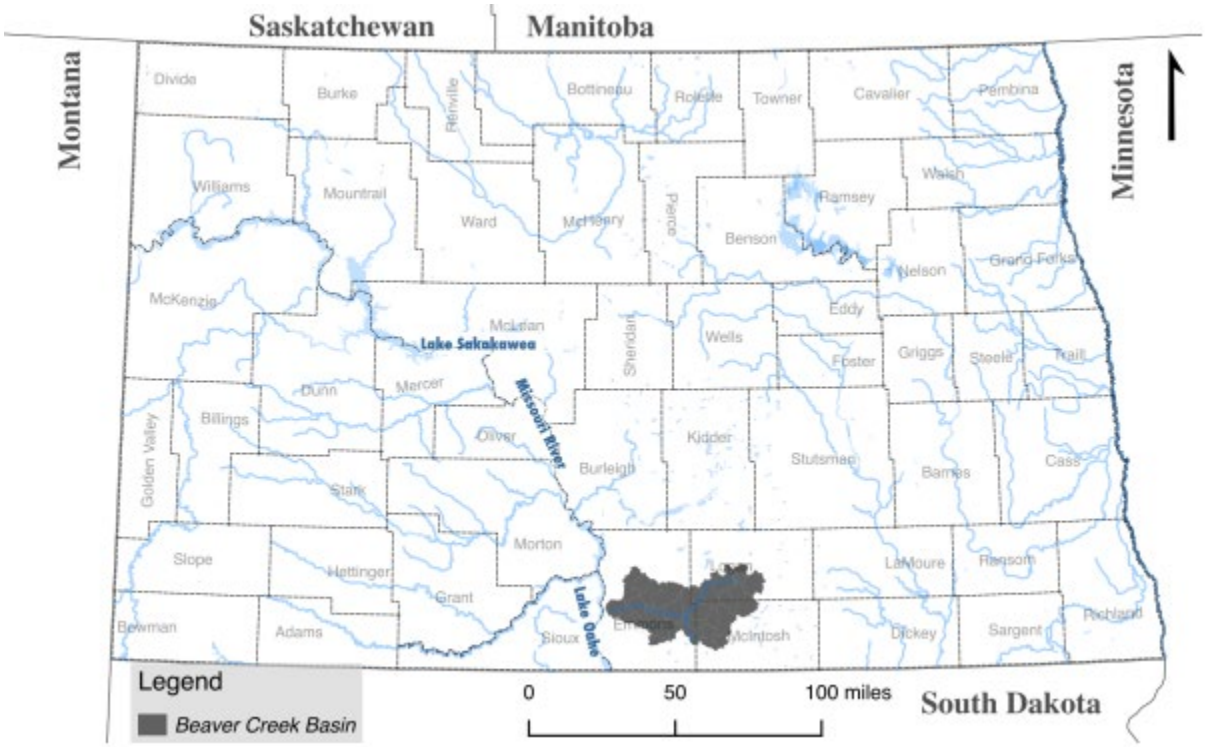
The first dam that was constructed was Fort Peck in Montana. Fort Peck was constructed under Congressional authorization from the Rivers and Harbors Act of 1935. The other five mainstem dams on the Missouri River were later built in cooperation between the USACE and the Bureau of Reclamation under the Pick-Sloan Plan. The Pick-Sloan Plan was part of the Flood Control Act of 1944. (Source: Missouri River Today Brochure)



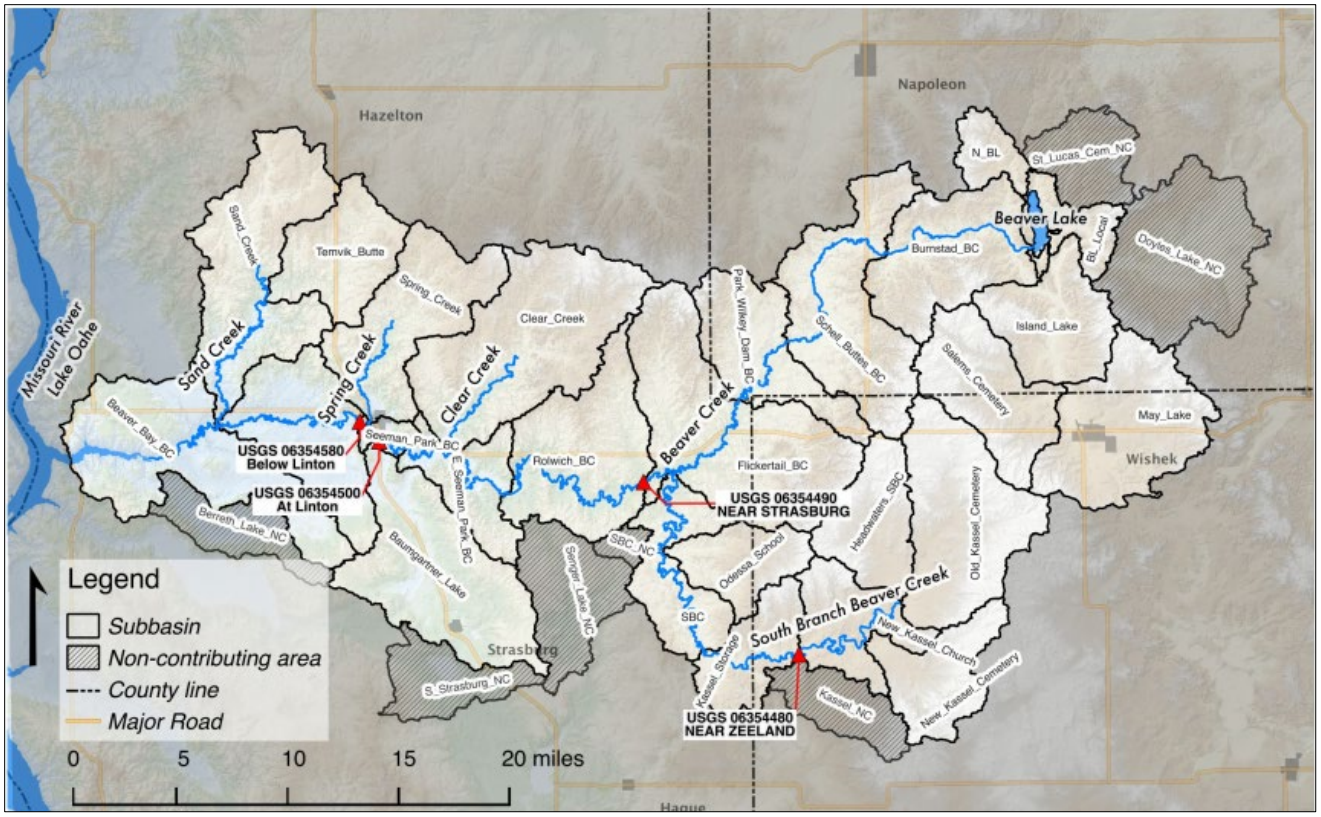
Source: ND Department of Water Resources

Beaver Creek Watershed

Beaver Creek drains parts of Emmons, Logan and McIntosh Counties in North Dakota.

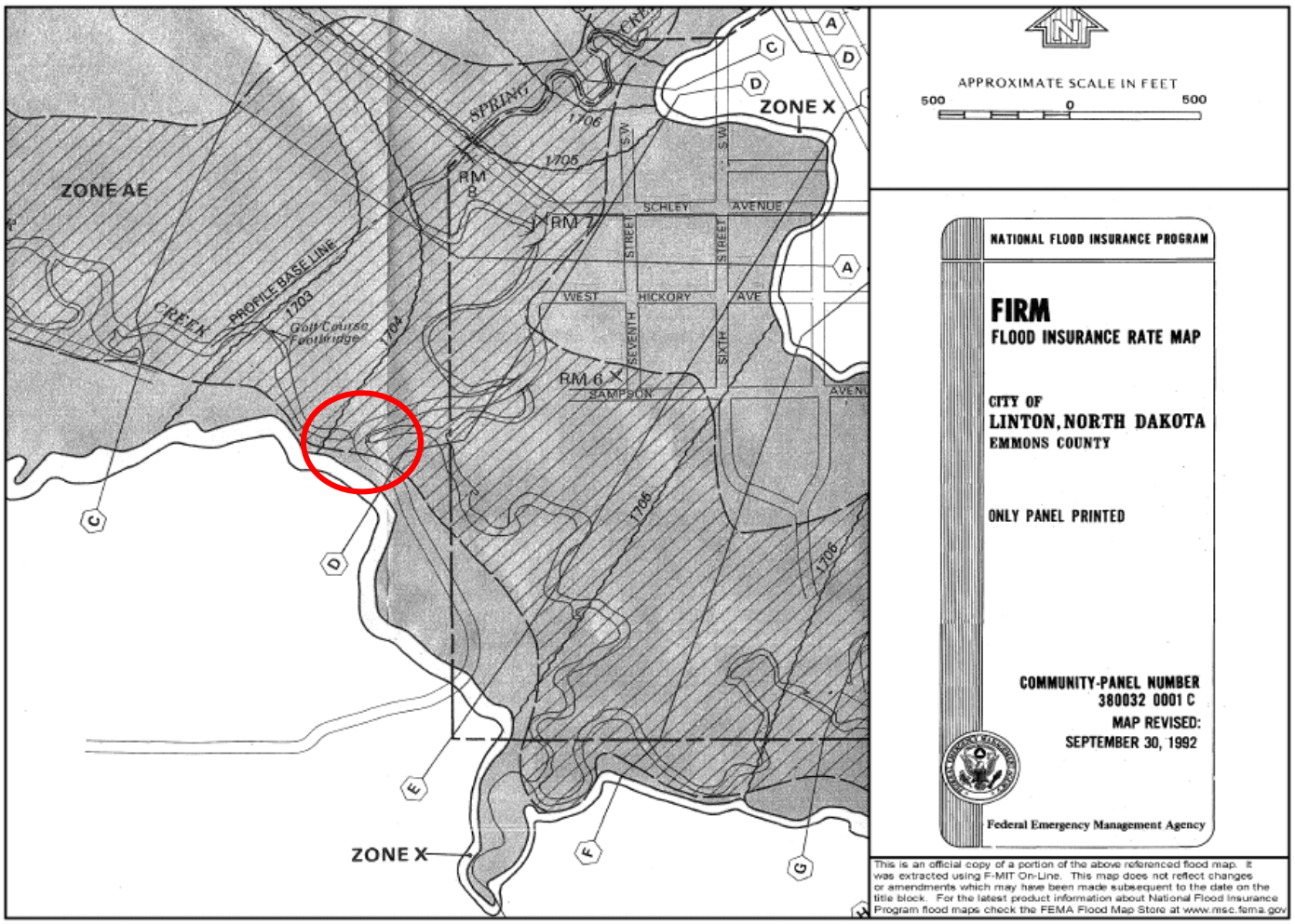


(Source: ND State Water Commission, Beaver Creek Hydrology Report, SWC Project #558, August 2016)



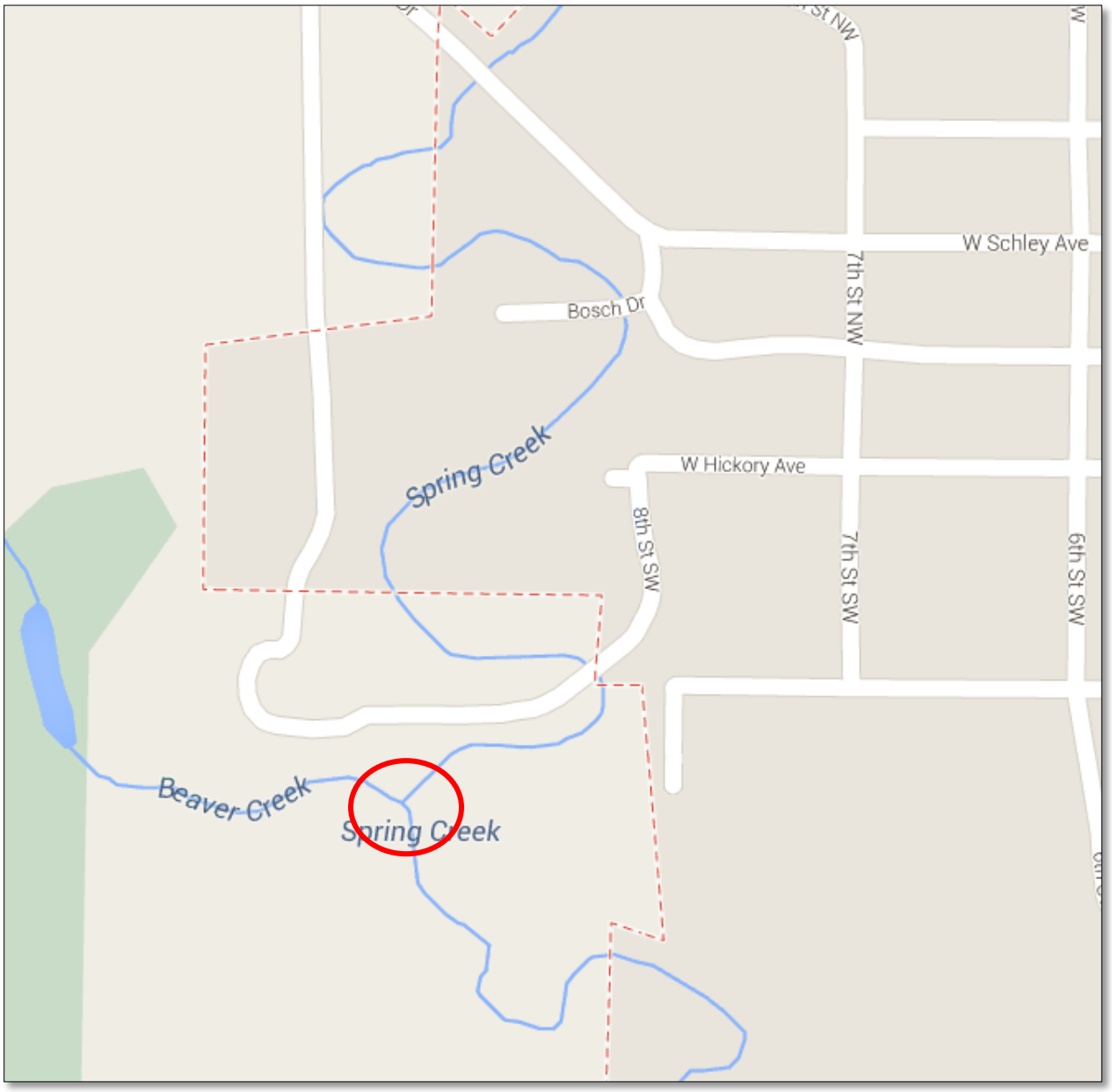
(Source: ND State Water Commission, Beaver Creek Hydrology Report, SWC Project #558, August 2016)

Beaver Creek and Spring Creek Confluence



Source: FEMA Map Service Center website

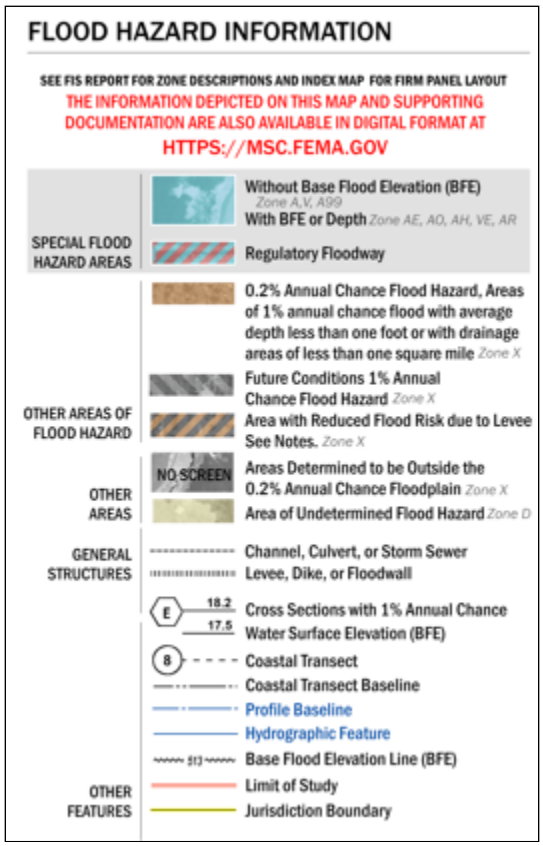
The potential remains for the Beaver Creek and Spring Creek confluence to exacerbate flood events during torrential rain events and/or spring thaw. Approximately 50 structures would be impacted from confluence flooding to the north and south. Historically, Beaver Creek and Spring Creek do not thaw simultaneously in the Spring.



Source: Google Maps website

FEMA Map Service Center

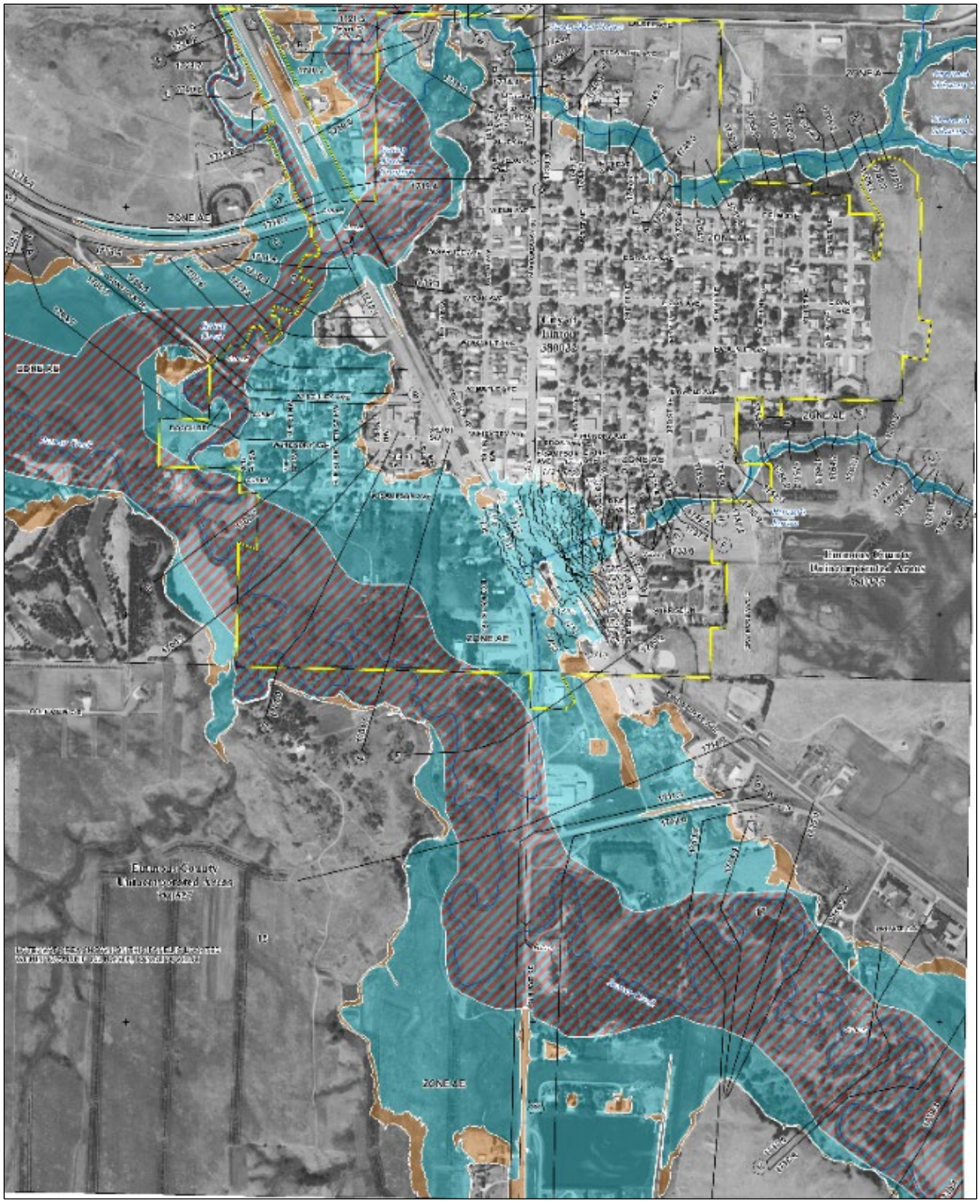
The FEMA Flood Map Service Center (MSC) is the official public source for flood hazard information produced in support of the National Flood Insurance Program (NFIP). Use the MSC to find your official flood map, access a range of other flood hazard products, and take advantage of tools for better understanding flood risk.



ND Risk Assessment Map Service (NDRAM)

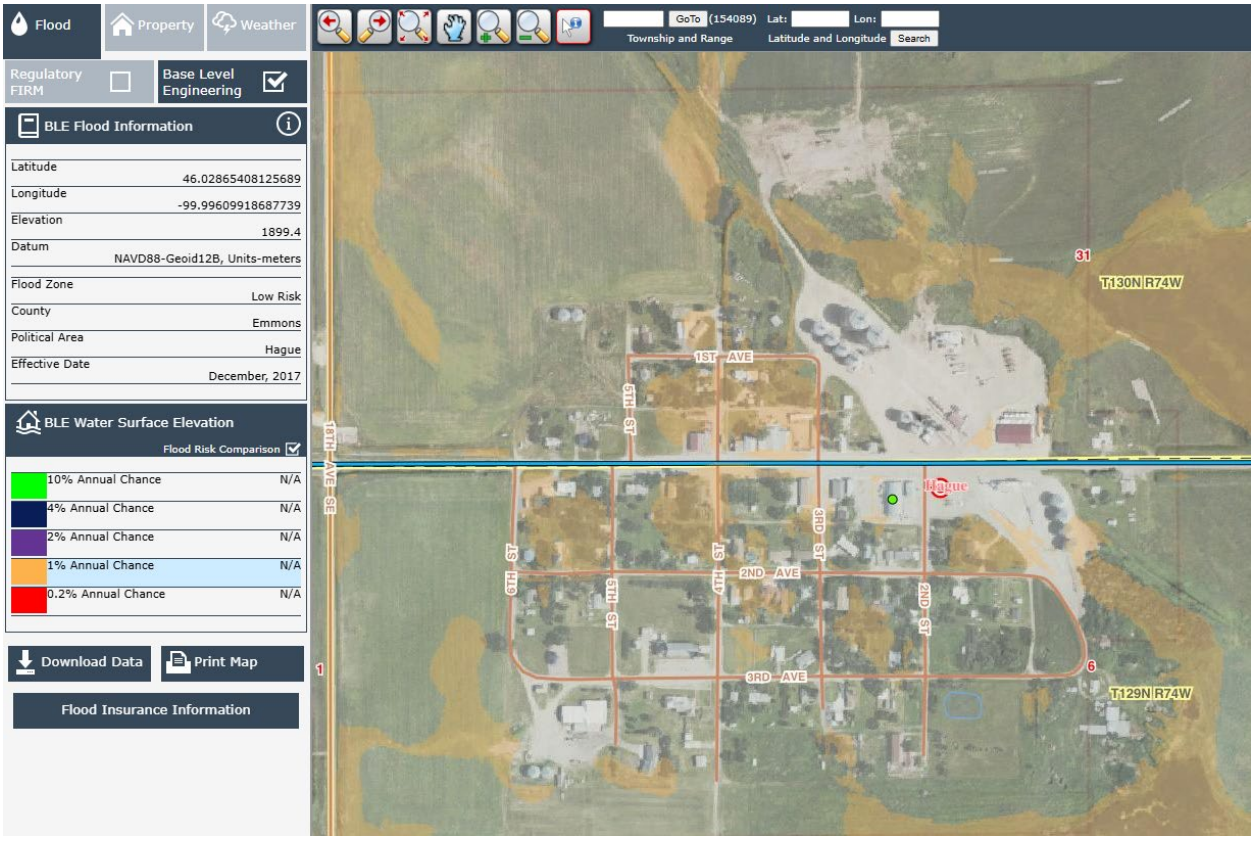
NDRAM allows users to zoom in and visually display current flood risks, both approximate floodplains from BLE and effective regulatory floodplains from FEMA's NFIP. This new tool also provides users with water surface elevations, flood depths, and the ability to download engineering model data and print customized maps making it useful for planning, mitigation, and disaster recovery actions.

Emmons County



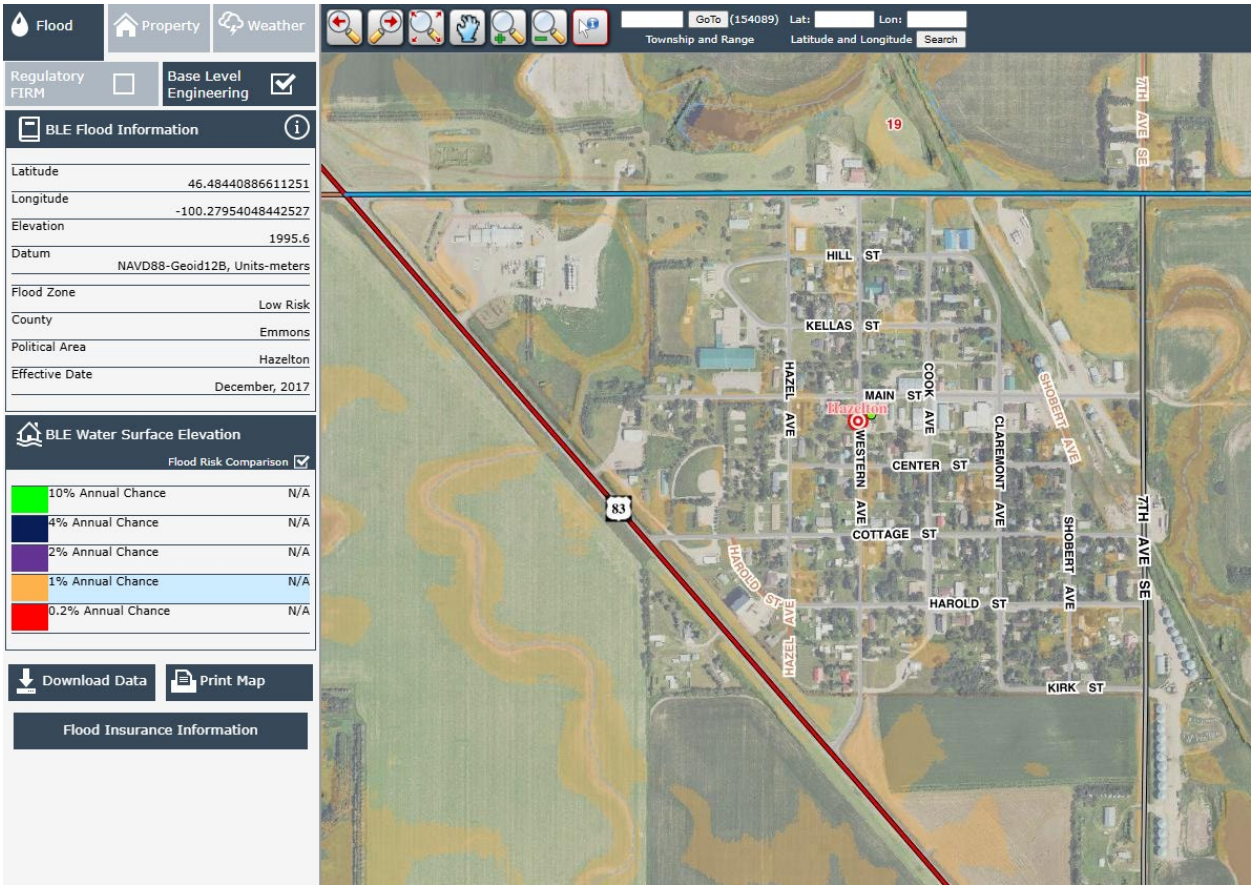
Emmons County has 10 Flood Insurance Rate Map Panels
Source: FEMA Map Service Center

City of Hague



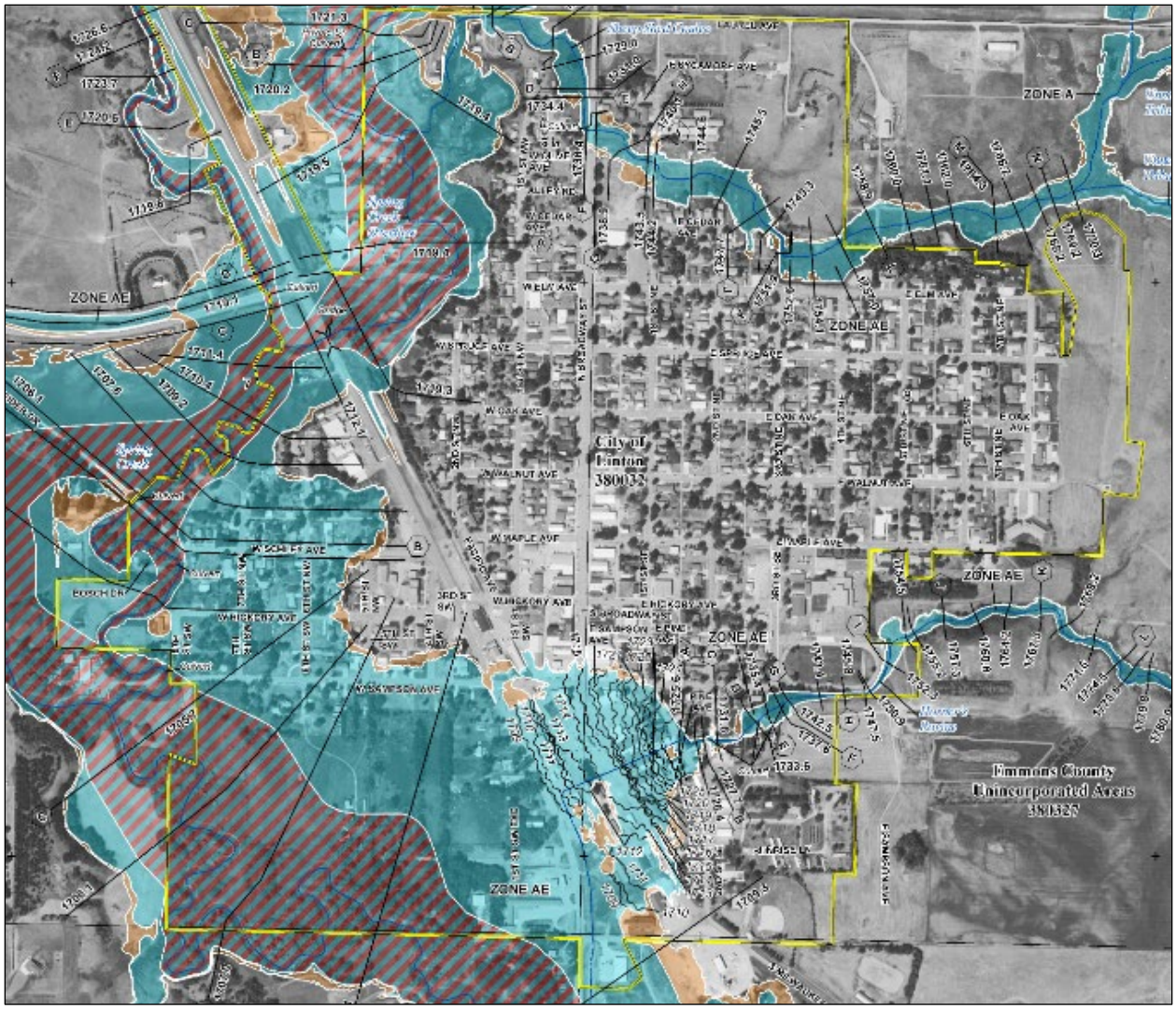
Source: ND Department of Water Resources [ND Risk Assessment MapService]

City of Hazelton



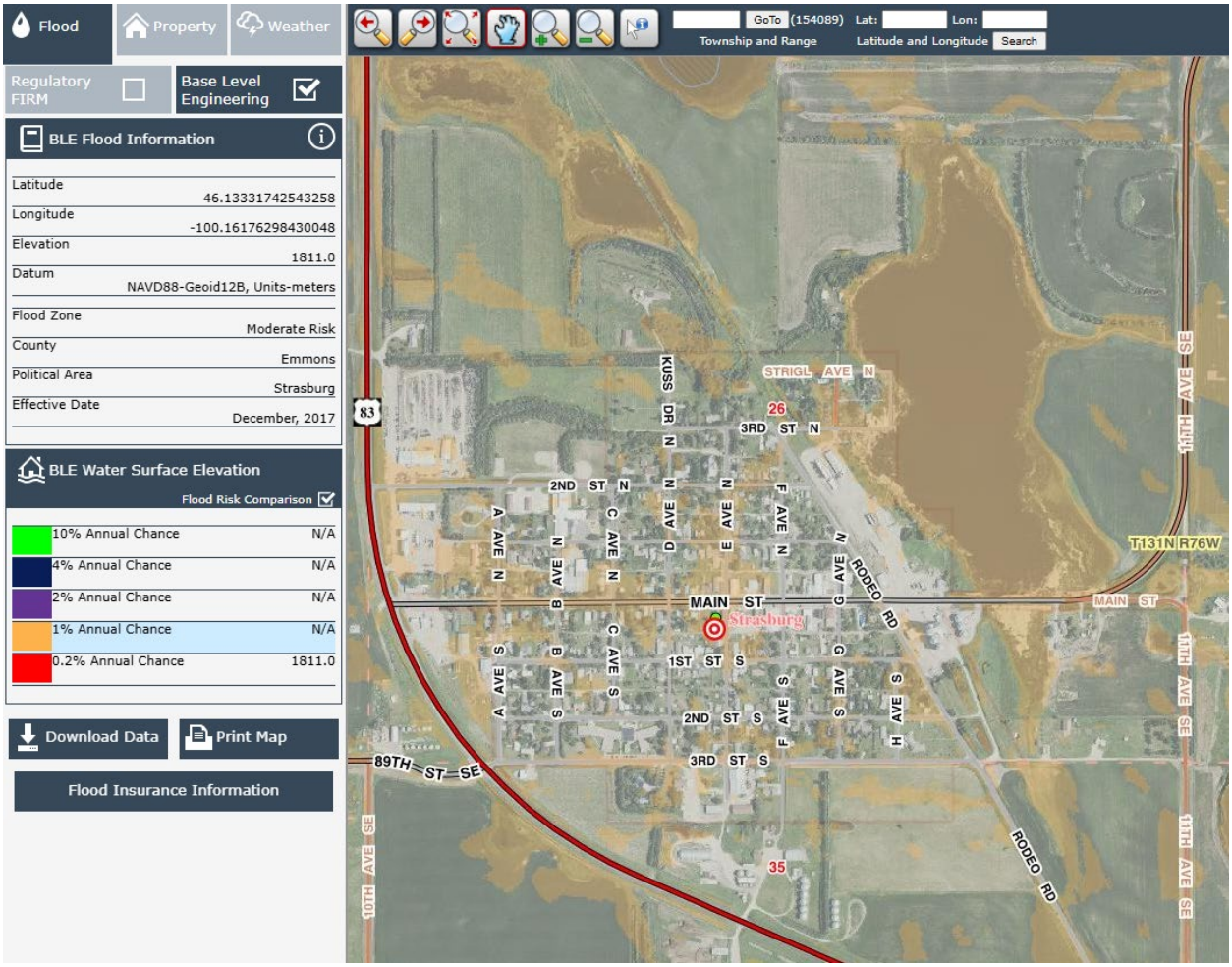
Source: ND Department of Water Resources [ND Risk Assessment MapService]

City of Linton



Source: FEMA Map Service Center

City of Strasburg



Source: ND Department of Water Resources [ND Risk Assessment MapService]

History

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
HAZELTON	04/01/2009	00:00	CST-6	Flood		0	0	300.00K	0.00K
HAZELTON	03/06/2009	00:00	CST-6	Flood		0	0	748.00K	0.00K
EMMONS (ZONE)	03/21/1997	08:00	CST	Flood		0	0	0.00K	0.00K
Totals:						0	0	1.048M	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center Website (01/1950 to 10/2025)

Significant events include:

March 2020— Winter/Spring Flood: Following the wettest fall on record in 125 years, saturated soils and high base stream flows led to widespread overland flooding in March 2020. Emmons County was added to a federal disaster declaration (FEMA-4475-DR) in April 2020 specifically due to this flooding.

October 28, 2019—Flood Emergency Declaration approved by the Emmons County Commission due to excessive rainfall, fall blizzard, high water tables, seepage, overland flooding, and road damage. Event became Presidential Declaration 4444.

April 8, 2019—Beaver Creek crested at 14'. The City of Linton declared a flood emergency on April 1st, and Emmons County declared on April 2nd. Numerous roads were closed, and a self-fill sandbag site was established. Residents experienced seepage and pumped basements (especially areas in "Old Town" and along Highway 83).

Sampson Avenue looking West.

April 6, 2011—Beaver Creek crested at 12.71'. Earlier projections showed an exceedance probability of 10-50% for reaching Moderate Flood Stage. A planning meeting was hosted on February 25, 2011 and again on April 5, 2011.

March 19, 2010—Beaver Creek crested at 13.63'. Winter season brought snowfall atop saturated soils, and a public forum was hosted (February 10, 2010) to discuss flood forecasting services for Linton. Beaver Creek in Linton was not a forecast point until March, 2010.

March 13, 2009 to August 10, 2009—Major Disaster Declaration declared on March 24, 2009 (DR-1829). Significant flooding occurred as a result of spring thaw, snow, and torrential rains. Numerous bridges and roads were damaged and washed out. Significant numbers of livestock perished. The ND National Guard evacuated 20 residents of Linton, many from the "Old Town" area. Several homes were purchased in Linton and Emmons County as part of the mitigation process.

March-April 1997—Spring runoff and ice jams caused flooding along Beaver Creek and low-lying areas. Flooding occurred in the southwest portion of the city of Linton. Roads were washed out and culverts became undermined. Five concrete bridges over Beaver Creek were damaged. Homes along Beaver Creek experienced water seepage. Four farm homes were abandoned. One dairy farmer was forced to completely disperse of his herd.

March 1996—Spring runoff and ice jams caused flooding along Beaver Creek. The west side of the city of Linton also experienced flooding. Major damage was done to rural roads that became submerged. There was also major damage to the Seaman Park bridge.

June 15, 1995—The City of Hague suffered damage to their city lagoon due to high water and heavy rainfall.

March 1995 – Spring runoff and ice jams caused flooding along Beaver Creek. Highway 83 in the city of Linton overflowed and was closed for a four-hour period. The southwest area of the city of Linton was flooded with several basements flooding. Many county roads washed out in low-lying areas and some bridges were also damaged.

August 1, 1993—Flood. Deaths: 1. Property Damages of $50,000. Crop Damages of $50,000. The heavy rains of July swelled Beaver Creek. On the evening of the first, a vehicle attempted to cross the spillway in Linton. When the attempt was unsuccessful, the occupants got out of their vehicle. One of the occupants lost her footing, fell into the creek, and drowned.

July 15, 1993—During the late evening hours heavy rain fell in Emmons County causing flash flooding in the northern third of the county. Major damage was done to roads, bridges, culverts, farmlands, homes, businesses and other public facilities. On August 1, 1993, one woman trying to cross the spillway with her bicycle was swept off the spillway and drowned.

April 9, 1969—Beaver Creek hit 17-year high. At the John Deere Implement Shop, water reached the door, which was sandbagged. At the Linton Hatcher, water was up to within less than 1 foot of the foundation. In the Old Town section, Sampson Avenue was flooded from the MDU building to the creek. Beaver Creek was crossing over the road south of the cemetery and was approximately two-blocks wide. Water in the backyards of several homes along the west side of U.S. Highway 83 ranged from approximately 12- to 16-inches below the 1952 flood.

April, 1952— (Maximum flood of record; slightly higher than 50-year frequency) Rapid melting of snow in the Beaver Creek basin resulted in the most damaging flood of record at Linton. Forty-one families were forced to evacuate the low-lying Old Town section of Linton, and water reached a depth of 4 feet. The U.S. Highway 83 bridge spanning Beaver Creek was weakened by floodwaters.

April, 1950— Peak flows of Beaver Creek inundated homes along U.S. Highway 83 and in the Old Town section of Linton.

March, 1948— High flows on Beaver Creek inundated portions of Old Town. Subsequent to the flood Beaver Creek, high stages occurred on Spring Creek, and portions of Old Town were again flooded.

March, 1945— The damage resulting from the flood of 1945 was not as severe as a in the two previous years. U.S. Highway 83 was under water, and two homes had water on the first floor.

April, 1944— Floodwaters inundated the greater part of Old Town and washed out a section of U.S. Highway 83 at Linton.

March, 1943— Spring Creek overflowed its banks on March 23, inundating a 9-square block area in Old Town in one of the worst floods of history on Spring Creek. Shortly after the Spring Creek overflow, Beaver Creek overflowed, again inundating Old Town.

June, 1934— Cloudburst rains caused Beaver Creek to overflow, inundating highways and flooding basements in Linton.

March, 1929— Heavy snows and continuous warm weather during the middle of the month caused Beaver Creek to overflow and flood Old Town.

May, 1927— Runoff from heavy rainfall caused Spring Creek to overflow, inundating a large section of Old Town.

March, 1916— On March 29, snowmelt flows of Beaver Creek inundated most of the Old Town section of Linton.

June, 1914— On June 26, runoff from a three-hour cloudburst inundated most of Old Town when a railroad grad north of the city failed and released impounded water.

Special Flood Hazard Areas (SFHA) are land areas identified by FEMA that will be inundated by a flood event with a 1% chance of being equaled or exceeded in any given year. These areas, also called the 100-year floodplains, have high flood risk and are subject to mandatory flood insurance requirements for properties with federally backed mortgages. SFHAs are depicted on Flood Insurance Rate Maps (FIRMs) with designations typically including the letter "A" or "V". Portions of unincorporated Emmons County and the City of Linton include Special Flood Hazard Areas (SFHAs).

Floodplain administrators follow the permitting ordinances outlined by the NFIP Guidance and North Dakota Century Code 81-16.2 Floodplain Management. After an event, NFIP "substantial damage" is when the cost of repairing a damaged building is 50% or more of its market value before the damage. This determination is made by the floodplain administrator and triggers a requirement that the building be brought up to current floodplain management standards to be repaired or rebuilt.

Emmons County encourages property owners to purchase flood insurance through the National Flood Insurance Program (NFIP).

Repetitive loss structure means a structure covered under an NFIP flood insurance policy that 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 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)) Emmons County has four repetitive loss properties: one nonresidential and three single-family residential properties.

Severe repetitive loss structure means a structure that is covered under an NFIP flood insurance policy and has incurred flood-related damage 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 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)) Emmons County has two nonresidential severe repetitive loss properties.

Flood insurance is available to property owners whose jurisdiction participates in the NFIP.

FEMA

Community Status Book Report

Communities Participating in the National Flood Program

NORTH DAKOTA

CID	Community Name	County	Init FIRM Identified	Init FHBM Identified	Curr Eff Map Date	Tribal	Reg-Emer Date	CRS Entry Date	Curr Eff Date	Curr Class	% Disc
380260A	BRADDOCK, CITY OF	EMMONS COUNTY				No	03/29/99(E)				
380327A	EMMONS COUNTY*	EMMONS COUNTY		2/4/1987	(All Zone D)	No	2/4/1987				
380232A	HAZELTON, CITY OF	EMMONS COUNTY	1/17/1975		(NSFHA)	No	1/30/1984				
380032A	LINTON, CITY OF	EMMONS COUNTY	6/28/1974	11/19/1980	2/22/2024	No	11/19/1980				
380252A	STRASBURG, CITY OF	EMMONS COUNTY	2/14/1975		(NSFHA)	No	4/25/1997				

Source: FEMA.gov

Floodplain Administrators

JURISDICTION	ADMINISTRATOR - NAME	POSITION
EMMONS COUNTY	GLEN GEFFRE	WATER BOARD CHAIR
CITY OF BRADDOCK	AUDREY RAMBOUGH	MAYOR
CITY OF HAZELTON	GARY GRIFFIN	PREISDENT
CITY OF LINTON	SHARON JANGULA	ECONOMIC DEVELOPMENT
CITY OF STRASBURG	JUDY PFEIFER	AUDITOR

Source: ND Department of Water Resources

Emmons County continues to foster participation from the City of Hague. Additional NFIP strategies are listed in the Appendices.

Geologic Hazards

Frequency	Nearly 100% probability in the next year
Severity	Negligible (Less than 10% of jurisdiction affected)
Risk Class	C
Seasonal Pattern	Spring and Summer
Duration	1 to 10 days
Speed of Onset	Hours to days
Location	Countywide (areas along Missouri River and Creeks)
Impacts	Agriculture, Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Downed Trees, Evacuation (Localized), Explosion, HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Loss of Power, Mass Casualties, Personal Injury/Death Risk, Property Damage, Sewer Backup,

Description

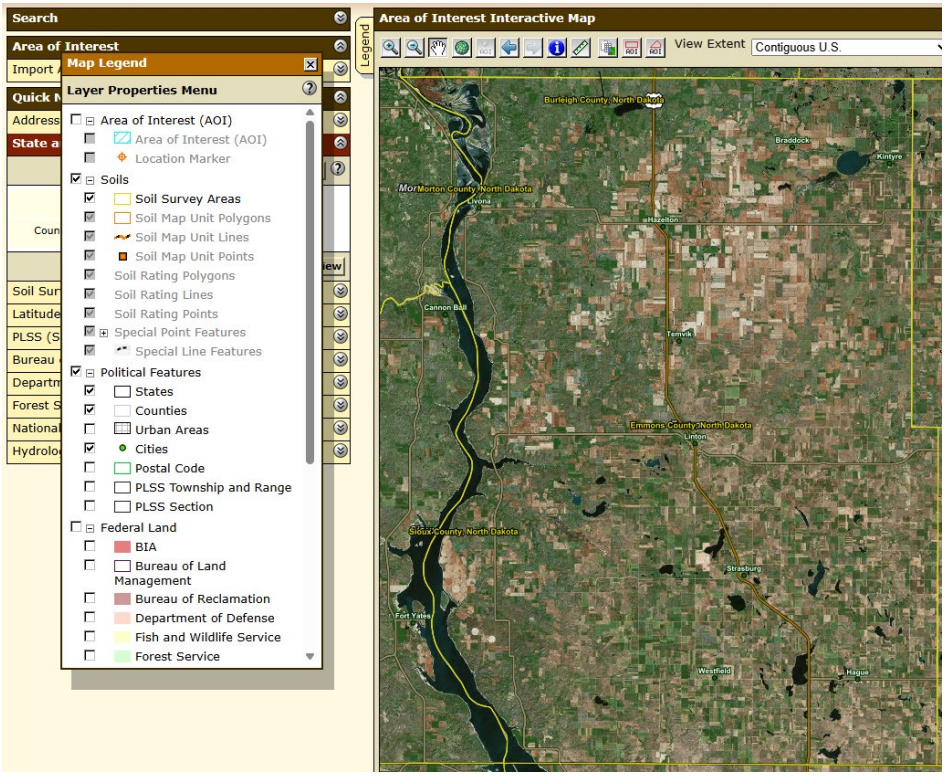
Erosion is the geological process of wearing away and transporting soil, rock, and sediment by natural forces—primarily water, wind, ice, and gravity.

Water related erosion can be exacerbated by periods of intense rainfall, rapid river rises, or overland flooding. Both wind and water erosion can increase during and after periods of drought or following wildland fire scarring, as natural vegetative cover is removed.

Expansive Soils

Through the end of this century in North Dakota, expect more frequent, larger, and more intense geologic hazards, such as landslides, riverbank collapse, sink holes, and expansive (clay) soils. Both Drought and Heavy Precipitation events are projected to occur more frequently, which is expected to contribute to an increased frequency of expansive soils alternately cracking and swelling, landslides where steep slopes are present, or to riverbank collapse where undercutting due to subsoil flow and/or antecedent flooding is possible. Both extremes also increase the potential for wind and water erosion. Increased development pressure and the impacts of future climate conditions may increase the risk to a variety of state infrastructure and assets if constructed or situated in areas prone to geologic hazards.

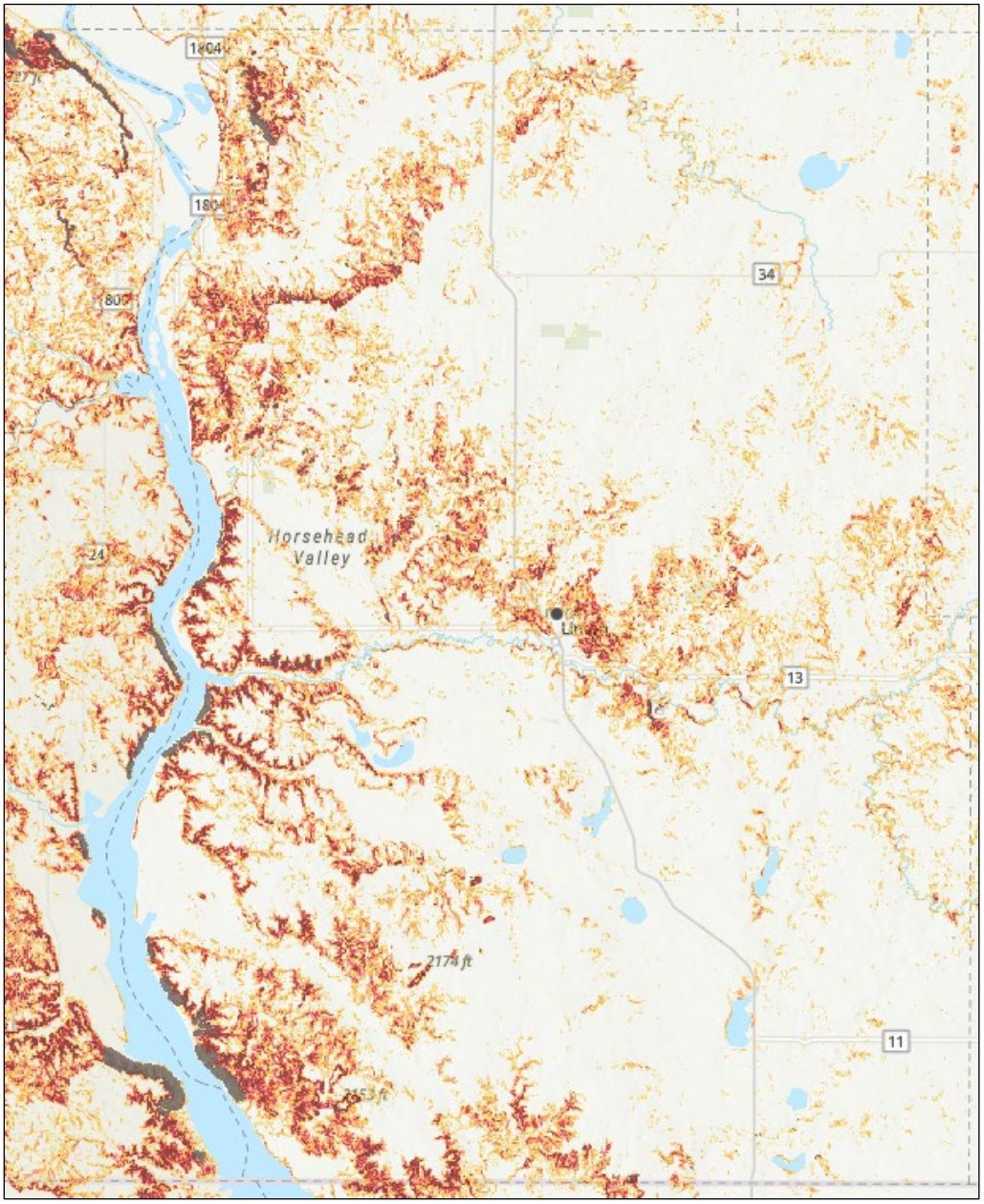
Emmons County lies in the glaciated Missouri Plateau Section, with the far northeast and southeast sections of the county in the Missouri Coteau District and the remainder in the Coteau Slope District (Bluemle, 1984; Wroblewski, 1980). The northeast and southeast corners, within the Missouri Coteau District, have more irregular slopes with areas of glacial deposits which include the dark brown Williams Series soils. These soils are generally more than 6 feet thick, have a high calcium content, and have a long history as short grass prairie resulting in soils that have high natural fertility and organic matter content – considered excellent for cropland (SSSA, 2025). Most of the central and western portions of the county, within the Coteau Slope District, have dominant areas of exposed bedrock, often soft shale and sandstone, where glacial deposits are thin to negligible. As a result, much of this area has windblown silt and fine clay, or loess rich soils which include the light to dark grey soils of the Regan, Regent, and Heil Series.



Source: Web Soil Survey

Landslide

United States Geological Survey definition: "Landslides are the downslope movement of earth materials (rock, debris, and soil) at rates that range from inches per year to tens of miles per hour. Some landslides can move faster than a person can run. Landslides can happen with no notice or can take place over a period of days, weeks, or longer."



Source: USGS ArcGIS

Radon

United States Environmental Protection Agency defines radon: "Radon is a radioactive gas that forms naturally when uranium, thorium, or radium, which are radioactive metals break down in rocks, soil and groundwater. People can be exposed to radon primarily from breathing radon in air that comes through cracks and gaps in buildings and homes. Because radon comes naturally from the earth, people are always exposed to it."

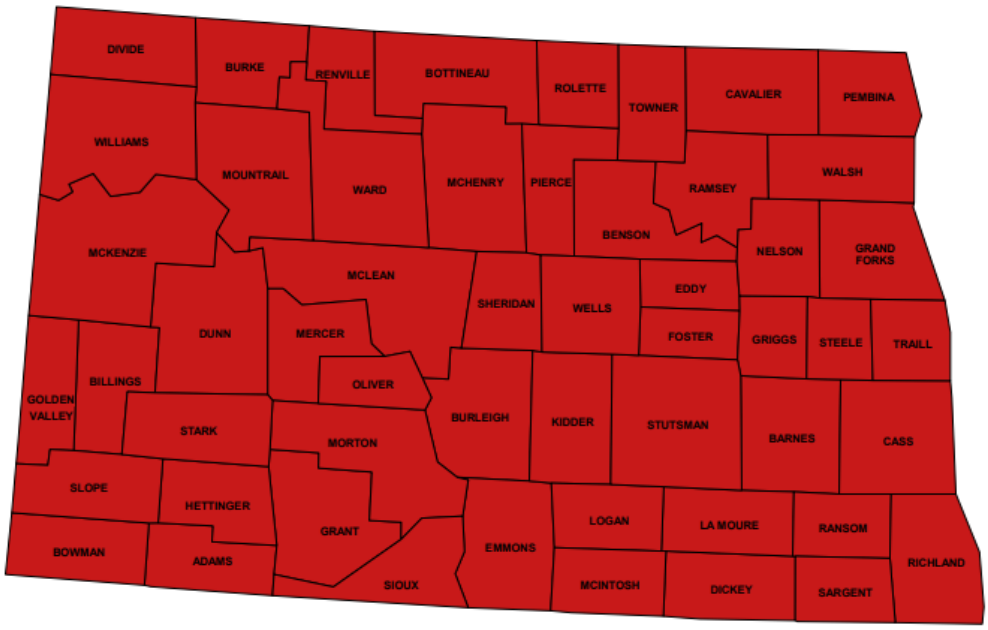
NORTH DAKOTA - EPA Map of Radon Zones

https://www.epa.gov/radon/epa-map-radon-zones

The Map of Radon Zones was developed in 1993 to identify areas of the U.S. with the potential for elevated indoor radon levels. The map is intended to help governments and other organizations target risk reduction activities and resources. The Map of Radon Zones should not be used to determine if individual homes need to be tested. No matter where you live, test your home for radon—it's easy and inexpensive Fix your home if your radon level is 4 picocuries per liter (pCi/L) (150 becquerels per meter cubed (Bq/m3)) or higher. Consider fixing if your level is between 2 and 4 pCi/L (75 - 150 Bq/m3).

The Map of Radon Zones was developed using data on indoor radon measurements, geology, aerial radioactivity, soil parameters, and foundation types. The EPA recommends that this map be supplemented with any available local data to further understand and predict the radon potential for a specific area.

All homes should be tested, regardless of zone designation.



What do the colors mean?

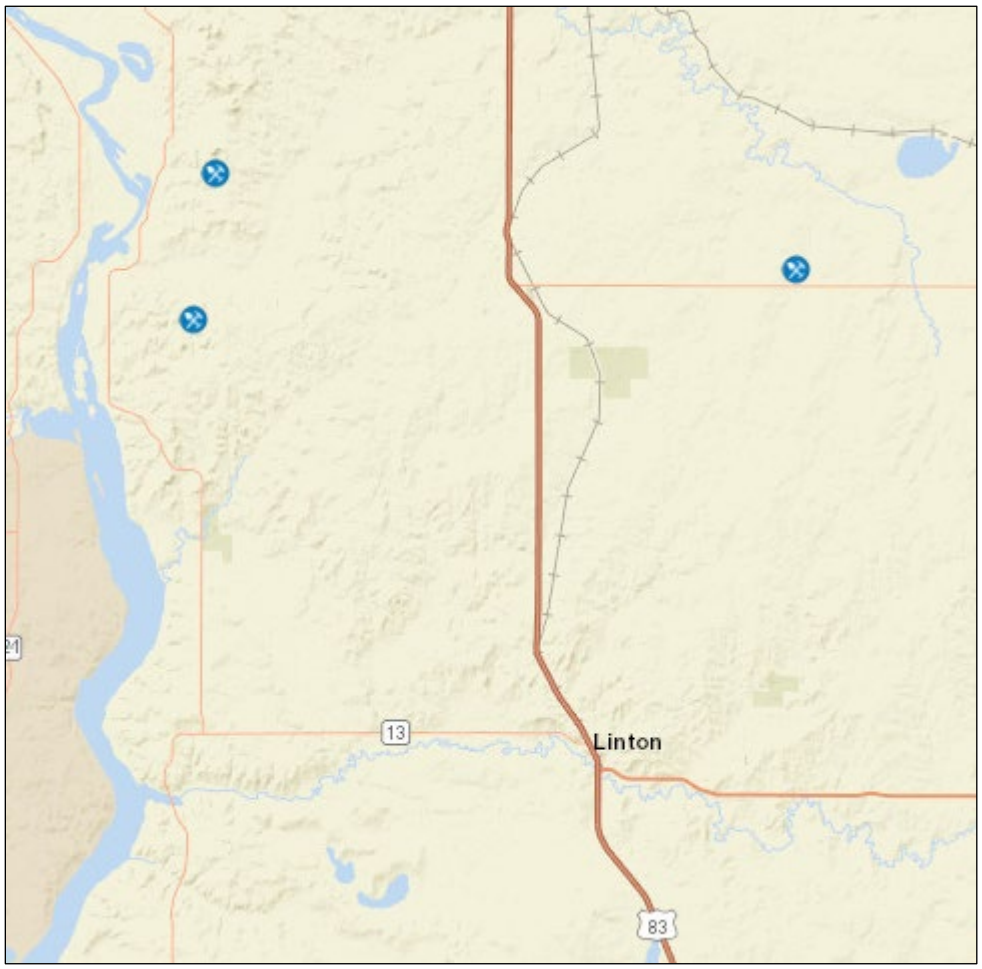
Zone	Zone 1 (red zones)	Zone 2 (orange zones)	Zone 3 (yellow zones)
Color			
Description	**Highest potential** **Counties have a predicted average indoor screening level > (Greater) than 4 pCi/L (picocuries per liter) (150 Bq/m3 (becquerels per meter cubed))**	**Moderate potential** **Counties have a predicted average screening level ≥ (Greater than and equal to) 2 pCi/L (75 Bq/m3) and ≤ (less than and equal to) 4 pCi/L (150 Bq/m3)**	**Low potential** **Counties have a predicted average indoor screening level < (Less than) 2 pCi/L (75 Bq/m3)**

IMPORTANT: Consult the publication entitled "Preliminary Geologic Radon Potential Assessment of North Dakota" (USGS Open-file Report 93-292-H) before using this map. See https://doi.org/10.3133/ofr93292H. This document contains information on radon potential variations within counties. The EPA also recommends that this map be supplemented with any available local data in order to further understand and predict the radon potential of a specific area.

Subsidence

Subsidence is the sinking or settling of the ground surface, caused by the compaction of underground materials due to natural processes or human activity like groundwater extraction, mining, and soil consolidation. It causes significant structural damage to infrastructure—including cracked walls, uneven floors, and broken pipelines—often requiring costly, specialized repairs.

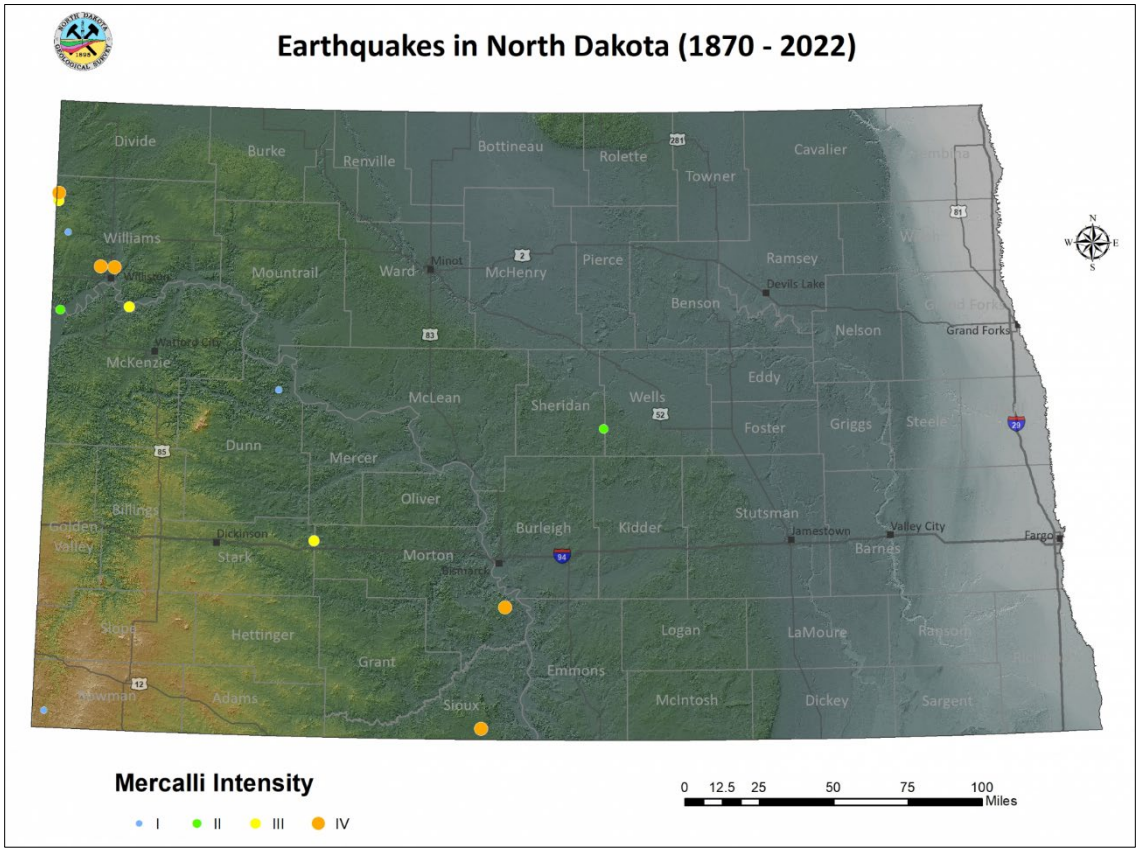
There are three abandoned coal mines in Emmons County which are managed by the North Dakota Public Service Commission's Abandoned Mine Lands Division to eliminate dangers such as subsidence. Abandoned underground lignite mines can cause sinkholes and subsidence, rendering land unusable.



Source: ND Public Service Commission

Earthquake

There is no record of earthquakes in Emmons County; however, the ND Department of Mineral Resources provides information on an earthquake in Morton County on July 8, 1968, that was felt in various areas of Emmons County.



July 8, 1968 M 4.4 Earthquake near Huff, North Dakota

A magnitude M 4.4 earthquake was recorded five miles southwest of Huff in eastern Morton County in south-central North Dakota during the morning of Monday, July 8, 1968 at an estimated depth of 20.5 miles. This earthquake was the first instrumentally verified earthquake recorded in North Dakota and was reported to have been felt over approximately 3,000 square miles of south-central North Dakota. It was reported that "a television set shifted and sounds like thunder were heard." Additionally, Mercalli earthquake intensity IV effects were noted at Bismarck, Fort Rice, Huff, Linton, Mandan, Menoken, and Moffit; and Mercalli intensity I-III effects at Almont, Flasher, Halliday, and St. Anthony (Coffman and Cloud, 1970).

Day	Date	Time (local)	Time (UTC)	Magnitude	Depth (miles)	MMI	T & R	Longitude	Latitude
Monday	07/08/1968	10:50:12	16:50:12	4.4	20.5	IV	136-80	-100.74	46.59

Source: ND Earthquake Catalog (1870 – 2015)

History

There is no identified history of geologic hazards for Emmons County; however, the landslide susceptibility has been identified for the western edge of Emmons County which borders the Missouri River.

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Hazardous Materials Release

Frequency	Highly Likely (Nearly 100% probability in the next year)
Severity	Limited (10-25% of jurisdiction affected)
Risk Class	B
Seasonal Pattern	None
Duration	Hours/Days
Speed of Onset	No warning
Location	Countywide
Impacts	Agriculture, Evacuation (Localized), Explosion, HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Mass Casualties, Personal Injury/Death Risk, Property Damage, School Closure

Description

Hazardous materials are any substances in any quantity or form which may pose an unreasonable risk to the safety, health, environment, and property of citizens. The term "hazardous materials" covers a wide array of products, from relatively innocuous ones such as hair spray in aerosol dispensers and wash preservatives such as creosote to highly toxic or poisonous materials such as anhydrous ammonia and phosgene gas. The potential severity of hazards of these materials is varied, but the primary reason for their designation is their risk to public safety. Tier II forms are on file with Emmons County Emergency Management.

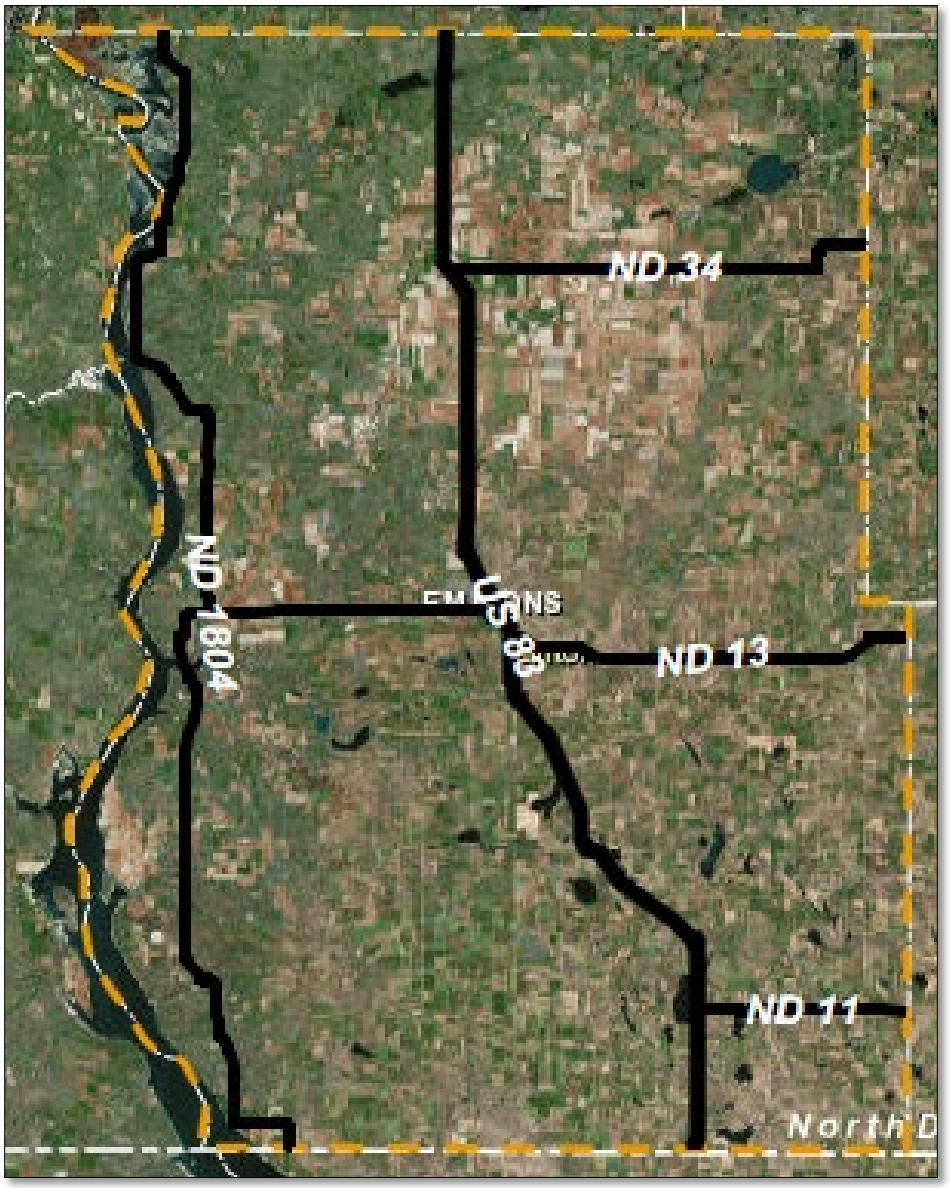
The County is exposed to and is at risk from accidents and/or incidents involving hazardous materials. The economy is based upon agriculture, manufacturing, and industry. All of these rely on the production, use, storage, transportation, etc. of hazardous materials. Explosives, flammable liquids, flammable solids, gases, poisons, pesticides, oxidizing substances, miscellaneous dangerous substances, and radioactive materials are either used in or transported through Emmons County.

Hazardous materials are transported via two modes into and within Emmons County:

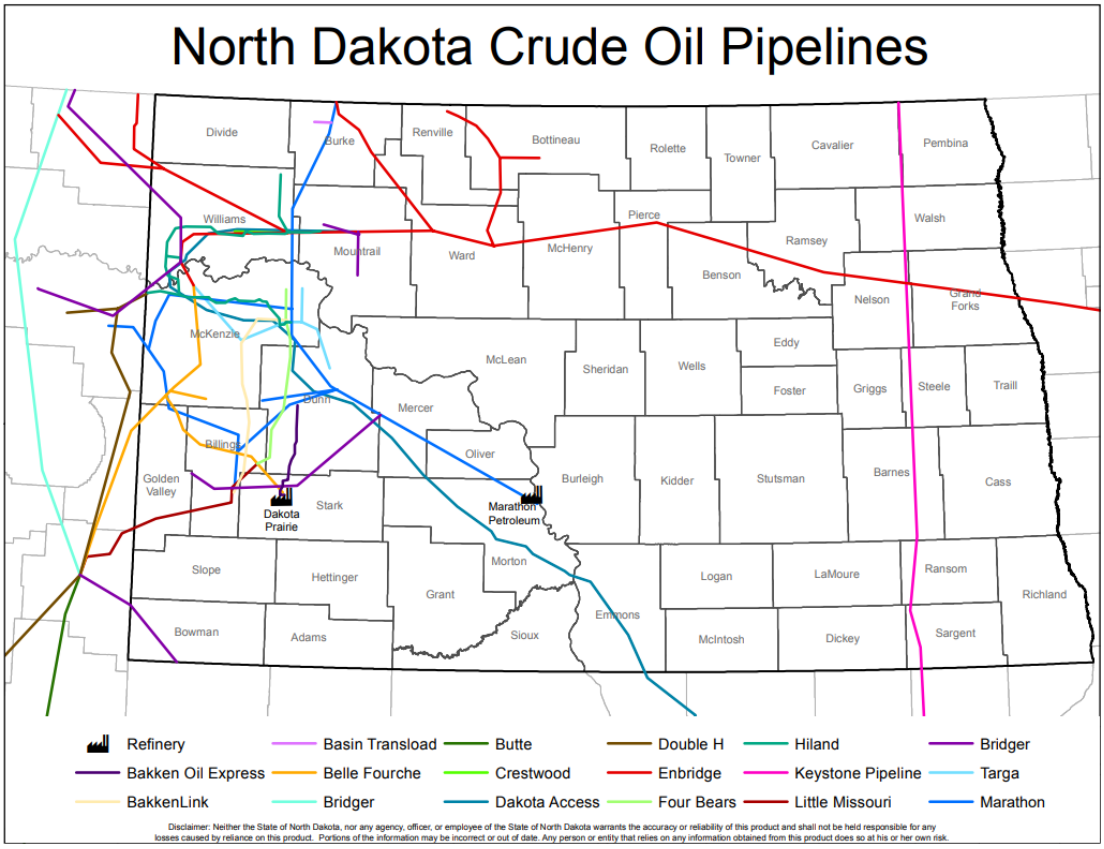
Highways: US-83 runs north-south through the middle of the county. ND 1804 runs north-south on the western edge of the county. ND 11, 13 34 run east-west through the county.

Pipeline: Crude Oil
Natural Gas

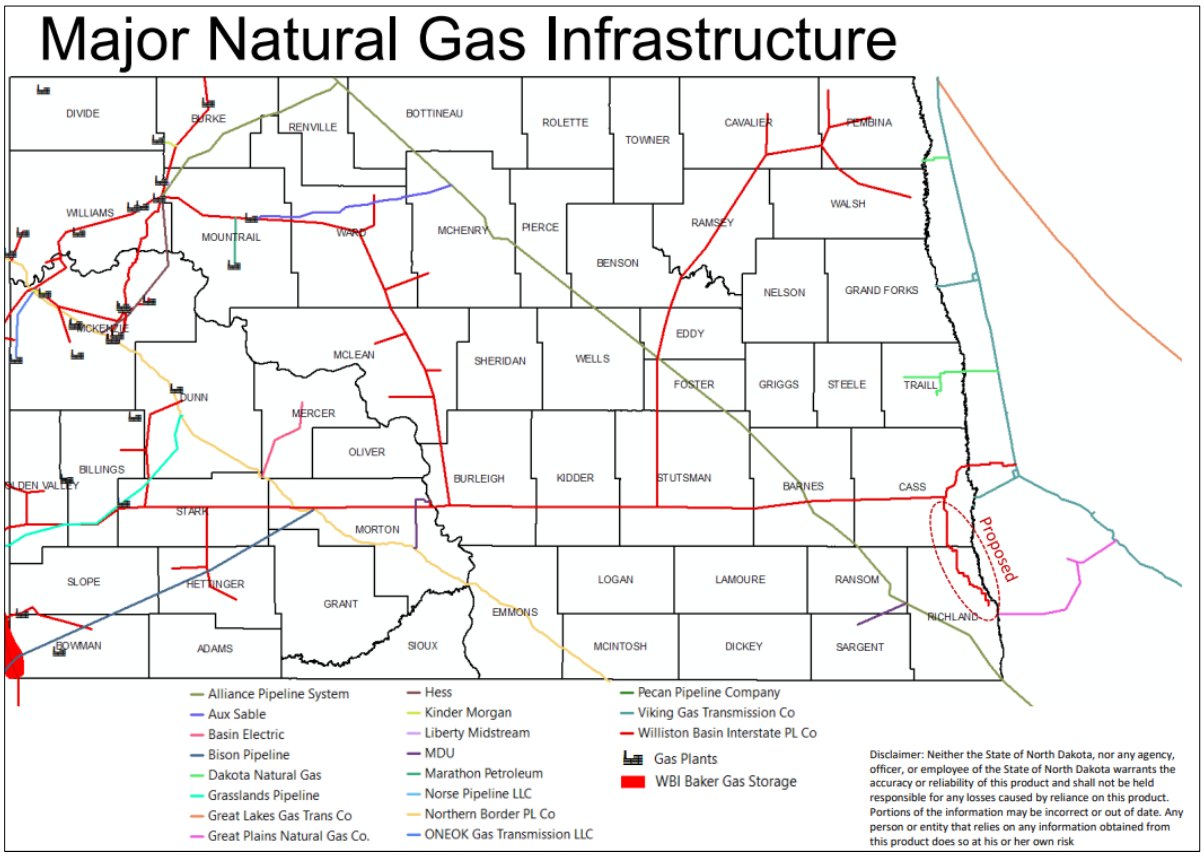
Major Roadways in Emmons County



Source: Emmons County GIS



Source: [ND Pipeline Authority]



Source: [ND Pipeline Authority]

History

The ND Department of Environmental Quality maintains a Spill Investigation Program for environmental incident reports. Emmons County incident reports 2021 – Present:

Incident ID	Incident Type	Incident Date	Contained	Date Reported	Chemicals	Section	Twp	Range
5180	Environmental Incident	8/10/2025	Yes	8/11/2025	Fuel - 10 gal	23	135 N	74 W
4694	Environmental Incident	2/24/2025	No	2/24/2025	Saltwater - 11500 gal	17	132 N	76 W
3381	Oil/Gas Spill	1/18/2024	Yes	1/18/2024	Diesel - 100 gal	7	132 N	76 W
2308	Environmental Incident	2/15/2023	Yes	2/15/2023	Diesel - 1 gal	7	132 N	76 W
63	Oil/Gas Spill	1/20/2021	Yes	2/2/2024	Crude Oil - 20 gal	26	131 N	76 W

Source: ND Department of Environmental Quality

03-31-21 Pipe bomb found along ND Highway 1804 near mile maker 45 by employee doing maintenance. Object rendered safe by the Bismarck Bomb Squad and turned over to Bureau of Alcohol, Tobacco, Firearms and Explosives for examination.

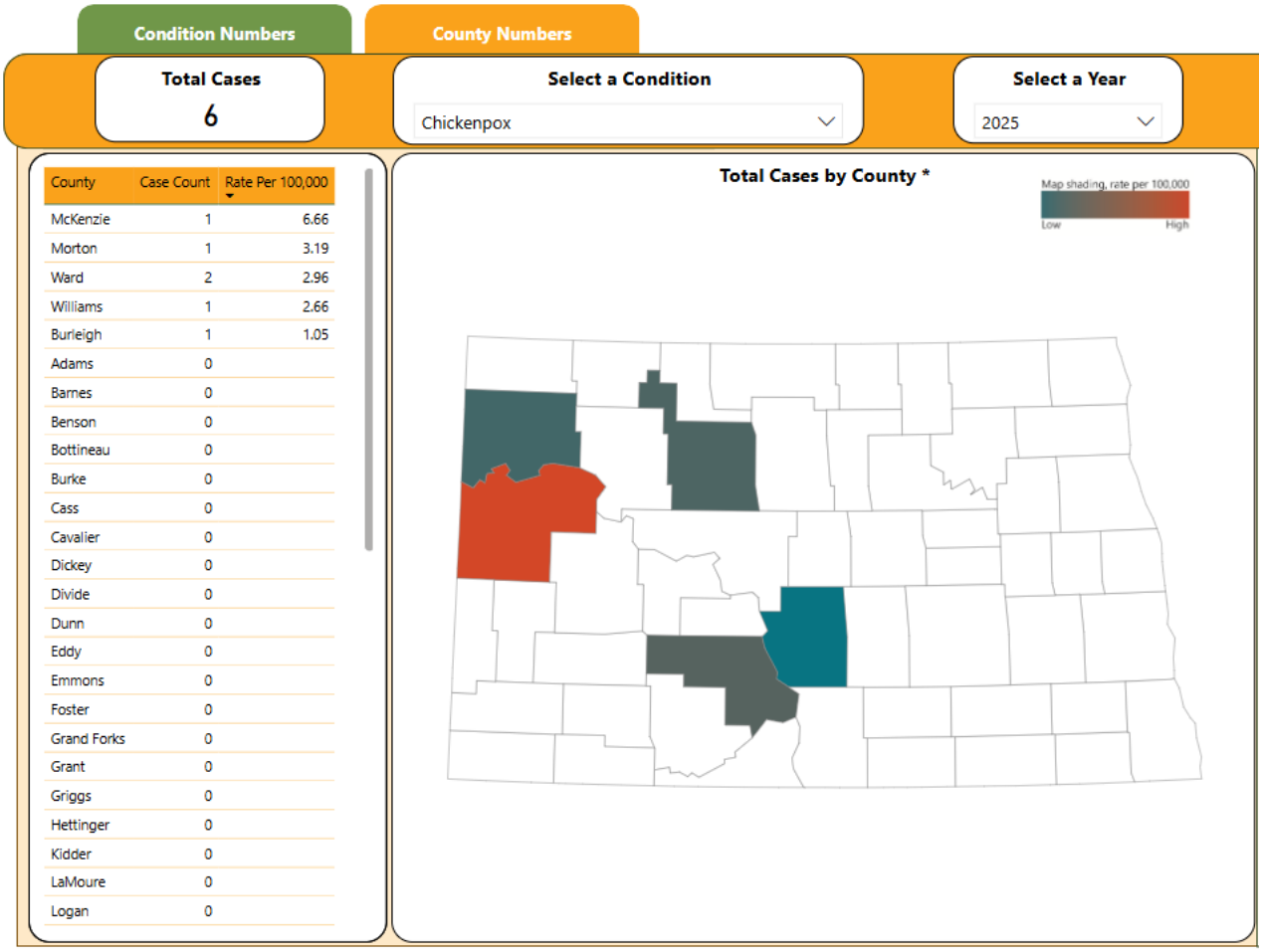
Infectious Disease and Pest Infestations
(Including human, animal, and plant diseases)

Frequency	Likely (10-100% probability in the next year, or at least 1 chance in next 10 years)
Severity	Critical (25-50% of jurisdiction affected)
Risk Class	B
Seasonal Pattern	None
Duration	Hours/Days
Speed of Onset	No warning
Location	Countywide
Impacts	Agriculture, Business Interruptions, Delayed Emergency Response, Evacuation (Localized), Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Mass Casualties, Personal Injury/Death Risk, School Closure

Description
Naturally occurring biological diseases in humans as well as those biological agents found in the environment, or diagnosed in animals, that have the potential for transmission to humans.

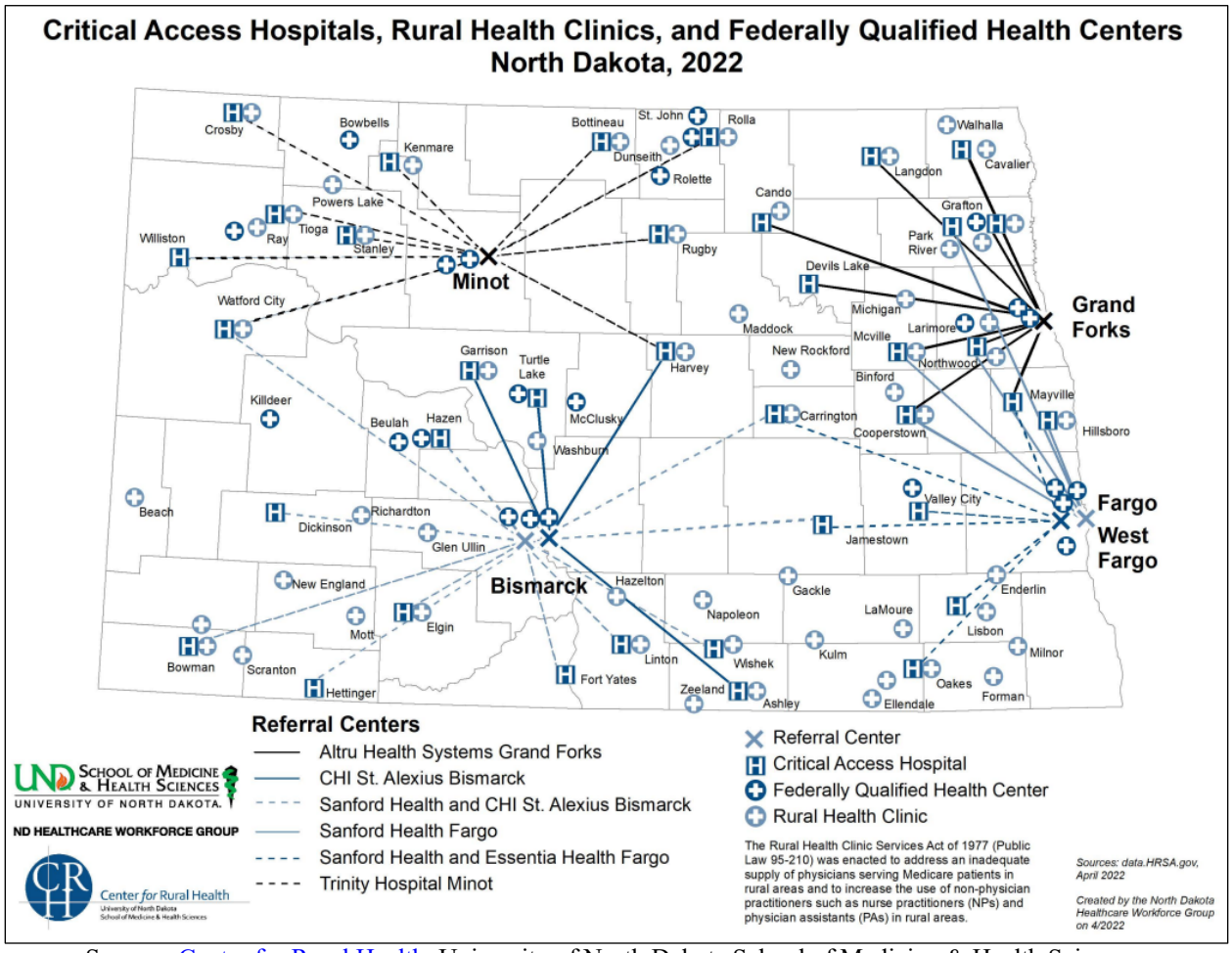
The probability of communicable disease in Emmons County presents challenges due to a limited history of outbreaks. Medical advances over the past fifty years prevent many disease outbreaks, yet the potential still remains. Emmons County is primarily a rural setting and somewhat isolated from the rapid spread of global diseases, however, international and domestic travel is so common that, like the Spanish Influenza Pandemic of 1918, North Dakotans would most likely be affected at some point. The urban areas could see rapid spread of such diseases through their populations.

The ND Department of Health and Human Services maintains a listing of "Diseases, Conditions and Immunization" as well as "Disease Report Dashboard".



County	Case Count	Rate Per 100,000
McKenzie	1	6.66
Morton	1	3.19
Ward	2	2.96
Williams	1	2.66
Burleigh	1	1.05
Adams	0	
Barnes	0	
Benson	0	
Bottineau	0	
Burke	0	
Cass	0	
Cavalier	0	
Dickey	0	
Divide	0	
Dunn	0	
Eddy	0	
Emmons	0	
Foster	0	
Grand Forks	0	
Grant	0	
Griggs	0	
Hettinger	0	
Kidder	0	
LaMoure	0	
Logan	0	

ND is primarily rural with access to networked medical care:



Source: Center for Rural Health, University of North Dakota School of Medicine & Health Sciences

Most Significant Health Needs

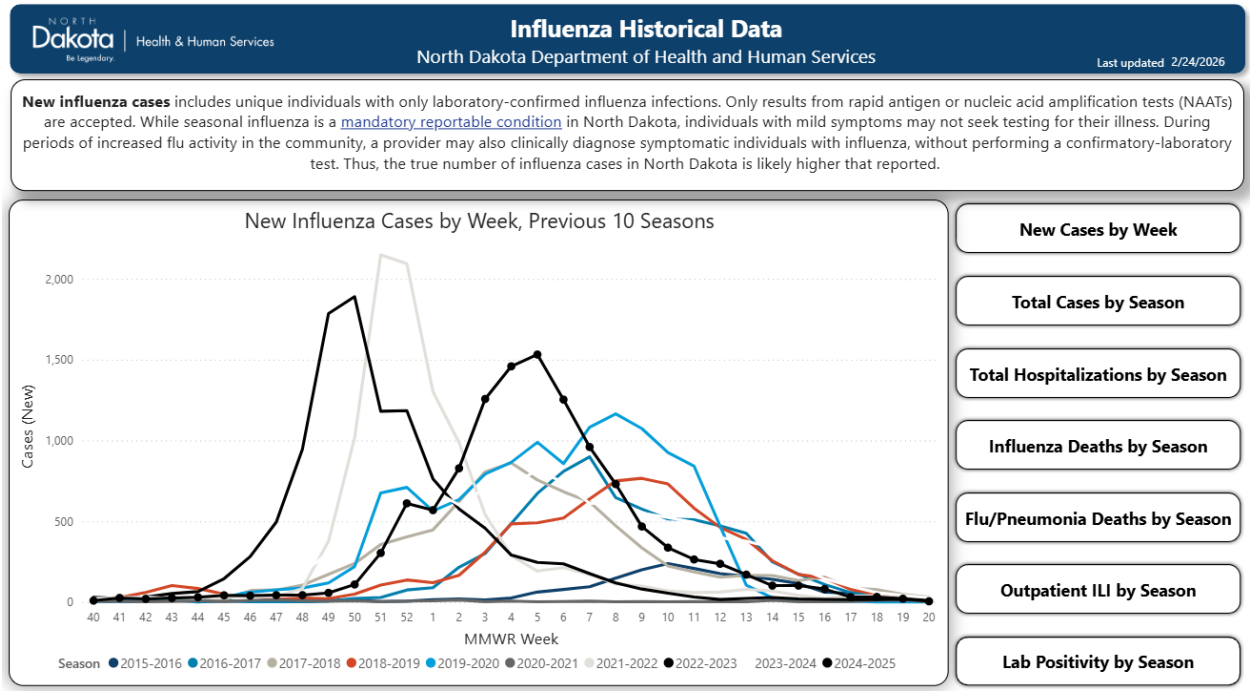
Linton Hospital and Emmons County Public Health
2023
Availability of mental health services
Attracting and retaining young families
Depression/anxiety (all ages)
Substance abuse (all ages)

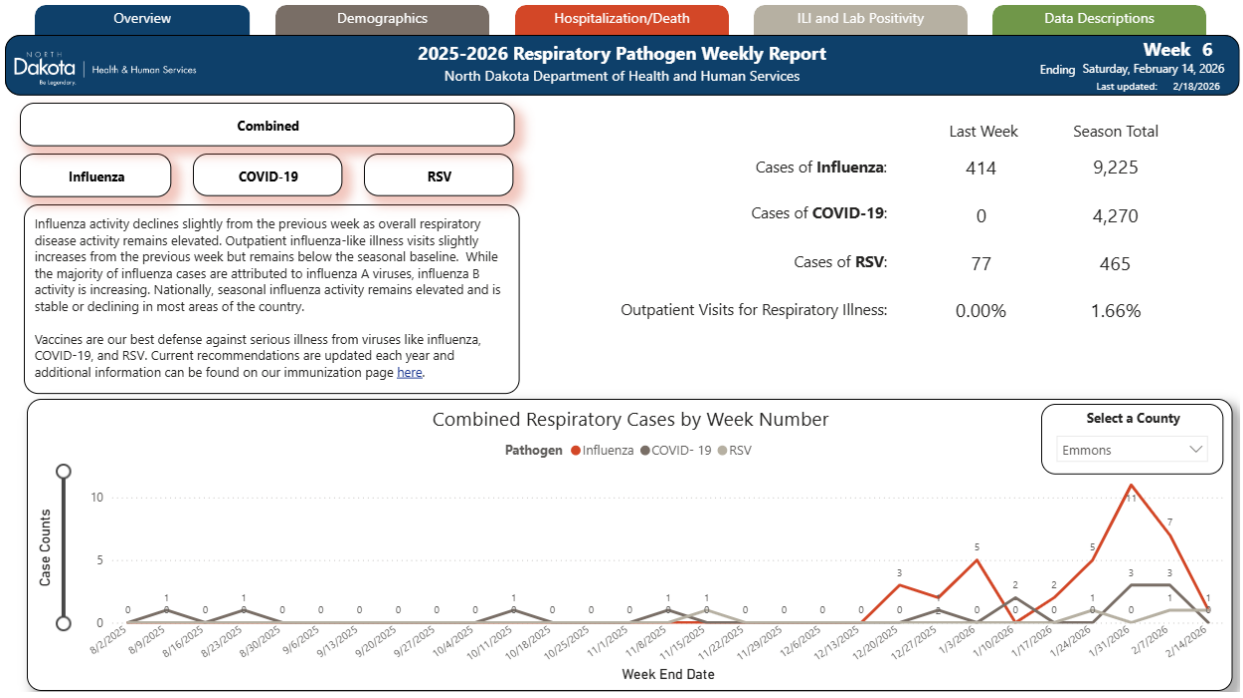
2020-2022
Availability of mental health services
Having enough child daycare services
Adult alcohol use and abuse

Source: https://ruralhealth.und.edu/projects/community-health-needs-assessment/community-needs

History

Emmons County has experienced one pandemic (COVID-19 in 2020) in recent years, and seasonal influenza outbreaks occur annually—both are tracked by the ND Department of Health and Human Services.





Source: [ND Department of Health and Human Services]

North Dakota has had three influenza pandemics in the 20th century: 1918 caused 5,100 deaths in North Dakota, 500,000 deaths in the United States; 1957 resulted in 70,000 deaths in the United States; and 1968 resulted in 34,000 deaths in the United States.

Spanish Influenza Pandemic of 1918

The magnitude of a communicable disease outbreak varies from everyday disease occurrences to widespread infection. During the 1918 Influenza Pandemic, infection rates approached 28% in the United States. (Billings, 1997). Other pandemics produced infections rates as high as 35% of the total population. (World Health Organization, 2007). Such a pandemic affecting North Dakota represents a severe magnitude event. Almost any highly contagious, incapacitating disease that enters the North Dakota population would quickly overwhelm local and state health resources. Similarly, any rapidly spreading bioterrorism event for which little vaccination or containment capability exists is a high magnitude event.

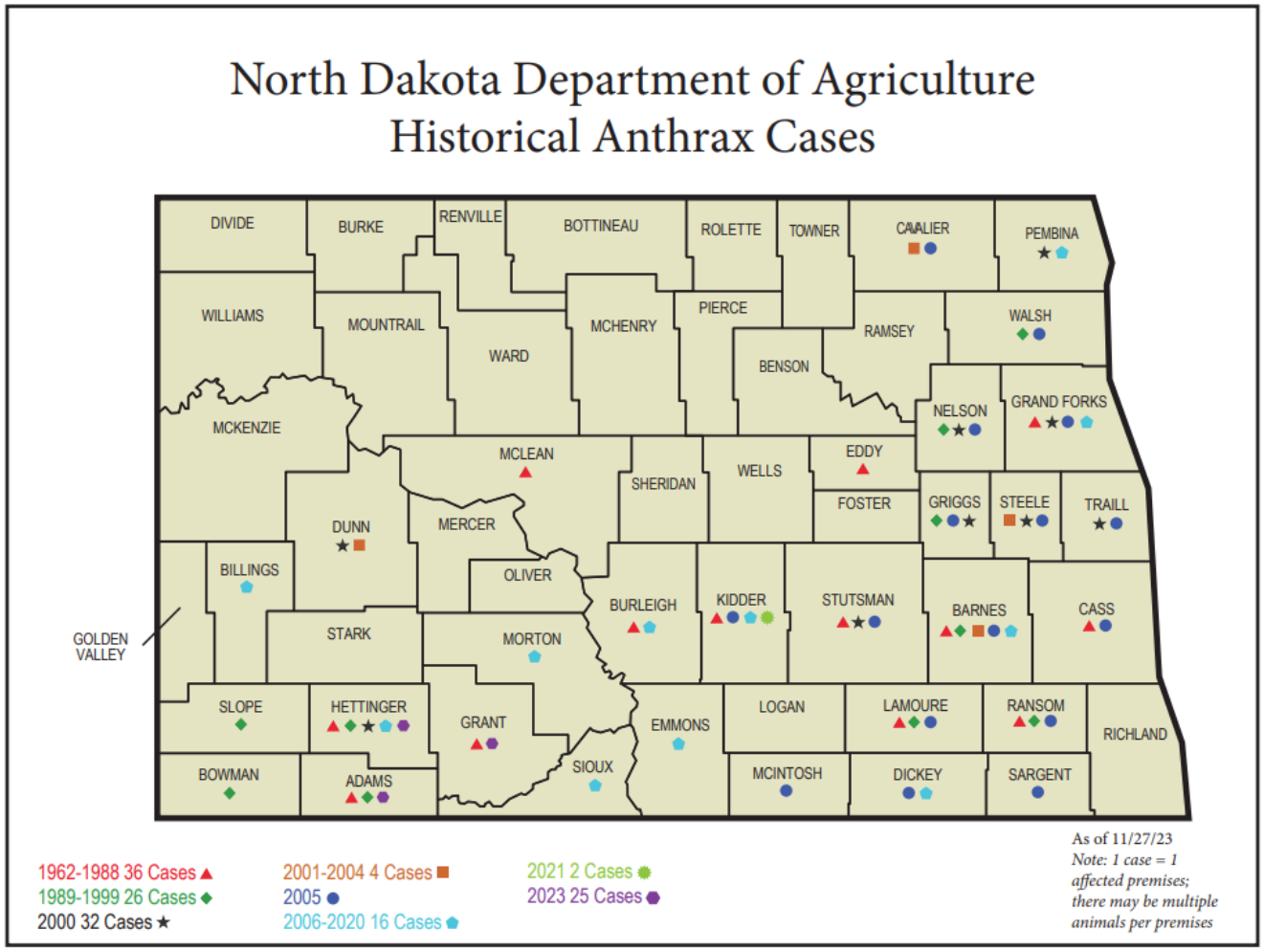
Agricultural Diseases, Noxious Weeds, and Pests

A comprehensive disease list (reportable disease, related pests diseases or noxious weeds, disease) maintained by the ND Department of Agriculture.

Anthrax

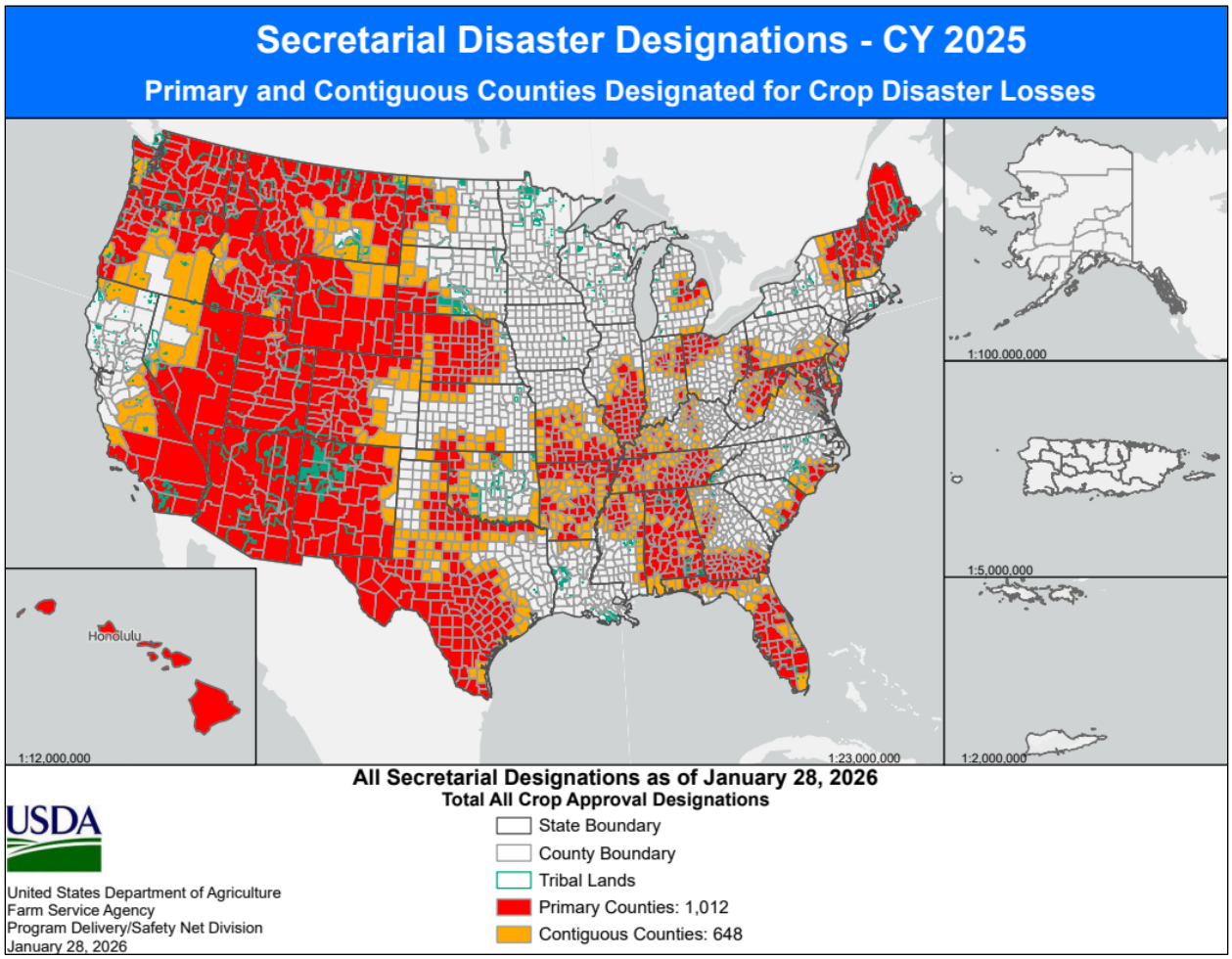
"Anthrax occurs worldwide and is associated with sudden death of cattle and sheep. Anthrax can infect all warm-blooded animals, including humans. The bacteria that cause anthrax (Bacillus anthracis) can form spores which are resistant to heat, cold, chemical disinfectants and drying. The anthrax spore may live indefinitely in the soil of a contaminated pasture or yard. Anthrax is more commonly seen in areas after periods of extended dryness or excessive rain. People may develop cutaneous anthrax after exposure to infected animals and animal products including hides, hair, and wool and may develop a more serious form of anthrax after eating contaminated undercooked meat or by inhaling the spores during a necropsy or disposal of opened carcasses. A vaccine is available for cattle and recommended for use annually in areas of historically high infection rates or when environmental factors increase the risk of anthrax in a new area." (Source: ND Department of Agriculture)

Emmons County has a low case history:



Source: ND Department of Agriculture

Agriculture-related disasters and disaster designations are quite common. Disaster designation information and fact sheets are provided by the United Stated Department of Agriculture.



Source: United States Department of Agriculture Farm Service Agency

Severe Summer Weather

Frequency	Highly Likely (Nearly 100% probability in the next year)
Severity	Limited (10-25% of jurisdiction affected)
Risk Class	B
Seasonal Pattern	April to November
Duration	2 to 5 hours
Speed of Onset	Little to no warning
Location	Countywide
Impacts	Agriculture, Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Downed Trees, Evacuation (Localized), Flooding (Street), Flooding (Structure), HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Loss of Power, Mass Casualties, Personal Injury/Death Risk, Property Damage, School Closure, Sewer Backup

Description
Severe summer storms are generated by temperature imbalances in the atmosphere, and as warm, moist are rises, the thunderstorm develops. These conditions will produce updrafts and downdrafts which are the reason for gust fronts, heavy rain (flash flooding), lightning, hail, and high winds. Downburst or straight-line winds can be as deadly as tornadoes. If the thunderstorm continues to intensify, a tornado may develop.

Downburst:
- A strong, localized downdraft from a thunderstorm that produces damaging "straight-line" winds upon hitting the ground.
- Winds can exceed 150 mph, causing damage similar to tornadoes.
- Classified as microbursts (smaller than 2.5 miles) or macrobursts (larger than 2.5 miles).

Extreme Heat:
- Period of abnormally hot and dangerous temperatures—often with high humidity—that can cause significant negative impacts on people, animals, and infrastructure
- Generally characterized by heat index values reaching 105°F to 110°F or higher, typically lasting for at least two days, often with nighttime temperatures not dropping below 75 F.

Hail:
- Can be larger than a softball (5 inches in diameter)
- Causes more than $1 billion in crop and property damage each year

Lightning:
- Causes an average of 55-60 fatalities and 400 injuries each year
- Occurs with all thunderstorms
- Costs more than $1 billion in insured losses each year

Straight-line Winds:

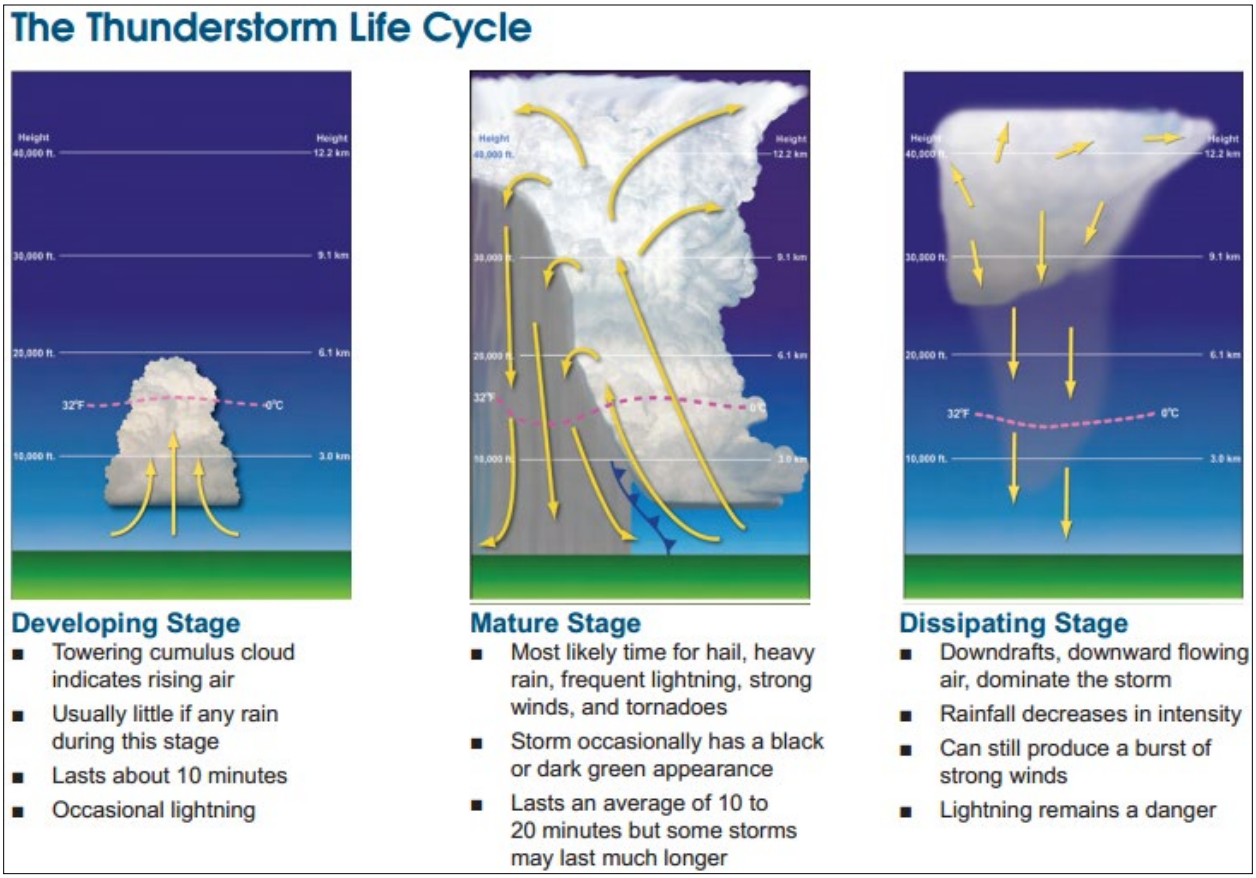
- Any thunderstorm wind that is not associated with rotation, and is used mainly to differentiate from tornadic winds
- Can exceed 125 mph
- Can cause destruction equal to a tornado
- Are extremely dangerous to aviation

Tornadoes:

- Cause an average of 60-65 fatalities and 1,500 injuries each year
- Can produce wind speeds in excess of 200 mph
- Can be 1 mile wide and stay on the ground over 50 miles

A thunderstorm affects a relatively small area when compared to a winter storm. The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. Despite their small size, all thunderstorms are dangerous! Every thunderstorm needs:

- Moisture—to form clouds and rain
- Unstable air—warm air that can rise rapidly
- Lift—caused by cold or warm fronts, sea breezes, mountains, or the sun's heat.



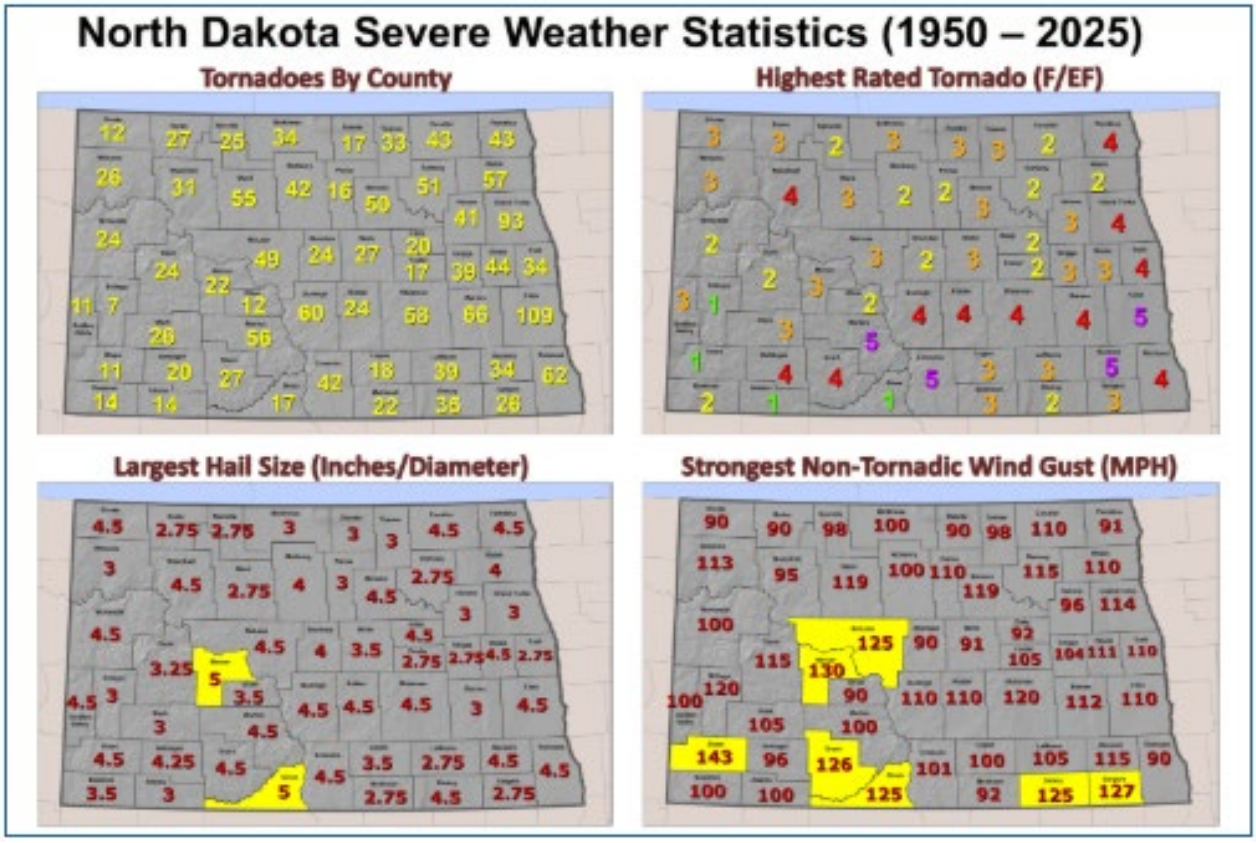
Source: Thunderstorms, Tornadoes, Lightning, A Preparedness Guide, US Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service

Tornado

The Enhanced Fujita Scale (EF Scale)

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

Source: National Weather Service



Source: National Weather Service Weather Forecast Office, Bismarck, ND

Wind

Source: National Weather Service

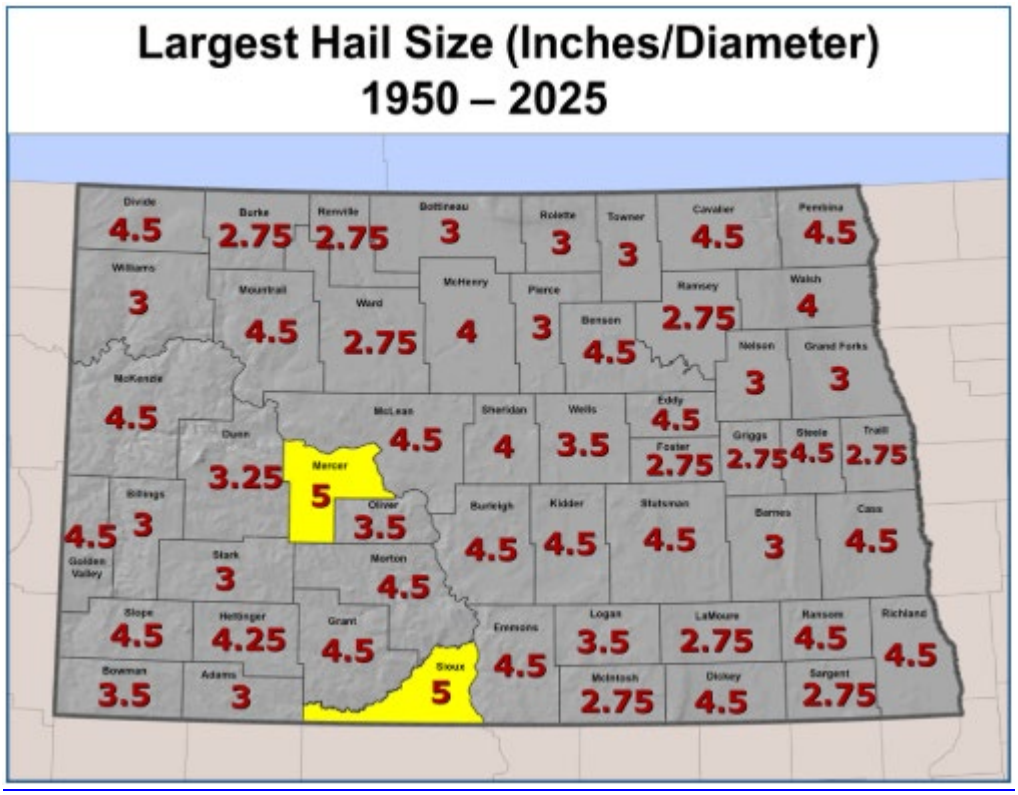
Straight-line winds are any winds not associated with the rotation of a tornado and are responsible for most thunderstorm damage. The winds can exceed 125 mph!

A downburst is a small area of rapidly descending air beneath a thunderstorm and can cause damage equivalent to a strong tornado and can be extremely hazardous to aviation. The number one cause of wind damage in North Dakota is from downburst winds, not tornadoes.

Hail

Hail is larger than sleet and forms only in thunderstorms. Hail stones can range from pea size to the size of a grapefruit. Hail has the potential to be life-threatening due to falling from great heights; large hailstones can fall at speeds faster than 100 mph!

The major hazard is to crops, aircraft, automobiles, roofs, and windows, etc. The destructiveness of hailstorms is not due to the hailstones alone. Hail damage is difficult to determine, as hail, wind, and rain frequently occur at the same time.



Source: National Weather Service Weather Forecast Office, Bismarck, ND

History

Extreme Heat

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
EMMONS (ZONE)	07/16/2011	11:00	CST-6	Excessive Heat		0	0	0.00K	0.00K
Totals:						0	0	0.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Lightning

No history

Location	County/Zone	St.	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:								0	0	0.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

High Wind

(ten-year history, May-Oct, plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
EMMONS (ZONE)	10/17/2023	17:00	CST-6	High Wind	51 kts. MG	0	0	0.00K	0.00K
EMMONS (ZONE)	10/13/2022	10:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	05/13/2022	05:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	09/02/2020	18:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	08/22/2015	18:00	CST-6	High Wind	61 kts. EG	0	0	10.00K	0.00K
EMMONS (ZONE)	07/13/2009	23:55	CST-6	High Wind	52 kts. EG	0	0	5.00K	0.00K
Totals:						0	0	15.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Thunderstorm Winds (Damaging Downburst)
(ten-year history, May-Oct, plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
HAZELTON	08/08/2025	00:40	CST-6	Thunderstorm Wind	52 kts. MG	0	0	0.00K	0.00K
TEMVIK	06/20/2025	20:40	CST-6	Thunderstorm Wind	83 kts. MG	0	0	0.00K	0.00K
HAZELTON	06/20/2025	20:40	CST-6	Thunderstorm Wind	66 kts. MG	0	0	0.00K	0.00K
HAZELTON	06/20/2025	20:36	CST-6	Thunderstorm Wind	70 kts. EG	0	0	50.00K	0.00K
TEMVIK	06/20/2025	20:35	CST-6	Thunderstorm Wind	88 kts. MG	0	0	0.00K	0.00K
LINTON ARPT	06/20/2025	20:35	CST-6	Thunderstorm Wind	56 kts. MG	0	0	0.00K	0.00K
HAZELTON	06/20/2025	20:20	CST-6	Thunderstorm Wind	58 kts. MG	0	0	0.00K	0.00K
KINTYRE	07/29/2024	19:58	CST-6	Thunderstorm Wind	51 kts. MG	0	0	0.00K	0.00K
TEMVIK	07/29/2024	19:49	CST-6	Thunderstorm Wind	56 kts. MG	0	0	0.00K	0.00K
WESTFIELD	05/19/2024	19:12	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
HAZELTON	07/09/2022	10:40	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	25.00K
LINTON	06/29/2022	21:10	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
HAGUE	06/19/2022	21:35	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
HAGUE	06/19/2022	19:50	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
WESTFIELD	05/12/2022	03:55	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
TEMVIK	07/23/2021	19:54	CST-6	Thunderstorm Wind	50 kts. MG	0	0	0.00K	0.00K
HAZELTON ARPT	08/14/2020	05:20	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
TEMVIK	07/25/2020	19:30	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
STRASBURG	07/25/2020	19:18	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
TEMVIK	07/25/2020	19:02	CST-6	Thunderstorm Wind	57 kts. MG	0	0	0.00K	0.00K
STRASBURG	06/28/2019	08:20	CST-6	Thunderstorm Wind	56 kts. EG	0	0	10.00K	0.00K
TEMVIK	07/08/2018	00:35	CST-6	Thunderstorm Wind	50 kts. MG	0	0	0.00K	0.00K
HAZELTON	07/08/2018	00:31	CST-6	Thunderstorm Wind	78 kts. EG	0	0	200.00K	0.00K
WESTFIELD	07/03/2018	04:50	CST-6	Thunderstorm Wind	70 kts. EG	0	0	90.00K	0.00K
KINTYRE	07/03/2018	04:30	CST-6	Thunderstorm Wind	74 kts. EG	0	0	300.00K	0.00K
TEMVIK	06/14/2018	20:31	CST-6	Thunderstorm Wind	62 kts. MG	0	0	0.00K	0.00K
BRADDOCK	07/21/2017	22:36	CST-6	Thunderstorm Wind	61 kts. EG	0	0	8.00K	0.00K
HAZELTON	07/21/2017	22:22	CST-6	Thunderstorm Wind	52 kts. EG	0	0	5.00K	0.00K
STRASBURG	07/18/2017	02:45	CST-6	Thunderstorm Wind	56 kts. EG	0	0	15.00K	0.00K
STRASBURG	07/05/2017	18:05	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
STRASBURG	08/09/2016	23:30	CST-6	Thunderstorm Wind	70 kts. EG	0	0	200.00K	50.00K
TEMVIK	08/09/2016	23:26	CST-6	Thunderstorm Wind	70 kts. MG	0	0	0.00K	0.00K
STRASBURG	08/09/2016	23:20	CST-6	Thunderstorm Wind	61 kts. EG	0	0	0.00K	0.00K
LINTON	08/09/2016	23:18	CST-6	Thunderstorm Wind	65 kts. EG	0	0	100.00K	50.00K
HAZELTON	08/09/2016	23:15	CST-6	Thunderstorm Wind	52 kts. EG	0	0	0.00K	0.00K
TEMVIK	07/11/2016	01:29	CST-6	Thunderstorm Wind	53 kts. MG	0	0	0.00K	0.00K

HAZELTON ARPT	06/22/2016	00:25	CST-6	Thunderstorm Wind	83 kts. EG	0	0	100.00K	0.00K
HAZELTON	06/19/2015	20:35	CST-6	Thunderstorm Wind	52 kts. EG	0	0	5.00K	0.00K
LINTON	08/20/2014	20:45	CST-6	Thunderstorm Wind	52 kts. EG	0	0	2.00K	0.00K
HAZELTON	07/06/2014	22:14	CST-6	Thunderstorm Wind	65 kts. EG	0	0	45.00K	0.00K
LINTON	06/07/2012	19:10	CST-6	Thunderstorm Wind	70 kts. EG	0	0	35.00K	0.00K
LINTON	07/22/2011	22:50	CST-6	Thunderstorm Wind	61 kts. EG	0	0	35.00K	0.00K
HAZELTON ARPT	07/10/2011	13:24	CST-6	Thunderstorm Wind	61 kts. EG	0	0	25.00K	0.00K
HAZELTON	07/10/2011	13:15	CST-6	Thunderstorm Wind	83 kts. MG	0	0	150.00K	0.00K
KINTYRE	06/02/2011	23:53	CST-6	Thunderstorm Wind	78 kts. EG	0	0	200.00K	0.00K
KINTYRE	06/02/2011	23:52	CST-6	Thunderstorm Wind	78 kts. EG	0	0	125.00K	0.00K
KINTYRE	06/02/2011	23:50	CST-6	Thunderstorm Wind	87 kts. EG	0	0	350.00K	0.00K
LINTON	06/02/2011	23:37	CST-6	Thunderstorm Wind	83 kts. EG	0	0	35.00K	0.00K
LINTON MUNI ARPT	06/02/2011	23:35	CST-6	Thunderstorm Wind	82 kts. MG	0	0	100.00K	0.00K
LINTON	08/12/2010	22:50	CST-6	Thunderstorm Wind	70 kts. EG	0	0	15.00K	0.00K
WESTFIELD	06/26/2010	18:24	CST-6	Thunderstorm Wind	65 kts. EG	0	0	6.00K	0.00K
HAZELTON	06/22/2010	01:45	CST-6	Thunderstorm Wind	70 kts. EG	0	0	20.00K	0.00K
STRASBURG	05/24/2010	19:51	CST-6	Thunderstorm Wind	56 kts. EG	0	0	20.00K	0.00K
LINTON	05/24/2010	19:40	CST-6	Thunderstorm Wind	70 kts. EG	0	0	90.00K	0.00K
LINTON	05/22/2010	03:00	CST-6	Thunderstorm Wind	70 kts. EG	0	0	50.00K	0.00K
BRADDOCK	06/11/2008	02:35	CST-6	Thunderstorm Wind	61 kts. EG	0	0	35.00K	0.00K
LINTON	08/04/2006	18:00	CST	Thunderstorm Wind	78 kts. ES	0	0	200.00K	0.00K
LINTON	08/04/2006	17:47	CST	Thunderstorm Wind	61 kts. EG	0	0	5.00K	0.00K
STRASBURG	07/06/1998	16:40	CST	Thunderstorm Wind	87 kts.	0	0	200.00K	80.00K
LINTON	10/11/1997	20:10	CST	Thunderstorm Wind	85 kts.	0	0	150.00K	0.00K
CANNONBALL	05/16/1996	22:50	CST	Thunderstorm Wind	65 kts.	0	0	50.00K	0.00K
Linton	08/28/1993	16:15	CST	Thunderstorm Wind	60 kts.	0	0	50.00K	50.00K
Totals:						0	0	3.076M	255.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Tornado (F1/EF1 and stronger)
(ten-year history plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
HAZELTON	09/14/2025	13:54	CST-6	Tornado	EFU	0	0	0.00K	0.00K
LINTON	09/14/2025	13:08	CST-6	Tornado	EF2	0	0	400.00K	50.00K
WESTFIELD	09/14/2025	12:26	CST-6	Tornado	EFU	0	0	0.00K	0.00K
TEMVIK	06/27/2025	21:18	CST-6	Tornado	EF2	0	0	200.00K	0.00K
TEMVIK	06/27/2025	21:12	CST-6	Tornado	EF1	0	0	300.00K	0.00K
LINTON	07/16/2011	20:47	CST-6	Tornado	EF0	0	0	30.00K	50.00K
HAZELTON	06/09/2001	18:10	CST	Tornado	F1	0	1	0.00K	0.00K
LINTON	08/03/1996	22:30	CST	Tornado	F0	0	0	750.00K	0.00K
STRASBURG	07/10/1996	21:40	CST	Tornado	F0	0	0	25.00K	0.00K
EMMONS CO.	08/01/1988	14:35	CST	Tornado	F1	0	0	25.00K	0.00K
EMMONS CO.	08/01/1988	14:07	CST	Tornado	F1	0	0	25.00K	0.00K
EMMONS CO.	07/02/1983	15:20	CST	Tornado	F0	0	0	0.03K	0.00K
EMMONS CO.	04/28/1981	18:30	CST	Tornado	F0	0	0	0.25K	0.00K
EMMONS CO.	07/12/1976	23:45	CST	Tornado	F0	0	2	0.00K	0.00K
EMMONS CO.	06/11/1976	23:10	CST	Tornado	F0	0	0	25.00K	0.00K
EMMONS CO.	06/11/1976	21:30	CST	Tornado	F1	0	0	25.00K	0.00K
EMMONS CO.	08/19/1974	18:15	CST	Tornado	F2	0	0	25.00K	0.00K
EMMONS CO.	05/26/1974	22:30	CST	Tornado	F2	0	0	25.00K	0.00K
EMMONS CO.	08/17/1967	15:00	CST	Tornado		0	0	25.00K	0.00K
EMMONS CO.	05/05/1964	21:05	CST	Tornado	F2	0	0	250.00K	0.00K
EMMONS CO.	07/24/1960	15:00	CST	Tornado		0	0	2.50K	0.00K
EMMONS CO.	07/01/1955	17:10	CST	Tornado	F3	0	0	25.00K	0.00K
EMMONS CO.	05/29/1953	17:30	CST	Tornado	F5	0	0	250.00K	0.00K
Totals:						0	3	2.408M	100.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Hail
(ten-year history plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
HAZELTON	07/26/2025	21:38	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
TEMVIK	06/27/2025	22:46	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K
LINTON	06/18/2025	17:25	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
TEMVIK	08/28/2024	21:56	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K
LINTON	08/28/2024	21:38	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
STRASBURG	05/23/2024	17:08	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
LINTON	05/23/2024	17:05	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
LINTON	05/23/2024	16:27	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
STRASBURG	05/23/2024	16:23	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
HAGUE	05/02/2024	17:00	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
STRASBURG	07/21/2022	17:55	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
LINTON	07/21/2022	17:45	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
HAZELTON	07/10/2022	04:55	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
HAZELTON	07/10/2022	04:39	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
HAZELTON	07/10/2022	04:30	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
BRADDOCK	07/09/2022	10:49	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
HAZELTON	07/09/2022	10:23	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
HAZELTON ARPT	06/08/2021	10:45	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
KINTYRE	08/14/2020	04:05	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
STRASBURG	06/02/2020	06:00	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
LINTON ARPT	06/02/2020	05:25	CST-6	Hail	2.00 in.	0	0	0.00K	0.00K
LINTON	09/20/2019	15:36	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
WESTFIELD	08/06/2019	16:50	CST-6	Hail	2.00 in.	0	0	50.00K	100.00K
WESTFIELD	08/06/2019	16:46	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
STRASBURG	08/06/2019	16:45	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
KINTYRE	05/15/2019	18:10	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K
HAZELTON	05/15/2019	17:40	CST-6	Hail	1.50 in.	0	0	0.00K	0.00K
HAZELTON	05/15/2019	17:34	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
HAZELTON	05/15/2019	17:25	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
HAZELTON	05/15/2019	17:15	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
HAZELTON	06/14/2018	20:44	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
HAGUE	07/21/2017	18:30	CST-6	Hail	1.75 in.	0	0	0.00K	0.00K
STRASBURG	08/01/2016	15:27	CST-6	Hail	1.25 in.	0	0	0.00K	0.00K

STRASBURG	08/01/2016	15:03	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
HAGUE	07/22/2016	11:30	CST-6	Hail	1.00 in.	0	0	0.00K	0.00K
LINTON ARPT	07/22/2016	10:57	CST-6	Hail	0.75 in.	0	0	0.00K	0.00K
LINTON	07/11/2016	03:16	CST-6	Hail	0.88 in.	0	0	0.00K	0.00K
KINTYRE	07/11/2016	01:55	CST-6	Hail	1.75 in.	0	0	0.00K	150.00K
LINTON	07/11/2016	00:12	CST-6	Hail	2.00 in.	0	0	50.00K	20.00K
LINTON	06/20/2013	17:55	CST-6	Hail	2.75 in.	0	0	250.00K	50.00K
LINTON	06/20/2013	17:35	CST-6	Hail	1.75 in.	0	0	75.00K	0.00K
HAZELTON	07/14/2010	01:30	CST-6	Hail	1.75 in.	0	0	20.00K	50.00K
LINTON	07/14/2010	00:15	CST-6	Hail	2.50 in.	0	0	500.00K	650.00K
HAGUE	06/26/2010	19:00	CST-6	Hail	1.00 in.	0	0	0.00K	75.00K
KINTYRE	06/24/2010	22:01	CST-6	Hail	1.75 in.	0	0	0.00K	100.00K
LINTON	07/27/2008	02:20	CST-6	Hail	3.00 in.	0	0	500.00K	25.00K
DANA	07/19/2008	20:30	CST-6	Hail	2.00 in.	0	0	65.00K	90.00K
HAZELTON	06/30/2006	17:45	CST	Hail	1.75 in.	0	0	1.00K	0.00K
LINTON	06/21/1999	06:20	CST	Hail	1.75 in.	0	0	130.00K	0.00K
HAZELTON	07/06/1998	20:30	CST	Hail	0.75 in.	0	0	0.00K	800.00K
HAGUE	07/06/1998	17:00	CST	Hail	1.00 in.	0	0	50.00K	100.00K
HAZELTON	05/31/1996	15:45	CST	Hail	0.75 in.	0	0	1.00K	0.00K
HAZELTON	05/31/1996	15:00	CST	Hail	1.25 in.	0	0	12.00K	5.00K
Totals:						0	0	1.704M	2.215M

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Severe Winter Weather
(Including blizzards, extreme cold/wind chill, heavy snow, ice storms, structure collapse)

Frequency	Highly Likely (Nearly 100% probability in the next year)
Severity	Critical (25-50% of jurisdiction affected)
Risk Class	A
Seasonal Pattern	November to April
Duration	2 to 5 days
Speed of Onset	12 to 24 hours warning
Location	Countywide
Impacts	Agriculture, Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Downed Power Lines, Downed Trees, Evacuation (Localized), HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Livestock Injury/Death, Loss of Economy, Loss of Power, Personal Injury/Death Risk, Property Damage, School Closure, Wind Chill

Description
Winter storms occur in many forms and vary significantly in size, strength, intensity, duration, and impact. The winter season can begin as early as September and last into May. Generally, a period from mid-November through early April provides the bulk of winter storms.

Heavy snow can paralyze a community by stranding travelers, stopping the flow commodities, and disrupting emergency services. The weight of snow can cause roofs to collapse and knock down trees and utility lines. Homes and farms may be isolated for days, and unprotected livestock may die. The cost of snow removal, damage repair, and loss of business can have economic impacts on communities.

Blizzard: A storm which contains large amounts of snow OR blowing snow, with winds in excess of 35 mph and visibilities of less than 1/4 mile for an extended period of time (at least 3 hours) as defined by the National Weather Service.

Extreme Cold: Dangerously low temperatures and wind chills capable of causing frostbite and hypothermia.

Heavy Snow: Snowfall of 6” or more in 12 hours or 8” or more in 24 hours.

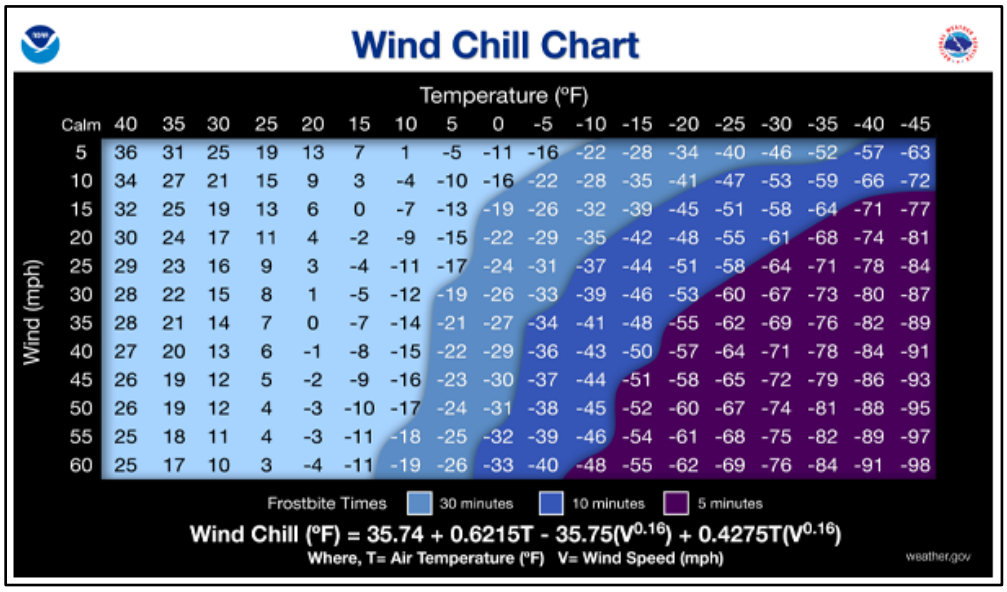
Ice Storm: A winter event with significant accumulations of ice (typically ¼” or more).

Winter Storm: A hazardous, life-threatening event featuring significant snow, sleet, or freezing rain, often accompanied by strong winds and low temperatures.

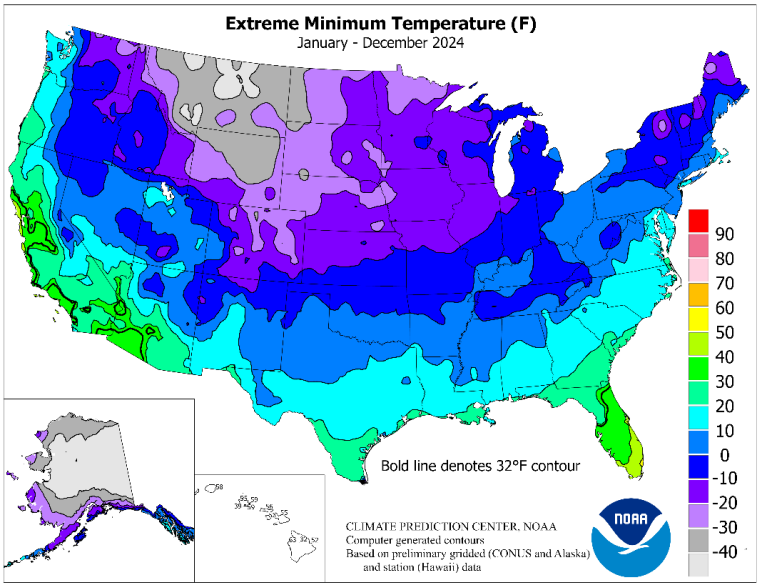
Snow Squall: A brief, intense burst of heavy snow and strong, gusty winds that causes quick, significant reductions in visibility (whiteout conditions), rapidly falling temperatures, and sudden flash freezes on roads.

High Wind: Sustained winds reach or exceed 40 mph for at least one hour, or when instantaneous gusts reach 58 mph or higher for any duration.

Wind Chill: The wind chill temperature is how cold people and animals feel when outside. Wind chill is based on the rate of heat loss from exposed skin caused by wind and cold. As the wind increases, it draws heat from the body, driving down skin temperature and eventually the internal body temperature. Therefore, the wind makes it FEEL much colder. If the temperature is 0°F and the wind is blowing at 15 mph, the wind chill is -19°F. At this wind chill temperature, exposed skin can freeze in 30 minutes.



Source: National Weather Service, National Oceanic and Atmospheric Administration



Source: Climate Prediction Center

History

Severe Winter Weather Events
Blizzard, Heavy Snow, Ice Storm, Winter Storm, Winter Weather
(ten-year history plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
EMMONS (ZONE)	02/07/2025	14:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	03/24/2024	03:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	12/26/2023	00:00	CST-6	Ice Storm		0	0	25.00K	0.00K
EMMONS (ZONE)	10/26/2023	06:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	04/04/2023	14:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	03/17/2023	12:00	CST-6	Winter Weather		0	0	0.00K	0.00K
EMMONS (ZONE)	03/11/2023	14:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	03/05/2023	06:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	03/01/2023	00:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	02/28/2023	13:00	CST-6	Winter Weather		0	0	0.00K	0.00K
EMMONS (ZONE)	02/22/2023	19:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	12/22/2022	04:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	12/15/2022	12:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	12/13/2022	08:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	11/10/2022	06:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	04/12/2022	06:00	CST-6	Blizzard		0	0	0.00K	0.00K
EMMONS (ZONE)	02/20/2022	21:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	12/26/2021	12:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	10/21/2020	23:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	04/02/2020	00:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	12/28/2019	08:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	10/10/2019	21:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	04/11/2019	10:00	CST-6	Winter Storm		0	0	0.00K	0.00K
EMMONS (ZONE)	12/26/2018	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	03/05/2018	07:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	01/02/2017	09:00	CST-6	Heavy Snow		0	0	0.00K	0.00K
EMMONS (ZONE)	01/25/2010	09:00	CST-6	Blizzard		0	0	1.100M	0.00K
EMMONS (ZONE)	04/04/1997	18:00	CST	Blizzard		1	1	1.750M	0.00K
EMMONS (ZONE)	01/09/1997	04:00	CST	Blizzard		0	1	1.530M	0.00K
EMMONS (ZONE)	01/04/1997	06:00	CST	Blizzard		0	0	250.00K	0.00K
Totals:						1	2	4.655M	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Extreme Cold
(ten-year history plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
EMMONS (ZONE)	02/16/2025	18:00	CST-6	Extreme Cold/wind Chill		0	0	0.00K	0.00K
EMMONS (ZONE)	02/10/2021	20:00	CST-6	Extreme Cold/wind Chill		0	0	0.00K	0.00K
EMMONS (ZONE)	01/29/2019	00:00	CST-6	Extreme Cold/wind Chill		0	0	0.00K	0.00K
EMMONS (ZONE)	01/29/2008	02:00	CST-6	Extreme Cold/wind Chill		0	0	0.00K	0.00K
Totals:						0	0	0.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

High Wind (November-April)
(ten-year history plus previous events including death, injury, or damage)

Location	Date	Time	T.Z.	Type	Mag	Dth	Inj	PrD	CrD
Totals:						0	0	35.00K	0.00K
EMMONS (ZONE)	03/10/2025	10:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	11/06/2022	03:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	04/06/2022	10:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	02/01/2022	00:00	CST-6	High Wind	51 kts. MG	0	0	0.00K	0.00K
EMMONS (ZONE)	01/31/2022	18:00	CST-6	High Wind	53 kts. MG	0	0	0.00K	0.00K
EMMONS (ZONE)	11/17/2021	00:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	11/13/2021	15:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	11/11/2021	07:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	03/29/2021	12:00	CST-6	High Wind	37 kts. MS	0	0	0.00K	0.00K
EMMONS (ZONE)	01/14/2021	00:00	CST-6	High Wind	52 kts. MG	0	0	0.00K	0.00K
EMMONS (ZONE)	12/22/2020	22:00	CST-6	High Wind	35 kts. ES	0	0	0.00K	0.00K
EMMONS (ZONE)	01/27/2019	17:00	CST-6	High Wind	52 kts. EG	0	0	0.00K	0.00K
EMMONS (ZONE)	03/07/2017	06:00	CST-6	High Wind	52 kts. MG	0	0	0.00K	0.00K
EMMONS (ZONE)	01/30/2017	09:00	CST-6	High Wind	35 kts. ES	0	0	0.00K	0.00K
EMMONS (ZONE)	02/07/2016	00:00	CST-6	High Wind	37 kts. MS	0	0	0.00K	0.00K
EMMONS (ZONE)	02/13/2011	09:00	CST-6	High Wind	35 kts. ES	0	0	20.00K	0.00K

Source: National Oceanic and Atmospheric Administration National Climatic Data Center (01/1950 to 11/2025)

Space Weather

Frequency	Likely (10–100% probability in the next year, or at least 1 chance in next 10 years)
Severity	Critical (25-50% of jurisdiction affected)
Risk Class	B
Seasonal Pattern	None
Duration	Days/Weeks
Speed of Onset	Little to no warning
Location	Countywide
Impacts	Agriculture, Blocked Roads, Business Interruptions, Delayed Emergency Response, Increased Fire Potential, Increased Public Safety Runs, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Power, Mass Casualties, Personal Injury/Death Risk, Property Damage, School Closure

Description

Space Weather refers to variations in the space environment between the sun and Earth (and throughout the solar system) that can affect technologies in space and on Earth. Space weather is primarily driven by solar storm phenomenon that include coronal mass ejections, solar flares, solar particle events and solar wind. These phenomena can occur in various regions on the sun's surface, but only Earth directed solar storms are potential drivers of space weather events on Earth. An understanding of solar storm phenomena is an important component to developing accurate space weather forecasts (event onset, location, duration, and magnitude).

Why does space weather matter?

Space weather is a global issue. Unlike terrestrial weather events, like a hurricane, space weather has the potential to impact not only the United States, but wider geographic regions. These complex events can have significant economic consequences and have the potential to negatively affect numerous sectors, including communications, satellite and airline operations, manned space flights, navigation and surveying systems, as well as the electric power grid.

Source: NOAA Space Weather Prediction Center

NOAA Space Weather Scales

Source: NOAA National Weather Service Space Weather Prediction Center

The NOAA Space Weather Scales were introduced as a way to communicate to the general public the current and future space weather conditions and their possible effects on people and systems. Many of the SWPC products describe the space environment, but few have described the effects that can be experienced as the result of environmental disturbances. These scales are useful to users of our products and those who are interested in space weather effects. The scales describe the environmental disturbances for three event types: geomagnetic storms, solar radiation storms, and radio blackouts. The scales have numbered levels, analogous to hurricanes, tornadoes, and earthquakes that convey severity. They list possible effects at each level. They also show how often such events happen and give a measure of the intensity of the physical causes.

Geomagnetic Storm

Scale	Description	Effect	Physical measure	Average Frequency (1 cycle = 11 years)
G 5	Extreme	**Power systems:** Widespread voltage control problems and protective system problems can occur, some grid systems may experience complete collapse or blackouts. Transformers may experience damage. **Spacecraft operations:** May experience extensive surface charging, problems with orientation, uplink/downlink and tracking satellites. **Other systems:** Pipeline currents can reach hundreds of amps, HF (high frequency) radio propagation may be impossible in many areas for one to two days, satellite navigation may be degraded for days, low-frequency radio navigation can be out for hours, and aurora has been seen as low as Florida and southern Texas (typically 40° geomagnetic lat.).	Kp = 9	4 per cycle (4 days per cycle)
G 4	Severe	**Power systems:** Possible widespread voltage control problems and some protective systems will mistakenly trip out key assets from the grid. **Spacecraft operations:** May experience surface charging and tracking problems, corrections may be needed for orientation problems. **Other systems:** Induced pipeline currents affect preventive measures, HF radio propagation sporadic, satellite navigation degraded for hours, low-frequency radio navigation disrupted, and aurora has been seen as low as Alabama and northern California (typically 45° geomagnetic lat.).	Kp = 8, including a 9-	100 per cycle (60 days per cycle)
G 3	Strong	**Power systems:** Voltage corrections may be required, false alarms triggered on some protection devices. **Spacecraft operations:** Surface charging may occur on satellite components, drag may increase on low-Earth-orbit satellites, and corrections may be needed for orientation problems. **Other systems:** Intermittent satellite navigation and low-frequency radio navigation problems may occur, HF radio may be intermittent, and aurora has been seen as low as Illinois and Oregon (typically 50° geomagnetic lat.).	Kp = 7	200 per cycle (130 days per cycle)
G 2	Moderate	**Power systems:** High-latitude power systems may experience voltage alarms, long-duration storms may cause transformer damage. **Spacecraft operations:** Corrective actions to orientation may be required by ground control; possible changes in drag affect orbit predictions. **Other systems:** HF radio propagation can fade at higher latitudes, and aurora has been seen as low as New York and Idaho (typically 55° geomagnetic lat.).	Kp = 6	600 per cycle (360 days per cycle)
G 1	Minor	**Power systems:** Weak power grid fluctuations can occur. **Spacecraft operations:** Minor impact on satellite operations possible. **Other systems:** Migratory animals are affected at this and higher levels; aurora is commonly visible at high latitudes (northern Michigan and Maine).	Kp = 5	1700 per cycle (900 days per cycle)

Solar Radiation Storms

Scale	Description	Effect	Physical measure (Flux level of >= 10 MeV particles)	Average Frequency (1 cycle = 11 years)
S 5	Extreme	**Biological:** Unavoidable high radiation hazard to astronauts on EVA (extra-vehicular activity); passengers and crew in high-flying aircraft at high latitudes may be exposed to radiation risk. **Satellite operations:** Satellites may be rendered useless, memory impacts can cause loss of control, may cause serious noise in image data, star-trackers may be unable to locate sources; permanent damage to solar panels possible. **Other systems:** Complete blackout of HF (high frequency) communications possible through the polar regions, and position errors make navigation operations extremely difficult.	10^5	Fewer than 1 per cycle
S 4	Severe	**Biological:** Unavoidable radiation hazard to astronauts on EVA; passengers and crew in high-flying aircraft at high latitudes may be exposed to radiation risk. **Satellite operations:** May experience memory device problems and noise on imaging systems; star-tracker problems may cause orientation problems, and solar panel efficiency can be degraded. **Other systems:** Blackout of HF radio communications through the polar regions and increased navigation errors over several days are likely.	10^4	3 per cycle
S 3	Strong	**Biological:** Radiation hazard avoidance recommended for astronauts on EVA; passengers and crew in high-flying aircraft at high latitudes may be exposed to radiation risk. **Satellite operations:** Single-event upsets, noise in imaging systems, and slight reduction of efficiency in solar panel are likely. **Other systems:** Degraded HF radio propagation through the polar regions and navigation position errors likely.	10^3	10 per cycle
S 2	Moderate	**Biological:** Passengers and crew in high-flying aircraft at high latitudes may be exposed to elevated radiation risk. **Satellite operations:** Infrequent single-event upsets possible. **Other systems:** Small effects on HF propagation through the polar regions and navigation at polar cap locations possibly affected.	10^2	25 per cycle
S 1	Minor	**Biological:** None. **Satellite operations:** None. **Other systems:** Minor impacts on HF radio in the polar regions.	10	50 per cycle

Radio Blackouts Scale

Scale	Description	Effect	Physical measure	Average Frequency (1 cycle = 11 years)
R 5	Extreme	**HF Radio:** Complete HF (high frequency) radio blackout on the entire sunlit side of the Earth lasting for a number of hours. This results in no HF radio contact with mariners and en route aviators in this sector. **Navigation:** Low-frequency navigation signals used by maritime and general aviation systems experience outages on the sunlit side of the Earth for many hours, causing loss in positioning. Increased satellite navigation errors in positioning for several hours on the sunlit side of Earth, which may spread into the night side.	X20 (2×10^{-3})	Less than 1 per cycle
R 4	Severe	**HF Radio:** HF radio communication blackout on most of the sunlit side of Earth for one to two hours. HF radio contact lost during this time. **Navigation:** Outages of low-frequency navigation signals cause increased error in positioning for one to two hours. Minor disruptions of satellite navigation possible on the sunlit side of Earth.	X10 (10^{-3})	8 per cycle (8 days per cycle)
R 3	Strong	**HF Radio:** Wide area blackout of HF radio communication, loss of radio contact for about an hour on sunlit side of Earth. **Navigation:** Low-frequency navigation signals degraded for about an hour.	X1 (10^{-4})	175 per cycle (140 days per cycle)
R 2	Moderate	**HF Radio:** Limited blackout of HF radio communication on sunlit side, loss of radio contact for tens of minutes. **Navigation:** Degradation of low-frequency navigation signals for tens of minutes.	M5 (5×10^{-5})	350 per cycle (300 days per cycle)
R 1	Minor	**HF Radio:** Weak or minor degradation of HF radio communication on sunlit side, occasional loss of radio contact. **Navigation:** Low-frequency navigation signals degraded for brief intervals.	M1 (10^{-5})	2000 per cycle (950 days per cycle)

Impacts

Source: NOAA National Weather Service Space Weather Prediction Center

Space Weather Impacts on Climate

All weather on Earth, from the surface of the planet out into space, begins with the Sun. Space weather and terrestrial weather (the weather we feel at the surface) are influenced by the small changes the Sun undergoes during its solar cycle.

The most important impact the Sun has on Earth is from the brightness or irradiance of the Sun itself. The Sun produces energy in the form of photons of light. The variability of the Sun's output is wavelength dependent; different wavelengths have higher variability than others. Most of the energy from the Sun is emitted in the visible wavelengths (approximately 400 – 800 nanometers (nm)). The output from the sun in these wavelengths is nearly constant and changes by only one part in a thousand (0.1%) over the course of the 11-year solar cycle.

Electric Power Transmission

The electric power grid, and consequently the power to your home and business, can be disrupted by space weather. One of the great discoveries of the 19th century was the realization that a time-varying magnetic field is able to produce an electrical current in a conducting wire. The basic idea is that the time rate of change of the magnetic flux (i.e., lines of magnetic force) passing through a current loop is proportional to the current that is generated around the loop. A slightly earlier but equally important discovery was that a current-carrying wire produces a magnetic field. The application of these principles is widely prevalent in modern society in electrical power generators, electrical power transformers, and electrical motors, for example.

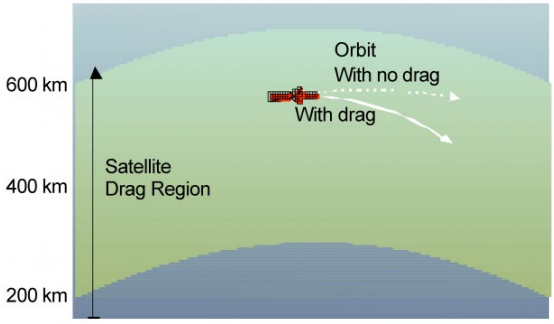
HF Radio Communications

Space weather impacts radio communication in a number of ways. At frequencies in the 1 to 30 mega Hertz range (known as "High Frequency" or HF radio), the changes in ionospheric density and structure modify the transmission path and even block transmission of HF radio signals completely. These frequencies are used by amateur (ham) radio operators and many industries such as commercial airlines. They are also used by a number of government agencies such as the Federal Emergency Management Agency and the Department of Defense.

Satellite Communications

Satellite communication refers to any communication link that involves the use of an artificial satellite in its propagation path. Satellite communications play a vital role in modern life. There are over 2000 artificial satellites in use. They can be found in geostationary, Molniya, elliptical, and low Earth orbits and are used for traditional point-to-point communications, mobile applications, and the distribution of TV and radio programs.

Satellite Drag



Drag is a force exerted on an object moving through a fluid, and it is oriented in the direction of relative fluid flow. Drag acts opposite to the direction of motion and tends to slow an object. As an example, think of running against a high wind and feeling the drag pushing you back in the direction of relative fluid flow. This same force acts on spacecraft and objects flying in the space environment. Drag has a significant impact on spacecraft in low Earth orbit (LEO), generally defined as an orbit below an altitude of approximately 2,000 kilometers (1,200 mi). Although the air density is much lower than near the Earth's surface, the air resistance in those layers of the atmosphere where satellites in LEO travel is still strong enough to produce drag and pull them closer to the Earth. The International Space Station (ISS) and the Hubble Space Telescope are examples of spacecraft operating in LEO.

Space Weather and GPS Systems

The use of single and dual frequency satellite radio navigation systems, like the Global Positioning System (GPS), has grown dramatically in the last decade. GPS receivers are now in nearly every cell phone and in many automobiles, trucks, and any equipment that moves and needs precision location measurements. High precision dual frequency GPS systems are used for farming, construction, exploration, surveying, snow removal and many other applications critical to a functional society. Other satellite navigation systems in orbit include the European Galileo system and the Russian GLONASS system.

History
There is no significant history of space weather within the County.

For G4/S4/R4 or higher events (at least 1 in next 10 years, documented 5 in last 5 years). Space Weather article in the 2025 ND Mitigation Progress Report (pp.32-38), and 2024 ND eMAOP (pp.518-522).

Transportation Accident

Frequency	Likely (10-100% probability in the next year, or at least 1 chance in next 100 years.)
Severity	Negligible (Less than 10% of jurisdiction affected)
Risk Class	C
Seasonal Pattern	None
Duration	Hours
Speed of Onset	No warning
Location	Countywide
Impacts	Agriculture, Blocked Roads, Building Collapse, Business Interruptions, Delayed Emergency Response, Evacuation (Localized), Explosion, HAZMAT Release, Increased Fire Potential, Increased Public Safety Runs, Loss of Economy, Loss/Overcrowded Medical Facilities, Loss of Potable Water, Mass Casualties, Personal Injury/Death Risk, Property Damage, School Closure

Description
A transportation accident is any large-scale aircraft, railroad, or vehicular accident involving mass casualties.

Emmons County has one airport, a freight service rail line, and one major highway.

Vehicle

U.S. Highway 83 is a major, north/south transportation route intersecting Emmons County and the Cities of Hazelton and Linton thereby increasing the probability of an event. Highway 83 is the second most utilized route through Burleigh County which north of Emmons County. The most predominant products observed in the study were anhydrous ammonia and gasolines. (See Attachment 3, Major Roadways Map in Emmons County)

Airport

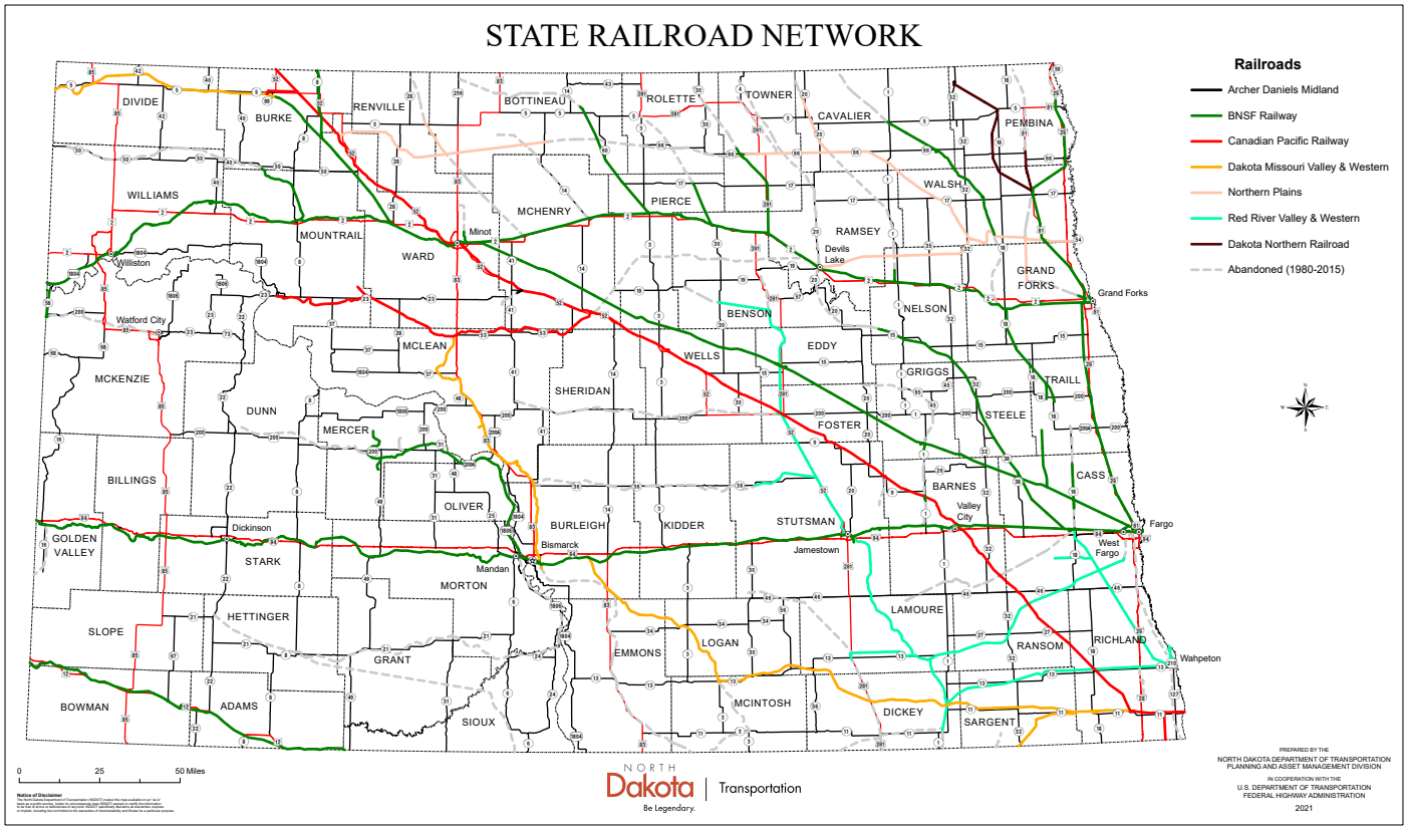
Emmons County has one airport: The Linton Municipal Airport. It is located 2 miles south of Linton. The airport's focus is on small aircraft and has a 3,700-foot lighted runway.

Source: Google Maps website

Railroad

One railroad traverses the county: Dakota, Missouri Valley Western Railroad (DMVW).

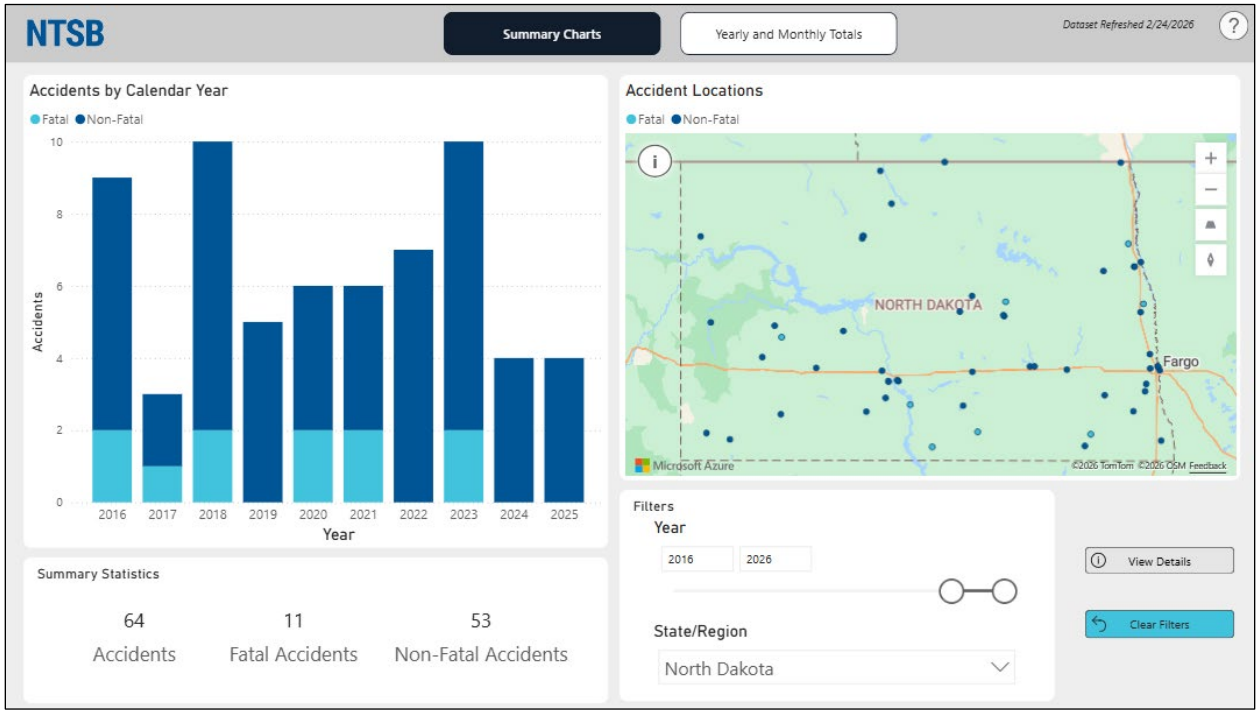
Emmons County has limited railroad service, freight service only. The Dakota Missouri Valley and Western Railroad (DMVW) provides freight services, mostly for the transport of agricultural products, in North Dakota, South Dakota and Montana. In Emmons County, DMVW passes by the communities of Braddock, Kintyre, into Logan County to the east.



Source: [ND Department of Transportation]

History
There is no history of mass casualty within Emmons County.

Aviation

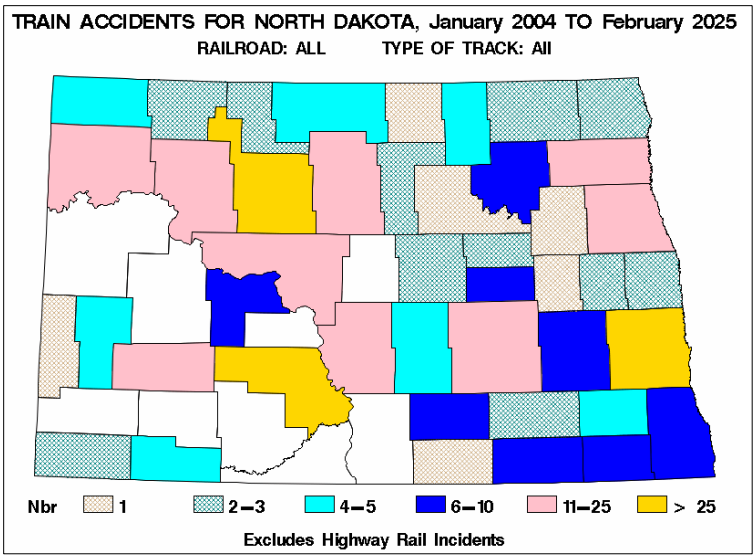


Source: National Transportation Safety Board

There were one events in Emmons County from 2016-2025 with one fatality.

August 10, 2021, Strasburg, 1 fatality, aerial application flight

Railroad



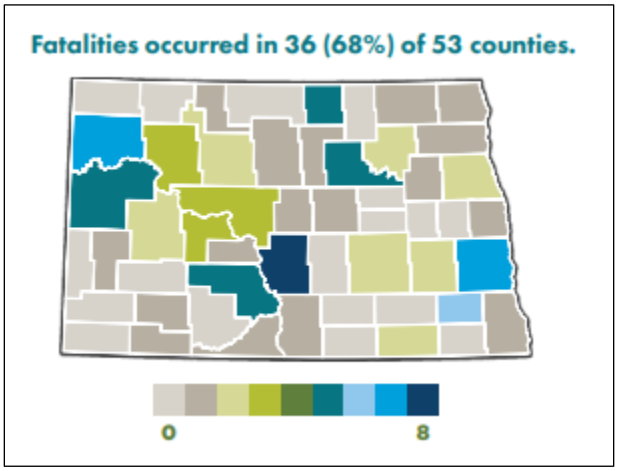
County	Totals				Type of Accident			Causes			
	Accs	Kld	Inj	Reportable Damage	Coll	Der	Othr	Eqp	Hmn	Othr	Trk
ADAMS	4	0	0	1,905,543	-	4	-	1	1	1	1
BARNES	6	0	0	1,009,060	-	6	-	3	1	-	2
BENSON	1	0	0	1,075,302	-	1	-	-	-	-	1
BILLINGS	4	0	0	3,204,620	-	4	-	2	1	-	1
BOTTINEAU	4	0	0	1,177,070	-	4	-	-	-	1	3
BOWMAN	2	0	0	357,226	-	2	-	1	-	-	1
BURKE	3	0	0	54,167	-	3	-	1	1	-	1
BURLEIGH	11	0	0	7,033,571	-	10	1	2	2	1	6
CASS	38	0	5	25,130,993	1	32	5	9	9	3	17
CAVALIER	3	0	0	162,732	-	3	-	-	-	1	2
DICKEY	6	0	0	1,276,088	-	6	-	-	2	-	4
DIVIDE	4	0	0	512,544	-	4	-	-	1	-	3
EDDY	2	0	0	270,508	-	1	1	-	1	-	1
FOSTER	9	0	2	10,217,044	-	8	1	1	3	1	4
GOLDEN VALLEY	1	0	0	36,928	-	1	-	-	1	-	-
GRAND FORKS	24	0	0	1,439,397	3	18	3	3	14	-	7
GRIGGS	1	0	0	4,557,879	-	1	-	-	-	1	-
KIDDER	4	0	0	3,361,700	-	4	-	2	-	1	1
LA MOURE	3	0	0	79,427	-	3	-	-	-	-	3
LOGAN	7	0	0	346,726	-	5	2	-	1	2	4
MCHENRY	11	0	0	2,859,260	-	8	3	3	2	2	4
MCINTOSH	1	0	0	131,750	-	1	-	-	-	-	1
MCLEAN	16	1	2	2,399,041	-	16	-	2	2	2	10
MERCER	9	0	0	647,139	-	9	-	1	-	2	6
MORTON	31	0	0	3,703,220	4	19	8	3	20	2	6
MOUNTRAIL	18	0	0	7,015,267	-	15	3	3	5	2	8
NELSON	1	0	0	130,000	1	-	-	-	1	-	-
PEMBINA	2	0	0	278,052	-	2	-	-	-	-	2
PIERCE	3	0	0	878,183	-	3	-	-	-	-	3
RAMSEY	7	0	1	420,203	-	6	1	1	2	1	3
RANSOM	4	0	0	179,048	-	2	2	-	2	1	1
RENVILLE	2	0	0	68,800	-	2	-	-	-	1	1
RICHLAND	9	0	0	3,505,454	-	9	-	1	4	1	3
ROLETTE	1	0	0	24,280	-	1	-	-	-	1	-
SARGENT	7	0	0	2,615,366	-	7	-	-	-	1	6
STARK	13	0	0	2,519,196	-	13	-	1	7	3	2
STEELE	2	0	0	305,052	-	2	-	-	1	-	1
STUTSMAN	23	0	0	4,027,990	-	21	2	6	2	6	9
TOWNER	4	0	0	1,179,669	-	4	-	-	1	1	2
TRAILL	3	0	0	759,955	-	3	-	-	1	-	2
WALSH	11	0	0	2,171,117	-	11	-	1	-	-	10
WARD	56	0	0	7,187,953	3	43	10	10	32	-	14
WELLS	3	0	0	3,579,352	-	2	1	2	1	-	-
WILLIAMS	21	1	0	14,747,938	1	16	4	2	9	3	7

Causes: Eqp=Equipment Defect Hmn=Human factor Sig=Signal Defect Trk=Track Defect Othr=Other
Excludes Highway Rail Incidents

Source: Federal Railroad Administration Office of Safety Analysis

Vehicle

Emmons County had 31 crashes, 1 fatality, and 18 injuries in 2024.



North Dakota Vehicle Crashes, Fatalities and Injuries 2015-2024

Year	Crashes	Fatalities	Injuries
2015	15,077	131	4,917
2016	15,017	113	4,614
2017	15,280	116	4,432
2018	15,242	105	4,230
2019	14,221	100	4,258
2020	8,820	100	3,426
2021	9,585	101	3,947
2022	10,734	98	3,763
2023	10,475	106	2,828
2024	9,803	89	3,592

Source: 2024 North Dakota Crash Summary, North Dakota Department of Transportation

Plan Maintenance

Monitoring, Evaluating, and Updating the Plan

Plan Maintenance Schedule			
Maintenance Step	**When**	**How**	**Who**
Monitoring	Yearly	Obtain status updates on mitigation actions and identify possible mid-course corrections.	Emergency Manager
Evaluating	Yearly or after a disaster event	Review plan and any lessons learned	Emergency Manager Planning Department
Updating	Every 5 years	Review and update plan as necessary	Emergency Manager Planning Department

The plan will be evaluated annually by the Emmons County Emergency Manager with input from planning committee members. As a means of monitoring the plan and progress made on the projects, the Emmons County Emergency Manager will collaborate with planning committee members and representatives identified as "lead agencies" to discuss progress of the projects, existing and potential grant opportunities, and changes in regulations. It will be the responsibility of the Emergency Manager to update the hazard history sections on an annual basis as events occur. The Emmons County Emergency Manager will also lead a comprehensive update every five years seeking Federal Emergency Management Agency approval.

All disaster or emergency incidents will be evaluated for general/specific mitigation recommendations to be added to the plan as they occur. A comprehensive plan review by the planning committee will occur every five years unless the need arises earlier through aforementioned reviews and actions.

The approved plan is available on the Emmons County website for review by stakeholders and the public along with the opportunity to submit mitigation ideas at any time. Emmons County Emergency Management will continue to promote mitigation actions and seek projects through speaking engagements, social media, and after actual events.

Emmons County Emergency Management
100 4th St NW
Linton ND 58552
(701) 222-6727

Mitigation Project Monitoring

Project _____

Responsible Agency/Lead _____

Status Not Started In-Progress Completed Deleted Ongoing

Timeline/Completion Date _____

Progress Notes/Comments _____

_____

_____

Funding Source _____

Cost Estimate _____

Date _____

Completed By _____

Plan Integration: The Emmons County Multi-Hazard Mitigation Plan will be considered as building codes are developed and/or updated. The awareness of the hazards and vulnerability may affect future development in hazard-prone areas.

The Cities of Braddock, Linton, and Strasburg will incorporate data from this plan when reviewing their planning and regulatory capabilities. The City of Hague does not have the funding and staffing to incorporate robust activities in their regulations, plans, and programs.