

UPPER LOUP NATURAL RESOURCES DISTRICT PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

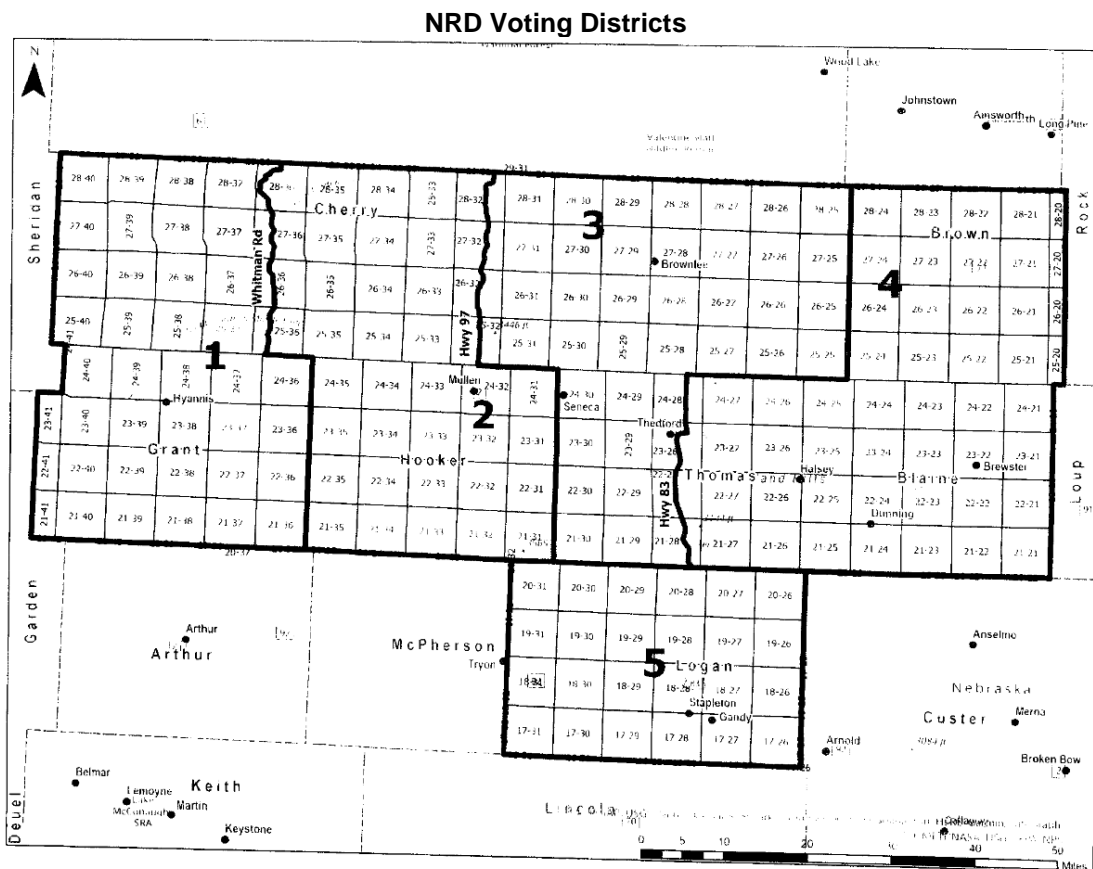
Local Planning Team

ULNRD Local Planning Team			
Name	Title	Jurisdiction	ENGAGEMENT
Anna Baum	General Manager	Upper Loup NRD	Attended one-on-one meeting
Lexi Hingtgen	Information and Education Coordinator	Upper Loup NRD	Materials review and development

Governance

The ULNRD is governed by a group of 11 elected Board of Directors and entrusted with a broad range of responsibilities to protect and enhance Nebraska's many natural resources. The NRD serves both incorporated and unincorporated areas within their district, and has the capability to financially and administratively assist communities and counties with mitigation actions (most commonly flood control and drainage improvements). The following positions may help implement mitigation projects:

- General Manager
- Information and Education Coordinator
- Administration Secretary
- Resource Technicians



Source: Upper Loup NRD

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes occur before or after a major event. The local planning team will include the NRD Manager, Resources Technicians, NRCS Field Office Secretary, Administrator, Recycling Coordinator, and I&E Coordinator who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice on the website, through the newsletter, direct emails, text reminders, and/or posts at the local banks, grocery stores, coffee shop, and gas stations.

Demographics

It is estimated that the ULNRD serves a population of about 4,000 people across five full counties (Blaine, Grant, Hooker, Logan, and Thomas) and portions of Cherry and Brown Counties. For information regarding population data, please refer to a specific jurisdiction’s community profile or to *Section Three: Demographics and Asset Inventory*.

ULNRD Estimated Population

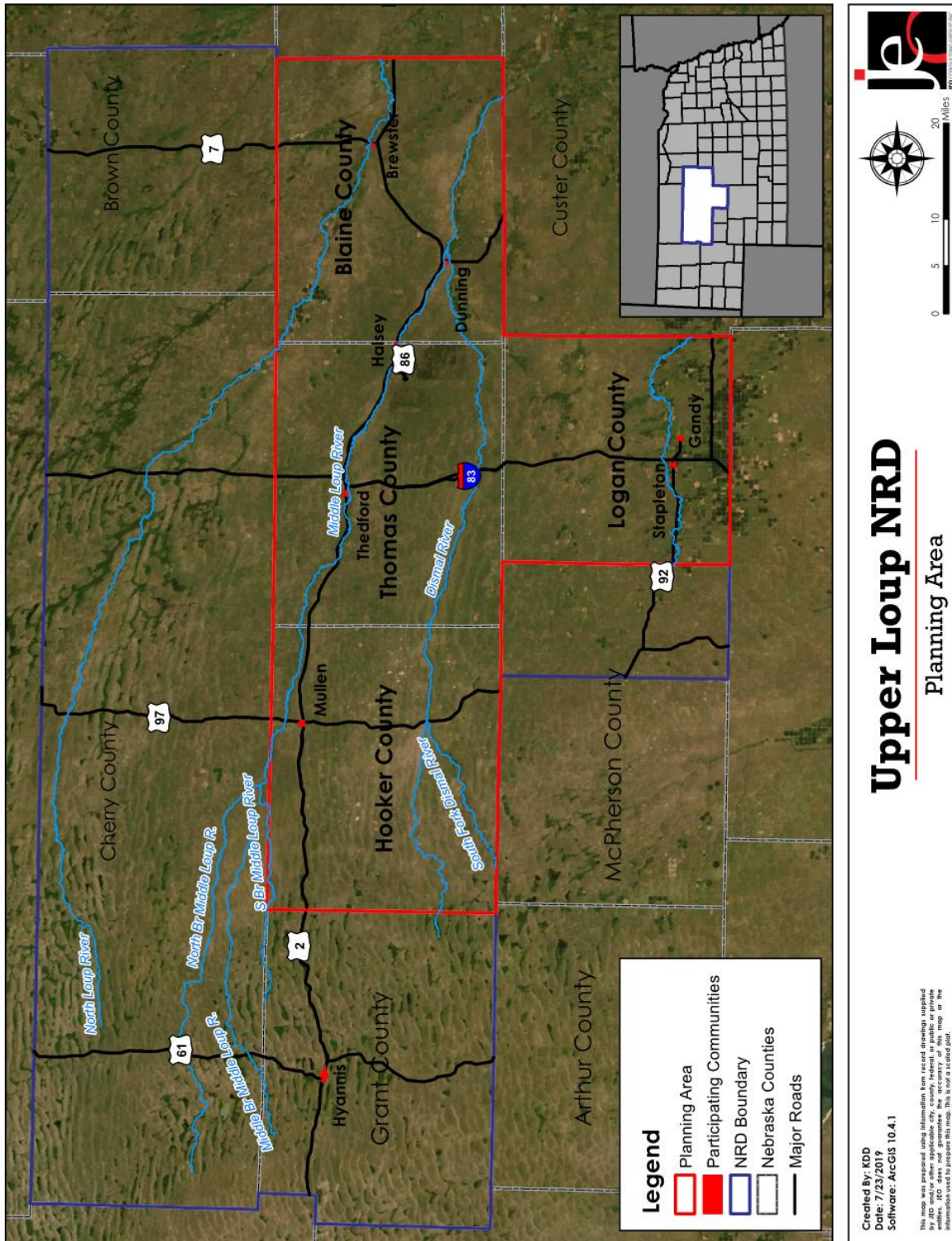
District Number	Total Population	District Areas
1	789	All of Grant County; Part of Cherry County
2	831	All of Hooker County; Part of Cherry County
3	829	Part of Cherry and Thomas Counties
4	803	All of Blaine and Brown Counties; Parts of Thomas County
5	862	All of Logan and McPherson Counties
TOTAL	4,114	-

Source: 2020 ULNRD Population Summary Report – Redistricting Effort

Location and Geography

The ULNRD is located in central Nebraska and includes the entirety of Blaine, Grant, Hooker, Logan, and Thomas Counties and portions of Cherry, Brown, and McPherson Counties. Major waterways in the area include the Dismal River and its branches, the North Fork Dismal River and South Fork Dismal River; and the Middle Loup River and its branches, North Branch Middle Loup, Middle Branch Middle Loup, and South Branch Middle Loup. There are no major lakes or reservoirs in the planning area, however the planning area sits atop the Ogallala Aquifer. The ULNRD topographic region mainly includes Sand Hills, with some Dissected Palins and Valleys located in the eastern portion and a vast majority of the ULNRD land is characterized by livestock ranching. Altogether, the ULNRD covers an area of 6,680 square miles.

Upper Loup NRD Planning Area



Transportation

ULNRD’s major transportation corridors include Nebraska Highways 2, 61, 91, 92, and 97, and US Highway 83. The local planning team indicated Highways 2, 83, and 97 are of greatest concern as they are the most frequently traveled. Highways 83 and 97 have flooded in the past and have been closed for periods of time. Highway 97 from Mullen to Tryon has been resurfaced since 2019 when it was damaged by flooding. Coal and oil are frequently transported throughout the planning area via these transportation routes, but no significant transportation accidents have occurred.

Only one major railroad, a Burlington Northern Santa Fe line, runs through the planning area and bisects Blaine, Thomas, Hooker and Grant counties. The rail line frequently transports hazardous materials including coal, oil, or waste products. At least one county airport is located in Blaine, Grant, Hooker, Logan and Thomas Counties, with smaller private airstrips spread across the planning area. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Future Development Trends

The Upper Loup NRD added a learning center to the main office prior to 2019 which has been used regularly as a meeting or training location. The Learning Center is open to residents throughout the district and provides a location for education and outreach activities from schools, communities, organizations, or the general public. Since 2019 the district has undergone new districting due to population changes. The NRD has put in a new arboretum through a local agreement with the fire department and Village of Mullen.

Figure 2: ULNRD Learning Center



Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

Chemical sites are located throughout the NRD. Complete lists of chemical storage sites in each jurisdiction may be found in their community profile.

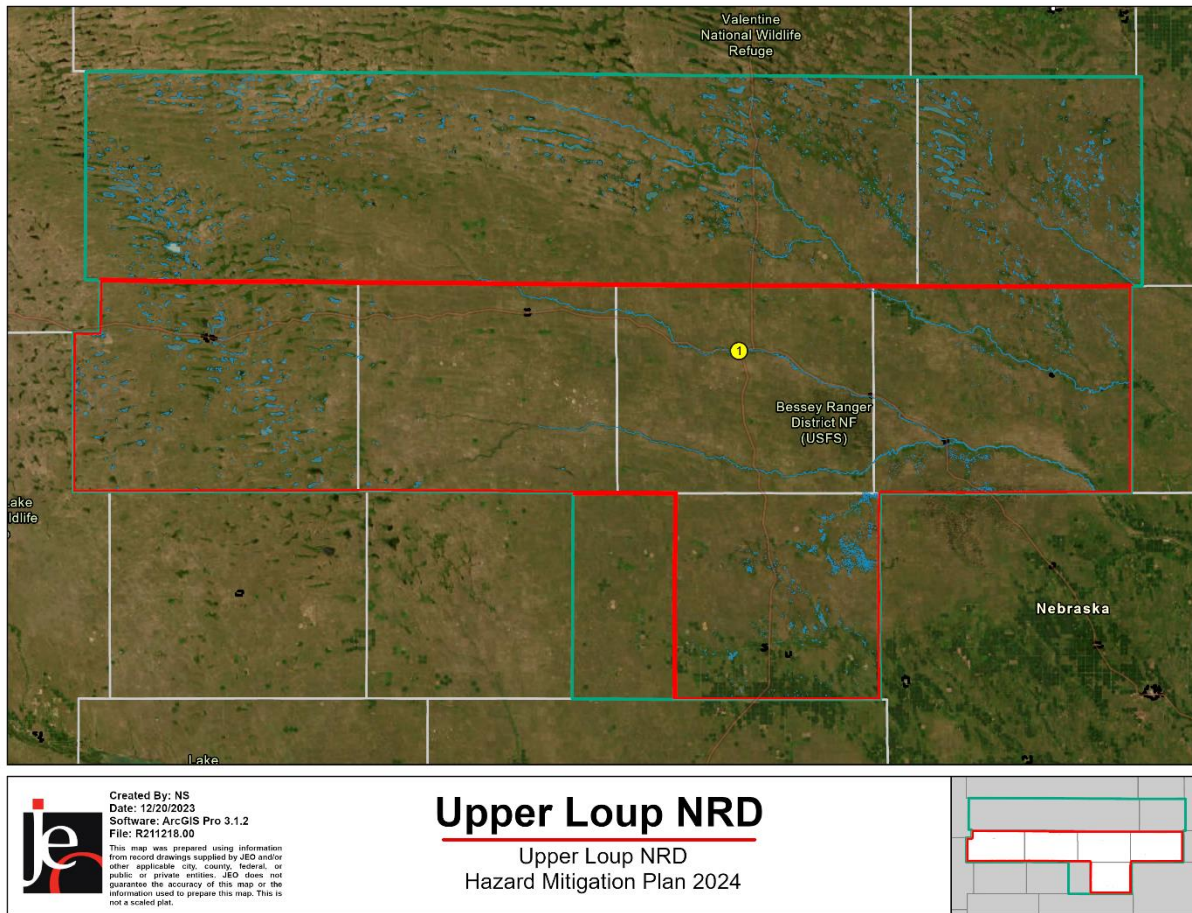
Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table ULNRD.3: Critical Facilities

#	Name	Address	Shelter	Generator
1	Upper Loup NRD Office (3 Buildings)	39252 NE-2 Thedford NE	No	Yes

Critical Facilities



Capability Assessment

The NRD has the authority to levy taxes for specific purposes and to issue general obligation bonds to finance certain projects. The NRD also regularly engages in public education and information programs related to hazard mitigation in the area, and routinely works with other counties, cities, and villages within their jurisdictional boundaries.

Overall Capability	2019 Plan	2024 PLAN
Does the ULNRD have the financial resources needed to implement mitigation projects?	Moderate to High	Limited to Moderate
Does the ULNRD have the staff/expertise to implement projects?	Limited to Moderate	Limited to Moderate
Does the ULNRD have the community support to implement projects?	Moderate	Limited to Moderate
Does the ULNRD staff have the time to devote to hazard mitigation?	Moderate to High	Moderate to High

Plan Integration

The Upper Loup Natural Resources District has several plans which integrate the goals, objectives, and projects identified in this HMP.

Upper Loup NRD Master Plan

The Upper Loup NRD Master Plan, last updated in 2022, includes some limited discussion on hazards identified in the HMP (i.e. flooding). The Master Plan includes a specific discussion of the HMP and the past plan was used to guide and facilitate the Master Plan update. The ULNRD Master Plan aims to achieve the following goals:

1. Water quality and pollution control
2. Development and management of groundwater and surface water for beneficial uses
3. Resource awareness
4. Prevent damage from flood water
5. Forestry management
6. Erosion prevention, control and sediment reduction
7. Range management
8. Drainage improvement and channel rectification
9. Development and management of fish and wildlife habitat
10. Development and management of recreational and park facilities
11. Solid waste disposal

Long-Range Implementation Plan

The Long-Range Implementation Plan gives the goals and objectives from the NRD's Master Plan timelines for completion, priority ranking, and necessary financial obligation. The District's Long-Range Implementation Plan is annually updated. As part of this plan, the NRD has identified to continue soil and water conservation, open lands, and forestry cost share programs. When the plan is updated, projects in the HMP are reviewed to determine if overlap exists for future implementation.

Groundwater Management Plan

The Groundwater Management Plan was recently updated in 2022 and provides an overview of both groundwater quantity and quality across the district. The NRD serves as a local champion in protecting groundwater across the district and as a resource for local landowners. The overall goals and objectives for the Groundwater Management Plan align with the HMP. Sections within the plan include groundwater reservoir protection and management; climate, geology, and soils information; water withdraw and use; and potential groundwater use. The plan covers groundwater, surface water, groundwater monitoring, water quality, and conservation.

Voluntary Integrated Management Plan

The Voluntary Integrated Management Plan (IMP) provides a framework for how the ULNRD and NeDNR will work collaboratively to manage groundwater and surface water within the district, so that economic viability, social and environmental health, safety, and welfare can be achieved and maintained. The Upper Loup NRD volunteered to initiate an IMP and found robust community support in representing the many water interests across the district. On December 16, 2008, the Upper Loup NRD (and all of the Lower Platte River Basin), was designated as fully appropriated. Being fully appropriated means that the ways and degrees to which surface water and groundwater are being used will eventually lead to insufficient water supply. The plan works

toward attaining or maintaining a balance between water users and water supplies. Further information about the plan can be found on the NeDNR website: <https://dnr.nebraska.gov/water-planning/upper-loup-nrd> .

Upper Loup NRD Drought Management Plan

The Upper Loup NRD developed a drought plan in 2022 that evaluated drought response triggers to mandatory reductions or restrictions in water use. The plan's purpose was to "identify process to effectively monitor, respond to, and manage future drought events." The plan is to be used as a tool to assist the ULNRD in communicating conditions, engaging stakeholders, and minimizing drought impacts through educational and outreach efforts. The plan identified several Drought specific actions by sector:

Communities

- Develop a drought response plan
- Develop a water use ordinance that restricts non-essential uses during drought emergencies such as landscaping, washing cars, swimming pools, etc.
- Encourage xeriscaping or drought tolerant landscapes
- Develop a stormwater management plan that supports an approach to collecting, treating, and reusing water.
- Utilize the capital improvement plan to invest in efficient water systems to prevent water loss
- Share drought and water reduction education materials

Water Utilities

- Establish staffing and drought response teams
- Estimate quantity of current water supplies
- Develop ways to reduce water use
- Identify potential supplemental water supplies
- Establish and communicate key messages to customers and stakeholders during drought
- Develop a drought response plan that includes trigger levels and water use reduction measures
- Conduct a tabletop exercise to practice scenarios such as: hauling potable water, availability of tanker trucks, hauling routes, truck disinfection, maintenance, and operational procedures for introducing water into the system, identifying additional water sources or operational changes to expand water supplies, procedures for communicating with customers and large water users.
- Regularly check for leaks to minimize water losses

Business and Manufacturing

- Conduct a water audit to understand facility water use
- Identify best management practices to use water efficiently in restrooms, laundry, kitchens, mechanical, and laboratory equipment
- Identify potential alternative water supply sources including reclaimed, recycled, or recirculated water
- Use native or drought tolerant plants in your landscape

Agricultural Producers

- Purchase crop insurance
- Ensure drought is accounted for in your financial plan

- Rotating crops to reduce soil erosion
- Using the correct irrigation equipment and structures to ensure water efficiently goes where needed
- Control drainage to help with too much or too little water
- Develop a grazing strategy and ensure that strategy matches your enterprise mix
- Pasture improvements such as removing undesirable shrubs or trees, oversee pastures, or plant new pastureland
- Stockpile feed
- Planting cover crops to prevent soil erosion
- Ensure adequate stockwater resources

Homeowners

- Install water saving devices such as low flow toilets and showerheads
- Turning off the water while you brush your teeth
- Adjust lawn sprinklers to water the lawn and not the sidewalk or street
- Running dishwasher and washing machine only when full
- Check for plumbing leaks or dripping faucets
- Install rain-capturing devices for irrigation such as a rain barrel
- Use native or drought tolerant plants in your landscape

Drought Resilience Study (2022)

The ULNRD evaluated drought resilience of the upper and middle reaches of the South Loup River. The study allows the NRD to better understand the potential impacts a prolonged drought has on the South Loup River, as well as identify where streamflow retiming projects would be most effective. The study can be found on the USGS website: <https://pubs.er.usgs.gov/publication/sir20225042>.

Lower Platte River Basin Coalition – Basin Water management Plan

The Upper Loup NRD is part of the Lower Platte River Basin Water Management Plan Coalition which was last updated in 2022. This interlocal agreement is designed to pursue and discuss water management components which may comprise a voluntary water quality management plan. More information about this effort can be found here: <https://lprbc.nebraska.gov/>. This plan's purpose include:

- “Providing guidance and a framework for Coalition members to develop water use policies and practices that contribute to the protection of existing surface and groundwater uses, while allowing for future water development.
- Assisting in the development and maintenance of a water supply and use inventory, based on the best available data and analysis.
- Providing consistency and information for incorporation into individual NRD Integrated Management Plans.”

The 2022 update included the second increment of plan implementation for the coalition. The focus on implementation included the following elements: update the analysis of basin supplies and uses using the basin-wide accounting methodology; complete the allowable new depletions analysis and determine allowable new depletions by NRD for the second increment; review plan goals, objectives, and action items; and consider the appropriateness of the five-year increment duration. Specifically, the discussion on goals and objectives evaluated the potential impact of

drought on water supplies, the effects of shortages, and likelihood of future drought climate impacts which led to a new objective “Evaluate impacts of new development during drought conditions” to the goals.

The NRD also facilitates other programs which are consistent with the goals and objectives identified in this HMP. These programs include the Erosion and Sediment Act, NSWCP Practices/Shelter Belts/Planned Grazing, Soil Testing, and Chemigation. These programs are available to all residents within the district. At this time there are no plans to update these plans.

Hazard Prioritization and Mitigation Strategy

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction’s capabilities.

Drought

Drought is a top hazard of concern and has been the focus for the Upper Loup NRD over the past several years. The entire planning area is vulnerable to the impacts of drought as the local economy is heavily tied to rangeland and livestock production. Since 1895 the planning area has been in drought conditions 31% of all months. Specifically, drought conditions in 2012 and 2016 negatively impacted the local communities. The ULNRD completed a drought study on the South Loup River. While there are no specific areas with high levels of nitrates, several hotspots exist in Grant County which could be exacerbated by drought conditions. The ULNRD annually tests and records water levels and water quality across the district and is a part of the Nebraska Rainfall Assessment and Information Network (NE Rain). These tools are available to help manage water supplies and land use, as well as to help address long-term demands for water across the planning area.

The NRD is currently working on building a drought committee to help guide and facilitate educational outreach to landowners, business owners, and residents in the district regarding drought. A key tool that will be used in this outreach is a drought dashboard that is currently under construction with NeDNR. Drought monitor conditions, forecasts, and continuous data logging will be part of the information shared.

Mitigation Actions

MITIGATION ACTION	WATER STORAGE AND CONTINGENCY PLANS
DESCRIPTION	Work with communities to identify needs for additional water storage facilities. Act as a point of contact for local jurisdictions for water suppliers.
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms, grass/wildfire, drought
ESTIMATED COST	\$30,000+
FUNDING	Local funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Local governments, ULNRD Board
STATUS	This project is in the planning stages. The ULNRD plans to maintain contacts with suppliers to provide water in times of shortage.

MITIGATION ACTION		DROUGHT DASHBOARD	
DESCRIPTION		Build an online interactive educational drought dashboard resource.	
HAZARD(S)		Drought	
ESTIMATED COST		\$30,000+	
FUNDING		General Fund, partnership with NeDNR	
TIMELINE		2-5 years	
PRIORITY		Medium	
LEAD AGENCY		NeDNR, NRD Board	
STATUS		Under development.	

Severe Thunderstorms

Severe thunderstorms occur regularly across the planning area and the state. They often span large areas and are accompanied by hail, high winds, heavy rain, and lightning strikes which can cause significant damage to homes, businesses, facilities, trees, and agriculture across the district. The local planning team stated that severe storms occur at least once a year in which power is lost from several hours to several days at a time.

Mitigation Actions

MITIGATION ACTION		LIGHTING RODS	
DESCRIPTION		Evaluate need for and install lightning rods on roof of NRD facility to reduce power outages or damages from lightning strikes.	
HAZARD(S)		Severe Thunderstorms	
ESTIMATED COST		\$12,000	
FUNDING		General Fund	
TIMELINE		2-5 years	
PRIORITY		Medium	
LEAD AGENCY		General Manager	
STATUS		This is a new mitigation action.	

Severe Winter Storms

The local planning team listed severe winter storms as a hazard of top concern due to the widespread nature of this hazard and the potential of significant damages. Severe winter storms impacted the eastern portion of the planning area in 2000 and in 2018 a severe storm caused power loss in Mullen. The local planning team indicated the following impacts are of concern from severe winter storms: power outages; injuries or fatalities to residents and travelers; cut off access to food, water, or fuel; blocked transportation routes; damage to sandhills topography from heavy snow; and economic loss due to winter weather impacts on livestock and agriculture. The ULNRD maintains equipment to assist in clearing snow including skid steers, bobcats, and pickups with plows, but is only responsible for clearing their own parking lot. The NRD assists as needed upon request. The NRD office recently purchased a backup generator and can serve as a heating center if needed. Driving snow and winds is a concern across the topographical landscape and the NRD helps mitigate the impacts from severe winter storms by partnering on shelterbelts and living fence installations. The NRD's Yard Enhancement Cost Share Program allows residents in the district to purchase trees at a reduced price which can be put up as a shelterbelt or snow protection barrier. The NRD has identified a need to purchase portable heaters that can be checked out through the district's fan program for homes without adequate HVAC systems.

Mitigation Actions

MITIGATION ACTION		WINDBREAKS AND SNOW FENCES
DESCRIPTION	Work with communities and landowners to plant living snow fences or to construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closures. Snow fences also act as windbreaks and increase water storage capacity in soil.	
HAZARD(S)	Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	\$1,000+	
FUNDING	ULNRD budget	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	Upper Loup NRD	
STATUS	The ULNRD has already worked with several landowners in an effort to protect major transportation routes. The NRD is looking to expand their drip-line services for those putting in shelter belt to help cover local landowner costs.	

Tornadoes and High Winds

High winds are common across the district and regularly cause widespread damage to crops, trees, infrastructure, and/or personal property. The local planning team indicated that high winds are commonplace across the entire planning area and often occur in conjunction with other hazards, such as severe thunderstorms and severe winter storms. The ULNRD works with Region 26 to spread CodeRed messages in Blaine, Logan, Thomas, and Hooker Counties including for high winds. The NRD also noted they will be working to expand messaging regarding Weather Spotter Trainings hosted by the National Weather Service for residents across the district.

Mitigation Actions

MITIGATION ACTION		STORM SHELTER/SAFE ROOMS
DESCRIPTION	Support communities within the planning area in the design and construction of fully supplied storm shelters and safe rooms.	
HAZARD(S)	Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms	
ESTIMATED COST	\$200-\$300 sf stand-alone, \$150-200/sf addition/retrofit	
FUNDING	ULNRD budget	
TIMELINE	5+ years	
PRIORITY	Low	
LEAD AGENCY	Upper Loup NRD	
STATUS	This program is available to local communities. At this point no specific projects have been identified. The NRD maintains a program to connect residents and businesses with safe room and storm shelter contacts as needed and local shelters are listed on the NRD website.	

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate	

MITIGATION ACTION	PUBLIC AWARENESS AND EDUCATION
	citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
HAZARD(S)	All hazards – specifically Drought, Extreme Temperatures, Severe Winter Storms, Severe Thunderstorms, and High Winds and Tornadoes for the district
ESTIMATED COST	\$500+
FUNDING	ULNRD budget
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Upper Loup NRD
STATUS	On an annual basis, ULNRD staff visit schools to educate the students on hazards and environmental conservation methods. This information is also posted on the ULNRD website. Information about hazards is annually presented in the Emergency Management region newsletters.
STATUS	The NRD plans to share additional information to residents in the district of programs and opportunities including the Fan and Air Conditioning Program and the Yard Enhancement Cost Share program to alleviate impacts from severe weather conditions. The NRD plans to expand posting and education regarding severe weather spotter trainings hosted by NWS to encourage attendance.

Other Hazards of Note:***Grass/Wildfire***

Grass/wildfire threatens people, buildings, and rangeland for livestock across the planning area. Losing viable cropland to fire severely hinders the planning areas local economy, in turn impacting the tax basis for the ULNRD. While the NRD is not responsible for fighting wildfires, the planning area is served by volunteer fire departments. The ULNRD has several programs in place for brush management and removing Eastern Red Cedars, both of which can produce high fuel loads. Past fire events have increased the need for water storage discussions – both for potable water to residents during shortages and for firefighting efforts. The NRD serves as a key partner in managing wells and groundwater resources which may be used during firefighting efforts. However, there is little capacity for the NRD to address fire outside of providing support to the local fire departments.

Extreme Temperatures

Local concerns regarding extreme heat focus on impacts to vulnerable populations, especially older residents who live outside of communities and do not have adequate HVAC systems (either air conditioning or furnaces). Extreme temperature conditions can also be exacerbated by other hazards including drought, severe winter storms, and grass/wildfire. The summer of 2012 had significant drought, extreme heat, and wildfire events which strained local resources and impacted the local agricultural economy and the winter of 2022 saw extreme cold temperatures, delayed thaw, and power outages across the district. The NRD's Yard Enhancement Cost Share Program allows residents in the district to purchase trees at a reduced price to provide additional shade or protection from severe conditions. The ULNRD has also implemented a response based extreme heat and cold program in their Fan and Air Conditioning Program which will allow residents in need to check out AC/fan units to cool homes. The next step is to include heaters to also address extreme cold conditions for residents. However, as this program is designed to respond to hazard

conditions it is a capacity building action rather than mitigation. Currently there is little capacity or ability for the NRD to mitigate the potential of future extreme temperature events.

MITIGATION ACTION		FAN & AIR CONDITIONING PROGRAM
DESCRIPTION	Work with regional EMAs, counties, and communities to develop a supply of fans, heaters, and air conditioners available to low income community members during times of extreme temperatures.	
HAZARD(S)	Extreme Temperatures, Severe Winter Storms	
STATUS	The NRD has purchased some fans and supplies which are stored at the NRD office in Thedford. The NRD identified a need to purchase heaters to improve services for their fan program.	

Completed Mitigation Actions

MITIGATION ACTION		GROUNDWATER/IRRIGATION/WATER CONSERVATION MANAGEMENT PLAN AND PRACTICES
DESCRIPTION	Develop and implement a plan/best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought. Identify water saving irrigation projects, such as sprinkler systems with soil moisture sensors. Potential restrictions on water could include limitation on lawn watering, car washing, farm irrigation restrictions, or water sold to outside sources. Implement BMPs through water conservation practices such as changes in irrigation management, education on no-till agriculture and use of xeriscaping in communities.	
HAZARD(S)	Drought	
STATUS	Completed – These practices and guidance are covered under the Integrated Management Plan, specifically with cost-share incentives. The Drought Management Plan includes drought monitoring protocols.	

MITIGATION ACTION		DEVELOP A DROUGHT MANAGEMENT PLAN
DESCRIPTION	Work with relevant stakeholders to develop a drought management plan. Identify water monitoring protocols, outline drought responses (watering restrictions), identify opportunities to reduce water consumption (swimming pools/fountains), and establish the jurisdictional management procedures.	
HAZARD(S)	Drought	
STATUS	Completed – Plan developed and completed in 2022.	

MITIGATION ACTION		EDUCATION REGARDING CODERED WARNING PROTOCOL
DESCRIPTION	Work with Region 26 EMA and County EMAs to educate communities and residents about the CodeRed Warning System.	
HAZARD(S)	All hazards	
STATUS	Completed - The ULNRD provides information about CodeRed on their website and actively encourages residents to sign up for the service. The NRD plans to continue participating in the program indefinitely.	

MITIGATION ACTION		BACKUP GENERATORS
DESCRIPTION		Provide a portable or stationary source of backup power to redundant power supplies, NRD office and shop.
HAZARD(S)		Tornadoes, high winds, severe thunderstorms, severe winter storms
STATUS		Completed – NRD office has a backup generator.

MITIGATION ACTION		ACQUIRE IDENTIFICATION RESOURCES
DESCRIPTION		Provide the opportunity to purchase and have available the most current Emergency Response Guidebook. This guidebook outlines emergency protocol and visually identifies hazardous materials labels. This would aid in the identification of which chemicals were being transported, to further inform actions on the part of the observer and responders.
HAZARD(S)		Chemical Transportation
STATUS		Completed – NRD staff have a downloadable app which provides all key information from Emergency Response Guidebook.

Removed Mitigation Actions

MITIGATION ACTION		IMPROVE COMMUNICATIONS
DESCRIPTION		Work with regional EMAs and other first responders to ensure interoperability of communication equipment.
HAZARD(S)		All hazards
STATUS		Removed – this action is not the responsibility of the NRD. The NRD will provide support as available.

MITIGATION ACTION		WEATHER SPOTTER TRAINING
DESCRIPTION		Work with Region 26 EMA, NWS, and County EMAs to provide Weather Spotter Training programs.
HAZARD(S)		All hazards
STATUS		Removed – NRD does not host trainings but shares information regarding trainings through the Public Awareness and Education action.

BLAINE COUNTY COUNTY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Blaine County Local Planning Team

Name	Title	Jurisdiction	2024 Engagement
Michael Peterson	County Commissioner	Blaine County	One-on-one meeting attendance, profile development and review
Ann Marie Shinn	Treasurer	Blaine County	One-on-one meeting attendance, profile development and review
Tim Sierks	Sheriff and County Emergency Manager	Blaine County	One-on-one meeting attendance, profile development and review

Governance

A community's governance structure impacts its capability to implement mitigation actions. Blaine County is governed by a three member board of commissioners. The county also has the following offices and departments:

- County Clerk
- County Assessor
- County Treasurer
- Highway Superintendent
- Emergency Management
- Sheriff's Office

Plan Maintenance

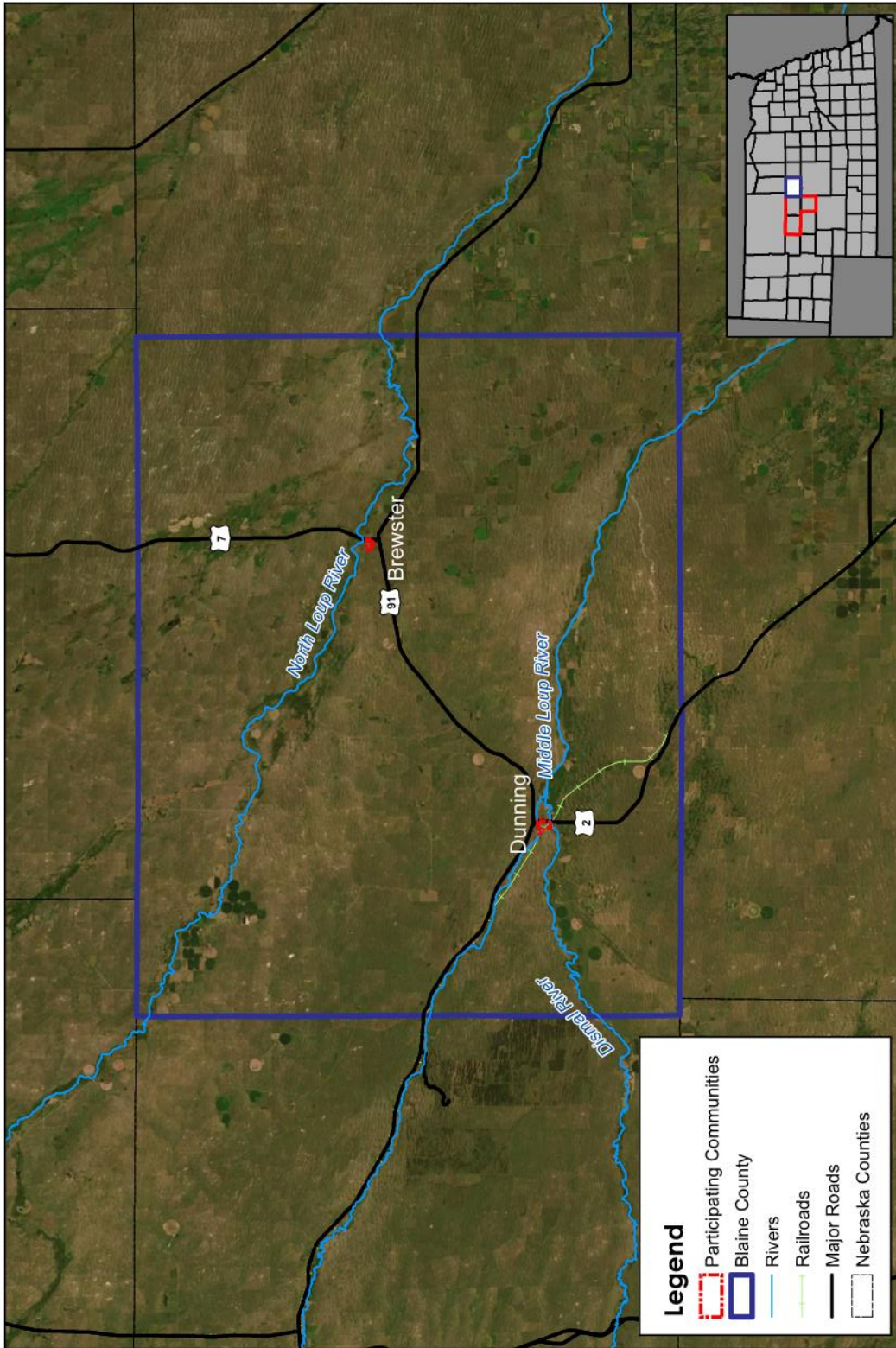
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The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the County Clerk, Emergency Manager, Sheriff, and Highway Superintendent who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings at the Purdum Mercantile, The Spur, Post Office, and Courthouse. Other posts can be made on the county website and in the local newspaper.

Location and Geography

Blaine County is located in central Nebraska and is bordered by Brown, Cherry, Thomas, Custer, Loup, and Rock counties. The total area of Blaine County is 714 square miles. Both the North Loup River and Middle Loup Rivers travel east to west through Blaine County, with the Middle Loup River branching into the Dismal River in the southwestern corner. Most of Blaine County lies in the Sand Hills topographic region, with most of the land used as range and agricultural land.

Blaine County



Blaine County
County Boundary

Credited By: KDD
Date: 7/23/2019
Software: ArcGIS 10.4.1

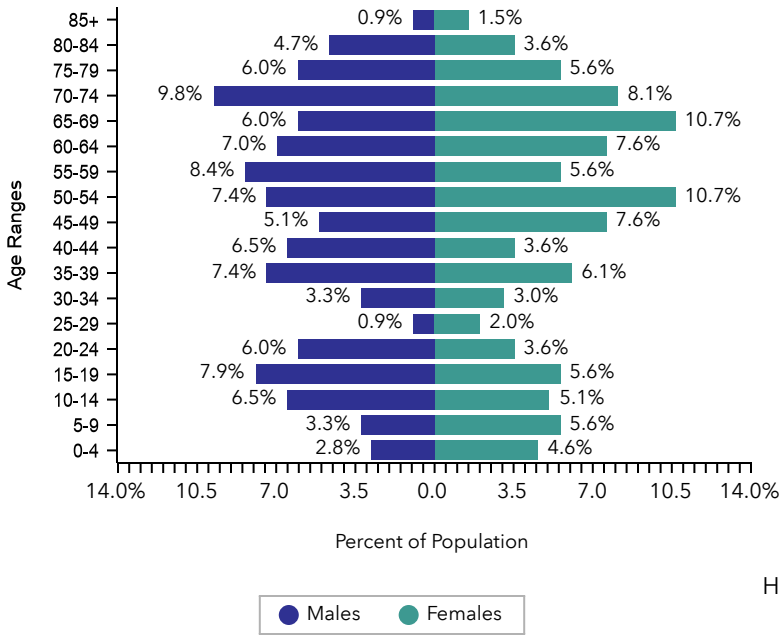
This map was prepared using information from recent drawings supplied by JED and/or other appropriate city, county, federal, or public or private organizations. The information shown on this map is not a scaled plan. Information used to prepare this map, this is not a scaled plan.

Community Summary Fact Sheet

Blaine County, NE
Upper Loup NRD Hazard Mitigation Plan 2024

412	192	2.15	50.9	\$52,704	\$93,125	33	145
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	412
2020 Total Population (U.S. Census)	431
2010 Total Population (U.S. Census)	478
2000 Total Population (U.S. Census)	583

AT RISK POPULATION



53

Households With Disability



117

Population 65+



1

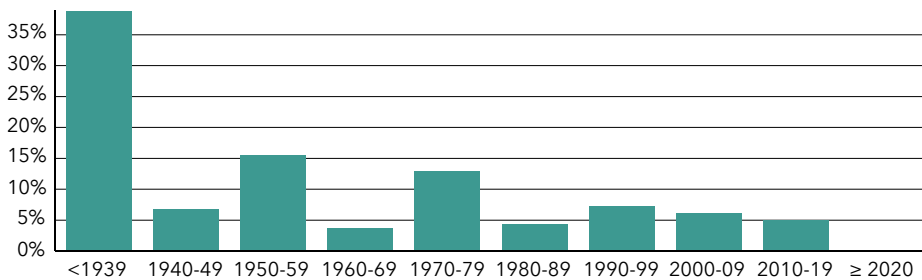
Households Without Vehicle



9%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



1%

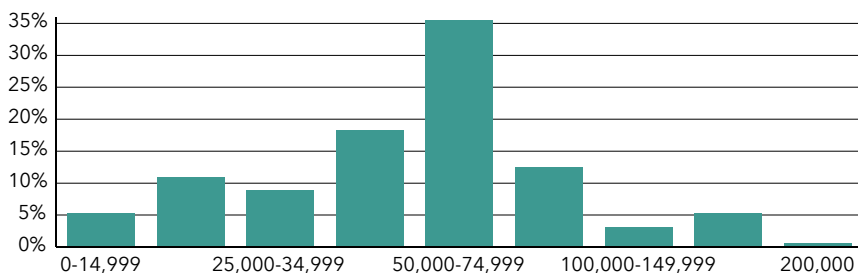
Workers Who Took Public Transportation



1%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

The population of Blaine County has been declining since the 1920s. The local planning team noted the population sits around 431 and attributes the declining rate to an aging population.

Housing

The majority of housing in Blaine County was built prior to 1939 (32%). According to 2016 ACS 5-year estimates, the county has 352 housing units with 71.3% percent of those units occupied. There are approximately 40 mobile homes dispersed throughout the county. The local planning team noted there are several homes throughout the county which may be available for new residents; however, they are in need of significant repairs.

Employment

According to 2020 Business Patterns Census Data, Blaine County had 11 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

Business in Logan County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors	11	26	\$863

Source: U.S Census Bureau

Transportation

Blaine County's major transportation corridors include Nebraska Highways 2, 7, and 91. Highway 91 is a long winding highway with a recently increased speed limit to 65, prompting concerns from the local planning team. There have been two major accidents on the highway in the past few years which have required the highway to be closed. Highway 2 was also closed during the Bovee Fire in 2021. A Burlington Northern Santa Fe rail line also bisects the southwest corner and runs through the Village of Dunning. Hazardous materials are regularly transported along the railroad. The county also has an air landing strip located near the Village of Dunning. The Sandhills Public School is located near both the railroad and Highway 2.

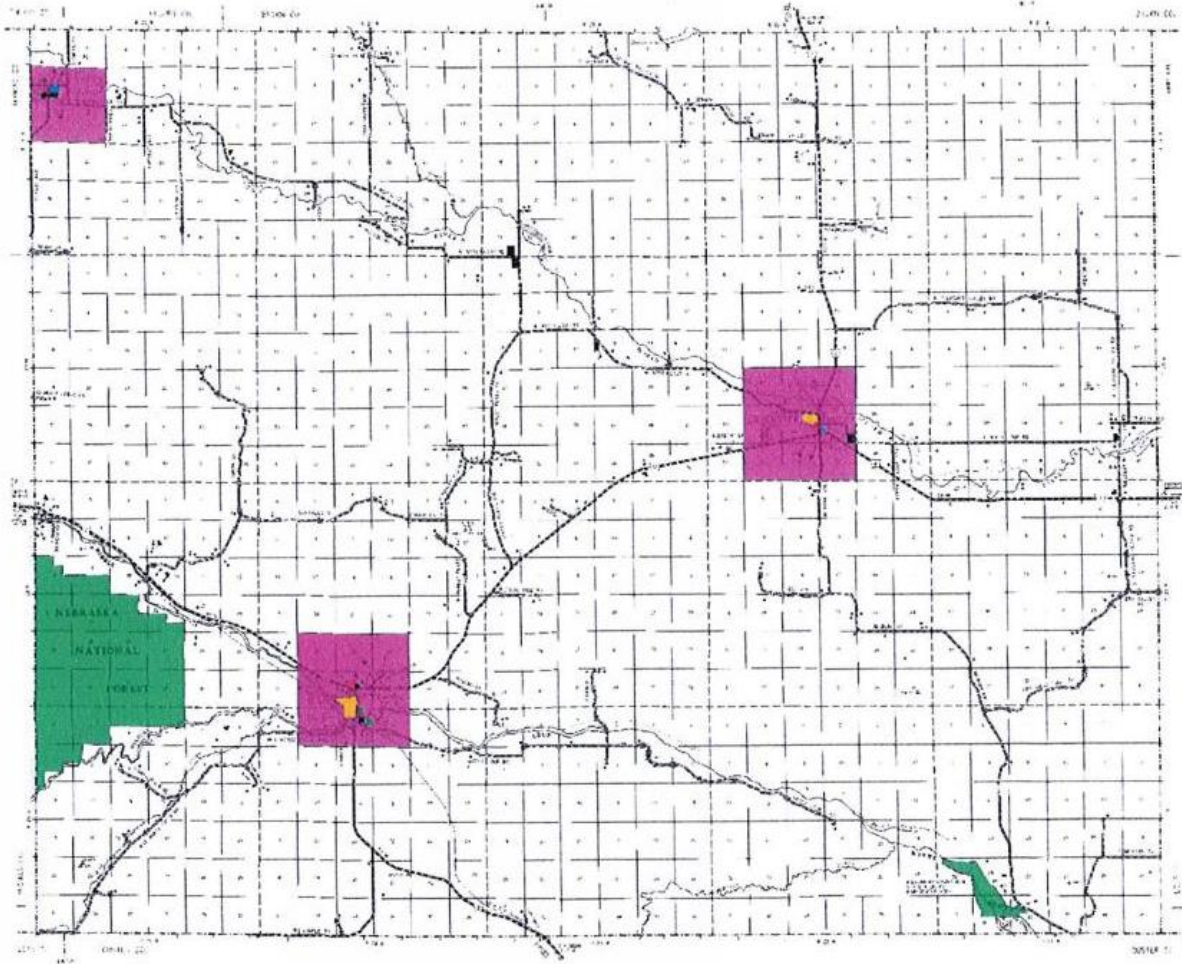
Future Development Trends

In the past five years a few homes have become available, however they are in need of significant repair or improvement. The Courthouse has also been improved using ARPA funds including improvements to the exterior, new windows, foundation repairs, and HVAC improvements. Overall, the local planning team indicated the County's population is declining due to a lack of employment and an aging population. The Spur serves as the only gas station and there is one café open on Thursday nights. There are no new housing or commercial developments planned for the next five years. However, there are plans to install new heavy-duty power lines across the northern part of Blaine County in the coming years.

Blaine County Future Land Use Map



FUTURE LAND USE MAP
BLAINE COUNTY, NEBRASKA



- LEGEND**
- VACANT/AGRICULTURAL
 - PARKS/RECREATIONAL OPEN SPACE
 - PUBLIC/QUASI-PUBLIC
 - COMMERCIAL
 - INDUSTRIAL
 - MUNICIPAL INCORPORATED AREA
 - AGRICULTURAL RESIDENTIAL

HANNA:KEELAN ASSOCIATES, P.C.
COMMUNITY PLANNING & RESEARCH

* Lincoln, Nebraska * 402.464.5383 *

ILLUSTRATION 4.4

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Number of Parcels	Number of Improvements	Total Improvement Value
1707	311	\$19,575,317

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



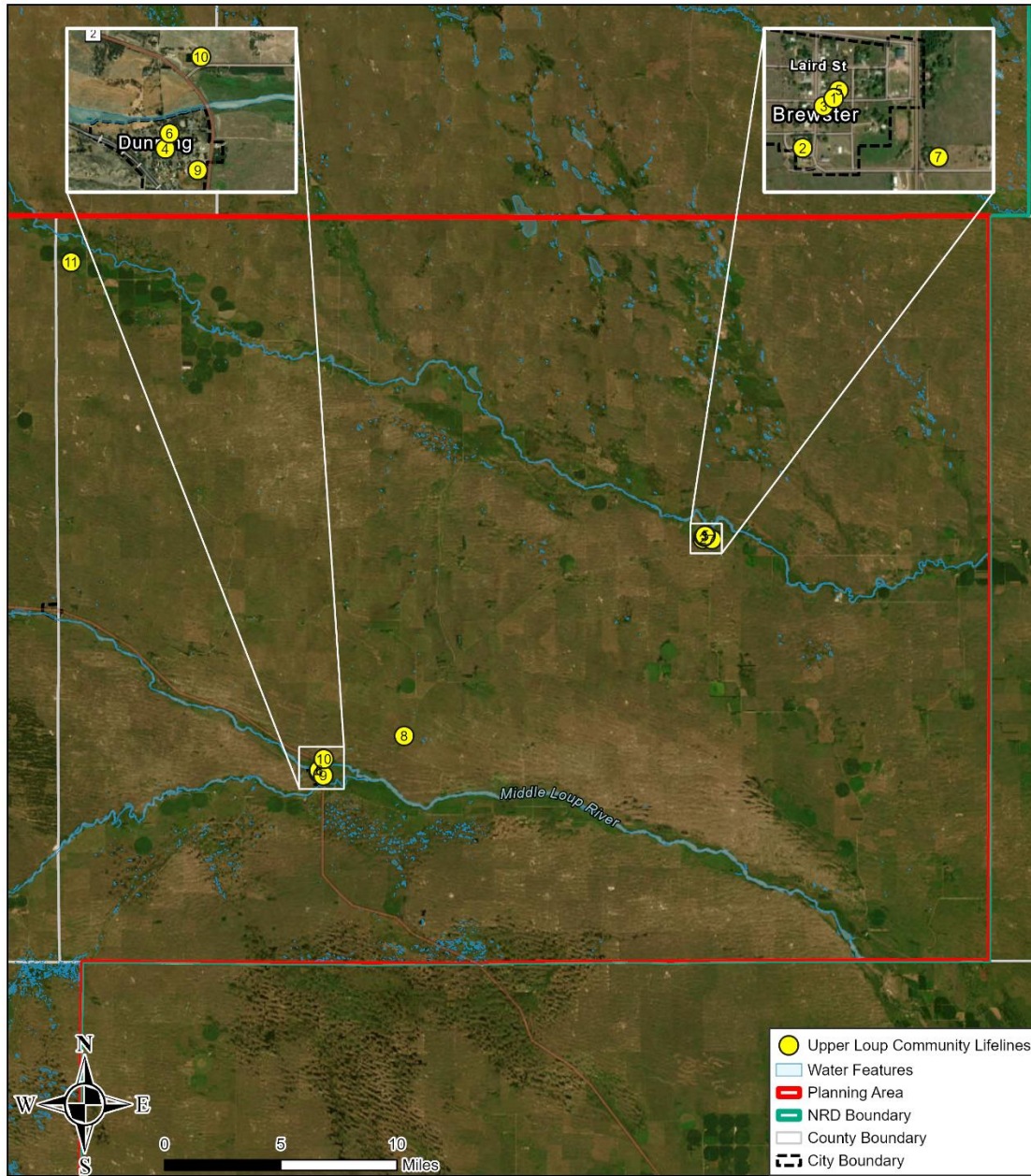
Critical Facilities

#	Lifeline	Name	Address	Shelter	Generator
1	Safety and Security	Alert Siren	Manderson St Brewster NE	No	No
2	Safety and Security	Blaine County Courthouse/ Sheriff's Office	145 Lincoln Ave Brewster NE	No	No
3	Food, Water, Shelter	Brewster Community Center	Paddock Street Brewster NE	Yes	No
4	Food, Water, Shelter	Dunning Community Hall	Jewett Ave Dunning NE	Yes	No
5	Safety and Security	Fire Hall	Manderson St Brewster NE	No	Yes
6	Food, Water, Shelter	Open Bible Church	307 Rogers Ave Dunning, NE	Yes	No
7	Food, Water, Shelter	Pleasant Valley Gospel Church	43695 E North Loup Rd Brewster, NE	No	No
8	Communications	Radio Communications Tower	Dunning, NE	No	No
9	Food, Water, Shelter	Sandhills Public School	107 Gandy Ave Dunning NE	Yes	No
10	Energy	Substation	Dunning, NE	No	No
11	Food, Water, Shelter	United Church of Christ	Purdum, NE	Yes	No

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are no chemical storage sites in unincorporated Blaine County which house hazardous materials. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Critical Facilities



<p>Created By: NS Date: 12/20/2023 Software: ArcGIS Pro 3.1.2 File: R211218.00</p> <p>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</p>	<h2>Blaine County</h2> <p>Upper Loup NRD Hazard Mitigation Plan 2024</p>	
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Capability Assessment

The planning team assessed Blaine County's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

	Survey Components/Subcomponents	Yes/No
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	Yes, 2018
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes – County, 2019
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	Yes
	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
Other (if any)		
<i>Education &</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency	Yes (Local Emergency Planning Committee)

Survey Components/Subcomponents		Yes/No
Outreach Capability	preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (County and NRD)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	Yes (Region 26)
	Firewise Communities Certification	No
	Tree City USA Other (if any)	No

Overall Capability	2019 Plan	2024 Plan
Does your county have the financial resources need to implement mitigation projects?	Limited	Limited
Does your county have the staff/expertise to implement projects?	Limited	Limited
Does your county have the community support to implement projects?	Moderate	Moderate
Does your county staff have the time to devote to hazard mitigation?	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Blaine County is Very Low (0.41). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Blaine County have a Very Low (1.43) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Blaine County have a Very Low (3.76) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the county.

Rural Capacity Index

Components of Index	Blaine County
County is Metropolitan?	No
Has a Head of Planning?	No

Components of Index	Blaine County
Has a College or University?	No
Adults with Higher Education:	23%
Families Below Poverty Level:	2%
Households with Broadband:	91%
People without Health Insurance:	8%
Voter Turnout:	83%
Income Stability Score (0 to 100):	19
Population Change (2000 to 2019):	-193
Overall Rural Capacity Index Score	Low Capacity 41 out of 100

Source: *Headwaters Economics*

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Blaine County Local Emergency Operations Plan was updated and adopted in 2019. The LEOP addresses hazards of top concern, assigns specific responsibilities to individuals, and identifies shelter locations. The identified shelters in the LEOP are sufficient for local needs. The LEOP is shared with the local emergency management officials, county clerk, sheriff, and local emergency planning committee.

Blaine County Comprehensive Plan

The Blaine County Comprehensive Plan was updated in 2018. The plan does not include a floodplain layer or information about natural hazards; however, it does include a discussion of energy elements. The County does not have any zoning restrictions in place.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Blaine County in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is located in the southeast corner of the county, in the Arnold Fire District, where there is rough terrain and few roads. In this area eastern redcedar has encroached into grasslands, creating high fire hazard. The area has a history of large wildfires. In 2011, a wildfire burned over 20,000 acres and was stopped just south of Stapleton. It caused over \$4 million in damage, including several homes destroyed.

Annual Budget

The local Planning Team indicated the annual municipal budget is very limited in its capacity to pursue new projects, although they have experienced a small increase in recent years due to property tax increases.

National Flood Insurance Program

The county does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for Blaine County.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Blaine County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

Hazard		Count	Property	Crop	Other Impacts
Agricultural Disease	Animal Disease	3	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$6,441	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$97,885	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	0	\$0	\$904	
	Flood	2	\$130,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	1	\$12,425		
Severe Thunderstorms	Hail	198	\$269,000	\$1,697,384	
	Heavy Rain	0	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	42	\$228,000		
Severe Winter Storms	Blizzards	11	\$11,000	\$0	
	Heavy Snow	5	\$0		
	Ice Storms	1	\$0		
	Winter Storms	42	\$10,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	26	\$0	\$39,079	
	Tornadoes	6	\$20,000	\$0	
Wildfire		60	4,096 acres	\$2,500	1 home threatened, 1 structure threatened, 2

SECTION SEVEN: BLAINE COUNTY PROFILE

				homes destroyed, 1 structure threatened
Total	338	\$1,680,425	\$1,841,693	1 home threatened, 1 structure threatened, 2 homes destroyed, 1 structure threatened

The following section expands on the hazards of top concern identified by Blaine County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Drought

Drought is a major concern for the county as agriculture and rangeland is a primary economic driver in the County and long-lasting droughts would greatly impact this industry. The area has been in drought for the last several years. Wildfire is also of greater concern during times of drought with reduced water supplies and highly flammable landcover. Drought and grass/wildfires reduce the ability of rangelands to support cattle, forcing ranchers to reduce herd size and impacting the local economy. Precipitation in the spring and early summer is particularly important for ranchers in the county to produce feed for livestock.

Mitigation Actions

MITIGATION ACTION		WATER SYSTEM IMPROVEMENTS
DESCRIPTION	Make water system improvements, including additional fire hydrants/increase supply, and pressure to effectively fight fires and meet increasing demands.	
HAZARD(S)	Drought, Wildfire	
ESTIMATED COST	\$15,000+, varies by project and need	
FUNDING	General Funds	
TIMELINE	5+ years	
PRIORITY	Moderate	
LEAD AGENCY	Blaine County Emergency Management	
STATUS	This action has not yet been started. Brewster, Purdum, and Halsey have private water systems. Need to evaluate Dunning’s system.	

Grass/Wildfires

Grass/wildfires are particularly devastating across the County and planning area as the local economy is heavily dependent on the agriculture sector. Grass/wildfires occur on an annual basis and destroy rangeland crucial for livestock. The local planning team noted that there are large tracts of open land between fire departments making transport of equipment difficult. Many shelterbelts in the area are also dying, increasing vegetation fuel loads at risk to fires. All fire departments in the planning area are volunteer. A major issue when fighting local fire events is getting tankers to the fire location and then refilling them as needed. It takes a significant amount of time for a round trip to refill tankers. Also communication in the area is spotty as towers are far apart. Region 26 EMA dispatches all resources for hazard events, but has mutual aid agreements with the surrounding areas.

Mitigation Actions

MITIGATION ACTION		DEFENSIBLE SPACE AND FUEL LOADS
DESCRIPTION	Develop a Community Wildfire Protection Plan. Train landowners about creating defensible space. Develop and implement brush and fuel thinning projects.	
HAZARD(S)	Grass/wildfire	
ESTIMATED COST	\$20,000	
FUNDING	Nebraska Forest Service funds, General Funds	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Nebraska Forest Service, Blaine County Emergency Management, Region 26 Emergency Management	
STATUS	A plan has been developed through Region 26 Emergency Management. The County is currently in the process of adopting the plan.	

Hazardous Materials (Transportation)

Chemical spills are of concern due to the high volume of hazardous chemicals transported through the county via highway and railroad lines. Highways 2 and Hwy 92 and a Burlington Northern Santa Fe rail line are the main transportation routes in the county. A vehicular accident in 2006 near Dunning released phosphoric acid and caused over \$12,425 in damages. The majority of rail cargo has been coal through the area, however oil, waste products, and agricultural chemicals are all transported. Often, BNSF does not notify the county when hazardous materials are traveling through the area. The Sandhills High School in Dunning is located near the main transportation routes. Highway 92 recently increased the speed limit to 65 mph, prompting local concerns about vehicular accidents and chemical spills from semi-trucks.

Mitigation Actions

MITIGATION ACTION		CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire trucks, ATV's, water tanks/truck, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.	
HAZARD(S)	Hazardous Materials, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	Varies depending on what equipment is needed	
FUNDING	Blaine County Fire funds; Village of Brewster funds; Village of Dunning funds	
TIMELINE	5+ years	
PRIORITY	High	
LEAD AGENCY	Blaine County Emergency Management,	
STATUS	This project has not yet been started.	

MITIGATION ACTION		EMERGENCY FUEL SUPPLY PLAN
DESCRIPTION	Plan to ensure adequate fuel supply is available during an emergency. Prioritize and rationing plans for gasoline and diesel	

MITIGATION ACTION	EMERGENCY FUEL SUPPLY PLAN
	uses in extended loss of fuel supply or electric power supply; plans to purchase local fuel supply; etc.
HAZARD(S)	Hazardous Materials Release (transport)
ESTIMATED COST	\$1,000+ Staff Time
FUNDING	General Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Blaine County Commissioners
STATUS	Verbal agreements are in place. Other coordination information is needed to develop a full plan.

Tornadoes and High Winds

Blaine County has experienced several tornadoes ranging from EF0 to EF4. Tornadoes pose significant risk of damage to homes, businesses, infrastructure, and agriculture. A small manually operated siren is located in Brewster, but no siren exists in Dunning. Region 26 Emergency Management provides a CodeRed alerting system that residents in the county can sign up for. A Facebook page is also available to share weather alerts and conditions in the area. A backup generator is needed for the courthouse. Power outages in the area have lasted several hours at a time. Custer PPD is looking into burying power lines between Dunning and mile marker 6 on Highway 91.

Mitigation Actions

MITIGATION ACTION	ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.
HAZARD(S)	All hazards
ESTIMATED COST	\$15,000+
FUNDING	HMGP, PDM, General Funds
LOCATION	Village of Brewster; Village of Dunning
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Blaine County Emergency Management, Region 26 Emergency Management, Village of Brewster; Village of Dunning
STATUS	This project has not yet been started. The Village of Dunning does not have a siren, while the Village of Brewster has a small manually powered siren that needs replaced.

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms
ESTIMATED COST	\$15,000-\$30,000
FUNDING	HMGP, PDM, General Funds
LOCATION	Brewster Fire Hall; Dunning Community Center
TIMELINE	5+ years
PRIORITY	Medium

MITIGATION ACTION		BACKUP GENERATORS	
LEAD AGENCY		Blaine County Emergency Management	
STATUS		This project has not yet been started. A generator is needed for the Courthouse	

MITIGATION ACTION		EMERGENCY COMMUNICATION	
DESCRIPTION		Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Develop/improve/implement Emergency Communication Action Plan. Establish inner-operable communications. Provide equipment such as satellite telephones and radios.	
HAZARD(S)		Tornadoes, high winds, severe thunderstorms, severe winter storms	
ESTIMATED COST		\$10,000+	
FUNDING		Homeland Security grants, General Funds	
TIMELINE		5+ years	
PRIORITY		High	
LEAD AGENCY		Blaine County Sherriff; Region 26 Emergency Management; Brewster Fire Department; Dunning Fire Department	
STATUS		Improvements are needed for reception of emergency communication in the field. Specifically, improved coordination for alerts from the National Weather Service for more lead time to respond. Region 26 Emergency Management provides CodeRed emergency alerts which residents can sign up for.	

Other Hazard of Note:

Agricultural Animal and Plant Disease

Concerns about agricultural plant and animal disease exist as it relates to the local economy. The planning area is heavily dependent on the surrounding rangelands and cattle industry. Plant and animal disease have the potential to cripple the local economy, on which school funds are reliant. According to the USDA there have been no major outbreaks of animal or plant disease in the planning area. The county noted there are no veterinarians within the county as well, so any outbreaks require assistance to come in from outside the county.

Completed Mitigation Actions

MITIGATION ACTION		DRAINAGE IMPROVEMENTS	
DESCRIPTION		The jurisdiction utilizes stormwater systems comprising of ditches, culverts, and drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Drainage ponds, both retention and detention, may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.	
HAZARD(S)		Flooding, Severe Thunderstorms	
STATUS		Completed – updated culverts to handle a 7” rain.	

VILLAGE OF BREWSTER COMMUNITY PROFILE

Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Brewster Local Planning Team			
Name	Title	Jurisdiction	Engagement
Marilyn Rhoades	Village Board Member	Village of Brewster	One-on-one meeting attendance, profile development and review
Helen Noras	Village Board Member	Village of Brewster	One-on-one meeting attendance, profile development and review
Betty Akin	Board Chairperson	Village of Brewster	One-on-one meeting attendance, profile development and review
Cathy Williams	Village Clerk	Village of Brewster	One-on-one meeting attendance, profile development and review
Walt Rhoades	Village Board Member	Village of Brewster	One-on-one meeting attendance, profile development and review

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Brewster has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and the following offices.

- Village Clerk

Plan Maintenance

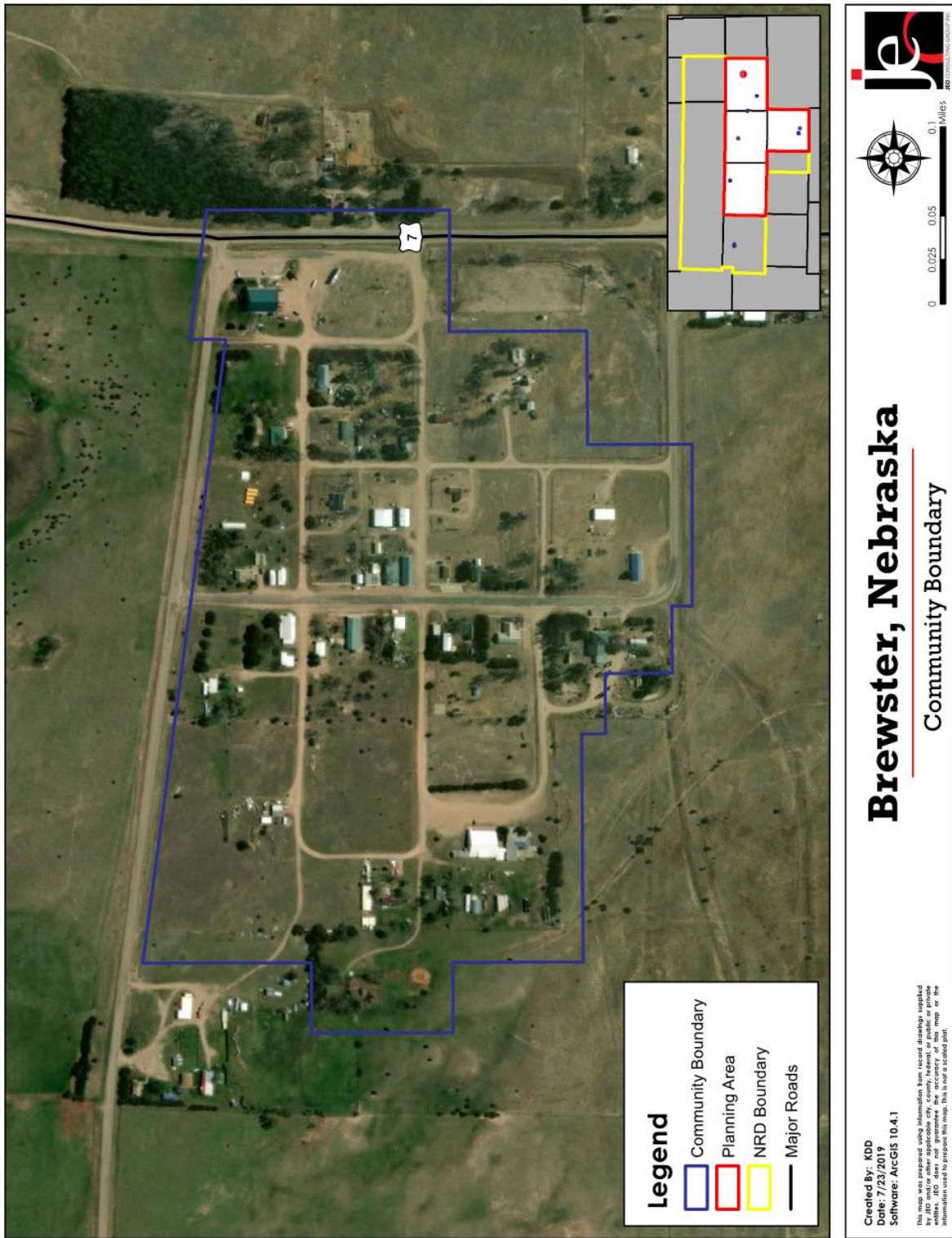
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this county profile as changes can occur before or after a major event. The local planning team will include the Village Clerk and the Village Board who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings.

Location and Geography

The Village of Brewster is located in the eastern portion of Blaine County and covers an area of 0.1 square miles. The Village is directly south of the North Loup River. The Village of Brewster is the county seat for Blaine County.

Village of Brewster

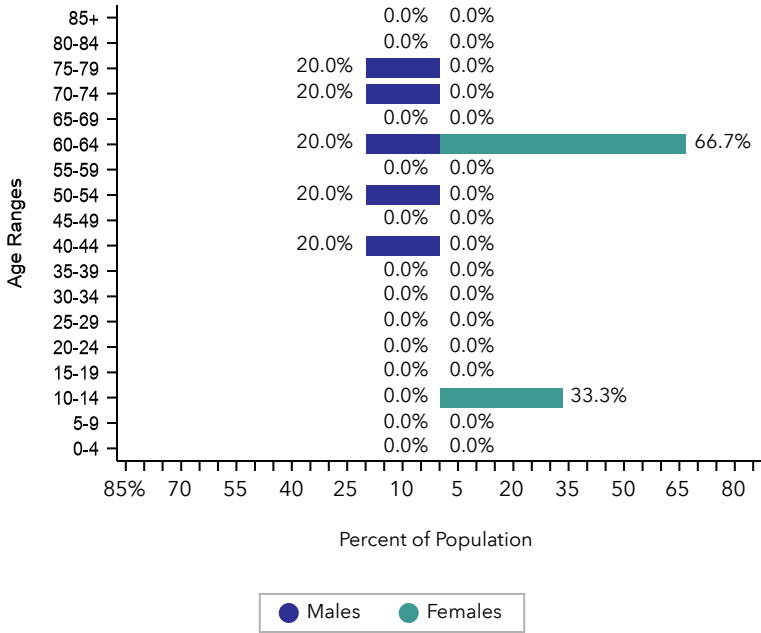


Community Summary Fact Sheet

Brewster Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

8	4	2.00	61.7	\$75,000	\$62,500	10	64
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

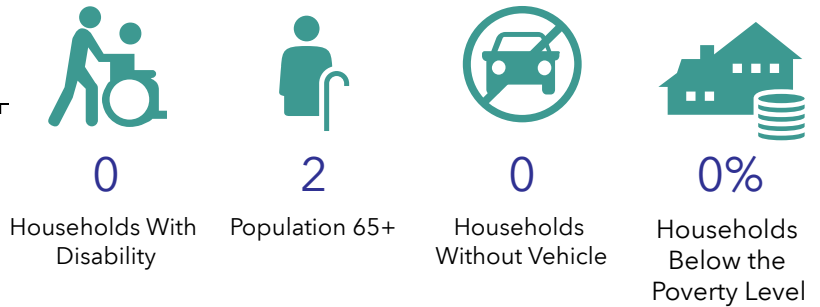
AGE PYRAMID



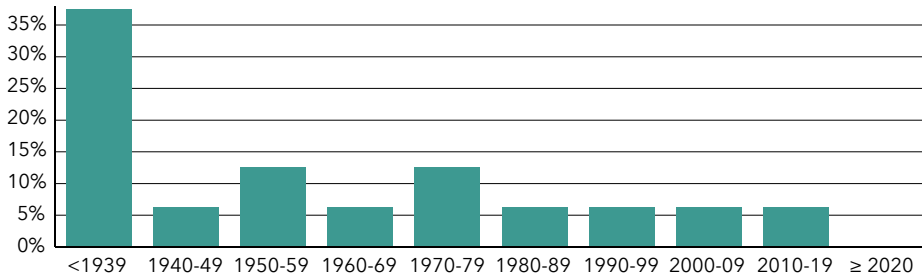
Total Population

2023 Total Population (Estimate)	8
2020 Total Population (U.S. Census)	12
2010 Total Population (U.S. Census)	13
2000 Total Population (U.S. Census)	16

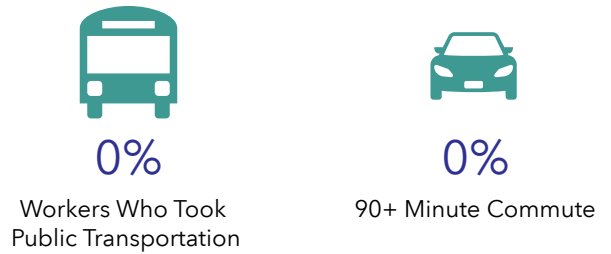
AT RISK POPULATION



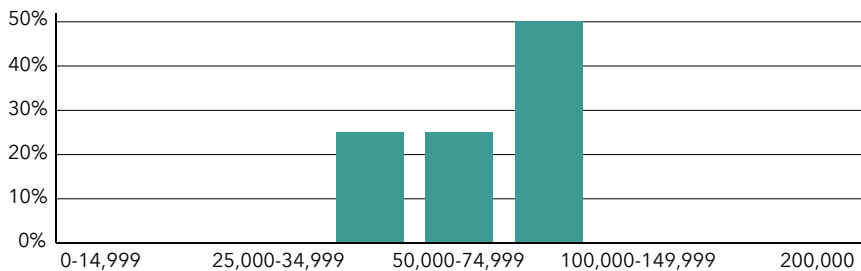
Housing: Year Built



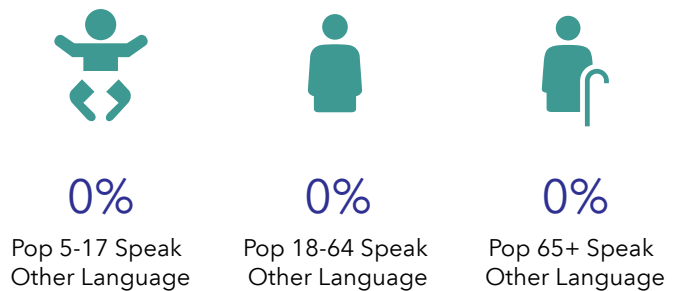
COMMUTER



Household Income



LANGUAGE



Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Brewster’s population has remained relatively stable between 2010 and 2020 census estimates (13 vs 12 respectively). The local planning team noted the population is more likely to decline than increase in the coming years. The local planning team attributed this decline to an aging population, lack of housing, and lack of available jobs. Overall, declining populations make communities more vulnerable to hazards as it leads to more unoccupied or vacant housing units and decreasing tax revenues to pursue mitigation projects.

Housing

There is a significant lack of available housing available in Brewster. There are no available houses which are suitable for living at this time and due to age and poor maintenance should be demolished and replaced with new housing. The housing stock in Brewster is very limited and provides inadequate opportunity for future growth or development.

Employment

There are few businesses within the Village of Brewster – Brewster Welding and Feed, Uncle Bucks, the County Courthouse, and Church. Residents of the village work in agriculture in the areas surrounding the village.

Transportation

Brewster’s major transportation corridors include Nebraska Highway 91 and Nebraska Highway 7. The Village sits at the intersection of the highways. There are no rail lines or airports located in or near Brewster, however the transportation of hazardous chemicals may still occur through the community. With the exception of the highways, roads in Brewster are unpaved which may made traveling during hazard events difficult.

Fut8ure Development Trends

In the past five years there have been no new residential or commercial developments in the Village. The local planning team indicated that there are currently no new developments planned at this time and the population is anticipated to continue to decline in the next five years.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Number of Parcels	Number of Improvements	Total Improvement Value
333	68	\$3,874,378

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



The generator at the fire department can be hooked up to the alert siren to provide power if needed. There is no water tower in town as residents all have private wells.

Critical Facilities

#	Lifelines	Name	Address	Shelter	Generator
1	Safety and Security	Village Office	Lincoln Ave	N	N
2	Food, Water, Shelter	American Legion Hall	Lincoln Ave and Dorsey St	Y	N
3	Food, Water, Shelter	Community Center	Paddock Street	Y	N
4	Safety and Security	Fire Department	Manderson St	N	Y - Portable
	Food, Water, Shelter	United Church of Christ	Paddock St and Lincoln Ave	Y	N

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are two chemical storage sites in Brewster that contain hazardous chemicals. The local planning team indicated neither chemical site listed below is near the community directly. Guggenmos River Ranch is approximately seven miles outside of town while Great Western Gas Company is roughly one mile outside of town. No chemical spills have been recorded and the planning team stated resources between the local fire department and sheriff’s department are currently sufficient to respond to events.

Chemical Storage Fixed Sites

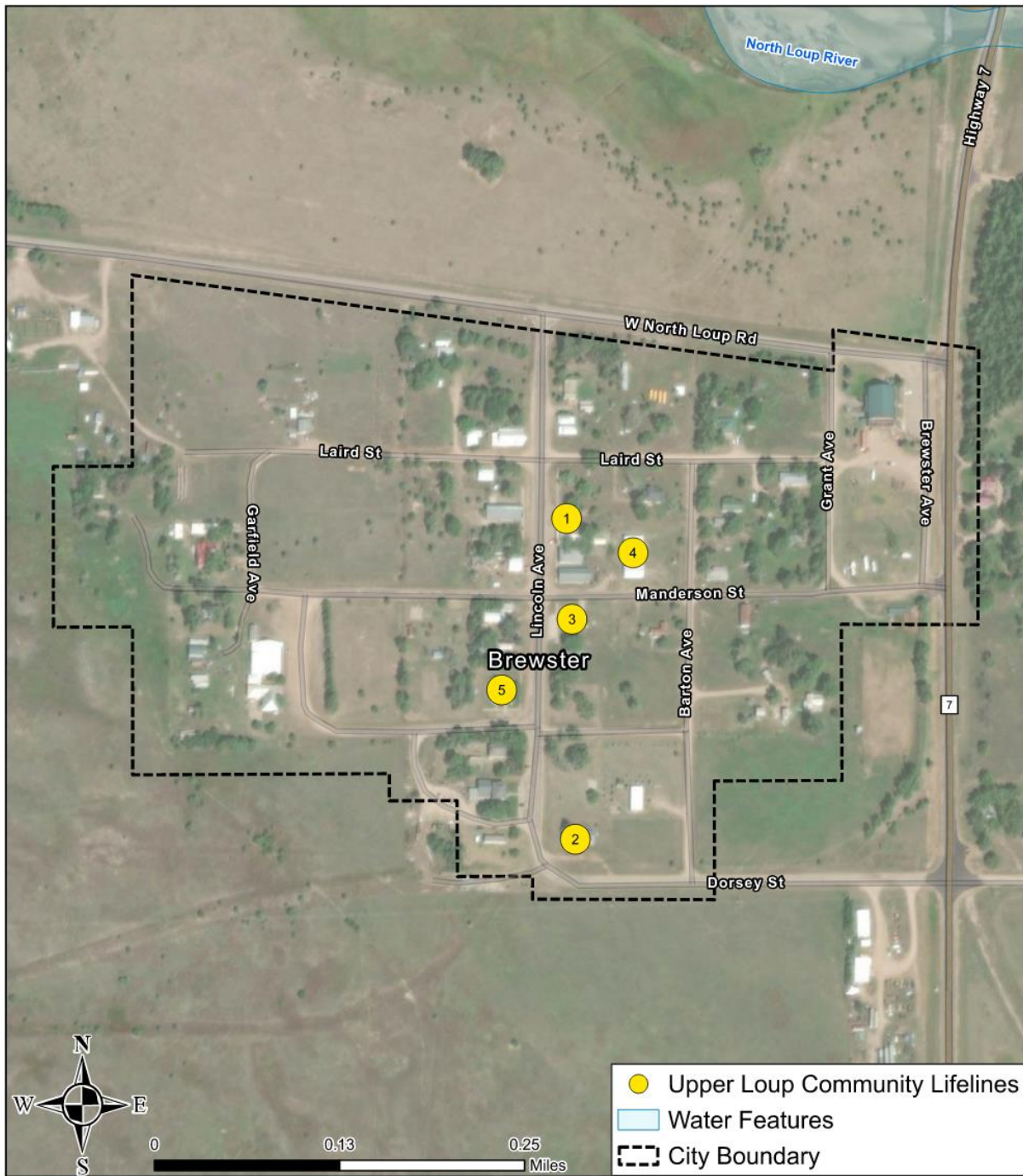
Facility Name	Address	In Floodplain (Y/N)
Guggenmos River Ranch Ltd	43778 N Pleasant Valley Rd	No
Great Western Gas Co	Jct Highways 91 & 7	No

Source: Nebraska Department of Energy and Environment

Chemical Transportation

Chemical transportation is a concern for the Village as the railroad transport a large volume of coal through the area. Additionally, both fixed chemical facilities are located along major transportation routes. The local planning team is concerned about spills or accidents which would cause closures to these transportation corridors.

Critical Facilities Map



	<p>Created By: NS Date: 12/19/2023 Software: ArcGIS Pro 3.1.2 File: R211218.00</p> <p><small>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</small></p>	<h2>Village of Brewster</h2> <hr style="border: 1px solid red;"/> <p>Upper Loup NRD Hazard Mitigation Plan 2024</p>	
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Capability Assessment

The planning team assessed the Village of Brewster's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

<i>Survey Components/Subcomponents</i>	<i>Yes/No</i>	
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
Other (if any)		
<i>Administrative & Technical Capability</i>	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
Other (if any)		

<i>Survey Components/Subcomponents</i>		<i>Yes/No</i>
<i>Education & Outreach Capability</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
Other (if any)		

<i>Overall Capability</i>	<i>2019 Plan</i>	<i>2024 Plan</i>
<i>Does your community have the financial resources need to implement mitigation projects?</i>	Limited	Limited
<i>Does your community have the staff/expertise to implement projects?</i>	Limited	Limited
<i>Does your community have the community support to implement projects?</i>	Moderate	Moderate
<i>Does your community staff have the time to devote to hazard mitigation?</i>	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Blaine County is Very Low (0.41). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Blaine County have a Very Low (1.43) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Blaine County have a Very Low (3.76) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the county.

Rural Capacity Index

Components of Index	Village of Brewster	Blaine County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	0%	23%
Families Below Poverty Level:	0%	2%
Households with Broadband:	100%	91%
People without Health Insurance:	0%	8%
Voter Turnout:	83%	83%
Income Stability Score (0 to 100):	8	19
Population Change (2000 to 2019):	-11	-193
Overall Rural Capacity Index Score	Low Capacity 42 out of 100	Low Capacity 41 out of 100

Source: Headwaters Economics

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Village of Brewster has an annex to the Blaine County Local Emergency Operations Plan (LEOP). The County LEOP identifies roles and responsibilities during an emergency, hazards of top concern, and sheltering locations.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Blaine County (Brewster) in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is the Bessey Ranger District of the Nebraska National Forest, which straddles the Blaine/Thomas County line. This area contains about 25,000 acres of planted pines and eastern redcedars, constituting a high fire hazard. The Halsey fire chief considers the village itself as a concern, as the fire department is not equipped for fighting structure fires. Some homes on the north side of town have heavy fuels close to them. He also has concerns that the river bridges in his district in both Blaine and Thomas Counties are not rated to handle tankers. Other locations of special concern include population centers adjacent to grasslands, and the west side and southeast corner of the county, where eastern redcedar has encroached into grasslands, creating high fire hazard. All of Blaine County’s population centers, dispersed ranches, and wooded areas along the rivers and streams lie within the boundaries of the WUI.

Annual Budget

The local Planning Team indicated the annual municipal budget is very limited to maintaining status quo. Additionally, with a relatively low tax base and declining population, there are challenges to identify project funding.

National Flood Insurance Program

The Village does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for the Village of Brewster.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Brewster which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

Hazard		Count	Property	Crop	Other Impacts
Agricultural Disease	Animal Disease	3	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$6,441	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$97,885	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	0	\$0	\$904	
	Flood	2	\$130,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	1	\$12,425		
Severe Thunderstorms	Hail	198	\$269,000	\$1,697,384	
	Heavy Rain	0	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	42	\$228,000		
Severe Winter Storms	Blizzards	11	\$11,000	\$0	
	Heavy Snow	5	\$0		
	Ice Storms	1	\$0		
	Winter Storms	42	\$10,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	26	\$0	\$39,079	
	Tornadoes	6	\$20,000	\$0	
Wildfire		60	4,096 acres	\$2,500	1 home threatened, 1 structure threatened, 2

SECTION SEVEN: VILLAGE OF BREWSTER PROFILE

				homes destroyed, 1 structure threatened
Total	338	\$1,680,425	\$1,841,693	1 home threatened, 1 structure threatened, 2 homes destroyed, 1 structure threatened

The following section expands on the hazards of top concern identified by the Village of Brewster. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms/High Winds and Tornadoes

Severe thunderstorms, high winds, and tornadoes are a concern to the local planning team because of the hazard’s potential to cause widespread property damages and loss of life. Residents without access to shelter and the likelihood of power loss are primary concerns. Thunderstorms in the past have caused damage to trees, power lines, power poles, and property. A storm in 2010 caused significant damage to roofs and broke the tops off trees. While some residents have underground cellars, a community shelter space is a priority. Those living in double wide trailers and residents without basements or underground cellars were identified as populations of concern. The local planning team noted the community center would serve this purpose; however, repairs to the building are needed to bring it to shelter/safe room compliance.

Mitigation Actions

MITIGATION ACTION		COMMUNITY CENTER IMPROVEMENTS
DESCRIPTION	Evaluate shelter needs for the community center. Update facility to be used as a shelter including a new roof and backup generator.	
HAZARD(S) ADDRESSED	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes	
ESTIMATED COST	\$60,000	
FUNDING	General Fund, ARPA funds, Blaine County Foundation	
TIMELINE	2-5 years	
PRIORITY	Medium	
LEAD AGENCY	Village Board	
STATUS	This is a new mitigation action.	

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.	
HAZARD(S) ADDRESSED	All hazards	
ESTIMATED COST	\$500+	
FUNDING	Region 26 Emergency Management, ULNRD, HMGP, PDM, General Funds	
TIMELINE	Ongoing	
PRIORITY	High	
LEAD AGENCY	Village Board, Region 26 EMA	
STATUS	Region 26 EMA provides CodeRed services to residents. Enrollment and education is an ongoing process.	

Removed Actions

Mitigation Action		FIRE WISE DEFENSIBLE SPACE
Description	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train land owners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.	
Hazard(s)	Grass/Wildfire	
Status	Removed - This was identified as not a priority or within the ability of the village to pursue at this time.	

Mitigation Action		BACKUP GENERATORS
Description	Provide a portable or stationary source of backup power to redundant power supplies specifically for: Fire Department and County Offices/Courthouse.	
Hazard(s)	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms	
Status	Removed - This was identified as not within the ability of the village to pursue at this time.	

VILLAGE OF DUNNING COMMUNITY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Dunning Local Planning Team

Name	Title	Jurisdiction	2024 Engagement
Larry Steele	Village Engineer	Miller and Associates	One-on-one meeting attendance, profile development and review
Alice Springer	Village Clerk	Village of Dunning	One-on-one meeting attendance, profile development and review
Dan Sheets	Board Chairman	Village of Dunning	One-on-one meeting attendance, profile development and review
Chet Wales	Board Member	Village of Dunning	One-on-one meeting attendance, profile development and review
Jill Cadwallader	Board Member	Village of Dunning	One-on-one meeting attendance, profile development and review

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Dunning has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and the following offices.

- Village Clerk
- Volunteer Fire Department

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the Village Clerk and the Village Board who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings at the post office, village office, and the Spur gas station.

Location and Geography

The Village of Dunning is located in the southwest portion of Blaine County and covers an area of 0.23 square miles. The Village is located between the Dismal River to the south and the Middle Loup River to the north.

Village of Dunning

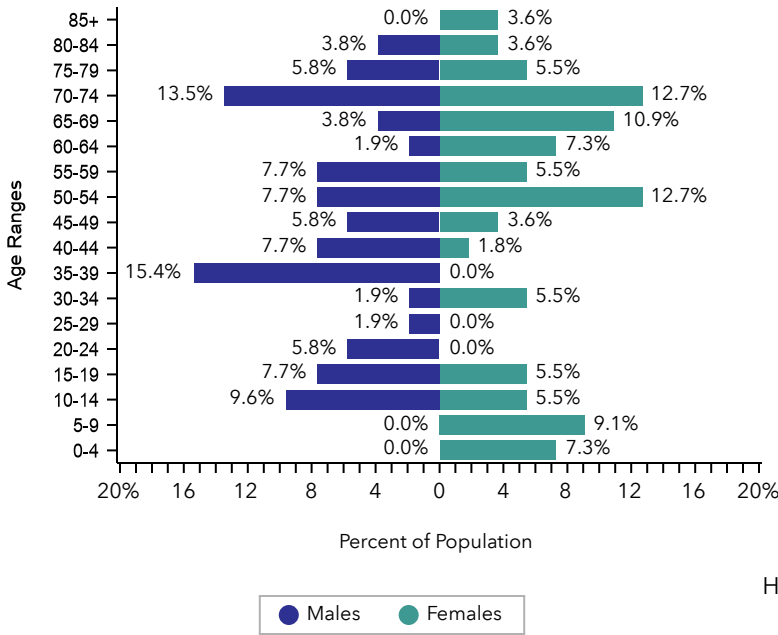


Community Summary Fact Sheet

Dunning Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

107	47	2.28	51.6	\$52,916	\$78,571	4	36
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

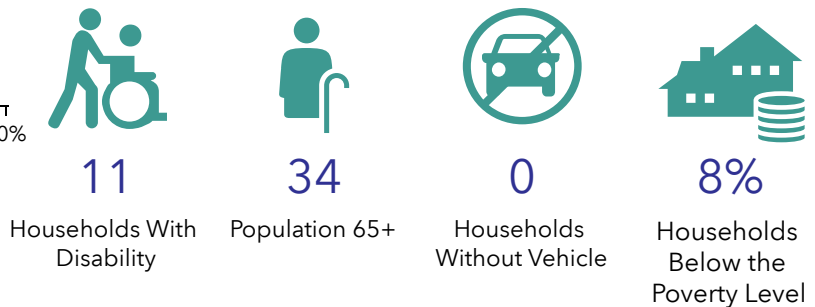
AGE PYRAMID



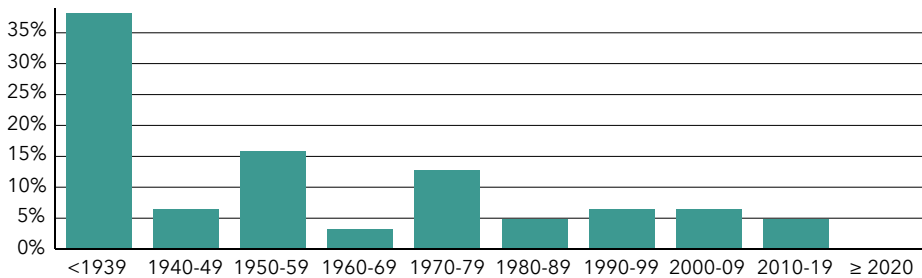
Total Population

2023 Total Population (Estimate)	107
2020 Total Population (U.S. Census)	80
2010 Total Population (U.S. Census)	89
2000 Total Population (U.S. Census)	108

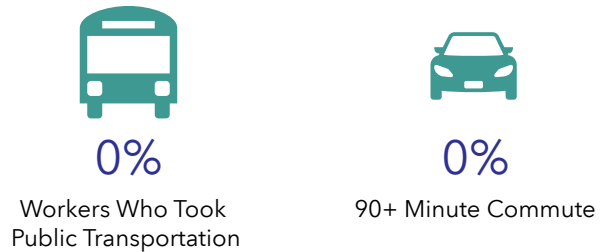
AT RISK POPULATION



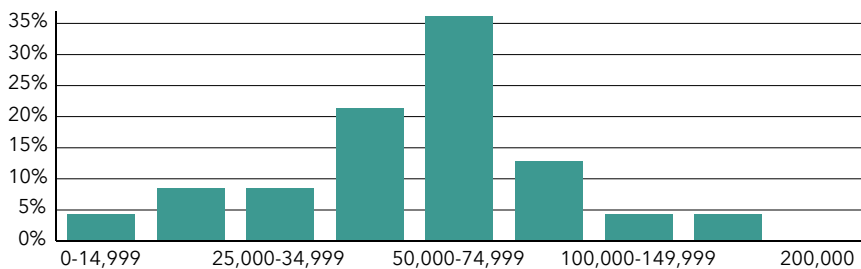
Housing: Year Built



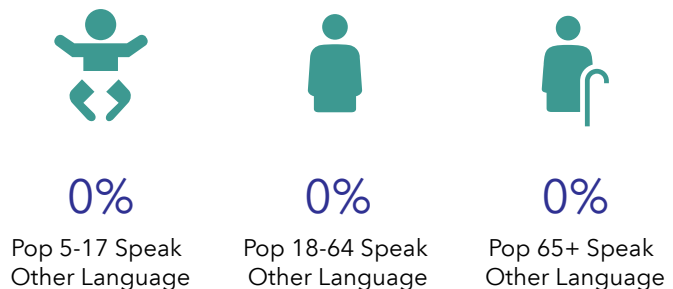
COMMUTER



Household Income



LANGUAGE



Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Dunning’s population declined from about 94 people in 2016 to approximately 92 people in 2024. The local planning team attributed this declining population to a lack of economic opportunities in town and a declining need for hired hands on ranches.

Housing

The local planning team indicated that many older homes in the community are in disrepair or need replaced and the current housing stock is not sufficient for residents moving to the area. The housing stock in Dunning is very limited and provides inadequate opportunity for future growth or development.

Employment

Sandhills Public Schools is the largest employer in the Village of Dunning. Some school employees commute to Dunning from other communities, while residents of Dunning may commute to Broken Bow for work.

Transportation

Dunning’s major transportation corridors include Nebraska Highway 91 north of the Village which averages 445 vehicles per day, and Nebraska Highway 2 which runs along the eastern edge of the village and averages 1,225 vehicles per day. A Burlington Northern Santa Fe rail line runs along the southern edge of the village. The local planning team noted BNSF has moved trucks and equipment down Main Street and crossed local bridges which may have exceeded load limits and caused damage. The local planning team indicated coal is the most commonly transported hazardous material on the rail line.

Future Development Trends

The planning team indicated that some changes have occurred in the Village of Dunning over the past five years. In town there has been one new home, one new Bed & Breakfast, and one new rental have opened in town. The local planning team indicated an aging population and lack of economic opportunities contribute to the population decline. No new housing or commercial developments are planned at this time.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

NUMBER OF PARCELS	Number of Improvements	Total Improvement Value
398	70	\$6,404,526

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; and Transportation; and Hazardous Material.



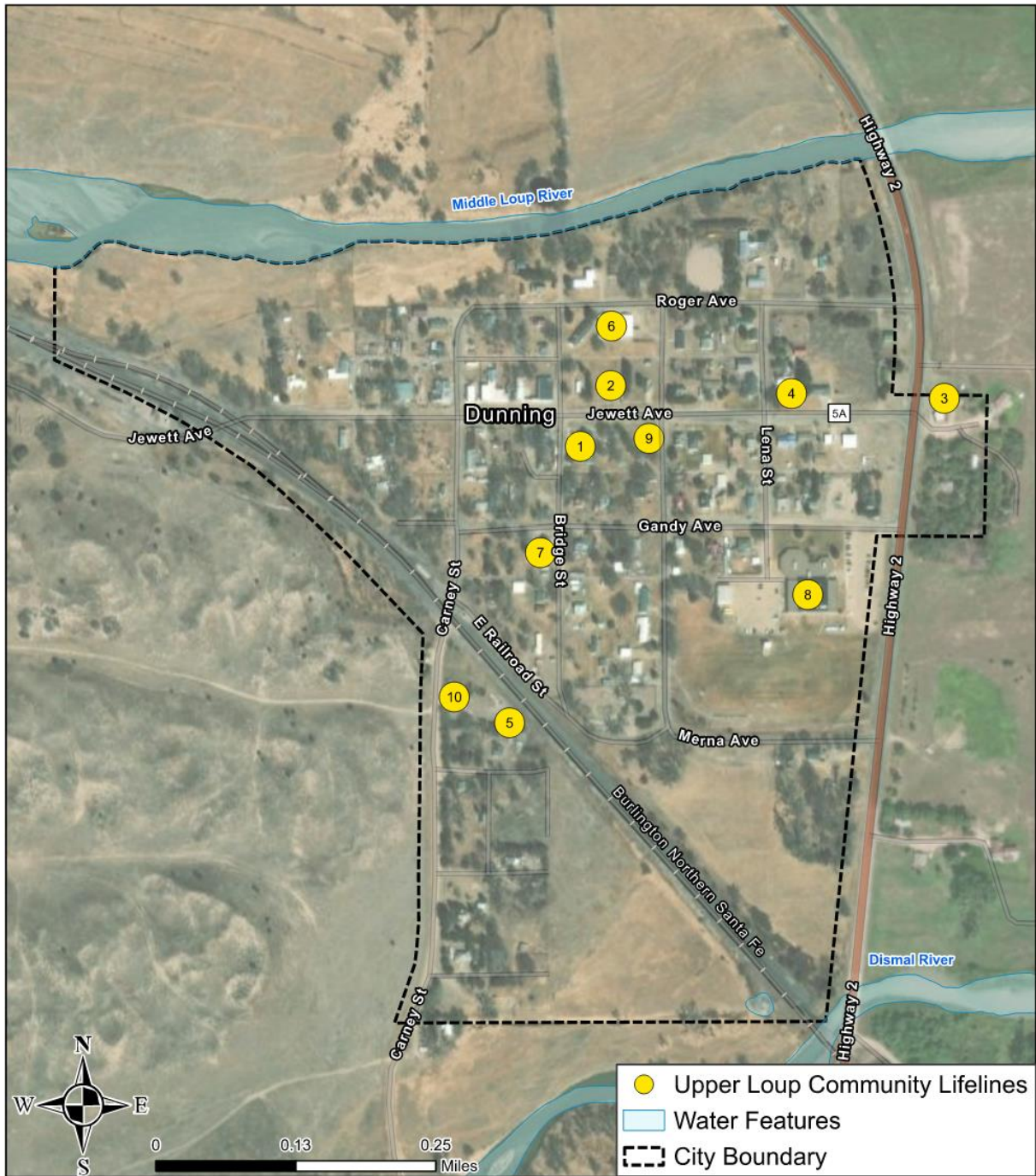
Critical Facilities

#	Lifeline	Name	Address	Shelter	Generator
1	Food, Water, Shelter	Village Office/Community Center	311 Jewett Ave	Y	N
2	Safety and Security	New Fire Hall	304 Jewett Ave	N	N
3	Food, Water, Shelter	Lift Station	Hwy 2	N	N
4	Food, Water, Shelter	Lift Station	Lena St and Jewett Ave	N	N
5	Food, Water, Shelter	Main Lift Station	Rasho Ave	N	N
6	Food, Water, Shelter	Open Bible Church	307 Rogers Ave	Y	N
7	Food, Water, Shelter	Sandhills Community Church	Bridge St	Y	N
8	Food, Water, Shelter	Sandhills Public Schools	107 Gandy Ave	Y	N
9	Food, Water, Shelter	Well #1	Jewett Ave and Cowles St	N	N
10	Food, Water, Shelter	Well #2	Carney St	N	N

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are no chemical storage sites in Dunning that contain hazardous chemicals. There is one gas station to the north of town at the Highway 91 and Highway 2 interchange. The Village lagoons are located west of town and may experience flooding during periods of excessive precipitation, but can be irrigated into the surrounding pasture land.

Critical Facilities



	<p>Created By: NS Date: 12/19/2023 Software: ArcGIS Pro 3.1.2 File: R211218.00</p> <p>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</p>	<h2>Village of Dunning</h2> <p>Upper Loup NRD Hazard Mitigation Plan 2024</p>	
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Capability Assessment

The planning team assessed the Village of Dunning's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

	Survey Components/Subcomponents	Yes/No
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	No
	Capital Improvements Plan	No
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	Emergency Operational Plan	Yes (County)
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	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
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	Water/Sewer Service Fees	Yes
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	General Obligation Revenue or Special Tax Bonds	No
Other (if any)		

Survey Components/Subcomponents		Yes/No
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Does your community have the financial resources need to implement mitigation projects?	Limited	Limited
Does your community have the staff/expertise to implement projects?	Limited to Moderate	Limited to Moderate
Does your community have the community support to implement projects?	Moderate to High	Moderate to High
Does your community staff have the time to devote to hazard mitigation?	Limited	Limited

Social Vulnerability

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SECTION SEVEN: VILLAGE OF DUNNING PROFILE

grasslands, creating high fire hazard. All of Blaine County's population centers, dispersed ranches, and wooded areas along the rivers and streams lie within the boundaries of the WUI.

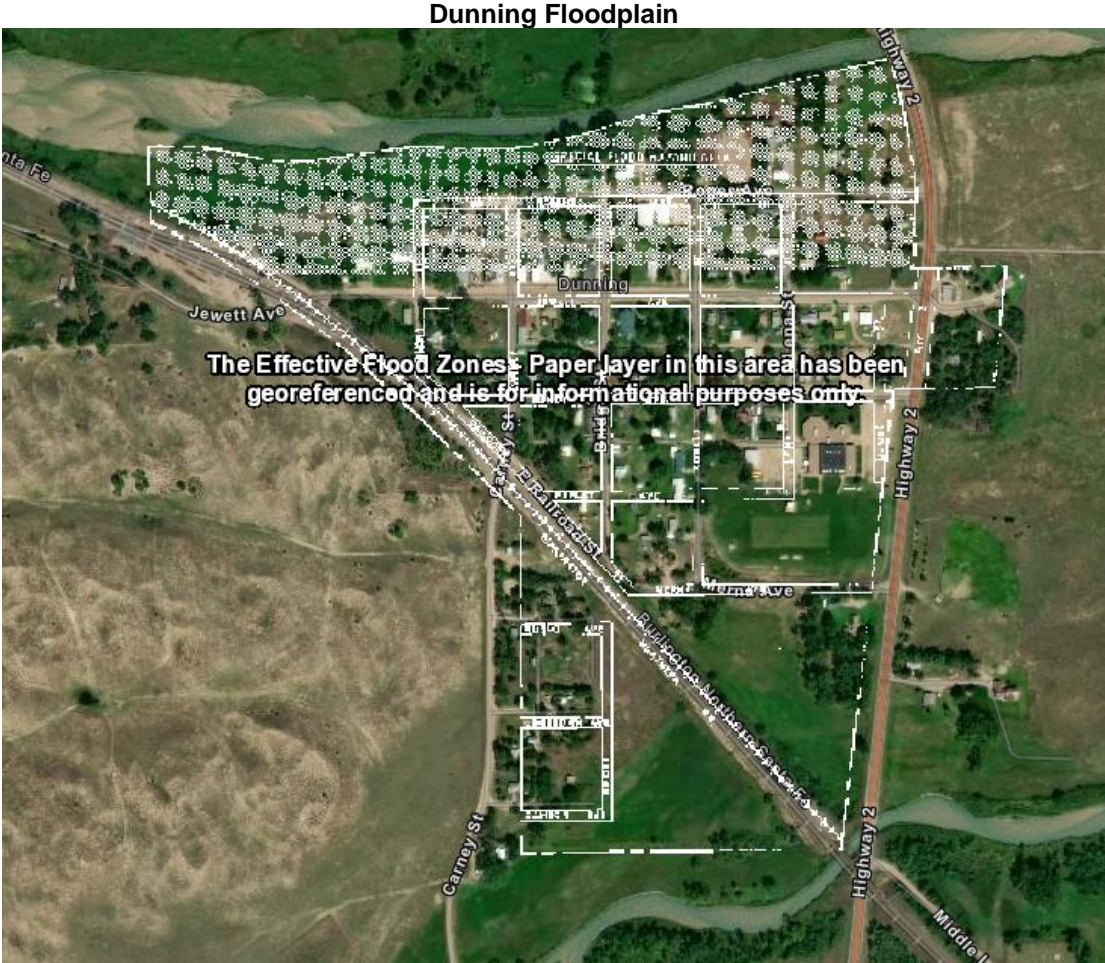
Annual Budget

The Planning Team indicated that the annual municipal budget is limited to maintaining current facilities, but funds have stayed consistent over recent years. No other examples of plan integration were identified.

National Flood Insurance Program

The Village of Dunning is situated between the Middle Loup River to the north and the Dismal River to the south. The Village joined the National Flood Insurance Program (NFIP) in 1987 with a paper map delineating the flood risk hazard area. However, while the Village currently is listed as participating in the NFIP, active participation is not a priority for the village. At the time of this plan update, documentation of past floodplain ordinances or damage procedures were not able to be found. Any development or new construction in the Village is still required to meet county and state requirements including a base flood elevation of 2 feet. There are currently no documented substantial improvement/substantial damage procedures for the village.

Riverine flooding is not a hazard of top concern for the village, rather any flooding issues in the village typically come from heavy rains and poor stormwater drainage. Ice jams on the rivers would likely cause flooding issues in Dunning. The severe flooding events in March 2019 did not impact Dunning. Historically flooding damages in Dunning have been minimal, with some localized flooding occurring in the Sandhills Public School parking lot and the crawl spaces of some homes. The local planning team noted existing floodplain map does not accurately reflect flood risk in the village. Residents who have built and or remodeled have done surveys and found their properties which were listed "in the floodplain" were higher than the bridge crossing. The village will likely be leaving the NFIP in the future.



No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Dunning which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

Hazard		Count	Property	Crop	Other Impacts
Agricultural Disease	Animal Disease	3	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$6,441	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$97,885	

SECTION SEVEN: VILLAGE OF DUNNING PROFILE

Hazard		Count	Property	Crop	Other Impacts
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	0	\$0	\$904	
	Flood	2	\$130,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	1	\$12,425		
Severe Thunderstorms	Hail	198	\$269,000	\$1,697,384	
	Heavy Rain	0	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	42	\$228,000		
Severe Winter Storms	Blizzards	11	\$11,000	\$0	
	Heavy Snow	5	\$0		
	Ice Storms	1	\$0		
	Winter Storms	42	\$10,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	26	\$0	\$39,079	
	Tornadoes	6	\$20,000	\$0	
Wildfire		60	4,096 acres	\$2,500	1 home threatened, 1 structure threatened, 2 homes destroyed, 1 structure threatened
Total		338	\$1,680,425	\$1,841,693	1 home threatened, 1 structure threatened, 2 homes destroyed, 1 structure threatened

The following section expands on the hazards of top concern identified by the Village of Dunning. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

Severe thunderstorms are a common occurrence across the planning area and the Village of Dunning. Severe hail events in 2008 and 2002 each caused over \$10,000 in property damages. Damages from hail are commonly to homes, vehicles, utilities, and trees. The Sandhills Public School is a shelter location in the Village and has rooms designated for tornadoes. Custer Public Power District serves the Village and there have been no long-term power outages. However, there are no backup generators in the Village and the alert siren at the fire hall is currently non-operational. Poor stormwater drainage from heavy rains is a concern for the community. Culverts on Main Street need to be upsized – which can be looped into a water main replacement project. Several lead lines have been replaced in the past on Main Street and new water meters were installed in the late 2010s. Additionally, there are a lot of old trees throughout the village which drop limbs during severe storms.

SECTION SEVEN: VILLAGE OF DUNNING PROFILE

Mitigation Actions

MITIGATION ACTION		DRAINAGE IMPROVEMENTS
DESCRIPTION	Improve storm sewers, water main capacity, and drainage patterns in and around the community. Replace or upgrade culverts, water main, and road surface along Main St.	
HAZARD(S)	Flooding, Severe Thunderstorms	
ESTIMATED COST	Unknown	
FUNDING	HMGP, PDM, General Funds	
LOCATION	Main Street	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Village Board, Maintenance	
STATUS	This project has not yet been started. Culverts need to be replaced along Main Street. Drainage ways also need to be dredged and cleared out.	

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.	
HAZARD(S)	All Hazards	
ESTIMATED COST	\$500+	
FUNDING	HMGP, PDM, General Funds	
TIMELINE	Ongoing	
PRIORITY	Medium	
LEAD AGENCY	Village Clerk, Village Board	
STATUS	This is an ongoing action. There are educational efforts provided through regional emergency management offices. The Village may also look into providing information via flyers about shelter locations or water conservation in resident water bills.	

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Refurbish the existing siren.	
HAZARD(S)	Tornadoes and High Winds, Severe Winter Storms, Severe Thunderstorms	
ESTIMATED COST	\$15,000+	
FUNDING	HMGP, PDM, General Funds, Fire Department	
LOCATION	Village Park	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Village Board, Region 26 EMA	
STATUS	This project has not yet been started.	

Severe Winter Storms

The Village of Dunning regularly experiences severe winter storms which stretch local resources. Concerns from severe winter storms include power loss from downed or damaged power lines, property damage, and road damages from clearing snow. The local planning team indicated snow removal resources are extremely limited for the Village and many residents may use personal equipment to clear snow from roads. The local planning team indicated no facilities in town have backup generators and no power lines are buried.

Mitigation Actions

MITIGATION ACTION		BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.	
HAZARD(S)	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms	
ESTIMATED COST	\$15,000-\$30,000 per generator	
FUNDING	HMGP, PDM, General Funds	
LOCATION	Old Fire Hall Station	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	Village Board	
STATUS	The Village Board is currently discussion generator needs and potential funding options with local engineers. A generator is needed at the wells. Portable generators and switching gear is needed for lift stations. If a generator was installed at the main well it would hit the lift station as well.	

MITIGATION ACTION		HAZARDOUS TREE REMOVAL PROGRAM
DESCRIPTION	Identify and remove hazardous limbs and/or trees.	
HAZARD(S)	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms	
ESTIMATED COST	\$20,000	
FUNDING	HMGP, PDM, Nebraska Forest Service, National Forest Service, General Funds	
TIMELINE	Ongoing	
PRIORITY	Medium	
LEAD AGENCY	Village Board, Custer PPD	
STATUS	The Village works with Custer Public Power District to remove hazardous trees which may damage power lines and utilities. Residents work with the Village to continuously remove hazardous limbs and trees.	

Removed Mitigation Actions

MITIGATION ACTION		RESCUE/SNOW REMOVAL RESOURCES
DESCRIPTION	Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event. Purchase a new tractor plow.	
HAZARD(S)	Severe Winter Storms	

SECTION SEVEN: VILLAGE OF DUNNING PROFILE

STATUS	Removed – resources are sufficient or the village utilizes local resident resources.
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MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools, with rural residents, and other critical facilities and provide new radios as needed
HAZARD(S)	All Hazards
STATUS	Removed – no longer needed as most residents have cell phones

HOOKER COUNTY COUNTY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Hooker County Local Planning Team

Name	Title	Jurisdiction	Engagement
Todd Yost	Sheriff and County Emergency Manager	Hooker County	One-on-one meeting attendance, profile development and review
Jessica Hampton	Clerk and County Assessor	Hooker County	One-on-one meeting attendance, profile development and review

Governance

A community's governance structure impacts its capability to implement mitigation actions. Hooker County is governed by a three member board of commissioners. The county also has the following offices and departments:

- County Clerk
- County Assessor
- County Treasurer
- County Attorney
- Emergency Management
- Highway Superintendent
- Sheriff's Office
- Planning and Zoning Commission

Plan Maintenance

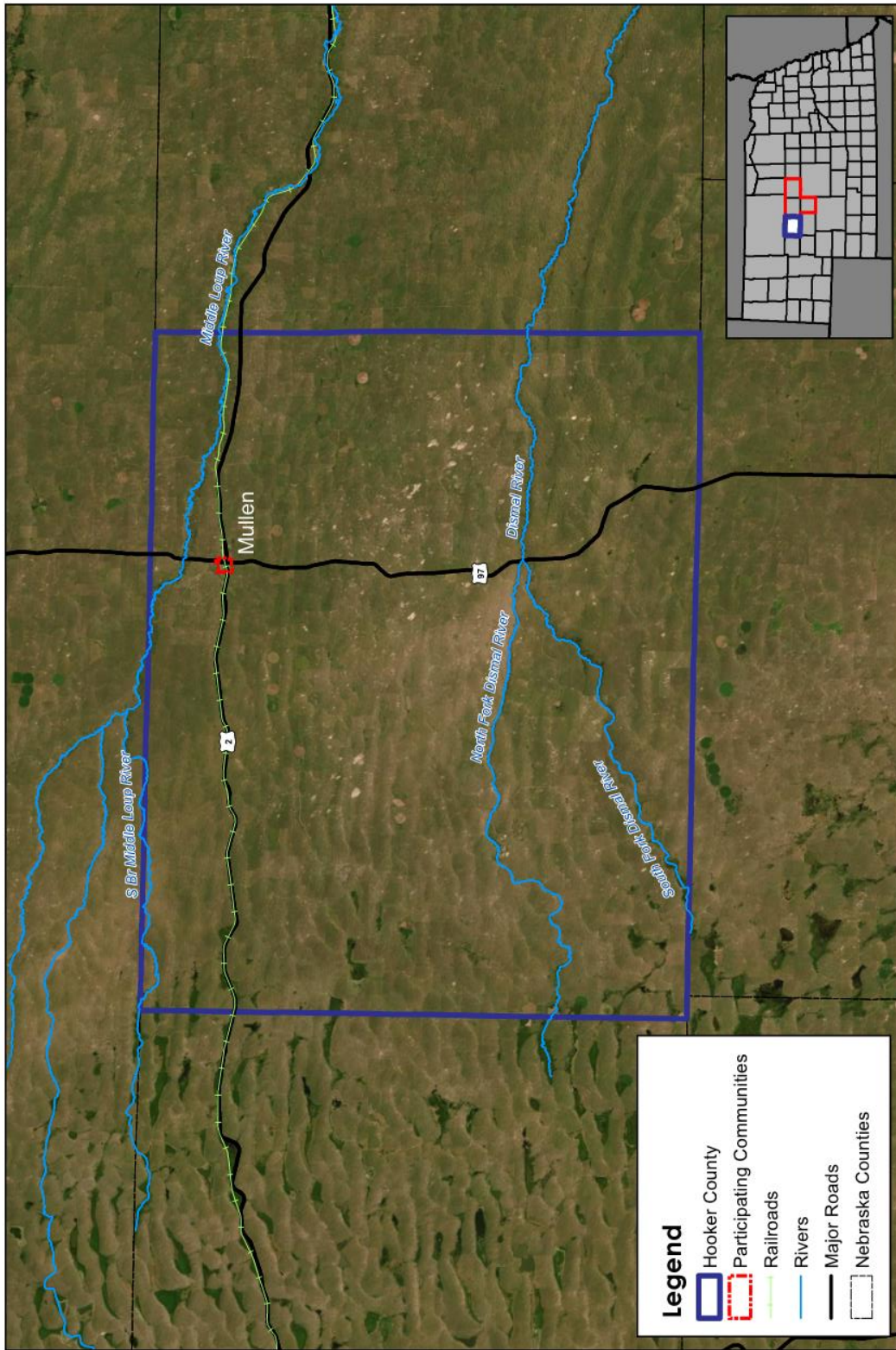
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the County Clerk, Emergency Manager, Sheriff, Planning and Zoning Commission, and the County Commissioners who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings at the post office, local grocery store, Village of Mullen office, Courthouse, and local bank. Other posts can be made in the local newspaper.

Location and Geography

Hooker County is located in north central Nebraska and is bordered by Thomas, Cherry, Grant, and McPherson counties. The total area of Hooker County is 721 square miles. The Middle Loup River crosses the northeast corner of the county, while the Dismal River splits into the North Fork and South Fork Dismal Rivers in south central Hooker County. The entirety of Hooker County lies in the Sand Hills topographic region, with the majority of land used as rangeland for livestock.

Hooker County







Hooker County
 County Boundary

Created By: KDD
 Date: 7/22/2019
 Software: ArcGIS 10.4.1

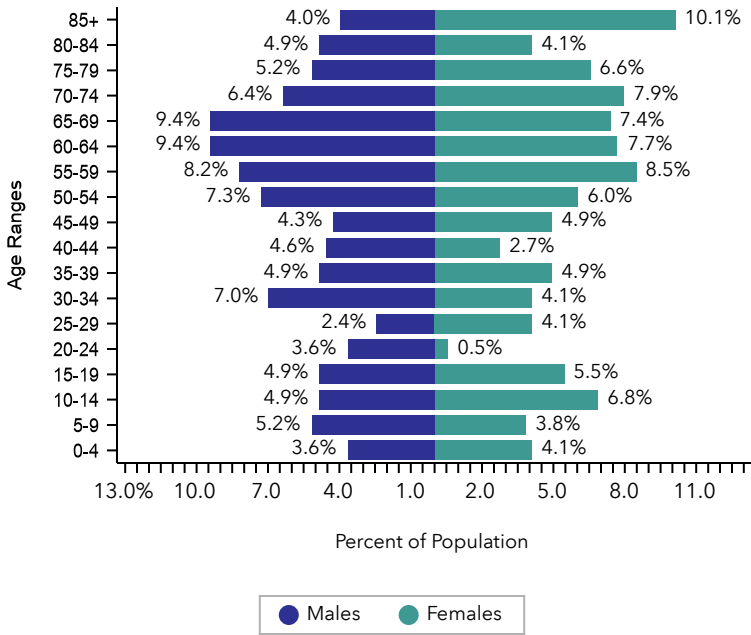
This map was prepared using information from record drawings supplied by AED and/or other applicable city, county, federal, or public or private information used to prepare this map. This is not a scaled plot.

Community Summary Fact Sheet

Hooker County, NE
Upper Loup NRD Hazard Mitigation Plan 2024

694	317	2.09	55.0	\$50,691	\$97,845	79	447
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

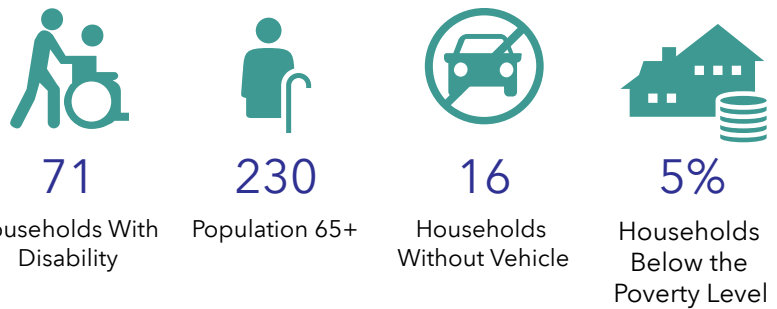
AGE PYRAMID



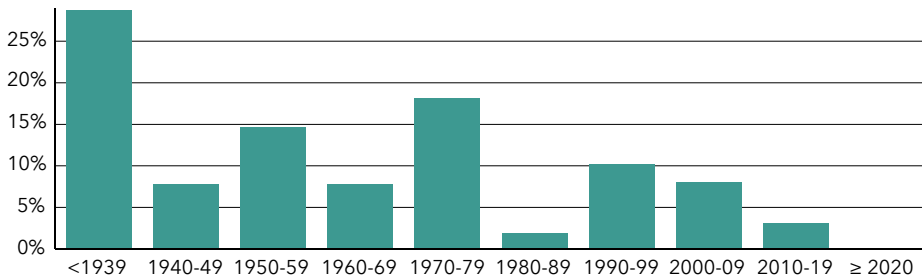
Total Population

2023 Total Population (Estimate)	694
2020 Total Population (U.S. Census)	711
2010 Total Population (U.S. Census)	736
2000 Total Population (U.S. Census)	783

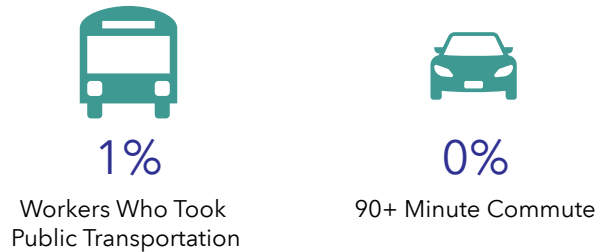
AT RISK POPULATION



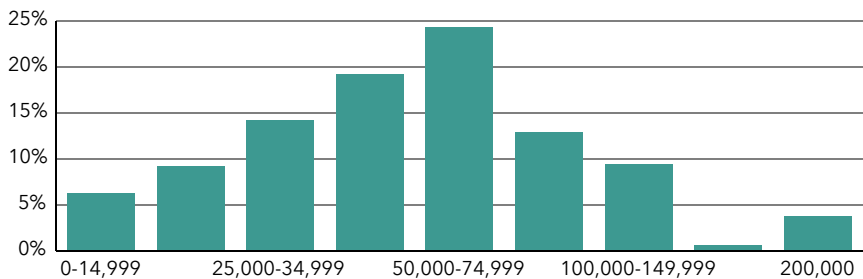
Housing: Year Built



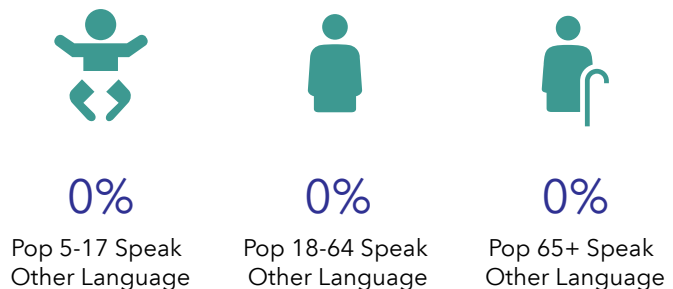
COMMUTER



Household Income



LANGUAGE



Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

The population of Hooker County has been declining since the 1920s. The local planning team noted the population sits around 670 and attributed the population decline to an aging population, limited available housing stock, and a lack of employment options.

Housing

The majority of housing in Hooker County was built prior to 1970 (58%). There are approximately 47 mobile homes in the county which are typically used for seasonal help. Several homes in the past five years have been demolished while four new duplex apartments were built in Mullen. Overall the housing stock in the county is very limited and is sold quickly when properties do go on the market.

Employment

According to 2020 Business Patterns Census Data, Hooker County had 26 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

Business in Logan County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors	26	99	4,757

Source: U.S. Census Bureau

Transportation

Hooker County's major transportation corridors include Nebraska Highway 2 running east to west and Nebraska Highway 97 running north to south. The local planning team identified Highway 97 as a major route to Interstate 80 or other larger communities. These major routes have experienced closures due to severe winter weather. Cellular network towers are located along both highways and are susceptible to damage from severe weather. Highway 97 between Mullen and Tryon was recently repaved and Dismal River Road was armor coated since 2019. A concern by the local planning team is the volume of large semi-trucks or heavy equipment which travels on the highways.

A Burlington Northern Santa Fe rail line also bisects the northern portion of the county and runs through the Village of Mullen. The rail line commonly transports hazardous materials through the county including coal, oil, or waste materials. Derailments have occurred in the planning area. The county also has an air landing strip located near the Village of Mullen.

Future Development Trends

The local planning team indicated the population in the county has declined since 2000 (783 in 2000, 736 in 2010, and 711 in 2020 census). The local planning team attributes this decline to an aging population and lack of job opportunities. Various dilapidated buildings in the county have been demolished and some new apartments were built in Mullen. Of note, the nursing home in Mullen closed in the past five years causing many residents to move to the surrounding areas for long term care. In the past five years the county made improvements to an equipment storage facility at the fairgrounds but are still in the process of hooking up power. In the next five years, some additional development may be located near the golf course – ten permits have been issued

for single-family homes in the area with seven properties built and three under construction. There is one planned new business in the next five years. A new recreation center at North Creek Ranch is planned by fall 2024 with a weight room and outdoor youth or adult activities. The county will be rebuilding the road to access the area.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Number of Parcels	Number of Improvements	Total Improvement Value
2,088	506	\$48,823,916

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communications; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



Critical Facilities

#	Lifelines	Name	Address	Shelter	Generator
1	Communications	911 Communications Tower	4 mi south of Mullen, NE	No	Yes
2	Safety and Security	Alert Siren	200 NW 1 St Mullen, NE	No	No
3	Food, Water, Shelter	Assembly of God Church	208 NW 1 st	Yes	No
4	Food, Water, Shelter	Community Center (new)	36530 Fairgrounds Rd	Yes	No
5	Safety and Security	Hooker County Courthouse	303 NW 1 st St Mullen, NE	No	No
6	Food, Water, Shelter	Lariat Auditorium	206 S Washington	Yes	No
7	Safety and Security	Mullen Fire Hall	501 SW 1 st St	No	Yes
8	Food, Water, Shelter	Mullen Grade School	106 NW 2 nd St	Yes	No
9	Food, Water, Shelter	Mullen High School	404 N Blaine Ave	No	No
10	Transportation	NDOT Yard	1 mi east of Mullen, NE	No	No

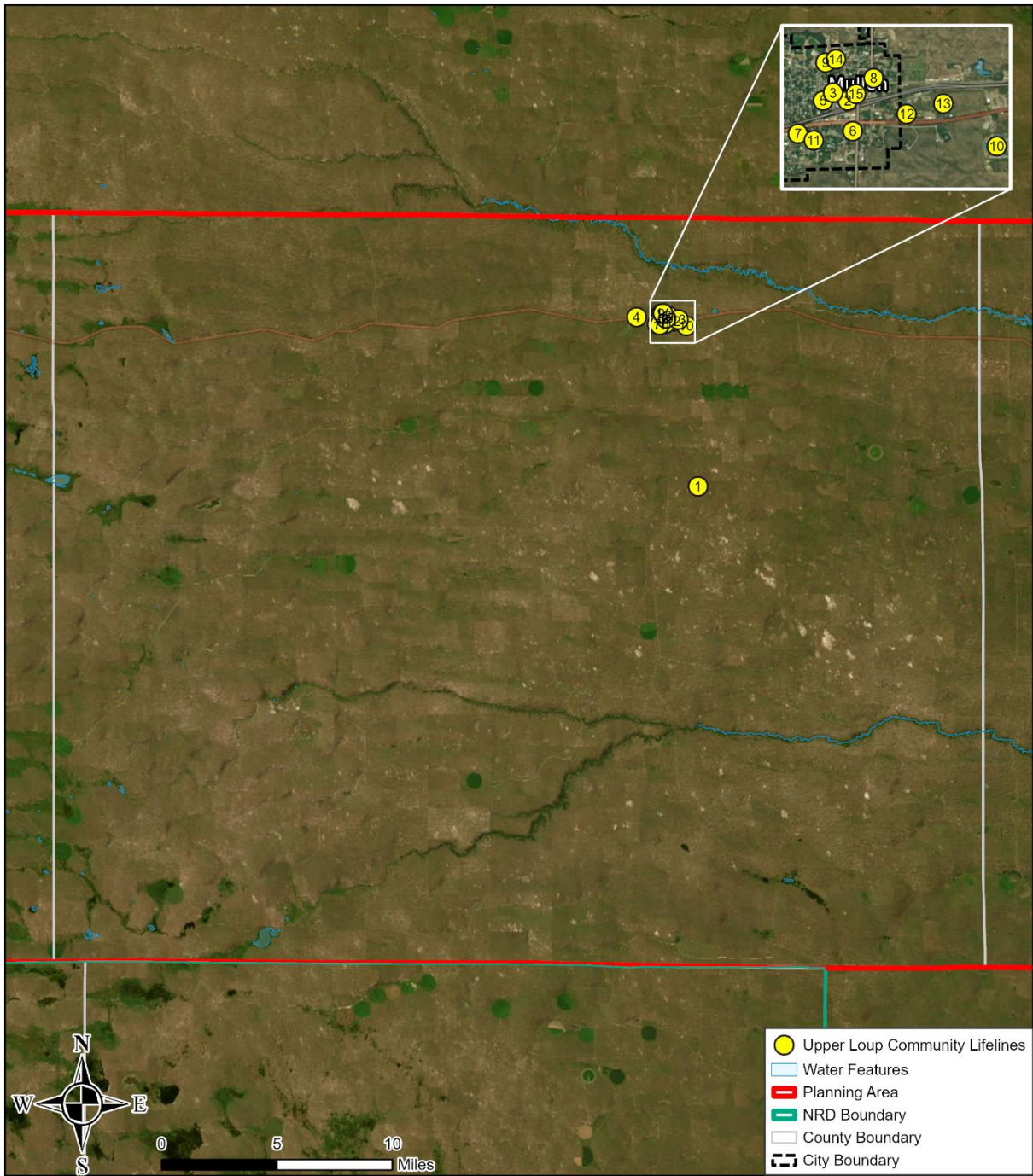
SECTION SEVEN: HOOKER COUNTY PROFILE


#	Lifelines	Name	Address	Shelter	Generator
11	Food, Water, Shelter	St. Mary's Church	302 S Blaine Ave	Yes	No
12	Transportation	State Maintenance Shop	S 1 st St	No	No
13	Energy	Sub-station	1.5 mi east of Mullen, NE	No	No
14	Health and Medical	Great Plains Family Health/Sandhills Family Medicine	207 NW 4 th St	No	No
15	Food, Water, Shelter	Macke's Grocery	102 NW 1 st St	No	No

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there no chemical storage sites in unincorporated Hooker County which house hazardous materials. The local planning team identified one fertilizer plant located in unincorporated Hooker County; however, chemicals stored here are minimal. The Mullen Volunteer Fire Department is trained in HazMat Operations with limited gear available. The nearest higher-level HazMat team is located in North Platte roughly 75 miles away.

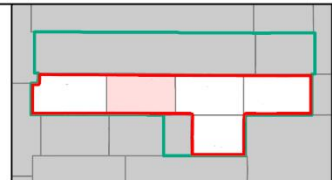
Critical Facilities




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 Date: 12/20/2023
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Hooker County

Upper Loup NRD
Hazard Mitigation Plan 2024



Capability Assessment

The planning team assessed Hooker County's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

	Survey Components/Subcomponents	Yes/No
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	Yes, 2005
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operational Plan	Yes, 2020
	Floodplain Management Plan	No (no floodplains)
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	None
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	Yes
	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes, FD & Sherriff's Office
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
Other (if any)		

Survey Components/Subcomponents		Yes/No
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes (Volunteer fire department, Emergency Manager)
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (Volunteer Fire Department)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Overall Capability	2019 Plan	2024 Plan
Does your county have the financial resources need to implement mitigation projects?	Limited	Limited
Does your county have the staff/expertise to implement projects?	Moderate	Moderate
Does your county have the community support to implement projects?	Moderate	Moderate
Does your county staff have the time to devote to hazard mitigation?	Moderate	Moderate

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Hooker County is Very Low (0.8). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Hooker County have a Very Low (14.29) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Hooker County have a Very Low (7.48) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the county.

Rural Capacity Index

Components of Index	Hooker County
County is Metropolitan?	No
Has a Head of Planning?	No
Has a College or University?	No
Adults with Higher Education:	26%
Families Below Poverty Level:	2%
Households with Broadband:	73%
People without Health Insurance:	5%
Voter Turnout:	74%
Income Stability Score (0 to 100):	31
Population Change (2000 to 2019):	24
Overall Rural Capacity Index Score	Low Capacity 42 out of 100

Source: Headwaters Economics

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plan

The Hooker County Local Emergency Operations Plan (LEOP) was last updated in 2020 and is currently being updated with an estimated completion date of 2025. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that would require evacuation; identifies sheltering locations; and provides clear assignment of responsibility during an emergency. Several departments are familiar with the County LEOP including fire departments, county officials, Village of Mullen officials, and EMS personnel.

Hooker County Comprehensive Plan

Hooker County's Comprehensive Plan was last updated in 2001 and was anticipated to be updated in 2021. However, due to limited capacity during 2021-2022 due to COVID, this update was delayed. Hooker County's Zoning Ordinance was last updated in 2005 and includes subdivision regulations. The zoning ordinance includes wind tower regulations as of December 2016, but should be updated to prohibit development in the floodplain or high hazard areas.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Western Sandhills Community Wildfire Protection Plan (CWPP), which includes Hooker County in October 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The Mullen Fire Department identified the Dismal River and Middle Loup River valleys as being of particular concern. These valleys are rugged, steep, and in some areas heavily timbered, with very little or no access. The Sandhills Golf Club clubhouse and cabins sit on the north fork of the

Dismal River with only golf cart paths for access. It is heavily timbered around the cabins and clubhouse. The Dismal River Golf Club is in a remote area with a large fuel load surrounding the premises and clubhouse. The major issues are multiple structures, difficult access, rough terrain, one way in and out, heavy fuels, and lack of water within an effective distance. The Village of Mullen has high home density and infrastructure at risk.

Annual Budget

The local Planning Team indicated the annual municipal budget has some flexibility to address issues as they arise; however, the local planning team noted that inflation has strained the local budget and the county will be working to build in additional cushion for an emergency fund. The village used ARPA funds to improve some maintenance structures for equipment storage.

National Flood Insurance Program

The county does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for Hooker County.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Hooker County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	7	25 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$0	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	1	\$500,000	\$0	
	Flood	0	\$0		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$6,825		
Severe Thunderstorms	Hail	179	\$662,500	\$0	
	Heavy Rain	1	\$0		
	Lightning	1	\$3,000		
	Thunderstorm Wind	58	\$88,000		

SECTION SEVEN: HOOKER COUNTY PROFILE

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Severe Winter Storms	Blizzards	10	\$80,000	\$0	
	Heavy Snow	5	\$5,000		
	Ice Storms	0	\$0		
	Winter Storms	45	\$282,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	22	\$1,000	\$0	
	Tornadoes	8	\$5,000	\$0	
Wildfire		74	19,012 acres	\$13,400	1 home threatened; 1 structure threatened
Total		417	\$2,633,325	\$13,400	1 home threatened; 1 structure threatened

The following section expands on the hazards of top concern identified by Hooker County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Drought

Drought is a periodic occurrence across the state and planning area. Agriculture is a primary economic driver in the County and long-lasting droughts would greatly impact this industry. Compounded with drought, wildfire is also of greater concern with reduced water supplies and highly flammable landcover. Drought events in 2006 and 2012 significantly impacted the region with losses for local producers and wildfire activity substantially increased. County roads in 2012 deteriorated due to extreme dry conditions. Precipitation in the spring and early summer is particularly important for ranchers in the county to produce feed for livestock. The County has a drought response plan and works with the ULNRD to monitor water levels. The county is working with the Village of Mullen to evaluate backup water options during periods of shortage. This may include both potable water for people to drink and backup agricultural water stores.

Mitigation Actions

MITIGATION ACTION	WATER STORAGE AND CONTINGENCY PLAN
DESCRIPTION	Villages and cities can evaluate and locate new sources of groundwater to ensure adequate supplies to support the existing community and any additional growth which may occur. Develop additional water storage alternatives.
HAZARD(S)	Drought
ESTIMATED COST	\$25,000+
FUNDING	General Funds, SRF
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Hooker County Emergency Management, Village of Mullen

MITIGATION ACTION	WATER STORAGE AND CONTINGENCY PLAN
STATUS	This project has not yet been started. The Village and County have begun the conversation to identify a secondary water source for residents.

Grass/Wildfires

Grass/wildfires are particularly devastating across the County and planning area as the local economy is heavily dependent on the agriculture sector. Grass/wildfires occur on an annual basis and destroy rangeland crucial for livestock, typically from either lightning strikes or vehicles. The local planning team indicated fire fighting equipment may come from hundreds of miles away in order to respond to widespread events. Grass/wildfires in 1972, 1999, 2000, 2006, 2021, and 2022 burned significant tracts of land throughout the area. Lightning strikes are a common cause of wildfires, which can also be exacerbated by drought conditions and high winds. The Mullen Volunteer Fire Department protects over 1.2 million acres, but has limited capacity due to a dwindling roster. The county maintains a mutual aid agreement and asset list to assist the local volunteer fire department. The local planning team indicated the county would like to help support local agricultural producers.

Mitigation Actions

MITIGATION ACTION	DEFENSIBLE SPACE AND FUEL LOADS
DESCRIPTION	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train landowners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.
HAZARD(S)	Grass/wildfire
ESTIMATED COST	\$20,000
FUNDING	HMGP, NFS, USFS, ULNRD, NGPC, Rural Fire Assistance, General Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Hooker County Emergency Management, Mullen Fire Department
STATUS	Hooker County and Village of Mullen are currently in the process of creating and sharing community education materials. The local planning team noted there is very limited capacity to enforce this action.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and the planning area. They have caused damage to property, crops, and livestock due to the combination of hail, high winds, heavy rainfall, and lightning strikes. A storm with significant hail in 2000 caused damages to homes in the County and in May of 2005 significant damages occurred to rangelands in the southern half of the county. A severe thunderstorm with lightning strikes caused \$3,000 in damage in Mullen in 2014 and killed two cows. A June 2015 hailstorm did major damage to local golf clubs and rangelands which impacted the local economy. Severe storms in the summer of 2022 caused pea to golf ball sized hail and led to tree and property damages. There is concern that high winds can damage cell towers in the County. The Hooker County Emergency Manager indicated no

buildings have hail resistant building materials. Weather radios have been distributed to critical facilities, but only the Fire Hall in Mullen has a back up generator.

Mitigation Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
HAZARD(S)	Tornadoes, high winds, severe winter storms, severe thunderstorms
ESTIMATED COST	\$1,500,000 -\$2,000,000
FUNDING	Local Sinking Funding; possibly a bond, General Funds
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Hooker County Emergency Management, Village of Mullen
STATUS	This project has not yet been started.

Severe Winter Storms

Severe winter storms include heavy snow, blowing and drifting snow, and ice accumulation which can close major transportation routes, strand motorists, cause power outages, damage property, and kill livestock. A severe winter storm on April 13, 2018 had 15 inches of snow with wind gusts up to 70 mph and caused highways to be closed throughout the county. The local planning team emergency responders indicated resources were stretched during this storm and the local communities suffered high deaths amongst young livestock. Few power lines are buried throughout the county with concerns existing about prolonged power outages for residents and schools. Since the nursing home in Mullen closed, some residents moved aging residents back home or to neighboring communities. A local concern during severe winter storms with either power outages or blocked transportation routes exist from the population that needs caretaking. The Assembly of Church operates a food bank for residents which the local schools run food drives to fill or local farmers donate to the community freezer. The local planning team indicated local snow removal resources are sufficient between the Hooker County Roads Department, Village of Mullen Utilities, and the Nebraska Department of Transportation yard in Mullen.

Mitigation Actions

MITIGATION ACTION	WINDBREAKS AND SNOW FENCE
DESCRIPTION	Install or plant living snow fences/construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closures. Snow fences also act as windbreaks and increase water storage capacity in soil.
HAZARD(S)	Tornadoes and High Winds, Severe Winter Storms
ESTIMATED COST	\$2,000+
FUNDING	ULNRD, NRCS, FST, Nebraska Game and Parks Commission, General Funds
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Hooker County, Upper Loup Natural Resources District
STATUS	In Progress. The ULNRD assists landowners and the County install living snow fences.

Tornadoes and High Winds

High winds are common across the planning area and can cause damage to homes and infrastructure. The local planning team is particularly concerned with damages to power lines and cell towers which cause prolonged power outages and disrupt communications. High winds also contribute to the spread of grass/wildfires, another common hazard throughout the planning area. Community shelter locations are located in the Village of Mullen and include local church basements and the basement of the County Courthouse. Many residents either have or live near neighbors with basements. The County has a text alert system to notify emergency responders and residents of hazardous weather but there is a need to continue education efforts for CodeRed notifications.

Mitigation Actions

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	\$15,000	
FUNDING	HMGP, Bonds, General Funds	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Hooker County Sheriff, Village of Mullen	
STATUS	The County identified the need to update the relay system for alerts.	

MITIGATION ACTION		STORM SHELTER/SAFE ROOMS
DESCRIPTION	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit	
FUNDING	Village of Mullen funds, perhaps with contributions from Mullen Public Schools and the County, BRIC, HMGP	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	Hooker County Emergency Management, Village of Mullen	
STATUS	No formal locations have been determined for storm shelters. Potential locations include: Mullen Public Schools, Village Office, Fire Hall, or Community Center	

Other Mitigation and Capacity Building Actions

MITIGATION ACTION		UPDATE COMPREHENSIVE PLAN
DESCRIPTION	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.	
HAZARD(S)	All hazards	
ESTIMATED COST	\$10,000	
FUNDING	General Funds	
TIMELINE	5+ years	
PRIORITY	Low	

MITIGATION ACTION		UPDATE COMPREHENSIVE PLAN
LEAD AGENCY	Hooker County	
STATUS	This project has not been started. No timeline is currently set.	

Completed Mitigation Actions

MITIGATION ACTION		IMPROVE WARNING SYSTEMS
DESCRIPTION	Improve/implement city cable TV interrupt warning system and telephone interrupt system such as Reverse911.	
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms, grass/wildfire	
STATUS	Complete – this action is addressed through CodeRed. There is no local TV channels.	

MITIGATION ACTION		IMPROVE/PROVIDE FACILITIES FOR VULNERABLE POPULATIONS
DESCRIPTION	Evaluate vulnerable population or placement of vulnerable populations throughout the community. Ensure facilities which house vulnerable populations are placed in the least vulnerable areas of the community. Reinforce existing facilities housing vulnerable populations if unable to relocate.	
HAZARD(S)	All Hazards	
STATUS	Completed – most vulnerable population center (Mullen Nursing Home) closed. Have a signed agreement with Area Agency on Aging to help address these issues.	

MITIGATION ACTION		EMERGENCY COMMUNICATION
DESCRIPTION	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Develop/improve/implement Emergency Communication Action Plan. Establish inner-operable communications. Provide equipment such as satellite telephones and radios.	
HAZARD(S)	All Hazards	
STATUS	Completed – done as part of County LEOP. Have updated to the statewide radio system and have a VHF as a backup for dead spots in the dismal river valley.	

Removed Mitigation Actions

MITIGATION ACTION		WATER STORAGE
DESCRIPTION	Develop additional water storage alternatives.	
HAZARD(S)	Drought, Grass/Wildfire	
STATUS	Removed – combined to be part of Contingency Plan	

MITIGATION ACTION		HAIL RESISTANT BUILDING MATERIALS
DESCRIPTION	Provide information related to hail resistant building materials to individuals constructing new buildings	
HAZARD(S)	Hail, severe thunderstorms, severe winter storms	
STATUS	Removed – not a priority for the county at this time.	

MITIGATION ACTION		TREE REMOVAL EQUIPMENT
DESCRIPTION	Provide for equipment to remove hazardous trees.	
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms	
STATUS	Removed - This was identified as no longer a need or priority for the county.	

MITIGATION ACTION		BURY POWER AND SERVICE LINES
DESCRIPTION	Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
STATUS	Removed – the county noted the responsibility for this action falls on the PPDs.	

VILLAGE OF MULLEN COMMUNITY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Mullen Local Planning Team

Name	Title	Jurisdiction	Engagement
Josh Barnes	Board Chairperson	Village of Mullen	Attended one-on-one meeting
Tony Corbin	Utilities Superintendent	Village of Mullen	Assisted with materials development and review
Deb Daly	Village Clerk	Village of Mullen	Attended one-on-one meeting
Tyler Cash	Fire Department	Village of Mullen	Attended one-on-one meeting
Tanner Chris	Board Member	Village of Mullen	Attended one-on-one meeting
Dan Daly	Fire Department	Village of Mullen	Attended one-on-one meeting
Shelby Ridenour	Board Member	Village of Mullen	Attended one-on-one meeting
Jessica Cash	Deputy Village Clerk	Village of Mullen	Attended one-on-one meeting
Devin Polp	Board Member	Village of Mullen	Attended one-on-one meeting
Chad Myers	Board Member	Village of Mullen	Attended one-on-one meeting

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Mullen has a five-member board and the following office which may be involved in implementing hazard mitigation initiatives:

- Village Clerk
- Fire Department
- Utilities Superintendent
- Maintenance Staff
- Water Operator
- Sewage Plant Operator

Plan Maintenance

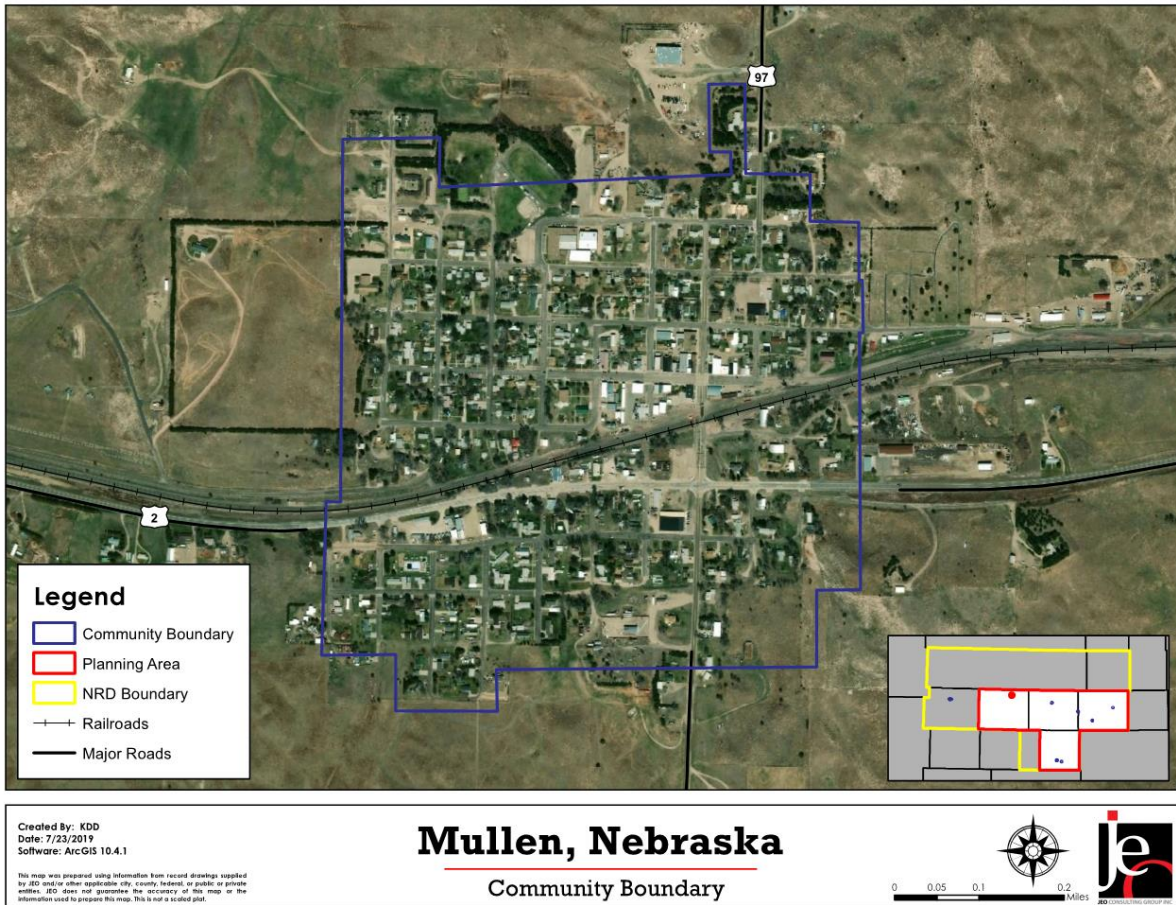
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the Village Clerk, Utility Superintendent, and the Village Board who will review the plan annually, likely during the review of the annual budget. The public will be notified of the plan review and revision through a public notice for board meetings, posts on the village social media, and posts at local community hubs such as the post office and gas station.

Location and Geography

The Village of Mullen is located in the north central portion of Hooker County and covers an area of 0.47 square miles. The Village is south of the Middle Loup River. The Village of Mullen is the county seat for Hooker County.

Village of Mullen

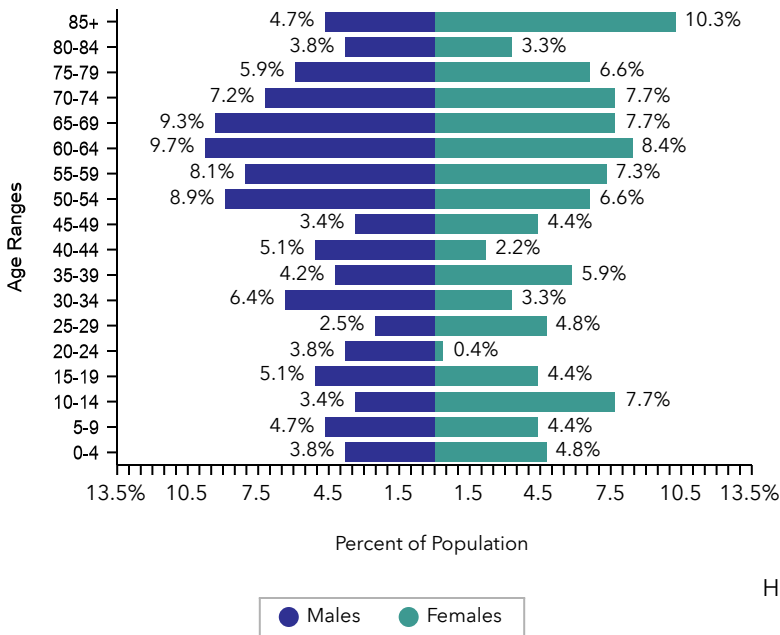


Community Summary Fact Sheet

Mullen Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

509	230	2.10	55.1	\$50,267	\$95,833	60	309
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	509
2020 Total Population (U.S. Census)	500
2010 Total Population (U.S. Census)	518
2000 Total Population (U.S. Census)	551

AT RISK POPULATION



51

Households With Disability



170

Population 65+



12

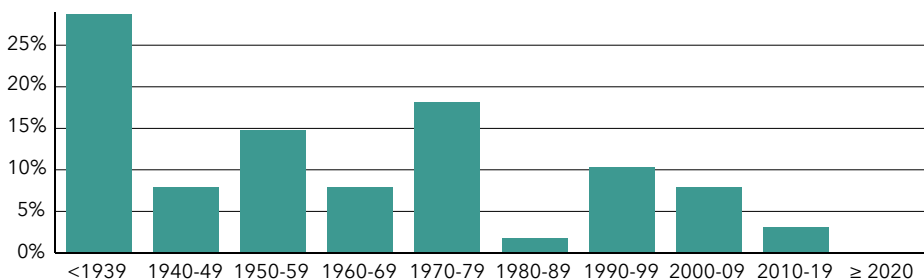
Households Without Vehicle



5%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



1%

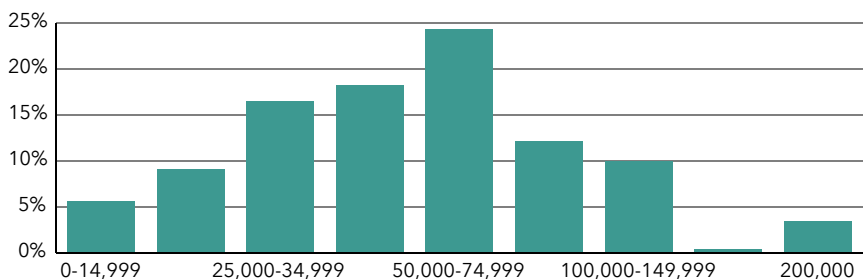
Workers Who Took Public Transportation



0%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Mullen's population has declined steadily over the past decades (551 in 2000, 518 in 2010, and 500 in 2020 census). The local planning team attributed the population decline to an aging population, limited available housing stock, and a lack of employment options. Mullen is the largest population center in Hooker County.

Housing

The housing stock in Mullen is relatively limited. Several homes in the past five years have been demolished as they were dilapidated, but four new duplex apartments have been built in town. Two are located by Main Street and two are near the community swimming pool. There are currently no plans for additional apartments to be built. The vast majority of homes in Mullen were built prior to 1940. The housing stock in Mullen is very limited and provides inadequate opportunity for future growth or development.

Employment

The Sandhills Golf Course and Mullen Public Schools are the largest employers in the Village of Mullen. Many other residents work in the agriculture sector in the surrounding area. Some residents may commute to Thedford for work.

Transportation

Mullen's major transportation corridors include Nebraska Highway 97 which averages 485 vehicles per day, and Nebraska Highway 2 which averages 780 vehicles per day. Since 2019 Highway 97 between Mullen and Tryon was resurfaced. A Burlington Northern Santa Fe rail line runs through the village and the Hooker County Airport is located in Mullen. The railroad commonly transports hazardous materials including coal, oil, and waste products through town. No derailments have occurred in Mullen, but it remains a concern for the community.

Future Development Trends

The Village of Mullen has experienced several changes over the past five years. A handful of small businesses have grown in the community including a new embroidery shop, Reynolds Mercantile, and a remodeled gas station/convenience store. The nursing home in Mullen closed since 2019. Several homes in Mullen have been demolished since 2019 and four new apartment duplex buildings have been built. The local planning team also indicated that mobile homes are located throughout the community.

In the next five years the village does not anticipate any additional homes being built or demolished. It is unknown if any additional businesses are anticipated to move to town in the next five years. The local planning team indicated the local population is declining or holding relatively stable which is attributed to an aging population, lack of housing, and lack of job opportunities. Of note, the aging population in the village bequeaths homes which remain in the family, but may not be used year-round, which ties up potentially available housing. While expanding along the edges of the village has been discussed, much of the land is privately owned already.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

NUMBER OF PARCELS	Number of Improvements	Total Improvement Value
1,077	406	\$29,229,820

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



Critical Facilities

#	Lifeline	Name	Address	Shelter	Generator
1	Food, Water, Shelter	Assembly of God Church	208 NW 1 st	Yes	No
2	Communications	Cell Tower	North Hwy 97	No	No
3	Food, Water, Shelter	Community Center	36530 Fairgrounds Rd	Yes	No
4	Other	Day Care #1 New	203 N Grant Ave	No	No
5	Other	Day Care #2	404 NW 1 st St	No	No
6	Safety and Security	Fire Department	501 SW 1 st	No	No
7	Energy	Diesel Station	202 SW 1 st	No	No
8	Energy	Gas Station /Convenience Store	102 SW 1 st	No	No
9	Health and Medical	Sandhills Family Medicine	207 NW 4 th St	No	No
10	Food, Water, Shelter	Lariat Auditorium	206 S Washington	Yes	No
11	Food, Water, Shelter	Macke’s Grocery	104 NW 1 st	No	No

SECTION SEVEN: VILLAGE OF MULLEN PROFILE

#	Lifeline	Name	Address	Shelter	Generator
12	Other	Methodist Church	304 N Veteran Ave	No	No
13	Food, Water, Shelter	Mullen School	Grade 106 NW 2 nd	Yes	No
14	Other	Mullen School	High NW 4 th St	No	No
15	Energy	Power Substation	Hwy 2 and Kraye	No	No
16	Food, Water, Shelter	Public Library	102 N Cleveland Ave	Yes	No
17	Food, Water, Shelter	St. Mary's Church	302 S Blaine Ave	Yes	No
18	Safety and Security	Village Office/Alert Siren	111 NW 1 st	No	No
19	Food, Water, Shelter	Water Tower	South Hwy 97	No	No
20	Food, Water, Shelter	Well Pump #1	103 N Cleveland Ave	No	Yes
21	Food, Water, Shelter	Well Pump #2	NE 3 and NE Ave	No	Yes
22	Food, Water, Shelter	Well Pump #3	303 SW 2 nd	No	Yes
23	Food, Water, Shelter	Well Pump #4	402 N Cleveland	No	Yes
24	Food, Water, Shelter	Lagoons	E Highway 2	No	No

Chemical Storage Fixed Sites

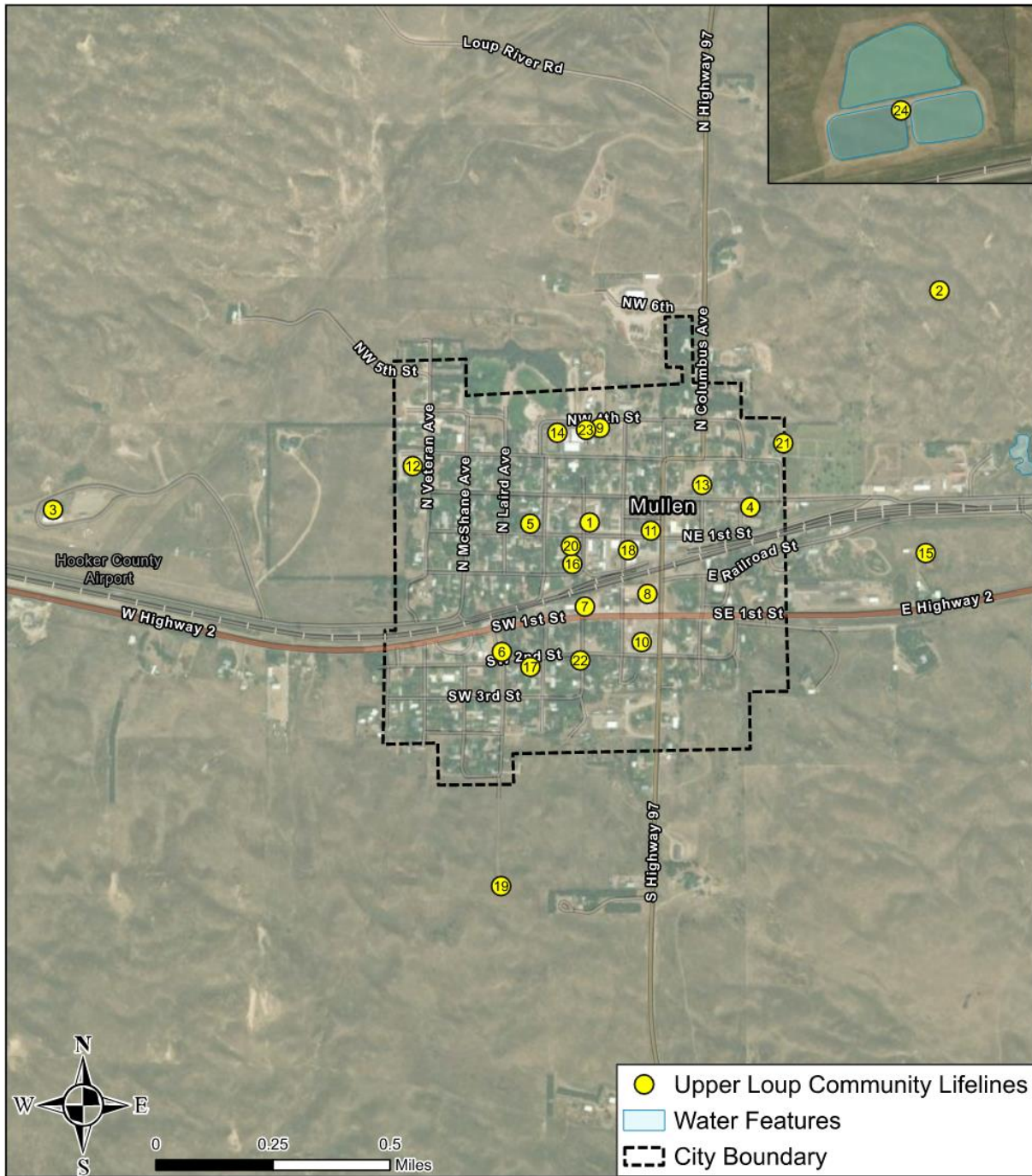
According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are three chemical storage sites in Mullen that contain hazardous chemicals. Two facilities are located along major transportation routes. The planning team indicated that if chemical spills were to occur they may cause road closures along these main corridors. No chemical spills have occurred in the planning area.

Chemical Storage Fixed Sites

Facility Name	Address
K S Plus Inc	202 SW 1st St
NDOT Mullen Yard	402 SE 1st St
Neal Oil & Auto Center Inc	E Railroad St

Source: Nebraska Department of Environmental Quality

Critical Facilities



	<p>Created By: NS Date: 12/19/2023 Software: ArcGIS Pro 3.1.2 File: R211218.00</p> <p>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</p>	<h2>Village of Mullen</h2> <hr/> <p>Upper Loup NRD Hazard Mitigation Plan 2024</p>	
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Capability Assessment

The planning team assessed the Village of Mullen’s hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

<i>Survey Components/Subcomponents</i>	<i>Yes/No</i>	
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	Yes, 2023
	Capital Improvements Plan	Yes, 2023
	Economic Development Plan	No
	Emergency Operational Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes, 2023
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	Yes, 2015 IBC
	National Flood Insurance Program	Yes (Emergency Program)
	Community Rating System	No
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes (County)
	Civil Engineering	Yes
	Local Staff Who Can Assess Community’s Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	Yes
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
Other (if any)		

Survey Components/Subcomponents		Yes/No
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (County and NRD)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Overall Capability	2019 Plan	2024 Plan
Does your community have the financial resources need to implement mitigation projects?	Moderate	Limited
Does your community have the staff/expertise to implement projects?	Moderate	Moderate
Does your community have the community support to implement projects?	Moderate	Moderate
Does your community staff have the time to devote to hazard mitigation?	Moderate	Moderate

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Hooker County is Very Low (0.8). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Hooker County have a Very Low (14.29) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Hooker County have a Very Low (7.48) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the Village of Mullen compared to the county.

Rural Capacity Index

Components of Index	Village of Mullen	Hooker County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	28%	26%
Families Below Poverty Level:	4%	2%
Households with Broadband:	73%	73%
People without Health Insurance:	5%	5%
Voter Turnout:	74%	74%
Income Stability Score (0 to 100):	13	31
Population Change (2000 to 2019):	-14	24
Overall Rural Capacity Index Score	Low Capacity 42 out of 100	Low Capacity 42 out of 100

Source: Headwaters Economics

Plans and Studies

There are several planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

Mullen has an annex to the Hooker County Local Emergency Operations Plan (LEOP), last updated in 2020. The LEOP is currently being updated with an estimated completion date of 2025. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that would require evacuation; identifies sheltering locations; and provides clear assignment of responsibility during an emergency.

Zoning Ordinance

Mullen's Zoning Ordinance is currently under review and revision as of 2023. The zoning ordinance includes natural hazard layers but should include revisions to limit or prohibit development in high hazard areas.

Comprehensive Plan

Mullen's Comprehensive Plan is currently under review and revision as of 2023. The plan discusses natural hazards of top concern to the Village including winter storms, thunderstorms, and drought. Goals identified in the Comprehensive Plan are consistent with those identified in this HMP. The Comprehensive Plan also encourages infill development.

Wellhead Protection Plan

Mullen's Wellhead Protection Plan was approved October of 2011 and includes a map and table of potential contaminant sources found within the wellhead protection area. Additionally, there are signs in the community to alert community members of the area, a zoning ordinance is in place for a wellhead protection district, and Mullen has a Water Drought Emergency Ordinance in place for water restrictions.

Annual Budget

The local Planning Team indicated the annual municipal budget is very limited in its capacity to pursue new projects. Any available funds are currently earmarked for a large scale water and electrical project which the village has applied for State Revolving Funds to facilitate.

National Flood Insurance Program

The Village of Mullen participates in the NFIP as part of the Emergency Program, but does not maintain other floodplain management activities. There are no current policies in force or coverage for the Village of Mullen (as of September 2023). Flooding is not a hazard of concern for Mullen. At this time the village does not anticipate joining the NFIP.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Mullen which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	7	25 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$0	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	1	\$500,000	\$0	
	Flood	0	\$0		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$6,825		
Severe Thunderstorms	Hail	179	\$662,500	\$0	
	Heavy Rain	1	\$0		
	Lightning	1	\$3,000		
	Thunderstorm Wind	58	\$88,000		
Blizzards		10	\$80,000	\$0	

SECTION SEVEN: VILLAGE OF MULLEN PROFILE

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Severe Winter Storms	Heavy Snow	5	\$5,000		
	Ice Storms	0	\$0		
	Winter Storms	45	\$282,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	22	\$1,000	\$0	
	Tornadoes	8	\$5,000	\$0	
Wildfire		74	19,012 acres	\$13,400	1 home threatened; 1 structure threatened
Total		417	\$2,633,325	\$13,400	1 home threatened; 1 structure threatened

The following section expands on the hazards of top concern identified by the Village of Mullen. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Extreme Temperatures (Heat)

Extreme heat is a concern for the local planning team due to loss of power and impacts on residents. In 2006 during a high heat event power to the Village was shut off from Custer Public Power District due to an overloaded system. Loss of air conditioning and power is a concern for children at local schools. There are no community cooling centers with a backup generator. The local planning team indicated that extreme heat also impacts the agricultural sector which the local economy is heavily tied to.

Mitigation Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
HAZARD(S)	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$40,000
FUNDING	Sinking Fund (\$100,000 over 10 years)
LOCATION	Village Office
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	In Progress. The Mullen County Sheriff and Emergency Manager has applied for grant funding to assist in this project. A backup generator

MITIGATION ACTION	BACKUP GENERATORS
	has been purchased to run the wells, one is needed for the village office.

MITIGATION ACTION	WATER SYSTEM IMPROVEMENTS
DESCRIPTION	Make water system improvements to effectively fight fires and meet increasing demands. Update/improve water distribution system or storage to improve water system for emergency use. (may include identifying and replacing leaky pipes, assisting residents in identifying inefficiencies, improving existing infrastructure, etc.)
HAZARD(S)	Grass/wildfire, Severe Thunderstorms, Drought
ESTIMATED COST	\$30,000
FUNDING	General Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village lagoons need new piping and higher walls and/or dredged to increase capacity.

MITIGATION ACTION	WELL IMPROVEMENTS
DESCRIPTION	Improve community well system.
HAZARD(S)	Grass/wildfire, Drought, Extreme Temperatures, Severe Thunderstorms
ESTIMATED COST	Unknown
FUNDING	General Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	Two wells need booster pumps – built into large water project the Village is currently working to secure funding for. This will include replacing lines and valves in the northern part of town to address pressure issues.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and have caused damage to property and agriculture. Severe thunderstorms include impacts from heavy rain, lightning, hail, and strong winds. The local planning team indicated hail events in 2000, 2002, 2005, and 2015 caused damages to homes, vehicles, and other property throughout the community. Power failure, potential wildfire from lightning strikes, and damages to property, agriculture, power lines, communication towers are identified concerns regarding severe thunderstorms for the Village. Shelter locations are located in the library, Catholic church, and Methodist church and the village office has surge protectors to protect municipal records. Municipal wells have portable generators in the case of power outages, but no other facilities in the village have generators. Three of the four well pumping stations in town have hail resistant building materials. The Village has replaced a number of broken or old power poles to mitigate power line damage from storms and is working towards a large scale electrical improvement project.

A 2002 hail storm stripped leaves from trees and other vegetation. Heavy precipitation affiliated with the storm flooded local roads where the vegetation had clogged the stormwater system. A

severe thunderstorm in 2015 had a lighting strike blow out the water tower tank control panel. Municipal wells had to be turned on manually in order to maintain appropriate pressure in the water tower. A new cellphone-based system has been installed to address this scenario. A significant hail event on Father’s Day in 2015 caused structural damages to homes, blocked roads, killed plants and trees, and shut down the Sandhills Golf Course for four days. The golf course is a major employer and tourism for the local economy.

Mitigation Actions

MITIGATION ACTION		DRAINAGE IMPROVEMENTS
DESCRIPTION	The jurisdiction utilizes stormwater systems comprising of ditches, culverts, and drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Drainage ponds, both retention and detention, may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.	
HAZARD(S)	Flooding, Severe Thunderstorms	
ESTIMATED COST	\$1 million	
FUNDING	General Funds	
LOCATION	Village Drop-off Site	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	Village Board	
STATUS	The Village is currently pursuing funding options for a large-scale water improvement project. This would include upsizing the water mains, improving drainage, replacing aging or cracked pipes, and improvements to the pump stations to increase water pressure across the village.	

Severe Winter Storms

The Village of Mullen experiences severe winter storms every year which stretch local resources. Concerns from severe winter storms include power loss from downed or damaged power lines, property damage, and spring storms which impact calving season. Young calves are especially vulnerable to cold temperatures and heavy snow accumulation. The area experienced a heavy snow storm in December 2018 which killed hundreds of calves from exposure and suffocation under snow drifts. The local planning team indicated no facilities in town have backup generators and no power lines are buried. Snow removal resources are aging and insufficient. There are no designated snow routes, but the Village does have designated parking areas to facilitate snow removal particularly around the nursing home.

Mitigation Actions

MITIGATION ACTION		IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM
DESCRIPTION	As needed, continue to revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include equipment that is needed and paving routes.	
HAZARD(S)	Severe Winter Storms	
ESTIMATED COST	Varies	
FUNDING	General Funds	

MITIGATION ACTION		IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM
TIMELINE		2-5 years
PRIORITY		Medium
LEAD AGENCY		Village Board
STATUS		The Village handles all snow removal in town. A new snow plow is needed.

MITIGATION ACTION		ELECTRICAL SYSTEM LOOPED DISTRIBUTION/REDUNDANCIES
DESCRIPTION		Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails.
HAZARD(S)		Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms
ESTIMATED COST		\$1.3 million
FUNDING		HMA, General Funds
TIMELINE		2-5 years
PRIORITY		High
LEAD AGENCY		Village Board
STATUS		Village is currently working to secure funding to make electrical improvements. Upgrades are needed on electrical service materials, specifically power poles. This may include burying lines or reinforcing existing power lines.

Tornadoes and High Winds

High winds are a common occurrence in the Village and across the planning area. Concerns from high winds exist regarding damages to trees, roofs, power lines, and the spread of grass/wildfire. Stripped leaves and vegetation from trees can fill ditches and the stormwater sewer, preventing appropriate drainage from heavy rains. Several trees located at north 2nd St and McShane, 3rd St and S Blaine, and 3rd and Grant need removed to reduce hazard potential. The local planning team indicated residents burn materials during high wind days, causing wildfires to spread. Damages to power lines can cause prolonged power outages to the community. The Hooker County Sheriff’s office and Region 26 Emergency Management provide a CodeRed emergency alert system, but residents must sign up to receive alerts.

Mitigation Actions

MITIGATION ACTION		STORM SHELTER/SAFE ROOMS
DESCRIPTION		Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.
HAZARD(S)		Tornadoes, high winds, severe thunderstorms, severe winter storms
ESTIMATED COST		\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
FUNDING		HMGP, BRIC, Village and County General Funds
TIMELINE		2-5 years
PRIORITY		Medium
LEAD AGENCY		Village Board; County Commission
STATUS		This project has not yet been started.

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION	
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.		
HAZARD(S)	All hazards		
ESTIMATED COST	\$500+		
FUNDING	Village and County funds		
LOCATION	Village of Mullen and surrounding areas		
TIMELINE	5+ years		
PRIORITY	Low		
LEAD AGENCY	Village Board; County Commission; Sherriff's Office		
STATUS	Education and information shared regarding CodeRed as provided by Region 26 Emergency Management.		

Other Mitigation and Capacity Building Actions

MITIGATION ACTION		RAILROAD CROSSING GUARD	
DESCRIPTION	Install railroad crossing guard at sidewalk crossing.		
HAZARD(S)	Chemical Spill (Transportation)		
ESTIMATED COST	\$150,000-\$200,000		
FUNDING	BNSF Railroad; General Funds		
LOCATION	Railroad crossing at Highway 97		
TIMELINE	2-5 years		
PRIORITY	Medium		
LEAD AGENCY	Village Board		
STATUS	This project has not yet been started and is currently cost prohibitive. There is additional discussion of responsibility by which agency to address this concern – the Village, State, or BNSF		

Other Hazards of Note:

Drought

Of note, much of the local economy for the Village of Mullen is based on the agricultural sector which is susceptible to hazard conditions including drought, extreme temperatures, and severe storms. The drought in 2012 significantly impacted rangeland and pasture by reducing the amount of cattle which could be supported per acre. Water levels in municipal wells and the water tower were severely depleted. Reduced water supply also poses a risk to maintain firefighting supplies throughout the area. The Village has a drought monitoring board and a drought response plan in place, as well as water restrictions which may be imposed on residents or businesses in the case of drought. However, there is little capacity or ability for the Village to pursue additional mitigation actions to address this hazard at this time.

Grass/Wildfire

The Mullen Fire Department is volunteer based with an average of 10-12 people who protect over 1.2 million acres. Grass/wildfires in 1999 and 2012 burned significant tracts of rangelands. A 2011 fire had one fatality in neighboring Cherry County and was declared a Presidentially Declared Disaster. At least 72,000 acres burned, two homes were destroyed, and thousands of cattle died

across the planning area. However, the village has very limited capacity to specifically address wildfire outside of supporting the local volunteer fire department.

Completed Mitigation Actions

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.	
HAZARD(S)	Severe Thunderstorms, Tornadoes and High Winds	
STATUS	Completed – a new siren was installed in 2020.	

Removed Mitigation Actions

MITIGATION ACTION		FIRE WISE DEFENSIBLE SPACE
DESCRIPTION	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train land owners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.	
HAZARD(S)	Grass/wildfire	
STATUS	Removed - This was identified as not a priority or within the ability of the village to pursue at this time.	

VILLAGE OF HYANNIS COMMUNITY PROFILE

Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Hyannis Local Planning Team			
Name	Title	Jurisdiction	2024 Engagement
Allison Ferguson	Village Clerk	Village of Hyannis	Attended one-on-one meeting

Governance

A community’s governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Hyannis has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and can work with the following offices for hazard mitigation projects.

- Village Clerk
- Volunteer Fire Department
- County Sherriff (for law enforcement purposes)

Plan Maintenance

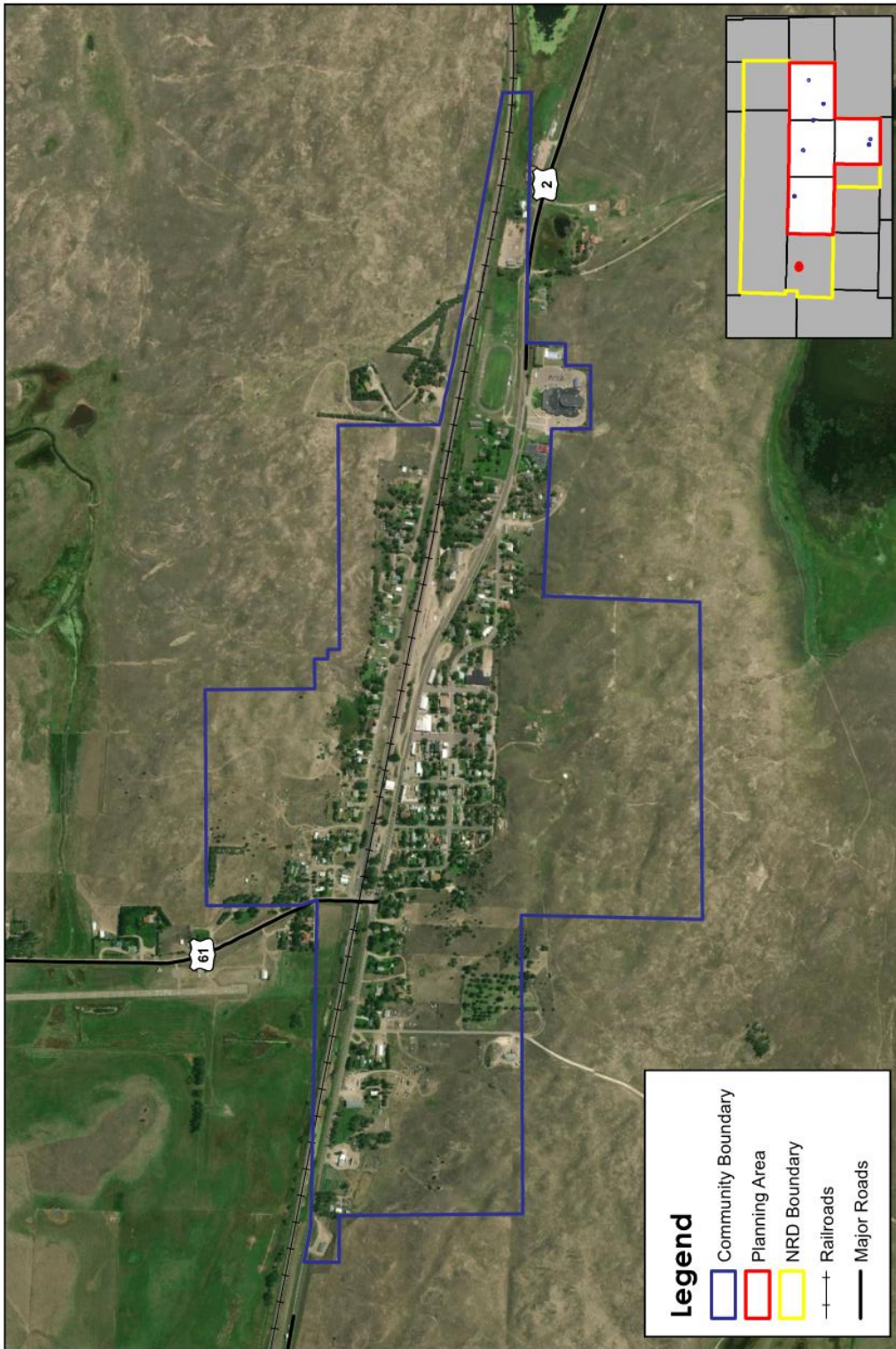
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the Village Clerk and the Village Board who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings.

Location and Geography

The Village of Hyannis is located in central Grant County and covers an area of 0.52 square miles. The Village is surrounded by several lakes including Sears Lake to the west, Frye Lake to the north, and Beem Lake to the east. The Village of Hyannis is the county seat for Grant County. As of fall 2023, the Village was investigating the community boundary as part of negotiating a speed limit ordinance with the State of Nebraska. Pending that final resolution, some land on the east edge of town may not technically be within the village boundary.

Village of Hyannis







Hyannis, Nebraska
 Community Boundary

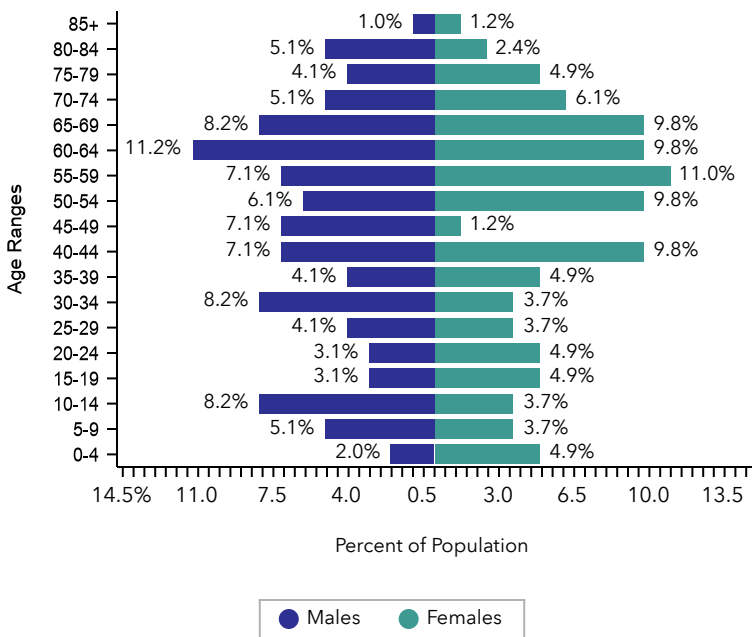
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Community Summary Fact Sheet

Hyannis Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

180	86	2.09	50.7	\$56,823	\$134,375	31	122
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	180
2020 Total Population (U.S. Census)	165
2010 Total Population (U.S. Census)	166
2000 Total Population (U.S. Census)	202

AT RISK POPULATION



21

Households With Disability



43

Population 65+



1

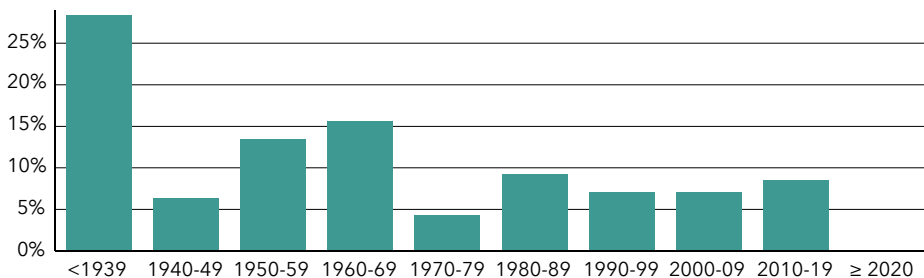
Households Without Vehicle



16%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



0%

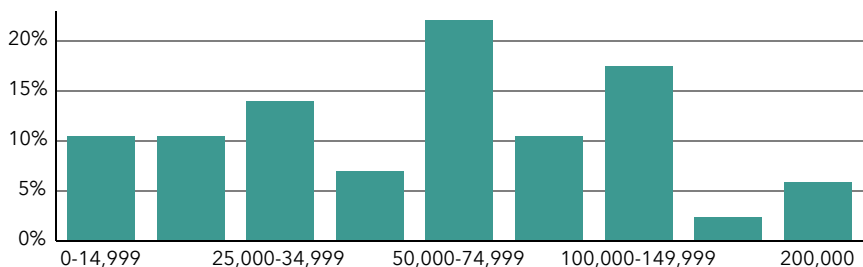
Workers Who Took Public Transportation



3%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



1%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Hyannis's population has remained relatively stable between 2010 and 2020 census estimates (166 vs 165 respectively). The local planning team noted the population is more likely to decline than increase in the coming years. The local planning team attributed this decline to an aging population, lack of housing, and lack of economic development. Overall, declining populations make communities more vulnerable to hazards as it leads to more unoccupied or vacant housing units and decreasing tax revenues to pursue mitigation projects.

Housing

Mobile or single wide trailer homes in the Village are dispersed throughout the community, with several located off of Morton St. The local planning team indicated that many homes are traditional style, but due to age and poor maintenance should be demolished and replaced with new housing. Additionally, homes in the Village are being purchased by local families who may not live in them year-round, reducing the total available housing stock for people looking to move to the community. The housing stock in Hyannis is very limited and provides inadequate opportunity for future growth or development.

Employment

The major employers in the Village of Hyannis include Hyannis Public Schools and Sandhills Oil gas station. Many other residents own and operate ranches in the surrounding areas and others commute to Alliance or Ogallala for work. A Burlington maintenance shop closed in the early 2010's which employed a majority of the Village. After closing, no new businesses moved into the Village and many moved out of town for work.

Transportation

Hyannis's major transportation corridors include Nebraska Highway 61 and Nebraska Highway 2. A Burlington Northern Santa Fe rail line bisects the village and the Grant County Airport is located in the Village. Hazardous materials including fuel, oil, fertilizer, propane, or other flammable materials are regularly transported through the village via highway or rail. In the mid-2000s a coal train derailed and spilled at the crosswalk in town, closing local transportation routes and cutting off access to parts of the Village. The planning team stated that the sandhills area experiences one train derailment per year on average.

The local planning team noted that main streets throughout the village are paved, but alleys and drives are unpaved. The highway between Hooker and Grant Counties has been resurfaced since the 2019 plan which is maintained by the state. The village utilities department is in charge of snow removal. All emergency services and critical facilities are located on the south side of the highway with only one access point to the north side, Highway 61.

Future Development Trends

In the past five years there have been no new residential or commercial developments in the Village. The local planning team indicated that there are currently no new developments planned at this time, but several homes throughout the community need to be demolished and replaced. The village is currently in the midst of a water system improvement project which will include a new water tower.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE
241	194	\$12,409,798

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



Critical Facilities

#	Lifeline	Name	Address	Red Shelter	Cross (Y/N)	Generator (Y/N)
1	Food, Water, Shelter	Village Office	300 S Main St	No		No
2	Transportation	County Shop	S Cemetery Rd	No		No
3	Energy	Gas Station	101 Dellinger Ave	No		No
4	Transportation	Grant County Airport	N Hwy 61	No		No
5	Safety and Security	Grant County Court House	105 Harrison St	No		Yes
6	Food, Water, Shelter	Grocery Store	105 Main St	No		No
7	Safety and Security	Hyannis Fire Station	102 Grant Ave	No		Yes
8	Food, Water, Shelter	Hyannis Schools	332 E NE-2	Yes		No
9	Food, Water, Shelter	Lift Station #1	W of Hwy 61 and Hwy 2	No		No
10	Food, Water, Shelter	Lift Station #2	South Hwy 2	No		No
11	Food, Water, Shelter	Lagoons	Dump Road	No		No

#	Lifeline	Name	Address	Red Shelter (Y/N)	Cross (Y/N)	Generator (Y/N)
12	Transportation	Village Shop	101 S Grant Ave	No		No
13	Food, Shelter	Water, Water Tower	South of town	No		No
14	Food, Shelter	Water, Well #1	S Main St	No		No
15	Food, Shelter	Water, Well #2	E NE-2	No		No

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are two chemical storage sites in Hyannis that contain hazardous chemicals. The local planning team expressed additional concerns about stored oil for the local gas station, Sandhills Oil. Sandhills Oil has a gas station located in town which supplies fuel. Sandhills Oil stores fuel both at its location on Main Street, but also in 4,000 gallon vaults at a location west of town. Tankers are used to transport additional fuel from the storage location to the gas station in town, prompting concerns about spills from either location or during transport of fuel. Sandhills Oil has an Emergency Action Plan with the fire department which is updated annually.

Chemical Storage Fixed Sites

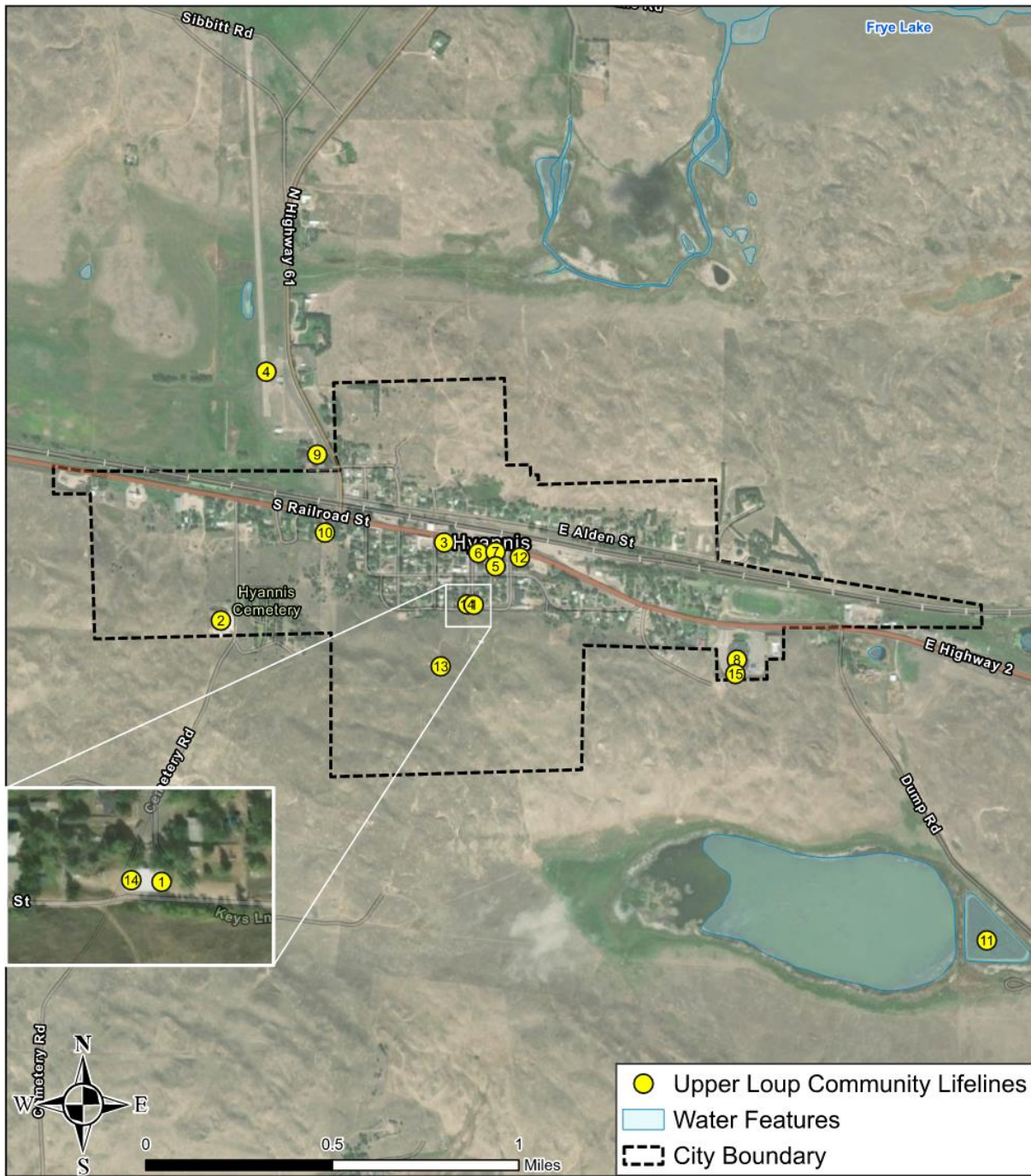
Facility Name	Address	In Floodplain (Y/N)
NDOT Hyannis Yard	401 E Highway 2	N
Grant County Airport	306 N Bal St	N


Source: Nebraska Department of Environmental Quality

Chemical Transportation

Chemical transportation of a top concern for the Village of Hyannis due to the high volume of hazardous chemicals transported through the village via highway and rail. A BNSF rail line bisects the Village and semi-trucks regularly transport hazardous materials through the village. Two train derailments have occurred within Hyannis according to the PHMSA which caused \$5,000 in damages between 2000 and 2023. The village has discussed the possibility of installing a second railroad crossing in the village to provide north-south access; however, to do so would require a joint effort between NDOT, BNSF, and the village. The political climate at this time makes this project unlikely.

Critical Facilities Map



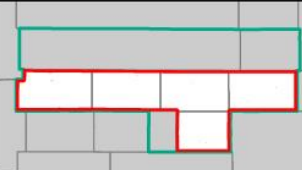


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Village of Hyannis

Upper Loup NRD
Hazard Mitigation Plan 2024



Capability Assessment

The planning team assessed the Village of Hyannis' hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

Survey Components/Subcomponents	Yes/No	
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	Water Emergency Plan
<i>Administrative & Technical Capability</i>	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	Yes (County)
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes (local limit)
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes (obligated for upkeep and Maintenance)
	Development Impact Fees	No
General Obligation Revenue or Special Tax Bonds	No	

Survey Components/Subcomponents		Yes/No
	Other (if any)	Trash Fees
<i>Education & Outreach Capability</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

<i>Overall Capability</i>	<i>2019 Plan</i>	<i>2024 Plan</i>
Does your community have the financial resources need to implement mitigation projects?	Limited	Limited
Does your community have the staff/expertise to implement projects?	Moderate	Limited
Does your community have the community support to implement projects?	High	Moderate
Does your community staff have the time to devote to hazard mitigation?	Moderate	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Grant County, which includes Hyannis, is Very Low (1.27). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Grant County have a Relatively Low (20.53) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Grant County have a Very Low (4.23) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the Village of Hyannis compared to the county.

Rural Capacity Index

Components of Index	Village of Hyannis	Grant County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	25%	28%
Families Below Poverty Level:	2%	9%
Households with Broadband:	74%	77%
People without Health Insurance:	13%	14%
Voter Turnout:	79%	79%
Income Stability Score (0 to 100):	11	24
Population Change (2000 to 2019):	-100	57
Overall Rural Capacity Index Score	Low Capacity 38 out of 100	Low Capacity 40 out of 100

Source: *Headwaters Economics*

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Village of Hyannis has an annex to the Grant County Local Emergency Operations Plan (LEOP). The County LEOP identifies roles and responsibilities during an emergency, hazards of top concern, and sheltering locations. The Village's Water Emergency Plan includes water conservation measures and actions to be taken during periods of drought. The Water Emergency Plan is anticipated to be updated by the end of 2024.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Western Sandhills Community Wildfire Protection Plan (CWPP), which includes Grant County (Hyannis) in October 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is in the area immediately surrounding Hyannis. The Grant County fire chief identified reliable water supply as the primary concern for the district. All of Grant County's population centers and dispersed farms and ranches lie within the WUI.

Annual Budget

The local Planning Team indicated the annual municipal budget is very limited in its capacity to pursue new projects as the village is currently in the midst of a large scale water project. Additionally, with a relatively low tax base and declining population, there are challenges to identify project funding.

National Flood Insurance Program

The Village does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for the Village of Hyannis.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Hyannis which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	14	21 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$0	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	2	\$35,000	\$0	
	Flood	0	\$0		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$4,550		
Severe Thunderstorms	Hail	153	\$208,500	\$0	
	Heavy Rain	0	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	33	\$63,000		
Severe Winter Storms	Blizzards	11	\$40,000	\$0	
	Heavy Snow	4	\$5,000		
	Ice Storms	0	\$0		
	Winter Storms	45	\$0		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	26	\$6,000	\$0	
	Tornadoes	2	\$10,500	\$0	
Wildfire		96	19,263 acres	\$61,588	10 homes threatened, 9 structures threatened

SECTION SEVEN: VILLAGE OF HYANNIS COMMUNITY PROFILE

HAZARD	COUNT	PROPERTY	CROP	OTHER IMPACTS
Total	389	\$1,372,550	\$61,588	10 homes threatened, 9 structures threatened

The following section expands on the hazards of top concern identified by the Village of Hyannis. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Grass/Wildfire

Wildfire is a concern for the Village due to the extremely limited firefighting capacity in the area, the potential impacts on the local economy, and the remote nature of the community. In 2018-2019, the Department of Health and Human Services determined the Village needs a replacement water tower and infrastructure. The current system is not sufficient to meet local needs as some pipes are currently sized two inches in diameter. The local fire department utilizes the same wells and infrastructure to combat both grass/wildfire and urban fires. Additionally new fire hydrants are needed throughout town and repair or replacement of old hydrants, especially along the edges of the village or along the wildland-urban interface (WUI). As of 2023, the village was in the process of bidding for a contractor to address these issues including replacing the water tower, upsizing water mains, and replacing fire hydrants.

Mitigation Actions

MITIGATION ACTION		WATER SYSTEM IMPROVEMENTS	
Description	Produce a map of the municipal water supply system. Replace water tower, install new hydrants, and upsize water mains.		
Hazard(s)	Drought, Wildfire, Severe Thunderstorms		
Estimated Cost	\$2,500,000		
Funding	General Fund, EPA, DHHS		
Timeline	2-5 years		
Priority	High		
Lead Agency	Water Department, Village Board		
Status	Mapping has been done, however missing some locations of abandoned lines which prohibits finding shutoffs of community resident curb stops. Community must replace water tower and upsize water mains to 6” to improve firefighting capacity. Village is in the process of soliciting bids in fall 2023.		

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and have the potential to cause significant damage to property and agriculture. Severe thunderstorms in 2015 caused roof and street damages across the Village. A lightning strike in 2017 damaged the main well and caused it to be out of service. The backup well located by the high school was utilized but cannot support the entire Village for long periods of town. The main well can be hooked up to a tractor for additional power, but neither well has backup generators currently. Residents without access to shelter and the likelihood of power loss are primary concerns from severe thunderstorms.

Mitigation Actions

MITIGATION ACTION		WARNING SYSTEMS – RADIO SIGNALS
Description	Increase coverage of AM/FM radio signals in Hyannis.	
Hazard(s)	All Hazards	
Estimated Cost	Unknown	
Funding	HMGP, PDM, General Funds	
Location	Village	
Timeline	5+ years	
Priority	Low	
Lead Agency	Emergency Management, Village Board	
Status	This project has not yet been started. There are no AM signals in town. The Village uses satellite radios when needed. Regular weather radios do not work in town due to a lack of signal. Siren at the fire hall has delay issues that need to be addressed.	

Severe Winter Storms

The Village of Hyannis experiences severe winter storms every year. Concerns from severe winter storms include power loss from downed or damaged power lines, property damage, and the ability to clear adequate snow in town. The local planning team indicated no facilities in town have backup generators and no power lines are buried in town. Currently, there is no Village Maintenance personnel who would be responsible for clearing snow or debris. Rather the village relies on residents to clear streets. The village does have equipment to clear roads. Severe winter storms in the County have caused over \$35,000 in property damages. Past winter storms have brought between two and six inches of snow to the Village.

Mitigation Actions

MITIGATION ACTION		BACKUP GENERATORS
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.	
Hazard(s)	Tornadoes, high winds, severe thunderstorms, severe winter storms	
Estimated Cost	\$15,000-\$30,000	
Funding	HMGP, PDM, General Funds	
Location	Hyannis Schools – used as shelter location	
Timeline	2-5 years	
Priority	Low	
Lead Agency	Fire Department	
Status	This project has not yet started. A generator is needed for the lift station and/or well.	

Completed Actions:

MITIGATION ACTION		RESCUE/SNOW REMOVAL RESOURCES
Description	Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event	
Hazard(s)	Severe Winter Storms	
Status	Completed – the village has a snow plow and loader, and leases additional equipment as needed.	

SECTION SEVEN: VILLAGE OF HYANNIS COMMUNITY PROFILE

MITIGATION ACTION		WARNING SYSTEMS – INTERNET SIGNALS	
Description	Purchase new/updated computers and routers for internet signal strength to improve weather monitoring capabilities within the village.		
Hazard(s)	All Hazards		
Status	New computers are located in the County Courthouse which is used as the Village EOC. The majority of employees and residents receive alerts on their cellphones. During the past plan, the local planning team found the service inefficient as alerts came after weather events had occurred and discontinued the service. Since 2019 fiber has been installed and a new small cell tower has been built in town.		

LOGAN COUNTY COUNTY PROFILE

Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Logan County Local Planning Team			
Name	Title	Jurisdiction	2024 Engagement
Rich Cook	Highway Superintendent	Logan County/Village of Gandy	Attended one-on-one meeting
Sean Carson	Emergency manager	Logan County	Attended one-on-one meeting

Governance

A community's governance structure impacts its capability to implement mitigation actions. Logan County is governed by a three member board of commissioners. The county also has the following offices and departments:

- County Clerk
- County Assessor
- County Treasurer
- County Attorney
- Emergency Management
- Highway Superintendent
- Sheriff's Department

Plan Maintenance

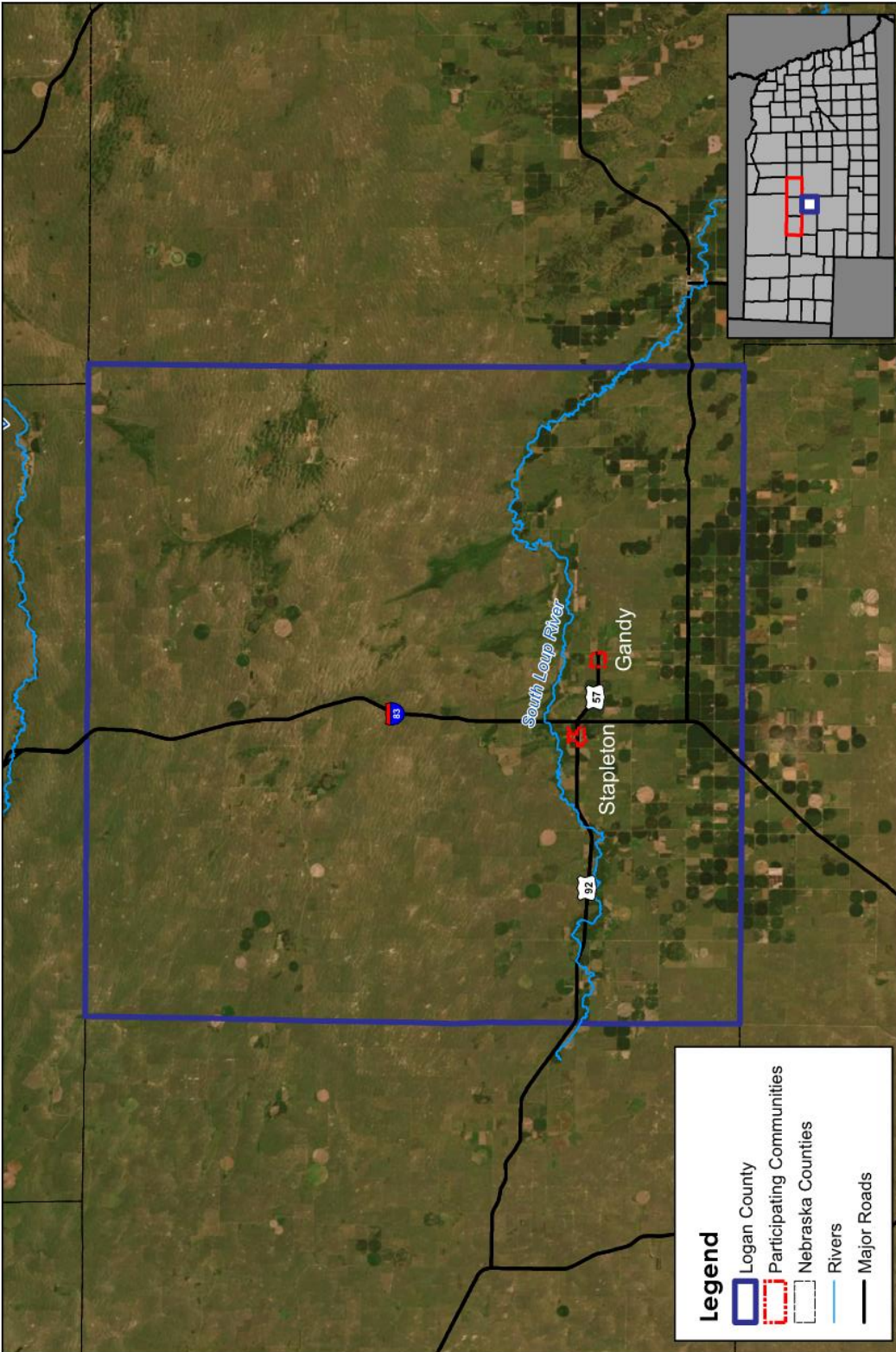
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the County Emergency Manager, County Commissioners, and Highway Superintendent who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings.

Location and Geography

Logan County is located in north central Nebraska and is bordered by Custer, Blaine, Thomas, McPherson, and Lincoln counties. The total area of Logan County is 571 square miles. The South Loup River crosses the southern half of the county. Logan County lies in the Sand Hills and Dissected Plains topographic regions, with most of the land used as rangeland.

Logan County



Legend
 Logan County
 Participating Communities
 Nebraska Counties
 Rivers
 Major Roads

Logan County
 County Boundary

Created by: KDD
 Date: 7/22/2019
 Software: ArcGIS 10.4.1
This map was prepared using information from record drawings, updated information, and other sources. While every effort has been made to ensure the accuracy of this map, the information used to prepare this map is not a scaled plan.



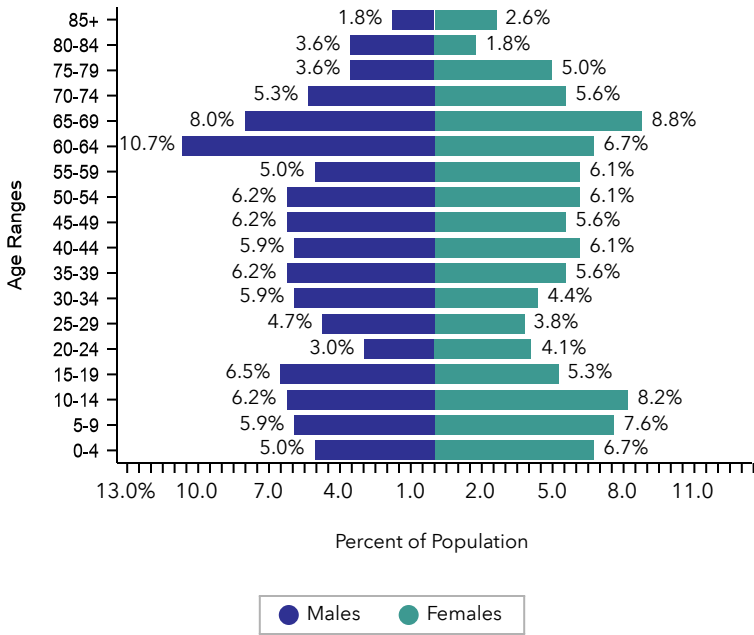


Community Summary Fact Sheet

Logan County, NE
Upper Loup NRD Hazard Mitigation Plan 2024

679	272	2.50	44.5	\$53,428	\$167,857	40	215
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	679
2020 Total Population (U.S. Census)	716
2010 Total Population (U.S. Census)	763
2000 Total Population (U.S. Census)	774

AT RISK POPULATION



79

Households With Disability



156

Population 65+



0

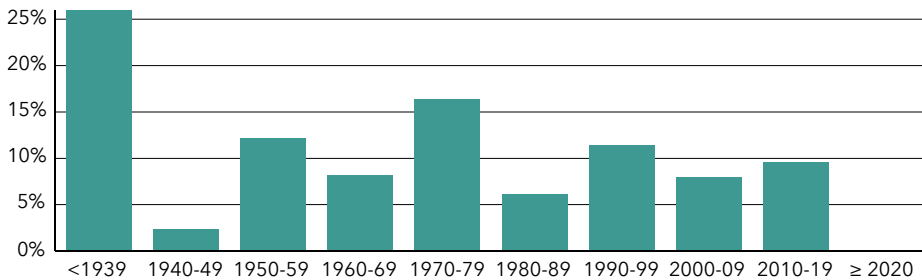
Households Without Vehicle



13%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



0%

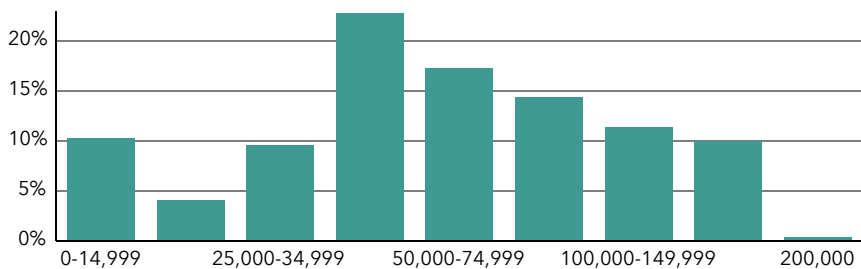
Workers Who Took Public Transportation



5%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

The population of Logan County has been declining since the 1930s. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being maintained. Furthermore, areas with declining population will be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the county which could make implementation of mitigation actions more fiscally challenging.

Housing

The majority of housing in Logan County was built prior to 1939. There are approximately 40 mobile homes in the county. Housing age can serve as an indicator of risk as structures built prior to state building codes may be at greater risk. Finally, residents that live in mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

Employment

According to 2020 Business Patterns Census Data, Logan County had 21 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

Business in Logan County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors	21	68	\$2,139

Source: U.S. Census Bureau

Transportation

Logan County's major transportation corridors include Nebraska Highway 92 running east to west and U.S. Highway 83 running north to south. Hazardous materials and large semi-trucks commonly use these transportation routes to cross the county. There are no rail lines in the county. The county also has two air landing strips located near the Village of Stapleton. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the county, as well as areas more at risk to transportation incidents.

Future Development Trends

According to the local planning team in the past five years new homes have been built throughout the county, however some of these homes in the eastern half of the Village of Stapleton have been built in hazardous areas. The County's population is declining which the local planning team attributes to a lack of employment opportunities. At this time there are no new housing or commercial developments planned.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Number of Parcels	Number of Improvements	Total Improvement Value
1,585	391	\$30,810,178

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



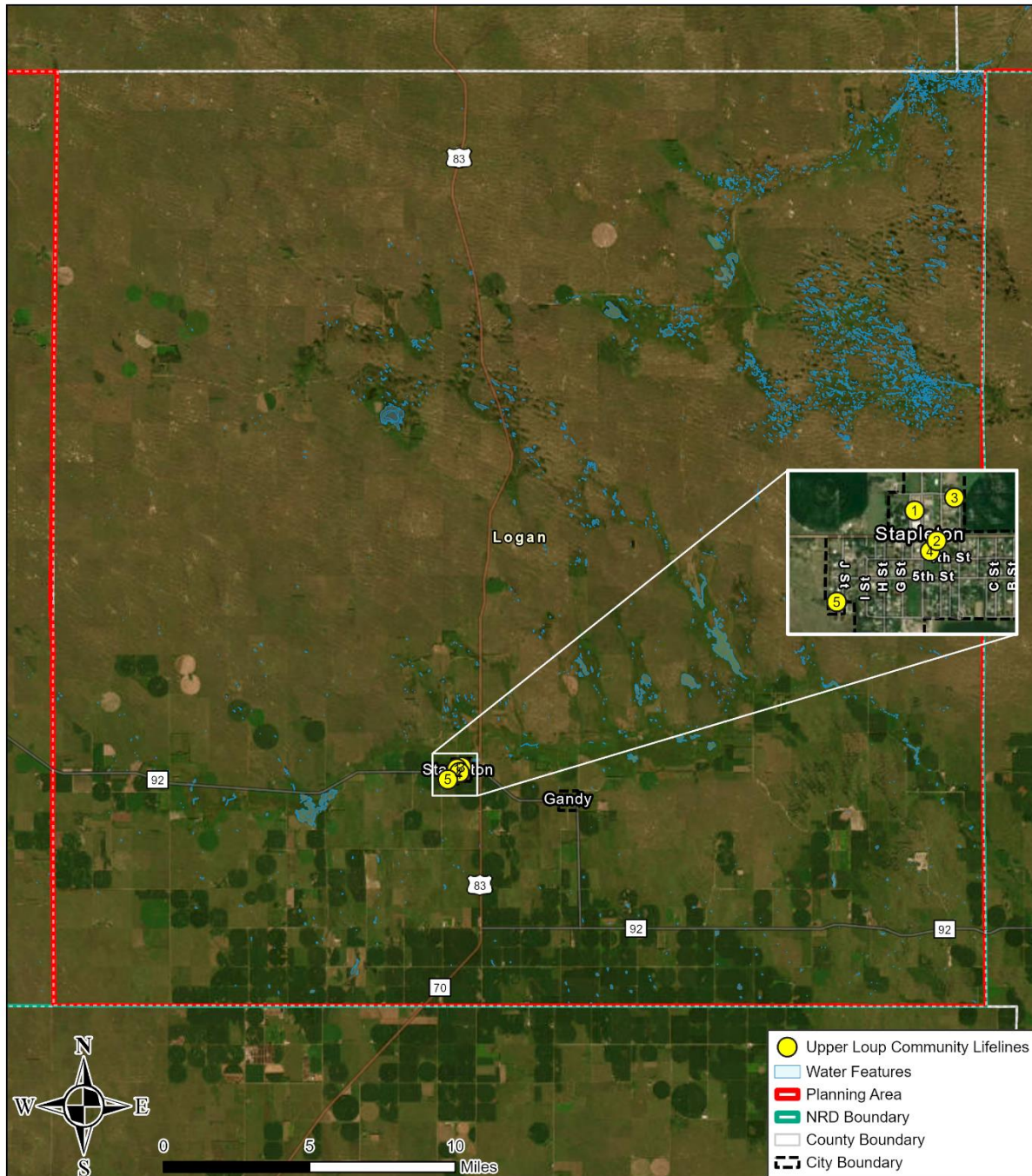
Critical Facilities

#	Lifeline	Name	Address	Shelter	Generator
1	Transportation	County Shop	230 Main St	N	N
2	Safety and Security	Fire Department	302 F St Stapleton, NE	N	N
3	Food, Water, Shelter	Lift Station	F St	N	Y
4	Safety and Security	Logan County Courthouse	317 Main St Stapleton, NE	N	N
5	Food, Water, Shelter	Water Tower	J St	N	N

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there no chemical storage sites in unincorporated Logan County which house hazardous materials. However, the local planning team has concerns for drifting fumes and gases in the case of chemical spill events. In 2013, Highway 83 was briefly shut down after a dry fertilizer spill. Stapleton Public Schools is located near a facility which stores propane and the lagoons in Stapleton may pose a contamination risk. The Logan County Emergency Management and Stapleton Volunteer Fire Department would respond to fixed site spills, although additional training and equipment is a need. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction’s participant section.

Critical Facilities



	<p>Created By: NS Date: 12/20/2023 Software: ArcGIS Pro 3.1.2 File: R211218.00</p> <p>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</p>	<h2>Logan County</h2> <p>Upper Loup NRD Hazard Mitigation Plan 2024</p>	
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Capability Assessment

The planning team assessed Logan County's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

	Survey Components/Subcomponents	Yes/No
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	Yes, 2003
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes, 2022
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	Yes
	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	No
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
Other (if any)		
<i>Education &</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency	No

SECTION SEVEN: LOGAN COUNTY PROFILE

Survey Components/Subcomponents		Yes/No
Outreach Capability	preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA Other (if any)	No

Overall Capability	2019 Plan	2024 Plan
Does your county have the financial resources need to implement mitigation projects?	Limited	Limited
Does your county have the staff/expertise to implement projects?	Limited	Limited
Does your county have the community support to implement projects?	High	Limited
Does your county staff have the time to devote to hazard mitigation?	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Logan County is Very Low (1.21). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Logan County have a Very Low (19.41) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Logan County have a Very Low (7.07) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the county.

Rural Capacity Index

Components of Index	Logan County
County is Metropolitan?	No

Components of Index	Logan County
Has a Head of Planning?	No
Has a College or University?	No
Adults with Higher Education:	26%
Families Below Poverty Level:	7%
Households with Broadband:	84%
People without Health Insurance:	10%
Voter Turnout:	72%
Income Stability Score (0 to 100):	31
Population Change (2000 to 2019):	183
Overall Rural Capacity Index Score	Low Capacity 43 out of 100

Source: *Headwaters Economics*

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Logan County Local Emergency Operations Plan was updated and adopted in 2022. The LEOP addresses hazards of top concern, assigns specific responsibilities to individuals, identifies scenarios leading to evacuation, and identifies shelter locations. The identified shelters in the LEOP are sufficient for local needs. The LEOP is shared with the local emergency management officials, county clerk, sheriff, and other local emergency response entities.

Zoning Ordinances

The County zoning ordinances were last updated in 2019. The zoning ordinances discourage development in the floodplain, account for current population trends, and includes well setback requirements.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Logan County in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is located in the southeast corner of the county, in the Arnold Fire District, where there is rough terrain and few roads. In this area eastern redcedar has encroached into grasslands, creating high fire hazard. The area has a history of large wildfires. In 2011, a wildfire burned over 20,000 acres and was stopped just south of Stapleton. It caused over \$4 million in damage, including several homes destroyed.

Annual Budget

The local Planning Team indicated the annual municipal budget is very limited in its capacity to pursue new projects.

National Flood Insurance Program

The county does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for Logan County.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Logan County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	6	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$4,722,018	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$464,746	
Extreme Cold		Avg 10 days/year <10F	\$0	\$245,944	
Flooding	Flash Flood	4	\$0	\$14,382	
	Flood	3	\$300,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	0	\$0		
Severe Thunderstorms	Hail	171	\$430,000	\$2,371,317	
	Heavy Rain	2	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	38	\$88,000		
Severe Winter Storms	Blizzards	8	\$50,000	\$57,083	1 injury, 2 fatalities
	Heavy Snow	5	\$0		
	Ice Storms	1	\$16,000		
	Winter Storms	42	\$15,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	29	\$0	\$220,842	
	Tornadoes	5	\$8,000	\$0	
Wildfire		37	12,451 acres	\$3,850	
Total		352	\$1,907,000	\$8,100,183	

SECTION SEVEN: LOGAN COUNTY PROFILE

The following section expands on the hazards of top concern identified by Logan County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Grass/Wildfire

Grass/wildfire is a top concern for the county as they occur regularly across the planning area. There are large tracts of land without fire breaks across the county, aiding in the spread of wildfire. The county's local economy is heavily dependent on agriculture and rangelands which, when burned, can support fewer cattle. There is a volunteer fire department in Stapleton who covers several million acres of land. In 2012 two large fires impacted the county and each burned thousands of acres of rangeland and the 2022 Bovee Fire occurred in neighboring Thomas County. The 2012 fires destroyed one residence in the county and came within a few miles of Stapleton, while the second caused residents in Gandy to evacuate.

Mitigation Actions

MITIGATION ACTION	PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	HMGP, BRIC, County Budget
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Logan County EMA, ULNRD, Region 26 EMA
STATUS	This project has not yet been started. Additional outreach is needed to ensure all residents receive CodeRed alerts. CodeRed can be utilized to send evacuation orders, ongoing event updates, or high fire risk conditions.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and the planning area. They have caused damage to property, crops, and livestock due to the combination of hail, high winds, heavy rainfall, and lightning strikes. Heavy rains from thunderstorms also contribute to localized flooding in Stapleton and can wash out roads throughout the County. Many roads throughout unincorporated Logan County are unpaved and wash out frequently. The local planning team noted many residents also have trouble accessing their properties during heavy rains when local roads wash out.

Severe thunderstorms in the county have caused over \$88,000 in property damages, primarily from high winds. In June 2011 and April 2012, Highway 92 southeast of Stapleton closed due to heavy rains overtopping the highway. A storm with significant hail in the summer of 2018 caused damages to roofs of homes and buildings throughout the County. No buildings are known to have hail resistant building materials. The local planning team indicated most hazardous trees who

SECTION SEVEN: LOGAN COUNTY PROFILE

could cause damages from high winds have been removed. Weather radios have been distributed to critical facilities and CodeRed alerts are available through Region 26 EMA.

Mitigation Actions

MITIGATION ACTION		CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire trucks, ATV's, water tanks/truck, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Flooding, Hazardous Materials, Tornadoes and High Winds, Wildfires	
ESTIMATED COST	Varies depending on what equipment is needed	
FUNDING	HMGP, BRIC, General Funds	
TIMELINE	5+ years	
PRIORITY	High	
LEAD AGENCY	Stapleton Fire Department, Logan County Emergency Management	
STATUS	This project has not yet been started.	

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking. The county planning team reported a need to replace and update warning sirens in both Stapleton and Gandy.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	\$20,000	
FUNDING	General Funds, HMGP, BRIC	
TIMELINE	5+ years	
PRIORITY	Low	
LEAD AGENCY	Logan County Emergency Management	
STATUS	This project has not yet been started. Sirens are needed in Stapleton and Gandy.	

Severe Winter Storms

Severe winter storms include heavy snow, blowing and drifting snow, and ice accumulation which can close major transportation routes, strand motorists, cause power outages, damage property, and kill livestock. An ice storm in February 1998 caused two deaths and one injury from vehicular accidents north of Stapleton. Heavy snowfall events have included March 2016 with 15 inches and 2018 with 12 inches of snow. In December 2018 power outages occurred from downed power lines. No power lines are currently buried in the County. While formal snow removal routes have not been set, the local planning team indicated school routes are prioritized. There is a need for a snow blower to aid in snow removal and an upgraded or portable generator that can run the lift stations during power outages in Stapleton.

Mitigation Actions

SECTION SEVEN: LOGAN COUNTY PROFILE

MITIGATION ACTION		BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.	
HAZARD(S)	Tornadoes and High Winds, Severe Winter Storms, Severe Thunderstorms	
ESTIMATED COST	\$30,000 per generator	
FUNDING	General Funds, HMGP, BRIC	
LOCATION	Fire Hall, Logan County Courthouse	
TIMELINE	2-5 years	
PRIORITY	Medium	
LEAD AGENCY	County Board, Logan County Emergency Management	
STATUS	A generator has been installed at the fire hall and can be used to power the courthouse. An upgraded or portable generator is needed to run the lift stations.	

Completed Mitigation Actions

MITIGATION ACTION		DRAINAGE IMPROVEMENTS
DESCRIPTION	The jurisdiction utilizes stormwater systems comprising of ditches, culverts, or drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Drainage ponds, both retention and detention, may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.	
HAZARD(S)	Flooding, Severe Thunderstorms	
STATUS	Completed - Improvements have been made as needed.	

MITIGATION ACTION		RESCUE/SNOW REMOVAL RESOURCES
DESCRIPTION	Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event. Purchase a new snow blower.	
HAZARD(S)	Severe Winter Storms	
STATUS	Complete - County has purchased new equipment and is sufficient at this time.	

Removed Mitigation Actions

MITIGATION ACTION		EMERGENCY EXERCISE: HAZARDOUS SPILL
DESCRIPTION	Utilize an exercise to prepare for potential explosions or hazardous spill events. Ensure nearby facilities and residents have plans in place.	
HAZARD(S)	Chemical Transportation	
STATUS	Removed - This is no longer a priority for the county and is addressed through LEOP updates.	

VILLAGE OF GANDY COMMUNITY PROFILE

Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Gandy Local Planning Team			
Name	Title	Jurisdiction	2024 Engagement
Rich Cook	Highway Superintendent	Logan County/Village of Gandy	Attended one-on-one meeting
Sean Carson	Emergency manager	Logan County	Attended one-on-one meeting

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Gandy has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and the following offices.

- Village Clerk
- Village Board
- Street Superintendent

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the County Highway Superintendent, County Emergency Manager, Village Clerk and the Village Board who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings.

Location and Geography

The Village of Gandy is located in the south-central portion of Logan County and covers an area of 0.25 square miles. The Village is south of the South Loup River.

Village of Gandy

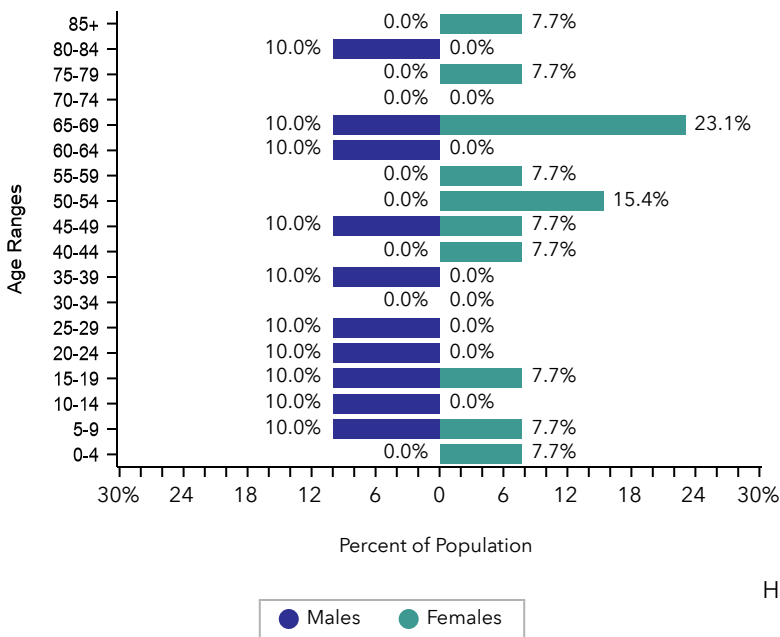


Community Summary Fact Sheet

Gandy Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

23	10	2.30	48.8	\$43,371	\$137,500	1	2
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

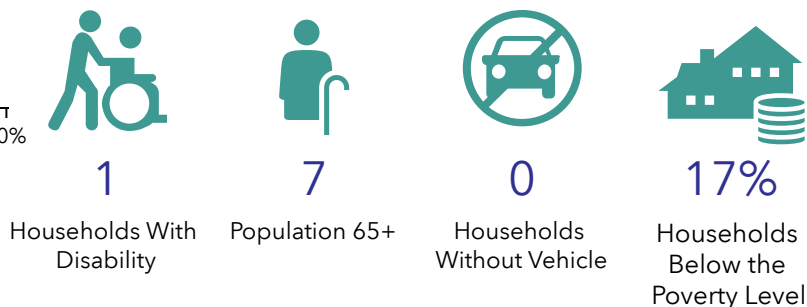
AGE PYRAMID



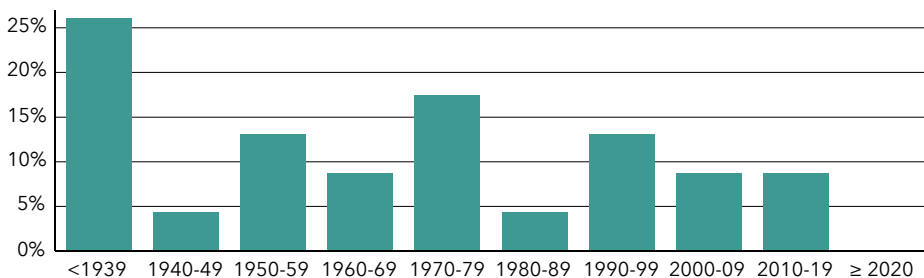
Total Population

2023 Total Population (Estimate)	23
2020 Total Population (U.S. Census)	34
2010 Total Population (U.S. Census)	36
2000 Total Population (U.S. Census)	37

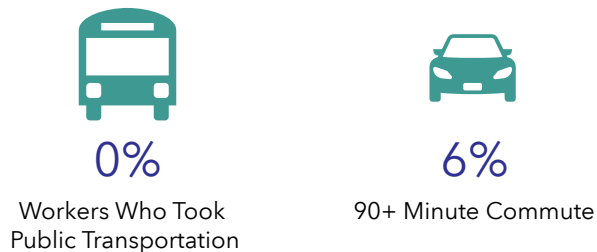
AT RISK POPULATION



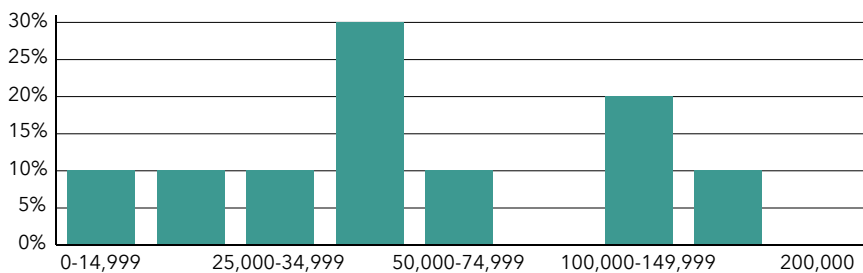
Housing: Year Built



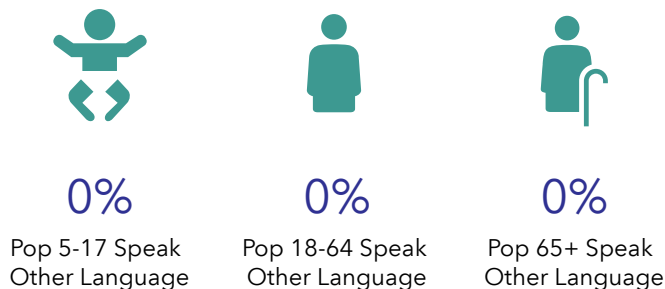
COMMUTER



Household Income



LANGUAGE



Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Gandy’s population fluctuated from about 30 people in 2000 to 34 people in 2020. The local planning team indicated that the population of Gandy has held relatively stable in recent years.

Housing

The local planning team indicated that many homes aging and should be replaced with new housing. The housing stock in Gandy is very limited and provides inadequate opportunity for future growth or development.

Employment

There are no major employers in the Village of Gandy. Residents work either in agriculture in the surrounding areas or commute to Stapleton, North Platte, Broken Bow, or Arnold for work and shopping.

Transportation

Gandy’s major transportation corridors include Nebraska Highway 92. Other transportation routes of top concern for the Village are S-57A and Avenue 145 which heads south from town to Nebraska Hwy 92. There are no rail lines or airports in the Village. While Gandy has not experienced any recent significant transportation accidents, concerns exist due to the high volume of semi-trucks carrying hazardous materials through the area.

Future Development Trends

In the past five years there have been no major changes in the Village. The local planning team indicated that the population is holding relatively stable, despite a lack of open housing and economic opportunities. There are currently no new residential or commercial developments planned.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Number of Parcels	Number of Improvements	Total Improvement Value
70	17	\$803,645

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



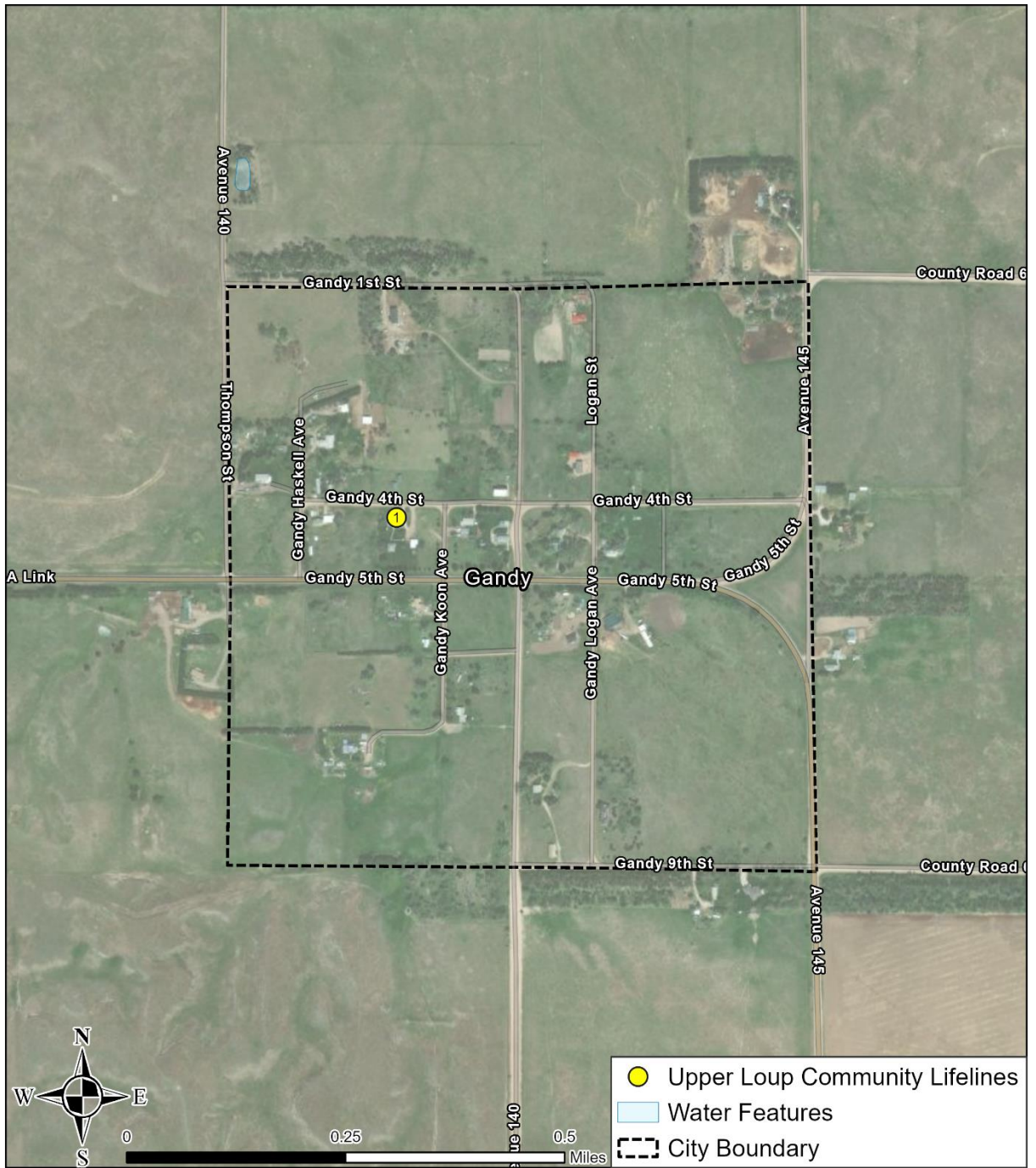
Critical Facilities

#	Lifeline	Name	Address	Shelter	Generator
1	Food, Water, Shelter	Church	304 4 th St	Yes	N

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are no chemical storage sites in Gandy that contain hazardous chemicals.

Critical Facilities



Created By: NS
Date: 1/3/2024
Software: ArcGIS Pro 3.1.2
File: R211218.00

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

Village of Gandy

Upper Loup NRD
Hazard Mitigation Plan 2024

Capability Assessment

The planning team assessed the Village of Gandy's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

<i>Survey Components/Subcomponents</i>		<i>Yes/No</i>
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
	<i>Administrative & Technical Capability</i>	Planning Commission
Floodplain Administration		No
GIS Capabilities		Yes (County)
Chief Building Official		No
Civil Engineering		No
Local Staff Who Can Assess Community's Vulnerability to Hazards		Yes
Grant Manager		No
Mutual Aid Agreement		No
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
General Obligation Revenue or Special Tax Bonds	Yes	

<i>Survey Components/Subcomponents</i>		<i>Yes/No</i>
<i>Education & Outreach Capability</i>	Other (if any)	
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (County and NRD)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
Other (if any)		

<i>Overall Capability</i>	<i>2019 Plan</i>	<i>2024 Plan</i>
Does your community have the financial resources need to implement mitigation projects?	Limited	Limited
Does your community have the staff/expertise to implement projects?	Limited	Limited
Does your community have the community support to implement projects?	Limited	Limited
Does your community staff have the time to devote to hazard mitigation?	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Logan County, which includes Gandy, is Very Low (1.21). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Logan County have a Very Low (19.41) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Logan County have a Very Low (7.07) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the Village of Gandy compared to the county.

Rural Capacity Index

Components of Index	Village of Gandy	Logan County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	11%	26%
Families Below Poverty Level:	0%	7%
Households with Broadband:	86%	84%
People without Health Insurance:	39%	10%
Voter Turnout:	72%	72%
Income Stability Score (0 to 100):	14	31
Population Change (2000 to 2019):	3	183
Overall Rural Capacity Index Score	Low Capacity 39 out of 100	Low Capacity 43 out of 100

Source: Headwaters Economics

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Village of Gandy has an annex in the Logan County Local Emergency Operations Plan which was last updated and adopted in 2022. The LEOP addresses hazards of top concern, assigns specific responsibilities to individuals, identifies scenarios leading to evacuation, and identifies shelter locations. The identified shelters in the LEOP are sufficient for local needs. The LEOP is shared with the local emergency management officials, county clerk, sheriff, and other local emergency response entities.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Logan County in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is located in the southeast corner of the county, in the Arnold Fire District, where there is rough terrain and few roads. In this area eastern redcedar has encroached into grasslands, creating high fire hazard. The area has a history of large wildfires. In 2011, a wildfire burned over 20,000 acres and was stopped just south of Stapleton. It caused over \$4 million in damage, including several homes destroyed.

Annual Budget

The local Planning Team indicated the annual municipal budget is very limited in its capacity to pursue new projects. The Village contracts trash with the Village of Stapleton and receives some funds from the state; however, the village does not collect any other funding from residents.

National Flood Insurance Program

The Village of Gandy does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for Gandy.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Gandy which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	6	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$4,722,018	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$464,746	
Extreme Cold		Avg 10 days/year <10F	\$0	\$245,944	
Flooding	Flash Flood	4	\$0	\$14,382	
	Flood	3	\$300,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	0	\$0		
Severe Thunderstorms	Hail	171	\$430,000	\$2,371,317	
	Heavy Rain	2	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	38	\$88,000		
Severe Winter Storms	Blizzards	8	\$50,000	\$57,083	1 injury, 2 fatalities
	Heavy Snow	5	\$0		
	Ice Storms	1	\$16,000		
	Winter Storms	42	\$15,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	29	\$0	\$220,842	
	Tornadoes	5	\$8,000	\$0	
Wildfire		37	12,451 acres	\$3,850	
Total		352	\$1,907,000	\$8,100,183	

The following section expands on the hazards of top concern identified by the Village of Gandy. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and the planning area. They have caused damage to property, crops, and livestock due to the combination of hail, high winds, heavy rainfall, and lightning strikes. The local planning team expressed concerns about damages from hail to roofs, trees, and downed power lines. Downed power lines have left residents without power for several hours. The local planning team indicated that many residents have their own private backup generators or wood burning stoves. Tree damage commonly takes down powerlines or damages homes. The ULNRD can assist communities with tree care guidance and tree planting programs to rebuild windbreaks. Many homeowners are responsible for trimming and maintaining hazardous trees and tree limbs which may knock out power or damage their home. Tree maintenance is an ongoing process. Residents typically clear their own properties, but Custer Public Power District is utilized for hazardous trees which threaten power lines. Heavy damages occurred in spring 2018 during a hail event, including damages to trees, vehicles, and the roofs of homes and buildings. No buildings have hail resistant roofing materials.

Mitigation Actions

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.	
HAZARD(S)	Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	\$5,000	
FUNDING	General Fund	
TIMELINE	1 year	
PRIORITY	Medium	
LEAD AGENCY	Village Board, ULNRD	
STATUS	The Village would like to send additional information about mitigation and hazard events via the local paper and phone trees specifically regarding tree and landscaping maintenance and fuel loads. As tree and hail damage are highest concern and most strongly experienced impact, information should be centered around tree care (windbreaks, ornamentals, available tree programs through the NRD, etc.) and upgrading community roofs and utilities. Also to make sure all residents are signed up for CodeRed alerts.	

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking. The county planning team reported a need to replace and update warning sirens in both Stapleton and Gandy.	

MITIGATION ACTION	ALERT/WARNING SIRENS
HAZARD(S)	Severe Weather, specifically Tornadoes and High Winds
ESTIMATED COST	\$20,000
FUNDING	General Funds, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Logan County Emergency Management, Village Board
STATUS	This project has not yet been started. Sirens are needed in Stapleton and Gandy.

Other Hazard of Note:**Grass/Wildfire**

The local Planning Team noted wildfire is a concern due to the prevalence of fires across the district; however, the village does not have any fire-fighting resources and has extremely limited capacity to address concerns. In the case of a major fire, evacuation procedures are outlined in the Logan County LEOP and water tanks would be brought in from Stapleton or agricultural tanks. A prairie fire south of town in 2012 came within several miles of the Village.

Removed Mitigation Actions

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools, rural residents, and other critical facilities and provide new radios as needed.
HAZARD(S)	All Hazards
STATUS	Remove – identified as no longer a need as most residents have cell phones.

MITIGATION ACTION	TREE CITY USA
DESCRIPTION	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation
HAZARD(S)	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
STATUS	Removed – not a priority for the village at this time.

MITIGATION ACTION	HAZARDOUS TREE REMOVAL PROGRAM
DESCRIPTION	Identify and remove hazardous limbs and/or trees
HAZARD(S)	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
STATUS	Removed - This is an ongoing action for tree maintenance. Residents typically clear their own properties, but Custer Public Power District is utilized for hazardous trees which threaten power lines.

SECTION SEVEN: VILLAGE OF GANDY PROFILE

MITIGATION ACTION	FIRE WISE DEFENSIBLE SPACE
DESCRIPTION	Educate and train land owners about creating defensible space. Develop and implement brush and fuel thinning projects including clearing excess or dead vegetation from community properties. Improve public outreach efforts about defensible space.
HAZARD(S)	Grass/Wildfire
STATUS	Removed – the village has very limited capacity to implement this and would require outside resources to accomplish this.

VILLAGE OF STAPLETON COMMUNITY PROFILE

Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Stapleton Local Planning Team			
Name	Title	Jurisdiction	2024 Engagement
Rich Cook	Highway Superintendent	Logan County/Village of Gandy	Attended one-on-one meeting
Sean Carson	Emergency manager	Logan County	Attended one-on-one meeting

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Stapleton has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and the following offices.

- Village Clerk
- County Highway Superintendent
- Water and Sewer Board
- Fire Department

Plan Maintenance

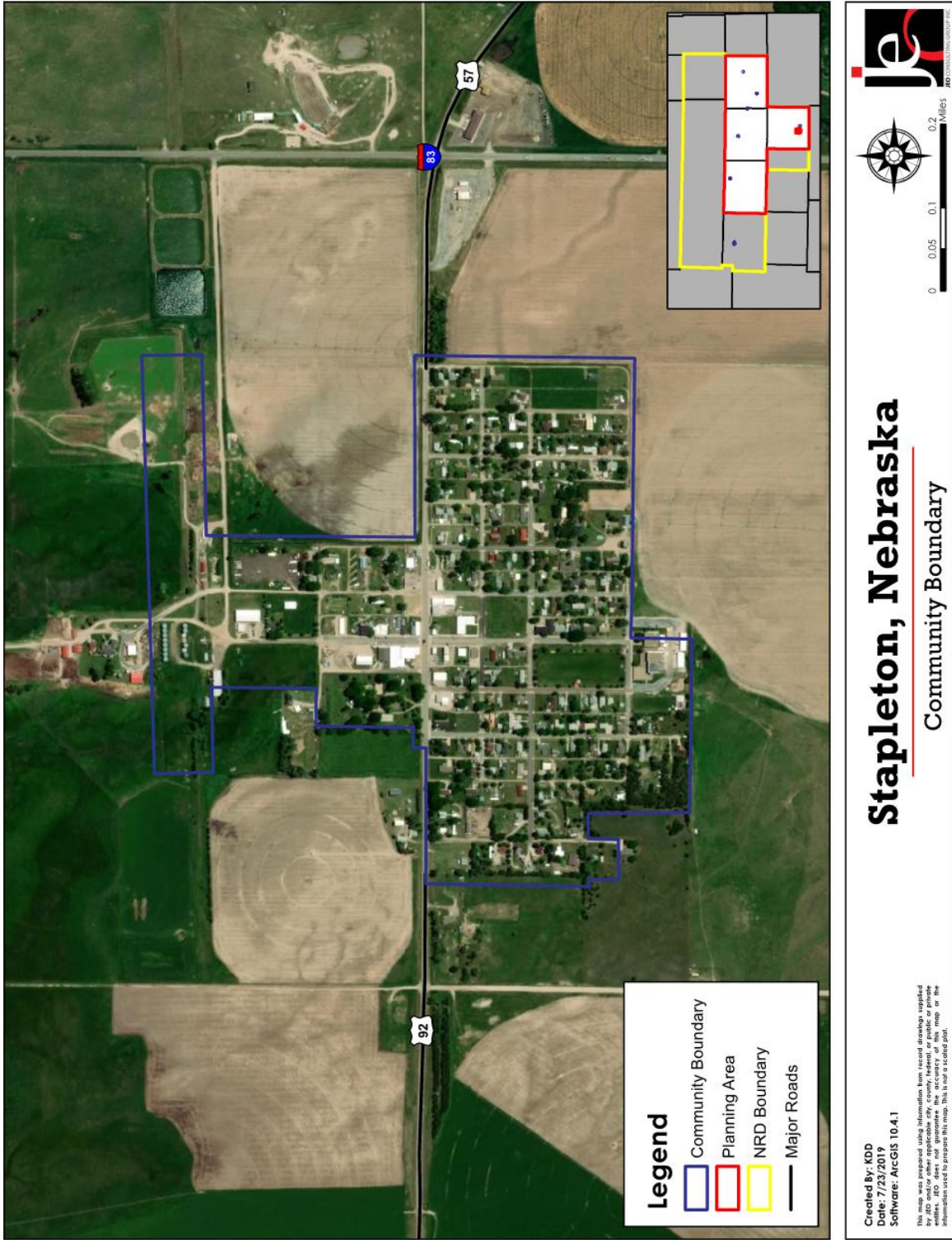
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the County Highway Superintendent, County Emergency Manager, Village Clerk and the Village Board who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings.

Location and Geography

The Village of Stapleton is located in the south-central portion of Logan County and covers an area of 0.25 square miles. The Village is south of the South Loup River. The Village of Stapleton is the county seat of Logan County.

Village of Stapleton

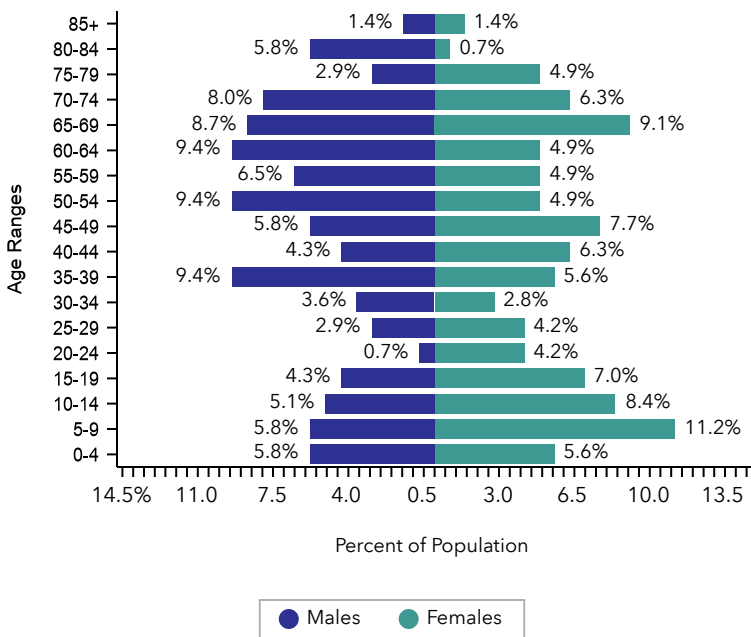


Community Summary Fact Sheet

Stapleton Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

281	111	2.53	45.9	\$57,819	\$123,684	26	165
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	281
2020 Total Population (U.S. Census)	267
2010 Total Population (U.S. Census)	285
2000 Total Population (U.S. Census)	289

AT RISK POPULATION



33

Households With Disability



69

Population 65+



0

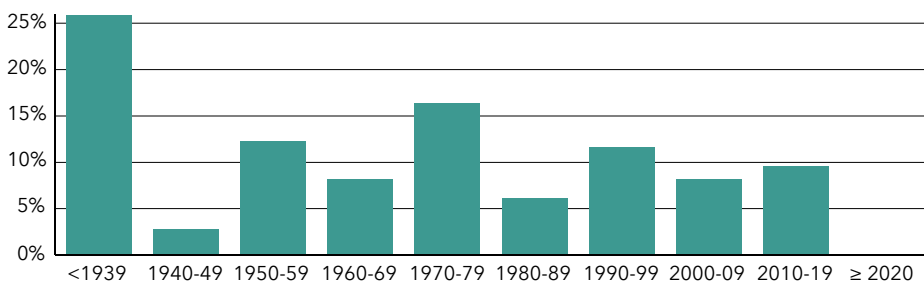
Households Without Vehicle



13%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



1%

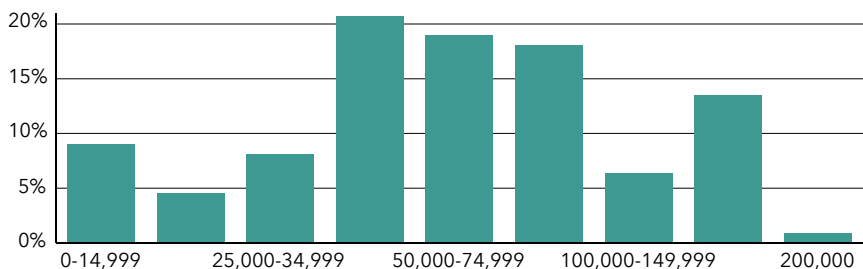
Workers Who Took Public Transportation



4%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Gandy’s population has remained relatively stable since the early 2000s. The local planning team attributed this decline to an aging population and college age students moving away and not returning to the area.

Housing

The housing stock in Stapleton is relatively limited – several homes have been condemned and demolished in the past several years.

Employment

The major employers in Stapleton are Stapleton Public Schools, the convenience store, and the center pivot repair shop. The local planning team indicated a portion of the population commute to North Platte or Broken Bow, but most residents work in agriculture in the surrounding areas.

Transportation

Stapleton’s major transportation corridors include Nebraska Highway 92 which averages 395 vehicles per day and U.S. Highway 83 to the east which averages 1,825 vehicles per day. The Village is located directly west of the highway intersection. There are no rail lines in the Village. Two airstrips are located within Stapleton.

Future Development Trends

In the past several years the local church has expanded with a new remodel and serves as a shelter location alongside the Community Center. The local planning team indicated there are a few buildings in the downtown area that may need to be demolished pending funding options. Three condemned homes in town had been demolished and replaced the village shop with a bigger one. There are no new commercial developments planned at this time but one additional home is planned to be built in 2024.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

NUMBER OF PARCELS	Number of Improvements	Total Improvement Value
925	343	\$26,320,126

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.

SECTION SEVEN: VILLAGE OF STAPLETON PROFILE



Critical Facilities

#	Lifeline	Name	Address	Shelter	Generator
1	Transportation	County Shop	230 Main St	N	N
2	Safety and Security	Community Center/Village Office	236 Main St	Y	N
3	Safety and Security	County Court House	317 Main St	N	N
4	Safety and Security	Fire Hall/Alert Siren	3 rd St and Hwy 92	N	Y
5	Energy	Gas Station	US Hwy 83 and NE Hwy 53	N	N
6	Food, Water, Shelter	Lagoons	1 st St	N	N
7	Food, Water, Shelter	Lift Station	F St	N	Y
8	Food, Water, Shelter	Main Street Market	230 Main St	N	N
9	Other	Stapleton Public Schools	702 6 th St	N	N
11	Transportation	Village Storage Shop	J St	N	N
12	Food, Water, Shelter	Water Tower	J St	N	N
13	Food, Water, Shelter	Well	3 rd St	N	N

Chemical Storage Fixed Sites

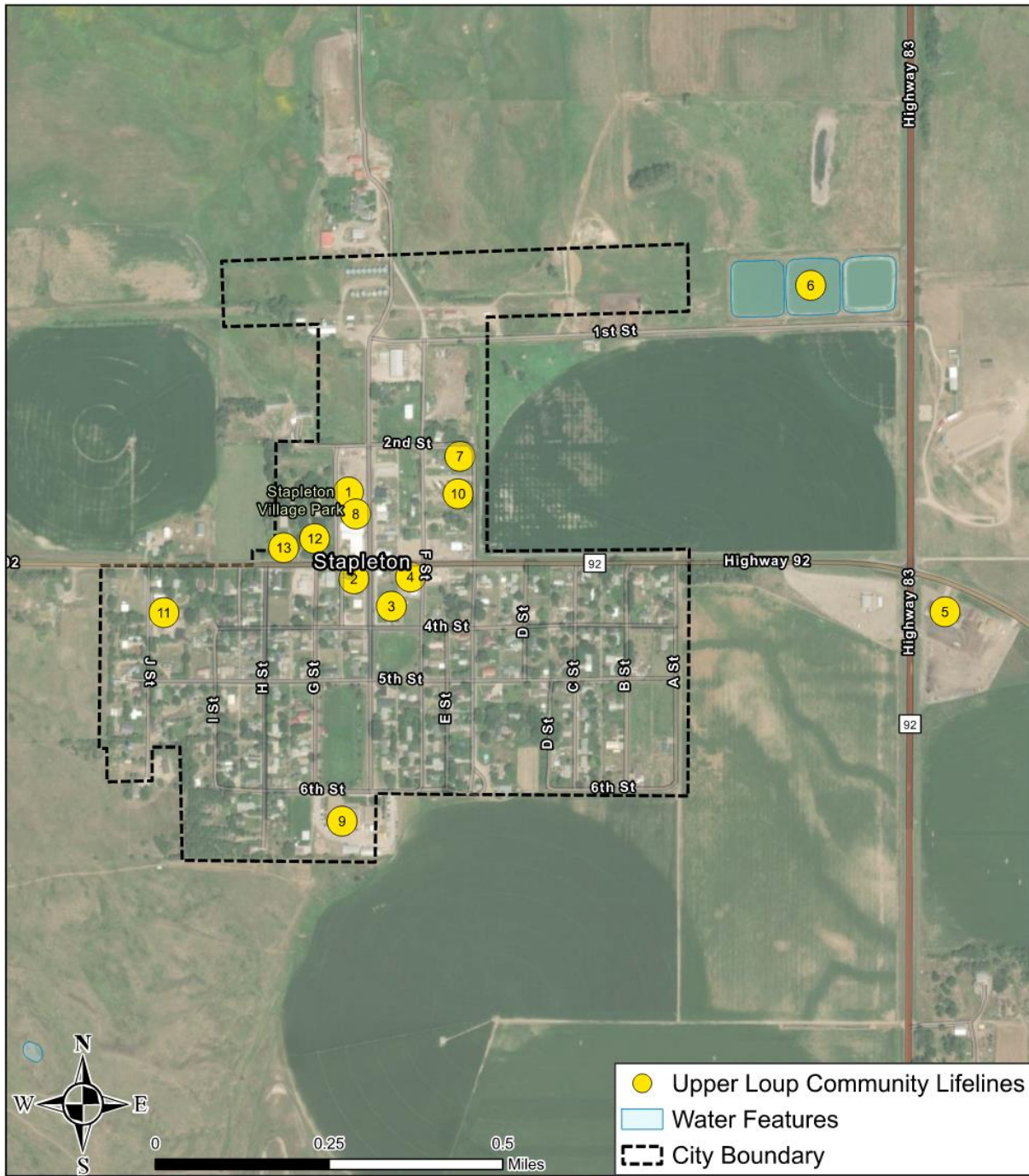
According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are three chemical storage sites in Stapleton that contain hazardous chemicals. The local planning team indicated that one previous site, Eastside Service, is no longer in operation.


Chemical Storage Fixed Sites

Facility Name	Address	In Floodplain (Y/N)
Country Partners Cooperative	34 Highway 83	No
Frey Propane Inc	Old Slaughterhouse Rd	No
NDOT Stapleton Yard	122 Highway S57A	No

Source: Nebraska Department of Environmental Quality

Critical Facilities



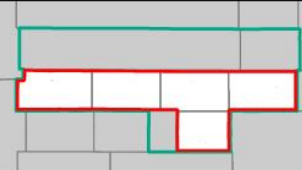


Created By: NS
Date: 12/19/2023
Software: ArcGIS Pro 3.1.2
File: R211218.00

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Village of Stapleton

Upper Loup NRD
Hazard Mitigation Plan 2024



Capability Assessment

The planning team assessed the Village of Stapleton's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

	<i>Survey Components/Subcomponents</i>	<i>Yes/No</i>
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes – County and Village
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
Other (if any)		
<i>Education &</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency	Yes

SECTION SEVEN: VILLAGE OF STAPLETON PROFILE

Survey Components/Subcomponents		Yes/No
Outreach Capability	preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (County and NRD)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Overall Capability	2019 Plan	2024 Plan
Does your community have the financial resources need to implement mitigation projects?	Limited	Limited
Does your community have the staff/expertise to implement projects?	Limited	Limited
Does your community have the community support to implement projects?	Limited	Limited
Does your community staff have the time to devote to hazard mitigation?	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Logan County, which includes Stapleton, is Very Low (1.21). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Logan County have a Very Low (19.41) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Logan County have a Very Low (7.07) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the Village of Stapleton compared to the county.

Rural Capacity Index

Components of Index	Village of Stapleton	Logan County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	23%	26%
Families Below Poverty Level:	10%	7%
Households with Broadband:	74%	84%
People without Health Insurance:	10%	10%
Voter Turnout:	72%	72%
Income Stability Score (0 to 100):	14	31
Population Change (2000 to 2019):	85	183
Overall Rural Capacity Index Score	Low Capacity 42 out of 100	Low Capacity 43 out of 100

Source: Headwaters Economics

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Village of Stapleton has an annex to the Logan County Local Emergency Operations Plan (LEOP) last updated in 2019, as well as a Village-level Emergency Operations Plan. The Village’s EOP is updated annually and includes discussion of hazards of top concern, assigns specific responsibilities to community members, and identifies shelter locations. Copies of the Village EOP are housed with the Village Officials, Fire Department, County Sheriff, Red Cross, and Nebraska Rural Water Department.

Annual Budget

The local planning team indicated the annual municipal budget has some capacity to pursue new mitigation projects, however most of the budget is allocated to general maintenance.

Wellhead Protection Plan

There is draft Wellhead Protection Plan utilized by the Village for informal guidance. The Plan has not been submitted or approved by the state but discusses well setback requirements and identifies decommissioned/abandoned wells that should be sealed.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Logan County in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

SECTION SEVEN: VILLAGE OF STAPLETON PROFILE

The area most at-risk from wildfire is located in the southeast corner of the county, in the Arnold Fire District, where there is rough terrain and few roads. In this area eastern redcedar has encroached into grasslands, creating high fire hazard. The area has a history of large wildfires. In 2011, a wildfire burned over 20,000 acres and was stopped just south of Stapleton. It caused over \$4 million in damage, including several homes destroyed.

National Flood Insurance Program

The Village of Stapleton does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for Stapleton.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Stapleton which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	6	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$4,722,018	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$464,746	
Extreme Cold		Avg 10 days/year <10F	\$0	\$245,944	
Flooding	Flash Flood	4	\$0	\$14,382	
	Flood	3	\$300,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	0	\$0		
Severe Thunderstorms	Hail	171	\$430,000	\$2,371,317	
	Heavy Rain	2	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	38	\$88,000		
Severe Winter Storms	Blizzards	8	\$50,000	\$57,083	1 injury, 2 fatalities
	Heavy Snow	5	\$0		
	Ice Storms	1	\$16,000		
	Winter Storms	42	\$15,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	

SECTION SEVEN: VILLAGE OF STAPLETON PROFILE

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Tornadoes & High Winds	High Winds	29	\$0	\$220,842	
	Tornadoes	5	\$8,000	\$0	
Wildfire		37	12,451 acres	\$3,850	
Total		352	\$1,907,000	\$8,100,183	

The following section expands on the hazards of top concern identified by the Village of Stapleton. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

Severe thunderstorms are typically associated with heavy rain, lightning, high winds, and hail. Heavy rains cause unpaved local and county roads to wash out or become impassable. The local planning team indicated culverts and drainage ditches have been upsized and cleaned to manage stormwater, however heavy rains can cause the lagoons to the north of town to flood and B Street commonly washes out during heavy rains. The local planning team also noted hail as a top hazard of concern as the village experiences damaging hail events every year. In 2017 hail storms caused significant damage to nearly three-quarters of resident homes including roofs and windows. Many also sustained damage to personal vehicles and two law enforcement vehicles were also damaged.

Mitigation Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
ESTIMATED COST	\$15,000-\$30,000
FUNDING	HMGP, BRIC, General Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Fire Department, Village Board, Logan County EMA
STATUS	One well has the capability to be hooked up to a tractor as a backup power supply. However, backup power generators are needed at the community center which is used as a shelter and the municipal wells.

MITIGATION ACTION	DRAINAGE IMPROVEMENTS
DESCRIPTION	The jurisdiction utilizes stormwater systems comprising of ditches, culverts, and drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Drainage ponds, both retention and detention, may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
HAZARD(S) ADDRESSED	Flooding, Severe Thunderstorms
ESTIMATED COST	\$100,000
FUNDING	HMGP, BRIC, General Funds
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Maintenance

SECTION SEVEN: VILLAGE OF STAPLETON PROFILE

MITIGATION ACTION		DRAINAGE IMPROVEMENTS	
STATUS	Improvements are slated for B Street (between A and C and 3 rd and 6 th Street).		
MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION	
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.		
HAZARD(S) ADDRESSED	All Hazards		
ESTIMATED COST	\$500+		
FUNDING	HMGP, BRIC, General Fund		
TIMELINE	Ongoing		
PRIORITY	High		
LEAD AGENCY	Village Clerk, Village Board, Schools, Logan County EMA, ULNRD		
STATUS	Some educational materials are provided by the local emergency management offices. Additional information should be highlighted for locations of shelters in Stapleton and CodeRed signups.		

Tornadoes and High Winds

High wind events are common in the planning area. Past events have caused damage to residential homes, village maintenance shops, trees, and have downed power lines. Downed power lines have left residents without power for several days. The local planning team indicated that many residents have their own backup fuel for generators or wood burning stoves. The lagoons to the north of town have lost aerators due to high winds.

Mitigation Actions

MITIGATION ACTION		ALERT/WARNING SIRENS	
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.		
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms		
ESTIMATED COST	\$15,000+		
FUNDING	HMGP, BRIC, General Funds		
TIMELINE	5+ years		
PRIORITY	High		
LEAD AGENCY	Village Board, Fire Department		
STATUS	This action has not yet been started.		

MITIGATION ACTION		STORM SHELTER/SAFE ROOMS	
DESCRIPTION	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.		
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms		
ESTIMATED COST	\$200-\$300/sf stand alone; \$150--\$200/sf addition/retrofit		
FUNDING	BRIC, HMGP, General Funds		
TIMELINE	5+ years		
PRIORITY	High		

SECTION SEVEN: VILLAGE OF STAPLETON PROFILE

MITIGATION ACTION		STORM SHELTER/SAFE ROOMS
LEAD AGENCY	Village Board	
STATUS	The community center, county fairgrounds, and the school are currently being identified or used as a shelter locations. However, neither facility is rated for tornadoes.	

Completed Mitigation Action

MITIGATION ACTION		LIFT STATION IMPROVEMENTS
DESCRIPTION	Replace, upgrade, and/or repair lift stations damaged by past hazard events.	
HAZARD(S) ADDRESSED	Flooding, Severe Thunderstorms	
STATUS	Completed in 2021.	

THOMAS COUNTY COUNTY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Thomas County Local Planning Team

Name	Title	Jurisdiction	2024 Engagement
William Joseph Smith	County Sheriff	Thomas County	Attended one-on-one meeting
Lewis Herbaugh	Commissioner	Thomas County	Attended 1-on-1 Materials Development
Charles Daly	Commissioner	Thomas County	Attended 1-on-1 Materials Development
Pamela Moody	Commissioner	Thomas County	Attended 1-on-1 Materials Development
Lorissa Hartman	Clerk/Assessor	Thomas County	Attended 1-on-1 Materials Development
Andrea Thomas	Treasurer	Thomas County	Attended 1-on-1 Materials Development
Rich Cook	Weeds Superintendent	Thomas County	Materials Development

Governance

A community's governance structure impacts its capability to implement mitigation actions. Thomas County is governed by a three member board of commissioners. The county also has the following offices and departments:

- County Clerk
- County Assessor
- County Treasurer
- County Attorney
- Emergency Management
- Highway Superintendent
- Sheriff's Department
- Planning and Zoning Commission

Plan Maintenance

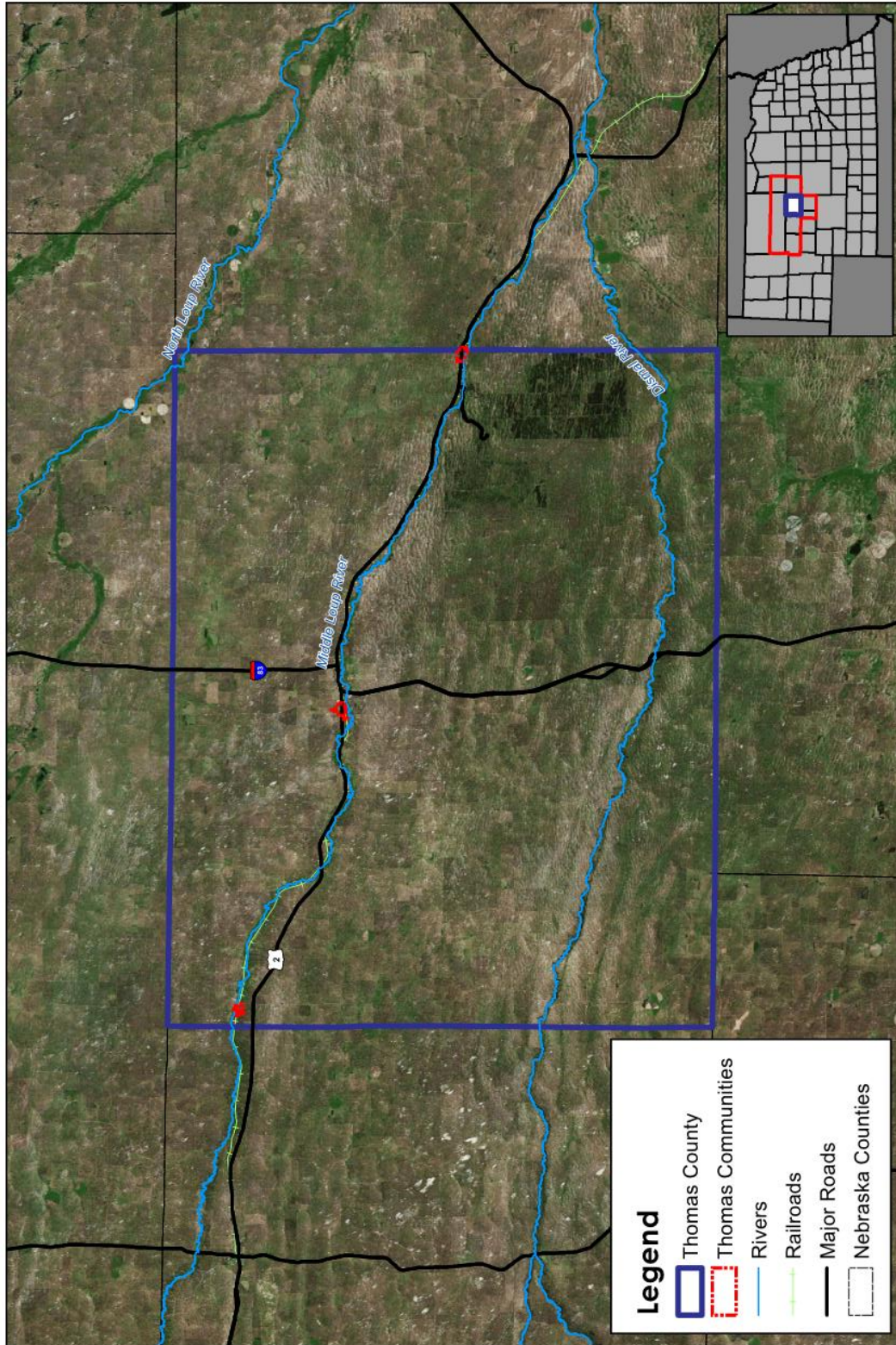
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this county profile as changes can occur before or after a major event. The local planning team will include the Thomas County Sheriff, County Clerk, Assessor, County Commissioners, the Veterans Service Board, and the Visitors Committee. The plan will be reviewed annually. The public will be notified of the plan review and revision through a public notice through the visitors committee which distributes sales tax notices, the county website, and a post in the Thomas County Herald newspaper.

Location and Geography

Thomas County is located in north central Nebraska and is bordered by Blaine, Cherry, Hooker, McPherson, and Logan counties. The total area of Thomas County is 714 square miles. The Middle Loup River bisects central Thomas County from east to west, and the Dismal River crosses the southern half of the county. Thomas County lies in the Sand Hills and Valley topographic regions, with most of the land used as rangelands for cattle.

Thomas County



Legend

- Thomas County
- Thomas Communities
- Rivers
- Railroads
- Major Roads
- Nebraska Counties

Thomas County
County Boundary

Created by: KDD
Date: 8/1/2018
Software: ArcGIS 10.4.1

This map was prepared using information from recent drawings supplied by the City of Thomas, the County of Thomas, and the State of Nebraska. The City of Thomas, the County of Thomas, and the State of Nebraska are not responsible for any errors or omissions in this map. The information used to prepare this map is not a scaled plan.

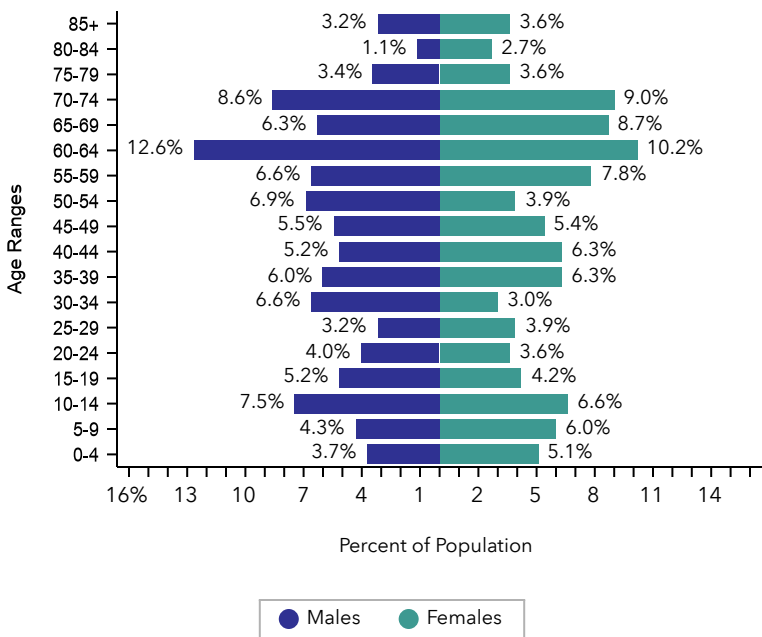
0 2 4 8 Miles

Community Summary Fact Sheet

Thomas County, NE
Upper Loup NRD Hazard Mitigation Plan 2024

681	313	2.18	49.3	\$60,303	\$207,386	88	380
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	681
2020 Total Population (U.S. Census)	669
2010 Total Population (U.S. Census)	647
2000 Total Population (U.S. Census)	729

AT RISK POPULATION



80

Households With Disability



171

Population 65+



7

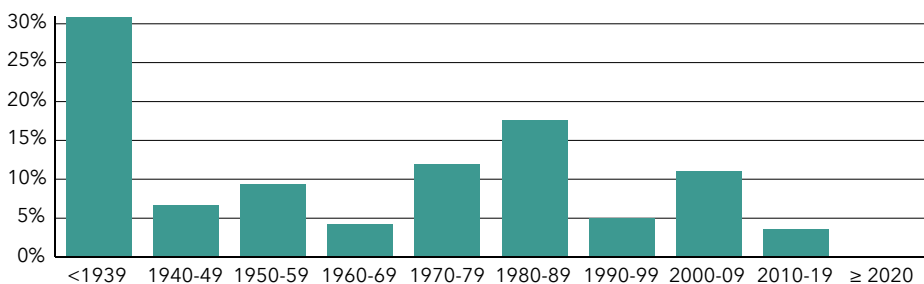
Households Without Vehicle



10%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



0%

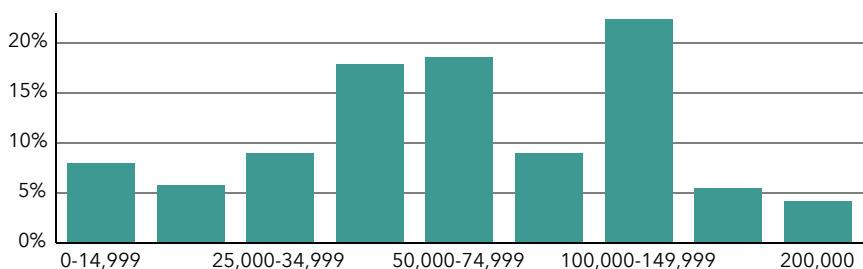
Workers Who Took Public Transportation



0%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

The population of Thomas County has been declining since the 1920s and sits at a population around 690 as of 2023. The local planning team attributes the declining rate to an aging population and lack of economic opportunities. Due to the closure of a local manufacturing business, employees relocated out of the county and contributed to the decline.

Housing

The majority of housing in Thomas County was built prior to 1939. There are approximately 29 mobile homes in the county. The local planning team noted there are several homes throughout the county which are not currently lived in, but the current owners have no intention on selling at this time. The only available housing for sale or rent is low quality. Several areas are planned for future development – Thedford Heights is platted with eleven five acre lots. Since the last Hazard Mitigation Plan seventeen homes and five cabins have been built throughout Thomas County.

Employment

According to 2020 Business Patterns Census Data, Thomas County had 24 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

Business in Thomas County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors	24	199	9,997

Source: U.S Census Bureau

Transportation

Thomas County’s major transportation corridors include Nebraska Highway 2 running east to west and U.S. Highway 83 running north to south. A Burlington Northern Santa Fe rail line runs east to west through the county and passes around both the Village of Thedford and Village of Halsey. Hazardous materials are regularly transported along the railroad and several chemical spills have occurred in the county. The nearest HAZMAT team is in Alliance or North Platte and the local fire departments would respond to either accidents, rail derailments, or other incidents. The county also has one airport located near the Village of Thedford. McMillian Ave, South Seneca, and Atkins Road were all identified as roads of concern, particularly due to ongoing maintenance and repair needs as they are multi-surface.

Future Development Trends

In the last five years new businesses have opened, including a new coffee shop (Anthem Coffee) and a local photographer is remodeling a building in Thedford for a studio. Pearson’s Livestock Equipment in Thedford was sold to a new owner out of state, but it is still unknown what will happen to the business. A new daycare is currently in the works and is looking for a space to rent and open in 2024. No new housing or industrial developments are planned for unincorporated Thomas County.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property

SECTION SEVEN: THOMAS COUNTY PROFILE

improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Number of Parcels	Number of Improvements	Total Improvement Value
1857	476	\$40,551,307

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



Critical Facilities

#	Lifelines	Name	Address	Shelter	Generator
1	Food, Water Shelter	Bethel Assembly	701 Kuhn Ave Thedford NE	Y	N
2	Food, Water Shelter	Community Center	351 W Ave Seneca NE	Y	N
3	Food, Water Shelter	Ewoldt's Grocery	608 Court St Thedford NE	N	N
4	Safety and Security	Halsey Fire Hall	105 Main St	Y	N
5	Food, Water, Shelter	Halsey Community Building	507 Hwy 2	Y	N
6	Food, Water Shelter	Sandhills Elementary School	350 Jewitt Ave Halsey NE	Y	N
7	Energy	Sandhills Oil Gas Station	39397 NE-2 Thedford NE	N	N
8	Other	Thedford Elementary School	304 Maple St Thedford NE	N	N
9	Food, Water Shelter	Thedford High School	400 Maple St Thedford, NE	Y	N
10	Safety and Security	Thedford Fire Hall	39253 Hwy 2 Thedford	Y	Y
11	Safety and Security	Thomas County Courthouse and Sheriff	503 Main St Thedford, NE	N	N
12	Safety and Security	Thomas County Fairgrounds	83861 Hwy 83	Y	N
13	Transportation	Thomas County Airport	83742 Airport Ln	N	N
14	Transportation	Transportation Shop	609 Maple St	N	N

SECTION SEVEN: THOMAS COUNTY PROFILE

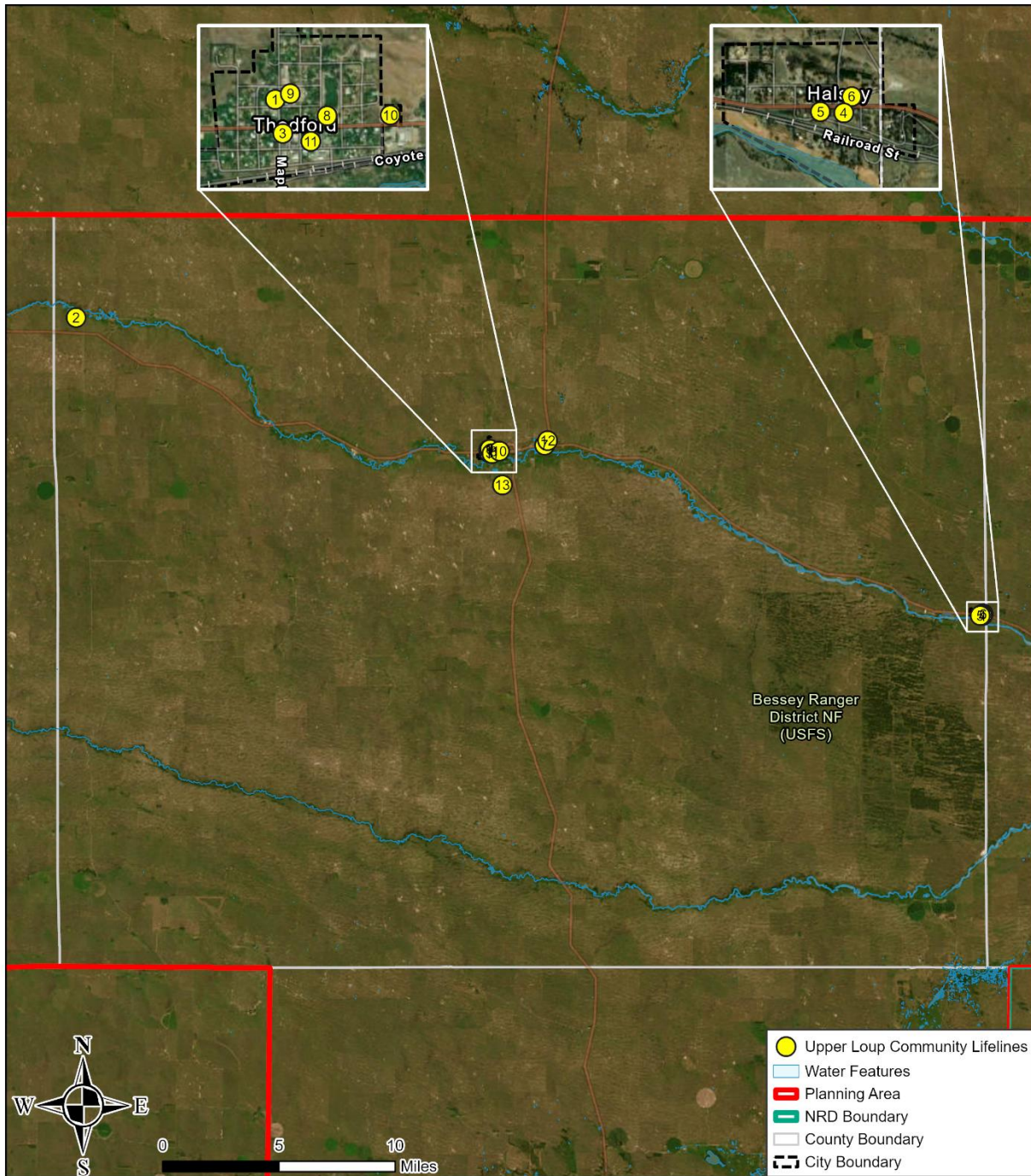
#	Lifelines	Name	Address	Shelter	Generator
15	Food, Water Shelter	United Church of Christ Church	403 Main St Thedford NE	Y	N

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there no chemical storage sites in unincorporated Thomas County which house hazardous materials. In the case of a spill in incorporated areas, the Sheriff and Thedford Volunteer Fire Department would respond. The fire department has protective gear and training to respond to such an event. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction’s participant section.

SECTION SEVEN: THOMAS COUNTY PROFILE

Critical Facilities

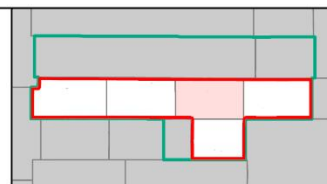


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 Date: 12/20/2023
 Software: ArcGIS Pro 3.1.2
 File: R211218.00

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Thomas County

Upper Loup NRD
 Hazard Mitigation Plan 2024



Capability Assessment

The planning team assessed Thomas County's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

	Survey Components/Subcomponents	Yes/No
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	Yes – 2019
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes – as needed, 2019 major update
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	State's
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	Yes (seven person)
	Floodplain Administration	No
	GIS Capabilities	Yes – Gworks
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
Other (if any)		

SECTION SEVEN: THOMAS COUNTY PROFILE

Survey Components/Subcomponents		Yes/No
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Overall Capability	2019 Plan	2024 Plan
Does your county have the financial resources need to implement mitigation projects?	Moderate	Moderate
Does your county have the staff/expertise to implement projects?	Limited	Limited
Does your county have the community support to implement projects?	Limited	Moderate
Does your county staff have the time to devote to hazard mitigation?	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Thomas County is Very Low (0.32). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Thomas County have a Very Low (0.19) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Thomas County have a Relatively Moderate (52.67) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the county.

Rural Capacity Index

Components of Index	Thomas County
County is Metropolitan?	No

Components of Index	Thomas County
Has a Head of Planning?	No
Has a College or University?	No
Adults with Higher Education:	24%
Families Below Poverty Level:	4%
Households with Broadband:	89%
People without Health Insurance:	5%
Voter Turnout:	93%
Income Stability Score (0 to 100):	24
Population Change (2000 to 2019):	-194
Overall Rural Capacity Index Score	Low Capacity 44 out of 100

Source: Headwaters Economics

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plan

The Thomas County Local Emergency Operations Plan (LEOP) was last updated in 2019 and is anticipated to be updated again in 2023-24. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that require evacuation and evacuation routes; identifies areas vulnerable to flooding; and identifies sheltering locations. Copies of the LEOP are with the sheriff and fire/rescue department.

Comprehensive Plan

Thomas County’s Comprehensive Plan was last updated in 2019. Major changes to the plan included additional requirements for wind or solar development and conservation easements. The plan includes current and future land use maps, goals aimed at safe growth, areas where shelter locations are needed, as well as encourages drought tolerant plants and strengthening historic structures.

Zoning Ordinances and Building Code

The County’s Zoning Ordinance and Building Codes were last updated in 2019, with no current updates planned. The Zoning Ordinance discourages development in flood prone areas (there is no mapped floodplain), prohibits the filling of wetlands, and discourages development by chemical storage sites and major transportation routes. The Building Code encourages the use of hail and fire-resistant building materials, sewer backflow valves, allows raingardens, and encourages the use of drought tolerant and native plants.

Capital Improvement Plan

Thomas County’s Capital Improvement Plan is updated on an annual basis. Projects identified in the plan include: upsizing culvers and drainage structures, improving transportation routes, new wells, bridge improvements, generators at critical facilities, and a new community center. The local planning team indicated that the annual budget is not currently sufficient for most projects

remains relatively consistent annually. The budget does not include current hazard mitigation projects but does include public education efforts. A priority for the for the county is to utilize all existing land in the county and receive funding from it, as the county loses out on revenue for the approximately 80,000 acres of county land located in the Halsey National Forest. The county sheriff provides some law enforcement in the forest and fire rescue squads get pulled to the area for fire response, but otherwise no revenue comes to the county from the forest.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Thomas County in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is the Bessey Ranger District of the Nebraska National Forest, located near Halsey. This area contains about 25,000 acres of planted pines and eastern redcedars, constituting a high fire hazard. There are also scattered areas throughout Thomas County where eastern redcedar has encroached into grasslands, increasing fire risk. The Thedford Fire Department considers the Dismal River Valley to be a concern due to rough terrain and limited road access. The Halsey fire chief considers the village itself as a concern, as the fire department is not equipped for fighting structure fires. Some homes on the north side of town have heavy fuels close to them. He also has concerns that the river bridges in his district both in Thomas and Blaine Counties are not rated to handle tankers.

Annual Budget

The local Planning Team indicated the annual municipal budget is fairly limited in its capacity to pursue new projects and the majority of funds are used to maintain existing equipment and county responsibilities.

National Flood Insurance Plan

Thomas County does not participate in the NFIP and has no plans to join the program as flooding is of minimal concern for the area. There is no mapped floodplain for Thomas County. There are no repetitive loss or severe repetitive loss properties in Thomas County.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Thomas County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

SECTION SEVEN: THOMAS COUNTY PROFILE

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	2	41 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		0	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$35,684	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	1	\$0	\$0	
	Flood	1	\$50,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$57,026		
Severe Thunderstorms	Hail	150	\$252,000	\$115,040	
	Heavy Rain	0	\$0		
	Lightning	1	\$0		
	Thunderstorm Wind	45	\$69,000		
Severe Winter Storms	Blizzards	9	\$74,000	\$57,083	
	Heavy Snow	3	\$0		
	Ice Storms	0	\$0		
	Winter Storms	46	\$8,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	23	\$0	\$259,921	
	Tornadoes	5	\$61,000	\$0	
Wildfire		105	40,850 acres	\$58,200	8 homes threatened, 5 structures threatened, 1 home destroyed, 3 structures destroyed
Total		288	\$1,571,026	\$150,724	8 homes threatened, 5 structures threatened, 1 home destroyed, 3 structures destroyed

The following section expands on the hazards of top concern identified by Thomas County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be

of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Drought

Drought is a periodic occurrence across the state and planning area. Agriculture is a primary economic driver in the County and long-lasting droughts would greatly impact this industry. Wildfire is also of greater concern during times of drought with reduced water supplies and highly flammable landcover. Thedford has municipal wells, while Halsey and Seneca have residential wells. All of which may experience lowered water levels during drought conditions. Drought events in 2006 and 2012 significantly impacted the region with losses for local producers and wildfire activity substantially increased. The County has a drought response plan that allows the fire department to place fire bans. The county also works with the ULNRD to help regulate wells and pivot systems across the county. The local planning team identified a concern for providing adequate water to residents during dry periods or shortages. Specifically the county would like to address a need to provide bottled water to residents for drinking or household use during hazard events which threaten local water supplies.

Mitigation Actions

MITIGATION ACTION		WATER STORAGE AND CONTINGENCY PLAN	
DESCRIPTION	Evaluate and develop a plan to provide adequate potable water to residents for household use during shortages. Due to the rural nature of the county, additional agreements with outside agencies are likely needed.		
HAZARD(S)	Drought, Extreme Temperatures, Severe Storms (Thunder or Winter)		
ESTIMATED COST	\$6,000		
FUNDING	General Fund		
TIMELINE	2-5 years		
PRIORITY	Low		
LEAD AGENCY	County Board		
STATUS	This is a new action.		

Grass/Wildfire

Grass/wildfire is a top concern for the county as they occur regularly across the planning area. There are large tracts of land without fire breaks across the county, aiding in the spread of wildfire. The majority of wildfire events in the county start due to either lightning strikes or equipment. The county supports the local fire departments when fire bans are put in place. County shelter locations can be opened during fires to provide places for people to go or act as supply depots when needed. The local planning team indicated they should review local codes and ordinances to see what can be improved regarding fuels management on private property and along major roadways.

The county’s local economy is heavily dependent on agriculture and rangelands which, when burned, can support fewer cattle. There is a volunteer fire department in Thedford who covers several million acres of land. The location of Halsey National Forest in the County also increases vulnerability to grass/wildfire due to high fuel loads. The county’s relationship with the National Forest has improved over the past several years with increased communication after the Thedford/Halsey Fire. The forest has also hired several more locals at the park.

SECTION SEVEN: THOMAS COUNTY PROFILE

A major fire occurred near Halsey in October 2022 – the Bovee Fire. This event impacted approximately 19,000 acres in Thomas County. An overturned vehicle and extreme drought conditions led to perfect conditions for wildfire to spread. The fire impacted the local 4-H camp and fire tower and led to one fatality (a local assistant fire chief who suffered a heart attack while responding). The Eppley Lodge, cabins, and fire tower were completely lost and staff housing at the camp was deemed unsafe for occupancy. During the fire, residents of Halsey were issued evacuation orders by local fire personnel. The Village Clerk and her family went door-to-door to notify all residents to evacuate to surrounding communities, including a meet up at the Sandhills High School in Dunning.

Mitigation Actions

MITIGATION ACTION		DEFENSIBLE SPACE AND FUEL LOADS
DESCRIPTION	Work with the Nebraska Forest Service and US Forest Service to work with landowners about creating defensible space. Develop and implement brush and fuel thinning projects particularly along roadways.	
HAZARD(S)	Wildfire	
ESTIMATED COST	\$20,000	
FUNDING	HMGP, NFS, USFS, ULNRD, NGPC, Rural Fire Assistance, General Funds	
TIMELINE	2-5 years	
PRIORITY	High	
LEAD AGENCY	Thedford Fire Department; Halsey Fire Department, Nebraska Forest Service, Thomas County Emergency Management	
STATUS	This project has not yet been started. The Nebraska National Forest Service has conducted controlled burns the last few years. Additional fuel thinning can be done in other unincorporated county areas.	

MITIGATION ACTION		REVIEW FIRE CODES/ORDINANCES
DESCRIPTION	Evaluate and improve ordinances and building codes to provide defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders.	
HAZARD(S)	Wildfire	
ESTIMATED COST	\$20,000	
FUNDING	HMGP, NFS, USFS, ULNRD, NGPC, Rural Fire Assistance, General Funds	
TIMELINE	2-5 years	
PRIORITY	High	
LEAD AGENCY	Thedford Fire Department; Halsey Fire Department, Nebraska Forest Service, Thomas County Emergency Management	
STATUS	This project has not yet been started. The Nebraska National Forest Service has conducted controlled burns the last few years. Additional fuel thinning can be done in other unincorporated county areas.	

Hazardous Materials

SECTION SEVEN: THOMAS COUNTY PROFILE

Chemical spills are of concern due to the high volume of hazardous chemicals transported through the county via highway and railroad lines. Train derailments carrying coal and oil have occurred in the county which have caused over \$50,000 in damages. Since 2006, the majority of rail cargo has been coal through the area, however oil, waste products, and agricultural chemicals are all transported. Trucks traveling to and from Van Diet Chemical in McCook Nebraska regularly use US Highway 83 through Thomas County. When derailments or spills occur in the county the railroad (BNSF) handles the majority of cleanup and repair efforts – however there is little information shared with the county regarding what specific materials have been spilled or other pertinent details.

Locally, the Village of Thedford hosts HazMat clean up days to help local residents dispose of hazardous household materials safely. There are also prescription drop off days in Broken Bow and North Platte. The local planning team noted additional information or notifications about these days should be shared with members of the county and could also be shared through Region 26 for other surrounding areas.

A change from the previous HMP for the county removed the hazard “Civil Disorder” as a hazard of top concern, as the local planning team noted specific protests or disturbances aren’t common in the county except in relation to pipeline projects. A peaceful protest was held at the courthouse during discussions for the R-Line project by Nebraska Public Power District. The R-line is an energy transmission line which runs from the Gerald Gentleman Station near Sutherland to NPPD’s existing substation east of Thedford, continuing east to Holt County. As of 2023 the pipeline project has been halted and no other threats are noted.

Mitigation Actions

MITIGATION ACTION	PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	General Funds
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Thomas County Board, Region 26 EMA
STATUS	A household hazardous waste collection is held every fall in the Village of Thedford. Additional information and education can be shared at this event for other hazards of concern. Additionally information regarding prescription drug drop offs through Broken Bow and North Platte.

Severe Winter Storms

Severe Winter Storms are a regular part of the climate and weather for Thomas County. Severe winter storms include extreme cold, blizzards, ice accumulation, heavy snow, and winter storms.

SECTION SEVEN: THOMAS COUNTY PROFILE

These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. Within Thomas County there have been 80 severe winter storm events from 1996 to 2021. Most concerns for the county pertain to blizzards and driving wind which cause damages and block visibility on local roads. Road closures are a common impact when there are limited transportation avenues for residents and emergency services. The largest factor to address winter storms and snow is limited capacity. Local ranchers often help clear roads. The county can work to evaluate areas where drifting is a problem and partner with ULNRD or NDOT to address issues.

Mitigation Actions

MITIGATION ACTION		IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM
DESCRIPTION	Evaluate county roads for areas at risk to drifting. Work with the NRD or NDOT to address snow fences, trees, or armoring needs.	
HAZARD(S)	Severe Winter Storms	
ESTIMATED COST	\$30,000	
FUNDING	General Fund, Roads Fund	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	County Board	
STATUS	This is a new action.	

Tornadoes and High Winds

Thomas County has experienced several tornadoes since the mid to late 1990s ranging from EF0 to EF2 and high winds are common across the county. Tornadoes pose significant risk of damage to homes, businesses, infrastructure, and agriculture. Municipal records have a backup system for the County. There is a new siren in Thedford, but a siren is needed in Halsey. There are no safe rooms in Thomas County but the county fairgrounds was identified as a location to be used for reunification or for a future safe room to be built.

Mitigation Actions

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.	
HAZARD(S)	All Hazards	
ESTIMATED COST	\$15,000-\$25,000	
FUNDING	HMGP, BRIC, General Funds	
TIMELINE	2-5 years	
PRIORITY	High	
LEAD AGENCY	Thomas County, Thedford Fire	
STATUS	New sirens are needed Halsey, which requires coordination with Region 26 EMA.	

MITIGATION ACTION		BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.	
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms	

SECTION SEVEN: THOMAS COUNTY PROFILE

MITIGATION ACTION		BACKUP GENERATORS
ESTIMATED COST	\$15,000-\$30,000 per generator	
FUNDING	HMGP, BRIC, General Funds	
TIMELINE	2-5 years	
PRIORITY	Medium	
LEAD AGENCY	Village of Thedford, Thomas County Emergency Management	
STATUS	A backup generator has been purchased for the Village of Thedford well site, but additional generators are needed for the County Courthouse and Thedford Fire Hall.	

MITIGATION ACTION		STORM SHELTER/SAFE ROOMS
DESCRIPTION	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.	
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms	
ESTIMATED COST	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit	
FUNDING	HMGP, BRIC, General Funds	
LOCATION	Nebraska National Forest	
TIMELINE	2-5 years	
PRIORITY	Low	
LEAD AGENCY	Nebraska National Forests & Grasslands	
STATUS	This project has not yet been started. The Fairgrounds has been identified as a potential site for a safe room to be built.	

Completed Mitigation Actions

MITIGATION ACTION		ASSESS VULNERABILITY TO DROUGHT RISK
DESCRIPTION	Review relevant plans and municipal systems to identify factors which may increase drought impacts or gaps in planning and service delivery. This may include: assessing water distribution systems, reviewing well levels and identifying alternative water sources, examine water intensive consumers, review water pricing structures, considering the need for municipal water meters, and other locally appropriate actions.	
HAZARD(S)	Drought	
STATUS	Completed: This action was addressed through ULNRD Drought Plan.	

MITIGATION ACTION		DEVELOP A DROUGHT MANAGEMENT PLAN
DESCRIPTION	Work with relevant stakeholders to develop a drought management plan. Identify water monitoring protocols, outline drought responses, identify opportunities to reduce water consumption, and establish the jurisdictional management procedures.	
HAZARD(S)	Drought	
STATUS	Completed: This action was addressed through ULNRD Drought Plan.	

SECTION SEVEN: THOMAS COUNTY PROFILE

MITIGATION ACTION	DRAINAGE IMPROVEMENTS
DESCRIPTION	The jurisdiction utilizes stormwater systems comprising of ditches, culverts, and drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Drainage ponds, both retention and detention, may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
HAZARD(S) STATUS	Flooding, Severe Thunderstorms Completed: In final closeout and reimbursement stage.

VILLAGE OF HALSEY COMMUNITY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Halsey Local Planning Team

Name	Title	Jurisdiction	2024 Engagement
Dianna Rodocker	Village Clerk	Village of Halsey	Attended one-on-one meeting

Governance

A community’s governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Halsey has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and the following offices which may assist with the implementation of hazard mitigation projects.

- Village Clerk
- Halsey Rural Volunteer Fire District

Plan Maintenance

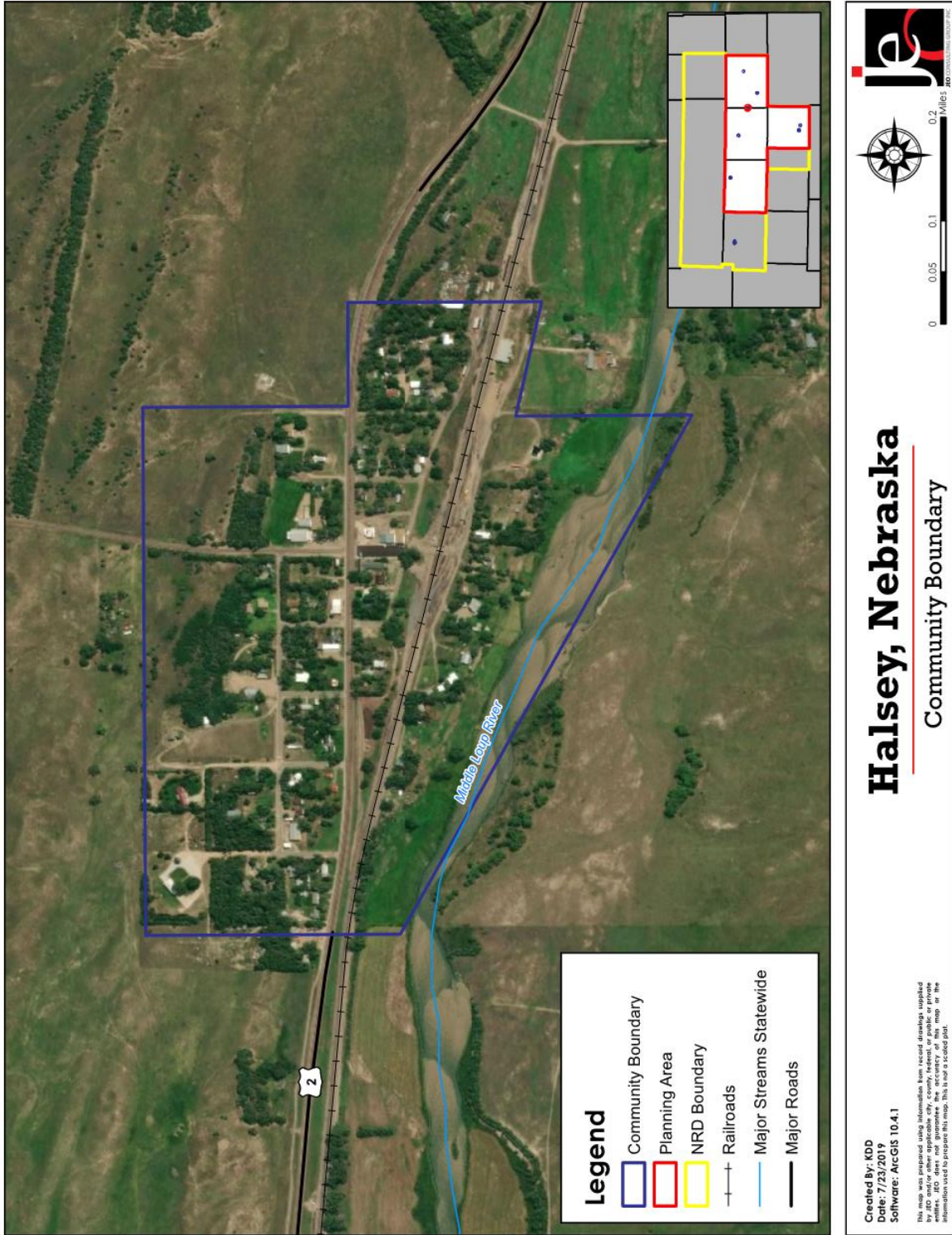
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the Village Clerk, Village Board Members, Nebraska Forest Service, and a representative from the local school district. They will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings through the Thomas County Herald newspaper and posts at the Sandhills Sutton Convenience store, Post Office, and Community Center.

Location and Geography

The Village of Halsey straddles the county border between Blaine County and Thomas County. The Village covers an area of 0.19 square miles. The Village is directly north of the Middle Loup River. The Nebraska National Forest is located to the southwest of the Village.

Village of Halsey

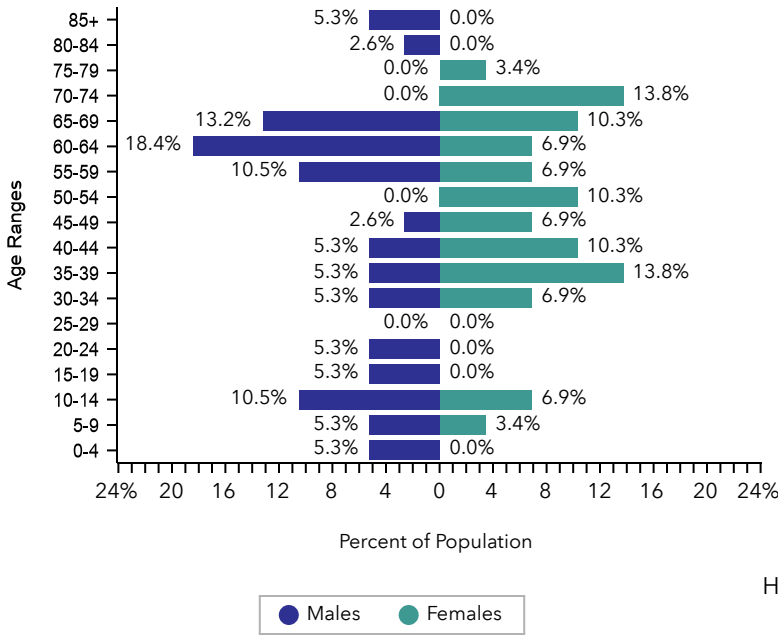


Community Summary Fact Sheet

Halsey Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

67	32	2.09	50.8	\$62,815	\$215,000	7	20
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	67
2020 Total Population (U.S. Census)	68
2010 Total Population (U.S. Census)	66
2000 Total Population (U.S. Census)	75

AT RISK POPULATION



8

Households With Disability



16

Population 65+



1

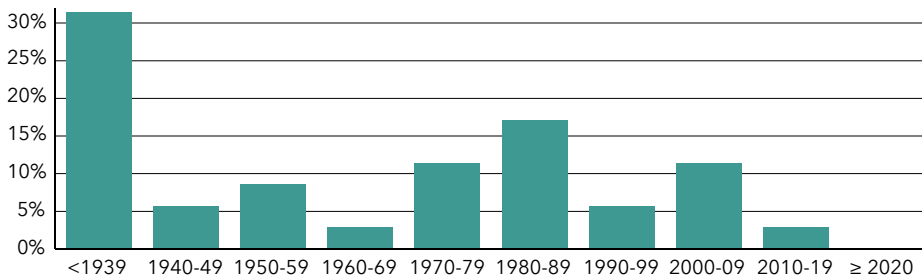
Households Without Vehicle



10%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



0%

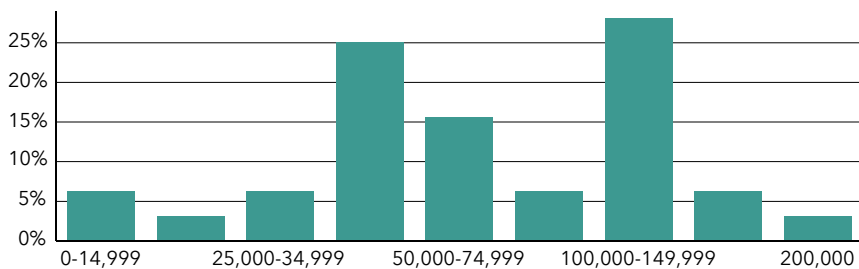
Workers Who Took Public Transportation



0%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Halsey's population sat around 68 residents according to the Census Bureau in 2020. The local planning team noted the local population is approximately 72 residents as there are several families in town with young children. The majority of Halsey is located in Thomas County, with only a small portion located in Blaine County. The local planning team indicated that only six village residents live in Blaine County.

Housing

The local planning team indicated there are several homes in the surrounding areas that have been abandoned. Housing stock in town is deteriorating due to age and poor maintenance. One mobile home in town has been sold and removed from in town. The housing stock in Halsey is very limited and provides inadequate opportunity for future growth or development.

Employment

The major employers in the Halsey area include Sandhills Public Schools and the US Forest Service at the Nebraska National Forest. While many residents work either within or close to Halsey, a few residents commute to neighboring communities for work.

Transportation

Halsey's major transportation corridors include Nebraska Highway 2. A Burlington Northern Santa Fe rail line is south of the Village. Hazardous materials are commonly transported along the highways and rail line. There have been several train derailments on the BNSF rail line, thankfully none have been within village limits. There are no airports located in Halsey. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Future Development Trends

In the last five years several dilapidated buildings have been remodeled for new businesses – Sutton’s Convenience Store and a new hair studio has opened. The local planning team attributes Halsey’s declining population to an aging population, however several homes in the Village have been recently purchased by younger couples. There are currently no new housing developments planned in the Village; however, in the next five years one additional business may open – a small meat locker and butcher is currently working through county and state zoning regulations.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE
29	6	\$337,281

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.



The Double-T Bar is used as a shelter location and the only location to purchase food in Halsey.

Critical Facilities

#	Name	Address	Shelter	Generator	
1	Other	Church	308 Hwy 2	No	No
2	Food, Water, Shelter	Double-T Bar	103 Main St	No	No
3	Safety and Security	Fire Department	105 Main St	Yes	No
4	Food, Water, Shelter	Lift Station	605 Burlington	No	No
5	Food, Water, Shelter	Sandhills Elementary School	Main St and Jewett Ave	Yes	No
6	Energy	Sandhill Sutton’s Speed and Supply	604 NE-2	No	No
7	Food, Water, Shelter	Sewer Lagoons	1 mi North of town	No	No
8	Safety and Security	Village Community Building	507 Hwy 2	Yes	No

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there is one chemical storage sites in Halsey that contain hazardous chemicals. Local concerns about chemical spills revolve around transportation spills or leaking rail cars.

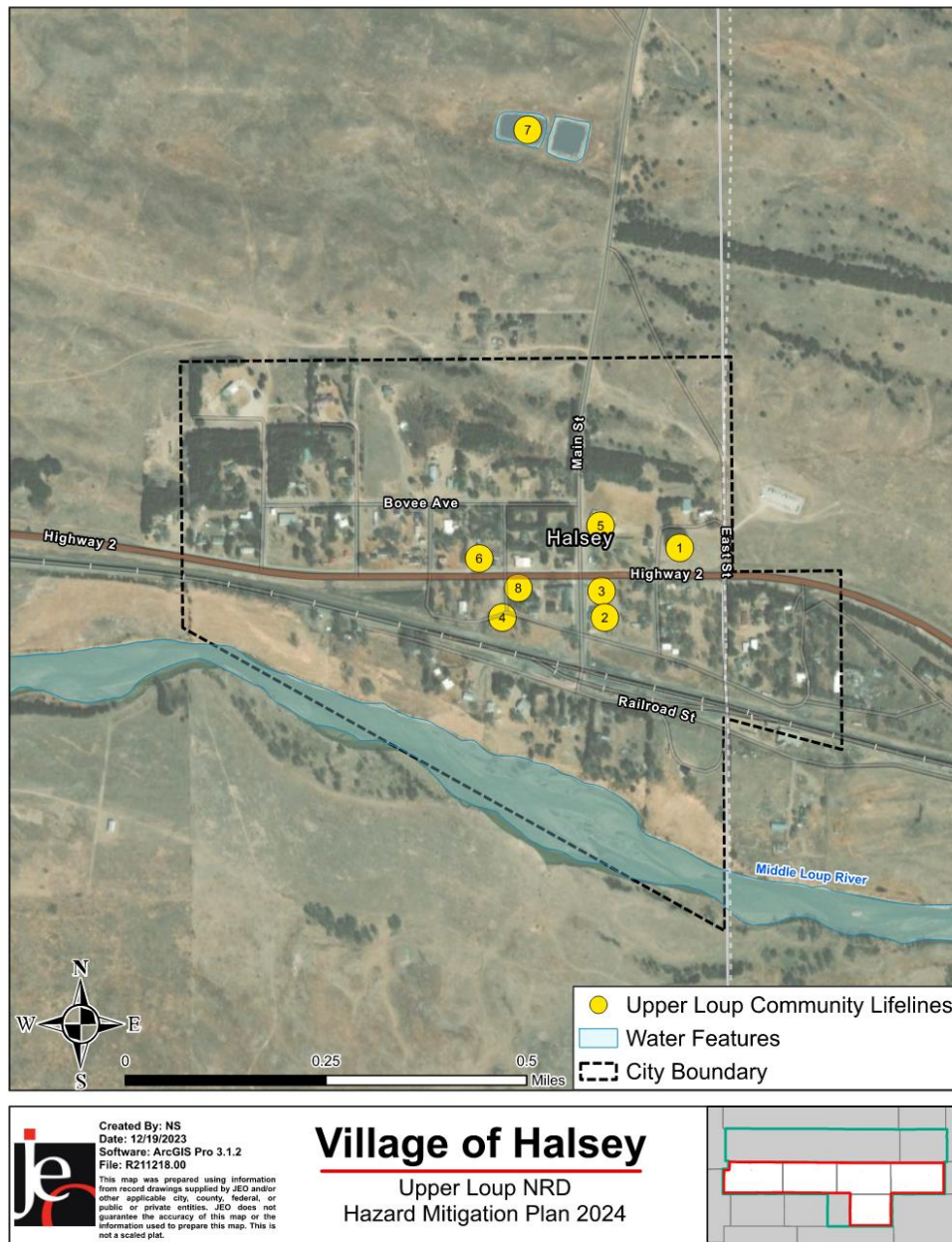
Chemical Storage Fixed Sites

Facility Name	Address	In Floodplain (Y/N)
Bessey Ranger District	40637 River Loop	Yes*

Source: Nebraska Department of Environmental Quality

*Note that no formal floodplain mapping has been done in the area, however the Bessey Ranger District is located alongside the south side of the Middle Loup River.

Critical Facilities



Capability Assessment

The planning team assessed the Village of Halsey's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Capability Assessment

<i>Survey Components/Subcomponents</i>		<i>Yes/No</i>
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	County – Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
Other (if any)		
<i>Administrative & Technical Capability</i>	Planning Commission	Yes – County
	Floodplain Administration	Yes - County
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes (Contractor as needed)
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)		
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	Yes – CDBG Street Improvement
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	County
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes – Sewer only
Development Impact Fees	No	

<i>Survey Components/Subcomponents</i>		<i>Yes/No</i>
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
<i>Education & Outreach Capability</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

<i>Overall Capability</i>	<i>2019 Plan</i>	<i>2024 Plan</i>
<i>Does your community have the financial resources need to implement mitigation projects?</i>	Limited	Moderate
<i>Does your community have the staff/expertise to implement projects?</i>	Limited	Moderate
<i>Does your community have the community support to implement projects?</i>	Moderate	Moderate
<i>Does your community staff have the time to devote to hazard mitigation?</i>	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Thomas County, which includes Halsey, is Very Low (0.32). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Thomas County have a Very Low (0.19) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Thomas County have a Relatively Moderate (52.67) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the Village of Halsey compared to the county.

Rural Capacity Index

Components of Index	Village of Halsey	Thomas County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	6%	24%
Families Below Poverty Level:	0%	4%
Households with Broadband:	100%	89%
People without Health Insurance:	0%	5%
Voter Turnout:	93%	93%
Income Stability Score (0 to 100):	19	24
Population Change (2000 to 2019):	-19	-194
Overall Rural Capacity Index Score	Low Capacity 45 out of 100	Low Capacity 44 out of 100

Source: Headwaters Economics

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plans

The Village of Halsey has an annex to the Thomas County Local Emergency Operations Plan (LEOP). The County LEOP identifies roles and responsibilities during an emergency.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Thomas and Blaine Counties in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is the Bessey Ranger District of the Nebraska National Forest, which straddles the Blaine/Thomas County line. This area contains about 25,000 acres of planted pines and eastern redcedars, constituting a high fire hazard. The Halsey fire chief considers the village itself as a concern, as the fire department is not equipped for fighting structure fires. Some homes on the north side of town have heavy fuels close to them. He also has concerns that the river bridges in his district in both Blaine and Thomas Counties are not rated to handle tankers.

Annual Budget

The local Planning Team indicated the annual municipal budget has very little wiggle room and the amount of available funds remains consistent annually.

National Flood Insurance Program

The Village does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for the Village of Halsey.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Halsey which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	3	6 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$6,441	
Earthquakes		1	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$97,885	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	0	\$0	\$904	
	Flood	2	\$130,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	1	\$12,425		
Severe Thunderstorms	Hail	198	\$269,000	\$1,697,384	
	Heavy Rain	0	\$0		
	Lightning	0	\$0		
	Thunderstorm Wind	42	\$228,000		
Severe Winter Storms	Blizzards	11	\$11,000	\$0	
	Heavy Snow	5	\$0		
	Ice Storms	1	\$0		
	Winter Storms	42	\$10,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Tornadoes & High Winds	High Winds	26	\$0	\$39,079	
	Tornadoes	6	\$20,000	\$0	
Wildfire		105	40,850 acres	\$58,200	8 homes threatened, 5 structures threatened, 1 home destroyed, 3 structures destroyed
Total		288	\$1,571,026	\$150,724	8 homes threatened, 5 structures threatened, 1 home destroyed, 3 structures destroyed

The following section expands on the hazards of top concern identified by the Village of Halsey. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Grass/Wildfire

Wildfire is a top concern for the community and across the area due to the location of the Halsey National Forest and as the local economy is heavily tied to agriculture and losses to hay, grazing area, and fencing would impact ranchers. The Village of Halsey is approximately two miles northeast of the Nebraska National Forest. The forest contains high fuel loads for grass/wildfire events. Mutual aid agreements are in place for local fire response teams, but all fire departments are volunteer based.

A major fire occurred near Halsey in October 2022 – the Bovee Fire. This event impacted approximately 19,000 acres in Thomas County. An overturned vehicle and extreme drought conditions led to perfect conditions for wildfire to spread. The fire impacted the local 4-H camp and fire tower and led to one fatality (a local assistant fire chief who suffered a heart attack while responding). The Eppley Lodge, cabins, and fire tower were completely lost and staff housing at the camp was deemed unsafe for occupancy. During the fire, residents of Halsey were issued evacuation orders by local fire personnel. The Village Clerk and her family went door-to-door to notify all residents to evacuate to surrounding communities, including a meet up at the Sandhills High School in Dunning.

The local planning team noted a concern around the walking trail through and out of town. The state used to mow along the walking trail, however this responsibility has fallen to the village who has extremely limited capacity to maintain it. The village is currently looking for a solution to include a maintenance schedule, equipment, and/or staff to mow the tall grass.

Mitigation Actions

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

MITIGATION ACTION	DEFENSIBLE SPACE AND FUEL LOADS
Description	Work with Bessey Nursery and Forest Service to ensure defensible space is in place around community buildings. Replace dying cottonwoods behind village office with new trees for shade and wind buffering.
Hazard(s) Addressed	Grass/wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$20,000
Funding	General Fund, Nebraska Forest Service
Timeline	5+ years
Priority	Medium
Lead Agency	Village Board, Fire Department, Nebraska Forest Service
Status	This project has not yet been started.

MITIGATION ACTION	TRAILS MOWING
Description	Evaluate equipment, staff, or capability to mow tall grass and/or manage fuel loads along trails and walkways through town.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	\$5,000
Funding	General Fund
Timeline	5+ years
Priority	Low
Lead Agency	Village Board
Status	This is a new mitigation action.

Severe Thunderstorms

Severe thunderstorms are typically associated with heavy rain, lightning, high winds, and hail. Tree damages from thunderstorms have broken resident windows and blocked roads. Residents without access to shelter and the likelihood of power loss are primary concerns from severe thunderstorms. Some areas in town experience localized ponding on unpaved roads, including East Street and in front of the local church. Residents may enroll in CodeRed through Region 26 Emergency Management to receive severe weather alerts. There are no sirens in town. The local planning team noted neighbors are engaged and regularly check in with each other during events. In 2002 a severe hailstorm with high winds and heavy rain caused significant damage to resident homes and property. The Village Community Building has hail resistant roof and siding materials to protect against hail damage.

Mitigation Actions

MITIGATION ACTION	ALERT/WARNING SIRENS
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$15,000+
Funding	HMGP, BRIC, General Funds
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	This action has not yet been started. The village plans to confirm all citizens have access to weather alert programs.

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

MITIGATION ACTION		HAZARDOUS TREE REMOVAL PROGRAM
Description	Identify and remove hazardous limbs and/or trees	
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms	
Estimated Cost	\$20,000	
Funding	HMGP, US Forest Service, General Funds	
Timeline	2-5 years	
Priority	High	
Lead Agency	Village Utilities, Village Board	
Status	There are several large cottonwood trees behind the village office which needs to be removed.	

Severe Winter Storms

Concerns exist in the community for the potential of loss of power during severe winter storms. Residents who lose power and do not have a wood burning stove or generator are left without heat. The Village relies on Custer Public Power District for electricity. While the Community Center and school may act as shelter locations, backup generators are needed at both facilities. Past winter storms have brought between four and ten inches of snow to the Village. The Village does not own snow removal equipment and instead hires a private contractor to remove snow.

Mitigation Actions

MITIGATION ACTION		BACKUP GENERATORS
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.	
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms	
Estimated Cost	\$15,000-\$30,000	
Funding	HMGP, BRIC, General Funds	
Timeline	5+ years	
Priority	High	
Lead Agency	Village Board, Region 26 EMA	
Status	This project has not yet been started. A generator is needed at the lift station. Available funds in the Village are limited and grant funding would be necessary to pursue backup generators.	

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.	
Hazard(s) Addressed	All Hazards	
Estimated Cost	\$500+	
Funding	HMGP, BRIC, General Funds	
Timeline	Ongoing	
Priority	Medium	
Lead Agency	Village Board, Region 26 EMA, NEMA, NDNR, ULNRD	
Status	The village would like to coordinate with Region 26 to ensure a landline calling tree system is in place for emergency alerts and all residents are aware of the emergency alert system.	

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

Completed Mitigation Actions

MITIGATION ACTION		CIVIL SERVICE IMPROVEMENTS
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire trucks, ATV's, water tanks/truck, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles, and identifying and training additional personnel for emergency response.	
Hazard(s) Addressed	All Hazards	
Status	Completed. Current resources are sufficient and no other needs are needed at this time. The Fire District has upgraded trucks and equipment as funding allows. Snow removal equipment is cost prohibitive for the community and a private contractor is hired. Ambulance services come from Thedford or Brewster.	

MITIGATION ACTION		WARNING SYSTEMS – TV AND TELEPHONE
Description	Improve/implement city cable TV interrupt warning system and telephone interrupt system such as Reverse911.	
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms	
Status	Completed. Region 26 EMA provides CodeRed alert system to residents. Enrollment of residents in the program is an ongoing action.	

MITIGATION ACTION		BACKUP MUNICIPAL RECORDS
Description	Develop protocol for backing up critical municipal records onto a portable storage device or service. Maintain routine backup of records.	
Hazard(s) Addressed	All Hazards	
Status	Completed. Records are backed up on paper and online.	

Removed Mitigation Actions

MITIGATION ACTION		TREE CITY USA
Description	Work to become a Tree City USA through the National Arbor Day Foundation order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation.	
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms	
Status	Removed – not a priority for the village.	

MITIGATION ACTION		ENROLL IN NFIP
Description	Participate in the National Flood Insurance Program	
Hazard(s) Addressed	Flooding, Severe Thunderstorms	
Status	Removed. This action is not a priority for the village.	

MITIGATION ACTION		TRAINING AND EQUIPMENT FOR VOLUNTEER WILDFIRE FIGHTERS
Description	Provide training and necessary equipment for volunteer fire fighters	
Hazard(s) Addressed	Grass/wildfires	
Status	Removed – this is the responsibility of the local fire department, not the village.	

SECTION SEVEN: VILLAGE OF HALSEY PROFILE

MITIGATION ACTION	WILDFIRE AND HIGH WINDS EMERGENCY RESPONSE AND RESCUE PLAN
Description	Work with federal, county, and local emergency personnel to develop a plan for the orderly movement of people from hazard areas to safe facilities or potentially safer from an impending emergency situation and which also highlights meeting locations, available equipment, needed equipment, communication protocols, etc.
Hazard(s) Addressed	All Hazards
Status	This is addressed through the LEOP and other local emergency plans from Region 26.

VILLAGE OF THEDFORD COMMUNITY PROFILE



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Thedford Local Planning Team

Name	Title	Jurisdiction	2024 Engagement
Wade Neben	Co-Chairman Village of Thedford	Village of Thedford	One-on-one meeting attendance, profile development and review
Robert Mills	Village Maintenance	Village of Thedford	One-on-one meeting attendance, profile development and review
Terry Higgins	Village Maintenance	Village of Thedford	One-on-one meeting attendance, profile development and review
Ronda Haumann	Village Clerk	Village of Thedford	One-on-one meeting attendance, profile development and review
Kyle Hinton	Village Board Member	Village of Thedford	One-on-one meeting attendance, profile development and review
Darren Rinestine	Village Board Member	Village of Thedford	One-on-one meeting attendance, profile development and review
Wade Neben	Village Chairman	Village of Thedford	profile development and review
Daniel Wadas	Village Board Member	Village of Thedford	One-on-one meeting attendance, profile development and review
Brittney Deines	Village Board Member	Village of Thedford	Profile development and review

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Thedford has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member board and the following offices.

- Village Clerk
- Parks Committee
- Streets Committee
- Trash Committee
- Water/Sewer Board
- Fire Department

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and

SECTION SEVEN: VILLAGE OF THEDFORD PROFILE

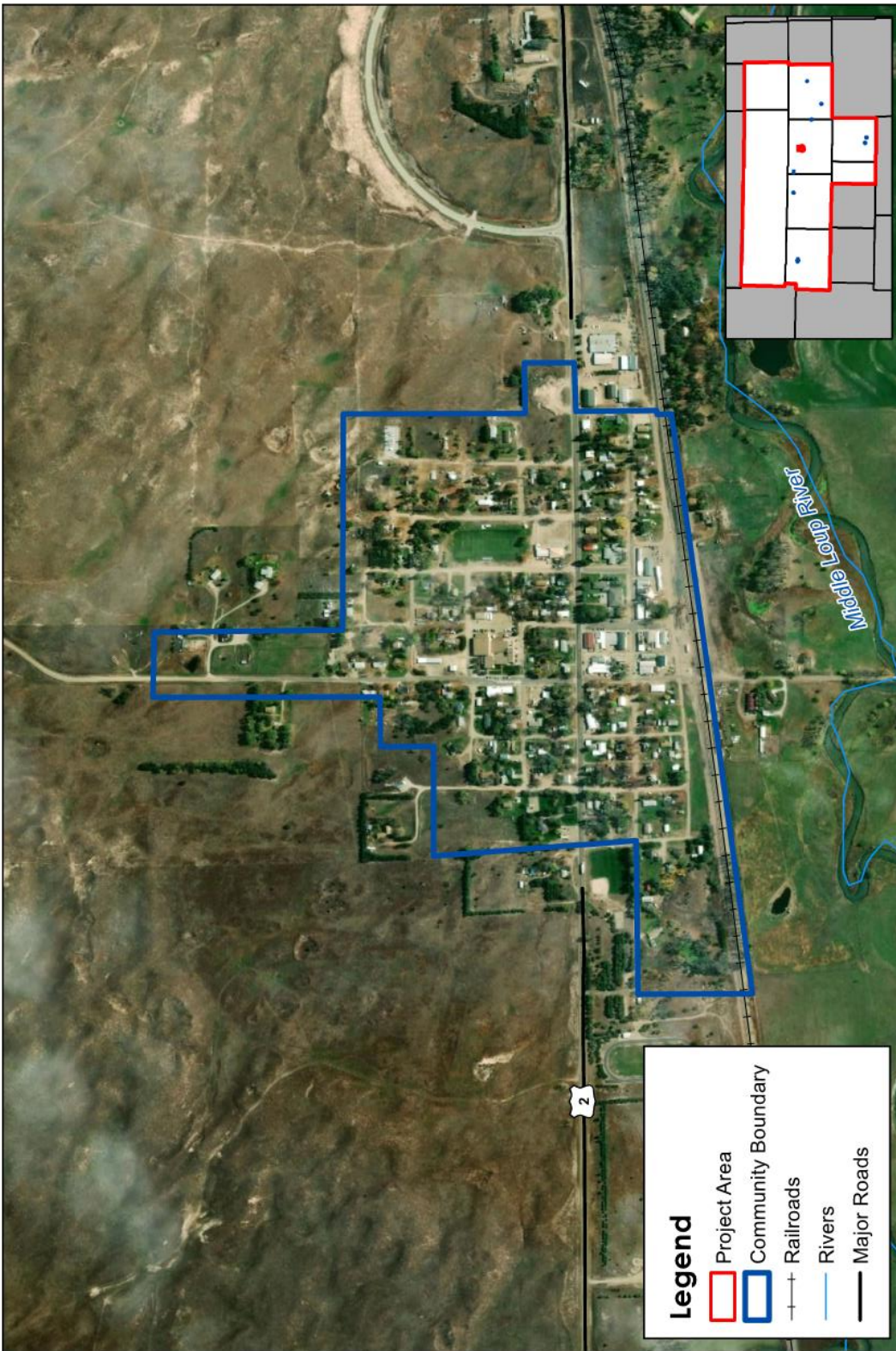
Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include the Village Clerk, Maintenance personnel, and the Village Board who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision through a public notice for board meetings at the post office, bank, courthouse, grocery, and life senior center.

Location and Geography

The Village of Thedford is located in central Thomas County. The Village covers an area of 153 acres. The Village is directly north of the Middle Loup River. The Village of Thedford is the county seat of Thomas County.

Village of Thedford



URD DISTRICT OFFICE

0 0.05 0.1 0.2 Miles

Thedford, Nebraska

Community Boundary

Created by: KDD
 Date: 8/1/2018
 Software: ArcGIS 10.4.1

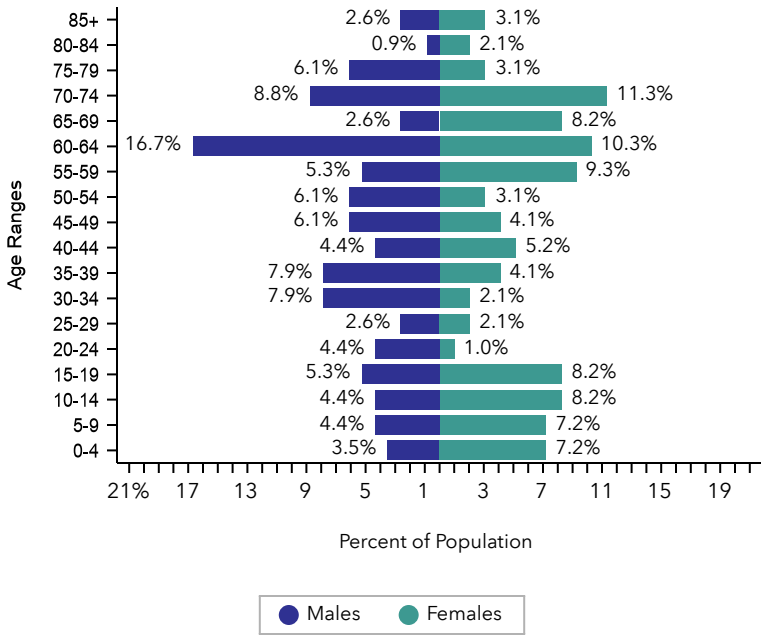
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Community Summary Fact Sheet

Thedford Village, NE
Upper Loup NRD Hazard Mitigation Plan 2024

211	97	2.18	49.8	\$58,180	\$219,643	37	148
Population	Households	Avg Size Household	Median Age	Median Household Income	Median Home Value	Total Businesses	Total Employees

AGE PYRAMID



Total Population

2023 Total Population (Estimate)	211
2020 Total Population (U.S. Census)	208
2010 Total Population (U.S. Census)	201
2000 Total Population (U.S. Census)	227

AT RISK POPULATION



24

Households With Disability



51

Population 65+



3

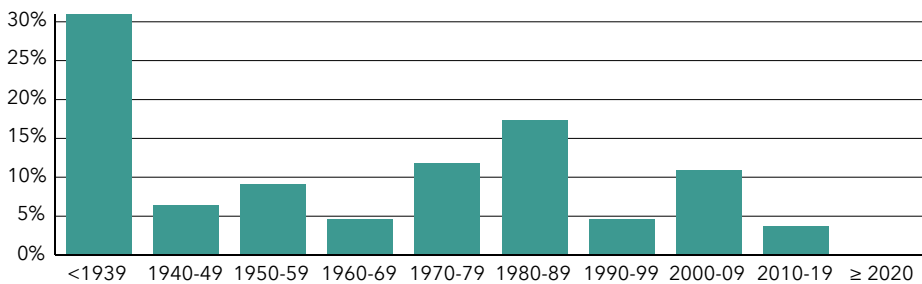
Households Without Vehicle



10%

Households Below the Poverty Level

Housing: Year Built



COMMUTER



0%

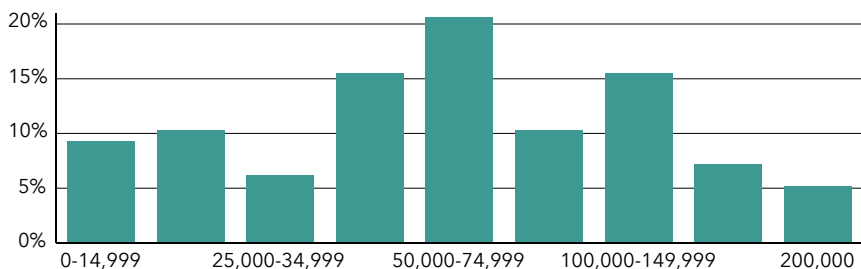
Workers Who Took Public Transportation



0%

90+ Minute Commute

Household Income



LANGUAGE



0%

Pop 5-17 Speak Other Language



0%

Pop 18-64 Speak Other Language



0%

Pop 65+ Speak Other Language

Demographic Vulnerabilities

Key vulnerabilities for the village are showcased from the U.S. Census Bureau and include:

Population

Thedford's population fluctuated from about 227 people in 2000, to 201 in 2010, back up to 211 people in 2023. The local planning team attributed this trend to an aging population, but growth in young families in town. Declining populations make communities more vulnerable to hazards as it leads to more unoccupied or vacant housing units and decreasing tax revenues to pursue mitigation projects. Thedford's population accounted for 26% percent of Thomas County's population in 2016.

Housing

Mobile or single wide trailer homes in the Village are dispersed throughout the community. The local planning team indicated that housing stock is limited in town, in part because property owners have available lots but are uninterested in selling. One new home has been built outside of the village limits and several in town have been rehabbed. The available housing stock in Thedford is very limited and provides inadequate opportunity for future growth or development.

Employment

Thedford Public Schools and Thomas County Courthouse are the largest employers in the Village of Thedford. Many other residents work in the agriculture sector in the surrounding area. A previous major employer, the lumberyard, is under new management and it is unknown what impact that will have on the local economy.

Transportation

Thedford's major transportation corridors include Nebraska Highway 2 and U.S. Highway 83 east of town. A Burlington Northern Santa Fe rail line is south of the Village. The local planning team noted some streets experience regular ponding from heavy rains and wash out including Oak, Locust, and Ash Streets. Hazardous materials are regularly transported along the railroad and several chemical spills have occurred in the county, including a derailment in Thedford in 2017. The Thomas County Airport is located near the Village of Thedford.

Future Development Trends

The planning team indicated that little has changed in the past five years in the Village of Thedford. A new home has been built outside of town, the lumberyard changed owner management, a new photography business opened, and remodels have occurred for several homes and CowPoke's. In the next five years a new daycare may open in town which is a major need. The local planning team noted they are experiencing a teacher shortage for the school district due in part to a lack of childcare options for teachers. No new housing developments have been made or are planned at this time.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of November 2023. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Structural Inventory

NUMBER OF PARCELS	Number of Improvements	Total Improvement Value
1207	293	\$28,699,655

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.

**Critical Facilities**

#	Lifeline	Name	Address	Shelter	Generator
1	Food, Water, Shelter	Bethel Assembly Church	701 Kuhn Ave	Y	N
2	Energy	Custer Public Power Office/Shop	109 Main St	N	N
3	Food, Water, Shelter	Ewoldt's Grocery Store	608 Court St	N	N
4	Safety and Security	Fire Hall	39253 NE-2	Y	Y
5	Energy	Sandhills Oil Gas Station	39397 NE-2 Thedford NE	N	N
6	Communications	Telephone Switching Station	Walnut St and Main	N	N
7	Other	Thedford Grade School	407 Court St	N	N
8	Food, Water, Shelter	Thedford High School	304 Maple St	Y	N
9	Food, Water, Shelter	United Church of Christ	403 Main St	Y	N
10	Transportation	Village Shop	403 Maple St	N	N
11	Food, Water, Shelter	Water Tanks #2 & 3	McMillan and Walnut	N	N
12	Food, Water, Shelter	Well Pumping Station #3	North Oak St	N	N
13	Food, Water, Shelter	Well Pumping Station #2	Kuhn Ave	N	Y
14	Food, Water, Shelter	Well Pumping Station and Water Tank #1	Railroad St	N	N

SECTION SEVEN: VILLAGE OF THEDFORD PROFILE

#	Lifeline	Name	Address	Shelter	Generator
15	Food, Water, Shelter	Lift Station	Court and Locust St	N	N
16	Food, Water, Shelter	Lagoons	Call Lane	N	N

Chemical Storage Fixed Sites

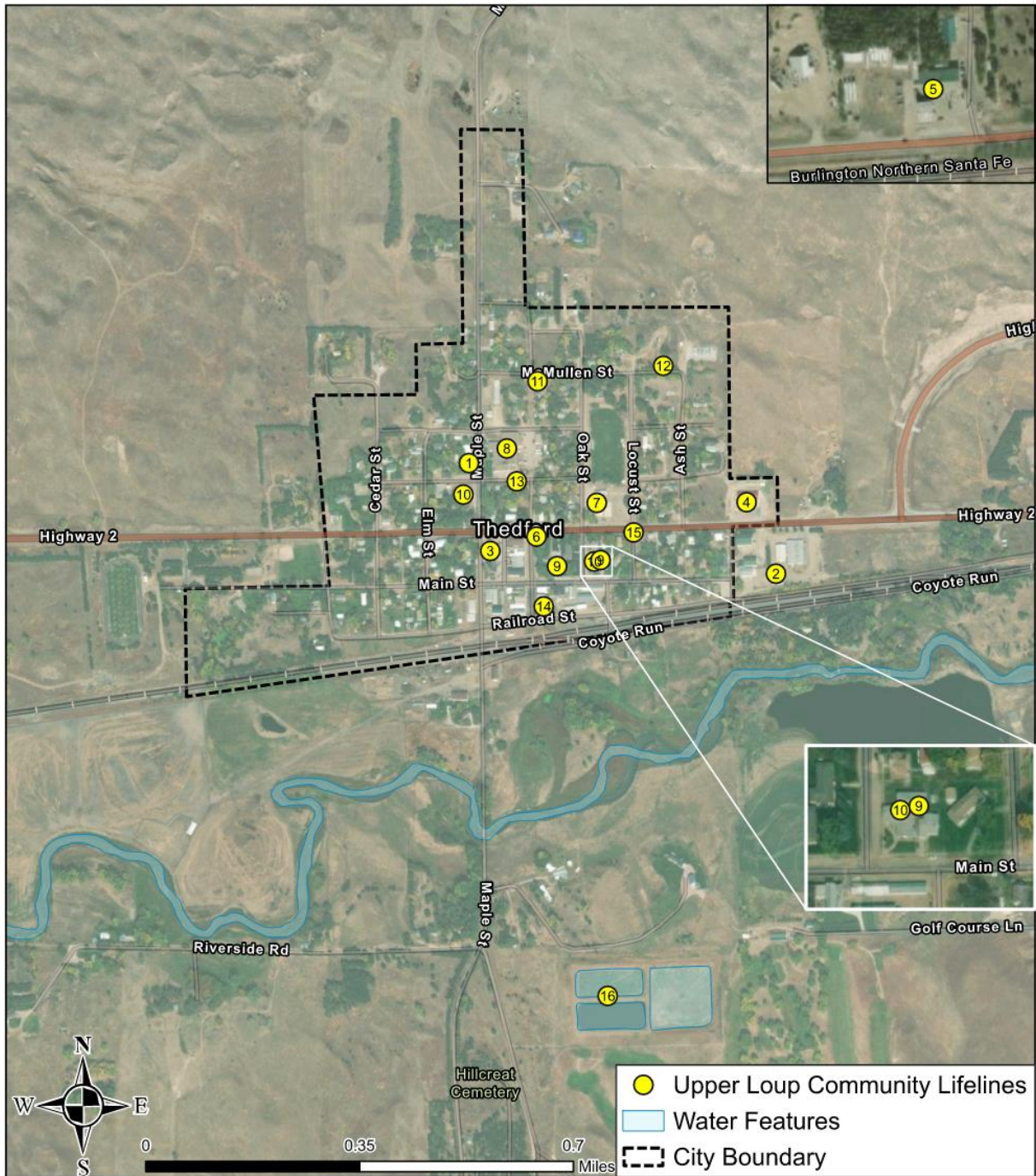
According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are three chemical storage sites near Thedford that contain hazardous chemicals. The planning team indicated the Fire Department personnel have hazmat awareness training and are able to call in additional resources for hazardous materials incidents if needed.

Chemical Storage Fixed Sites

Facility Name	Address	In Floodplain (Y/N)
Sandhill Oil Company Inc	39397 Highway 2	N
Thomas County Airport	83742 Airport Ln	N
NDOT Thedford Yard	83880 Highway 83	N

Source: Nebraska Department of Environmental Quality

Critical Facilities



Created By: NS
Date: 12/19/2023
Software: ArcGIS Pro 3.1.2
File: R211218.00

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Village of Thedford

Upper Loup NRD
Hazard Mitigation Plan 2024

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

Capability Assessment

	<i>Survey Components/Subcomponents</i>	<i>Yes/No</i>
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	<i>No</i>
	Capital Improvements Plan	<i>No</i>
	Economic Development Plan	<i>No</i>
	Emergency Operational Plan	<i>County – Yes</i>
	Floodplain Management Plan	<i>No</i>
	Storm Water Management Plan	<i>No</i>
	Zoning Ordinance	<i>No</i>
	Subdivision Regulation/Ordinance	<i>No</i>
	Floodplain Ordinance	<i>No</i>
	Building Codes	<i>No</i>
	National Flood Insurance Program	<i>No</i>
	Community Rating System	<i>No</i>
	Other (if any)	
<i>Administrative & Technical Capability</i>	Planning Commission	<i>Yes</i>
	Floodplain Administration	<i>County</i>
	GIS Capabilities	<i>Yes - County</i>
	Chief Building Official	<i>No</i>
	Civil Engineering	<i>Yes (Contractor as needed)</i>
	Local Staff Who Can Assess Community's Vulnerability to Hazards	<i>Yes</i>
	Grant Manager	<i>Yes</i>
	Mutual Aid Agreement	<i>Yes</i>
	Other (if any)	
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	<i>Yes</i>
	Applied for grants in the past	<i>No</i>
	Awarded a grant in the past	<i>No</i>
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	<i>County – Yes</i>
	Gas/Electric Service Fees	<i>No</i>
	Storm Water Service Fees	<i>No</i>
	Water/Sewer Service Fees	<i>Yes</i>
	Development Impact Fees	<i>No</i>
	General Obligation Revenue or Special Tax Bonds	<i>No</i>
Other (if any)		
<i>Education &</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency	<i>Yes (Service Club, County Fair Board)</i>

Survey Components/Subcomponents		Yes/No
Outreach Capability	preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (Water Conservation, Fire Safety in schools)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA Other (if any)	No

Overall Capability	2019 Plan	2024 Plan
<i>Does your community have the financial resources need to implement mitigation projects?</i>	Limited	Limited
<i>Does your community have the staff/expertise to implement projects?</i>	Limited	Limited
<i>Does your community have the community support to implement projects?</i>	Limited	Limited
<i>Does your community staff have the time to devote to hazard mitigation?</i>	Limited	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Thomas County, which includes Thedford, is Very Low (0.32). The average for the State of Nebraska is 9.43.

- **Social Vulnerability:** Social groups in Thomas County have a Very Low (0.19) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Thomas County have a Relatively Moderate (52.67) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

An additional tool developed by Headwaters Economics, the Rural Capacity Index, evaluates rural communities and counties across the country for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Communities lacking local capacity often have the greatest need for infrastructure investments particularly, rural communities and communities of color. The Rural Capacity Index helps identify communities with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on 10 variables that can function as proxies for community capacity. The following table lists the components and scores for the Village of Thedford compared to the county.

Rural Capacity Index

Components of Index	Village of Thedford	Thomas County
County is Metropolitan?	No	No
Has a Head of Planning?	No	No
Has a College or University?	No	No
Adults with Higher Education:	24	24%
Families Below Poverty Level:	0%	4%
Households with Broadband:	91%	89%
People without Health Insurance:	2%	5%
Voter Turnout:	93%	93%
Income Stability Score (0 to 100):	10	24
Population Change (2000 to 2019):	-33	-194
Overall Rural Capacity Index Score	Low Capacity 45 out of 100	Low Capacity 44 out of 100

Source: *Headwaters Economics*

Plans and Studies

There are very limited planning documents that discuss or relate to hazard mitigation for the community. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Emergency Operations Plan

The Village of Thedford has an annex to the Thomas County Local Emergency Operations Plan (LEOP). The County LEOP identifies roles and responsibilities during an emergency. No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Thomas County in June 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

The area most at-risk from wildfire is the Bessey Ranger District of the Nebraska National Forest, located near Halsey. This area contains about 25,000 acres of planted pines and eastern redcedars, constituting a high fire hazard. There are also scattered areas throughout Thomas County where eastern redcedar has encroached into grasslands, increasing fire risk. The Thedford Fire Department considers the Dismal River Valley to be a concern due to rough terrain and limited road access. The Halsey fire chief considers the village itself as a concern, as the fire department is not equipped for fighting structure fires. Some homes on the north side of town have heavy fuels close to them. He also has concerns that the river bridges in his district both in Thomas and Blaine Counties are not rated to handle tankers.

Annual Budget

SECTION SEVEN: VILLAGE OF THEDFORD PROFILE

The local Planning Team indicated the annual municipal budget is very limited in its capacity to pursue new projects. Funds have stayed relatively the same over the past several years. The village has used funds from ARPA for improvements in the village including six new hydrants, maintenance and repairs to the water tanks, improvements to the wells, and purchasing new equipment. The village also provides trash services to Dunning, Halsey, and Thedford to receive additional funding.

National Flood Insurance Program

The Village does not participate in the NFIP and has no plans to join the program at this time. Flooding is not a hazard of concern for the Village of Thedford.

No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Village of Thedford which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	2	41 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		0	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$35,684	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	1	\$0	\$0	
	Flood	1	\$50,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$57,026		
Severe Thunderstorms	Hail	150	\$252,000	\$115,040	
	Heavy Rain	0	\$0		
	Lightning	1	\$0		
	Thunderstorm Wind	45	\$69,000		
Severe Winter Storms	Blizzards	9	\$74,000	\$57,083	
	Heavy Snow	3	\$0		
	Ice Storms	0	\$0		
	Winter Storms	46	\$8,000		
	Winter Weather	0	\$0		

SECTION SEVEN: VILLAGE OF THEDFORD PROFILE

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	23	\$0	\$259,921	
	Tornadoes	5	\$61,000	\$0	
Wildfire		105	40,850 acres	\$58,200	8 homes threatened, 5 structures threatened, 1 home destroyed, 3 structures destroyed
Total		288	\$1,571,026	\$150,724	8 homes threatened, 5 structures threatened, 1 home destroyed, 3 structures destroyed

The following section expands on the hazards of top concern identified by the Village of Thedford. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Hazardous Materials

Chemical spills are of concern due to the high volume of hazardous chemicals transported via semi-trucks along the two major highways which bisect Thedford and via rail lines. Concerns also exist about spills of gasoline, diesel, and fuel oil at service stations. The planning team indicated multiple critical facilities are located along major transportation routes where chemicals are transported, including residential homes, Thomas County Airport, gas stations, the elementary school, the courthouse, the high school, and a national park. A train derailment of coal in 2017 caused \$150,000 in damages and impacted the railroad crossing in town. The spill also came close to homes and the fire hall. Since 2006, the majority of rail cargo has been coal through the area, however oil, waste products, and agricultural chemicals are all transported.

In a chemical spill event, the local volunteer fire department, Thedford Rescue Team, and Thomas County Sheriff would respond, but have the ability to request additional aid from the State Fire Marshal Division and HazMat Response.

Mitigation Actions

MITIGATION ACTION		INFRASTRUCTURE HARDENING
DESCRIPTION	Install vehicular barriers and/or fencing to protect critical facilities and key infrastructure at well and water tank sites.	
HAZARD(S)	Chemical Spills (Transportation), Terrorism/Civil Disorder	
ESTIMATED COST	\$5,000-\$15,000	
FUNDING	NDEE, General Funds	
TIMELINE	5+ years	
PRIORITY	High	

MITIGATION ACTION		INFRASTRUCTURE HARDENING
LEAD AGENCY	Village Board	
STATUS	This project has not yet been started. The village has identified the need for fencing around the water tower.	

Severe Thunderstorms

Severe thunderstorms are typically associated with heavy rain, lightning, high winds, and hail. Heavy rains commonly flood residential basements, damage trees, and damage or potentially washout unpaved local and county roads. Heavy rain and wind conditions have downed trees and caused property damages. There is a new alert and warning siren which was installed at the fire hall which can be activated remotely. Several roads across the town experience localized ponding from heavy rain and the village has identified a need to clear out existing storm drains and evaluate drainage ways to capacity. Severe thunderstorms have caused \$69,000 in damages in the county, primarily from high winds.

Mitigation Actions

MITIGATION ACTION		HYDRANT IMPROVEMENTS
DESCRIPTION	Evaluate existing water distribution system including water mains and hydrants. Make improvements to system as needed. Install hydrant sat high flow points to equalize pressures.	
HAZARD(S)	Grass/wildfire, Severe Thunderstorms, Drought, Extreme Temperatures	
ESTIMATED COST	\$15,000 per hydrant	
FUNDING	General Fund	
TIMELINE	5+ years	
PRIORITY	High	
LEAD AGENCY	Fire Department, Village Board	
STATUS	This is a new mitigation action. The emphasis of work will be done in the northwest corner of the village.	

MITIGATION ACTION		DRAINAGE IMPROVEMENTS
DESCRIPTION	The jurisdiction utilizes stormwater systems comprising of ditches, culverts, and drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Drainage ponds, both retention and detention, may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.	
HAZARD(S)	Flooding, Severe Thunderstorms	
ESTIMATED COST	\$1 million	
FUNDING	General Funds	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	Village Board	
STATUS	This is a new mitigation action. The village needs to complete a drainage evaluation to determine size requirements for drainage ways.	

Severe Winter Storms

The Village of Thedford experiences severe winter storms every year. Concerns from severe winter storms include power loss from downed or damaged power lines, property damage, agricultural damages, and housing for stranded motorists. The local planning team indicated no power lines are buried in town. The Bethel Assembly Church, Fire Hall, and Thedford High School have been identified as shelter locations if power is lost. The fire hall has a backup generator and houses the siren. The village is in the process of acquiring a generator for the lift station in case of power outages to ensure water supplies are still delivered to residents. The Village Utilities are responsible for removing snow in town. Severe winter storms in the County have caused \$32,000 in property damages.

Mitigation Actions

MITIGATION ACTION		BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.	
HAZARD(S)	Tornadoes, high winds, severe thunderstorms, severe winter storms	
ESTIMATED COST	\$15,000	
FUNDING	General Fund	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Village Board	
STATUS	A generator has been purchased and installed at new fire hall and are on one main well. A new generator is in progress for lift station.	

Other Hazards of Note:

Grass/Wildfire

There is a high amount of Wildland Urban Interface present. According to the local Planning Team, wildfires in 1999 burned over 75,000 acres in the county and 2012 had a disproportionate number of fires occur. The Thedford Volunteer Fire Department has approximately 28 volunteers in the community. Additional small departments are located in Seneca and Brownlee. The fire departments cover several million acres of land. However, there is limited capacity for the village to pursue mitigation work for wildfire outside of supporting the volunteer fire department.

Tornadoes and High Winds

Tornadoes and high winds was previously identified as a hazard of concern as the village did not have an adequate siren to provide notice to residents. The alert siren has been replaced at the fire hall. Other concerns from high winds exist for power line disruption but is otherwise addressed through concerns with Severe Thunderstorms. At this time there are no other mitigation actions specific to tornadoes and high winds for the Village of Thedford.

Completed Mitigation Actions

MITIGATION ACTION		SHELTERING IN PLACE
DESCRIPTION	Ensure that all critical facilities, businesses, and residents located near major transportation corridors are aware of appropriate procedures to safely shelter in place in the event of a chemical release.	
HAZARD(S)	Chemical Spills (Fixed and Transportation)	
STATUS	Completed – the village has a plan in place.	

SECTION SEVEN: VILLAGE OF THEDFORD PROFILE

MITIGATION ACTION		FIRE WISE DEFENSIBLE SPACE
DESCRIPTION	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train land owners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.	
HAZARD(S)	Grass/wildfire	
STATUS	Completed. The Volunteer Fire Department works with the National Forest Service to train responders in urban/wildland interface and appropriate mitigation measures that can be taken.	

MITIGATION ACTION		EMERGENCY OPERATIONS CENTER
DESCRIPTION	Identify and establish an Emergency Operations Center	
HAZARD(S)	All Hazards	
STATUS	Complete – the Fire Hall has been identified as the EOC for the Village of Thedford.	

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking. Identify locations of weather warning radios.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
STATUS	Completed – a new siren was installed at the Fire Hall.	

MITIGATION ACTION		CONTINUITY OF PLANNING
DESCRIPTION	Work to develop continuity plans for critical facilities and key resources throughout the community.	
HAZARD(S)	All Hazards	
STATUS	Completed – addressed by LEOP and residents are self-sufficient.	

Removed Mitigation Actions

MITIGATION ACTION		ENROLL IN NFIP
DESCRIPTION	Participate in the National Flood Insurance Program (NFIP).	
HAZARD(S)	Flooding, Severe Thunderstorms	
STATUS	Removed – this action is not a priority for the village.	

SCHOOL PROFILE

MULLEN PUBLIC SCHOOLS



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Mullen Public Schools Local Planning Team

Name	Title	Jurisdiction	ENGAGEMENT
Chris Kuncel	Superintendent	Mullen Public Schools	One-on-one Meeting, materials development

Governance

Mullen Public School is governed by a superintendent and a six-member elected Board of Education. The following positions may help implement mitigation projects:

- Superintendent
- Business Manager
- IT
- Maintenance and Custodian

Plan Maintenance

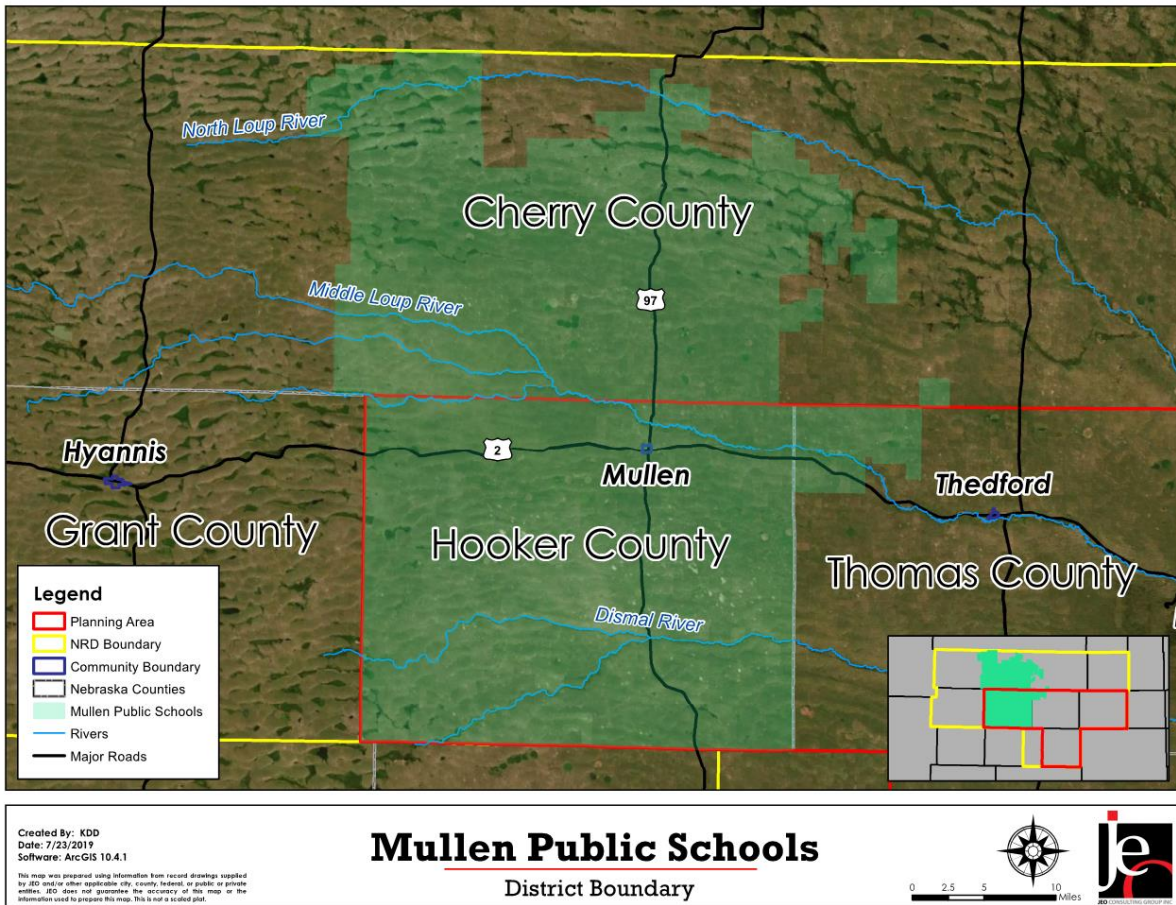
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes occur before or after a major event. The local planning team will include the Superintendent who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision process at school board meetings which are open to the public and through messaging through the ThrillShare program which sends updates via website, social media, text/emails, or app notifications.

Location and Services

Mullen Public Schools is located in the Village of Mullen in Hooker County and serves two schools, Mullen High School and Mullen Elementary School. The school district provides services to students in Hooker, Thomas, and Cherry Counties. English is the predominant language in the district, with some Spanish speaking students as well. The district also serves opt-in students from neighboring communities including Thedford (Thomas County), Tryon (McPherson County), Valentine (Cherry County), and Hyannis (Grant County).

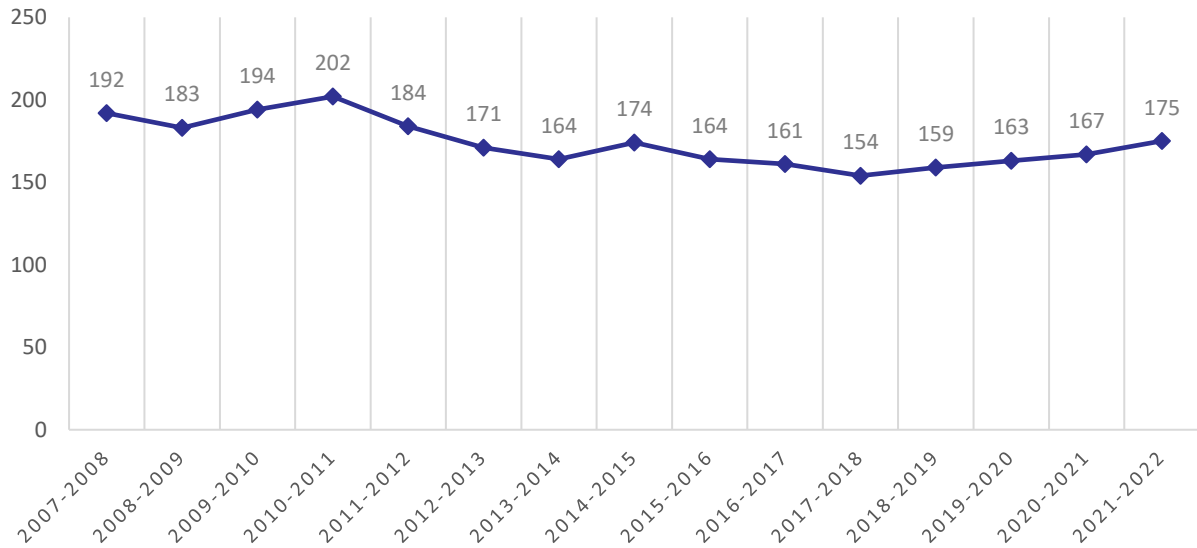
Mullen Public Schools District



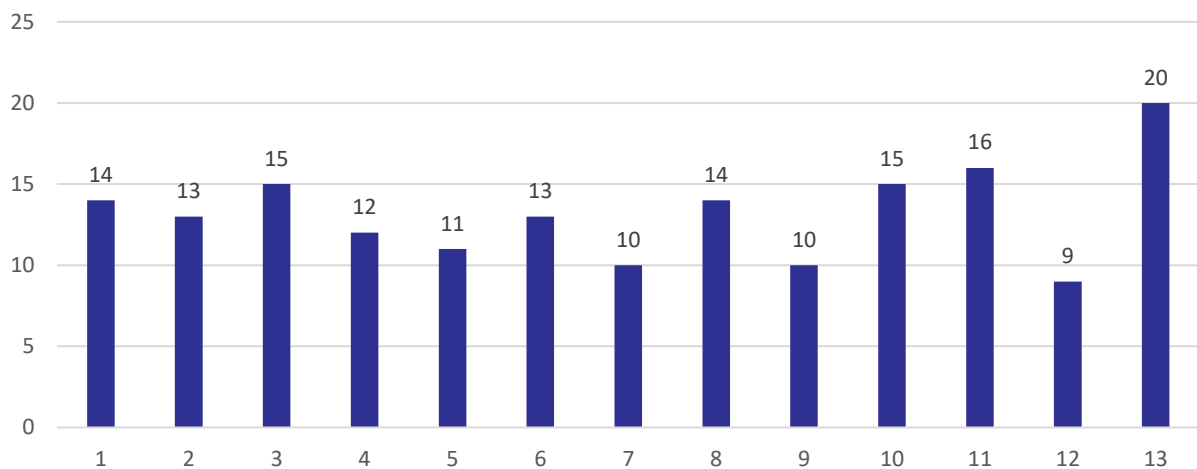
Demographics

The following figure displays the historical student population trend starting with the 2007-08 school year and ending with the 2021-22 year. It indicates that the student population has been relatively stable since the late 2000s. The local planning team indicated they expect little change in student population in the next few years.

SECTION SEVEN: MULLEN SCHOOLS PROFILE



2020-2021 Enrollment by Grade Level



Students from low-income homes (free/reduced price homes), those who do not speak English as a first language, students with disabilities, and highly mobile students (students who attend more than two schools during the school year) may be more vulnerable during a hazardous event than the rest of the student population.

Student Statistics, 2021-2022

	School District	State of Nebraska
Free/Reduced Priced Meals	43.43%	41.31%
English Language Learners	N/A	7.76%
Special Education Students	16.28%	15.92%
Highly Mobile	1.69%	4.22%

Source: Nebraska Department of Education

Future Development Trends

In the past the school district has added a gymnasium at Mullen High School and a district wide website (<https://www.mullenpublicschools.org/>). Recently the district had students construct a new concession stand through their home improvements coursework and will begin construction on a greenhouse in 2024. The district would like to add on to the new gym with a breezeway to provide safer walkways and restrooms in the next decade. These new facilities are built to higher building codes.

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are a total of three chemical storage sites that house hazardous materials in Mullen. None of these facilities are located within a mile of either Mullen High School or Mullen Elementary School.

Critical Facilities

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communications; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.

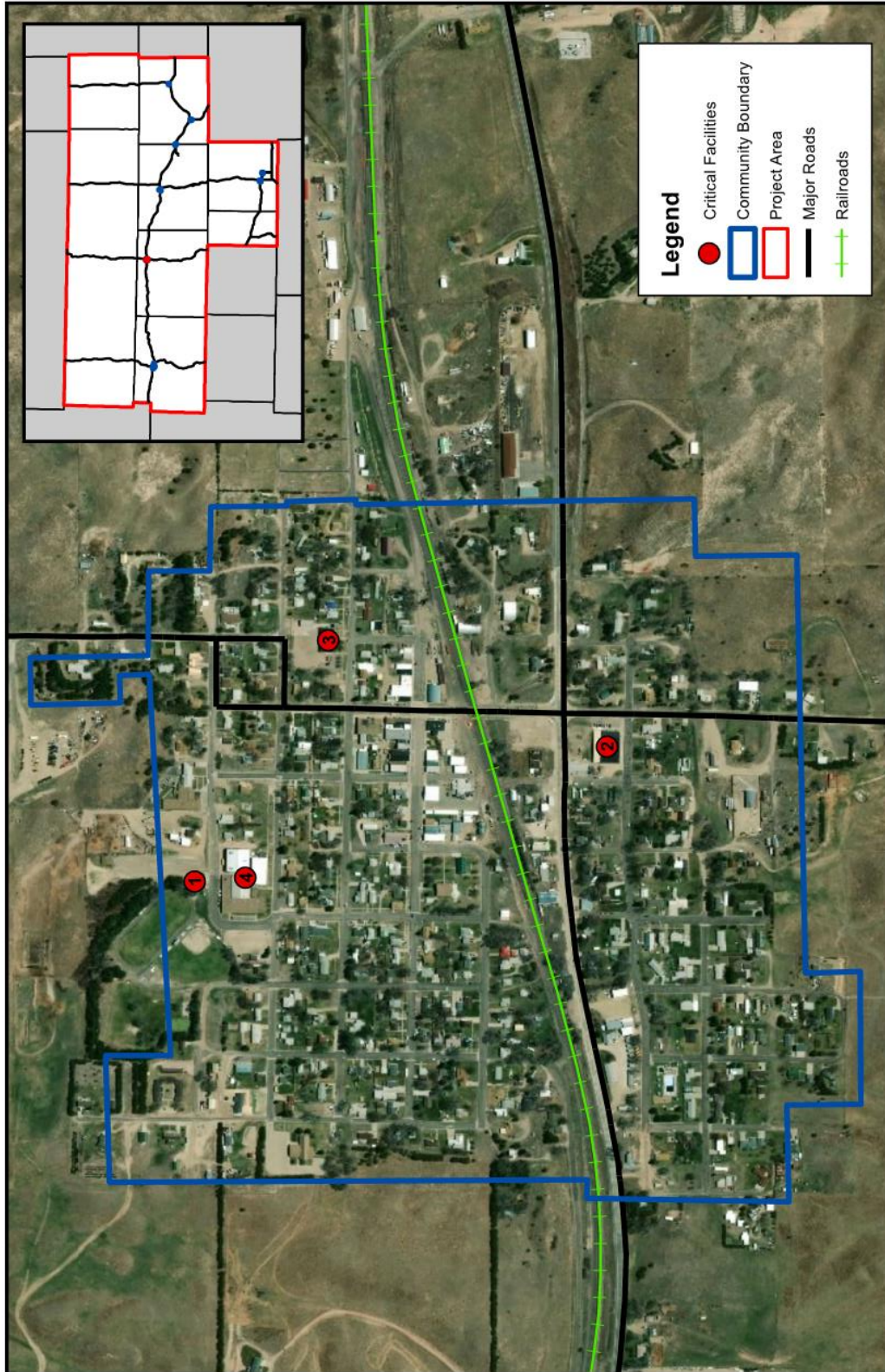


The school district operates two facilities. These facilities are listed below, along with information indicating the school's address, number of students and staff, if the facility is used as a shelter during emergencies (i.e. Red Cross Shelter), if the facility is located in the floodplain, and the presence of a tornado safe room and backup power generator.

Critical Facilities

#	Name	Address	Number of Students	Number of Staff	Red Cross Shelter (Y/N)	Safe Room (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Bus Barn	NW 4 th St	-	-	N	N	N	N
2	Lariat Auditorium	206 S Washington	-	-	N	Y	N	N
3	Mullen Elementary School	106 NE 2 nd St	79	15	Y	N	N	N
4	Mullen High School	404 N Blaine Ave	85	15	Y	Y	N	N

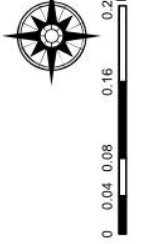

Critical Facilities



Mullen Public Schools
Critical Facilities

Created by: BW
Date: 2/6/2019
Revised: 2/6/2019
Software: ArcGIS 10.4.1
File: UpperLoupNRD_Critical Facilities.mxd

This map was prepared using information from record drawings supplied by JRD and/or other applicable city, county, federal, or state agencies. The information used to prepare this map is not a scaled plot.



Capability Assessment

The district has the authority to levy taxes for specific purposes and to issue general obligation bonds to finance certain projects. The school district also regularly engages in public education and information programs related to student safety.

Overall Capability	2019 PLAN	2024 PLAN
Does the district have the financial resources needed to implement mitigation projects?	Limited to Moderate	Moderate
Does the district have the staff/expertise to implement projects?	Moderate	Moderate
Does the district have the community support to implement projects?	High	High
Does the district staff have the time to devote to hazard mitigation?	Limited	Limited

School Drills and Staff Training

The school district conducts the following drills with their staff and students:

- Fire – monthly
- Lockdown – twice a year
- Tornado – annually
- Evacuation – annually

The school district conducts regular professional development sessions for emergency procedures. The school's Safety and Security team trains with the Nebraska Department of Education. The student handbook and open house nights are an opportunity to inform students and families about emergency procedures. In the case of school closures or hazard events, parents and staff are notified via an automated call system, social media posts, and the school district website.

Plan Integration

Mullen Public School District has several plans which integrate the goals, objectives, and projects identified in this HMP.

Safety and Security Plan

The school district has a Safety and Security Plan which was last amended in December 2023. The plan is reviewed quarterly with the safety and security committee. This plan outlines safety, security, lockdown procedures, tornado drills, fire drills, reunification procedures, and evacuation routes and procedures. Additionally, the school district has evacuation plans, emergency dismissal, and strategic actions identified within the Security Plan which address additional man-made hazards such as active shooter. These plans also build on appropriate evacuation and emergency response protocols in the case of a natural disaster.

The plan assigns specific roles to individuals, addresses shelter in place protocols, evacuation protocols and routes, and offers an opportunity to implement mitigation efforts following an event. The plan is shared locally with the fire department, police department, and Village of Mullen officials. The school district identifies continued education and training for drills and safety as a top priority. Fire, tornado, and lock out drills are conducted periodically. The district has a Threat Assessment team which is in charge of threat mitigation.

Annual Budget

The local Planning Team indicated the annual municipal budget is adequate to meet current needs and has capacity to pursue some new projects or improvements as needed. From storm or disaster events, the district noted they have a good relationship with their insurance provider who has provided timely and adequate support for repairs.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Mullen Public Schools which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	2	41 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		0	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$35,684	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Flooding	Flash Flood	1	\$0	\$0	
	Flood	1	\$50,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$57,026		
Severe Thunderstorms	Hail	150	\$252,000	\$115,040	
	Heavy Rain	0	\$0		
	Lightning	1	\$0		
	Thunderstorm Wind	45	\$69,000		
Severe Winter Storms	Blizzards	9	\$74,000	\$57,083	
	Heavy Snow	3	\$0		
	Ice Storms	0	\$0		
	Winter Storms	46	\$8,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	23	\$0	\$259,921	
	Tornadoes	5	\$61,000	\$0	
Wildfire		105	40,850 acres	\$58,200.00	
Total		393	\$1,571,026	\$208,924	

The following section expands on the hazards of top concern identified by the Mullen Public Schools. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

The primary concern regarding hail is the potential for property damages. Hail can damage windows in facilities and vehicles and rooftop utilities. The school district has had to make roof repairs or replacements after major hailstorms in the 2018-19 and 2021-22 school years. The school district provides services to students from other communities, increasing the potential exposure to damage from hail with long commutes. Severe storms have caused short-term power outages for the district in the past. Powerlines between Broken Bow and Mullen have been undergoing improvements over the past several years to help reduce such outages.

Mitigation Actions

MITIGATION ACTION		PROMOTE FIRST AID
DESCRIPTION	Promote first aid training for all staff	
HAZARD(S)	All Hazards – specifically Severe Thunderstorms and Severe Winter Storms for the school district	
ESTIMATED COST	TBD	
FUNDING	General School Budget	
TIMELINE	2-5 years	
PRIORITY	Low	
LEAD AGENCY	School Board	
STATUS	Coaches and staff are trained every one to two years for recertification. However, the district would like to expand trainings to students but have had difficulty finding a trainer in the area to provide this service.	

MITIGATION ACTION		BACKUP GENERATOR
DESCRIPTION	A backup generator is needed for the high school.	
HAZARD(S)	High Winds, Extreme Temps, Severe Thunderstorms, Severe Winter Storms, Tornadoes	
ESTIMATED COST	TBD	
FUNDING	General Fund	
TIMELINE	2-5 Years	
PRIORITY	High	
LEAD AGENCY	Superintendent, Facilities	
STATUS	This is a new mitigation action.	

Severe Winter Storms

Severe winter storms can cause power outages from downed power lines, damage to buildings or school vehicles, and hinder transportation for students and staff. Severe winter storms in April and December 2018 and during the winter of the 2022-2023 school year have caused school closures. The school has an automated call and text alert system to notify students, parents, and staff of school closures from weather conditions through the ThrillShare platform. Both the Mullen Elementary and Mullen High School have weather radios and have been identified as shelter locations for the Village of Mullen during severe weather. The school buildings do not have a backup generator to be used during sheltering services.

Additionally, the school district noted they would like to construct an enclosed breezeway to connect the new gym to portions of the school. This enclosed breezeway would include restrooms and provide additional protection from weather conditions for students and staff passing from the gym, shop, and art classes.

Mitigation Actions

MITIGATION ACTION		CONSTRUCT BREEZEWAY
DESCRIPTION	Construct an enclosed breezeway between school and gymnasium to protect students from severe weather. Would include building additional restrooms and a student seating area.	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Extreme Temperatures, Tornadoes and High Winds	
ESTIMATED COST	\$1.3million	
FUNDING	Special Building Fund	
TIMELINE	10 years	
PRIORITY	Medium	
LEAD AGENCY	Superintendent, Facilities	
STATUS	This is a new mitigation action. Currently cost prohibitive to pursue.	

Tornadoes and High Winds

High winds can cause widespread damages to crops, trees, and property and are a common occurrence across the school district and planning area. Concerns about high winds include damage to property, loss of power from downed power lines, and the spread of wildfire. The school backs up school records in the case of a power failure, but the schools do not have backup generators.

Mitigation Actions

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Educate students, staff, and families on hazards that could impact the school buildings or district.	
HAZARD(S)	All Hazards – specifically Wildfire, Severe Thunderstorms, Tornadoes and High Winds, and Severe Winter Storms for the school district	
ESTIMATED COST	Staff Time	
FUNDING	Staff Time	
TIMELINE	2-5 years	
PRIORITY	High	
LEAD AGENCY	Superintendent, ULNRD I&E	
STATUS	This is done throughout the school year and reviewed regularly. On an annual basis, ULNRD staff visit schools to educate the students on hazards and environmental conservation methods. The district should expand opportunities to parents regarding school closure or hazard response protocols.	

Completed Mitigation Actions

MITIGATION ACTION		HAZARDOUS TREE REMOVAL PROGRAM
DESCRIPTION	Identify and remove hazardous limbs and/or trees on school property	
HAZARD(S)	All hazards	
STATUS	Completed – all hazardous trees at the elementary school have been removed in 2022. Paid by the school.	

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.	
HAZARD(S)	All hazards	
STATUS	Completed – a new siren was installed in 2020 in Mullen which covers the school grounds.	

SCHOOL PROFILE

SANDHILLS PUBLIC SCHOOLS



Upper Loup Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Sandhills Public Schools Local Planning Team

Name	Title	Jurisdiction
JD Furrow	Superintendent	One-on-one Meeting; materials development

JD Furrow was superintendent during plan development and attended meetings as a representative for Sandhills Public School, but left Sandhills Public School at the end of the 2023-2024 school year to be superintendent at Callaway Public Schools.

Governance

Sandhills Public Schools is governed by a superintendent and a six-member elected Board of Education. The following positions may help implement mitigation projects:

- Communications
- Finance Department
- Human Resources
- Library/Media Services
- PARA Education
- IT Department
- Transportation

Plan Maintenance

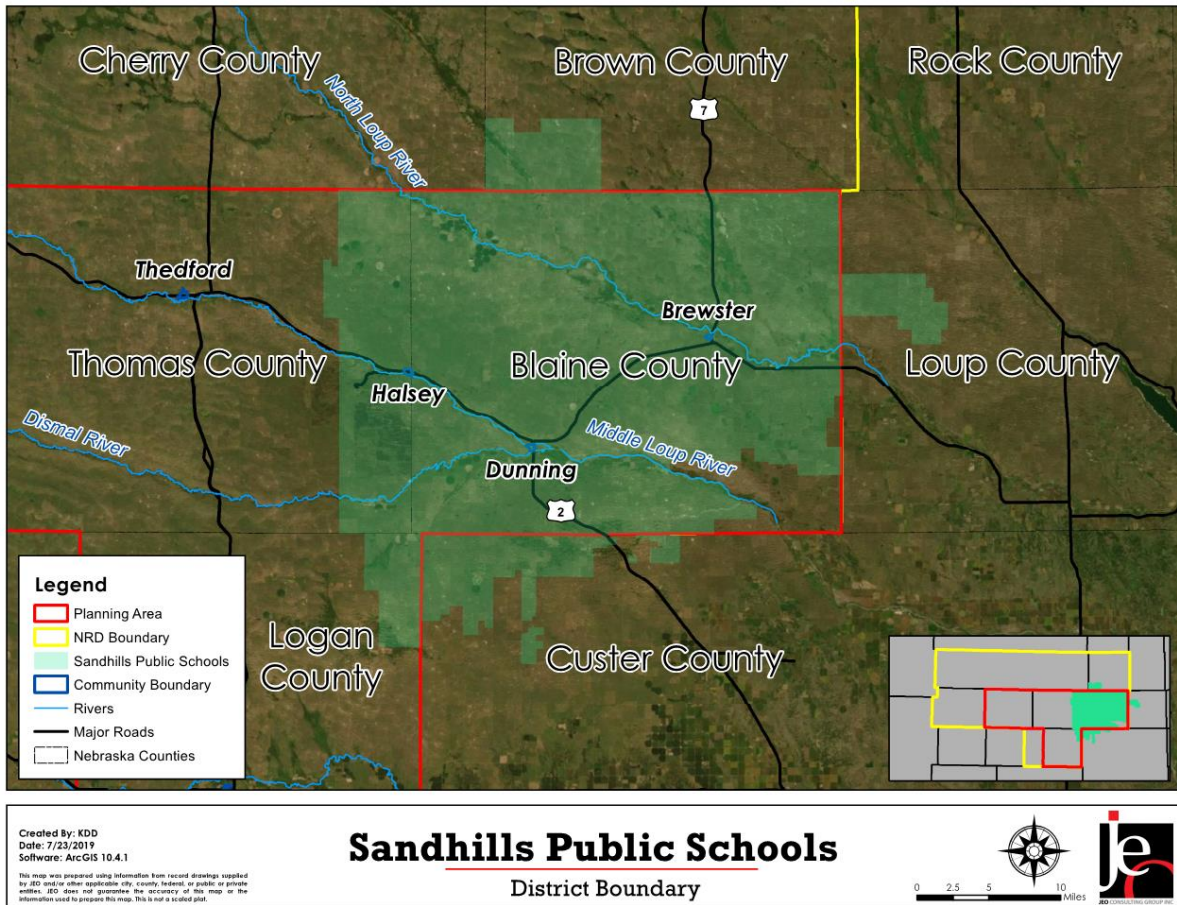
Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes occur before or after a major event. The local planning team will include the Superintendent who will review the list of mitigation actions in the plan annually during the budget review and the Safety Committee who will review the plan during their safety review. The public will be notified of the plan review and revision process at school board meetings which are open to the public and through messaging through the Final Site Connect Ed program which sends updates via website, social media, and text/emails.

Location and Services

Sandhills Public Schools includes two schools, one elementary school in Village of Halsey in Blaine and Thomas Counties and one high school in the Village of Dunning in Blaine County. The school district provides services to students in Thomas, Blaine, Logan, Custer, and Brown Counties. A minor amount of Spanish is spoken in the district, but the primary language used is English. The district does not serve students outside of the district boundary.

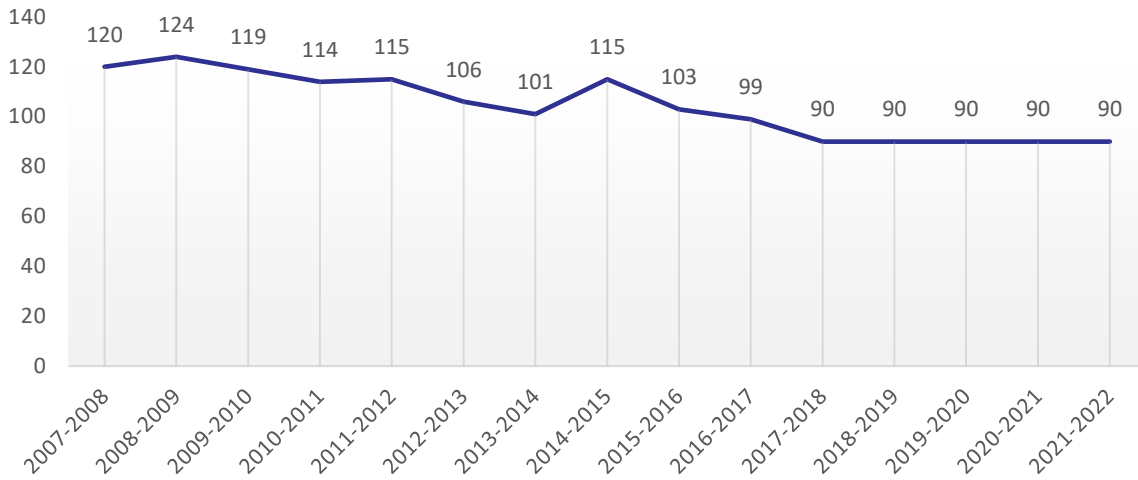
Sandhills Public Schools District



Demographics

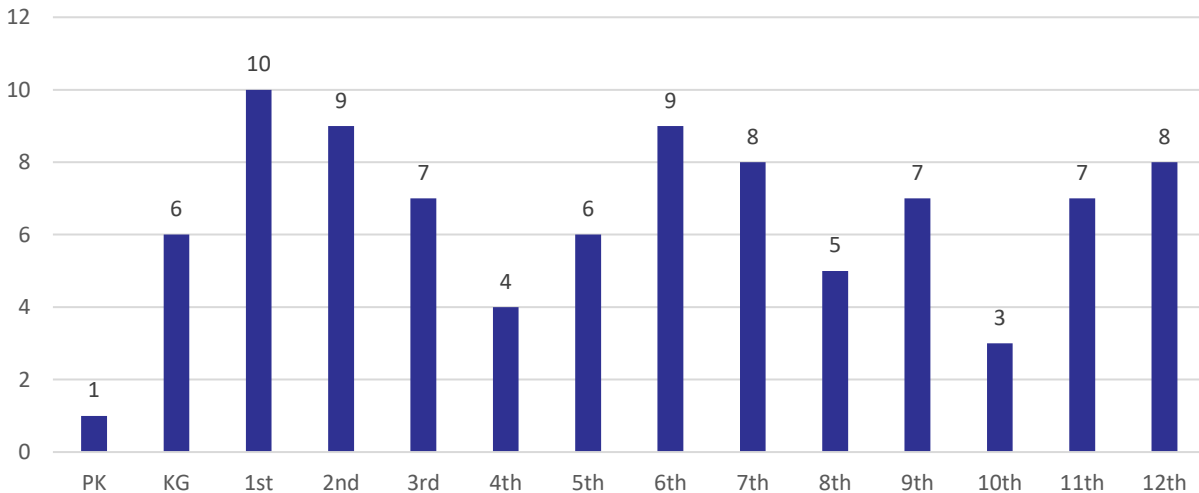
The following figure displays the historical student population trend starting with the 2003-04 school year and ending with the 2021-2022 year. It indicates that the student population has been stable since 2017. There are approximately 85 students enrolled in Sandhills Public Schools according to the superintendent. The district anticipates a continued minor decline in numbers in the coming decades; however, current elementary school classes will bolster the student population through 2030.

Total District Enrollment



Source: Nebraska Department of Education

Number of Students by Grade, 2021-2022



Source: Nebraska Department of Education

Students from low-income homes (free/reduced price homes), those who do not speak English as a first language, students with disabilities, and highly mobile students (students who attend more than two schools during the school year) may be more vulnerable during a hazardous event than the rest of the student population.

Student Statistics, 2021-2022

	School District	State of Nebraska
Free/Reduced Priced Meals	48.89%	41.31%
English Language Learners	N/A	7.76%
Special Education Students	11.24%	15.92%
Highly Mobile	N/A	4.22%

Source: Nebraska Department of Education

Future Development Trends

In the past five years the District has begun construction on a new activities building between the bus barn and the High School. This facility will be multi-functional and will include a weightroom, rest rooms, concessions, and wrestling mat area. Construction began in 2022 with an estimated completion in summer 2025. The district also plans to make updates to the science classrooms and some concrete repairs around the elementary school.

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there is one chemical storage site that house hazardous materials in the Village of Halsey but no facilities in the Village of Dunning. This facility is not located near either Sandhills Public School facilities.

Critical Facilities

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA recognized lifelines include: Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material facilities. The following subsections list those community lifelines broken down by type, as identified by the local planning team.

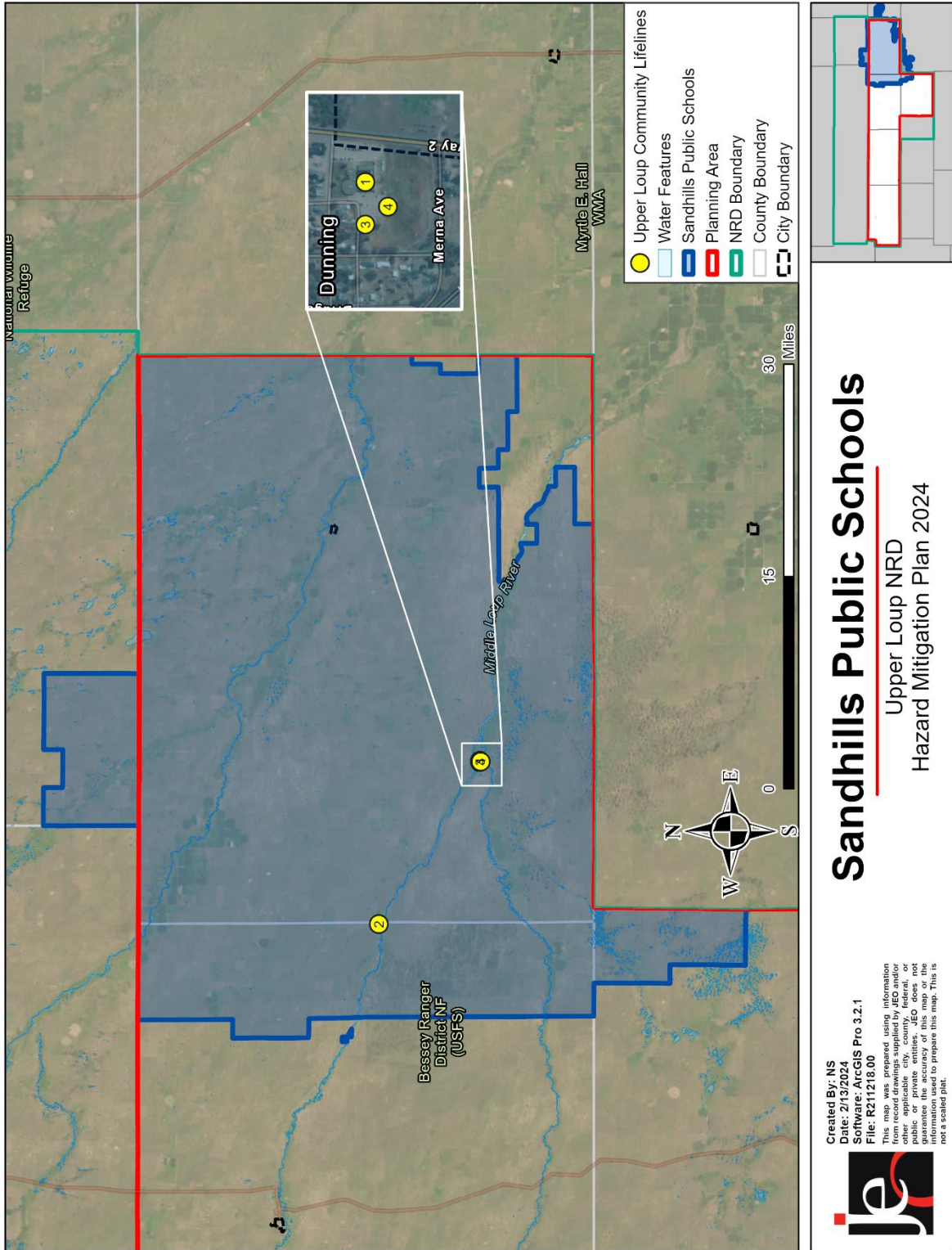


The school district operates two facilities. These facilities are listed below, along with information indicating the school’s address, number of students and staff, if the facility is used as a shelter during emergencies (i.e. Red Cross Shelter), if the facility is located in the floodplain, and the presence of a tornado safe room and backup power generator. Both school facilities have a weather radio.

Critical Facilities

#	Name	Address	Number of Students	Number of Staff	Shelter	Generator	Located in Floodplain
1	Sandhills High School	107 Gandy Ave Dunning NE	59	16	Y	N	N
2	Sandhills Elementary School	103 Main St Halsey NE	31	7	Y	N	N
3	Bus Barn	107 Gandy Ave Dunning NE	-	-	N	N	N
4	Activities Building (NEW)	107 Gandy Ave Dunning NE	-	-	Y	N	N

Critical Facilities



Sandhills Public Schools

Upper Loup NRD
 Hazard Mitigation Plan 2024

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 Date: 2/13/2024
 Software: ArcGIS Pro 3.2.1
 File: R211218.00
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Capability Assessment

The district has the authority to levy taxes for specific purposes and to issue general obligation bonds to finance certain projects. The school district also regularly engages in public education and information programs related to student safety.

Overall Capability	2019 PLAN	2024 PLAN
Does the district have the financial resources needed to implement mitigation projects?	Moderate	Moderate
Does the district have the staff/expertise to implement projects?	Moderate	Limited
Does the district have the community support to implement projects?	High	High
Does the district staff have the time to devote to hazard mitigation?	Limited	Limited

School Drills and Staff Training

The school district conducts the following drills with their staff and students:

- Fire – 14x year
- Tornado – 2x year
- Bus Evacuation – 2x year
- Lockdown – 2x year
- Secure Facility – 2x year

The school district trains staff about emergency procedures annually. The district did a full update of their School Security Plan in 2023 and updated the school drill schedule. Staff and students each spent an additional day training on the new procedures. In the case of school closures or hazard events, parents and staff are notified via an automated text and email system.

Plan Integration

Sandhills Public School District has several plans which integrate the goals, objectives, and projects identified in this HMP.

Safety and Security Plan

The school district has a Safety Plan which was last updated in 2023. This plan outlines school safety including evacuation routes and procedures, fire and tornado drills, school lockdown and intruder protocols. The new update included a discussion of weather hazards, specific roles and responsibilities for staff, sheltering locations and protocols, and evacuation scenarios and routes. The district's guidance and administration departments manage the plan. The school also has flip charts for incident command situations to augment the Safety Plan and the Safety Committee meets four or five times annually to discuss security measures. The district's insurance also provides an annual safety review.

Annual Budget

The local Planning Team indicated the annual municipal budget is adequate to meet current needs. However there are several ongoing projects which have earmarked funds in the coming five years. These include the activities building construction, a renovation for the school's science classrooms, and repairs for concrete around the Elementary School for safety.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Mullen Public Schools which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	2	41 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		0	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$35,684	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	1	\$0	\$0	
	Flood	1	\$50,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$57,026		
Severe Thunderstorms	Hail	150	\$252,000	\$115,040	
	Heavy Rain	0	\$0		
	Lightning	1	\$0		
	Thunderstorm Wind	45	\$69,000		
Severe Winter Storms	Blizzards	9	\$74,000	\$57,083	
	Heavy Snow	3	\$0		
	Ice Storms	0	\$0		
	Winter Storms	46	\$8,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	23	\$0	\$259,921	
	Tornadoes	5	\$61,000	\$0	
Wildfire		105	40,850 acres	\$58,200.00	
Total		393	\$1,571,026	\$208,924	

The following section expands on the hazards of top concern identified by the Mullen Public Schools. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Hazardous Materials (Transportation)

Chemical transportation spills are a concern for the school district as a rail line and the highway are located directly next to school facilities. A high volume of hazardous chemicals including

propane, gasoline, oil, coal, and fertilizers are transported via rail and highway throughout the district. No past chemical spill events have occurred which damaged school facilities.

Mitigation Actions

MITIGATION ACTION		EMERGENCY EXERCISE: HAZARDOUS SPILL
DESCRIPTION	Utilize an exercise to prepare for potential explosions or hazardous spill events. Ensure nearby facilities and residents have plans in place.	
HAZARD(S)	Hazardous Materials	
ESTIMATED COST	\$2,000	
FUNDING	General School Budget	
TIMELINE	1 year	
PRIORITY	Medium	
LEAD AGENCY	Administration	
STATUS	Has been included in the EOP; however, a physical exercise has not yet been done. Safety Committee is currently working to attend other exercises to learn the process.	

Grass/Wildfires

Grass/wildfire is a major concern across the school district and planning area. Grass/wildfires can be exacerbated by drought conditions, spread by high winds, or caused by lightning strikes. The school district relies on the local fire departments for firefighting response and is concerned about impacts on students, families, and staff in affected areas. There are no formal agreements in place, but the district indicated school buses would be available for evacuation purposes if needed. Specifically, during the recent Bovee Fire in Halsey, the school was identified as a potential shelter, supply depot, and communications outpost for fire response. However, there was not adequate planning and communication which made set up and roles/responsibilities confusing for those responding from mutual aid requests.

Mitigation Actions

MITIGATION ACTION		COMMUNICATIONS PLAN
DESCRIPTION	Create and implement an emergency operations communication plan to be used during disaster events. This would include contacts for local emergency responders, emergency management, and the school district.	
HAZARD(S)	All hazards – specifically for Grass/Wildfire events	
ESTIMATED COST	\$8,000	
FUNDING	General School Budget	
TIMELINE	5 years	
PRIORITY	Low	
LEAD AGENCY	Superintendent, Fire Chiefs	
STATUS	This is a new mitigation action. As identified during the Bovee Fire, a central communication and staging hub was needed at the school. Lack of adequate communication protocols made it difficult to determine what resources were needed at the hub versus during response.	

MITIGATION ACTION	COMPLETE/UPDATE WILDFIRE PROTECTION PLAN
DESCRIPTION	Complete, update, or participate in a Community Wildfire Protection Plan (CWPP). The CWPP enables jurisdictions to plan how it will reduce risk of wildfire.
HAZARD(S)	Grass/wildfire
ESTIMATED COST	\$20,000
FUNDING	General School Budget
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Administration
STATUS	This action has not yet been started.

Severe Thunderstorms

Severe thunderstorms are typically associated with heavy rain, lightning, high winds, and hail. There are no lightning rods on school facilities, increasing their risk of damages during severe thunderstorm events. Severe events can flood facilities and damage trees or facilities. The district maintains all trees on the school campus, but past storm events have caused a tree to fall on the high school and damage the building. Past hail events have damaged rooftop HVAC units as well. There are no backup generators in school facilities, however both the high school and elementary school are designated as shelter locations. The elementary school has been wired to accommodate a backup generator but the school does not own one. In the case a generator would be needed for now, it is likely a local resident or emergency responder would bring one in to use.

Mitigation Actions

MITIGATION ACTION	LIGHTNING RODS
DESCRIPTION	Install lightning rods in strategic locations at high points
HAZARD(S)	Severe Thunderstorms
ESTIMATED COST	\$2,500+
FUNDING	General School Budget
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Administration
STATUS	This project has not yet been started.

Severe Winter Storms

Severe winter storms cause significant problems for the district annually, primarily due to extreme cold and blowing winds causing snow drifts on roads. Storms can also cause power outages from downed power lines, damage to buildings or school vehicles, and hinder transportation for students and staff. Severe winter storms in the 2023-2024 school year caused snow days and late starts. Power outages are generally sporadic and resolved quickly. The district uses a spoke and wheel hub strategy for bus pickups in more remote areas. For example the German Valley Church north of Brewster is used as a bus pickup locations so parents must deliver children to the school to be picked up/dropped off by the bus. During heavy snow or extreme cold it can be hazardous for students to get to these sites. The school has an automated call and text alert system to notify students, parents, and staff of school closures from weather conditions through the Final Site Connect Ed platform. The school buildings are used as community shelters as many residents may not have adequate resources or personal generators. The elementary school has been wired for a generator but it has not yet been purchased.

Mitigation Actions

MITIGATION ACTION		PUBLIC AWARENESS/EDUCATION
DESCRIPTION	Establish a community education program to increase awareness related to local mitigation actions. Utilize outreach projects and student handouts.	
HAZARD(S)	All Hazards – specifically Wildfire, Severe Thunderstorms, Tornadoes and High Winds, and Severe Winter Storms for the school district	
ESTIMATED COST	\$3,000+	
FUNDING	General School Budget	
TIMELINE	2-5 years	
PRIORITY	High	
LEAD AGENCY	Administration	
STATUS	This is a new action. Additional educational efforts can be taken to notify students, parents, and staff of what to do in hazardous events. All parents should be encouraged to sign up for the alerts through Final Site which notify parents of severe weather conditions, school closures, and drills.	

MITIGATION ACTION		BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds	
ESTIMATED COST	\$3,500+ depending on site requirements	
FUNDING	General School Budget	
TIMELINE	2-5 years	
PRIORITY	Medium	
LEAD AGENCY	Administration	
STATUS	The Elementary School has been wired for a backup generator but the district does not currently have a backup generator. A generator is needed for school facilities to serve as a sheltering location during severe weather events.	

Completed Mitigation Actions

MITIGATION ACTION		SURGE PROTECTORS
DESCRIPTION	Purchase and install surge protectors on sensitive equipment in critical facilities	
HAZARD(S)	Severe Thunderstorms	
STATUS	Completed.	

MITIGATION ACTION		PROMOTE FIRST AID
DESCRIPTION	Promote first aid training for all staff	
HAZARD(S)	All Hazards – specifically Severe Thunderstorms and Severe Winter Storms for the school district	
STATUS	Completed ~16 to 18 staff have gone through training and are fully certified.	

SCHOOL PROFILE

THEDFORD PUBLIC SCHOOLS

Upper Loup Natural Resources District
Multi-Jurisdictional Hazard Mitigation Plan

2024 Update

Local Planning Team

Thedford Schools Local Planning Team			
Name	Title	Jurisdiction	ENGAGEMENT
Blake Dahlberg	Superintendent	Thedford Public Schools	Attended one-on-one meeting

Governance

Thedford Public School is governed by a superintendent and a six-member elected Board of Education. The following positions may help implement mitigation projects:

- Superintendent
- Business Manager
- IT
- Maintenance and Custodian

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin.

The local planning team is responsible for reviewing and updating this profile as changes occur before or after a major event. The local planning team will include the Superintendent who will review the list of mitigation actions in the plan annually during the budget review. The public will be notified of the plan review and revision process at school board meetings which are open to the public, social media, and the monthly newsletter.

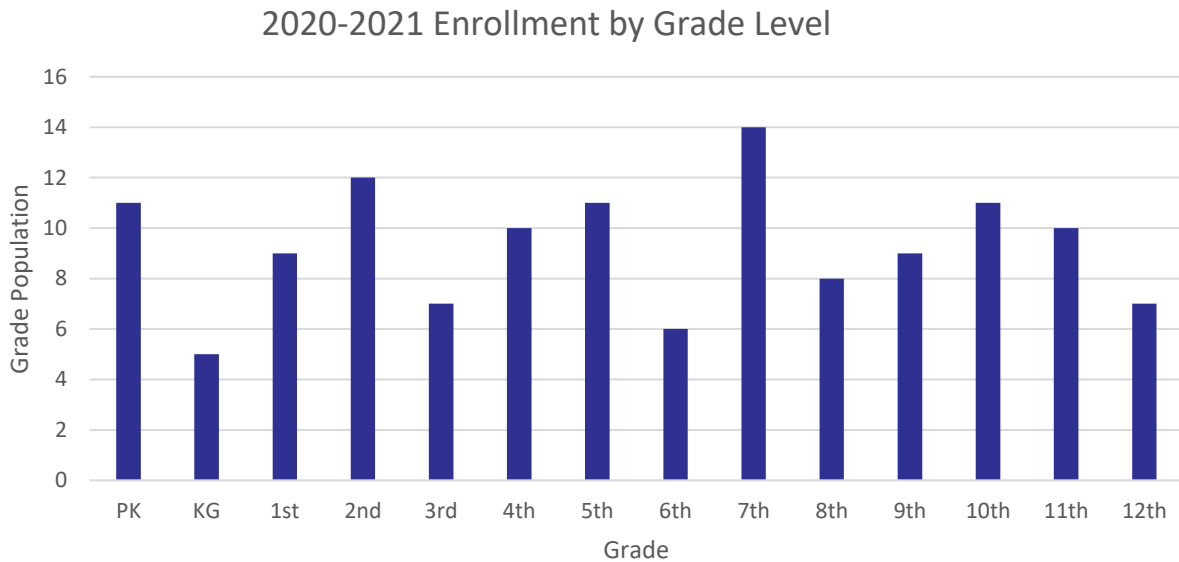
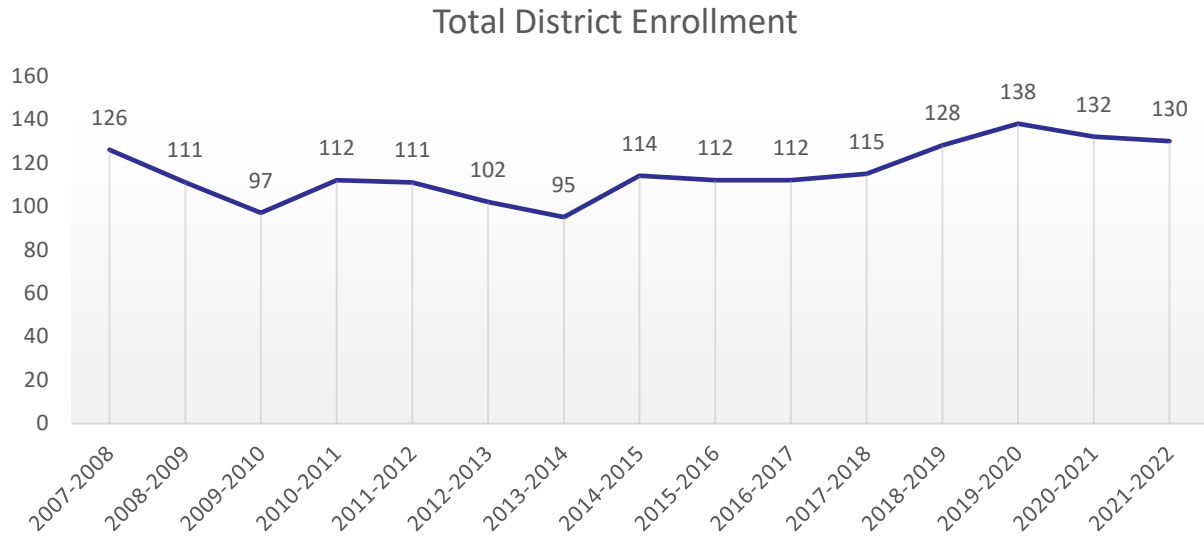
Location and Services

Thedford Public Schools includes two schools, one elementary school and one high school in Thedford NE. The school district provides services to students in Thomas and Cherry Counties. The primary language used is English. The district does not serve students outside of the district boundary.

Demographics

The following figure displays the historical student population trend starting with the 2007-08 school year and ending with the 2021-22 year. It indicates that the overall student population increased between 2013-14 and 2019-20 but has declined since 2020. There were approximately 130 students enrolled in Thedford Public Schools in 2020-2021.

SECTION SEVEN: THEDFORD SCHOOLS PROFILE



Students from low-income homes (free/reduced price homes), those who do not speak English as a first language, students with disabilities, and highly mobile students (students who attend more than two schools during the school year) may be more vulnerable during a hazardous event than the rest of the student population.

Student Statistics, 2021-2022

	School District	State of Nebraska
Free/Reduced Priced Meals	53.08%	41.31%
English Language Learners	N/A	7.76%
Special Education Students	16.81%	15.92%
Highly Mobile	7.35%	4.22%

Source: Nebraska Department of Education

Future Development Trends

In the past five years no major changes have occurred. Some buildings have had roof repairs. In the future, the school district is evaluating the potential to combine the elementary and high school into one facility.

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

Chemical sites are located throughout the district. Complete lists of chemical storage sites in each jurisdiction may be found in the community profiles.

Critical Facilities

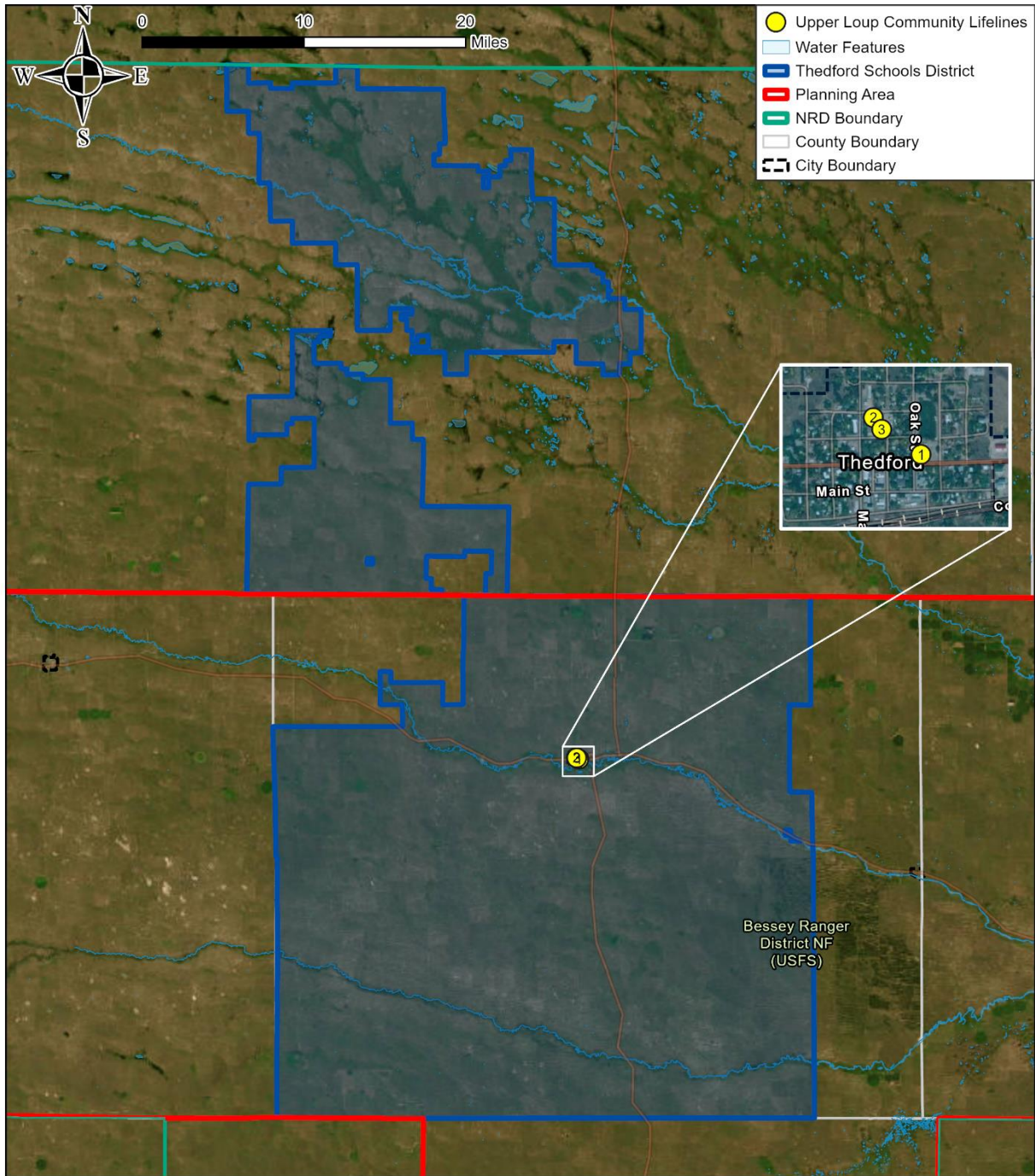
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table 3: Critical Facilities

#	Name	Address	# of Staff	# of Students	Shelter	Generator
1	Theford Elementary	406 Court Street, Theford	60	12	N	N
2	Theford High School	304 Maple, Theford	70	20	Y	N
3	Well	In the Highschool Parking Lot	-	-	-	-
4	Substation*	1 Mile East of Theford. Along Highway 2	-	-	-	-

*not mapped

Critical Facilities

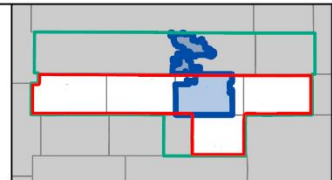


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Date: 12/20/2023
Software: ArcGIS Pro 3.1.2
File: R211218.00

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Thedford Schools

Upper Loup NRD
Hazard Mitigation Plan 2024



Capability Assessment

The district has the authority to levy taxes for specific purposes and to issue general obligation bonds to finance certain projects. The school district also regularly engages in public education and information programs related to student safety.

Overall Capability	2024 PLAN
Does the district have the financial resources needed to implement mitigation projects?	Limited to Moderate
Does the district have the staff/expertise to implement projects?	Moderate
Does the district have the community support to implement projects?	High
Does the district staff have the time to devote to hazard mitigation?	Limited

School Drills and Staff Training

The school district conducts the following drills with their staff and students:

- Fire – monthly
- Tornado – twice a year
- Bus Evacuation – twice a year
- Intruder/lockdown – 5 per year

The school district trains staff about emergency procedures annually. The district sends informational flyers home with students to educate parents and is currently in the process of developing standard response protocols for social media.

Plan Integration

The Thedford Public School District has several plans which integrate the goals, objectives, and projects identified in this HMP.

Crisis Response Plans

The district's Crisis Response Plan is updated annually. The school's plan covers natural disasters including tornado and severe storms and addresses shelter in place protocols that should be followed during these events. The plan identifies scenarios that require evacuation, critical evacuation routes, and sheltering locations.

Annual Budget

The local Planning Team indicated the annual municipal budget is pretty limited in its capacity to pursue new projects. Funds have stayed relatively the same over the past several years.

Hazard Prioritization and Mitigation Strategy

The Upper Loup NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the Thedford Public Schools which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities.

Hazard Risk Assessment Table

HAZARD		COUNT	PROPERTY	CROP	OTHER IMPACTS
Agricultural Disease	Animal Disease	2	41 animals	N/A	
	Plant Disease	0	N/A	\$0	
Dam Failure		0	N/A	N/A	
Drought		474/1,539 months	\$1,000,000	\$0	
Earthquakes		0	\$0	N/A	
Extreme Heat		Avg. 3 days/year >100F	N/A	\$35,684	
Extreme Cold		Avg 10 days/year <10F	\$0	\$0	
Flooding	Flash Flood	1	\$0	\$0	
	Flood	1	\$50,000		
Hazardous Materials	Fixed Site	0	\$0	N/A	
	Transportation	2	\$57,026		
Severe Thunderstorms	Hail	150	\$252,000	\$115,040	
	Heavy Rain	0	\$0		
	Lightning	1	\$0		
	Thunderstorm Wind	45	\$69,000		
Severe Winter Storms	Blizzards	9	\$74,000	\$57,083	
	Heavy Snow	3	\$0		
	Ice Storms	0	\$0		
	Winter Storms	46	\$8,000		
	Winter Weather	0	\$0		
Terrorism and Civil Disorder		0	\$0	N/A	
Tornadoes & High Winds	High Winds	23	\$0	\$259,921	
	Tornadoes	5	\$61,000	\$0	
Wildfire		105	40,850 acres	\$58,200.00	
Total		393	\$1,571,026	\$208,924	

The following section expands on the hazards of top concern identified by the Thedford Public Schools. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern or not a current priority for mitigation for the jurisdiction. For a review and analysis of other regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

This hazard was identified as a top hazard of concern for the school district due to the frequency of severe thunderstorms and the risks to student safety. According to the local planning team, the school district experienced severe thunderstorms during the 2022/2023 year that resulted in tree damage and water entering school buildings. The hill north of the school was washed out and required drainage work to address. Lightning strikes also knocked out communications for a short period of time and led to a power surge. The school has replaced and repaired roofs on school buildings in the past to improve durability.

Mitigation Actions

MITIGATION ACTION		BACKUP GENERATOR
DESCRIPTION	A backup generator is needed for the high school.	
HAZARD(S)	High Winds, Extreme Temps, Severe Thunderstorms, Severe Winter Storms, Tornadoes	
ESTIMATED COST	Not sure	
FUNDING	General Fund	
TIMELINE	2-5 Years	
PRIORITY	High	
LEAD AGENCY	Superintendent, Facilities	
STATUS	This project has not yet been started.	

Severe Winter Storms

The local planning team has identified severe winter storms as a hazard of top concern due to occurrence of power outage, blocked transportation corridors, and school closures. Severe storms can disrupt the school day – during the 2022/2023 school year there were over a dozen late start or cancelled school days. Snow removal on school property is handled by the head of maintenance and grounds. The local planning team noted additional removal equipment is needed to help clear the parking lots.

Mitigation Actions

MITIGATION ACTION		BUS BARN
DESCRIPTION	A bus barn is needed for the school's busses and vans.	
HAZARD(S)	High Winds, Extreme Temps, Severe Thunderstorms, Severe Winter Storms, Tornadoes	
ESTIMATED COST	Unknown	
FUNDING	General Fund, Special Building	
TIMELINE	5+ Years	
PRIORITY	Medium	
LEAD AGENCY	Superintendent	
STATUS	Preliminary locations have been identified. Still in discussion for full need.	

MITIGATION ACTION		IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM
DESCRIPTION	Larger tractor or skid street to help remove snow from parking lots	
HAZARD(S)	Severe Winter Storms	
ESTIMATED COST	\$1,000+	
FUNDING	General Fund	
TIMELINE	2-5 Years	
PRIORITY	Low	
LEAD AGENCY	Superintendent	
STATUS	This project has not yet been started.	

Tornadoes and High Winds

Tornadoes and High Winds may cause substantial damage to school district property and buildings, leading them to be identified by the local planning team as a hazard of top concern. The elementary school has a basement but it is very small. Emergency sirens can be heard throughout the school buildings and the sheriff's office or Region 26 EMA will notify the school of any big storms that come in.

Mitigation Actions

MITIGATION ACTION		STORM SHELTERS/SAFE ROOMS
DESCRIPTION	Construct a FEMA Safe Room that is attached or near the high school that could house the elementary school classrooms and members of the community	
HAZARD(S)	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes	
ESTIMATED COST	\$8 Million+	
FUNDING	Bond	
TIMELINE	5+ Years	
PRIORITY	Moderate-High	
LEAD AGENCY	Superintendent, School Board	
STATUS	Discussion are currently taking place.	

Grass/Wildfire

Local concern regarding wildfire comes from the prevalence of wildfires that occur across the district. The Bovee Fire near the Halsey National Forest impacted the families of students and staff in 2022. The local planning team noted there is only one route to get kids to and from school which can be blocked during wildfire events. The school grounds are maintained so there is limited fuel surrounding the buildings and there are hydrants nearby for fire suppression. The local planning team identified education outreach as an action to notify parents of school procedures during a wildfire event or steps students and their families can take at home to be prepared for a disaster.

Mitigation Actions

MITIGATION ACTION		COLLABORATION WITH FIRE DEPARTMENT
DESCRIPTION	Work with the local fire department to assess building risk to grass/wildfire risk.	
HAZARD(S)	Grass/Wildfire	
ESTIMATED COST	Staff Time	
FUNDING	Staff Time	
TIMELINE	1 Year	
PRIORITY	High	
LEAD AGENCY	Superintendent	
STATUS	Not Started	

MITIGATION ACTION		PUBLIC AWARENESS AND EDUCATION
DESCRIPTION	Educate students, staff, and families on hazards that could impact the school buildings or district.	
HAZARD(S)	All Hazards – specifically Wildfire, Severe Thunderstorms, Tornadoes and High Winds, and Severe Winter Storms for the school district	
ESTIMATED COST	Staff Time	
FUNDING	Staff Time	
TIMELINE	2-5 years	
PRIORITY	High	
LEAD AGENCY	Superintendent, Safety Team, ULNRD I&E Coordinator	

MITIGATION ACTION	PUBLIC AWARENESS AND EDUCATION
STATUS	<p>This is done throughout the school year and reviewed regularly. On an annual basis, ULNRD staff visit schools to educate the students on hazards and environmental conservation methods. The district should expand opportunities to parents regarding school closure or hazard response protocols.</p>