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County Profile

Cass County

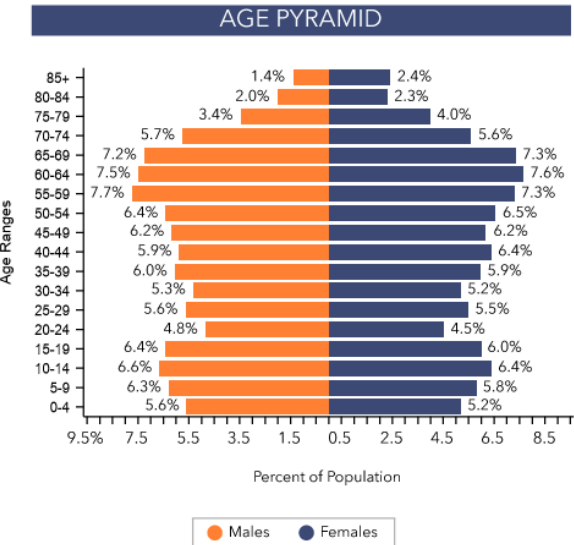
Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

Cass County, NE 3
Lower Platte South NRD Hazard Mitigation Plan 2025

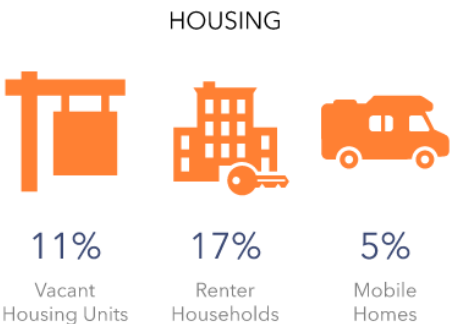
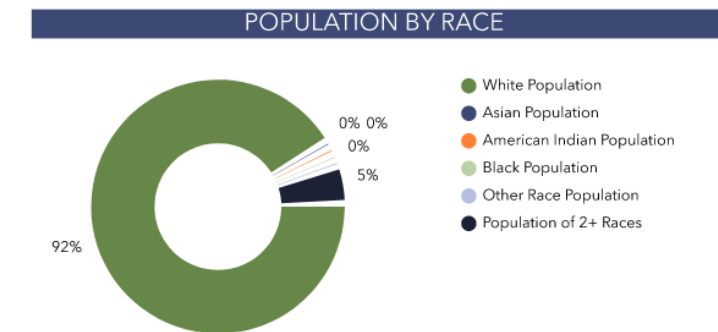
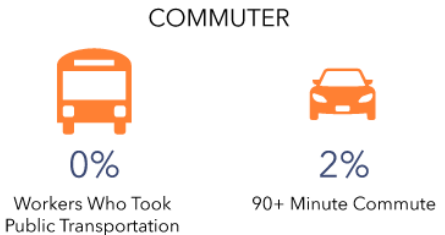
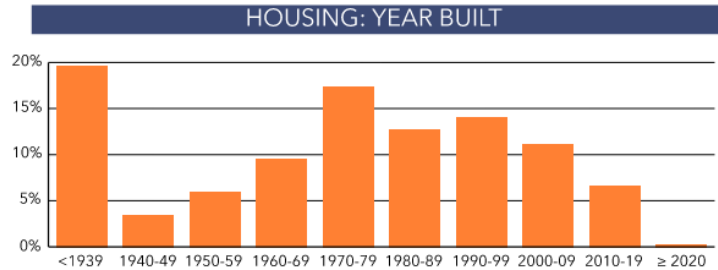
27,158 43.6 \$86,384 \$232,520 2.4% 7%

Population Median Age Median Household Income Median Home Value Unemployment Rate Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	27,158
2020 Total Population (U.S. Census)	26,598
2010 Total Population (U.S. Census)	25,241
2000 Total Population (U.S. Census)	24,334



esri | THE SCIENCE OF WHERE
Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Chad Korte	Director	Cass County	Profile Development, Attend Meetings
Cassie Story	Chief Deputy Director	Cass County	Profile Development

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 Director and Chief Deputy Director will be responsible for reviewing and updating the community profile outside of the five-year update. Cass County will review the plan bi-annually and the public will be notified during local meetings, on the county website, and through social media.

Location and Geography

Cass County is in eastern Nebraska and is bordered by Otoe, Lancaster, Saunders, and Sarpy counties as well as the State of Iowa. The total area of Cass County is 566 square miles. Major waterways within the county include the Platte and Missouri Rivers; Beaver Lake, and the Ervine, Weeping Water, Wilson, and Stove Creeks. Most of Cass County lies in the rolling hills topographic region¹ with slight incursions of bluffs and valleys from the Platte and Missouri Rivers. Most of the county's land is characterized by agricultural fields.

Capability Assessment

The planning team assessed Cass County's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes

¹ Center for Applied Rural Innovation. "Topographic Regions Map of Nebraska." 2001. <http://digitalcommons.unl.edu/caripubs/62>.

Capability/Planning Mechanism		Yes/No
	Floodplain Ordinance	Yes
	Building Codes	Yes, 2006 IBC
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No8
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	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	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fee	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	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	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Cass County Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Limited	Limited
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	9/2/1982
Floodplain Administrator:	Michael Jensen
Is Floodplain Administrator a Certified Floodplain Manager?	Yes
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	283
Total NFIP Premium (\$):	\$235,531
Total NFIP Coverage (\$):	\$75,682,000
Number of Claims Paid Out:	316
Total Amount of Claims Paid Out (\$):	\$5,326,855
Number of Repetitive Loss Structures:	28
Number of Severe Repetitive Loss Structures:	3
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The Cass County application process within the floodplain requires an Elevation Certificate before and after the permit. The County enforces the floodplain regulations through the Elevation Certification process, implementing the 50% SD/SI appraisal rule, and requiring venting on all accessory structures below 800 square feet. Cass County requires structures be two feet above the Base Flood Elevation in the floodplain. The FEMA Map Service Center is used to determine areas within the floodplain. Licensed appraisals and the 50% rule are ways the County identifies substantially damaged structures and their improvements after a flood event. Cass County also utilizes the SD estimator tool to identify substantially damaged structures.

There are no identified barriers Cass County has identified that prevents them from running the NFIP program effectively. The County uses FEMA handouts to educate communities, property owners, and stakeholders about the importance of flood insurance. Letters of Map change are stored at the County surveyor office and the Zoning office.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in Cass County have been removed from the floodplain via LOMA. A summary of LOMAs identified for Cass County can be found in the table below.

Parcel Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
13,136	\$2,592,373,760	2,680	\$ 571,911,979	20.4%

Parcel Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
13,136	\$2,592,373,760	183	\$25,446,316	1.4%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A, 31025C0025D, 31025C0050D, 31025C0065D, 31025C0070D, 31025C0090D, 31025C0095D, 31025C0100D, 31025C0115D, 31025C0120D, 31025C0155D, 31025C0160D, 31025C0175D, 31025C0200D, 31025C0205D, 31025C0210D, 31025C0215D, 31025C0220D, 31025C0250D, 31025C0255D, 31025C0260D, 31025C0275D, 31025C0300D, 31025C0325D, 31025C0350D, 31025C0360D, 31025C0375D, 31025C0380D, 31025C0385D, 31025C0390D, 31025C0395D, 31025C0405D, 31025C0410D, 31025C0415D, 31025C0420D, 31025C0450D	11/26/10	Current FIRM Panel
LOMA	11-07-0132A-310407	11/26/10	Current LOMA
LOMA	11-07-0459A-310407	03/15/11	Current LOMA
LOMA	11-07-1024A-310407	02/17/11	Current LOMA
LOMA	11-07-1280A-310407	05/03/11	Current LOMA
LOMA	11-07-1343A-310407	04/28/11	Current LOMA
LOMA	11-07-1376A-310407	04/28/11	Current LOMA
LOMA	11-07-1390A-310407	05/03/11	Current LOMA
LOMA	11-07-1432A-310407	05/05/11	Current LOMA
LOMA	11-07-1471A-310407	05/06/11	Current LOMA
LOMA	11-07-1472A-310407	05/12/11	Current LOMA
LOMA	11-07-1534A-310407	05/17/11	Current LOMA
LOMA	11-07-1551A-310407	05/17/11	Current LOMA
LOMA	11-07-1642A-310407	05/19/11	Current LOMA
LOMA	11-07-1678A-310407	05/19/11	Current LOMA
LOMA	11-07-1679A-310407	06/09/11	Current LOMA
LOMA	11-07-1693A-310407	06/09/11	Current LOMA
LOMA	11-07-1810A-310407	06/02/11	Current LOMA

Section Seven | Cass County Profile

Type of Product	Product ID	Effective Date	Details
LOMA	11-07-1814A-310407	06/02/11	Current LOMA
LOMA	11-07-1886A-310407	06/14/11	Current LOMA
LOMA	11-07-1958A-310407	06/21/11	Current LOMA
LOMA	11-07-1963A-310407	06/23/11	Current LOMA
LOMA	11-07-1992A-310407	05/24/11	Current LOMA
LOMA	11-07-2170A-310407	07/14/11	Current LOMA
LOMA	11-07-2344A-310407	08/04/11	Current LOMA
LOMA	11-07-2478A-310407	08/25/11	Current LOMA
LOMA	11-07-2853A-310407	10/04/11	Current LOMA
LOMA	11-07-3303A-310407	10/04/11	Current LOMA
LOMA	11-07-3541A-310407	11/08/11	Current LOMA
LOMA	12-07-0178A-310407	11/23/11	Current LOMA
LOMA	12-07-0262A-310407	12/08/11	Current LOMA
LOMA	12-07-0293A-310407	01/24/12	Current LOMA
LOMA	12-07-0416A-310407	12/13/11	Current LOMA
LOMA	12-07-0559A-310407	12/22/11	Current LOMA
LOMA	12-07-0632A-310407	12/29/11	Current LOMA
LOMA	12-07-1428A-310407	02/16/12	Current LOMA
LOMA	12-07-1537A-310407	03/01/12	Current LOMA
LOMA	12-07-1620A-310407	05/03/12	Current LOMA
LOMA	12-07-1777A-310407	03/20/12	Current LOMA
LOMA	12-07-2449A-310407	06/14/12	Current LOMA
LOMA	12-07-2815A-310407	08/23/12	Current LOMA
LOMA	12-07-2904A-310407	08/02/12	Current LOMA
LOMA	12-07-3371A-310407	10/23/12	Current LOMA
LOMA	13-07-0576A-310407	01/24/13	Current LOMA
LOMA	13-07-1545A-310407	06/04/13	Current LOMA
LOMA	13-07-1828A-310407	07/02/13	Current LOMA
LOMA	14-07-0119A-310407	10/24/13	Current LOMA
LOMA	14-07-0168A-310407	11/05/13	Current LOMA
LOMA	14-07-0194A-310407	11/14/13	Current LOMA
LOMA	14-07-0328A-310407	11/19/13	Current LOMA
LOMA	14-07-0360A-310407	11/26/13	Current LOMA
LOMA	14-07-0809A-310407	02/20/14	Current LOMA
LOMA	14-07-0836A-310407	05/01/14	Current LOMA
LOMA	14-07-1207A-310407	03/07/14	Current LOMA
LOMA	14-07-1690A-310407	06/05/14	Current LOMA
LOMA	14-07-1949A-310407	07/03/14	Current LOMA
LOMA	14-07-2179A-310407	07/03/14	Current LOMA
LOMA	14-07-2403A-310407	09/11/14	Current LOMA
LOMA	15-07-1064A-310407	04/14/15	Current LOMA
LOMA	15-07-1467A-310407	06/16/15	Current LOMA
LOMA	16-07-0302A-310407	12/21/15	Current LOMA
LOMA	16-07-1178A-310407	05/23/16	Current LOMA
LOMA	16-07-1675A-310407	07/29/16	Current LOMA
LOMA	16-07-1716A-310407	08/08/16	Current LOMA

Type of Product	Product ID	Effective Date	Details
LOMA	16-07-1881A-310407	09/06/16	Current LOMA
LOMA	16-07-1959A-310407	09/13/16	Current LOMA
LOMA	17-07-0007A-310407	10/20/16	Current LOMA
LOMA	17-07-0373A-310407	01/27/17	Current LOMA
LOMA	17-07-0746A-310407	04/19/17	Current LOMA
LOMA	17-07-0795A-310407	02/21/17	Current LOMA
LOMA	17-07-2252A-310407	09/15/17	Current LOMA
LOMA	17-07-2643A-310407	11/07/17	Current LOMA
LOMA	18-07-0533A-310407	01/03/18	Current LOMA
LOMA	18-07-0630A-310407	02/26/18	Current LOMA
LOMA	18-07-0692A-310407	02/02/18	Current LOMA
LOMA	18-07-0751A-310407	02/07/18	Current LOMA
LOMA	20-07-0614A-310407	03/03/20	Current LOMA
LOMA	20-07-0771A-310407	04/23/20	Current LOMA
LOMA	20-07-0904A-310407	04/27/20	Current LOMA
LOMA	20-07-0914A-310407	05/28/20	Current LOMA
LOMA	20-07-1132A-310407	06/23/20	Current LOMA
LOMA	21-07-0129A-310407	12/08/20	Current LOMA
LOMA	22-07-0099A-310407	11/03/21	Current LOMA
LOMA	22-07-0164A-310407	11/11/21	Current LOMA
LOMA	22-07-0259A-310407	01/19/22	Current LOMA
LOMA	23-07-0376A-310407	04/27/23	Current LOMA
LOMA	23-07-0784A-310407	08/15/23	Current LOMA
LOMA	24-07-0152A-310407	12/20/23	Current LOMA
LOMA	24-07-0258A-310407	03/06/24	Current LOMA
FIRM Panel	31025CIND0B, 31025C0095E, 31025C0115E, 31025C0120E	08/14/24	Current FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Cass County has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the county updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the County. The Cass County Comprehensive Plan was last developed in 2014. Some key goals in the plan that relate to hazard mitigation include:

- Goal: The natural resources and environment of Cass County shall be protected and managed to ensure long-term quality and availability. The goal of this plan is to guide growth in a manner that conserves and protects the natural resources while allowing for specific development opportunities.

- *Objectives: Establish zoning and subdivision standards that support conservation of natural resources, especially in the Platte River area. This can be accomplished by the creation of Planned Unit or Mixed Use Developments implementing the use of Conservation Easements and other tools. Overlay districts and design guidelines should also be examined and implemented.*
- *Cass County can work with Natural Resource Districts (NRDs) to encourage improved watershed management practices and the construction of watershed storage projects for flood control.*
- *Protect all water supplies and aquifers from development activities that may affect the quality and/or quantity of water. Development shall demonstrate a limited impact on ground water supplies.*
- *Cass County will continue participation in the FEMA National Flood Insurance Program to prevent flood-caused loss of life and property, by identifying and mapping the floodplains and floodways of the county.*
- *Cass County will discourage land use development within the floodplains of the county.*
- *Encourage conservation areas in flood prone areas and in areas of water features so that may increase tourism possibilities.*
- **Goal:** The priority of the county is to provide adequate facilities and services to all residents by ensuring cost-effective services and conscientious investment of public resources.
 - *Objectives: The county and/or fire districts need to examine the current fire district boundaries to determine quality and quantity of services provided as well as potential equipment needs.*

Ordinances and Regulations

The County's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The County's Zoning Ordinances were last updated in April 2023. The Zoning Ordinance defines the Floodplain Overlay District, provisions, permitting requirements and enforcement. All development within flood risk hazard areas in the unincorporated county require a permit and a base-flood elevation of 1-ft. The current ordinance does not define or describe the Wildland Urban Interface.

Building Codes

The building code sets standards for constructed buildings and structures. Cass County's building codes are the 2018 International Building Code. Enforcement of the code and inspection is done through Cass County Zoning Department.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard. The lands most at-risk from wildfire are in the northern and eastern parts

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Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

The County has experienced several changes over the past 10 years. New housing developments have been built near Louisville/Hwy 50, Eagle/Hwy 34, and Plattsmouth. Highway 63 has been widened to accommodate interstate access and additional widening of Highway 75 has been completed near Plattsmouth. The population in Cass County is increasing which the local planning team attributes to residents wanting to live in more rural areas but within easy access to Omaha and Lincoln. Cass County also has several main highways making travel to metropolitan areas easy.

Since the previous plan, additional housing developments have been planned in Eagle and Louisville and additional highway expansion on Highway 75 is anticipated in the Plattsmouth and Murray areas. A new water treatment facility was built near Plattsmouth off Highway 75. Commercially a new truck stop in Eagle is in development. Within the next few years, a large anhydrous storage area between Elmwood and Murdock and several additional businesses near Plattsmouth and Louisville are planned. Plattsmouth anticipates four apartment buildings built outside of the floodplain in the near future.

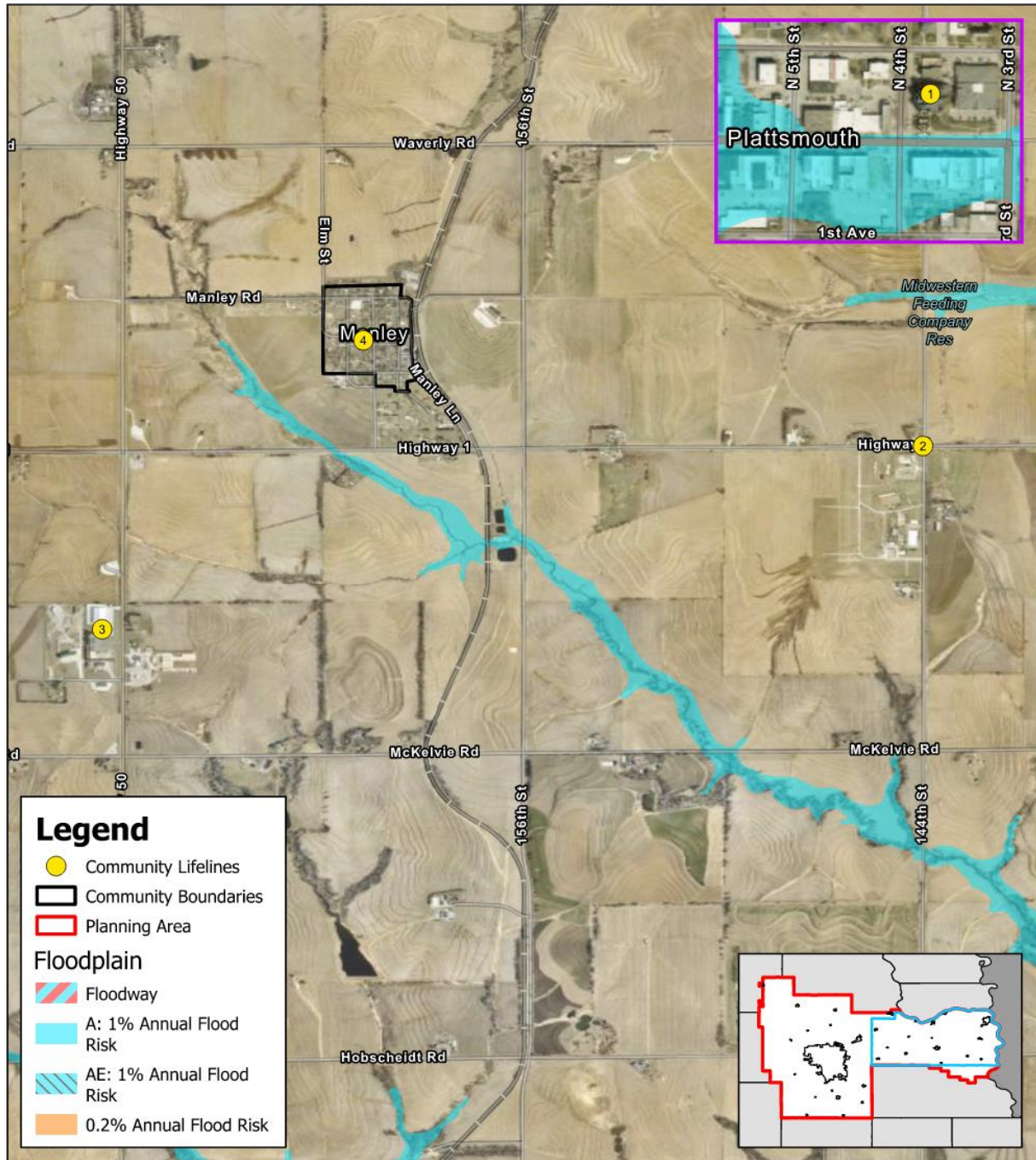
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Cass County Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Cass County Courthouse/Sheriff/County Jail	Y	N	N
2	Safety and Security	County Extension, Emergency Management	Y	N	N
3	Transportation	County Maintenance Shop	Y	N	N
4	Other	Storage Shop	Y – portable	N	N

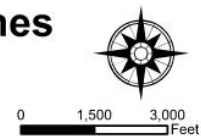


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 Date: 8/22/2024
 Software: ArcGIS Pro
 File: Lower Platte South NRD.aprx

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Cass County Community Lifelines

Lower Platte South NRD
 Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Cass County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Cass County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Drought

Drought is a pervasive hazard which could significantly impact agriculture, water resources, and industry in Cass County. Agriculture is a primary cornerstone of the local economy. Reduced water availability would stress crops and livestock, leading to lower yields and higher costs for farmers. Drought also threatens water resources for communities, potentially leading to stricter water restrictions and higher utility costs.

The frequency and severity of droughts is anticipated to increase in the coming decades, resulting in long-term changes to the county's agricultural practices, including shifts to drought-resistant crops or the need for more extensive irrigation systems. Prolonged droughts may also impact local ecosystems, reducing biodiversity and affecting recreational activities tied to natural resources, such as fishing and boating on local rivers. Proactive measures like water conservation policies and evaluating other sources of water will be crucial for mitigating future risks.

ACTION	Investigate New Sources of Water
Description	Investigate new water sources for periods of shortage
Hazards Addressed	Drought
Estimated Cost	\$0
Potential Local Funding	Unknown
Lead Agency	Rural Water Districts, Cass County Emergency Management
Timeline	5+ years
Priority	Low
Status	In Progress – County has created MOUs and began evaluating alternative water sources. No official determinations have yet been made.

ACTION	Prepare Sample Water Conservation Ordinances
Description	Prepare sample water conservation ordinances
Hazards Addressed	Drought
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Fund
Lead Agency	Rural Water Districts, Local governing bodies, Cass County Emergency Management
Timeline	5+ years
Priority	Low
Status	Not Yet Started

Flooding

Both riverine and flash flooding events are major concerns in Cass County. During the March 2019 flood event many communities throughout the County were inundated and suffered significant damages. While no County-owned properties were damaged, County Emergency Management assisted broadly with evacuations, road closures, and other emergency responses. Many communities were instructed to evacuate including Lake Waconda and Horseshoe Lake. The majority of residents who were evacuated stayed with family members in the surrounding areas while a few were sheltered with Emergency Management. There are no public or

community sheltering locations in Cass County. Additionally, several roads and bridges throughout the county were washed out or damaged. Estimated damages to roads and bridges for the county exceed \$1.5 million. When Interstate 29 closed due to the flooding, traffic was diverted through Cass County on Highways 75 and 50, prompting concerns for traffic accidents, accelerated wear and tear on the roads, and chemical transportation.

Primary concerns for the County for flooding pertain to uncertainty in how the rivers will respond to heavy rains and high-water flows. The March 2019 event changed the course of the river in several places and breached numerous levees. With these changes it is unknown exactly how much water the rivers can now safely hold or where and how extensive flooding can be. Flooding along the Missouri River from the March 2019 flood primarily occurred due to levee breaches or overtopping. Levee failures and breaches along both the Platte River and Missouri River caused significant damage to homes, businesses, and roads during the March 2019 flood event. The YMCA levee overtopped but did not breach while several levees in Plattsmouth and Cedar Creek did breach. A breached levee in Plattsmouth located on private property and was not repaired due to cost. Subsequent heavy rains in the area continue to degrade the levee system. Due to the levee failures and flooding, Interstate 29 was closed and traffic was diverted through the County via Highways 75 and 50. The levee at Lake Waconda has been repaired since the 2019 floods and the county assisted in the completed reconstruction of the City of Plattsmouth's water treatment plant that was destroyed in the flood. As of March 2024, only minor edges of Cass County are identified in the NeDNR Business Plan for future floodplain mapping efforts for 2D Base Level Engineering.

ACTION	
Utilize Low-Impact Development and Green Infrastructure	
Description	Low impact development practices and green infrastructure can reduce runoff and result in a reduction in stormwater related flooding.
Hazards Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies by need
Potential Local Funding	Local governments, General Budget
Lead Agency	Local governing bodies, Cass County Emergency Management
Timeline	5+ years
Priority	Low
Status	Not Yet Started

ACTION	
Participate in the Community Rating System	
Description	Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Participation in CRS can help reduce flood insurance premiums.
Hazards Addressed	Flooding
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Fund
Lead Agency	Local Fire Departments, Cass County Emergency Management Agency
Timeline	5+ years
Priority	Medium
Status	Not Yet Started

ACTION	Preserve Natural and Beneficial Functions
Description	Preserve natural and beneficial functions of floodplain land through measures such as: retaining natural vegetation, restoring streambeds, and preserving open space in the floodplain.
Hazards Addressed	Flooding
Estimated Cost	\$5,000+
Potential Local Funding	General Fund
Lead Agency	County Administration, Local governing bodies
Timeline	5+ years
Priority	Low
Status	Not Yet Started

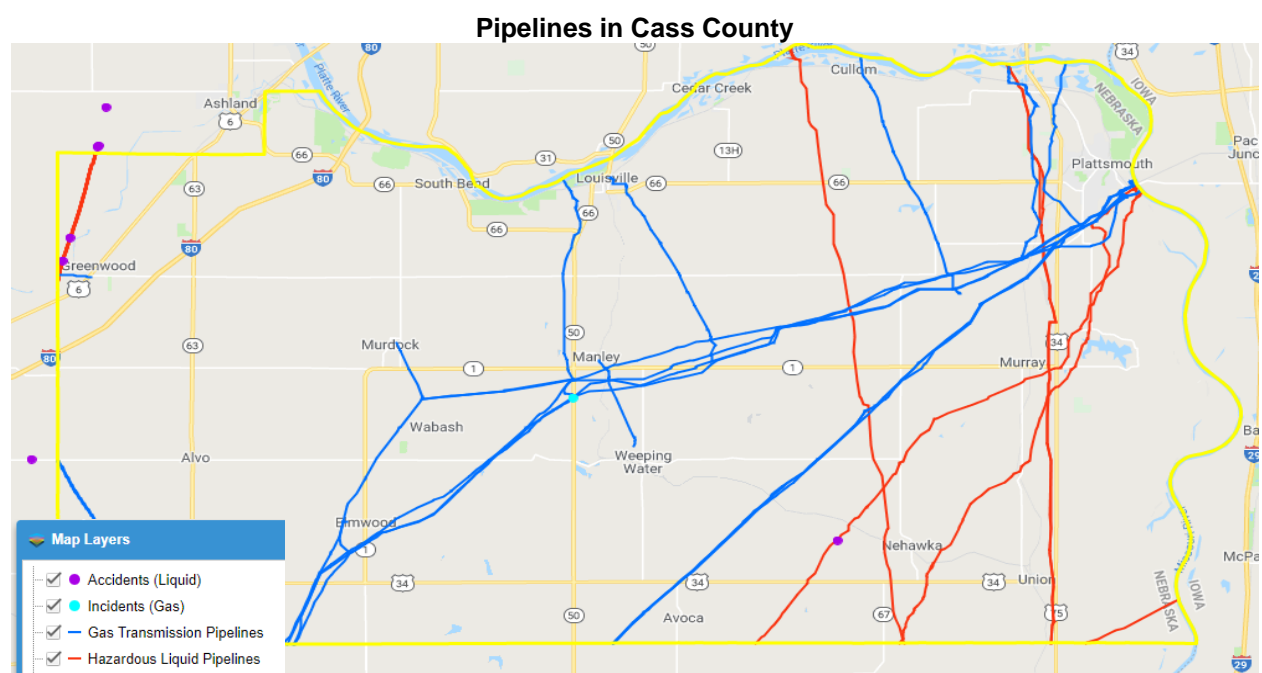
ACTION	Property Acquisition, Elevation or Floodproofing
Description	Assist in the acquisition, elevation, floodproofing and/or demolition of properties located in the floodplain or flood risk hazard areas.
Hazards Addressed	Flooding
Estimated Cost	Varies by structure and need
Potential Local Funding	General Fund – local cost share match to FMA or SWIFT Grant
Lead Agency	Lower Platte South NRD Support from Cass County and NeDNR
Timeline	5+ years
Priority	High
Status	The Lower Platte South NRD is working as a lead sponsor for flood risk reduction for several properties in the district in collaboration with Cass County and NeDNR. Properties may include one residential property located outside of the Village of Union near Lake Waconda and/or one residential property located near the Village of South Bend. Both properties are exploring elevation as a method of floodproofing, with the need for additional funding or cost share options.

Hazardous Materials Release

Many of the chemical fixed sites located throughout the county are near or within communities, heightening risk of spills impacting residents and property. Some notable events that have occurred in the county include a blown natural gas tank valve in 2018 which shut down Highway 50 and a second blown valve on an anhydrous bulk storage container which also shut down the highway for several hours. A new large-scale anhydrous ammonia plant was built at Highway 1 and McKelvie in 2020. This plant has a large storage site and surrounding fixed sites currently housing anhydrous ammonia moved their products to this facility.

Thus far past events have caused over \$200,000 in damages and one injury in Murdock in 1999 (*historical record, not currently available in data set*). The County has several hazmat trained personnel on staff to assist in chemical spill events. The County is also expanding their current training program to increase available response capabilities. Overall, the County experiences at least one fixed site spill per year.

Cass County has the greatest volume of hazardous chemical transportation via rail and highway in the state of Nebraska. This primarily stems from its primary location between the Cities of Lincoln and Omaha. The local planning team identified an event in 2016 near Greenwood in which a propane tanker truck crossed the railroad tracks and was struck by the approaching train. The driver was killed, the tanker was knocked over, and the transportation corridor was closed for approximately three days in order to clear the area. Other significant events have required hazmat trained personnel to assist local volunteer fire departments, most of whom do not have the necessary response equipment to handle these types of incidents.



ACTION	Vehicular Barriers
Description	Install vehicular barriers to protect critical facilities and key infrastructure where possible.
Hazards Addressed	Hazardous Materials, Terrorism
Estimated Cost	\$5,000+
Potential Local Funding	General Fund
Lead Agency	Cass County Emergency Management, Cass County Sheriff, Department of Roads
Timeline	2-5 years
Priority	Medium
Status	Not Yet Started

High Winds and Tornadoes

Straight-line winds are a common occurrence across the County. Past events have caused significant damage to buildings, roofs, and trees in communities such as Plattsmouth. Downed trees and power poles have caused power outages lasting several days across the County. The majority of powerlines in rural and unincorporated areas of the County are above ground. Some municipalities and new subdivisions do have buried power lines to help reduce power outage concerns. During past events which downed trees, it was discussed to open a tree disposal service which would grind trees into mulch available for consumers. However, with the presence

of Eastern Ash Borer in Cass County, the program was non-viable. Other alternatives to removing downed trees are needed.

Tornadoes are a hazard of top concern due to their potential to cause catastrophic damage to communities and critical facilities. Several tornadoes have occurred in the county which have caused damages including an EF2 near Nehawka in 2016 which destroyed a home, an EF1 near Eagle in 2009 which led to five injuries, and an EF1 near Alvo in 2009 that caused \$1 million in damages. There are no community shelter or FEMA certified safe rooms identified for county use. The local planning team also indicated that only about 50 percent of residents in the County have a basement. There are warning and alert sirens located throughout the county which have a backup source of power. A new warning siren was placed at Lake Waconda and the County plans on installing another at Mahoney State Park and at Camp of God near Louisville.

ACTION	Storm Shelters
Description	Identify, design, and develop storm shelters to protect community and local critical facilities.
Hazards Addressed	High Winds & Tornadoes, Severe Thunderstorms
Estimated Cost	\$200-250 per sf stand alone; \$150-200 per sf addition/retrofit
Potential Local Funding	General Fund
Lead Agency	Cass County Emergency Management
Timeline	5+ years
Priority	Medium
Status	Not Yet Started - Study to be done to identify the best placement for these shelters.

Severe Thunderstorms

Severe thunderstorms are common throughout the planning area and occur in the County several times annually. Associated impacts of severe thunderstorms include heavy rain, lightning strikes, and strong winds. The local planning team identified power outages, blocked transportation routes, and fires caused by lightning as top concerns for severe thunderstorms. Records are backed up on an external server and there are no lightning rods on the Cass County Emergency Management office. However, the facility is located near two towers which direct lightning away from the building itself. Past events have had the county's generator struck by lightning at the EOC. A portable generator was delivered from Omaha to assist until a replacement could be purchased. During periods of heavy rain areas along Weeping Water Creek, Salt Creek, and Dewey Drive all experience poor stormwater drainage. The Weeping Water Campground in particular is prone to flooding; however, the local volunteer fire department is good at warning, evacuating, and closing the area. There are no public or community storm shelter locations identified in the County.

ACTION	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. These improvements can serve to more effectively convey runoff, preventing interior localized flooding. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazards Addressed	Flooding, Severe Thunderstorms

ACTION	Stormwater System and Drainage Improvements
Estimated Cost	\$100,000+
Potential Local Funding	State Roads Grants, General Budget
Lead Agency	Cass County Roads Department
Timeline	5+ years
Priority	Low
Status	In Progress - Some larger box culverts have been installed on county owned roads. Some still need to be completed.

Severe Winter Storms

Severe winter storms include heavy snow, blowing and drifting snow, extreme cold, and ice accumulation which can close major transportation routes and prevent emergency services from accessing those in need. Cass County Emergency Management has a bobcat used to remove snow from the EOC facility and the County has equipment to remove snow from County Roads. The 2018-2019 winter produced significant precipitation which led to dangerous conditions along many primary transportation routes. The January 2024 snowstorm caused road closures, and it took two weeks for county roads to reopen. With -40°F, equipment gelled up and would quit running. Several motorists were stuck and had to be rescued. Few power lines are buried throughout the county, prompting concerns for extended power outages. Additional education efforts need to be conducted for resident safety and evacuation protocols during hazard events.

ACTION	Continuity Planning
Description	Continuity planning helps to ensure that services can be maintained during and after a disaster. Develop continuity plans for critical community services.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Fund
Lead Agency	Cass County Emergency Management
Timeline	2-5 years
Priority	Medium
Status	In Progress – have held some department meetings to discuss COOP needs. Official plan development has not yet started.

Other Hazards of Concern:

Dam Failure

Dam failure is a potential hazard in the county; however, at this time there are no mitigation actions identified within the scale or feasibility of the County.

There are eight High Hazard Dams within Cass County. Dams classified with high hazard potential require the creation of an Emergency Action Plan (EAP). If a dam were to fail significant risk to infrastructure and residents would occur. The Cass County Local Emergency Operations Plan (LEOP) describes several dams which, if they were to fail, could impact the county:

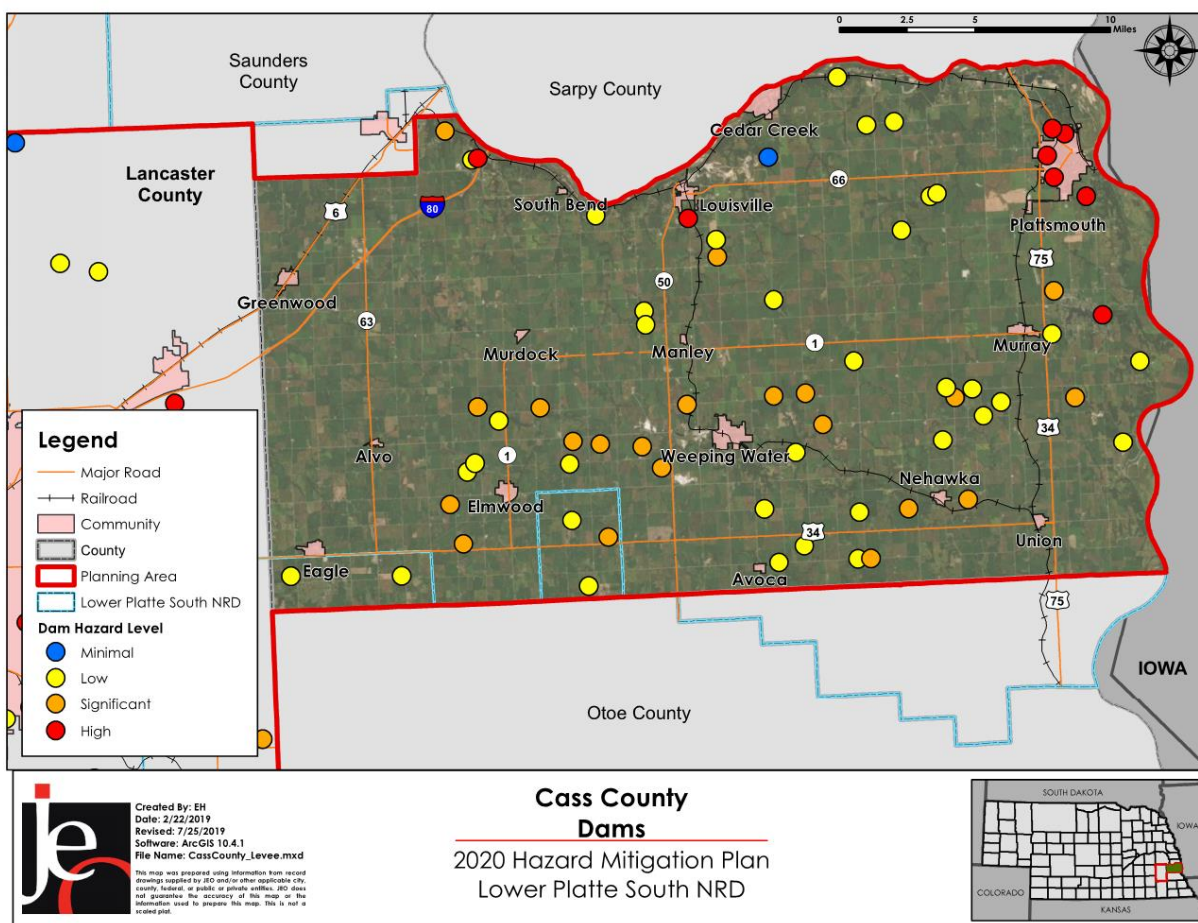
- *Beaver Lake Dam – owned by the Beaver Lake Association. Would affect the Rock Creek from Dam to the mouth. In Cass County, the area affected would be slightly greater than*

Section Seven | Cass County Profile

the 100-year floodplain with the greatest effect on Rock Bluff and Bottoms which would approach 100 percent inundation.

- *Multiple Purpose Structures 1989-1 – owned by Nebraska Game and Parks Commission. Inundation area downstream from the dam to the Platte River.*
- *Mill Creek #7 Road Structure – owned by the Lower Platte South NRD.*

Altogether approximately two percent of the population of Cass County could be affected by the failure of one or more of these dams.



Removed Mitigation Action

ACTION	Promote the Use of Higher Codes and Standards
Description	Promote the use of higher codes and standards, such as the Fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits
Hazards Addressed	Agricultural Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Status	No Longer Needed

ACTION	Water Conservation Awareness
Description	Improve and/or develop a program to conserve water use by the citizens during elongated periods of drought. Potential restrictions on water could include limitations on lawn watering, car washing, or water sold to outside sources. Work with DNR on farm irrigation restrictions.
Hazards Addressed	Drought
Status	No Longer Needed

Community Profile

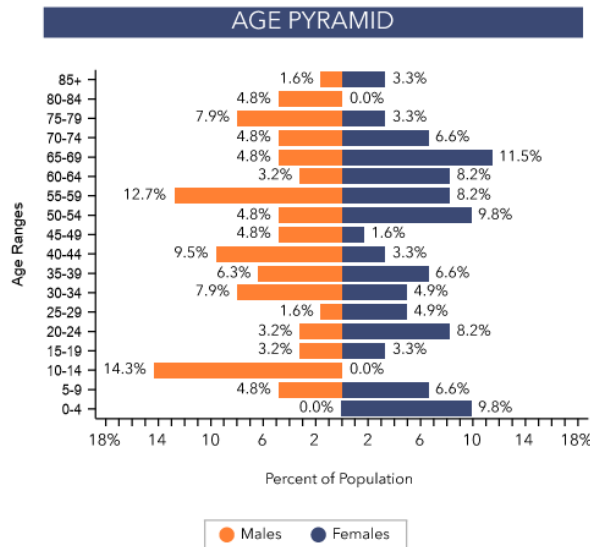
Village of Alvo

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

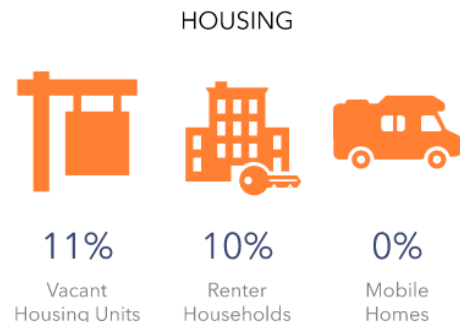
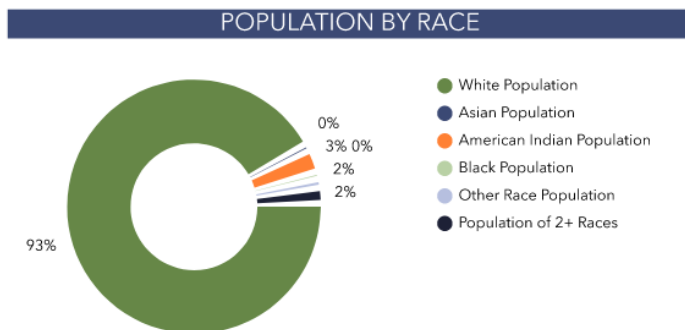
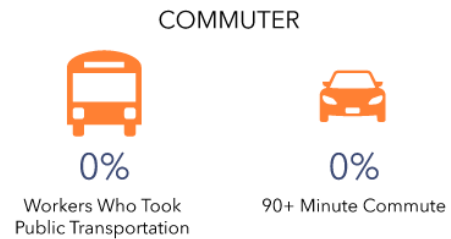
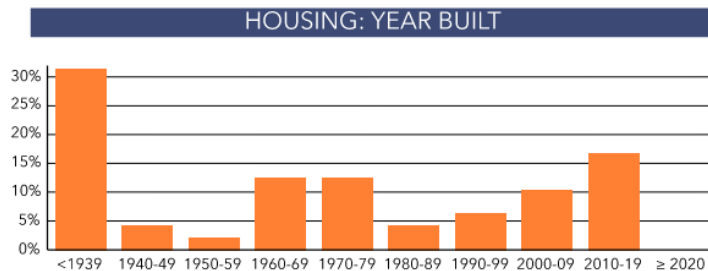
Alvo Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

124 Population **46.3** Median Age **\$94,873** Median Household Income **\$268,750** Median Home Value **4.3%** Unemployment Rate **3%** Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	124
2020 Total Population (U.S. Census)	115
2010 Total Population (U.S. Census)	112
2000 Total Population (U.S. Census)	114



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Amanda Shinkle	Village Clerk	Village of Alvo	Profile Development
Roger Paul	Board Chairperson	Village of Alvo	Profile Development

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 Village Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Alvo will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Alvo is in the southwest-central portion of Cass County, approximately 20 miles east of Lincoln, Nebraska and seven miles south of Interstate 80 (I-80). The Village covers an area of 0.10 square miles. There are no major waterways near the town due to its higher elevation, relative to the rest of the county.

Capability Assessment

The planning team assessed the Village of Alvo's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	No
	Floodplain Management Plan	No
	Storm Water Management Plan	Yes - County
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Contracted
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	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/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	

Capability/Planning Mechanism		Yes/No
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	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	No
	Other (if any)	

Alvo Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Limited	Limited
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Information

The Village of Alvo is not a part of the National Flood Insurance Program. Due to the low risk to flooding and limited floodplain areas, participation is not a priority for the Village. There is no intention to join the NFIP at this time; however, Alvo may revisit its decision if flood risk hazard maps are updated by Nebraska Department of Natural Resources.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in Alvo have been removed from the floodplain via LOMA. A summary of LOMAs identified for Alvo can be found in the table below.

Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
82	\$7,081,273	0	0	0

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31025CIND0B	08/14/2024	Pending FIRM
FIRM Panels	31025CIND0A	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0175D	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0325D	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0350D	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0200D	11/26/2010	Current FIRM Panels

Source: Flood Map Service Center

Plans and Studies

Alvo has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the Village. The Village of Alvo's Comprehensive Plan was last developed in 2010. The plan identifies a goal as "to secure safety from flood" for the community. Otherwise the 2010 plan does not integrate information from the Lower Platte South NRD Hazard Mitigation Plan. There is no plan or timeline to update the comprehensive plan.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The wildland urban interface and floodplain development is not discussed in these documents. Development within the one-mile ETJ is permitted.

Building Codes

The building code sets standards for constructed buildings and structures. Alvo implements Cass County's building codes which are the 2018 International Building Code. Enforcement of the code and inspection is done through Cass County Zoning after the Village handles the initial permitting process.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

In the past ten years a new home has been replaced from a house fire. New businesses in town on Main Street. The local planning team indicated the number of rental housing properties in town is continuing to increase. The proximity to the interstate for access to Omaha and Lincoln makes Alvo attractive to residents and renters. Currently there are no future housing or commercial developments are planned.

Community Lifelines

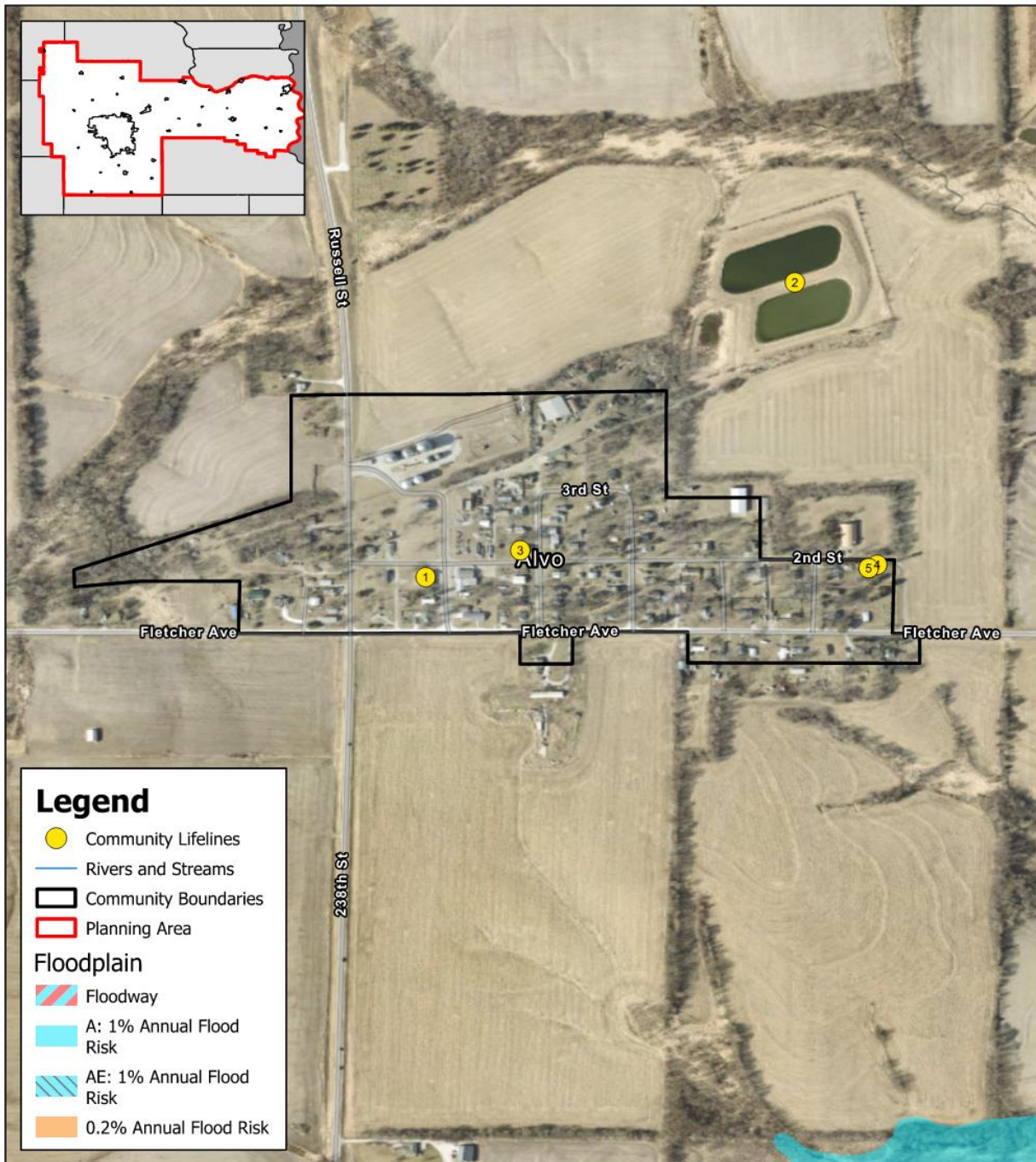
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Alvo Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Alvo Volunteer Fire & Rescue/Village Hall	Y	Y	N
2	Food, Water, Shelter	Lagoon	N	N	N
3	Food, Water, Shelter	Methodist Church	N	N	N
4	Food, Water, Shelter	Pumphouse	Y	N	N
5	Food, Water, Shelter	Water Tower	Y	N	N

Village of Alvo Community Lifelines

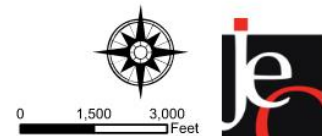


Created By: AK
Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

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

Alvo Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Alvo which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Alvo. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	
TOTAL		1,994	1074	\$22,746,478.00

Hazardous Materials Release

Chemical transportation spills are a concern from the large volume of hazardous chemicals transported through town via semi-trucks. Additionally, there is a new anhydrous ammonia facility located six miles east of town which has greatly increased the amount of trucks hauling chemicals that pass through Alvo. Highway 63 is a major transportation corridor which bisects some homes. Chemical spills would likely inhibit emergency response access to each side of town.

ACTION	Emergency Fuel Supply Plan
Description	Plan to ensure adequate fuel supply is available during an emergency from either loss or blocked access. Prioritize and ration plans for gasoline and diesel uses in extended loss of fuel supply or electric power supply.
Hazards Addressed	Hazardous Materials
Estimated Cost	\$1,000+
Potential Local Funding	General Fund
Lead Agency	Clerk
Timeline	1 year
Priority	Low
Status	Not yet started.

ACTION	Continuity Planning
Description	Develop continuity plans for critical community services.
Hazards Addressed	Agricultural Disease, Drought, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms, Flooding, Extreme Temperatures
Estimated Cost	\$5,000+, Staff Time
Potential Local Funding	General Fund
Lead Agency	Clerk
Timeline	1 year
Priority	Medium
Status	Not yet started.

ACTION	Provide Short Term Residency Shelters
Description	Identify and designate short term shelters for rural residents
Hazards Addressed	High Winds and Tornadoes, Hazardous Materials, Flooding, Severe Winter Storms, Extreme Temperatures
Estimated Cost	\$0
Potential Local Funding	General Fund
Lead Agency	Clerk
Timeline	2-5 years
Priority	Low
Status	Not yet started.

High Winds and Tornadoes

A tornado in March 2009 was reported as part of a larger cell in Alvo. This tornado touched down in Alvo and tracked a little over 10 miles north northeast before lifting just west of South Bend. The tornado knocked down power poles and transmission lines, snapped trees and damaged houses and destroyed farm out buildings along its path. One of the downed power lines fell on a

Section Seven | Village of Alvo Community Profile

car trapping its occupant for several hours. Several cars were crushed by fallen trees in the Alvo area. From the 3 confirmed tornadoes that hit the county, plus any associated wind damage, emergency management estimated that 30 homes had minor damage with 4 sustaining major damage and 60 to 80 farm outbuildings were damaged with the total damage approaching \$1 million. There are no FEMA certified safe rooms in Alvo. The Village would like to work with Cass County to develop a community specific Local Emergency Operations Plan.

ACTION	Comprehensive Disaster/Emergency Response Plan
Description	Develop a Comprehensive Village Disaster and Emergency Response Plan
Hazards Addressed	Agricultural Disease, Grass/Wildfire, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms, Flooding, Extreme Temperatures
Estimated Cost	\$5,000, Staff Time
Potential Local Funding	General Fund
Lead Agency	Clerk
Timeline	1 year
Priority	Medium
Status	Not yet started.

Other Capacity Building Actions

ACTION	Backup Municipal Records
Description	Develop protocol for backing up critical municipal records onto a portable storage device or service.
Hazards Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Civil Disorder/Terrorism, High Winds and Tornadoes
Estimated Cost	\$100 for external hard drive
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	1 year
Priority	Medium
Status	Not yet started. Currently have a backup hard drive on main computer. Additional storage is needed.

ACTION	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms, Flooding
Estimated Cost	Varies by need
Potential Local Funding	General Fund
Lead Agency	Volunteer Fire Department, Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started. Currently working on getting ALS service.

ACTION	Improve/Provide Facilities for Vulnerable Populations
Description	Evaluate vulnerable population or placement of vulnerable populations throughout community. Ensure facilities which house vulnerable populations are placed in the least vulnerable areas of the community.
Hazards Addressed	Agricultural Disease, Drought, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms, Flooding, Extreme Temperatures
Status	\$0, Adopt Regulations
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	1 year
Priority	Medium
Status	Not yet started.

Completed/Removed Actions

ACTION	Intergovernmental Support
Description	Support other local governmental entities, such as fire departments, schools, and townships
Hazards Addressed	All hazards
Status	Complete – mutual aid agreements are already in place as needed.

ACTION	Emergency Operations Center
Description	Identify and establish an Emergency Operations Center
Hazards Addressed	All hazards
Reason for Removal	Removed – Cass County serves as local emergency management during ICS incidents.

Community Profile

Village of Avoca

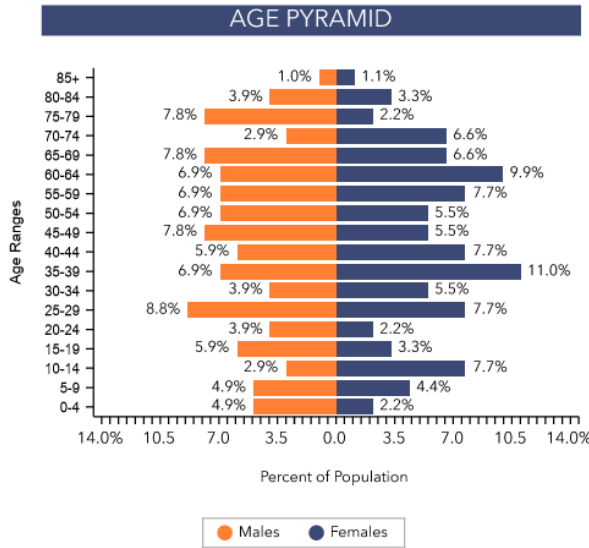
Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

Avoca Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

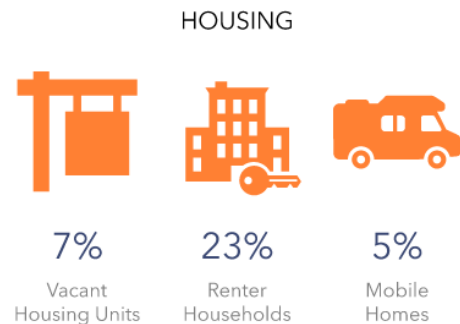
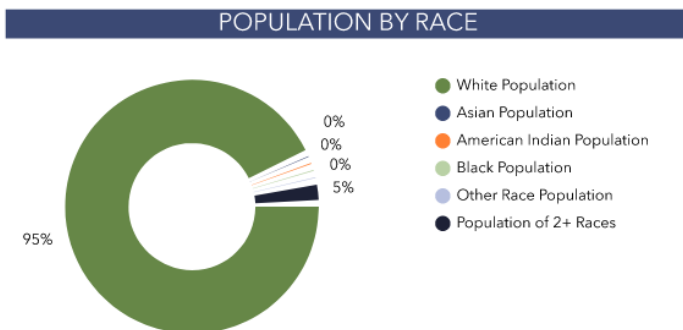
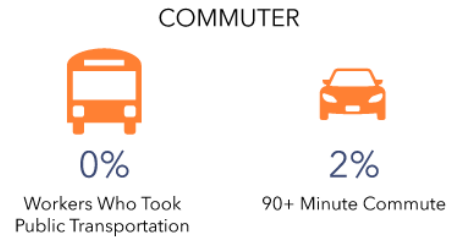
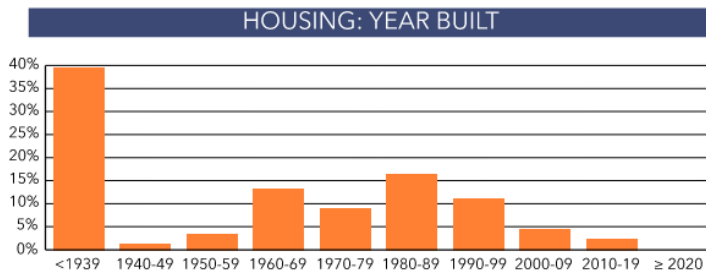
193 45.2 \$78,351 \$188,235 1.7% 13%

Population Median Age Median Household Income Median Home Value Unemployment Rate Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	193
2020 Total Population (U.S. Census)	178
2010 Total Population (U.S. Census)	203
2000 Total Population (U.S. Census)	214



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction
Marilyn Kirchhoff	Village Clerk	Village of Avoca

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 Village Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Avoca will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Avoca is near Cass County's southern line, approximately 40 miles east of Lincoln and 15 miles west of the Missouri River. The Village covers an area of 0.13 square miles. There are two major waterways in or near the town. The first is a creek running directly through the middle of town. This unnamed creek flows south until it forms a confluence with the Southern Branch Weeping Water Creek, less than a mile south of town.

Capability Assessment

The planning team assessed the Village of Avoca's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes - County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes – County
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes

Capability/Planning Mechanism		Yes/No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No(Fire)
	Other (if any)	
Fiscal Capability	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/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, 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)	

Avoca Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Moderate	Moderate
Public Support to Implement Projects	Moderate	Moderate
Time to Devote to Hazard Mitigation	Moderate	Moderate

Capability	2020 Plan	2025 Plan
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

The Village of Avoca has a floodplain ordinance which requires permits for development within flood risk hazard areas. The village clerk serves as the Floodplain Administrator and is responsible for reviewing and approving all floodplain permits. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. The village enforces local floodplain regulations with the help from the county or state.

NFIP Information

NFIP Overview	
Date of NFIP Participation:	07/11/75
Floodplain Administrator:	Marilyn Kircchoff
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	0
Total NFIP Premium (\$):	\$-
Total NFIP Coverage (\$):	\$-
Number of Claims Paid Out:	1
Total Amount of Claims Paid Out (\$):	\$80,678
Number of Repetitive Loss Structures:	-
Number of Severe Repetitive Loss Structures:	-
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in Avoca have been removed from the floodplain via LOMA. A summary of LOMAs identified for Avoca can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
111	\$6,728,005	8	\$286,885	7.2%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
111	\$6,728,005	9	\$441,265	8.1%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31025CIND0B	08/14/2024	Pending FIRM
FIRM Panels	31025CIND0A	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0360D	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0375D	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0380D	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0390D	11/26/2010	Current FIRM Panels

Source: Flood Map Service Center

Plans and Studies

Avoca has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The wildland urban interface and floodplain development is not discussed in these documents. Development within the one-mile ETJ is permitted.

Building Codes

The building code sets standards for constructed buildings and structures. Avoca implements Cass County's building codes which are the 2018 International Building Code. Enforcement of the code and inspection is done through Cass County Zoning after the Village handles the initial permitting process.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

In the last five years there has been little change in the Village of Avoca. A few homes were remodeled and new homes have been built north of town outside the community boundary. No new homes have been built or demolished and no new businesses have moved within town. At this time there are no plans for future housing or commercial development.

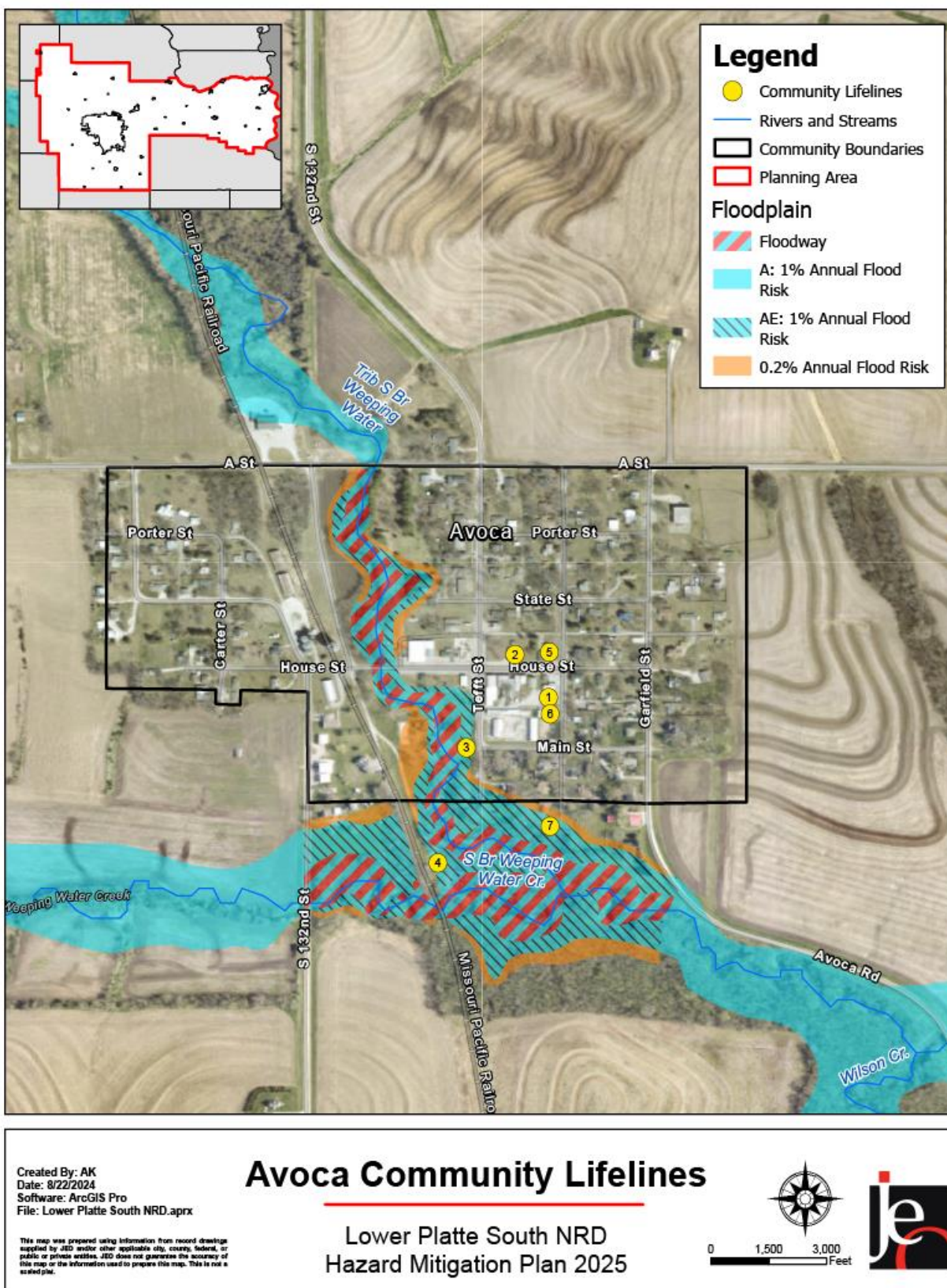
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Avoca Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Avoca Rural Fire Department	N	N	N
2	Safety and Security	Community Building/ Village Office	N	Y	N
3	Food, Water, Shelter	Lift Station	N	N	Y
4	Food, Water, Shelter	Sanitary Sewer Plant	N	N	Y
5	Safety and Security	Town Hall Community Center	N	N	N
6	Transportation/Energy	Tractor Shed/ Generator Shed	N	N	N
7	Food, Water, Shelter	Well for Fire Reservoir	Y – 2 portable	N	Y



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Avoca which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Avoca. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Flooding

The Village has a tributary of the Weeping Water Creek which bisects town running north-south and several homes and properties in town are located within the floodplain. The local planning team indicated the creek has experienced significant flooding in 2015 which has contributed to streambank erosion in the park and caused significant damage to the sewer plant and lift station. There were no reported impacts from the 2019 flood event in Avoca. The Village is a participant in the National Flood Insurance Program.

ACTION	Improve Water Supply and Redundancies
Description	Study water supply deficiencies, identify alternative solutions, and implement cost effective measures to increase/improve supply for residents, emergency management, and/or fire protection.
Hazards Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Potential Local Funding	General Fund, Water Service Fees
Lead Agency	Volunteer Fire Department, Village Board
Timeline	5+ years
Priority	Medium
Status	Not yet started. An evaluation of the existing water system is needed, specifically to identify low lying areas with inadequate stormwater management.

Severe Thunderstorms

Severe thunderstorms occur annually across the state and in the planning area. Associated impacts from severe thunderstorms include heavy rain, lightning strikes, strong winds, and hail. Numerous trees in town have dropped limbs and residential roofs have experienced hail damage. The community has experienced several significant hail and wind events from severe thunderstorms causing property damage to residential homes and trees. Additionally, loss of power is a concern for the local planning team. The Village is served by NPPD for electricity and the majority of lines are above ground. The community wells have portable backup generators that can be hooked up during emergencies for fire suppression or potable water needs. The local office used as a shelter or heating area and the village life station do not currently have a generator.

Action	Backup Generators
Description	Provide backup generators for the lift station and village office.
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes
Estimated Cost	\$20,000+
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

Community Profile

Village of Cedar Creek

Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

Cedar Creek Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

470

Population

51.5

Median Age

\$121,163

Median Household
Income

\$293,590

Median Home
Value

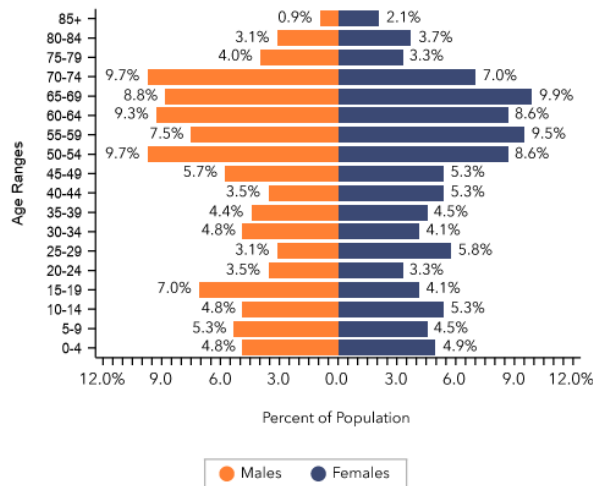
0.0%

Unemployment
Rate

5%

Households Below
the Poverty Level

AGE PYRAMID



TOTAL POPULATION

2023 Total Population (Estimate)	470
2020 Total Population (U.S. Census)	465
2010 Total Population (U.S. Census)	359
2000 Total Population (U.S. Census)	261

AT RISK POPULATION



35

Households With
Disability



123

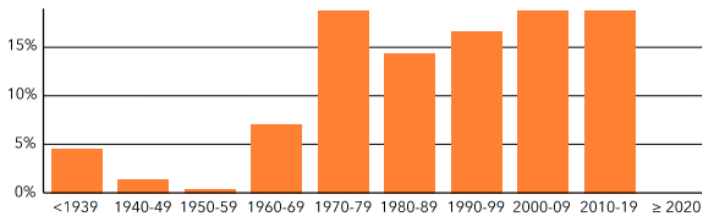
Population 65+



4

Households
Without Vehicle

HOUSING: YEAR BUILT



COMMUTER



0%

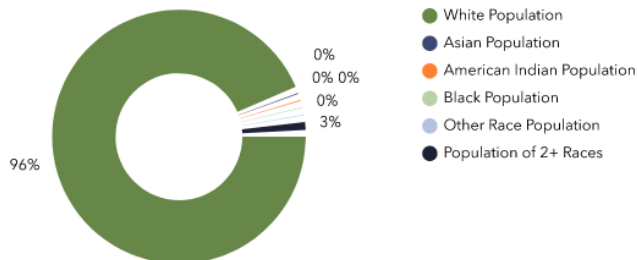
Workers Who Took
Public Transportation



7%

90+ Minute Commute

POPULATION BY RACE



HOUSING



35%

Vacant
Housing Units



6%

Renter
Households



4%

Mobile
Homes



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Wanda Prescott	Board Chair	Village of Cedar Creek	Attended Meetings; Profile Development
Charles Paukert	Floodplain Manager	Village of Cedar Creek	Attended Meetings; Profile Development
Derek Ahl	Fire Chief	Village of Cedar Creek	Profile Development
Roxanne Mrasek	Clerk / Treasurer	Village of Cedar Creek	Profile Development

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 Floodplain Manager, Fire Chief, and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Cedar Creek will review the plan annually and the public will be notified through social media, council meetings, and newsletters.

Location and Geography

The Village of Cedar Creek is in the northern portion of Cass County directly on the Platte River as well as the County line. The Village covers an area of 1.09 square miles. The Platte River flows directly adjacent to the town and the village consists mainly of a housing development built around five artificial lakes.

Capability Assessment

The planning team assessed the Village of Cedar Creek's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes, 1999
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	County
	Floodplain Management Plan	Yes, 2018
	Storm Water Management Plan	No
	Zoning Ordinance	Yes, 1999
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes

Capability/Planning Mechanism		Yes/No
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes, 5 staff. Tenure 1-3 years
	Floodplain Administrator	Yes, 1 staff
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	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/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, 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)	-

Cedar Creek Overall Capability

Capability	2020 Plan Limited/Moderate/High	2025 Plan Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Moderate	Moderate
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	09/15/1978
Floodplain Administrator:	Charles Paukert
Is Floodplain Administrator a Certified Floodplain Manager?	Yes
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	100
Total NFIP Premium (\$):	\$71,547
Total NFIP Coverage (\$):	\$21,856,000
Number of Claims Paid Out:	38
Total Amount of Claims Paid Out (\$):	\$446,679
Number of Repetitive Loss Structures:	6
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The Village of Cedar Creek has a floodplain ordinance which requires permits for development within flood risk hazard areas. The village clerk serves as the Floodplain manager and is responsible for reviewing and approving all floodplain permits. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. The village enforces local floodplain regulations with the help from the county or state. The Cedar Creek ordinance notes: *All new homes must be constructed so that the lowest floor is one foot above BFE This includes furnaces, water heaters and air conditioners. If the home is non-compliant and the damage or improvement exceed 50%, the complete structure must be brought into compliance. Ordinance 8-306 only allows new building permits to be issued on the same property after three years (unless unavoidably damaged). This ordinance was instituted in accordance with FEMA guidance to prevent a series of improvements in a shorter time to subvert the 50% rule.*

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of September 2024. 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. Several structures in Cedar Creek have been removed from the floodplain via LOMA. A summary of LOMAs identified for Cedar Creek can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
363	\$67,259,995	331	\$64,377,293	91.2%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
363	\$67,259,995	26	\$2,190,812	7.2%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31025CIND0B	08/14/2024	Current FIRM
FIRM Panels	31025C0070D	11/26/2010	Current FIRM
FIRM Panels	31025C0090D	11/26/2010	Current FIRM
FIRM Panels	1025CIND0A	11/26/2010	Current FIRM
LOMA	11-07-1278A-310030	02/17/2011	LOMA
LOMA	11-07-1322A-310030	03/22/2011	LOMA
LOMA	11-07-1620A-310030	05/12/2011	LOMA
LOMA	11-07-2187A-310030	06/08/2011	LOMA
LOMA	12-07-0218A-310030	12/06/2011	LOMA
LOMA	12-07-3370A-310030	10/23/2012	LOMA
LOMA	13-07-0641A-310030	02/05/2013	LOMA
LOMA	14-07-0780A-310030	02/11/2014	LOMA
LOMA	15-07-0146A-310030	12/11/2014	LOMA
LOMA	15-07-0764A-310030	03/03/2015	LOMA
LOMA	15-07-1847A-310030	08/06/2015	LOMA
LOMA	16-07-1502A-310030	07/05/2016	LOMA
LOMA	16-07-1706A-310030	08/05/2016	LOMA
LOMA	16-07-1949A-310030	09/09/2016	LOMA
LOMA	16-07-1967A-310030	09/13/2016	LOMA
LOMA	18-07-2073A-310030	09/21/2018	LOMA
LOMA	19-07-0048A-310030	12/06/2018	LOMA
LOMA	19-07-1305A-310030	06/12/2019	LOMA
LOMA	21-07-0999A-310030	07/29/2021	LOMA
LOMA	23-07-0511A-310030	05/11/2023	LOMA
LOMA	23-07-0718A-310030	09/05/2023	LOMA
LOMA	23-07-0924A-310030	11/21/2023	LOMA

Source: Flood Map Service Center

Plans and Studies

Cedar Creek has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to

incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the Village. Cedar Creek's comprehensive plan was last updated in 1999. The hazard mitigation plan has not been integrated into the plan. There is no plan or timeline to update the comprehensive plan.

Building Codes

The Village of Cedar Creek has adopted the 2012 International Building Codes that are used by Cass County. The building code sets standards for constructed buildings and structures. No amendments to the Code have been made. Enforcement of the building code is done through an agreement with Cass County Zoning.

Capital Improvement Plan

The capital improvements plan outlines projects the Village would like to pursue and provides a planning schedule and financing options. There is no plan or timeline to update the capital improvement plan. The Village has one bridge scheduled for repair within the next year and a replacement within the next five years.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future. Subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The Village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the Village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for property owners. The entire community is located within a flood risk hazard area. These ordinances and regulations limit development in the floodplain and require structures built in the floodplain to be one foot above Base Flood Elevation.

Evacuation Plan

The evacuation plan helps prepare the Village for any disaster that would require evacuation. The Village developed and last revised the evacuation plan in 2024.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

There have not been any new road or commercial development in the Village over the past five years. No new structures have been developed in the floodplain or any hazardous areas. No housing development or new businesses/industries are planned in the near future.

For hazards like drought, extreme heat, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

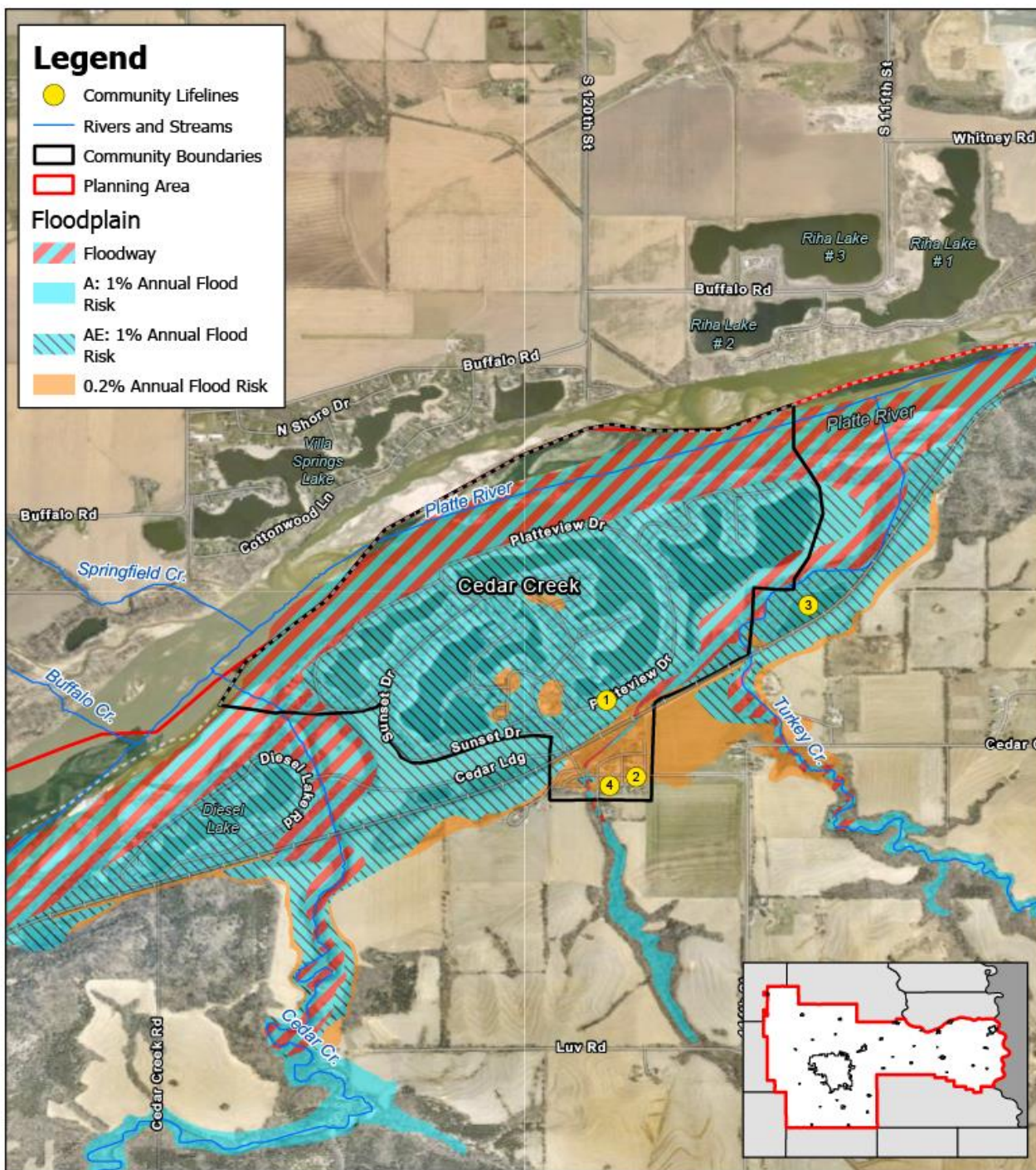
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Cedar Creek Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Food, Water, Shelter	Fire Department Water Supply	N	N	Y
2	Safety and Security	Fire Department/Village Hall	N	Y	N
3	Food, Water, Shelter	Lagoon	N	N	Y
4	Communications	Wind Stream Communications Bldg.	N	N	N

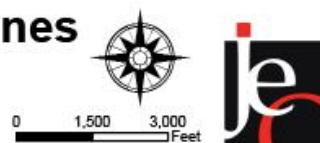


Created By: AK
Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

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

Cedar Creek Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Cedar Creek which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Cedar Creek. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Flooding

Cedar Creek is located on the bank of the Platte River with four miles of river surrounding the Village. The entire community is located within a Special Flood Hazard Area (SFHA). The majority of the property along the river is owned by the Village and has a berm which provides some flood risk reduction to the community. There have been four major flood events which have impacted the Village: March 2019, Summer 2011, April 2009, and April 2008. Both riverine and flash flooding are concerns due to the proximity of the Platte River. Additionally, Turkey Creek passes through the Village. There is no conduit stormwater drainage system in the Village; thus, stormwater drainage is a constant concern. There have been flood damaged properties in the community, but no reported substantial damage. During the 2019 flood event, heavy rains and high water in the Platte River caused it to reach the top of the berm and damaged the road on top. Without the additional protection of sandbags the village roads, rural water systems, and homes would have been impacted. The local planning team indicated if the berm were severely damaged or impacted, over 90% of residents would be significantly impacted. The Village installed and continues to maintain the Bendway Weirs in the Platte River in 2016 to mitigate the risks of flooding.

ACTION	Anchor Fertilizer, Fuel, and Propane Tanks
Description	Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in a tornado or high wind event.
Hazards Addressed	Flooding, Tornadoes and High Winds
Estimated Cost	\$1,000
Potential Local Funding	Individual Lot Owner
Lead Agency	Village Board and Floodplain Manager
Timeline	1 year
Priority	Low
Status	In Progress – village is in the process of developing community fact sheets & anchoring information.

ACTION	Complete Citywide Flood Project Master Plan
Description	Developing a citywide flood project master plan will help prioritize necessary projects and chart the approach to reduce flood impact throughout the community.
Hazards Addressed	Flooding
Estimated Cost	\$10,000 to \$100,000
Potential Local Funding	General Funds
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	In Progress – completed an emergency disaster plan in 2023 which identified some Platte River egress routes for emergencies. Additional analysis needed for list of alternatives and improvements needed.

Hazardous Materials

The BNSF Railway runs through the south of the Village. No transportation spills have been reported in Cedar Creek, but the impact of a potential spill could prevent easy access into the community. Currently, the only access road into the Village crosses the BNSF railroad which can severely restrict emergency access if crossing is blocked by a train or a chemical spill. In 2023, the Village had meetings with BNSF and evaluated a secondary egress route of elevated trestle at the current site. If there were a chemical spill incident, the local volunteer fire department would be first to respond. The existing fire hall is too small to accommodate all equipment and the village is looking into expanding or constructing a new fire hall with the volunteer fire department.

ACTION	Infrastructure Assessment Study
Description	Conduct an assessment of bridges in the county and assess other potential areas of concern.
Hazards Addressed	Dam Failure, Flooding, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack
Estimated Cost	\$800,000 – 1,000,000
Potential Local Funding	General Fund
Lead Agency	Village Board of Trustees
Timeline	1 year
Priority	High
Status	In Progress –completed a bridge condition assessment. Have not yet built new bridge.

ACTION	Transportation Route
Description	Evaluate, design, and construct a secondary transportation route to improve access to the community. Currently only access road into the Village crosses the BNSF railroad which can severely restrict emergency access if crossing is blocked by a train.
Hazards Addressed	Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$20,000,000
Potential Local Funding	General Funds, BNSF, NDOT
Lead Agency	Village Board
Timeline	2-5 years
Priority	High
Status	In Progress – The village met with BNSF in 2023 to evaluate secondary egress route of elevated trestle at current site. No improvements have been made yet.

ACTION	New Fire Station
Description	Design and construct a new fire station to provide continuity of service to Cedar Creek and surrounding area.
Hazards Addressed	Extreme Temperatures, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$1,000,000+

Potential Local Funding	General Fund
Lead Agency	Volunteer Fire Department
Timeline	1 year
Priority	High
Status	In Progress – in the design & bidding phase for addition to the current fire station, interim measure to new building.

ACTION	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional, or updating existing emergency response equipment
Hazards Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack
Estimated Cost	\$250,000-500,000
Potential Local Funding	General Fund, donations
Lead Agency	Fire Department, Village Board
Timeline	2-5 years
Priority	High
Status	In Progress – all facilities and equipment for the Village are outdated. The Village is planning fire hall improvements and new equipment.

High Winds and Tornadoes

Damage to electrical lines from high winds is the main concern of local emergency planners. The area has experienced power outages lasting from a few minutes to several days. A severe storm in June 2017 caused power loss for five days and resulted in structural and electrical damage. There are no community safe rooms in Cedar Creek. Paper archives are not backed up, but electronic municipal records are backed up monthly. Safe rooms have been retrofitted to existing residential structures or in new constructions in the last five years.

In June 2010 an EF1 tornado occurred in Cedar Creek. It destroyed several homes and garages, damaged roofs and siding, and broke windows throughout the Village. Additionally, several mature cottonwoods were uprooted, and power was lost. Due to the location of the community within a SFHA, residential homes are not permitted to have basements. In the last several years new homes have installed safe rooms and others have retrofitted their homes. There are no community shelters located within the Village. There are warning sirens which cover the whole area operated by the Volunteer Fire Department and Cass County Emergency Management.

ACTION	Improve Emergency Communication
Description	Develop/improve/implement Emergency Communication Action Plan. Establish inner-operable communications.
Hazards Addressed	Agricultural Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack
Estimated Cost	\$1,000+, Staff Time

ACTION	Improve Emergency Communication
Potential Local Funding	General Fund
Lead Agency	Volunteer Fire Department
Timeline	1 year
Priority	High
Status	In Progress – emergency disaster plan’s communication plan is currently under revision.

ACTION	Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.
Hazards Addressed	Severe Thunderstorms, High Winds, Tornadoes
Estimated Cost	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
Potential Local Funding	General Fund
Lead Agency	Village Board, Volunteer Fire Department
Timeline	2-5 years
Priority	Medium
Status	Not Yet Started No community safe room available. Would like to create a listing of individual residences that would be open to others in the event of storm.

Severe Thunderstorms

Severe thunderstorms can include impacts from heavy rain, hail, lightning, and strong winds. Hail damage can impact a variety of structures across the village and include damage to siding, roofing, windows, and vehicles. This is an annual threat to the village. In June 2017 hail damages to the Fire Hall required repairs and a replacement of the roof. The town/fire hall are critically important for the Village and are insured via the League Association of Risk Management. There is a partially-active, volunteer tree board which identifies and assists in hazardous tree removal. The Village has not experienced major power outages; however during severe weather events if power lines were downed, it could take several days to access portions of infrastructure to return service.

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
Hazards Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$5,000-10,000
Potential Local Funding	General Fund
Lead Agency	Village Secretary and Board of Trustees
Timeline	2-5 years
Priority	Medium
Status	Not Yet Started

ACTION	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.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorm, Severe Winter Storms
Estimated Cost	+/- \$5,000,000
Potential Local Funding	LPSNRD, OPPD, Cass County, Cedar Creek Budget
Lead Agency	Village Board
Timeline	5+ years
Priority	Low
Status	Not Yet Started

Other Capacity Building Mitigation Actions

ACTION	Update Comprehensive Plan
Description	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazards Addressed	Agricultural Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack
Estimated Cost	\$10,000+
Potential Local Funding	General Fund
Lead Agency	Village Board of Trustees
Timeline	5+ years
Priority	Low
Status	Not Yet Started

Completed/Removed Mitigation Action

ACTION	Levee/ Floodwall Construction and/or Improvements
Description	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. If possible, the structure may be designed to FEMA standards to provide 100-year flood protection providing additional flood insurance benefits.
Hazard Addressed	Flooding
Status	In 2016, 27 Bendway Weirs were constructed in the Platte River. Continued maintenance is done on the structures.

ACTION	First Aid Training
Description	Promote first aid training for all residents and staff

ACTION	First Aid Training
Hazards Addressed	Extreme Temperatures, Flooding, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	Completed - On February of 2023, CPR Training for the community was conducted by Plattsmouth Fire & Rescue. Additional trainings ongoing process by CCFVD.

ACTION	Obtain Tree City Designation
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 tree maintenance program in order to maintain trees in a community to limited potential damages 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.
Hazards Addressed	Agricultural Plant and Animal Disease, Severe Thunderstorms, Tornadoes and High Winds, Severe Winter Storms
Reason for Removal	<i>This is not currently a priority for the village.</i>

ACTION	Participate in the Community Rating System
Description	Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Participation in CRS can help reduce flood insurance premiums.
Hazard Addressed	Flooding
Reason for Removal	<i>This is not currently a priority for the village.</i>

Community Profile

Village of Eagle

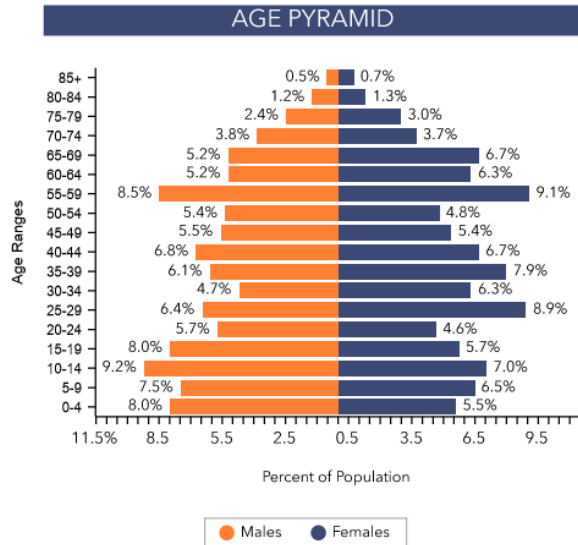
Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

Eagle Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

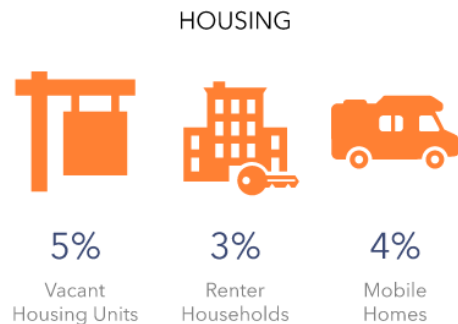
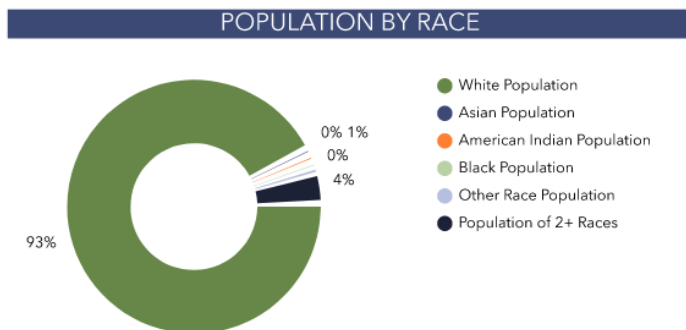
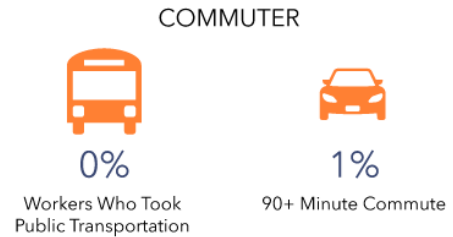
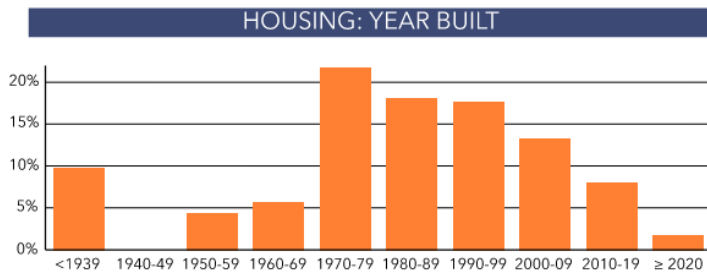
1,118 37.1 \$95,663 \$245,339 2.3% 6%

Population Median Age Median Household Income Median Home Value Unemployment Rate Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	1,118
2020 Total Population (U.S. Census)	1,065
2010 Total Population (U.S. Census)	1,013
2000 Total Population (U.S. Census)	937



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Nick Nystrom	Village Clerk	Village of Eagle	Plan Development; Attended Meetings
Terry Caddy	Village Deputy Clerk	Village of Eagle	Plan Development
Jennifer Caylor	Village Board	Village of Eagle	Plan Development
James Dobbins	Village Board	Village of Eagle	Plan Development

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 Village Clerk, Board Chairperson, and Fire Chief will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Eagle will review the plan annually and the public will be notified during village board meetings and required public notice postings.

Location and Geography

The Village of Eagle is in the southwest corner of Cass County, approximately 16 miles east of Lincoln and two miles west of Eagle Raceway, a local motorsports facility. The Village covers an area of 0.35 square miles. There is one major waterway near the town, the source of the Camp Creek, is located 1.2 miles north of town.

Capability Assessment

The planning team assessed the Village of Eagle's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes, 2018
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes, 2023
	Subdivision Regulation/Ordinance	Yes, 2021
	Floodplain Ordinance	Yes
	Building Codes	Yes, IBC 2012

Capability/Planning Mechanism		Yes/No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	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	Yes
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	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	No
	Other (if any)	-

Eagle Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Limited	Limited
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation		Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	8/26/1977
Floodplain Administrator:	Municipal Clerk or Building Official
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium (\$):	\$-
Total NFIP Coverage (\$):	\$-
Number of Claims Paid Out:	1
Total Amount of Claims Paid Out (\$):	\$1,577
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital

The Village of Eagle requires floodplain permits for any structure built or moved within flood risk hazard area overlay district. The Floodplain Ordinance states: *Compliance Within identified floodplains of this community, no development shall be located, extended, converted, or structurally altered without full compliance with the terms of this Ordinance and other applicable regulations.*

For all new and substantially improved structures, an Elevation Certificate based upon the finished construction certifying the elevation of the lowest floor, including basement, and other relevant building components shall be provided to the Floodplain Administrator and be completed by a licensed surveyor, engineer, or architect.

For all development proposed in the floodway, no-rise certification shall be provided to the Floodplain Administrator and be completed by a licensed professional engineer.

When permits are requested, FIRM maps are reviewed to determine if the property is located in a floodplain or floodway. Depending on the findings, instructions are given to the builder on how to proceed. The City enforces local floodplain regulations with the help from the local Village Clerk or Cass County Zoning Department. To identify substantially damaged structures after the flood, Village officials will travel through the town and inspect potentially damaged areas. Adequate staff and resources to implement NFIP policies are an identified barrier for operating the program.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of September 2024. 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. Several structures in Eagle have been removed from the floodplain via LOMA. A summary of LOMAs identified for Eagle can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
497	\$69,010,882	0	0	-

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
497	\$69,010,882	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31025CIND0A	11/26/2010	Current FIRM Panels
FIRM Panels	31025C0325D	11/26/2010	Current FIRM Panels

Source: Flood Map Service Center

Plans and Studies

Eagle has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the Village. The Eagle Comprehensive Plan is updated every ten years and was last updated in 2018-19. It will be updated again in 2028-29. The plan noted population growth in the Village of Eagle is most notable in age groups 5-9 years old, 20-24 years old, and 30-34 years old. A rising percentage of children may lead to greater vulnerability during hazard events.

The plan does not limit development in areas adjacent to known hazardous events. Adding a hazard mitigation plan section to the plan has been proposed for future updates to the plan.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future and its subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The Village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the Village

promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for property owners. The Eagle Zoning Ordinance, Floodplain Ordinance and Subdivision Regulations are updated every ten years and were last updated in 2022-23. They will be eligible to be updated again by 2032-33. These documents limit development in the floodplain. Structures developed in the floodplain are required to be elevated at least one foot above Base Flood Elevation.

Building Codes

The building code sets standards for constructed buildings and structures. Eagle has adopted the 2012 International Building Code with no amendments made. Enforcement of the building code is handled by the Building and Zoning Administrator.

Evacuation Plan

The Cass County Evacuation Plan provides direction and guidance for timely and orderly evacuation for communities within the county. The evacuation plan is a part of the Cass County Local Emergency Operations Plan which is updated every five years and has been integrated with the hazard mitigation plan.

Drought Ordinance/Management Plan

Eagle's drought ordinance was adopted in May 2022 and outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. Water restrictions are dependent on the severity of the drought conditions and are declared by the Chairperson of the board or Mayor.

Wellhead Protection Ordinance

The purpose of wellhead protection ordinance protects the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection ordinance was adopted in December 2009.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

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Future Development Trends

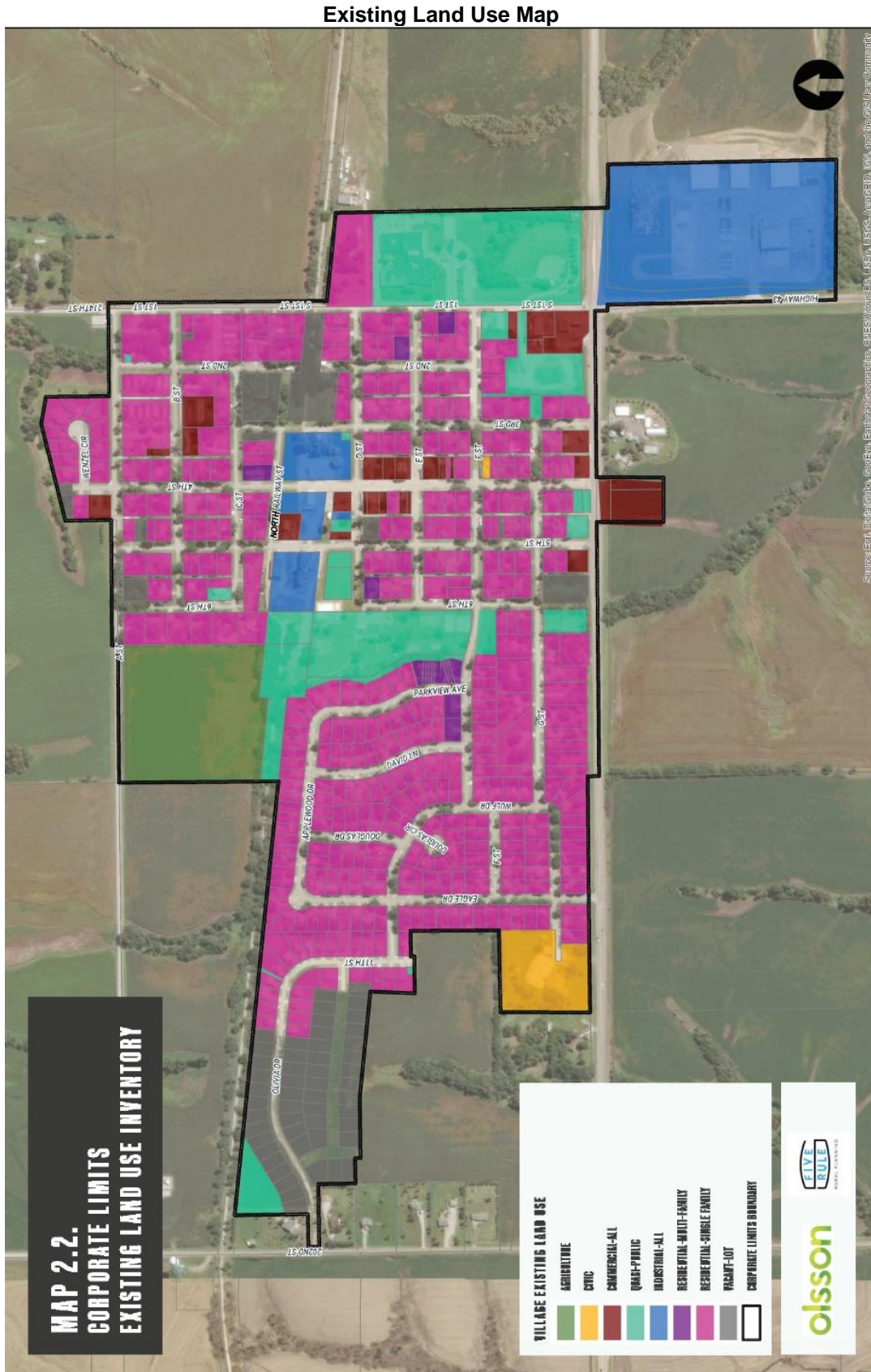
In the past ten years, a new housing sub-division was developed on the west end of town, Dollar General opened on the south side of town, and Gordon's Electric remodeled and expanded. Dollar General and Gordon's Electric are two of the largest employers in the Village. The local planning team attributed population growth tied to an influx of young families living in Eagle but commuting to surrounding cities for work.

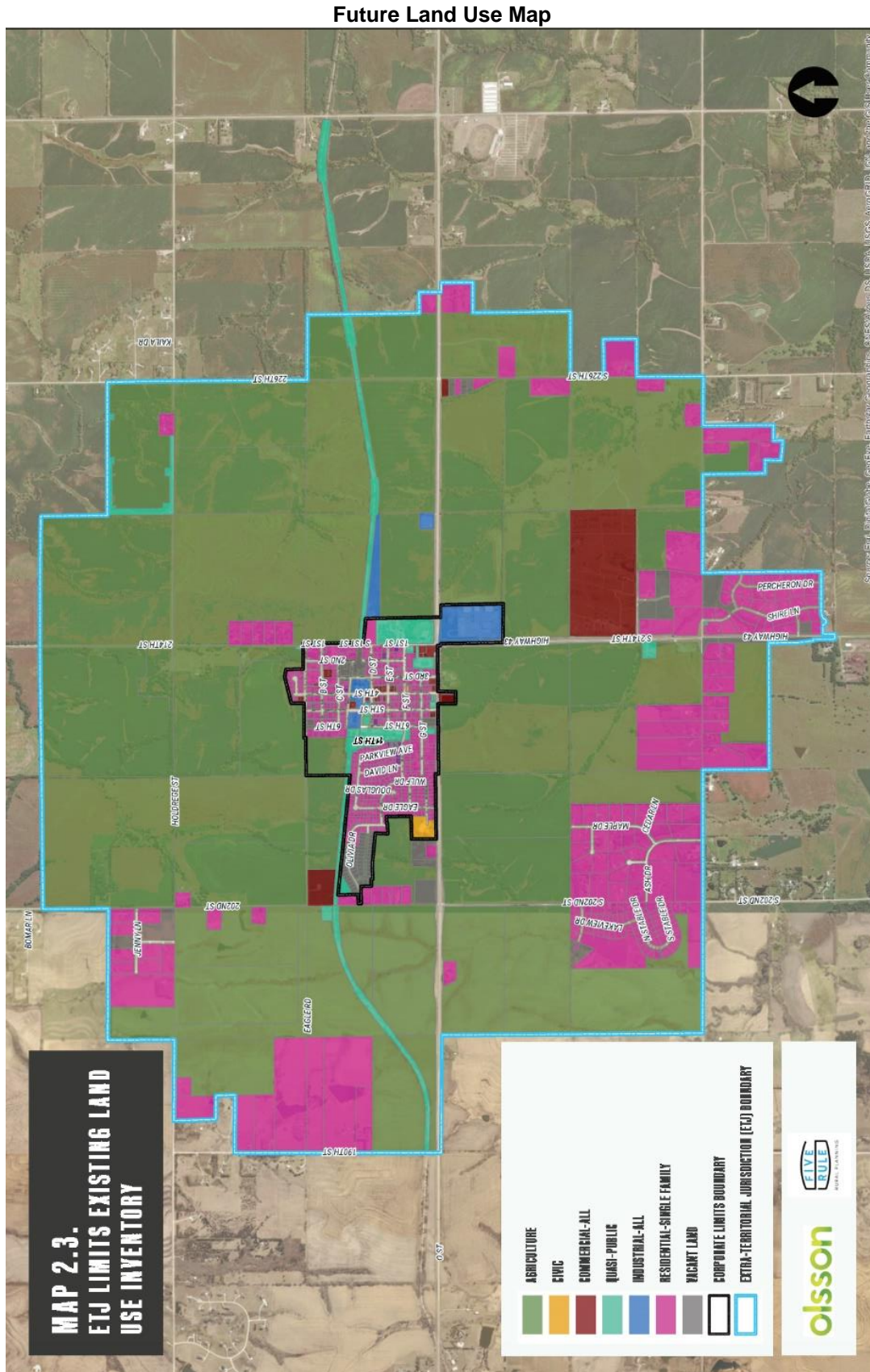
In the past five years, new housing was developed on the west end of Eagle. A new Casey's Gas Station was constructed at 1st Street and Highway 34. A new acreage housing development was approved just west/northwest of Eagle's corporate limits located at 202nd Street and Eagle Road. Preliminary discussions have been held regarding two future developments; one is a mixed commercial/residential development south of Highway 34 abutting Eagle's corporate limits and the other is a residential development just east of Eagle's corporate limits on the north side of Highway 34. None of these proposed developments will be located in the floodplain.

As noted in the Comprehensive Plan, past residential trends and current residential events indicate that the Village of Eagle should plan and prepare for ongoing residential growth because of the following factors:

- Strong population growth in Lincoln since 2000 .
- Steady growth in the overall population of Cass County
- Increases in the number of students at Eagle Elementary
- Recent approval of Eagle Estates subdivision

The future land use map was updated in March 2019. The Village anticipates commercial land use to grow in the northwest of the Village and to the south along Highway 43. Future residential land use development is concentrated in the far west and south.





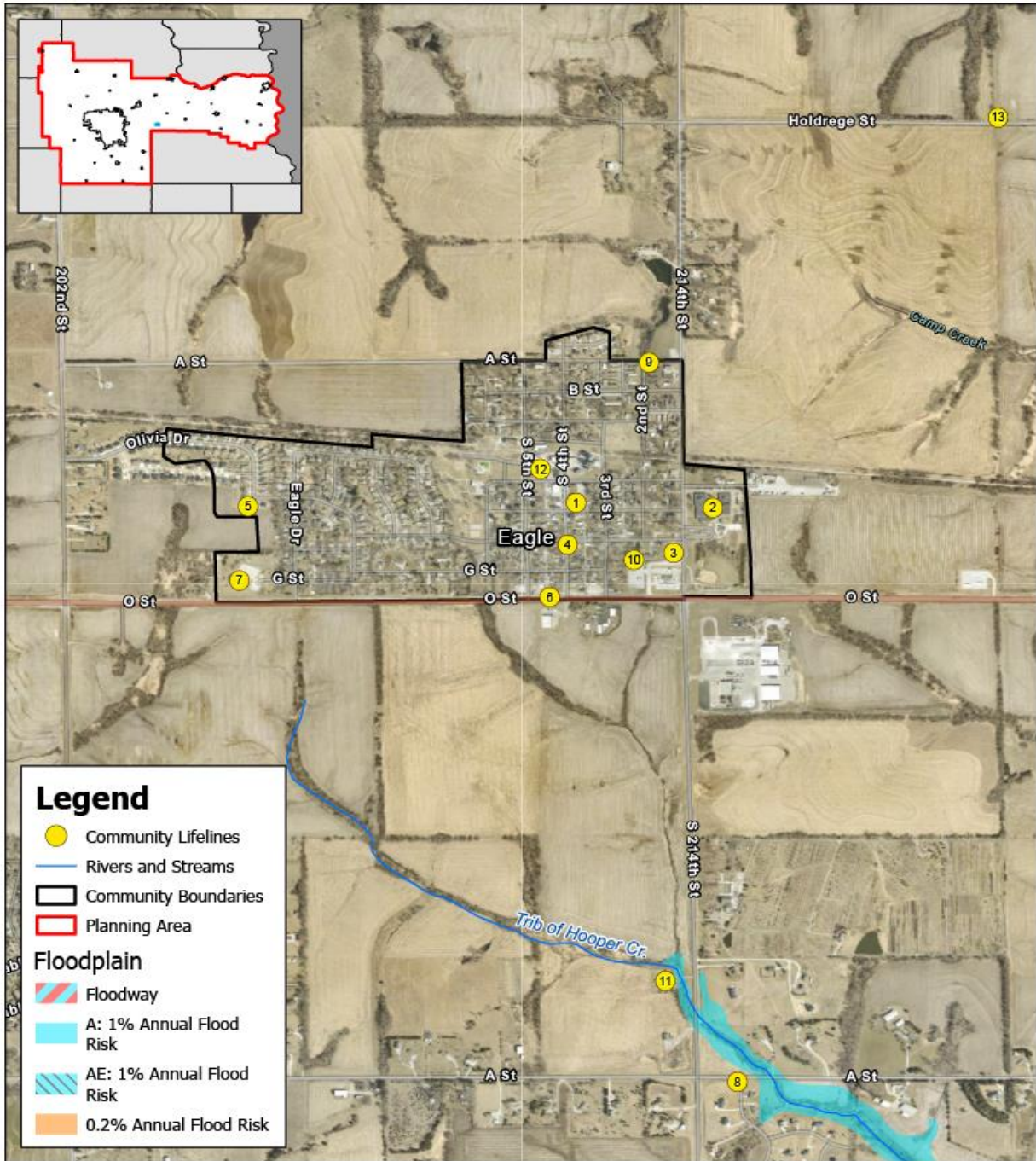
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Eagle Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Food, Water, Shelter	Baileys (Storm Shelter)	N	Y	N
2	Other	Eagle Elementary School	N	Y	N
3	Safety and Security	Eagle Fire & Rescue	Y	N	N
4	Other	Eagle United Methodist Church	N	Y	N
5	Food, Water, Shelter	Heartland Estates Lift Station	Y	N	N
6	Transportation	Highway Maintenance Shop	N	N	N
7	Other	Lutheran Church	N	Y	N
8	Food, Water, Shelter	South Meadows Lift Station	Y	N	N
9	Food, Water, Shelter	Trailer Park Lift Station	N	N	N
10	Safety and Security	Village Office	Y	N	N
11	Food, Water, Shelter	Wastewater Treatment Plant	Y	N	N
12	Food, Water, Shelter	Water Tower	N	N	N
13	Food, Water, Shelter	Wellfield Pumphouse	Y	N	N

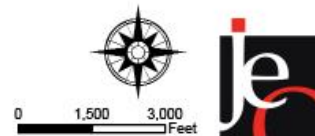


Created By: AK
Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

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

Eagle Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Eagle which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Eagle. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	

HAZARD TYPE		CASS COUNTY		
	Winter Weather	17	\$0	
TOTAL		1,994	1074	\$22,746,478.00

Civil Disorder/Terrorism

Terrorism is a hazard of concern as the Village is on the far edge of the county with delayed law enforcement response times. While no terrorism events have occurred in the Village as of yet, primary terrorism concerns pertain to actions against the local school system and the water and wastewater systems. The Village's wells and wastewater plant are in low-traffic areas. In the last five years the village has installed security cameras at several critical facilities and upgraded Scada communications system for water and sewer facilities. In the future the village will look to add additional security systems to critical facilities.

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. Protect all records from power outages, power surges, or attempts to maliciously disrupt normal operations.
Hazards Addressed	Civil Disorder/Terrorism, Severe Thunderstorms (lightning) <i>Power outages from hazard eventS</i>
Estimated Cost	\$100 for external hard drive
Potential Local Funding	Property Taxes
Lead Agency	Volunteer Fire Department, Village Board
Timeline	1 year
Priority	High
Status	In Progress - Some operational systems have been protected but others still need improvements for all municipal records. This would help protect against data loss from human error, hardware failure, natural disasters and viruses. Helps save time and money if data loss occurs. Important for maintaining compliance standards.

Flooding

In 2016 flooding eroded the drainage ditch that flows by the sewer plant and exposed sewer lines, which had to be relocated. The local planning team indicated areas between B St and Hwy 34, bounded by 1st and 2nd St, are most prone to flooding. Some additional flooding occurs between F and G St and the sewer plant has been flooded several times. Most flooding issues are attributed to poor interior drainage and flash flooding. The Village wants to continue to evaluate and upgrade the stormwater system to mitigate flooding associated with poor interior drainage. The Village has worked with Cass County Emergency Management in 2019 to develop a Local Emergency Operations Plan.

ACTION	Stormwater System and Drainage Improvements
Description	Smaller communities may utilize stormwater systems comprising of ditches and culverts to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements.
Hazards Addressed	Flooding

ACTION	Stormwater System and Drainage Improvements
Estimated Cost	\$10,000-\$50,000 for smaller communities; \$100,000 + for larger
Potential Local Funding	General Budget, Assistance to Firefighters Grants
Lead Agency	Village Board
Timeline	5+ years
Priority	Low
Status	In Progress - Adding curb and gutter is in process to limit the likelihood of standing water and flooding. Improvements between B St and Hwy 34, bounded by 1 st and 2 nd St are needed.

Hazardous Materials Release (Transportation)

Chemical spills are of concern due to the high volume of hazardous chemicals transported by the Village along Highways 34 and 43. While no chemical transportation events have occurred locally, hazardous chemicals are commonly transported back and forth to neighboring communities, including Lincoln. The village has worked with Cass County Emergency Management in 2019 to develop a Local Emergency Operations Plan. The Village plans to develop Comprehensive Disaster and Emergency Response and Continuity Plans to assist in responding to potential chemical transportation spill events.

ACTION	Infrastructure Hardening
Description	Install vehicle barriers and fencing around CFs.
Hazards Addressed	Chemical Transportation, Terrorism
Estimated Cost	\$5,000+
Potential Local Funding	Taxes, General Budget
Lead Agency	Village Board
Timeline	5+ years
Priority	Low
Status	In Progress – several facilities such as wastewater treatment plant have adequate fencing and security cameras in place. There are some smaller projects left to do around more of the minor facilities.

High Winds and Tornadoes

A tornado in March 2009 damaged three residential roofs in the northeastern part of town. Eagle has three warning sirens which cover the community and some surrounding areas. Sirens are activated in Plattsmouth, which causes delays in proper notification. Sirens for the 2009 tornado did not go off until after the tornado had already hit the community. There are no FEMA certified safe rooms in Eagle, but Bailey's and the local Methodist Church are used as shelter locations. Weather radios should be bought and kept at critical facilities and shelter locations. The Village worked with Cass County in 2019 to develop a Local Emergency Operations Plan. The Village would like to purchase weather radios to keep at critical facilities. Additionally, staff training on high winds and tornado events is sought to help further the community awareness and readiness for this hazard.

ACTION	Continuity Planning
Description	Continuity planning helps to ensure that services can be maintained during and after a disaster.

ACTION	Continuity Planning
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$1,000
Potential Local Funding	Taxes, General Budget
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started - Staff has a basic understanding but the Village of Eagle still needs to create a written plan.

ACTION	Storm Shelter Identification
Description	Identify any existing private or public storm shelters
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes
Estimated Cost	Staff Time
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	5+ years
Priority	Medium
Status	Not yet started - Very few options currently exist in Eagle. If/when a new community center is constructed, a safe room may be considered for public use.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and have caused damage to homes, critical facilities, and agriculture. Lowland flooding, power failure, lightning strikes, and damages to property, trees, power lines, communication towers are identified concerns regarding severe thunderstorms for the Village. In the past lightning strikes have severely damaged the sewer plant causing the pumps to be replaced. Lift stations, generators in town, and the sewer plant are all vulnerable to power failure from lightning; however, the local planning team indicated about 70% of power lines in town are buried. While there are no FEMA certified safe rooms in town, Bailey's and the Methodist church are used as shelter locations. Trees between the sidewalk and street curbs between 1st and 6th streets have the potential to be felled during storms and block access to the fire department by emergency responders.

Hail is often associated with severe thunderstorms and can cause significant damages to property and agricultural land. The local planning team indicated hail events in 2016-2017 significantly damaged residential roofs and required many residents to replace their roof. Damage to roofs, trees, siding, and gutters is common in town. While several critical facilities are reinforced against hail, other community facilities and most homes are not. The Village has collaborated with Cass County Emergency Management in 2019 to develop a Local Emergency Operations Plan. A new generator at the Eagle Municipal Office and the South Meadows Lift Station were installed to

Section Seven | Village of Eagle Community Profile

protect these facilities from a power outage. The Village would like to reinforce additional critical facilities to prevent future damages from severe thunderstorm events.

ACTION	
Vulnerable Population Assistance Database	
Description	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them.
Hazards Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$2,000, Staff Time
Potential Local Funding	Property Taxes
Lead Agency	Village Board, Village Clerk
Timeline	2-5 years
Priority	Medium
Status	Not Yet Started - Still need to create a database of vulnerable populations (elderly, disabled, etc.) to ensure the vulnerable population's needs are met and they have access to resources in the event of an emergency.

ACTION	
Civil Service Improvements	
Description	Improve Fire Department and Rescue squad equipment and facilities. Providing additional, or updating existing emergency response equipment; this could include fire trucks, ATV's, motor boats, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.
Hazards Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$5,000-\$40,000 per vehicle, varies depending on what equipment is needed
Potential Local Funding	General Budget, Assistance to Firefighters Grants
Lead Agency	Village Board
Timeline	5+ years
Priority	Medium
Status	In Progress - Updates to emergency vehicles, equipment and staff training are an ongoing priority. Currently the village is evaluating local equipment needs and budgeting for improvements or replacement.

Completed Mitigation Actions

ACTION	
Backup Generators	
Description	Identify and evaluate current backup and emergency generators to provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.

Hazards Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	This mitigation action has been completed.

ACTION	Comprehensive City Disaster/ Emergency Response Plan
Description	Develop Comprehensive Village Disaster and Emergency Response Plan.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	This mitigation action has been completed.

ACTION	Emergency Operations Center
Description	Identify and establish an Emergency Operations Center
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	This mitigation action has been completed.

ACTION	Facility Monitoring
Description	Install security cameras in/around critical facilities and key infrastructure.
Hazards Addressed	Terrorism
Status	This mitigation action has been completed.

ACTION	Floodplain Management
Description	Develop floodplain ordinances that prevent the storage of hazardous chemicals in the floodplain.
Hazards Addressed	Chemical Transportation, Flooding
Status	This mitigation action has been completed.

ACTION	Hail Insurance
Description	Ensure all critical facilities have insurance for hail damage
Hazards Addressed	Severe Thunderstorms, Hail
Status	This mitigation action has been completed.

ACTION	Surge Protectors
Description	Purchase and install surge protectors on sensitive equipment in critical facilities.
Hazards Addressed	Severe Thunderstorms
Status	This mitigation action has been completed.

ACTION	Weather Radios
Description	Conduct an inventory of weather radios at schools and other CFs and provide new radios as needed.

Section Seven | Village of Eagle Community Profile

ACTION	Weather Radios
Hazards Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	This mitigation action has been completed.

Community Profile

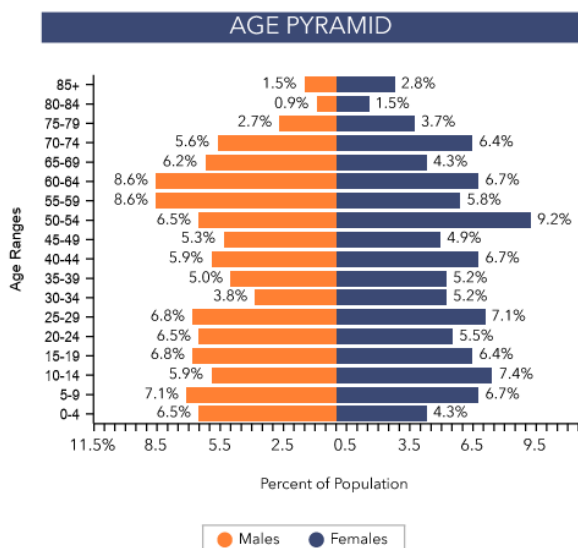
Village of Elmwood

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

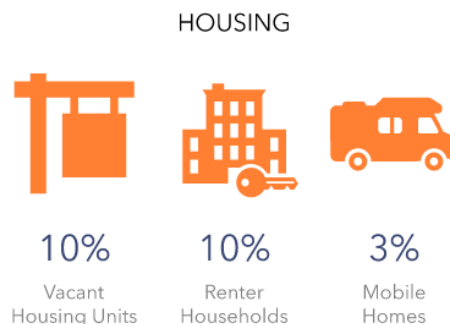
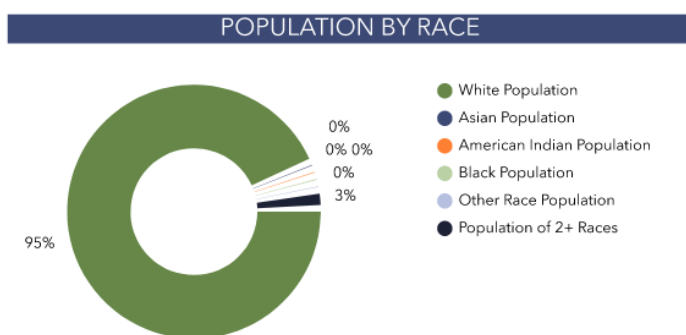
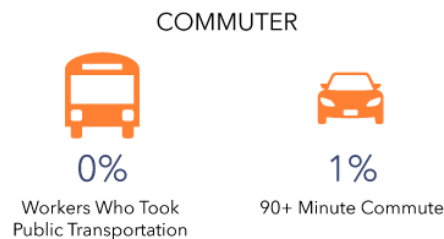
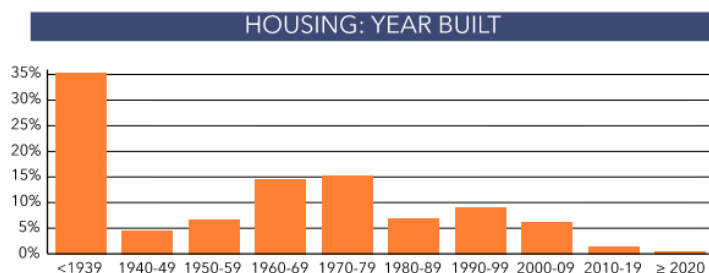
Elmwood Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

665 Population 41.5 Median Age \$84,322 Median Household Income \$229,268 Median Home Value 2.6% Unemployment Rate 5% Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	665
2020 Total Population (U.S. Census)	654
2010 Total Population (U.S. Census)	634
2000 Total Population (U.S. Census)	638



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Note: the local planning team shared that the most recent population is 668. Data from the Community Summary Fact Sheet is pulled from U.S. Census Bureau estimates which may not reflect current or accurate data.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Alicia Griese	Village Clerk	Village of Elmwood	Profile Development Attended 1-1 Meeting

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 Village Board and Chairperson, Utilities Supervisor, and the Village Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Elmwood will review the plan annually in the fall and the public will be notified through the Village's Facebook and social media sites and their weekly newsletter that is posted on the community website. Elmwood also utilizes text alerts as needed for information or emergency notification.

Location and Geography

The Village of Elmwood is in the southwest-central portion of Cass County. The Village covers an area of 0.38 square miles. There are two major waterways near the town which form a confluence to the northeast of town. The smaller, tributary waterway is the Stove Creek which flows northerly on the east side of town. The larger, main stem is the Weeping Water Creek which flows east until the confluence where it turns north.

Capability Assessment

The planning team assessed the Village of Elmwood's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes, adopted in Aug 2022
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes - County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes - 2022
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No – part of Zoning Ordinance
	Building Codes	Yes

Section Seven | Village of Elmwood Community Profile

Capability/Planning Mechanism		Yes/No
	Water System Emergency Response Plan	In progress
	Wellhead Protection Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	Housing Study – 2021
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	Yes (Contractor)
	Chief Building Official	No
	Civil Engineering	Contracted
	Grant Manager	Yes - Village Clerk
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	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/Water/Sewer Service Fees	Yes – Water/Sewer
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, 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)	-

Elmwood Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Moderate	Moderate
Staff/Expertise to Implement Projects	Moderate	Limited – a lot of new staff
Public Support to Implement Projects	High	Moderate
Time to Devote to Hazard Mitigation	Moderate	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Moderate

National Flood Insurance Program (NFIP)

The Village of Elmwood is not a part of the National Flood Insurance Program. The option to join was presenting in 2023, but due to the Village's location and low risk to flooding and limited area in the floodplain, it is not a priority for the Village. There is no intention to join the NFIP at this time; however, Elmwood may revisit its decision if flood risk hazard maps are updated by Nebraska Department of Natural Resources.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 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. Several structures in Elmwood have been removed from the floodplain via LOMA. A summary of LOMAs identified for Elmwood can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
334	\$49,459,009	2	\$453,975	0.5%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
334	\$49,459,009	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31025CIND0B	08/14/2024	Pending FIRM
FIRM Panels	31025CIND0A	11/26/2010	Current FIRM
FIRM Panels	31025C0350D	11/26/2010	Current FIRM

Source: Flood Map Service Center

Plans and Studies

Elmwood has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Building Codes

The building code sets standards for constructed buildings and structures. Elmwood implements Cass County's building codes which are the 2018 International Building Code. Enforcement of the code and inspection is done through Cass County Zoning after the Village handles the initial permitting process.

Comprehensive Plan

The 2021 comprehensive plan is designed to guide the future actions and growth of the Village. Elmwood's comprehensive plan recommends the Village annually reviews the plan and updates the plan every five years. The hazard mitigation plan has not been integrated with the plan, but Elmwood's plan does discourage incompatible land uses from being located adjacent to one another and encourage infill development and prioritize development within its ETJ.

Elmwood's housing study provides an analysis of economic and housing conditions in the Village to help guide future housing development. The study was completed in conjunction with the comprehensive plan update in 2021. The hazard mitigation plan has not been integrated with the housing study and there are no plans to update the study.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The zoning ordinance was last updated in 2022 and also includes the floodplain overlay district. In this, development in the floodplain first requires a permit facilitated by the Zoning Administrator. The Village follows the State requirements of all development needing to be one foot above Base Flood Elevation if developed in the floodplain. The wildland urban interface is not discussed in these documents. Development within the one-mile ETJ is permitted.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

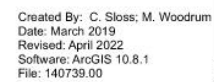
Over the past 10 years there have been several new housing developments in the Village which have added 12 new complete homes. An additional 12 homes will be added during the second phase of the project in the next year. The Village's population is relatively stable with a slight increasing trend, which the local planning team attributes to the school system being located within town and attracting families to the new housing developments and the community being a convenient commute with the highways and interstate.

Within the past five years, a dilapidated building on Main Street was removed. A new meat locker storefront is expected to replace the previous development. Twenty new residential structures have been developed in town. In the next five years the second phase of the housing development will be completed on the west side of town. The new residential development is northwest of the CO-OP in the Village—no special zoning was required to develop the residential units. Three homes in town were condemned and are in the process of being demolished. The Village is also working on implementing Main Street improvements to draw additional commercial businesses into town.

Updates are being made to the nine-mile trail gap from Elmwood to South Bend and should be completed in 2025. A joint venture with the Lower Platte South NRD and counties looked into potential trail routes and their impacts to Elmwood and other communities near the MoPAC Trail. The project is a legacy project with significant history that required additional consideration of its impact to the communities. This project is a part of the Great American Rail Trail that exists across the country. The preferred alignment selected does not directly impact the Village of Elmwood but may bring additional cyclists through the community.

In the future, a developer has discussed the possibility of developing residential lots in the ETJ north of town. Nebraska Department of Transportation plans to complete resurfacing Highway 1 north/south in 2026, which will include new curbs and storm drains on the Main Street block. This will help with semitruck traffic along Main Street that accounts for 90 percent of local traffic on the highway, especially during harvest season.

Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan | 2025



Community Lifelines

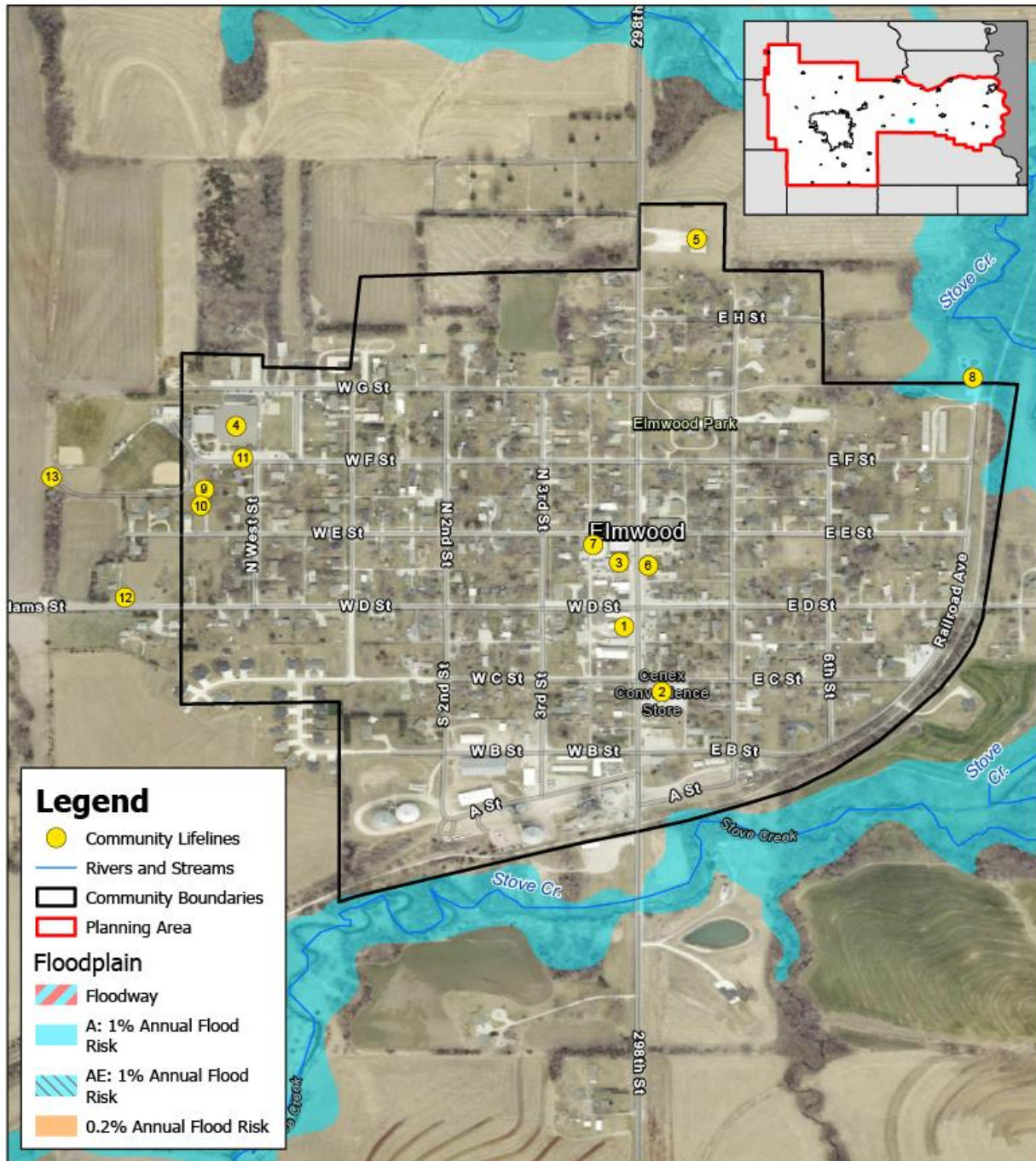
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Elmwood Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Food, Water, Shelter	Cass County Rural Water #2	N	N	N
2	Energy	Convenience Gas Station	N	N	N
3	Safety and Security	Elmwood Community Center	N	N	N
4	Other	Elmwood Murdock Elementary School	Y	Y	N
5	Safety and Security	Elmwood Fire and Rescue	Y	N	N
6	Communications	Siren	N	N	N
7	Safety and Security	Village Hall	N	N	N
8	Food, Water, Shelter	Wastewater Treatment Plant	Y	N	Y
9	Food, Water, Shelter	Water Tower	N – In Progress	N	N
10	Food, Water, Shelter	Water Treatment Plant	N	N	N
11	Food, Water, Shelter	Well #3	N	N	N
12	Food, Water, Shelter	Well #5	N	N	N
13	Food, Water, Shelter	Well #6	N	N	N

Section Seven | Village of Elmwood Community Profile

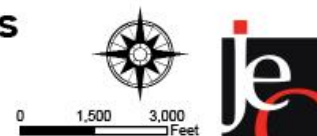


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Date: 12/11/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

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Elmwood Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Elmwood which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Elmwood. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
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	Tornadoes ¹	29	\$1,009,000	
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	Lightning	2	\$300,000	N/A
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	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	
TOTAL		1,994	1074	\$22,746,478.00

Hazardous Material Release

Chemical spills are of concern due to the high volume of hazardous chemicals transported through the community. Highway 1 is the main transportation route through the Village and sees a large volume of semi-trucks traffic carrying various materials. Additionally, a new anhydrous ammonia plant is being built approximately two miles north of town which will significantly increase the volume and presence of hazardous chemicals in the area. Fixed site chemical spills typically occur during the loading and unloading. The Midwest Farmers COOP in the south of Elmwood is still active and stores anhydrous ammonia. The local fire department and rescue teams does bi-annual training with local COOP on how to respond to chemical spills/leaks/accidents, but additional training and education efforts are needed.

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 informed action on the part of the observer and responders.
Hazards Addressed	Hazardous Materials Release
Estimated Cost	\$9 per book
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	1 year
Priority	Medium
Status	Not yet started – copies and training on using resources for the Village Hall is still needed.

ACTION	Develop Automated Messages for Evacuation
Description	Create a prefabricated message to all residents who subscribe to the emergency test alerts from the Village.
Hazards Addressed	Hazardous Materials Release
Estimated Cost	Staff Time
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	1 year
Priority	Low
Status	Not yet started. About 83% of residents sign up for the emergency texts. Need to develop a way to access vulnerable populations or those without access to a cellular device. Potentially reach out to local churches and Village properties to develop a list of vulnerable populations who do not receive emergency texts.

High Winds and Tornadoes

High wind events are common across the State of Nebraska and the planning area. Past events which have impacted the Village of Elmwood have knocked power lines out and removed electrical service for three days. The storm on July 31st, 2024 led to downed trees across the community but no power was lost and no significant damage was reported to homes or property.

OPPD is the local electrical supplier and has improved pole quality along the highways in recent years. Additionally, there is a need to remove hazardous trees throughout the community which could cause significant damage to property and are a risk to resident safety during high wind events.

Tornadoes are a significant hazard of concern due to their potential to cause large-scale damage and injury or death to residents. While the school, local churches, and fire department are used as local shelters, there are no FEMA certified storm shelters located in the Village. Most homes have basements for residents to shelter in place. The Village also has an alert siren located near the center of town which does have a backup power source.

ACTION	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$200+ per tree
Potential Local Funding	General Fund
Lead Agency	Village Supervisor, Private Contractor (Peterson Property Services)
Timeline	1 year
Priority	High
Status	Some large trees came down during storms in 2024. Local tree company and the Village are working on evaluating all publicly owned trees in the Village to clear out overhanging branches, dead/dying/diseased trees.

ACTION	Tree Planting
Description	Develop village tree planting and maintenance guidelines.
Hazards Addressed	High Winds
Estimated Cost	\$500, Staff Time
Potential Local Funding	General Fund, Arbor Day Foundation
Lead Agency	Village Board
Timeline	5+ years
Priority	Low
Status	Not yet started.

Severe Thunderstorms

Severe thunderstorms occur regularly throughout the spring and summer months in the planning area. These storms are commonly accompanied by heavy rain, strong winds, lightning, and hail. There is an OPPD station located outside the community which supplies power. Past hazard events have caused power outages lasting up to three days and major tree damage. The storm on July 31st, 2024 in particular left many downed trees throughout the community, but residents and businesses did not lose power. Top concerns regarding severe thunderstorms are power loss, damage to property, and resident safety. The Village also has an alert siren owned and maintained by the County with backup power. The water tower has a lightning rod. Municipal records are backed up to the cloud and on an external hard drive.

ACTION	Backup Generators
Description	Provide backup power systems to provide redundant power supply to critical facilities and key infrastructure.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$25,000
Potential Local Funding	General Fund
Lead Agency	Village Board, Engineer
Timeline	1 year
Priority	High Priority
Status	In Progress – the water tower will be getting a backup power generator as part of an ongoing water study. All 3 wells need to have generators as they are pump fed.

Severe Winter Storms

Severe winter storms include heavy snow, blowing and drifting snow, extreme cold, and ice accumulation which can close transportation routes, knock out power, damage property, and pose a risk to resident safety. Past ice storms in the Village have caused hazardous trees to drop limbs and damage properties. NDOT handles plowing Highway 1, while the Village handles the majority of the roads and the school parking lot. Elmwood occasionally hires seasonal help if needed or after heavy snowfall events. The Village owns two trucks that have side angle plows, and one has a salt spreader attached. Elmwood currently has capacity to hire additional staff if needed and if there are adequate candidates available.

ACTION	Water Treatment Plant Improvements
Description	Rebuild RO plant, connecting with RWD, up to debate. Will go to the board for review fall 2024, currently in the funding phase. Waiting to hear back on funding. Final vote planned in 2025. This project would include a backup generator for the water treatment plant to serve the tower, infrastructure upgrades to wells such as roof replacement and heating, and a portable generator to serve the wells in case of power outages.
Hazards Addressed	Extreme Temperatures, Flooding, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$3,000,000-4,500,000
Potential Local Funding	General Fund, Grants/Funding requests into NDEE, USDA Rural Development, SRF, etc.
Lead Agency	Village Board, Engineer
Timeline	2-5 years
Priority	High
Status	In Progress – the water system study was submitted to committee, primarily to address water treatment concerns. Identified two main options: 1) replace RO system (\$3M), or 2) have a regional connection to Cass County RWD1 (\$4M). Anticipate selection and beginning construction in 2025. The Village is exploring funding options via USDA or SRF, but currently very limited.

Completed/Removed Mitigation Action

ACTION	Comprehensive Village Disaster/Emergency Response Plan
Description	Develop Comprehensive Village Disaster and Emergency Response Plan
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Status	Completed – Village specific ERP developed in 2022. Will be updated on an as-needed basis.

ACTION	Chemical Incident Sheltering
Description	Ensure that all critical facilities, businesses, and residents located near major transportation corridors and near fixed site chemical facilities are aware of how to safely shelter in place in the event of a chemical incident Hazard(s) Addressed: Transportation or fixed site chemical incident
Hazards Addressed	Chemical Spills (Transportation)
Status	Removed – this action was identified as no longer a priority for the Village. Sheltering in place guidance will come from the local fire department or HAZMAT response if needed but can be shared through emergency text notifications.

ACTION	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
Hazards Addressed	Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	Removed – this action was identified as no longer a priority as the rise of cellphones for most residents and village staff serve the purpose.

Community Profile

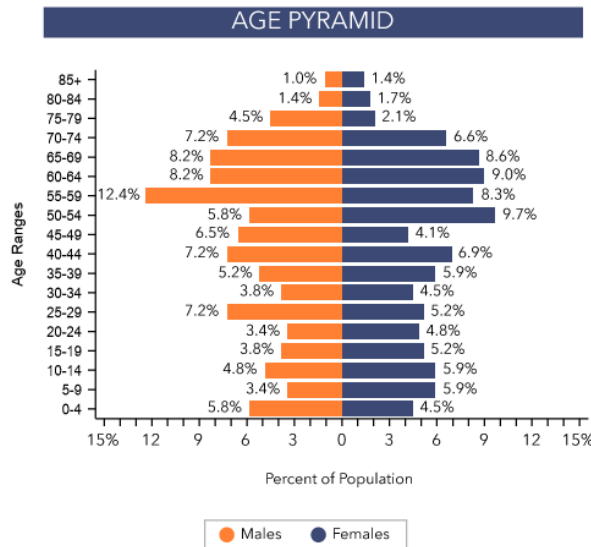
Village of Greenwood

Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

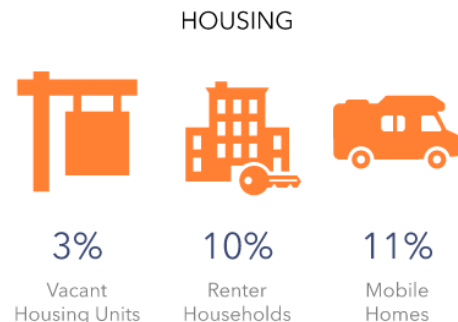
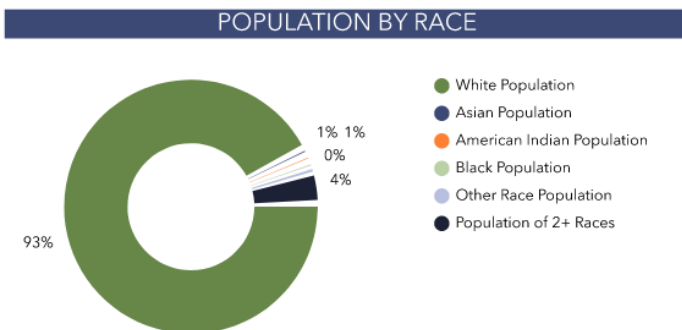
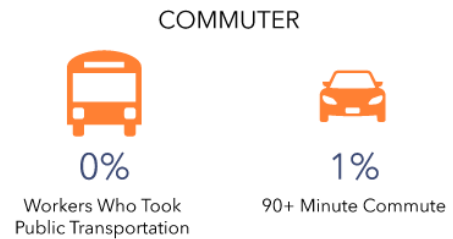
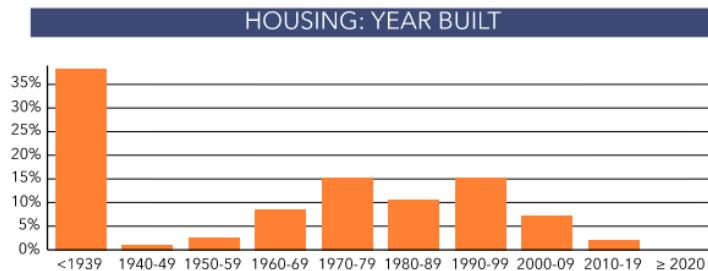
Greenwood Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

581 Population **48.1** Median Age **\$96,508** Median Household Income **\$188,158** Median Home Value **5.5%** Unemployment Rate **8%** Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	581
2020 Total Population (U.S. Census)	595
2010 Total Population (U.S. Census)	569
2000 Total Population (U.S. Census)	548



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	
Alan Grell	Contractor	Village of Greenwood	Attend Meetings, Profile Development
Julie Ogden	Engineer	Village of Greenwood, JEO Consulting	Profile Development
Jasmine Greve	Village Clerk	Village of Greenwood	Profile Development

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 Utility Superintendent, Fire Chief, and Village Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. The Village will review the plan annually and the public will be notified through board meetings with information available at the village office.

Location and Geography

The Village of Greenwood is in the northwest corner of Cass County, approximately between the state's major population centers, Omaha and Lincoln. The Village covers an area of 0.41 square miles. There are three waterways near the town, the main stem is the Salt Creek which runs easterly on the west side of town. There are two tributary creeks located within one mile of the town. The Dee Creek is located southwest of town and the Greenwood Creek is located east of town. Both flow into the Salt Creek.

Capability Assessment

The planning team assessed the Village of Greenwood's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes

Capability/Planning Mechanism		Yes/No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Contracted
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	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/Water Fees	Yes
	Storm Water Service Fees	Yes
	Water/Sewer Service	Yes
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	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	No
	Other (if any)	

Greenwood Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Moderate	Moderate
Staff/Expertise to Implement Projects	Limited	Moderate
Public Support to Implement Projects	Moderate	Limited
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	9/26/1975
Floodplain Administrator:	Jasmine Greve
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	0
Total NFIP Premium (\$):	\$0
Total NFIP Coverage (\$):	\$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out (\$):	\$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	None
FIRMs Digital or Paper?	Both

The Village of Greenwood has a floodplain ordinance which requires permits for development within flood risk hazard areas. The village clerk serves as the Floodplain Administrator. When an application is received, it is forwarded to the village engineer for review to either provide comments to the applicant to address or forward on to the village for approval. The Clerk (floodplain administrator) then signs the application and returns it to the applicant. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in Greenwood have been removed from the floodplain via LOMA. A summary of LOMAs identified for Greenwood can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
304	\$45,115,180	9	\$2,871,575	2.9%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
304	\$45,115,180	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0155D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0160D	11/26/2010	Current FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Greenwood has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the Village. The hazard mitigation plan has not been integrated into the plan; however, the plan is scheduled to undergo an update by 2029.

Building Codes

The Village of Cedar Creek has adopted the 2012 International Building Codes and 2018 IECC that are used by Cass County. The building code sets standards for constructed buildings and structures. No amendments to the Code have been made. Enforcement of the building code is done through an agreement with Cass County Zoning.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future. Subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The Village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain and requires a 2' BFE. By having a floodplain ordinance, the Village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for property owners.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

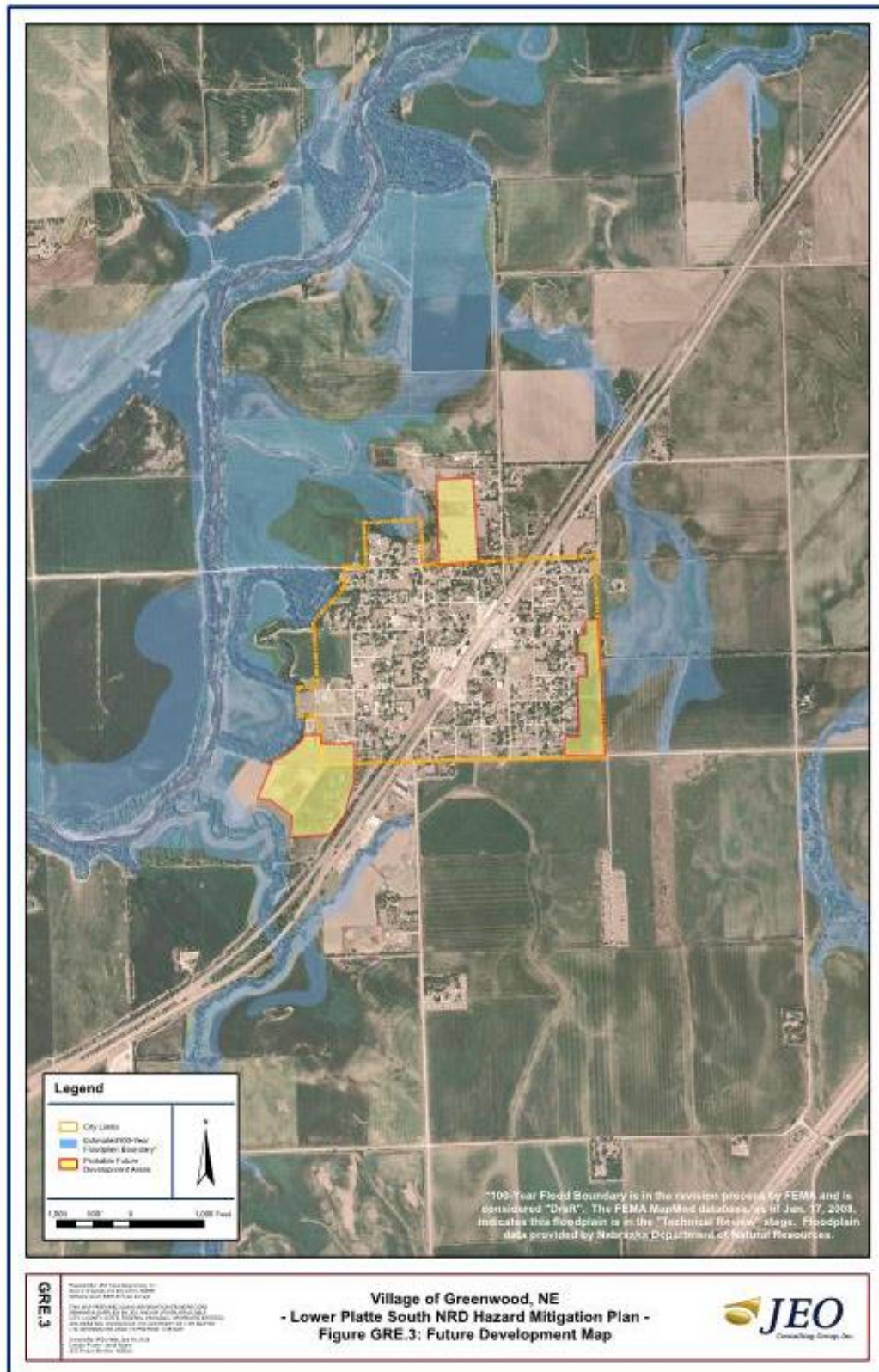
Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

In the past decade the Village has worked to clean up the downtown area buildings and expand development in west Greenwood. In particular, the southeast corner of town and fill lots throughout town have been redeveloped with 30 new homes. At this time, there are no planned developments for the next five years. However, the Village's population is increasing which the local planning team attributes to more affordable housing for residents who commute to surrounding cities for work.

Future Land Use Map



Community Lifelines

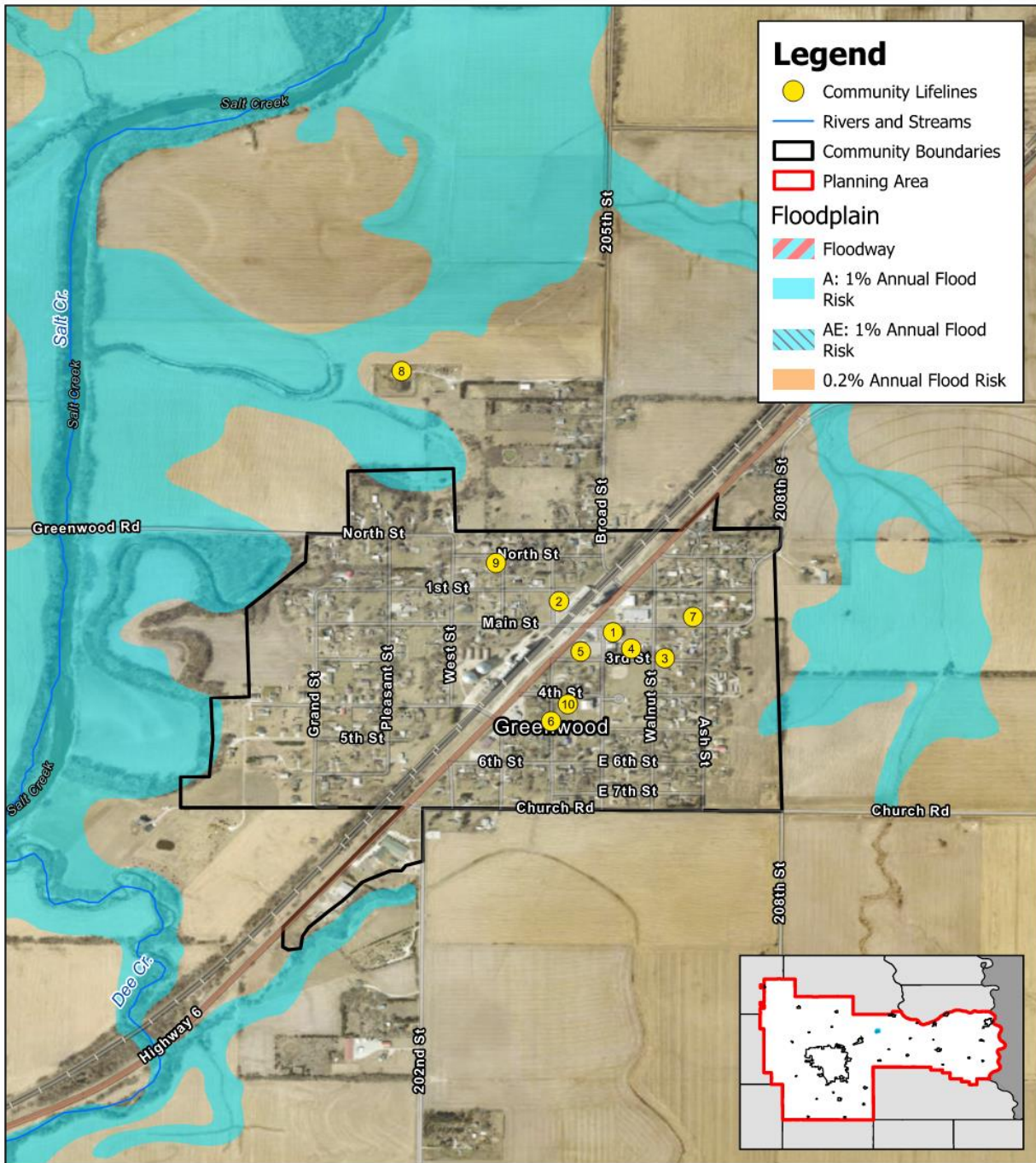
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Greenwood Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Village Hall	N	N	N
2	Food, Water, Shelter	Village Shop and Wells	Y	N	N
3	Transportation	County Shop	N	N	N
4	Transportation	County Shop	N	N	N
5	Safety and Security	Fire & Rescue	Y	N	N
6	Food, Water, Shelter	Greenwood Christian Church	N	Y	N
7	Food, Water, Shelter	Greenwood United Methodist Church	N	Y	N
8	Food, Water, Shelter	Sewer Plant	Y	N	N
9	Food, Water, Shelter	St. Joseph's Catholic Church	N	Y	N
10	Food, Water, Shelter	Water Tower	Y	N	N

Community Lifelines

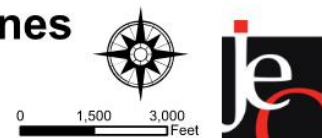


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Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

Greenwood Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

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Hazard Prioritization and Mitigation Strategy

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Dam Failure ⁷		0	1	\$0
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	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Hazardous Materials Release (Transportation)

Chemical transportation spills are a main concern for the local planning team as both the rail line and Highway 6 bisect the Village. There is a pipeline terminal approximately one mile southwest of town and all three of the City of Lincoln's transmission water mains pass through the village. If a chemical spill were to occur along either of these transportation routes the majority of the Village would likely be impacted. Other concerns exist about possible evacuation routes or blocked access for emergency services.

ACTION	Continuity Planning
Description	Develop continuity plans for critical facilities and services.
Hazards Addressed	All hazards
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	5+ years
Priority	Low
Status	Not yet started.

ACTION	Vehicular Barriers
Description	Install vehicular barriers to protect CFs and key infrastructure
Hazards Addressed	Terrorism
Estimated Cost	\$5,000+
Potential Local Funding	General Fund, DHS, PDM, HMGP
Lead Agency	Village Board
Timeline	5+ years
Priority	Medium
Status	Not yet started.

High Winds and Tornadoes

Tornadoes are a top concern for the community due to their ability to cause potentially catastrophic damage to homes, businesses, infrastructure, or surrounding areas. Two tornado events have directly impacted the Village of Greenwood, an EF0 in 2008 and a F0 in 2000. Neither event produced significant damages. There are no FEMA certified safe rooms in the Village, but most residential homes have basements and the Village Office and local churches are all used as shelter locations. There are sirens located in town.

ACTION	Storm Shelters
Description	Identify, design, and develop storm shelters to protect community and critical facilities. Ensure village owned buildings have adequate shelter for maximum occupancy.
Hazards Addressed	All
Estimated Cost	\$200-\$300/sf stand along; \$150-200/sf addition/retrofit
Potential Local Funding	Matching as needed
Lead Agency	Fire Department & EMS

ACTION	Storm Shelters
Timeline	5+ years
Priority	Medium
Status	Not yet started.

ACTION	Bury Main Power Lines
Description	Implement a plan for burying a percentage of overhead power lines each year to reduce the loss of power incurred from downed lines. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. This action will be concentrated in the village's residential areas.
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Unknown
Potential Local Funding	Village Budget
Lead Agency	Utilities
Timeline	5+ years
Priority	Medium
Status	Not yet started.

Severe Thunderstorms

Severe thunderstorms are common across the planning area and for the Village of Greenwood. Severe thunderstorms can include impacts from heavy rain, strong winds, and lightning strikes. The local planning team indicated primary concerns include blocked transportation routes and power outages, especially for older or more vulnerable residents. The Village is working to update building codes and burying power lines to reduce power outages. Surge protectors are needed for municipal buildings to protect critical records.

ACTION	Improve Construction Standards and Building Survivability
Description	Evaluate the existing construction standards and building codes to determine the degree of protection from natural disaster damage that is required of structures in the Village. Additional standards shall be considered for the construction of more weather resistant structures.
Hazards Addressed	All hazards
Estimated Cost	\$0
Potential Local Funding	General Funds
Lead Agency	Village Board
Timeline	2-5 years
Priority	Low
Status	Not yet started.

Other Capacity Building Actions

ACTION	Water System Improvements
Description	Improve water system to address high nitrate problems in community water supply.
Hazards Addressed	Drought, Flooding
Estimated Cost	\$30,000 - \$3,000,000
Potential Local Funding	TBD

ACTION	Water System Improvements
Lead Agency	Village Board, Utilities
Timeline	2-5 years
Priority	High
Status	This is a new mitigation action.

Completed/Removed Mitigation Actions

ACTION	Stormwater Management
Description	Deepen drainage ditches and clean-out culverts to maintain community storm water management system throughout the village.
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms
Status	It's an ongoing priority to ensure drainage structures are clear and maintained. At this time, no specific areas have been identified for improvement.

Community Profile

City of Louisville

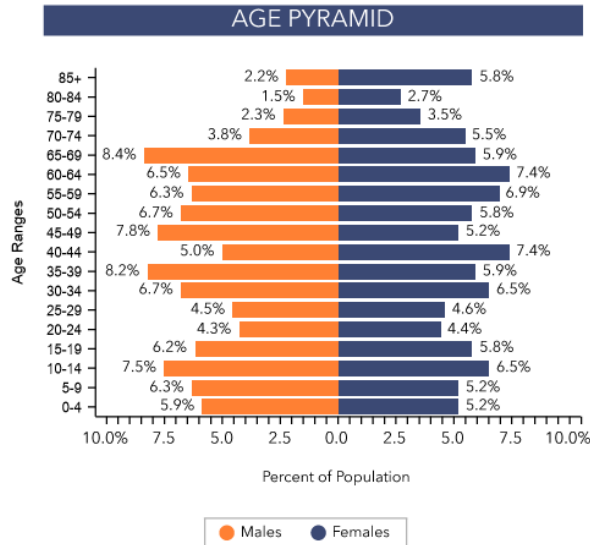
Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

Louisville City, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

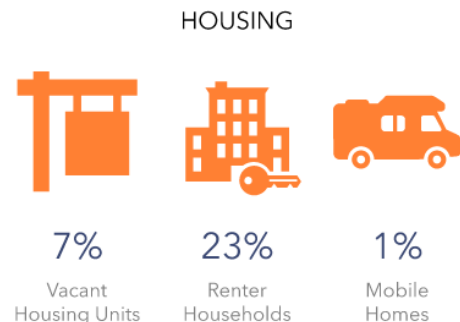
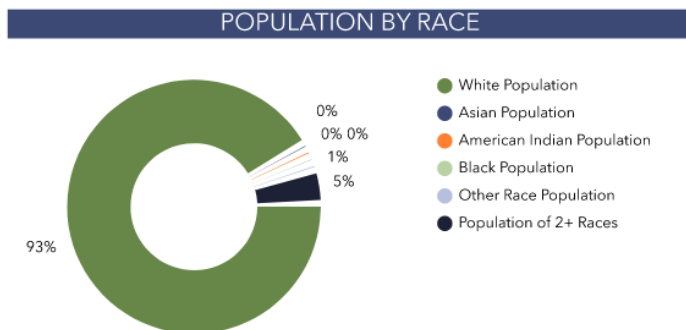
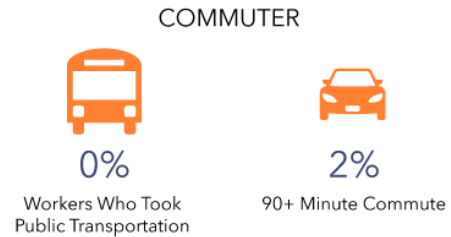
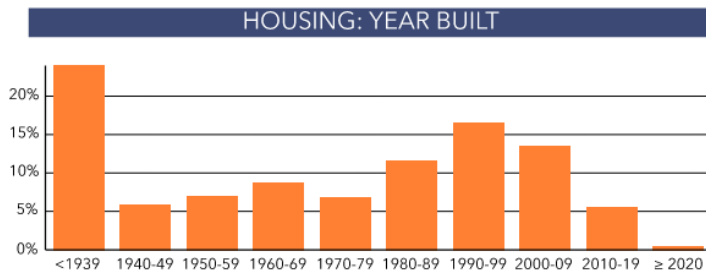
1,359 42.6 \$103,551 \$263,281 3.0% 6%

Population Median Age Median Household Income Median Home Value Unemployment Rate Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	1,359
2020 Total Population (U.S. Census)	1,319
2010 Total Population (U.S. Census)	1,170
2000 Total Population (U.S. Census)	1,030



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Joel Jones	Public Works Director	City of Louisville	Profile Development; Attended Meetings
Dee Arias	City Clerk (former)	City of Louisville	Profile Development; Attended Meetings
Rod Petersen	Mayor	City of Louisville	Profile Development
Tava Tomanek-Powell	City Clerk (new)	City of Louisville	Future planning team member

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 Public Works Director, City Clerk, and Mayor will be responsible for reviewing and updating the community profile outside of the five-year update. The City will review the plan annually and the public will be notified during council meetings, on the website, and through social media.

Location and Geography

The City of Louisville is on the central, northern border of Cass County, approximately adjacent to the Louisville State Recreation Area and two miles east of the Platte River State Park. The City covers an area of 0.57 square miles. There are two main waterways near the town. The Platte River flows easterly directly north of the city and provides a source of tourism from the recreation area located along its bank. Additionally, Mill Creek flows northerly in the center of town and forms a confluence with the Platte River.

Capability Assessment

The planning team assessed the City of Louisville's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes, 2013
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes

Capability/Planning Mechanism		Yes/No
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	In Progress
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	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
	Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	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	No

Capability/Planning Mechanism	Yes/No
Other (if any)	-

Louisville Overall Capability

Capability	2020 Plan Limited/Moderate/High	2025 Plan Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate	Limited
Staff/Expertise to Implement Projects	Moderate	Moderate
Public Support to Implement Projects	High	Moderate
Time to Devote to Hazard Mitigation	Moderate	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	3/4/1980
Floodplain Administrator:	Tava Tomanek-Powell
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	21
Total NFIP Premium (\$):	\$16,128
Total NFIP Coverage (\$):	\$3,639,000
Number of Claims Paid Out:	34
Total Amount of Claims Paid Out (\$):	\$531,299
Number of Repetitive Loss Structures:	2
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

When an application for a building permit in the floodplain is received, a floodplain development permit must also be included with the application. The City's building inspector is on staff, therefore inspections are done timely. If a property is in violation, a letter will be sent from the administrator. If necessary, the city attorney will get involved. The City's floodplain regulations meet FEMA requirements. The floodplain administrator uses the online FEMA interactive map. Substantially damaged structures after a flood event and substantially improved structures are identified by the building inspector. Letters of Map Change are tracked and compiled with the building permit if necessary for development of the structure.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of September 2024. 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. Several structures in Louisville have been removed from the floodplain via LOMA. A summary of LOMAs identified for Louisville can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
605	\$105,043,256	89	\$15,697,693	14.7%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
605	\$105,043,256	34	\$4,063,983	5.6%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0070D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0205D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0210D	11/26/2010	Current FIRM Panel
LOMA	11-07-2452A-310031	09/27/2011	LOMA
LOMA	15-07-2075A-310031	09/09/2015	LOMA
LOMA	16-07-0595A-310031	06/01/2016	LOMA
LOMA	18-07-1477A-310031	06/13/2018	LOMA
LOMA	20-07-0877A-310031	05/27/2020	LOMA
LOMA	20-07-1579A-310031	11/12/2020	LOMA
LOMA	21-07-0351A-310031	01/25/2021	LOMA

Source: Flood Map Service Center

Plans and Studies

Louisville has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the City updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Building Codes

The City of Louisville has adopted the 2012 International Building Codes with an amendment under Ordinance 957. The building code sets standards for constructed buildings and structures. Enforcement of the building code is handled by an on-staff building inspector.

Capital Improvement Plan

The capital improvement plan outlines projects the city would like to pursue and provides a planning schedule and financing options. The bridge on 2nd Street has been identified as needing improvement.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the City. The hazard mitigation plan has not been integrated with the plan. There is no plan or timeline to update the comprehensive plan.

Ordinances and Regulations

The City's zoning ordinance outlines where and how development should occur in the future and its subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The City's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the City promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for property owners. Louisville recently updated its floodplain ordinance and has been effective since August 2024. These documents limit development in the floodplain and limit development in the ETJ.

Southeast Nebraska Community Wildfire Protection Plan

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated with the hazard mitigation plan. The City adopted Ordinance 734 in 2003 to establish wellhead encroachment standards.

Future Development Trends

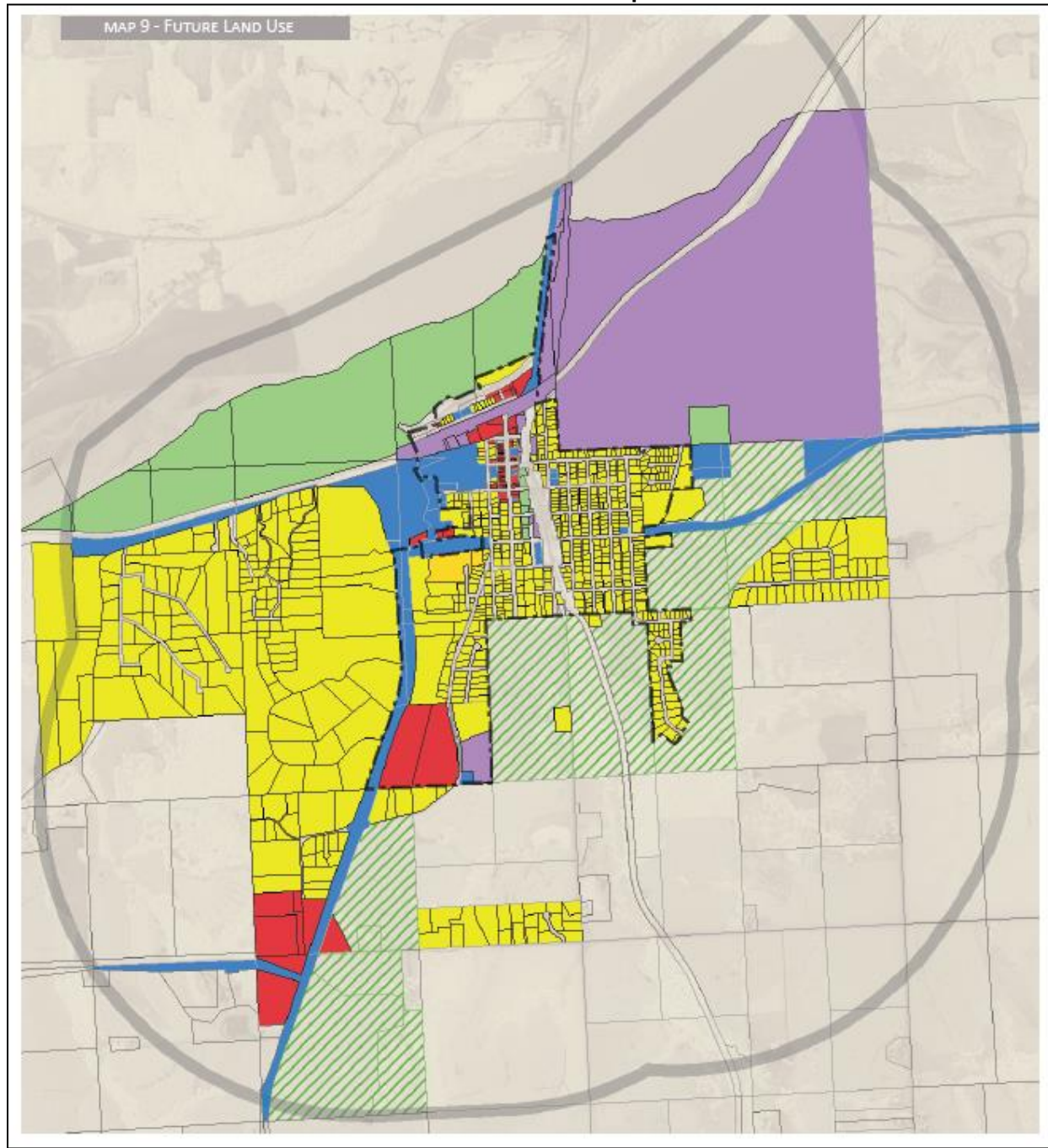
In the past 10 years the City has added several new homes throughout the community, demolished one dilapidated home, had a new chiropractor and physical therapist business open, and had the local restaurant close. The City has identified several homes severely damaged by flooding events which will need to be demolished in the coming years. The City of Louisville's population is relatively stable, which the planning team attributes to housing availability close to Omaha and Lincoln for work. Over the past five years, the 6th Street Bridge closed and reopened, the Eastwood residential development has been completed, the addition of Sand Hill Road, commercial buildings, and a new restaurant were also developed. No new structures were developed in the floodplain or other hazardous areas. In near future, the City has plans for new residential development that will not be located in the floodplain or hazardous areas.

For hazards like drought, extreme heat, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of

where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

The future land use map shows anticipated development and its land use for the City. The map below indicates that residential development is expected to continue to the west and east of corporate limits. Commercial development is expected to the south along Highway 50, and industrial development is expected to continue to the northeast.

Future Land Use Map



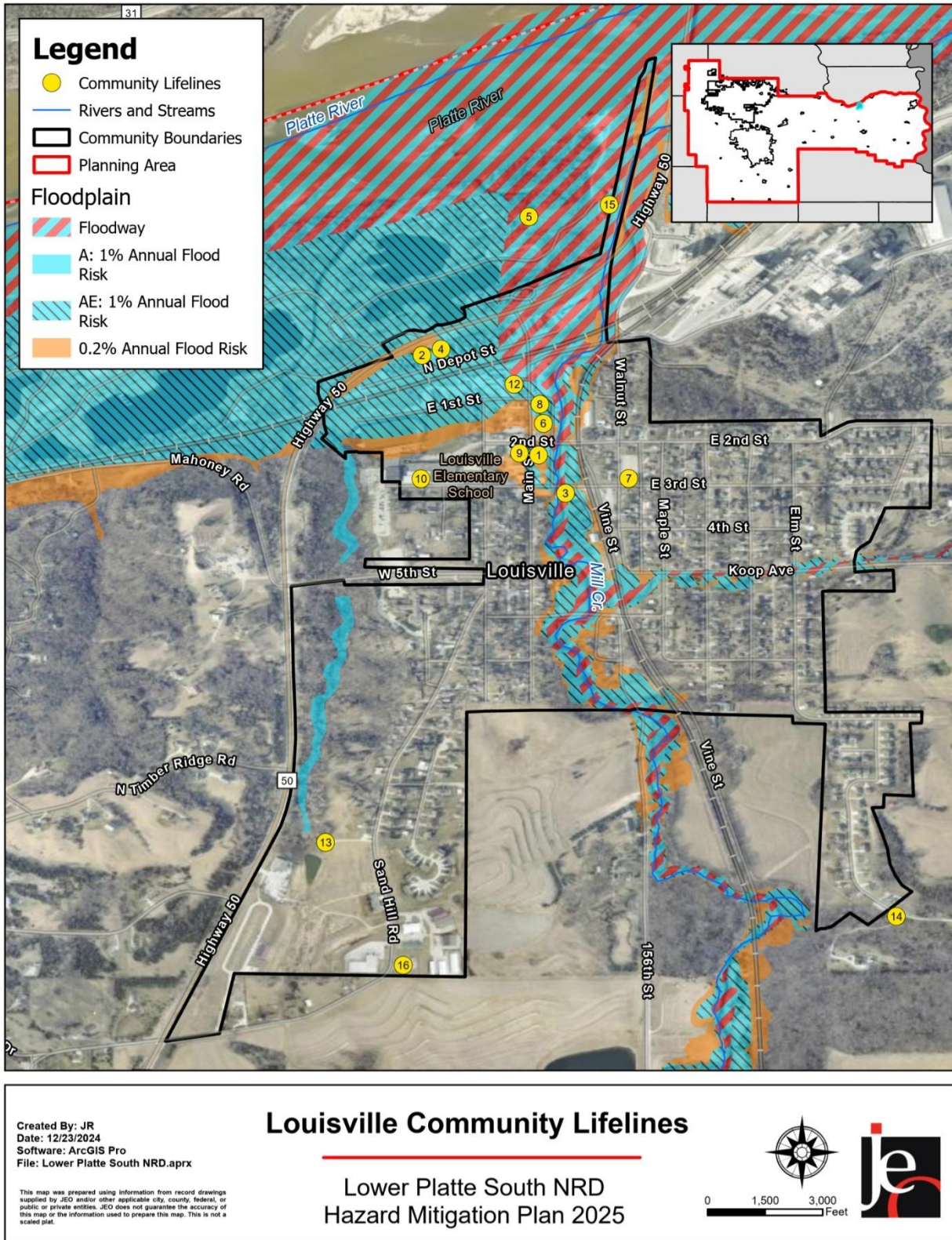
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Louisville Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	City Hall	N	N	Y
2	Safety and Security	City Maintenance Building	N	N	Y
3	Safety and Security	City Park/Siren	Y	N	Y
4	Food, Water, Shelter	City Well (00-1) & Water Treatment Plant	Y	N	Y
5	Food, Water, Shelter	City Well Field (06-1 & 06-2)	Y	N	Y
6	Safety and Security	Fire / Rescue Station	Unknown	N	Y
7	Food, Water, Shelter	First United Methodist Church	N	Y	N
8	Energy	Gas Station	N	N	Y
9	Food, Water, Shelter	Grocery Store	N	N	Y
10	Food, Water, Shelter	Louisville Public Schools	N	Y	N
11	Other	Lutheran Church	N	Y	Y
12	Energy	OPPD Office	Y	N	Y
13	Food, Water, Shelter	Prairie Ridge Lift Station	Y	N	N
14	Food, Water, Shelter	South Ridge Lift Station	N	N	N
15	Food, Water, Shelter	Wastewater Treatment Plant	Y	N	Y
16	Food, Water, Shelter Safety and Security	Water Tower/County EMS Transmitter/Siren/Lift Station	Y	N	N



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Louisville which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Louisville. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	
TOTAL		1,994	1,074	\$22,746,478.00

Flooding

The City of Louisville has a long history of flooding including a major flood in 1923 which caused significant damage to local businesses and caused loss of life. More recently significant floods have occurred in 1993, 2011, and March 2019. The Presidentially Declared Disaster (DR-4420) in March 2019 caused damage to the local sewer plant and homes in trailer parks along the river. High water reached city limits along Highway 50 and filled the Louisville State Recreation Area. Employees of the sewer plant were able to keep the plant running, however it was consistently monitored with a portable pump to keep water flows manageable. The City implemented mandatory evacuations as flood conditions worsened during the event.

The City is part of the National Flood Insurance Program. The City has done bank reinforcement stabilization for protection. The local planning team has identified reducing choke points at 2nd Street and the railroad bridge and Highway 50 bridge as strategies to reduce the risk of future flooding. Additionally, several critical facilities, including City Hall, fire hall, and one siren are located within the 1% floodplain. There are also two single family properties on the NFIP Repetitive Loss list. Flooding from the Platte River is controlled, to some extent, by several upstream reservoirs in Colorado, Wyoming and Nebraska. The effect of these reservoirs is included in the discharge-frequency relationship derived for the Platte River. A small amount of flood protection from the Platte River is also provided by the railroad tracks and the highway, which act as non-regulated or certified levees protecting most of the developed areas in Louisville. Flood hazards from Mill Creek were reduced by straightening the channel through some of the developed areas during the 1940's. In 2014-2015, a stormwater pipe was repaired south of town near the OPPD station which improved localized flooding in the area. Other than this, there are no existing or proposed flood protection structures or floodplain management measures which reduce the hazard of flooding from Mill Creek or the tributary to Mill Creek. In the past, flooding from Mill Creek has inundated North Depot St. and led to floodwaters entering basements.

ACTION	Alternate Water Sources
Description	Develop alternate strategies to provide necessary services in the event of flooding. Study alternate water sources in the event that the water system fails.
Hazards Addressed	Flooding, Drought
Estimated Cost	\$30,000 – feasibility study, Staff Time
Potential Local Funding	Water Fund
Lead Agency	City Administration, Rural Water District #3
Timeline	5+ years
Priority	Low
Status	In Progress – the City is in preliminary conversations to assess needs and feasibility options.

ACTION	Backup Generator
Description	Have a backup generator at the South Ridge Lift Station.
Hazards Addressed	Extreme Temperatures, Flooding, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$15,000+
Potential Local Funding	City Budget
Lead Agency	City Public Works Director
Timeline	2-5 years

Priority	Medium
Status	This is a new mitigation action.

ACTION	Participate in the Community Rating System
Description	Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Participation in CRS can help reduce flood insurance premiums.
Hazards Addressed	Flooding
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Funds
Lead Agency	City Administration
Timeline	2-5 years
Priority	Medium
Status	Not Yet Started.

High Winds and Tornadoes

Tornadoes are a top concern for the community due to their ability to cause potentially catastrophic damage to homes, businesses, infrastructure, or surrounding areas. Thus far no tornadic events have directly impacted the City of Louisville, although in summer 2018 tornadoes hit the surrounding area. Severe wind damage was reported by the planning team on July 31, 2024. The largest impact from this event was loss of power for an extended period of time. There are no FEMA certified safe rooms in the City, but most residential homes have basements and the Methodist Church, Lutheran Church, and Louisville Public School are all used as shelter locations. There are two sirens located in town which each have their own independent power supply. Backup generators are still needed for each siren to reduce the risk from severe weather events.

ACTION	Siren Upgrades
Description	Have a backup generator or redundant power for emergency alert sirens.
Hazards Addressed	Extreme Temperatures, Flooding, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$10k
Potential Local Funding	City Budget
Lead Agency	City Administrator, County Emergency Management
Timeline	2-5 years
Priority	Medium
Status	This is a new mitigation action.

ACTION	Storm Shelters
Description	Identify, design, and develop storm shelters to protect community and CFs.
Hazards Addressed	Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$200-\$300/sf stand alone; \$150-200/sf addition/retrofit
Potential Local Funding	General Funds

ACTION	Storm Shelters
Lead Agency	City Administration
Timeline	5+ years
Priority	Low
Status	Not Yet Started – need to evaluate existing sites used as shelters, provide signage, and share locations with residents.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the planning area and for the City of Louisville. Heavy rain, strong wind, lighting strikes, and/or hail associated with severe thunderstorms can cause damage to homes, businesses, utilities, or trees. The local planning team identified power outages from lightning and blocked transportation routes from downed trees as particular concerns for the City. In newly developed portions of the City, electric powerlines are buried and are at lowered risk to losing service. One of the major employers in town, Ash Grove, uses a large amount of electricity and has reinforced lines. These lines also benefit other parts of the City as it makes power outages less frequent. Severe thunderstorms in the past have caused damages to roofs and vehicles. Louisville has two sirens which both have their own independent power supply. The Louisville Care Center, lift stations, wells, wastewater treatment plant, water treatment plant, and water tower all have backup power sources as well.

ACTION	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. These improvements can serve to more effectively convey runoff, preventing interior localized flooding. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazards Addressed	Flooding, Severe Thunderstorms (stormwater flooding)
Estimated Cost	\$100,000+
Potential Local Funding	General Funds, Sewer Fund
Lead Agency	City Office
Timeline	2-5 years
Priority	Low
Status	Not Yet Started - Additional pipe (inlets); more importantly, creek capacity or drainage study improvements are needed along lower Main Street / N. Depot Street.

Additional Hazard of Concern

Chemicals are frequently transported through the City via rail lines and major transportation routes. The local planning team noted two train derailments that have occurred locally, although there are no reported damages from either. The Pipeline and Hazardous Materials Safety Administration has reported 12 transportation spills since 1990, with one railroad spill on May 29, 2012, resulting in \$1,500 in property damage. Damage to critical facilities, loss of life, potential injuries to residents, and blocked transportation routes for emergency access are all concerns in regard to chemical transportation spills. Louisville has a volunteer fire department with approximately 25 members who would respond during chemical spills. The City also has mutual aid agreements in place with neighboring communities for assistance and BNSF and UP will

Section Seven | City of Louisville Community Profile

typically handle cleanup of train derailments. Both rail lines are located in the floodplain within the City.

However, at this time there are no identified mitigation actions for the City of Louisville. Additional protection or mitigation projects would likely require support and assistance with the railroad.

Community Profile

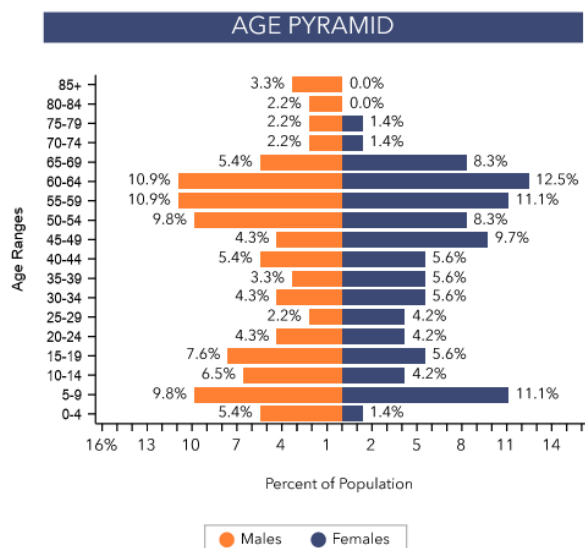
Village of Manley

Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

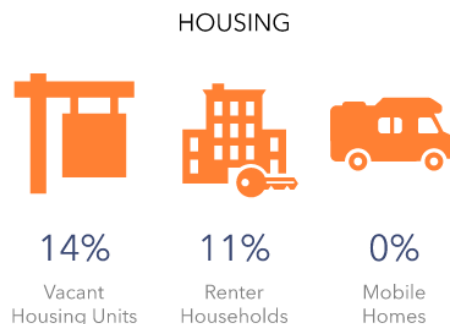
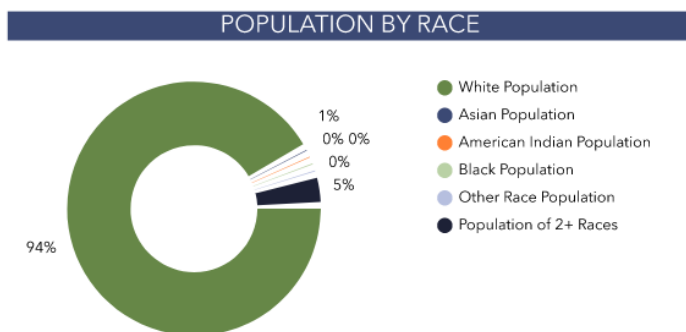
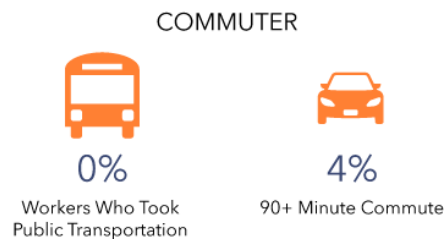
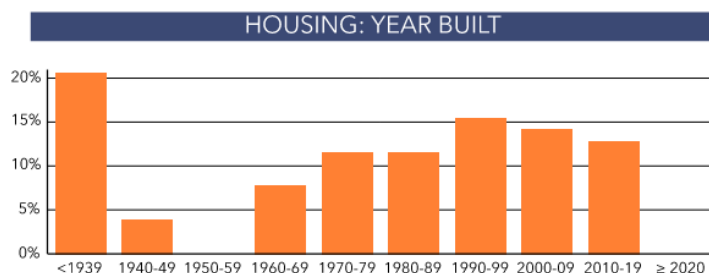
Manley Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

164 Population 46.4 Median Age \$83,365 Median Household Income \$318,182 Median Home Value 1.1% Unemployment Rate 6% Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	164
2020 Total Population (U.S. Census)	167
2010 Total Population (U.S. Census)	166
2000 Total Population (U.S. Census)	158



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Denise Swenson	Board Chairperson	Village of Manley	Plan Development
Lindsay Cronk	Village Clerk	Village of Manley	Attend Meeting, Plan Development

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 Board Chair and Village Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Manley will review the plan annually and the public will be notified through public notices that can be located on the Village website, local newspaper, and three locations in the Village.

Location and Geography

The Village of Manley is in central Cass County, approximately six miles south of the Platte River. The Village covers an area of 0.09 square miles. There is one waterway near the town, the South Cedar Creek which flows northwest to southeast on the west side of town. This creek forms a confluence as a tributary of the Weeping Water Creek six miles to the southeast.

Capability Assessment

The planning team assessed the Village of Manley's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes, 2010 (Update in Progress)
	Capital Improvements Plan	No
	Economic Development Plan	Yes, in Comp Plan
	Emergency Operations Plan	Yes – Local and County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes (Update in Progress)
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	Yes, 2018 IBC

Section Seven | Village of Manley Community Profile

Capability/Planning Mechanism		Yes/No
	Water System Emergency Response Plan	Yes, 2018
	Wellhead Protection Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	No - Contracted
	Chief Building Official	No
	Civil Engineering	No - Contracted
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	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
	Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, 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)	-

Manley Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Moderate	Moderate
Staff/Expertise to Implement Projects	Moderate	Moderate – knowledgeable Board Members; bid out some projects
Public Support to Implement Projects	Limited	Moderate
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Moderate

National Flood Insurance Program (NFIP)

The Village of Manley is not a part of the National Flood Insurance Program due to its low risk of flooding occurring in the community. Manley is on a hill and is not located in the floodplain. There are no known benefits to participating in the program at this time or in the future.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of September 2024. 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. Several structures in Manley have been removed from the floodplain via LOMA. A summary of LOMAs identified for Manley can be found in the table below.

Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
98	\$11,854,426	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM
FIRM Panel	31025C0220D	11/26/2010	Current FIRM

Source: Flood Map Service Center

Plans and Studies

Manley has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide future actions and growth for Manley. Updates to the comprehensive plan are in progress and will include changes to the zoning ordinance and the

future land use map. Development is limited in areas adjacent to hazardous locations such as industrial land uses. The hazard mitigation plan has not been integrated with the 2010 comprehensive plan; however, the planning team and Village Board will coordinate with the contracted company that is responsible for updating the plan to make necessary changes in the updated version.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The Village plans on updating the zoning ordinances along with the comprehensive plan to include more information on special use permits. Development is permitted in the ETJ.

Building Codes

The Village of Manley has an interlocal agreement with Cass County for its building code. Cass County has adopted the 2018 International Building Code. Manley approves building applications before Cass County finalizes the permit for development.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and Village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The Village utilizes services from the Otoe County Rural Water District #3.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

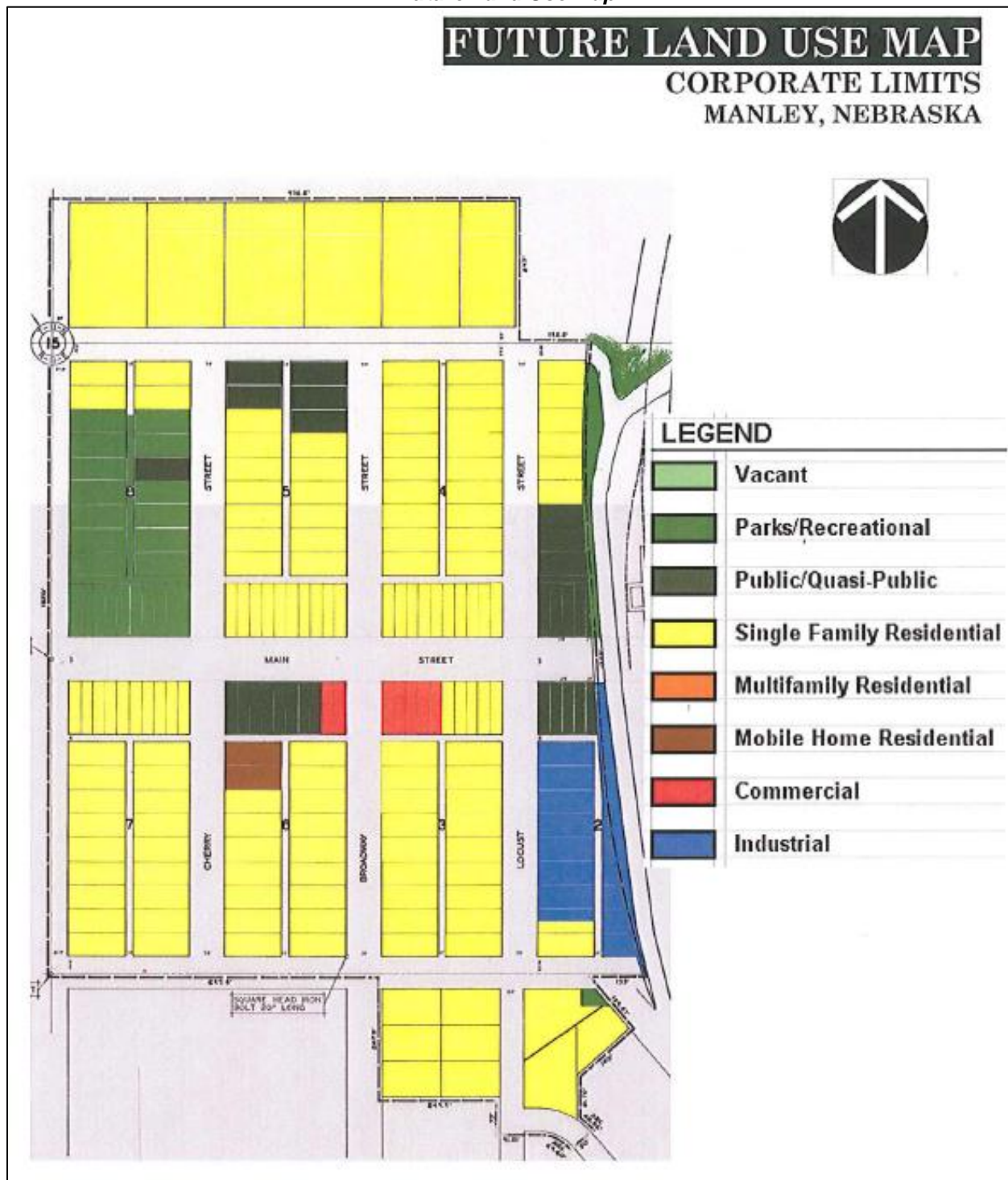
Future Development Trends

The Village of Manley has experienced several changes in the past 10 years, including the construction of a new picnic shelter, improvements to the park, and annexing land to the south of town. The new annexed land also includes one home on the west side of town and land to the south from South Street to Hwy 1. A new outdoor alert siren was also installed near Main and Cherry Streets in 2017.

Over the past five years, the Village improved the local park with a new playground and street resurfacing projects in the annexed homes south of town. The Village has also replaced the water meters in the central part of town. A couple of abandoned trailer houses in town have been demolished in the Village. A special use permit was granted to allow a local commercial business to transition to residential property. The Board has approved a land use change from Agriculture to Agricultural Residential in the south of the Village where residential development is expected to occur.

The following future land use map is the most current official map developed; however, the local planning team indicated several changes have been made locally. Sections along Main Street between Cherry and Broadway have been converted to commercial and the annexation to the south of town is all residential. The existing future land use map is under review by the board. Updates will be included in the community's comprehensive plan in the upcoming year.

Future Land Use Map



**Note: this map does not reflect the current status of Manley and is in progress for future updates with the Village Board.*

Community Lifelines

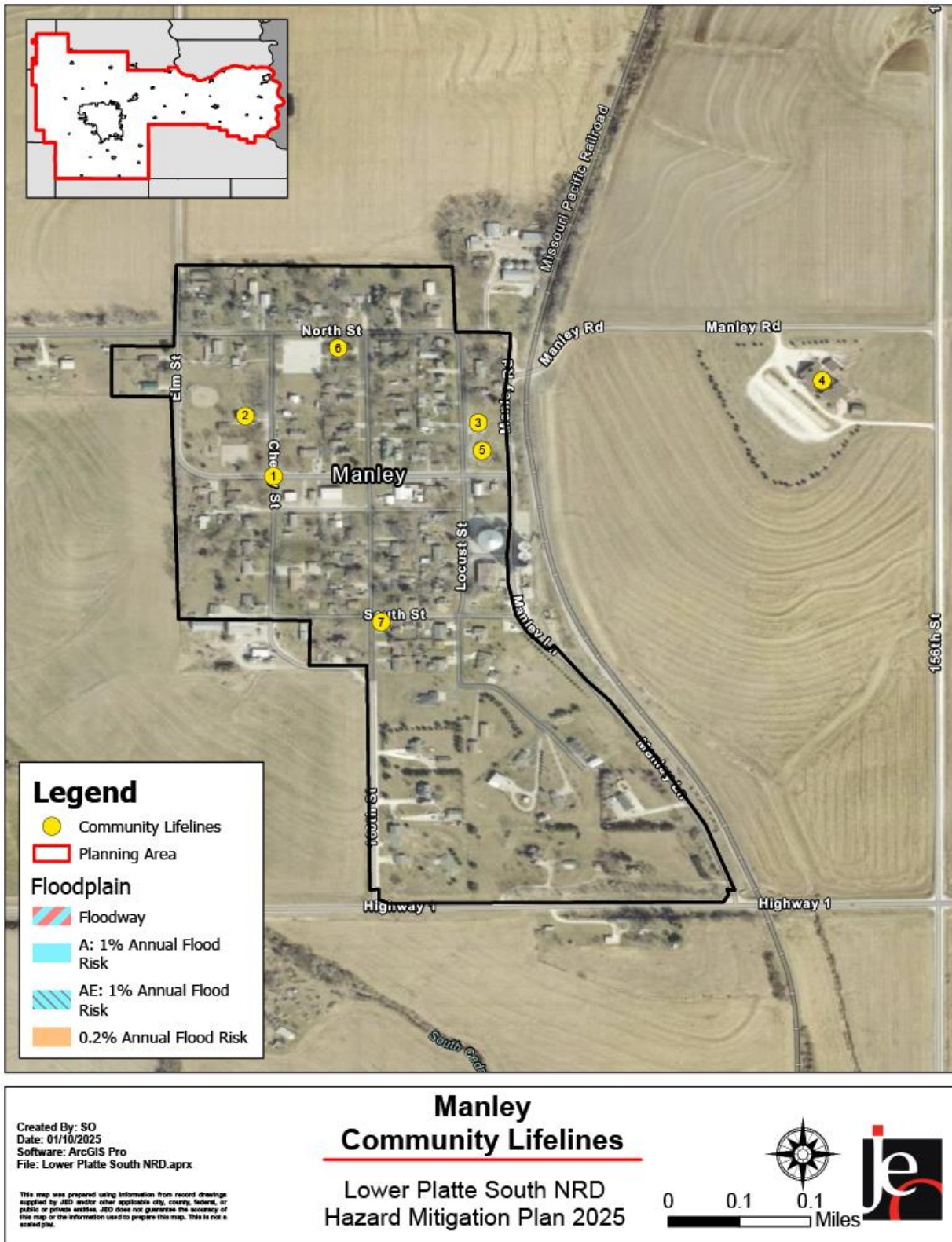
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Manley Community Lifelines

CF #	Community Lifeline Type	Name	Generator	Shelter	Floodplain
1	Communications	Alert Siren	N	N	N
2	Safety and Security	Community Building	Y	Y	N
3	Safety and Security	Fire Hall	Unknown	N	N
4	Food, Water, Shelter	Lofte Community Theatre	N	Y	N
5	Other	Maintenance Building	N	N	N
6	Food, Water, Shelter	St. Patrick's Catholic Church	N	Y	N
7	Food, Water, Shelter	Water Station	N	N	N

Section Seven | Village of Manley Community Profile



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Manley which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Manley. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Hazardous Materials Release (Transportation)

Chemical transportation spills are a concern for the Village due to the proximity of two major highways to town. There is a high volume of semi-trucks carrying hazardous materials along both Highway 1 and Highway 50 just outside of town. In the early 2000's, an anhydrous ammonia leak from a refill tank spurred an evacuation of the whole south side of town. The local COOP remains active and brings heavy semi-truck traffic in the Village. No recent incidents have occurred, and no recent changes have been made in the community. The local volunteer fire department responds to incidents and has between 10 to 15 active members across town. All fire departments in the county have agreements in place to assist communities.

ACTION	Hazard Education
Description	Increase public awareness of vulnerability and risk reduction measures through hazard education.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Low
Status	Not yet started - Notices of hazardous events are posted on the Village website and Facebook page. Information on how to shelter in place and emergency operations after a hazardous materials release is needed.

High Winds and Tornadoes

High winds and tornadoes are a concern for the local planning team due to the location of the Village and the potential to cause catastrophic damage. The local planning team is particularly concerned as the Village is located at the highest point in the surrounding area. The Village sits at a topographic high point in the county and regularly experiences strong wind events. Past high wind events have caused significant tree damage. Broken limbs and trees caused damage to buildings, roofs, and private property. Power lines throughout the Village are above ground. High winds during the winter also cause burdensome snow drifts which block transportation routes and strain local snow removal resources.

No tornadic events have directly impacted the community, historically. There are no FEMA certified safe rooms or shelters in the Village, but most residents have basements. In case of an event, the Community Center is the primary shelter location and distribution center. A backup generator has recently been installed at the community center. The Village has identified the need for additional signage to designate the facility as a storm shelter and supplies to provide short term shelter accommodation for residents. Other storm shelters in the community include the Lofte Community Theatre and the local church. Village members are generally aware of shelter locations and can find more information on the Village website or Facebook page. A new alert siren was installed in the center of town in 2017 and can be heard by all residents. Any time there

is a tornado watch or the Village siren goes off, a Village Board member will open the Community Center for people to shelter in place in the basement.

ACTION	Backup Generators
Description	Provide backup power systems to provide redundant power supply to critical facilities and key infrastructure.
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds, Tornadoes
Estimated Cost	\$30,000
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	In Progress – the Village Community Center has recently acquired a generator. No other community lifelines have backup generators. The Village Board has discussed backup generators at other locations such as the Community Theatre that is also used as a local shelter.

ACTION	Windbreaks
Description	Identify and install windbreaks in areas prone to extreme wind events.
Hazards Addressed	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
Estimated Cost	\$5,000+
Potential Local Funding	General Fund
Lead Agency	Village Board, Nebraska Forest Service, Nebraska Arboretum
Timeline	2-5 years
Priority	Low
Status	Not Yet Started – there is a tree line in the Village and along the highway to serve as windbreaks.

Severe Winter Storms

Severe winter storms include extreme cold, heavy snow, blizzards, and ice accumulation. The Village experiences severe winter storms annually. Primary concerns for such events include loss of power and blocked transportation routes from snow accumulation. The Village has an aging population, making power outages more severe for those reliant on electricity for heating and medical devices. While there are several avenues out of town, heavy snow can impede traffic and access to homes. There are no gas stations, grocery stores, or health care providers in town – emphasizing the need for open transportation routes in and out of the community. The Village-owned 160th road has historically had significant snow drift problems. Manley hires an individual for snow removal. Equipment is kept up to date, and the plow truck has a salt disperser for de-icing the roads.

ACTION	Snow Fences
Description	Construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closure.
Hazards Addressed	Severe Winter Storms

ACTION	Snow Fences
Estimated Cost	\$50-\$100 per 100 linear feet
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Low
Status	Not Yet Started – tree lining along highway and in the Village serve as a buffer from wind. Need to determine critical areas for snow fences.

Completed/Removed Mitigation Action

ACTION	Short Term Residency Shelters and Identification
Description	Identify and designate short term shelters for residents. These structures do not serve as FEMA approved safe rooms and are not intended for long-term recovery, such as displacement from floods, fires, etc. but are available for residents during power outages or severe weather events.
Hazards Addressed	Severe Winter Storms, Severe Thunderstorms, Tornadoes
Status	Completed – the community center, local church, and Lofte Community Theatre serve as short term shelters from severe weather events.

ACTION	Stormwater System and Drainage Improvements
Description	These improvements can serve to more effectively convey runoff, preventing interior localized flooding. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazards Addressed	Flooding, Severe Thunderstorms
Status	Completed – the Village has an interlocal agreement with Louisville to manage tree root disruption to stormwater system. The interlocal agreement is reviewed every five years.

ACTION	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees.
Hazards Addressed	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
Status	No Longer Needed – trees on publicly-owned properties are not a concern. The Village can issue nuisance citations for hazardous trees on private properties.

Community Profile

Village of Murdock

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

Murdock Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

275

Population

44.9

Median Age

\$96,428

Median Household
Income

\$266,071

Median Home
Value

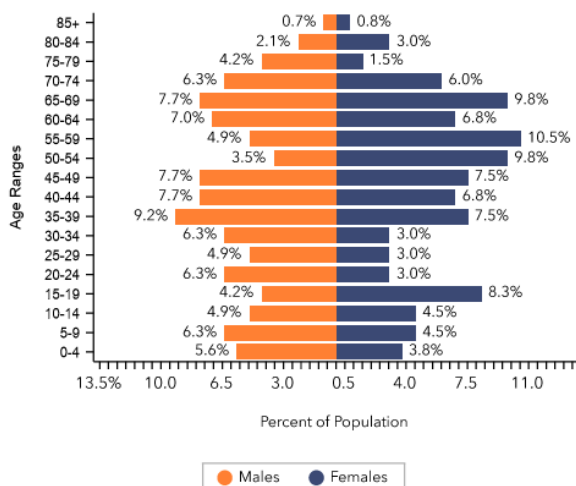
1.1%

Unemployment
Rate

4%

Households Below
the Poverty Level

AGE PYRAMID



TOTAL POPULATION

2023 Total Population (Estimate)	275
2020 Total Population (U.S. Census)	270
2010 Total Population (U.S. Census)	263
2000 Total Population (U.S. Census)	267

AT RISK POPULATION



20

Households With
Disability



58

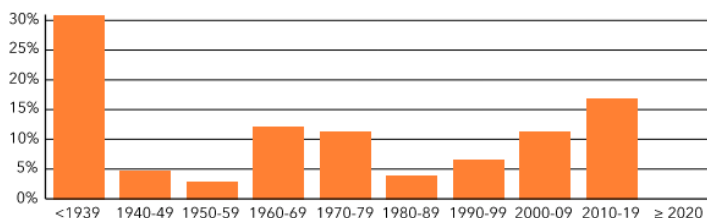
Population 65+



1

Households
Without Vehicle

HOUSING: YEAR BUILT



COMMUTER



0%

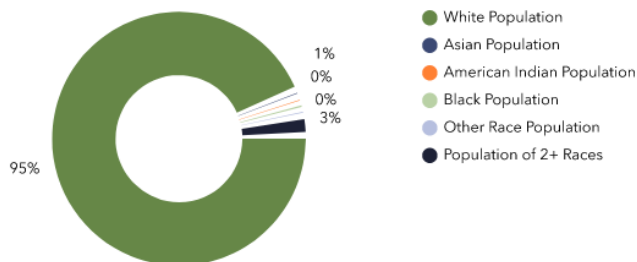
Workers Who Took
Public Transportation



0%

90+ Minute Commute

POPULATION BY RACE



HOUSING



6%

Vacant
Housing Units



11%

Renter
Households



0%

Mobile
Homes



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	
David Noss	Board Chairman	Village of Murdock	Plan Development
Jake Wilson	Board of Trustee	Village of Murdock	Plan Development
Michelle Chestnut	Board of Trustee	Village of Murdock	Plan Development

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 Village Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Murdock will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Murdock is in the west-central portion of Cass County, approximately seven miles south of the Platte River. The Village covers an area of 0.13 square miles. There is one minor waterway near the town, an unnamed stream a mile west of town that is a tributary of the Callahan Creek. The two bodies of water form a confluence 2.5 miles west of town.

Capability Assessment

The planning team assessed the Village of Murdock's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	Yes
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No

Capability/Planning Mechanism		Yes/No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	County
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	Yes
	Mutual Aid Agreement	No
	Other (if any)	
Fiscal Capability	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/Water/Sewer 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)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	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	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Murdock Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Moderate
Staff/Expertise to Implement Projects	Limited	Moderate
Public Support to Implement Projects	High	High
Time to Devote to Hazard Mitigation	Limited	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Moderate

National Flood Insurance Program (NFIP)

The Village of Murdock is not a part of the National Flood Insurance Program. Due to the Village's location and low risk to flooding and lack of identified floodplain, it is not a priority for the Village. There is no intention to join the NFIP at this time.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 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. Several structures in Murdock have been removed from the floodplain via LOMA. A summary of LOMAs identified for Murdock can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
148	\$19,866,020	0	0	-

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
148	\$19,866,020	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM
FIRM Panel	31025C0200D	11/26/2010	Current FIRM

Source: Flood Map Service Center

Plans and Studies

Murdock has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to

incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Building Codes

The building code sets standards for constructed buildings and structures. Murdock implements Cass County's building codes which are the 2018 International Building Code. Enforcement of the code and inspection is done through Cass County Zoning after the Village handles the initial permitting process.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

Over the past five years no new residential or commercial development has taken place. No new roads or other infrastructure has been built. The community does not have a future land use map.

Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

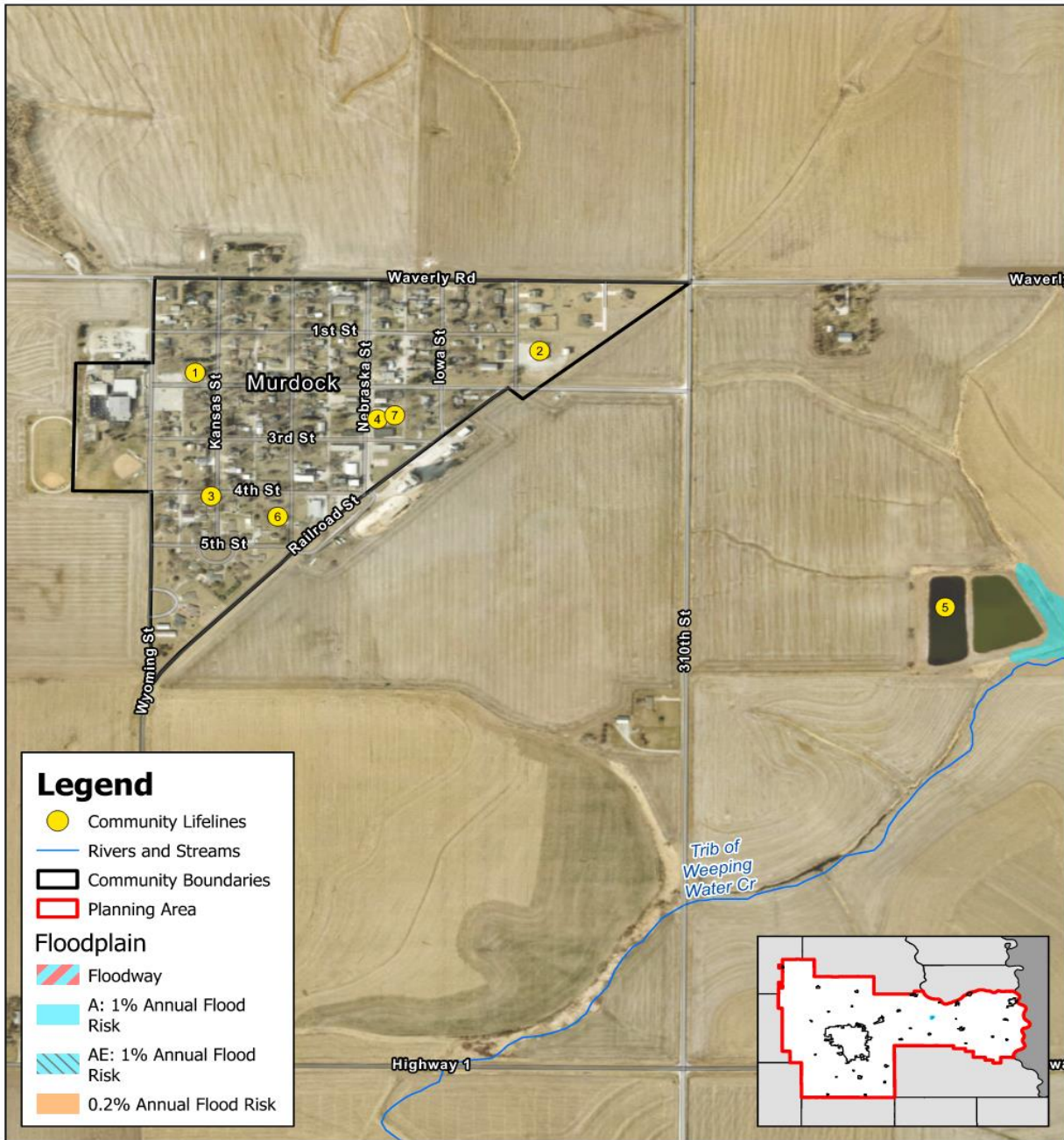


Murdock Community Lifelines

CF #	Lifeline	Name	Generator (Y/N)	Shelter	Floodplain
1	Food, Water, Shelter	Ebenezer United Methodist Church	N	Y	N

Section Seven | Village of Murdock Community Profile

CF #	Lifeline	Name	Generator (Y/N)	Shelter	Floodplain
2	Safety and Security	Murdock Volunteer Fire Department	Y	N	N
3	Food, Water, Shelter	Old Well House	N	N	N
4	Safety and Security	Village Office	N	N	N
5	Food, Water, Shelter	Village Lagoons	N	N	N
6	Safety and Security	Village Office Record Location	N	N	N
7	Food, Water, Shelter	Water Tower/Siren	Y	N	N

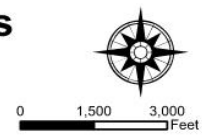


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Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

Murdock Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

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



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Murdock which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Murdock. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

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	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
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	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
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Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Drought

Drought is a concern for the Village due to the large amount of surrounding agricultural land. The drought conditions in 2012 caused a strain to farmland throughout the county. Murdock has experienced water loss/pressure before, and they currently do not have a backup water supply. The Village purchases water from the Cass County Rural Water District #2, and without the 2", the Village loses all pressure. The previous wells used in town were sealed 35 years ago due to high hydro tetrachloride levels. Remediation actions have been taken and thus water should be retested for suitability. Old wells need improvements and repairs in order to resume operations. An old well in the Village needs to be repaired and have a generator installed, which is estimated to cost \$80,000.

ACTION	Well Improvements
Description	Improve community well system and install generator
Hazards Addressed	Drought, Grass/Wildfire
Estimated Cost	\$80,000
Potential Local Funding	HMGP, PDM, Cass County, Village Funds
Lead Agency	Village Board
Timeline	1 year
Priority	High
Status	Not yet started.

Hazardous Materials Release (Fixed)

There are two significant sources of hazardous materials in the Murdock area. The gas station contains petroleum products, and the Northern Natural Gas plant houses natural gas. In May 2018 there was a natural gas leak that caused several residents to evacuate. In February 2018 a cut gas line in a basement caused 25% of the town to temporarily evacuate. As an additional concern, the Midwest Farmer's CO-OP is constructing a new facility three miles east of town. In August of 2024, the CO-OP removed its anhydrous ammonia tanks, but the underground gas tanks at the gas station are still present. Critical facilities, including the school, are located near chemical fixed sites. Residents are aware of the facilities, but there are no public outreach activities to inform the public. The local response resources include the Fire Department which has personal protective equipment but lack detection equipment. Regular testing and inspection of fuel storage along with observation and maintenance to the pipeline are necessary actions to reduce the risk of a hazardous materials release.

ACTION	Promote Use of Higher Codes and Standards
Description	Promote the use of higher codes and standards, such as the Fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits
Hazards Addressed	Hazardous Materials, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$5,000+
Potential Local Funding	HMGP, PDM, Cass County, Village Funds
Lead Agency	Village Board
Timeline	2-5 years

ACTION	Promote Use of Higher Codes and Standards
Priority	High
Status	Not yet started. This action will be integrated into the development of the Comprehensive Plan.

High Winds and Tornadoes

There have been several tornadoes which have directly impacted the village. In May 2004 the Hallam Tornado caused damage to property and trees. In September 2010 a tornado and associated 1 3/4" hail caused damage to crops, buildings, and trees. In June 2017 a tornado damaged houses, trees, and power lines across town. All municipal data is backed up automatically on the cloud. New sirens were installed in 2019 to notify residents of impending hazard events. While community shelters are available, the majority of homes in Murdock have basements. Neither the Village nor Cass County offer text alerts. There is no formal mutual aid agreement between emergency services; however, Elmwood Volunteer Fire Department provides EMS coverage of Murdock. The Village does regular maintenance of tornado sirens to ensure they are working properly.

ACTION	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees
Hazards Addressed	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
Estimated Cost	\$200+ per tree
Potential Local Funding	HMGP, PDM, Cass County, Village Funds
Lead Agency	Village Board
Timeline	2-5 years
Priority	High
Status	Not yet started. There have been confirmed cases of Emerald Ash Borer in the county and around the Village. Several ash trees have been removed. Additionally, the tree stock in Murdock is very old and many trees are naturally dying off and must be removed and replaced. An inventory of tree stock would be a good next step prior to replacement.

ACTION	Weather Radios
Description	Conduct an inventory of weather radios at schools and other CFs and provide new radios as needed
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$50 per radio
Potential Local Funding	Village Funds
Lead Agency	Village Board
Timeline	2-5 years
Priority	Low
Status	Not yet started.

Severe Thunderstorms

Severe thunderstorms are a common occurrence across the State of Nebraska and the planning area, with the Village sustaining damage annually from events. A 2011 storm caused damage to half of the town from high winds downing trees and damaging roofs. Storms in 2016 and 2017

included significant hail damage to homes and facilities with the 2017 storm producing two-foot high drifts of hail. Concerns about severe thunderstorms include property damage, resident safety, power loss, downed trees, and crop loss. Municipal records are backed up and are protected by a surge protector; however, only the fire hall has a backup generator. No critical facilities have weather radios. The fire department and volunteers are notified of severe weather via various phone apps. Murdock has engaged in trimming trees and providing awareness of extreme weather events.

ACTION	Stormwater System and Drainage Improvements
Description	Upgrade water district infrastructure to decrease likelihood of damages and improve water system for emergency uses.
Hazards Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies by Scope
Potential Local Funding	HMGP, PDM, Cass County, Village Funds
Lead Agency	Village Board
Timeline	5 years
Priority	High
Status	Not yet started. The current water main is 2" diameter in size and is not sufficient to meet local needs. Water quality testing is needed at previous well sites to determine if decommissioned wells can be reinstated to the system to help supply water. If the water quality has not improved, the water main must be upgraded to improve water supply from the Rural Water District.

Severe Winter Storms

Severe winter storms are common across the planning area and significant events have impacted Murdock. The winter of 2008-2009 required local volunteers to use personal equipment to clear main roads. Snow accumulation and low temperatures in winter 2018 caused the water tower to freeze completely, causing damage and loss of water pressure and supply to the community. Local concerns include access for emergency services to reach residents, reliance on volunteers for snow removal, loss of power, and safety of vulnerable populations. There are three main power lines into town and there are no buried powerlines except to residences; however, OPPD did upgrade poles and line equipment in 2017. In the case of power outages and the loss of heat, the fire hall is open to the public as a shelter. There are no designated snow routes in town although it is generally understood that main street and the spur road receive priority. The local planning team noted that 310th St to the highway is the last one plowed and can restrict traffic flow. The local planning team noted that additional snow removal resources are needed. Murdock has budgeted funds for a better response after severe winter storms and has hired a water tower maintenance contractor with a 10-year contract. The Village also does monthly visual inspections of systems, water tower, and other services to ensure they are operating properly.

ACTION	Designate Snow Routes
Description	During winter events the community will designate snow routes for the community to use
Hazards Addressed	Severe Winter Storms
Estimated Cost	\$1,000, Staff Time
Potential Local Funding	HMGP, PDM, Cass County, Village Funds
Lead Agency	Village Board
Timeline	1 year
Priority	High

ACTION	Designate Snow Routes
Status	Not yet started. The Village is responsible for own snow removal and currently there are no designated snow routes or snow storage places.

Community Profile

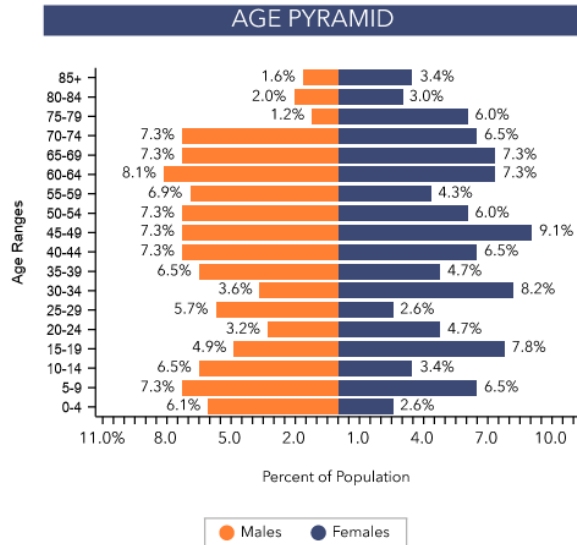
Village of Murray

Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

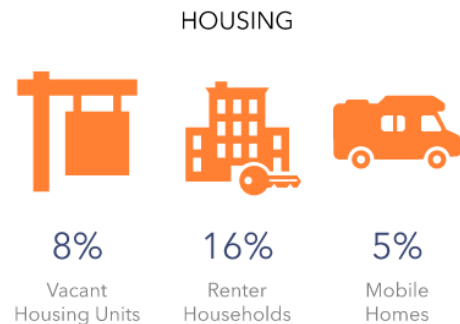
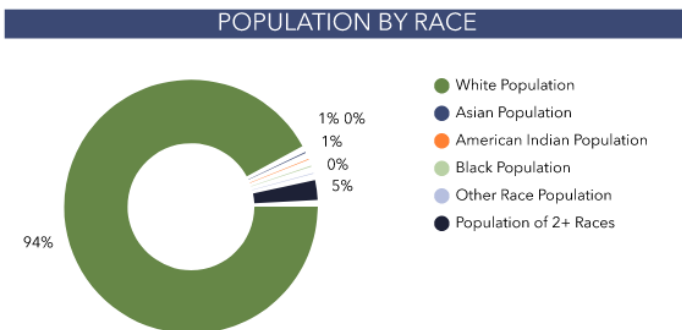
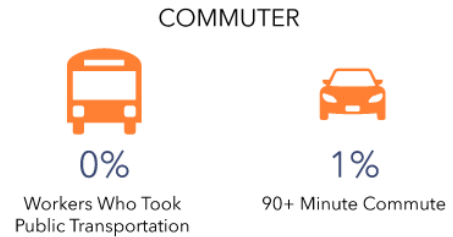
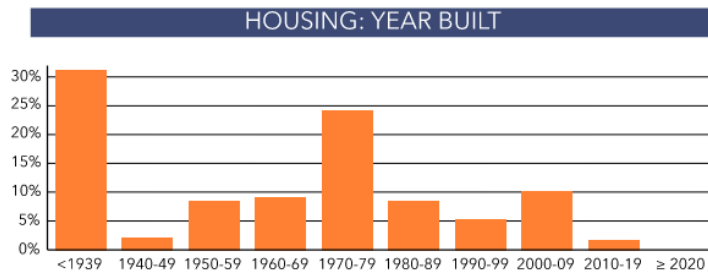
Murray Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

479 Population **45.6** Median Age **\$88,823** Median Household Income **\$150,000** Median Home Value **5.2%** Unemployment Rate **9%** Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	479
2020 Total Population (U.S. Census)	480
2010 Total Population (U.S. Census)	464
2000 Total Population (U.S. Census)	496



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Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Shelli Hayes	Clerk/Floodplain Administrator	Village of Murray	Attended Meetings, Profile Development
Alan Miller		Village of Murray	Attended Meetings; Profile Development
Steve Van Gorp	Assistant Fire Chief	Murray Fire & Rescue	Attended Meetings; Profile Development

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.

Two Board Trustees and the Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Murray will review the plan bi-annually and the public will be notified on the website.

Location and Geography

The Village of Murray is in the eastern portion of Cass County, approximately five miles west of the Iowa border and 10 miles south of the Platte River. The Village covers an area of 0.37 square miles. There are two major bodies of water near the town. The nearest is Beaver Lake about two miles to the east. This is a private residential neighborhood centered around a 300-acre, 50-foot deep lake. The other is the Missouri River five miles east.

Capability Assessment

The planning team assessed the Village of Murray's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes

Capability/Planning Mechanism		Yes/No
	Building Codes	No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	Yes
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	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	No?
	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	No
	Other (if any)	City Tax
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	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	No
	Other (if any)	-

Murray Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Limited	Limited
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	8/15/1975
Floodplain Administrator:	Sheli Hayes
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	1
Total NFIP Premium (\$):	\$399
Total NFIP Coverage (\$):	\$50,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out (\$):	\$-
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The Village of Murray has a floodplain ordinance which requires permits for development within flood risk hazard areas. The village clerk serves as the Floodplain Administrator and is responsible for reviewing and approving all floodplain permits. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. The village enforces local floodplain regulations with the help from the county or state.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in Murray have been removed from the floodplain via LOMA. A summary of LOMAs identified for Murray can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
236	\$32,798,014	14	\$5,670,072	5.9%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
236	\$32,798,014	4	\$248,970	1.7%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM
FIRM Panel	31025C0275D	11/26/2010	Current FIRM
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM
LOMA	11-07-2182A-310305	07/15/2011	LOMA
LOMA	13-07-0818X-310305	01/29/2013	LOMA

Source: Flood Map Service Center

Plans and Studies

Murray has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the Village. There is currently no plan or timeline to update the plan or incorporate the hazard mitigation plan into the next plan. Murray's comprehensive plan limits development in areas adjacent to the floodplain.

Capital Improvement Plan

The capital improvement plan outlines projects the city would like to pursue and provides a planning schedule and financing options. There is no plan or timeline to update the capital improvement plan. The planning team identified sewer lines in the community in need of improvement.

Ordinances and Regulations

The Village's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The Village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. The village's ordinances note: *the mapped floodplain areas within the jurisdiction are established as the floodplain overlay district, as identified in the Flood Insurance Study dated 08/14/2024 and on accompanying FIRM panels as established in §§ [151.10-151.15](#). The floodplain overlay district shall correspond to flood zones A, AE, A1-30, AH, AO, AR, A99. Within this district, all uses not meeting the standards of this chapter and those standards of the underlying zoning district shall be prohibited.*

By having a floodplain ordinance, the Village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for

property owners. The zoning ordinance, subdivision regulations, and floodplain regulations are reviewed annually. These documents limit development in the floodplain and limit development in the wildland urban interface. Structures developed in the floodplain are required to be one foot above Base Flood Elevation.

Building Codes

The building code sets standards for constructed buildings and structures. The Village of Murray has an interlocal agreement with Cass County Zoning for building codes. Cass County has adopted the 2012 International Building Code. Enforcement of the building code is handled by Cass County Zoning and the Village's department of code enforcement.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

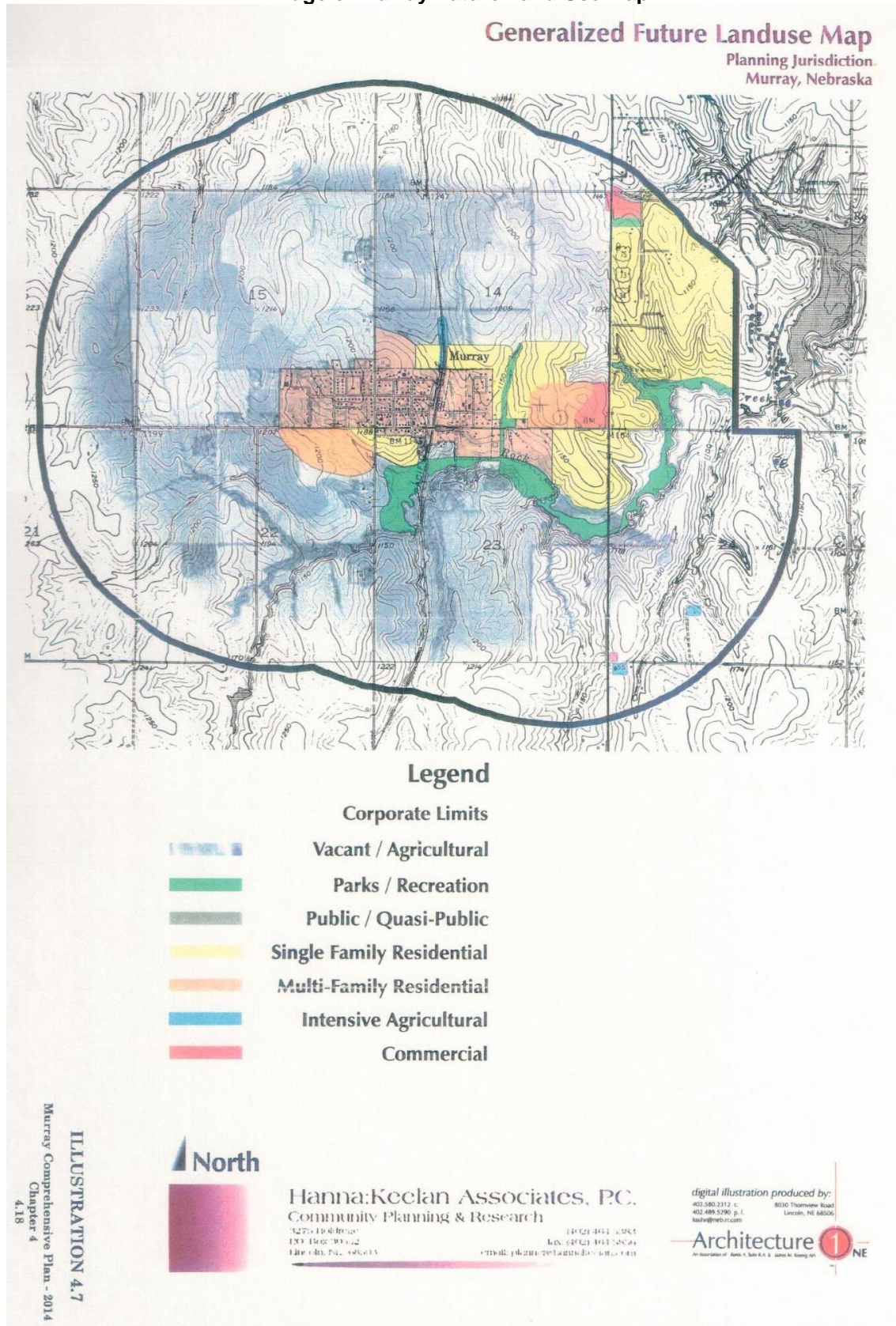
The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that would require evacuation; identifies sheltering locations; and provides clear assignment of responsibility during an emergency. Several departments are familiar with the County LEOP including fire departments and city staff.

Future Development Trends

In the past 10 years several new homes have been constructed, but no other development has occurred. There are no new opportunities and no room to expand housing, but the population has been increasing due to the low cost of living. There are no new housing developments or businesses planned in the next five years.

The 2014 Future Land Use Map below highlights anticipated development trends for the Village of Murray. Low and medium density residential land use is expected to continue to develop surrounding the current municipal limits, with commercial land use planned to the east and northeast along Highway 75. Parks and recreational land use is concentrated toward the south, primarily in designated floodway zones.

Village of Murray Future Land Use Map



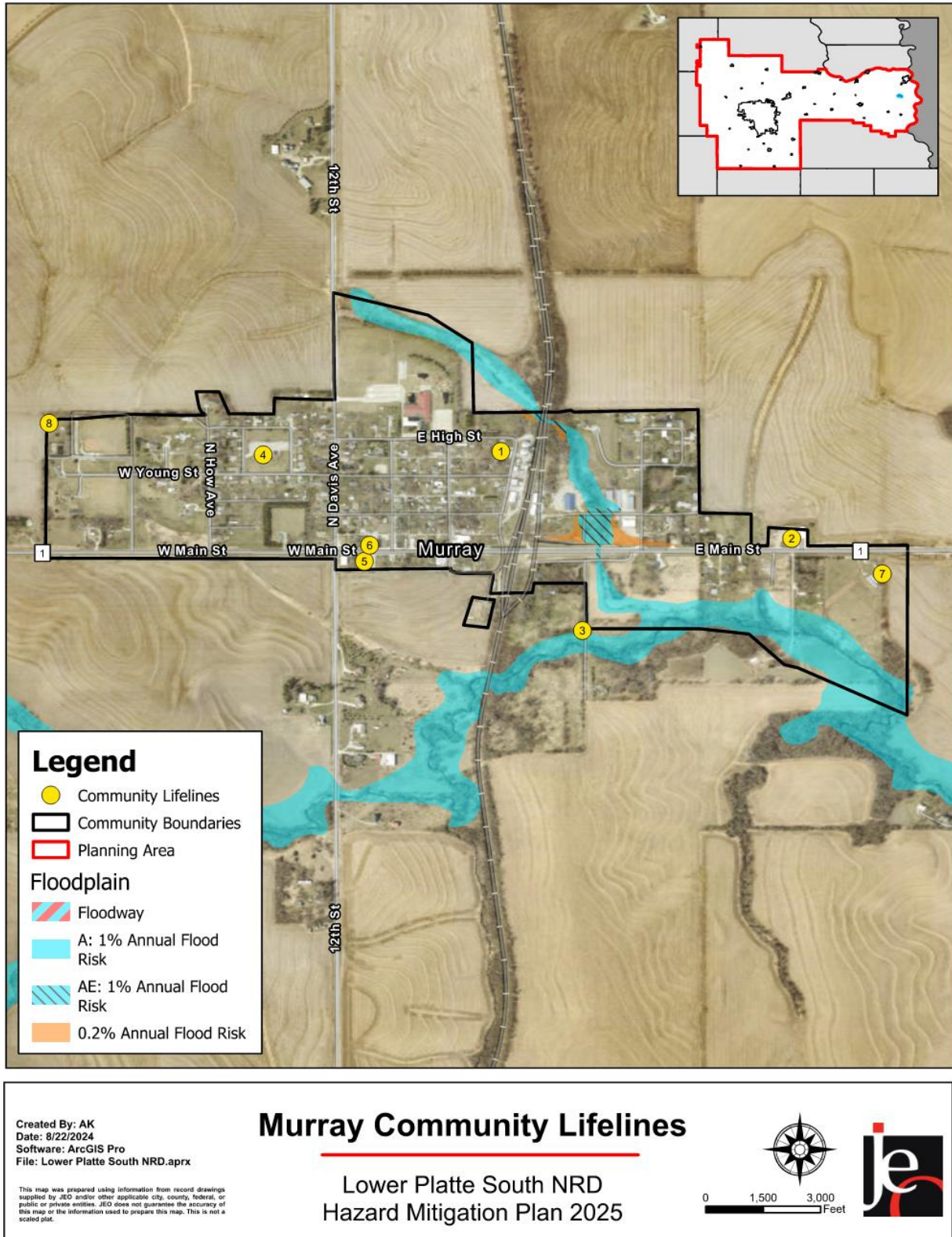
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Murray Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Food, Water, Shelter	Cass County Rural Water District #1	N	N	N
2	Safety and Security	Fire & Rescue	Y	N	N
3	Food, Water, Shelter	Lift Station	Y	N	N
4	Food, Water, Shelter	Murray Christian Church	N	Y	N
5	Food, Water, Shelter	Presbyterian Church (USA)	N	Y	N
6	Safety and Security	Town Hall & Siren	N	N	N
7	Food, Water, Shelter	Water Meter Pit (East)	N	N	N
8	Food, Water, Shelter	Water Tower	N	N	N



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Murray which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Murray. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Hazardous Materials Release

Local concerns exist for chemical transportation spills due to the large volume of chemicals regularly transported through the Village. There are two routes of concern in town: the main UP rail line and Highway 1, which goes through town. Both of which regularly feature hazardous materials related to agriculture and industry. While no spill events have occurred recently, concerns exist for the safety of residents, blocked transportation routes for emergency responders, and potential damage to critical facilities. The town hall is located near these transportation routes. Currently the Village is encouraging Law Enforcement to monitor and enforce traffic speed limits along the highway.

ACTION	Vehicular Barriers
Description	Install vehicular barriers to protect critical facilities and key infrastructure where possible. Vehicular barriers can be utilized to prevent vehicular impacts to critical facilities and key infrastructure.
Hazards Addressed	Hazardous Materials, Terrorism
Estimated Cost	\$5,000 +
Potential Local Funding	DHS, Cass County, Conestoga Public Schools, Village Funds
Lead Agency	Maintenance Department
Timeline	2-5 years
Priority	Low
Status	Not Yet Started

ACTION	Evacuation Planning
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation.
Hazards Addressed	Civic Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$2,000
Potential Local Funding	LPSNRD, Cass County, Village of Murray, Conestoga Public Schools
Lead Agency	Village Board
Timeline	2-5 years
Priority	Low
Status	Not Yet Started

High Winds and Tornadoes

High winds and tornadoes are a concern due to potential impacts on trees, power lines, residential homes, and crops. Thus far, there have been no recent significant tornadic events. Municipal data is backed up on an external hard drive. There are tornado sirens in the county that are activated by the Sheriff's Office in Plattsmouth and all areas of the County are covered by the sirens. In case of power loss, municipal records are backed up on a hard drive. There are no safe rooms in the community, but both the Fire Department and Public School can serve as shelter locations.

Cass County EMA offers text alerts, but there are no additional educational outreach activities in the community. The Fire Department is in a mutual aid agreement, but the town is not.

ACTION	Storm Shelters
Description	Identify, design, and develop storm shelters to protect community and CFs.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms
Estimated Cost	\$200-\$300/sf stand alone; \$150-200/sf addition/retrofit
Potential Local Funding	LPSNRD, Cass County, Village of Murray, Conestoga Public Schools
Lead Agency	Village Board
Timeline	2-5 years
Priority	High
Status	Not Yet Started – this action is currently financially prohibitive

ACTION	Public Education
Description	Increase public awareness of vulnerability and risk reduction measures through hazard education.
Hazards Addressed	Agricultural Disease, Civic Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$1,500
Potential Local Funding	LPSNRD, Cass County, Village of Murray, Conestoga Public Schools
Lead Agency	Village Board
Timeline	2-5 years
Priority	Low
Status	Not Yet Started – need to evaluate education needs and make a plan on how to inform the public of hazards, available resources, who to contact for help after a disaster, and where to receive assistance.

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 agriculture. Ice accumulation on power lines can also cause power outages as less than 1% of powerlines are buried. There are no designated snow routes in town and does not use snow fences. The town maintenance personnel are responsible for snow removal. In the past five years the Village has added a 2nd pickup with a snowblade, and has on call maintenance personnel to assist with snow removal. The Village has also created a snow removal plan which prioritizes school routes and truck routes. There are no weather radios in the critical facilities. At risk trees have been removed in the last five years and a generator has been added at the Fire and Rescue Station.

ACTION	Continuity Planning
Description	Continuity planning helps to ensure that services can be maintained during and after a disaster, particularly after long term power outages.

ACTION	Continuity Planning
Hazards Addressed	Agricultural Disease, Civic Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$1,000
Potential Local Funding	Village Funds
Lead Agency	Village Board
Status	In Progress – drafting plan in progress. Needs reviewed, tested, and revised as required.
Timeline	2-5 years
Priority	Medium

Completed Mitigation Actions

ACTION	Backup Generators
Description	Provide a source of backup power to CFs.
Hazards Addressed	Tornadoes and High Winds, Severe Winter Storms, Severe Thunderstorms
Status	This mitigation action has been completed with the purchase of a backup generator for the lift station.

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 uses in extended loss of fuel supply or electric power supply; plans to purchase local fuel supply; etc.
Hazards Addressed	Extreme Temperatures, Flooding, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	This mitigation action has been completed with a fuel tank in maintenance pickup.

Community Profile

Village of Nehawka

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

Nehawka Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

180

Population

46.1

Median Age

\$76,219

Median Household
Income

\$255,769

Median Home
Value

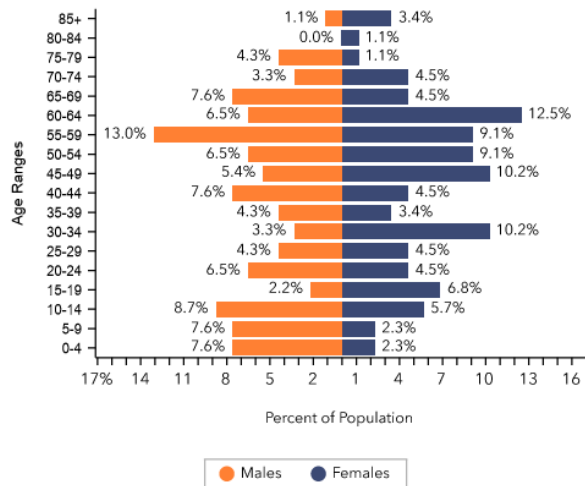
3.4%

Unemployment
Rate

4%

Households Below
the Poverty Level

AGE PYRAMID



TOTAL POPULATION

2023 Total Population (Estimate)	180
2020 Total Population (U.S. Census)	173
2010 Total Population (U.S. Census)	173
2000 Total Population (U.S. Census)	185

AT RISK POPULATION



22

Households With
Disability



28

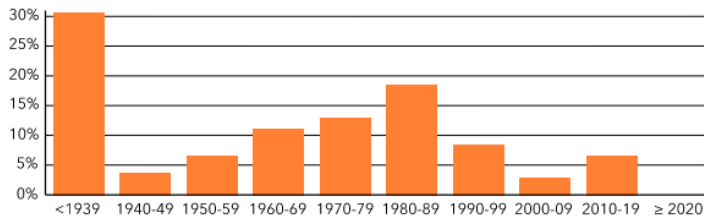
Population 65+



2

Households
Without Vehicle

HOUSING: YEAR BUILT



COMMUTER



0%

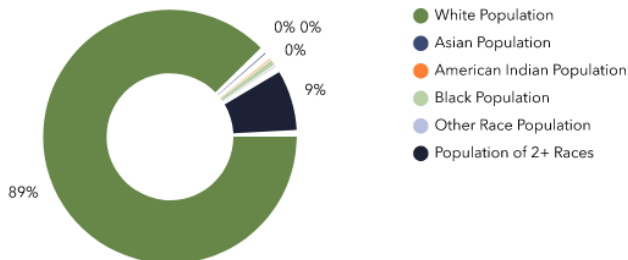
Workers Who Took
Public Transportation



0%

90+ Minute Commute

POPULATION BY RACE



HOUSING



23%

Vacant
Housing Units



17%

Renter
Households



4%

Mobile
Homes



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Pat Neu	Village Board Chairperson	Village of Nehawka	Profile Development
McKenna Sobota	Village Clerk/Treasurer	Village of Nehawka	Profile Development

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 Village Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Nehawka will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Nehawka is in the southeastern corner of Cass County, approximately eight miles west of the Missouri River and 15 miles south of the Platte River. The Village covers an area of 0.23 square miles. There are two waterways near the town that form a confluence. The tributary branch is the North Branch Weeping Water Creek which feeds into the main stem Weeping Water Creek. The confluence is located one-quarter of a mile southwest of town and the creeks flow northwest-to-southeast.

Capability Assessment

The planning team assessed the Village of Nehawka's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	County
	Water System Emergency Response Plan	No

Capability/Planning Mechanism		Yes/No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	County
	Civil Engineering	Contract
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	
Fiscal Capability	1- & 6-Year Plan	No
	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	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)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	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	No
	Other (if any)	

Nehawka Overall Capability

Capability	2020 Plan	20205Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited

Capability	2020 Plan	20205Plan
Staff/Expertise to Implement Projects	Moderate	Moderate
Public Support to Implement Projects	Limited	Limited
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	9/6/1974
Floodplain Administrator:	June Bennett
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	6
Total NFIP Premium (\$):	\$9,201
Total NFIP Coverage (\$):	\$1,344,000
Number of Claims Paid Out:	24
Total Amount of Claims Paid Out (\$):	\$2,338,222
Number of Repetitive Loss Structures:	
Number of Severe Repetitive Loss Structures:	
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The Village of Nehawka requires permits for all development within flood risk hazard areas. The Floodplain Administrator is responsible for reviewing and approving all floodplain permits. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. The village enforces local floodplain regulations with the help from the county or state.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in Nehawka have been removed from the floodplain via LOMA. A summary of LOMAs identified for Nehawka can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
127	\$8,568,772	23	\$2,416,288	18.1%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
127	\$8,568,772	40	\$2,542,994	31.5%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0385D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0405D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0415D	11/26/2010	Current FIRM Panel
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Alvo has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The Village's Comprehensive Plan was last updated in 2012 and includes an action strategy that "future development and redevelopment activities should be supported by a modern infrastructure system consistent of an appropriate water source and distribution, sanitary sewer collection, storm sewer collection, and electrical and natural gas system." The plan also discusses how any future development should be directed in non-sensitive areas including the floodplain and rail corridor. Future potential annexation areas include north and northeast of town.

Ordinances and Regulations

The Zoning Ordinance was last updated in 2012 and prevents development in the floodplain. This includes Subdivision Ordinances which require proper interior drainage for areas being subdivided and reduce flood risk.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

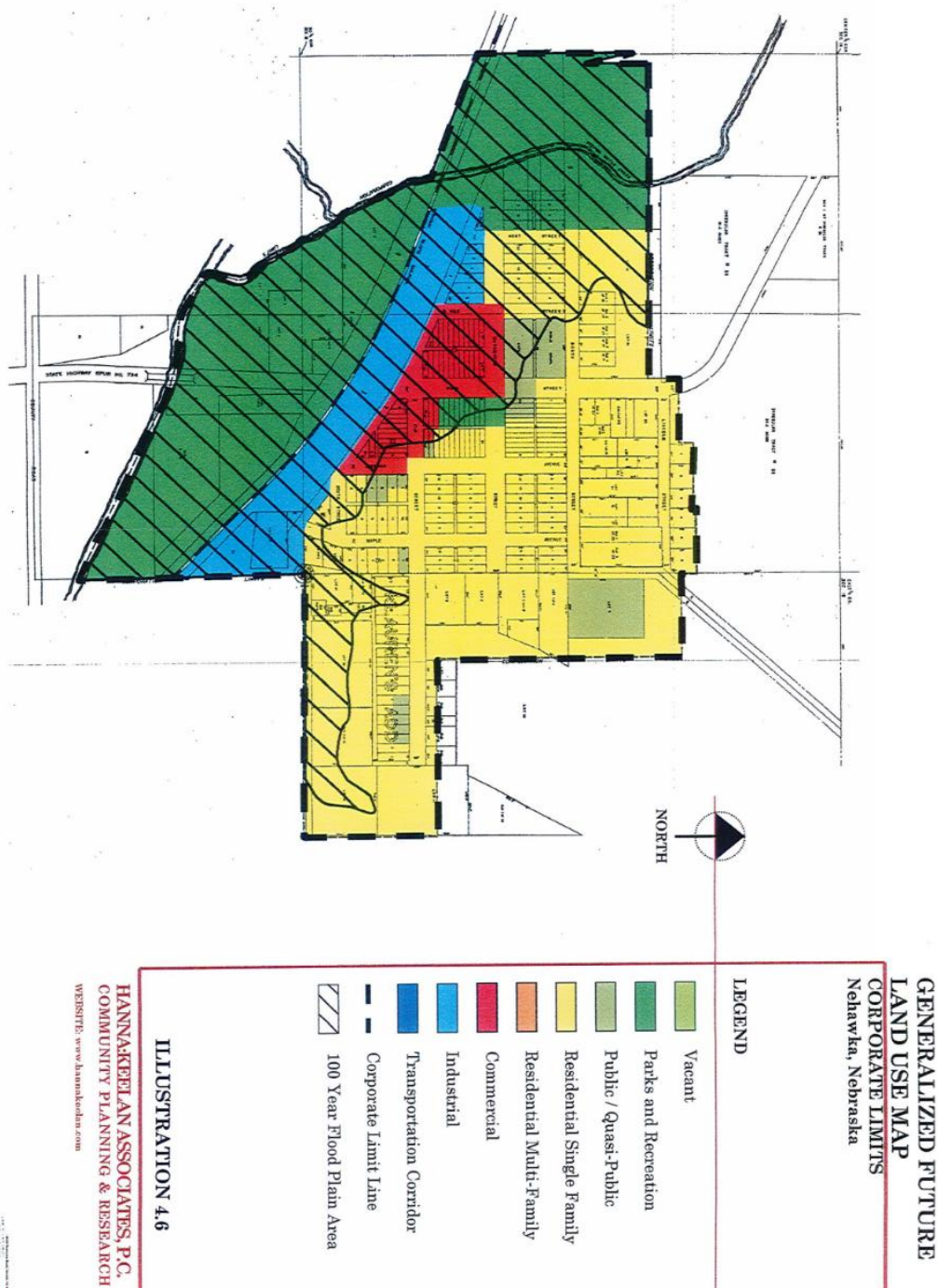
Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

The Village has experienced few changes over the past five years. Historically the community had a property buy-out program after the 1993 flood event which reduced the local housing stock by a quarter. Several businesses have moved in and out of the community in the past decade, but no new business have been established in town in the last five years. Currently there are no new housing or commercial developments planned in the next five years.

Future Land Use Map



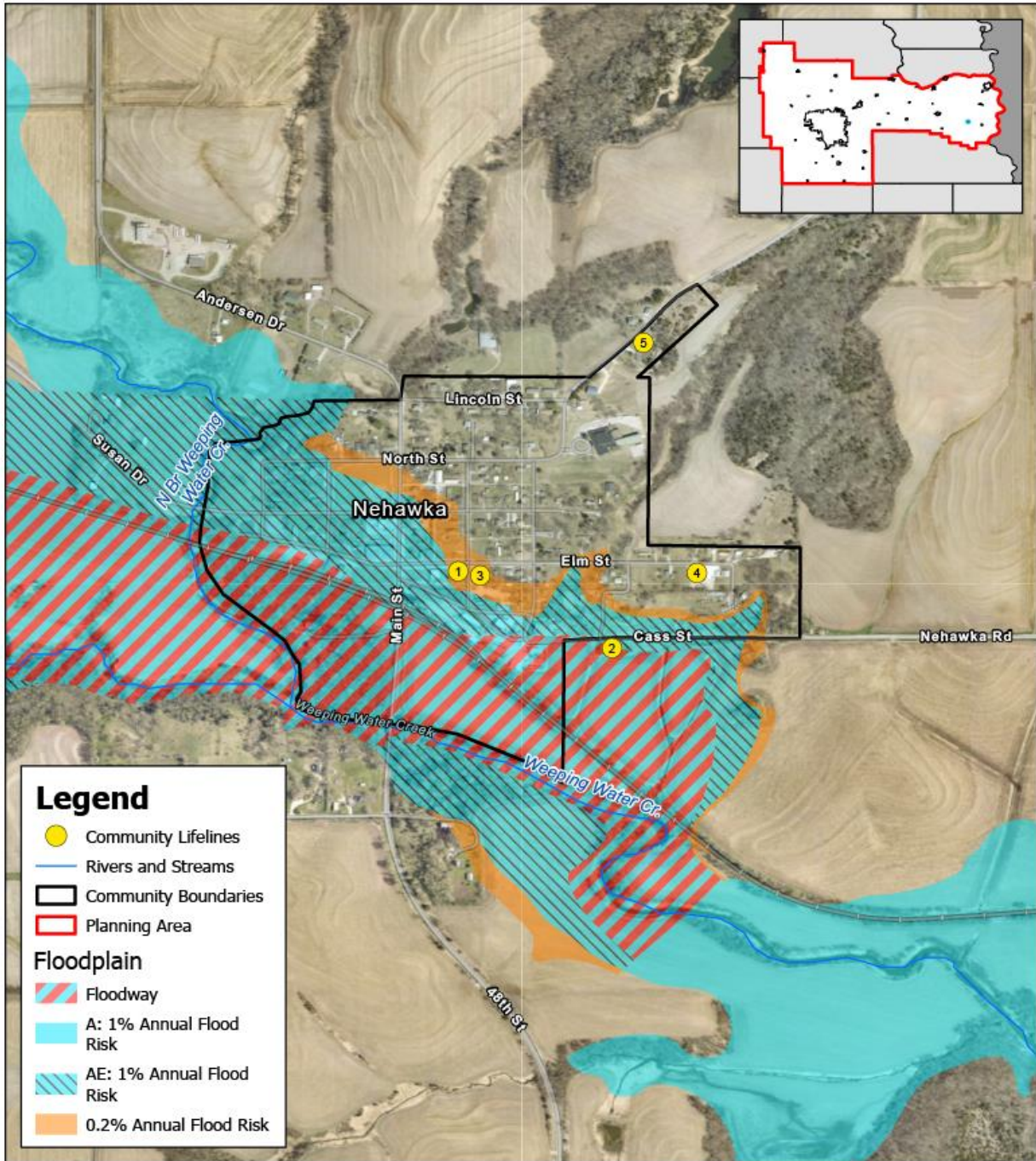
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Nehawka Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Communications	Alert Siren	N	N	Y
2	Food, Water, Shelter	Sewer Treatment Plant	Y	N	Y
3	Safety and Security	Village Office	N	N	Y
4	Safety and Security	Volunteer Fire Department	N	N	N
5	Food, Water, Shelter	Water Tower and Storage	N	N	N

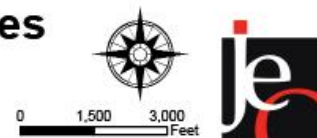


Created By: AK
Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

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

Nehawka Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Nehawka which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Nehawka. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Flooding

The Village is situated alongside the Weeping Water Creek and approximately half of the village is located within the floodplain. The local planning team indicated poor interior drainage and a high groundwater table contribute to interior flooding in town. In particular, heavy rains contribute to flooding and infiltration in the sewer treatment facility. The Village is a participant in the National Flood Insurance Program.

ACTION	Sanitary Sewer Improvements
Description	Undersized systems can contribute to localized flooding. System improvements may include pipe upsizing and floodproofing of sewer treatment facility.
Hazards Addressed	Flooding
Estimated Cost	\$100,000+
Potential Local Funding	General Funds, fundraising efforts, PDM, HMGP, CDBG
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

High Winds and Tornadoes

On May 9th, 2016 an EF2 tornado passed by the Village of Nehawka and destroyed at least one home and damaged numerous others. There are no FEMA certified safe rooms in the village, however the local planning team indicated the community church would be used as a shelter, despite being located within the floodplain. Most residents have basements and a siren is located near the village office. Trees throughout town have dropped branches and pose risk to overhead power lines and property. Storms have also caused significant tree damage and damage to property from dropped limbs. The planning team indicated several ash trees are located throughout town which have been infected with Emerald Ash Borer and need to be removed.

ACTION	Hazardous Tree Removal
Description	Identify and remove hazardous trees in and around the community. This may include trees infected by EAB and experiencing tree mortality.
Hazards Addressed	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
Estimated Cost	\$200+ per tree
Potential Local Funding	General Funds, PDM, HMGP, Arbor Day Foundation
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

Community Profile

City of Plattsmouth

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

Plattsmouth City, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

6,860

Population

40.0

Median Age

\$58,639

Median Household
Income

\$142,290

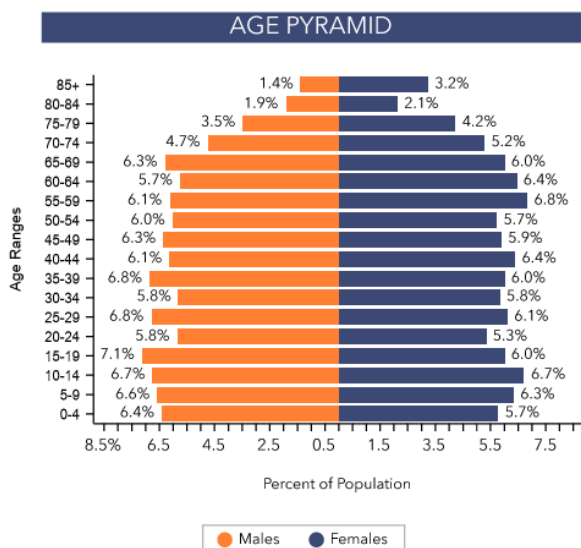
Median Home
Value

1.8%

Unemployment
Rate

11%

Households Below
the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	6,860
2020 Total Population (U.S. Census)	6,544
2010 Total Population (U.S. Census)	6,459
2000 Total Population (U.S. Census)	6,668

AT RISK POPULATION



849

Households With
Disability



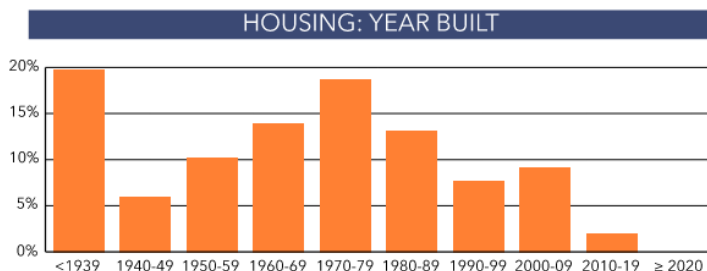
1,322

Population 65+



113

Households
Without Vehicle



COMMUTER



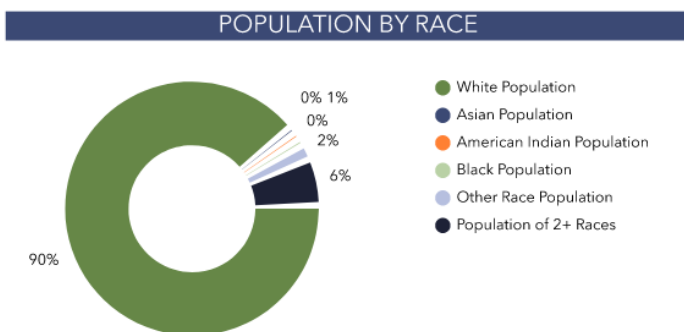
0%

Workers Who Took
Public Transportation



1%

90+ Minute Commute



HOUSING



10%

Vacant
Housing Units



29%

Renter
Households



7%

Mobile
Homes



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Emily Bausch	City Administrator	City of Plattsmouth	Profile Development
Adam Denio	City Inspector	City of Plattsmouth	Profile Development
Nate Taylor	Public Works Director	City of Plattsmouth	Profile Development

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 City Administrator, Building Inspector, and Public Works Director will be responsible for reviewing and updating the community profile outside of the five-year update. The City of Plattsmouth will review the plan bi-annually and the public will be notified through website updates, text alerts, and city council meetings.

Location and Geography

The City of Plattsmouth is in the northeast corner of Cass County and serves as the county seat. The City is directly adjacent to the Schilling State Wildlife Management Area and less than a mile west of the Missouri River, the city's major water way. The City covers an area of 3.11 square miles.

Capability Assessment

The planning team assessed the City of Plattsmouth's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes

Section Seven | City of Plattsmouth Community Profile

Capability/Planning Mechanism		Yes/No
	Wellhead Protection Plan	No – Not needed
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	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	Yes
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	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	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Plattsmouth Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited

Capability	2020 Plan	2025 Plan
Staff/Expertise to Implement Projects	High	Moderate
Public Support to Implement Projects	Moderate	Moderate
Time to Devote to Hazard Mitigation	Moderate	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	5/10/1974
Floodplain Administrator:	Adam Denio
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	39
Total NFIP Premium (\$):	\$58,884
Total NFIP Coverage (\$):	\$8,652,000
Number of Claims Paid Out:	24
Total Amount of Claims Paid Out (\$):	\$2,338,222
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	1
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The City of Plattsmouth plans to continue its involvement with the NFIP in the future. Floodplain development permits are required and are reviewed by the Floodplain Administrator. The permit may be approved, sent back for revisions, approved conditionally pending final elevation certification, or denied. New and substantially improved structures must meet existing regulations and building codes and can not be built within flood hazard risk areas. Regulatory development prohibits manufactured or mobile homes be built or moved into the SFHA. Plattsmouth requires elevation of new and substantially improved structures to be built of floodproofed to an elevation of one foot above Base Flood Elevation (BFE).

The FEMA Map Service Center, the FEMA LOMA lookup site, and the Nebraska Department of Natural Resources are reviewed to determine flood risk hazard areas. To identify substantially damaged structures, the City uses the 2022 State of Nebraska Flood Damage Assessment Packet which includes the FEMA Substantial Damage Estimator as well as notice and determination form letters.

Barriers to effectively running NFIP include budget, mitigation, and group participation. The City does not have access to information regarding which policy holders have limited coverage. Older stock homes without bank requirements for the protection of assets may not pay for flood insurance, as it is not a requirement.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several

structures in Plattsmouth have been removed from the floodplain via LOMA. A summary of LOMAs identified for Plattsmouth can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2587	\$366,784,338	276	\$42,933,600	10.7%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2587	\$366,784,338	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0115D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0120D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0140D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0255D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0260D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0300D	11/26/2010	Current FIRM Panel
LOMA	11-07-1270A-310033	05/10/2011	Current LOMA
LOMA	11-07-1568A-310033	06/07/2011	Current LOMA
LOMA	12-07-0935A-310033	03/13/2012	Current LOMA
LOMA	13-07-0529A-310033	01/22/2013	Current LOMA
LOMA	18-07-1099A-310033	04/02/2018	Current LOMA
LOMA	19-07-1118A-310033	05/07/2019	Current LOMA
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel
FIRM Panel	31025C0115E	08/14/2024	Pending FIRM Panel
FIRM Panel	31025C0120E	08/14/2024	Pending FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Plattsmouth has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the City updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The Plattsmouth Plan for the City was last developed and updated in 2015. The comprehensive plan is designed to guide the future actions and growth of the City. The City plans to update the Comprehensive Plan in 2026. As of 2024 the city was doing a site-specific study to update the Future land Use map.

Following the guidance of the plan, the City has acquired several areas near and adjacent to the Missouri River and has limited the use to recreational or green reserve space. In the future the City may look at implementing buffer zones adjacent to the floodplain and/or floodway.

A key section in the plan related to stormwater management for the City is included below:

Storm Drainage and Flood-Prone Areas

Plattsmouth has a limited storm drainage system. Combination sewers in older parts of the city, downtown, and along Chicago Avenue provide limited service. Most storm drainage uses the natural topography of the city. As a result, most major drainageways fall within 100-year flood plain areas. The largest of these is the Missouri River flood plain, east of the Burlington Northern tracks on the eastern edge of the city. The Rhylander Park and Webster Boulevard drainageways are also located within the 100-year flood plains. Chicago Avenue's flood-prone area is narrowly drawn along the street channel. These drainageways converge in the downtown. As a result, a substantial proportion of the district, mostly south of Main Street east of 5th Street, and between 5th and 6th streets between Avenue A and 1st Avenue is located within the flood plain.

The city's plans to upgrade and redesign Chicago Avenue include a retention pond. These improvements should relieve flooding problems along Chicago Avenue into downtown. The city should work with the Corps of Engineers and the Natural Resource District to determine possible flood control alternatives for key parts of Plattsmouth. Flooding has a particular impact on parts of downtown and on the Webster, Chicago, and Rylander drainageways.

Key goals as part of the plan's Smart Goals include:

- Adopt land development guidelines that promote smart growth.
- Utilize floodplain, wetlands, and contour maps in review of subdivisions. Ensure that Critical areas are accommodated in development plans.
- Plattsmouth should implement an annexation policy that incorporates developing areas, meets state statutory requirements as urban in nature, and meets one or more criteria for incorporation into the city.

Ordinances and Regulations

The City's zoning ordinance outlines where and how development should occur in the future and its subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The City's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the City promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for property owners. The City intends to evaluate and update existing ordinances after the Comprehensive Plan will be updated in 2026.

Building Codes

The building code sets standards for constructed buildings and structures. Plattsmouth implements Cass County's building codes which are the 2018 International Building Code. Enforcement of the code and inspection is done through the City Building Inspector.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields,

hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

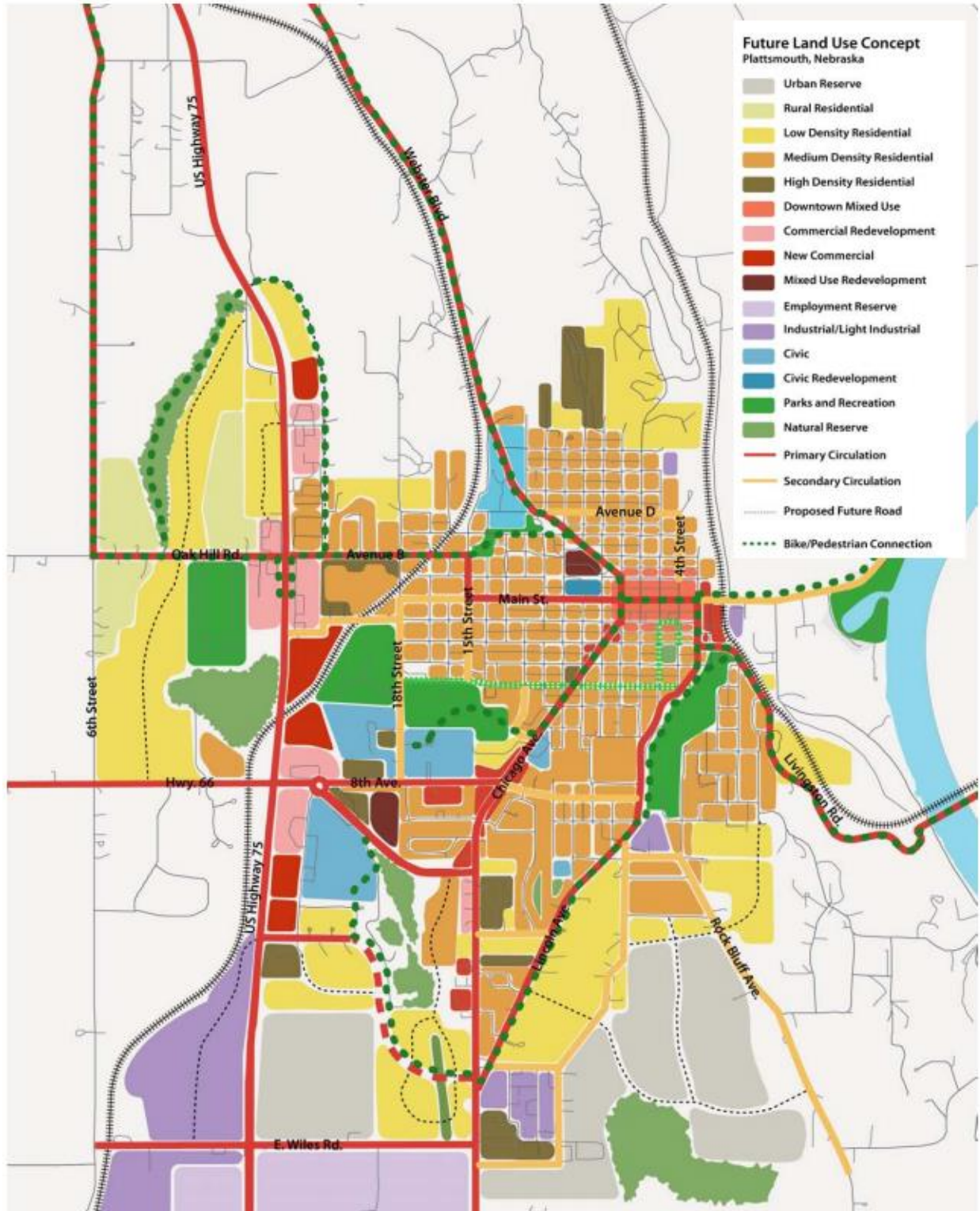
Future Development Trends

The City of Plattsmouth has experienced several changes in the past decade years. New businesses include: La Catrina Grill, Milano's Italian, Mi Gente, Margaritas Grill & Cantina, Busy Bistro, Verio resources and New Age Manufacturing. New multifamily developments include: the Historic apartments, Lofts on Main and The Brink at Ridgeview. The historic Apartments and Lots on Main in Plattsmouth have levered tax-increment-financing and historic tax credits to restore the former Plattsmouth High School into apartments. In the future new businesses and industries are expected along the Hwy 75 retail corridor with the expansion of the highway and along Main St.

The City's population is relatively stable; however, the recent relocation of several mobile home operations has reduced available spots for mobile homes. In the last decade at least 36 new homes have been constructed. The School house apartments have 26 units and was built as part of a Historic Tax Credit and LIHTC project from a dilapidated property. The City has relocated the drinking water and wastewater treatment plants as part of the 2019 flood recovery.

New housing developments are planned in the coming years including near downtown, S 15th St, Washington Ave, Chicago Ave, and near Hwy 75. There are additional infill opportunities near the old high school and Main St. The planning team indicated some strategic corridors for future development are designated as blighted and substandard, paving the way for tax-increment financing and other public incentives to improve business and housing opportunities.

Future Land Use Map



Community Lifelines

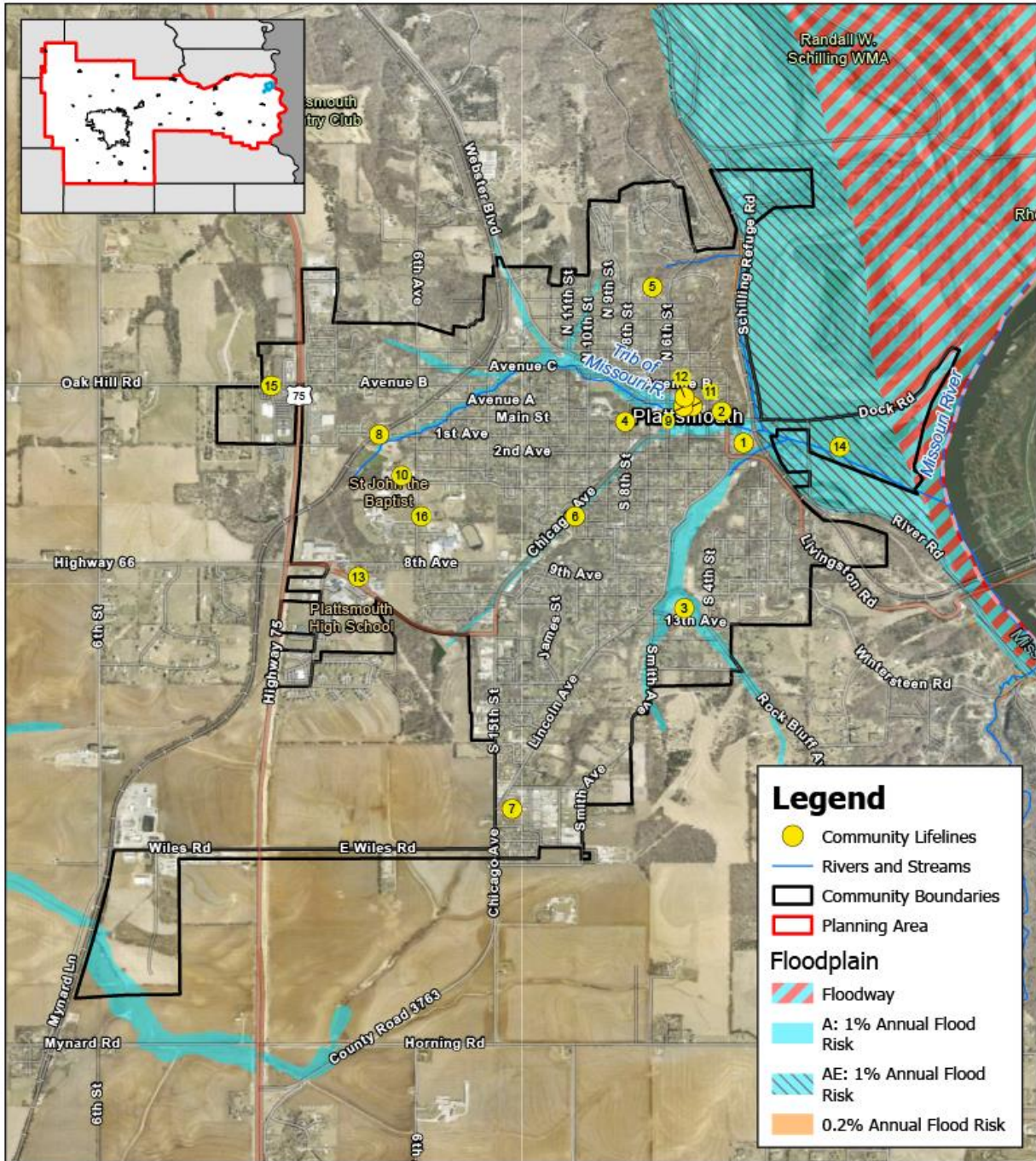
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Plattsmouth Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Energy	Black Hills Energy Shop	N	N	N
2	Safety and Security	Cass Courthouse, LEC, Police Department, Jail, Annex	Y	N	N
3	Transportation	City Shops	N	N	Y – 100y
4	Food, Water, Shelter	City Water Plant & Well Field*	Y	N	Y
5	Food, Water, Shelter	North Water Tower	N	N	N
6	Transportation	NPPD Office	N	N	N
7	Transportation	NPPD Shop	N	N	N
8	Safety and Security	NRD Dam/City Pond	N	N	N
9	Safety and Security	Plattsmouth City Hall	Y	N	N
10	Food, Water, Shelter	Plattsmouth Community Center	N	Y	N
11	Safety and Security	Plattsmouth Volunteer Fire Department	Y	N	N
12	Other	St. Paul Church of Christ	U	Y	N
13	Health and Medical	UNMC Clinic	N	N	N
14	Food, Water, Shelter	Wastewater Plant*	Y	N	Y- 100y
15	Food, Water, Shelter	Westside Lift Station	Y	N	N
16	Food, Water, Shelter	White Water Tower (south)	Y	N	N
17	Food, Water, Shelter	Plattsmouth High School	N	Y	N
18	Food, Water, Shelter	Plattsmouth Middle School	N	Y	N
19	Food, Water, Shelter	Plattsmouth Elementary School	N	Y	N

**part of relocation projects out of the floodplain to be completed in 2027*

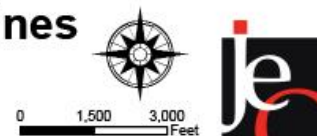


Created By: AK
Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

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

Plattsmouth Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Plattsmouth which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Plattsmouth. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

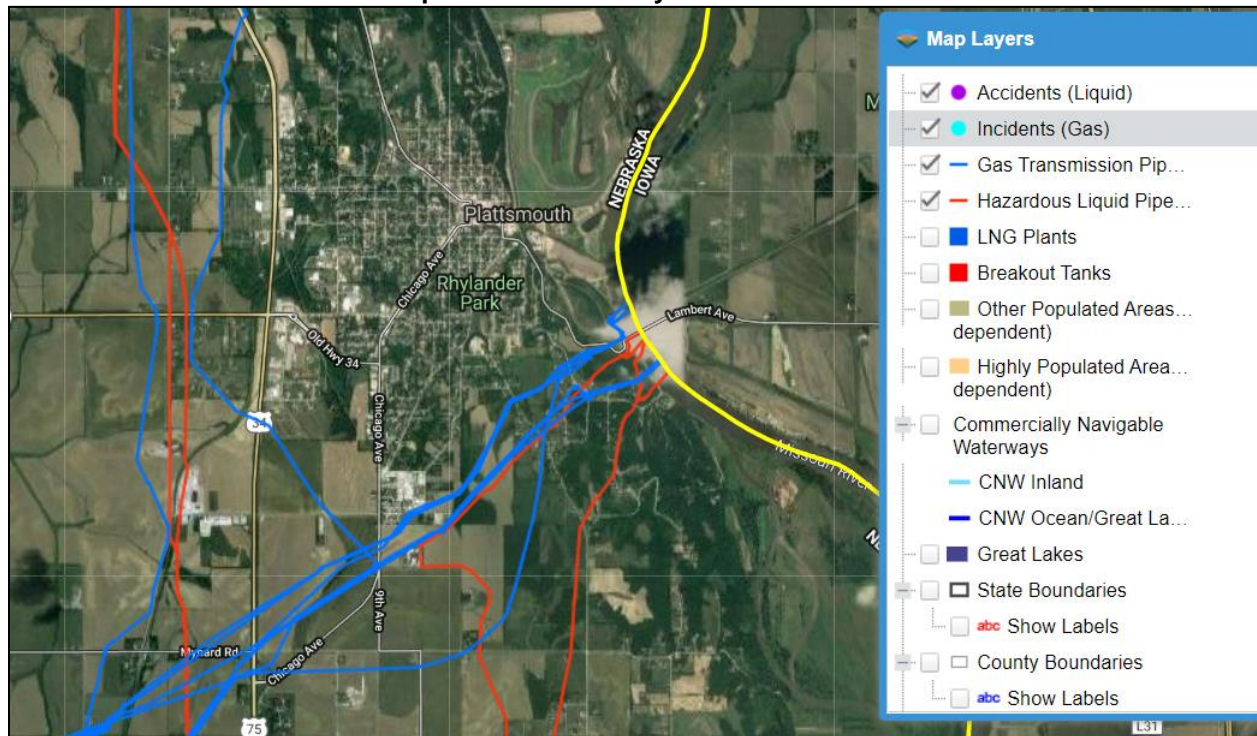
HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$-	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	
TOTAL		1,994	1074	\$22,746,478.00

Hazardous Materials Release (Transportation)

Chemical transportation spills are a concern for the city due to the high volume of chemicals transported via the Union Pacific and BNSF rail lines and Highways 34 and 66. Numerous critical facilities are located along these main transportation corridors and would be at risk in the case of a chemical transportation spill. The water treatment plant is located between the Missouri River and the BNSF line. There is also a high hazard dam adjacent to the Union Pacific line. Vulnerable populations at risk include mobile homes, low income residents, or those with decreased mobility. While two rail spill events have occurred in Plattsmouth according to the PHMSA, neither produced property damage, injuries, or fatalities. One event occurred in 1974 when a derailment occurred; however, no injuries or spillage was reported. The second was in 2009 when a leaking oil tanker spilled three liquid gallons on its side shell during loading.

Additionally, there are several gas and hazardous liquid pipelines surrounding the City. The figure below from the National Pipeline Mapping System provides a map of transmission lines around the city. Many of these transmission lines cross underneath the Missouri River into neighboring counties and communities. There have been no major leaks or failures of these transmission lines reported.

Pipelines around City of Plattsmouth



ACTION	Shelter-In-Place Training
Description	Ensure that all critical facilities, businesses, and residents located near major transportation corridors are aware of how to safely shelter in place in the case of a chemical incident
Hazards Addressed	Chemical Spills (Transportation)
Estimated Cost	\$1,000+
Potential Local Funding	Emergency Management, General Funds
Lead Agency	Emergency Management, City Administration

ACTION	Shelter-In-Place Training
Timeline	2-5 years
Priority	Low
Status	This action not yet started.

Flooding

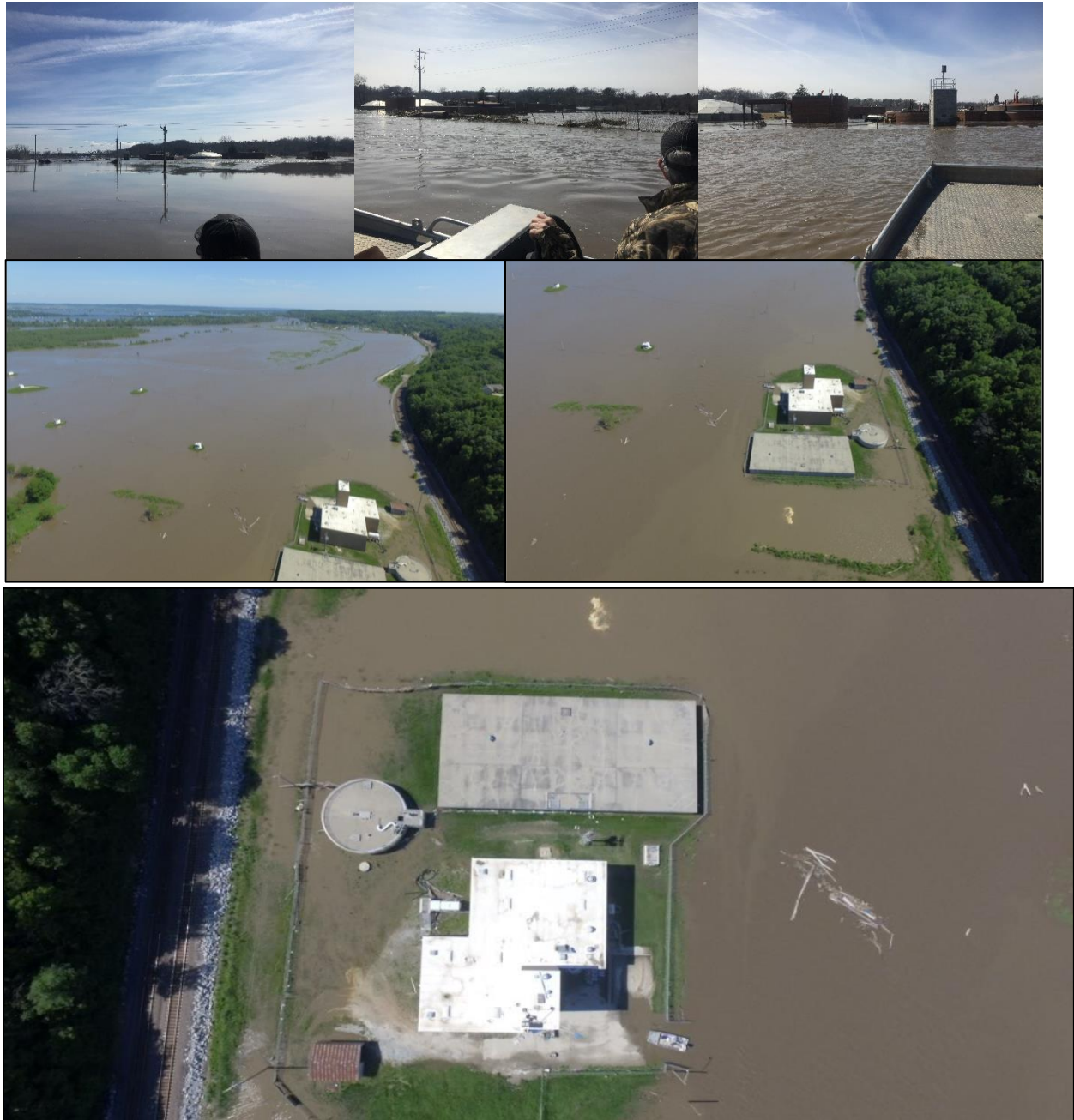
The local planning team identified flooding as a top concern for the community. Plattsmouth has an extensive history of previous flooding, as documented below. Several critical facilities including the NPPD Office, Water Plant, Wastewater Plant are located within the floodplain or are at significant threat of flooding. Previous events include:

- In 1984, the Missouri River flooded with a crest of 34.66' and it caused damage to a wastewater treatment plant clarifier.
- In 1993, the Missouri River flooded with a crest of 35.65' and it destroyed the house at the water treatment plant, damaged the electrical in well house #1, and caused a levee breach above the well field. There was also one drowning fatality in floodwaters north of the well field.
- In 2010, the Missouri River flooded, and it collapsed the main interceptor sewer to the wastewater plant, as well as causing pump damage from silt. As a result, the wastewater plant was out of order for months.
- In 2011, the Missouri River flooded with a crest of 36.73' and it collapsed the main interceptor sewer to the wastewater plant. The boat ramp and park on the Missouri River were entirely destroyed. East Main Street was washed out and there was one reported home, and three of seven water wells were inundated and destroyed. The city was at risk of completely losing the entire water plant due to structural and electrical damage. According to city officials, public infrastructure damage exceeded \$2,500,000. After the 2011 flood, two of the city wells were written off and a new well was built three feet above base flood elevation and has backup power. In 2011, a sewer separation project was completed which installed a 36" pipe underneath Main Street to assist in stormwater management. The pipe helps protect the city for average heavy rain and flooding from storms with a 3-5" rainfall.
- The March 2019 flood is the most severe flood on record for the City of Plattsmouth. The Platte River cut a shortcut to the Missouri River on the northeast corner of town approximately 1.1 miles west of the Platte River and Missouri River confluence. This entirely inundated the Shilling Wildlife Management Area Refuge and the eastern edge of the city. Homes along the edge of the river near the confluence were flooded and destroyed. The new route also flooded the sand and gravel pits northeast of Plattsmouth and the Pallid Sturgeon chutes east of town. Between the starting point of the river embankment which gave way and the Missouri River rejoin point east of town, there is a seven-foot topographic drop. All city wells and the water treatment plant were flooded and sustained severe damage. The local planning team reported the water treatment plant had over 10 feet of floodwater inundate the facility.

As of November 2019, the water treatment plant is still surrounded by flood water and can only be accessed via heavy utility vehicles through flood waters. Only one of five wells resumed operations in late July 2019. This well was elevated after the 2011 flood. Of the remaining four, one was entirely destroyed, one is in progress to resume operations, and the last is non-operational. The city is currently at 60% design phase for the water main distribution line project to purchase water wholesale from Metropolitan Utility district (MUD) north of the river. These projects expected completion time is summer 2026.

Additionally, the City is exploring funding options to purchase properties located along the river. The 2019 flood also significantly damaged the boat ramp and park at the end of Main Street which is used heavily by various state and federal agencies. The estimated total recovery cost for the City of Plattsmouth from the 2019 flood event is more than \$100,000,000.

Water Treatment Plant Flooding in Plattsmouth



There were also two documented major floods occurring in 1956 and 1974 from the previous hazard mitigation plan. The flooding in the city generally results from heavy rain and snow melt. Two main transportation corridors through town, Washington and Chicago Avenues, are prone to

flooding during severe events. The Platte and Missouri River overflow their banks and inundate the floodplain on the outskirts of town.

ACTION	Property Acquisitions
Description	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
Hazards Addressed	Flooding
Estimated Cost	\$1,500,000
Potential Local Funding	General Funds, CDBG, USDA, HMGP, PDM
Lead Agency	City Administration, NeDNR
Timeline	1 year
Priority	High
Status	The City is in the process of working with NeDNR for property acquisitions of repetitive loss properties.

ACTION	Relocate Water Treatment Plant
Description	Relocate the City's water treatment plant out of the floodplain.
Hazards Addressed	Flooding
Estimated Cost	\$20,000,000
Potential Local Funding	FEMA 428 Funds, Flood Insurance, SRF, Enterprise Funds, USDA
Lead Agency	City Administration
Timeline	2-3 years
Priority	High
Status	In Progress. MUD water main project is at 60% design phase and new sewer plant is currently under construction. Completion expected fall 2025.

ACTION	Water Distribution Line/Primary Water Source Line
Description	Connect to the MUD water plant and buy water wholesale to supply the City of Plattsmouth with a drinking water supply.
Hazards Addressed	Flooding, Drought
Estimated Cost	\$18,000,000+
Potential Local Funding	Enterprise Fund, HMGP, PDM
Lead Agency	City Administration
Timeline	2-5 years
Priority	High
Status	In progress. City is working with MUD and FEMA to implement alternative water source.

Severe Thunderstorms

Severe thunderstorms occur annually in the planning area and are typically associated with heavy rain, lighting, high winds, and hail. A June 2017 storm with high winds caused damage to the majority of trees in town which blocked transportation routes, downed power lines, and had to be removed by the City. Most of these trees have since been replaced with new trees but are still at risk for future severe events. Severe thunderstorms have also caused damage to the senior

community center and residential homes throughout town. Lightning strikes have damaged electrical equipment at the water treatment plant. Few power lines are buried in Plattsmouth and critical facilities lack weather radios. The local planning team indicated that sirens are located throughout the City. The siren at 17 and Chicago is being replaced in 2025 and Ave B siren will be replaced in 2026 due to the outdated analog sirens. Heavy rainfall events can cause significant interior flooding, particularly along Washington and Chicago Streets. The topography along these routes contribute to interior flooding. The local planning team has identified the need for mitigation measures to slow the flow of water through the area; however, current development in the area inhibits potential structural measures.

ACTION	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, shelters, or other critical facilities
Hazards Addressed	All Hazards
Estimated Cost	Varies based on need
Potential Local Funding	Enterprise and General Funds, USDA, ADA
Lead Agency	City Administration
Timeline	2-5 years
Priority	Medium
Status	This action has not yet started. Evaluating generator status for the city hall/community shelter.

ACTION	Urban Drainage Study
Description	Conduct an Urban Drainage Study to analyze the impact on the Washington and Chicago corridors from significant rainfall events.
Hazards Addressed	Severe Thunderstorms, Flooding
Estimated Cost	\$30,000
Potential Local Funding	Enterprise Funds
Lead Agency	Clerk
Timeline	2-5 years
Priority	Medium
Status	This action has not yet been started.

Severe Winter Storms

Severe winter storms are common across the planning area and the City of Plattsmouth. Local concerns include access for emergency services to reach residents, snow removal resources, loss of power, and safety of vulnerable populations. The winter of 2008-2009 produced heavy rain on top of snow pack and had significant damage to local buildings and equipment. The Streets Department is responsible for clearing roads of snow and the local planning team indicated that snow removal resources need to be updated and replaced. The City has designated snow routes but does not have snow fences. While the middle and high schools are used as shelter locations, in the case of power loss they do not have backup generators.

ACTION	Backup Municipal Records
Description	Develop protocol for backing up critical municipal records onto a portable storage device or service. Ensure all records are secure in case of long term power loss.

ACTION	Backup Municipal Records
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes, Extreme Temperatures
Estimated Cost	\$100 for external hard drive
Potential Local Funding	General Fund
Lead Agency	Administration
Timeline	1 years
Priority	Low
Status	This is a new mitigation action.

Other Hazards of Concern

Dam Failure

The City of Plattsmouth has five high hazard dams located within or adjacent to the city boundaries. The dams were constructed with the assistance of the Lower Platte South NRD but are now owned and maintained by the City of Plattsmouth. All dams are inspected annually, and high hazard dams have Emergency Action Plans in the case of a dam failure. While no dam failure events have occurred on record, dam failure is a hazard of concern due to the high potential for property damage and loss of life. The local planning team indicated that dams 10A and 18A typically hold water, while the others rarely, if ever, hold water in town.

At this time there are no additional mitigation actions the City has identified to address Dam Failure.

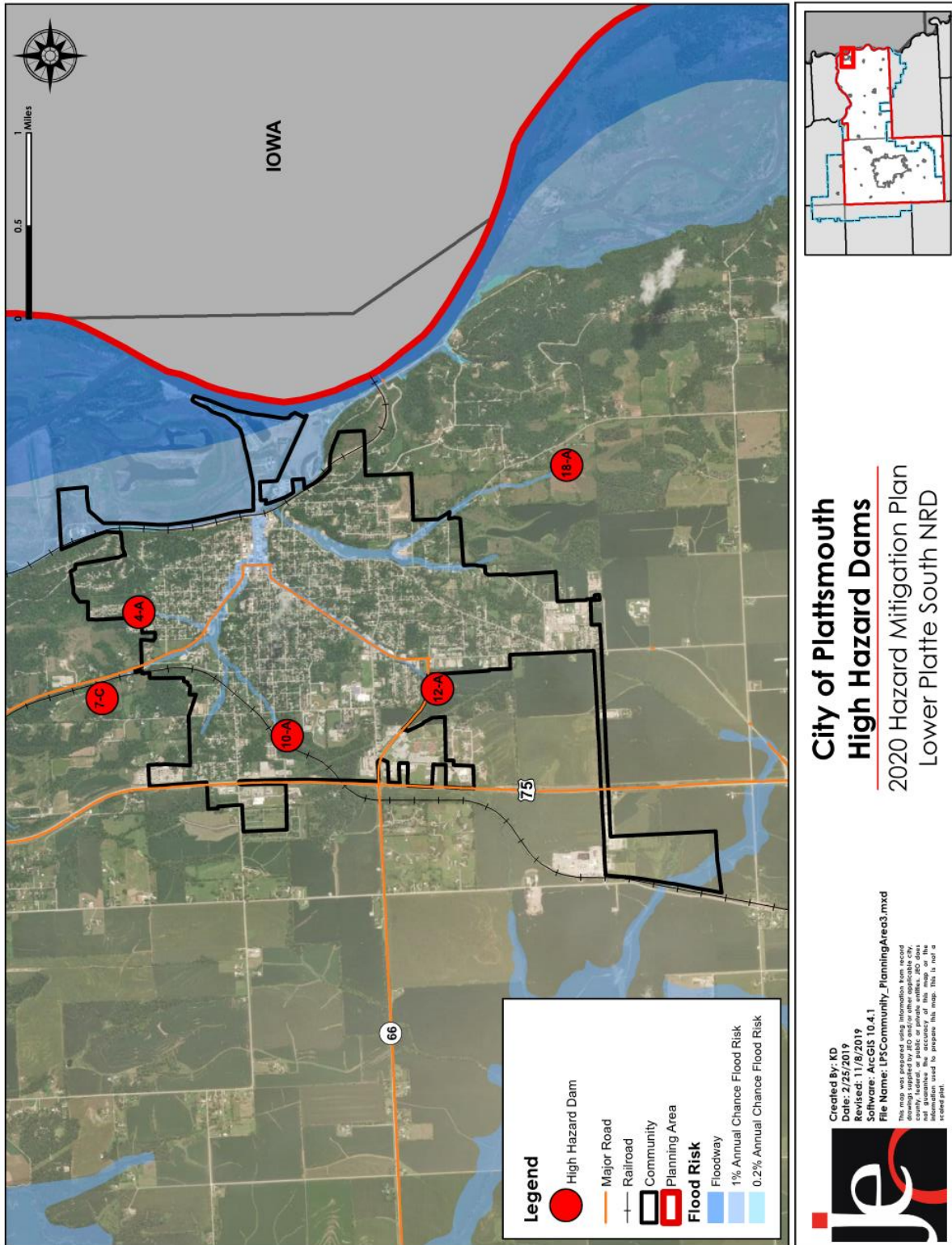
High Hazard Dams in Plattsmouth

Dam ID	Dam Name	Owner	River System
NE00097	PLATTSMOUTH 10-A	City of Plattsmouth	Missouri River
NE00098	PLATTSMOUTH 18-A	City of Plattsmouth	Missouri River
NE00099	PLATTSMOUTH 12-A	City of Plattsmouth	Missouri River
NE01888	PLATTSMOUTH 4-A	City of Plattsmouth	Missouri River
NE01889	PLATTSMOUTH 7-C	City of Plattsmouth	Four Mile Creek

Completed/Removed Mitigation Actions

ACTION	Preserve Natural and Beneficial Functions
Description	Preserve natural and beneficial functions of floodplain land through measures such as: retaining natural vegetation, restoring streambeds, and preserving open space in the floodplain
Hazards Addressed	Flooding
Status	The City has zoned to restrict development along the riverfront for non-residential use. These areas are now used for commercial campgrounds.

High Hazard Dams in Plattsmouth



Community Profile

Village of South Bend

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

South Bend Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

84 48.8 \$111,614 \$392,857 0.0% 3%

Population

Median Age

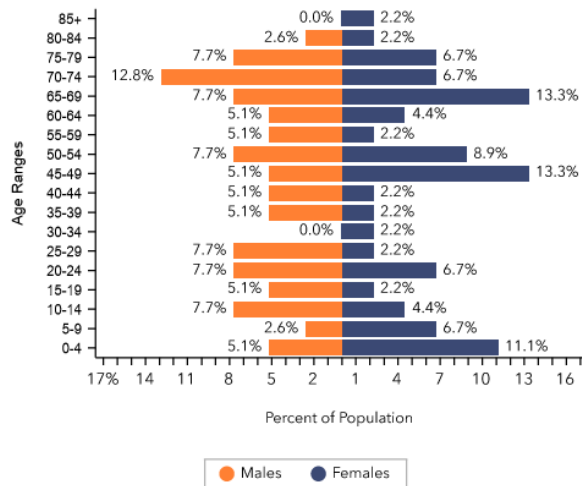
Median Household
Income

Median Home
Value

Unemployment
Rate

Households Below
the Poverty Level

AGE PYRAMID



TOTAL POPULATION

2023 Total Population (Estimate)	84
2020 Total Population (U.S. Census)	92
2010 Total Population (U.S. Census)	76
2000 Total Population (U.S. Census)	67

AT RISK POPULATION



6

Households With
Disability



26

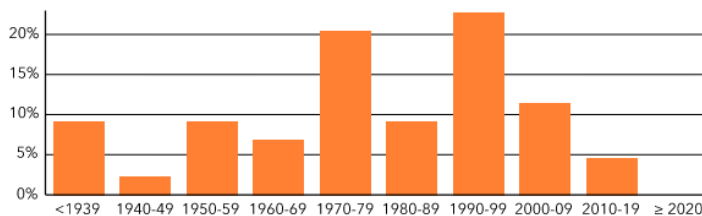
Population 65+



0

Households
Without Vehicle

HOUSING: YEAR BUILT



COMMUTER



0%

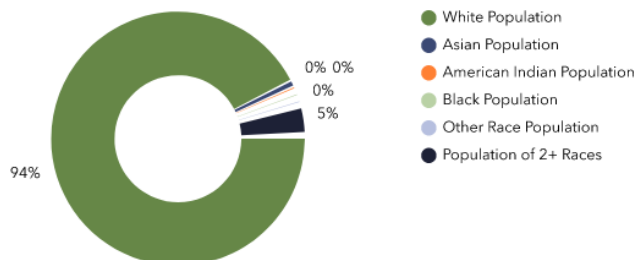
Workers Who Took
Public Transportation



3%

90+ Minute Commute

POPULATION BY RACE



HOUSING



14%

Vacant
Housing Units



16%

Renter
Households



7%

Mobile
Homes



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction
Deborah Cunningham	Village Clerk	Village of South Bend

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 Village Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of South Bend will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of South Bend is in the northwest portion of Cass County, directly on the Platte River and less than a mile south of the County line. The Village covers an area of 0.13 square miles. There are two waterways near the town. The largest is the Platte River, less than a mile east of town, which flows south. The smaller waterway is the Fountain Creek, a tributary of the Platte, which flows east into the main stem.

Capability Assessment

The planning team assessed the Village of South Bend's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes, 2000
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes – County
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	County
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	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	Yes
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	

Section Seven | Village of South Bend Community Profile

Capability/Planning Mechanism		Yes/No
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, 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)	

South Bend Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Moderate	Moderate
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	7/10/1979
Floodplain Administrator:	Deborah Cunningham
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	10
Total NFIP Premium (\$):	\$7,308
Total NFIP Coverage (\$):	\$1,155,000
Number of Claims Paid Out:	1
Total Amount of Claims Paid Out (\$):	\$-
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The Village of South Bend has a floodplain ordinance which requires permits for development within flood risk hazard areas. The village clerk serves as the Floodplain Administrator and is responsible for reviewing and approving all floodplain permits. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. The village enforces local floodplain regulations with the help from the county or state.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several structures in South Bend have been removed from the floodplain via LOMA. A summary of LOMAs identified for South Bend can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
58	\$4,429,045	50	\$3,970,325	86.2%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
58	\$4,429,045	1	\$103,740	1.7%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0050D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0065D	11/26/2010	Current FIRM Panel
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel

Source: Flood Map Service Center

Plans and Studies

South Bend has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the Village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The 2000 comprehensive plan is designed to guide the future actions and growth for South Bend. One of the comprehensive plan components is that it is reviewed annually with major updates occurring every 10 to 15 years. The hazard mitigation plan has not been integrated into the comprehensive plan; however, the comprehensive plan does include goals and objectives aimed at Smart Growth. These include practicing good conservation practices when developing and encouraging multiple housing types.

Ordinances and Regulations

The village's zoning ordinance outlines where and how development should occur in the future and the subdivision regulations govern the division of land from one or more larger parcels into smaller lots. South Bend has a floodplain overlay district outlined in its zoning ordinance that

describes requirements for structures and developments located within the overlay district. Development is permitted in the ETJ but limited in the floodplain. Structures need to be developed at least one foot above Base Flood Elevation.

Building Codes

The Village of South Bend has adopted the Cass County building code, which is the 2018 International Building Code to set standards for constructed buildings and structures. Enforcement of the building code is handled by the Cass County Zoning Department through an interlocal agreement.

Southeast Nebraska Community Wildfire Protection Plan

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. 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 and city staff.

Future Development Trends

In the past 10 years few changes have occurred in the Village of South Bend. One home was demolished but no other changes to housing were made. Approximately seven years ago the Post Office closed. Currently, a modular post office has been developed with limited hours. South Bend's population has remained steady which the local planning team attributes to young families moving to the area to raise families in a small community and the proximity to large urban centers (Omaha and Lincoln). There are currently no new housing or commercial developments planned for the next five years.

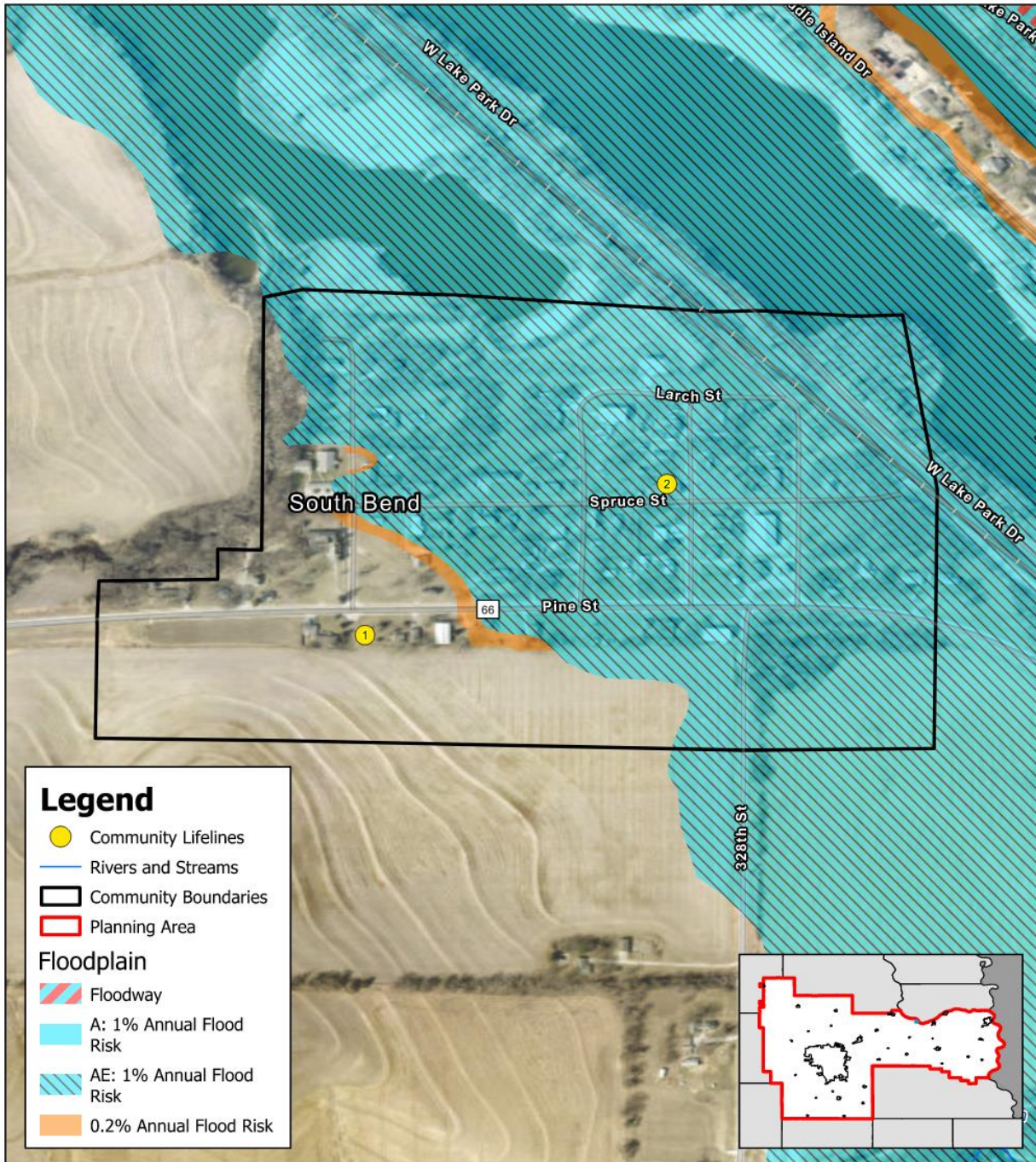
Community Lifelines

As listed in the following table, 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 lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



South Bend Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Communications	Siren	N	N	Y
2	Safety and Security	Village Office	N	N	N

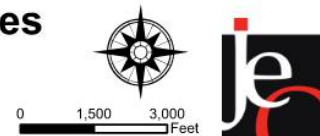


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Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx

South Bend Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

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Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for South Bend which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of South Bend. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1,550 months	443 out of 1,550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	
TOTAL		1,994	1,074	\$22,746,478.00

Flooding

Flooding is a hazard of major concern due to the proximity to the Platte River and because most of the Village is located within the 1% annual chance flood risk area. The flood event in 2011 caused a nearby stream to become plugged and created backflow into the Village. The creek and attached ditches have since been cleared out to protect the town. The March 2019 flood event led to water up to the edges of town. The local planning team indicated the rail line acts as a small measure of protection to flooding as it is located between the Village and the river. Most flood damage events are tied to high groundwater levels seeping into basements. The village's interior stormwater system is sufficient to clear heavy rain events.

ACTION	PROPERTY ACQUISITION/ELEVATION
Description	Work with property owner to acquire or elevate flood repetitive loss property.
Hazards Addressed	Flooding
Estimated Cost	TBD
Potential Local Funding	General Fund, FMA
Lead Agency	NeDNR, Headwaters
Timeline	5+ years
Priority	High
Status	Headwaters working with local property owner and NeDNR to pursue FMA funding to elevate a slab on grade property in the 1-mi ETJ.

Severe Winter Storms

Severe winter storms includes hazards such as blizzards, extreme cold, and heavy snow. The local planning team is most concerned with extreme cold temperatures and loss of electricity in conjunction with severe winter storms. All power lines within the Village are above ground and are susceptible to damage from ice accumulation during winter storm events. The Village is serviced by OPPD electrical service, which has a good track record in the Village for restoring power quickly. Most residents in town also have personal backup generators and there is a overall "good neighbor" atmosphere in town to share resources. All municipal records are backed up with the clerk. Snow removal has been contracted out, but additional snow removal resources are needed for the Village.

ACTION	Obtain Tree City Designation
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 tree maintenance program in order to maintain trees in a community to limited potential damages when a storm event occurs.
Hazards Addressed	Severe Thunderstorm, Severe Winter Storms, High Winds, Tornadoes
Estimated Cost	\$0
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

ACTION	Backup Generators
Description	Provide a portable or stationary source of backup power to critical facilities.
Hazards Addressed	Extreme Temperatures, Flooding, Hazardous Materials Release, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$15,000-\$30,000 per generator
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	2-5 years
Priority	High
Status	Not yet started.

Additional Hazards of Concern

Hazardous Materials Release (Transportation)

Chemical transportation spills are a concern for the Village of South Bend due to the immense number of semi-trucks and rail cars that pass through the area carrying chemicals. Two chemical rail spills occurred in 1998 in South Bend which released a total of 25,000 liquid gallons of hazardous chemicals and caused \$46,000 in damages. No other major chemical transportation spills have occurred since. The local planning team is especially concerned with blocked transportation routes caused by derailment as the rail line crosses the only access point to many homes along the river. At this time there are no identified mitigation actions for the community as the railroad and highway are not owned or maintained by the community.

Levee Failure

While not identified as a prioritized hazard by the local planning team, the jurisdiction is protected by the YMCA Camp Kataki Levee system. The levee is a non-accredited levee by FEMA and is not enrolled in the Public Law 84-99 Program. The levee is locally constructed, operated, and maintained. This levee protects approximately 0.4 acres of farmland. According to the 2023 USACE National Structure Inventory, there are no structures behind this levee and no people living behind the levee. There are no reports of levee failure.

Community Profile

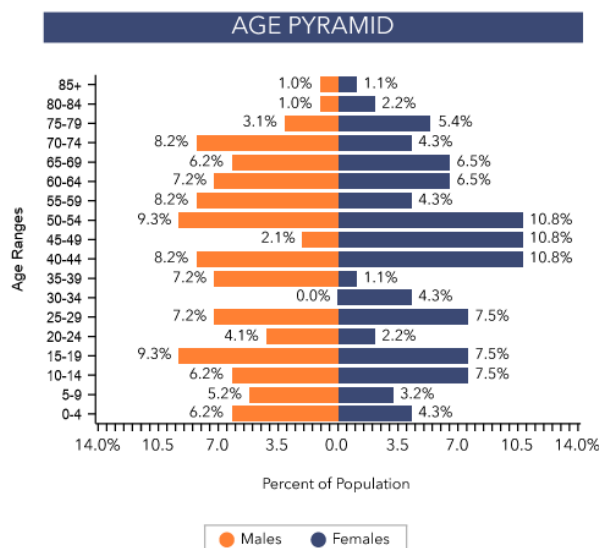
Village of Union

Lower Platte South NRD Hazard Mitigation Plan 2025

Community Summary Fact Sheet

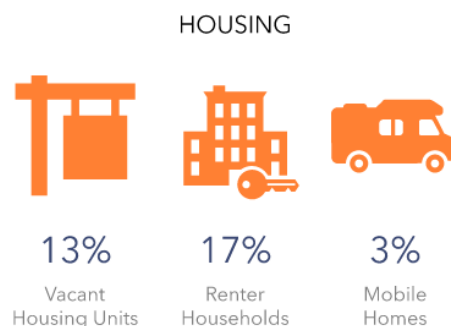
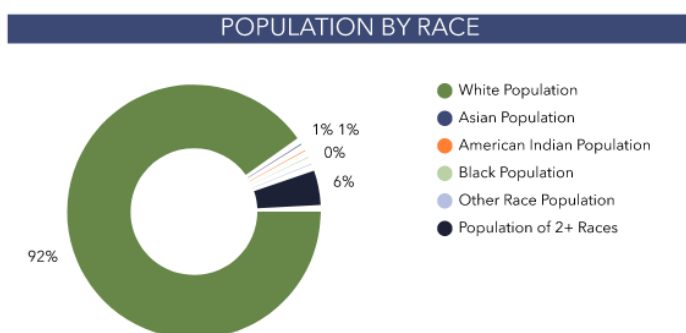
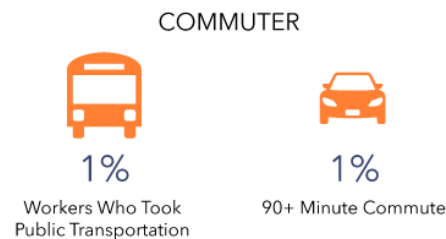
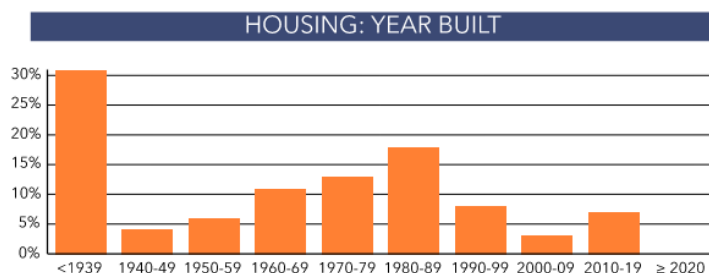
Union Village, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

190 Population 44.4 Median Age \$80,812 Median Household Income \$258,333 Median Home Value 1.1% Unemployment Rate 4% Households Below the Poverty Level



TOTAL POPULATION

2023 Total Population (Estimate)	190
2020 Total Population (U.S. Census)	195
2010 Total Population (U.S. Census)	196
2000 Total Population (U.S. Census)	209



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

*The local planning team noted the community population is closer to 199, median income is \$57,500, and poverty rate is 20%.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Melissa Hansen	Village Clerk/Treasurer	Union, NE	Plan Development

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 Village Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Union will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Union is in the southeastern corner of Cass County, approximately four miles west of the Missouri River and 16 miles south of the Platte River. The Village covers an area of 0.21 square miles. There is one major waterway near the town, the Weeping Water Creek, which flows south less than a mile west of the town.

Capability Assessment

The planning team assessed the Village of Union's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes - County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	County
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes

Section Seven | Village of Union Community Profile

Capability/Planning Mechanism		Yes/No
	Community Rating System	Yes
	Community Wildfire Protection Plan	Yes
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	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	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	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	No
	Other (if any)	

Union Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Limited	Limited
Staff/Expertise to Implement Projects	Limited	Limited
Public Support to Implement Projects	Limited	Moderate

Capability	2020 Plan	2025 Plan
Time to Devote to Hazard Mitigation	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	10/18/1974
Floodplain Administrator:	Melissa Hansen
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium (\$):	\$-
Total NFIP Coverage (\$):	\$-
Number of Claims Paid Out:	11
Total Amount of Claims Paid Out (\$:)	\$61,670
Number of Repetitive Loss Structures:	
Number of Severe Repetitive Loss Structures:	
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The Village of Union plans to continue its involvement with the NFIP in the future. Current floodplain permitting process first comes through the Village Clerk to assess whether the improvements will be affected by the floodplain. If improvements are affected, the clerk determines if a floodplain permit is necessary, which requires the applicant to fill out the permit. Occasionally, the clerk will confirm the findings with Cass County Zoning Department; with the findings from both, the process can move forward.

No new building projects have been completed in the last 15 years but structural improvements go through the current permitting process. Cass County will notify the Village if there are compliance issues. Union utilizes the FEMA Map Service Center to locate areas within the floodplain. There have not been recent events that have caused substantial damage to structures; if an event were to occur, the Village would interview residents that experienced damage and use that information to determine the level of damage. Union determines whether damaged structures are substantially improved if the improvement increases the property value by 50% or more.

One identified barrier to running Union's NFIP program effectively is the mentality of the applicability it has in the community. Most of the properties were not rebuilt after the flood that significantly impacted the community, and the structures that are impacted by the floodplain are few. The insurance aspect of floodplain management has not been a major aspect of Union's floodplain management. Letters of Map Change documents can be found on the FEMA Map Service Center.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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. Several

structures in Union have been removed from the floodplain via LOMA. A summary of LOMAs identified for Union can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
131	\$9,557,796	13	\$284,641	9.9%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
131	\$9,557,796	5	\$3,720	3.8%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0410D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0420D	11/26/2010	Current FIRM Panel
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Union has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

Union's Comprehensive Plan was last updated in 2017. The primary hazard discussed in the plan is flooding. Flood related components include directing development away from the flood and encouraging the preservation of open space. The plan also contains objectives aimed at safe growth.

Ordinances and Regulations

The Zoning Ordinance for the village was last updated in 2014. It discourages development in the floodplain, prohibits development within the floodways, identifies floodplain areas as open space, requires more than one-foot elevation above Base Flood Elevation, and limits density in the floodplain.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in

the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

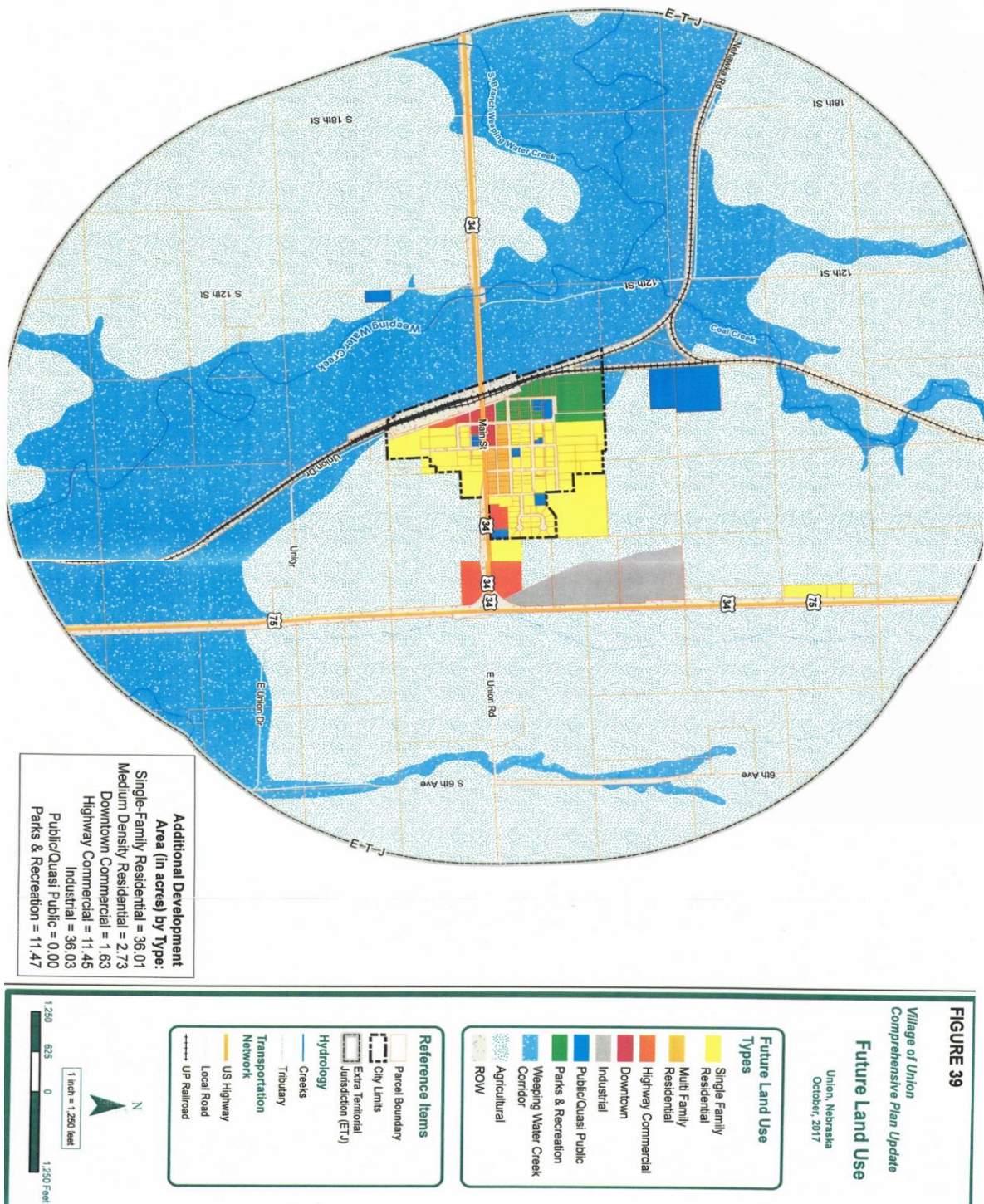
The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that would require evacuation; identifies sheltering locations; and provides clear assignment of responsibility during an emergency. Several departments are familiar with the County LEOP including fire departments and city staff.

Future Development Trends

Changes in the past five years include new equipment installed at Todd Park in 2024, and an emergency siren installed behind the post office in 2023. An existing rental property located in the floodplain was flood-proofed and improved in 2020. There are no new housing or commercial developments planned in the next five years. Cass County is in the process of conducting an affordable housing study.

The Future Land Use Map below was published in 2017 and illustrates intended growth for the Village of Union. Single family residential is anticipated to continue to the east of the Village, and downtown or commercial development to the east on the north and south sides of Highway 34. Future land use is not planned to the west within the designated floodway zones.

Future Land Use Map



Community Lifelines

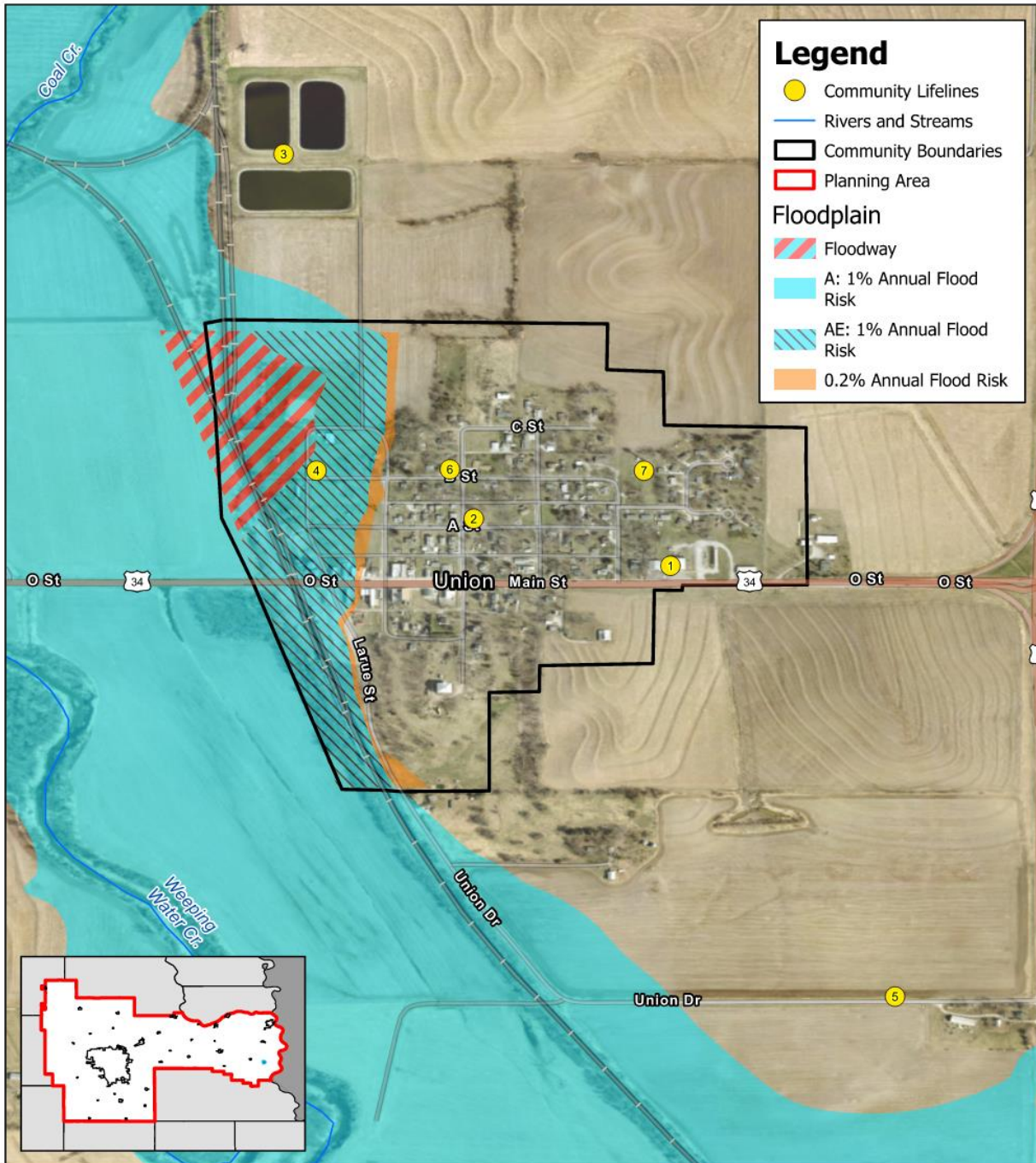
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Union Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Fire Station/Village Office	N	N	N
2	Food, Water, Shelter	First Baptist Church	N	Y	N
3	Food, Water, Shelter	Lagoon	N	N	N
4	Food, Water, Shelter	Lift Station	Y/Mobile	N	Y
5	Food, Water, Shelter	Pump House	Y/Mobile	N	N
6	Food, Water, Shelter	Union United Methodist Church	N	Y	N
7	Food, Water, Shelter	Water Tower	Y/Mobile	N	N

Section Seven | Village of Union Community Profile

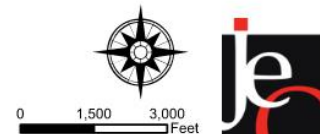


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Union Community Lifelines

Lower Platte South NRD
 Hazard Mitigation Plan 2025



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Union which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Union. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
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	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
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Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Drought

The primary concerns for the Village related to drought are wells not having enough water and the sewer lagoons needing water pumped into them to meet regulatory requirements. Past drought events have forced the community to pump water from the wells to maintain proper level in the lagoons. Union monitors the water supply by using meters at the wells and meters on residential supplies. Water supply levels have been sufficient during past drought events; however, the local planning team indicated that high nitrates have been an issue. One of the two wells in the Village is over the regulated level of nitrates and is only used in emergency situations. In those cases, the water is mixed with the primary well water during fire events. If the fire department uses Village fire hydrants, the water pressure drops significantly. Union has conducted water system studies and applied for grants to replace and upgrade water lines of its aging and leaking water system infrastructure. Future projects to reduce the impacts of drought include improving and having a backup system to the water system. Once the infrastructure is replaced, the Village can afford to connect to rural water if an emergency were to occur.

ACTION	Water System Improvements
Description	Improve community well and water system, including pipe size upgrades, create well redundancy, and add a blending unit to the well house.
Hazards Addressed	Drought, Grass/Wildfire
Estimated Cost	\$2,800,000
Potential Local Funding	Unknown
Lead Agency	Village Board
Timeline	5 years
Priority	Low
Status	This is a new mitigation action. The community is exploring funding options. At time of request, there were insufficient funds through SRF and the village is currently not in a position to take on a loan from USDA. This is a priority, but without funding offers is not currently feasible.

Severe Thunderstorms

In May 2004, a major thunderstorm impacted the village with 100 mph winds that uprooted and damaged trees across the community. Other severe thunderstorms since then have produced large hail that has caused damage to roofs of residences and critical facilities. The Fire Hall and residential property have had repairs from hail and wind damage over the past five years. There are hazardous trees on private properties that could damage power lines during a severe thunderstorm or high wind event. The Village works with NPPD to identify trees and limbs that are a problem and has removed many trees to mitigate the impacts of severe thunderstorms. Municipal records are protected with surge protectors and backed up in two locations. The local planning team has purchased a small fireproof/floodproof safe to store backup copies of computer systems and thumb drives. In the event of a power loss, the village has a portable generator that moves between the well house and lift station. However, the Village has indicated it is need of better emergency generator equipment. A weather radio is located at the concession stand to warn residents of impending severe weather and the Village applied for and received a BRIC grant to install a new emergency siren system behind the Post Office.

ACTION	Backup Generators
Description	Provide a portable or stationary source of backup power to critical facilities
Hazards Addressed	All Hazards
Estimated Cost	\$15,000-\$30,000 per generator
Potential Local Funding	General Funds
Lead Agency	Village Maintenance, Village Clerk
Timeline	2-5 years
Priority	Medium
Status	Not yet started. Partnerships with other agencies are currently being explored for funding and siting of generators. Generators are needed at the lift station and water tower in particular.

Completed Mitigation Actions

ACTION	Backup Storage
Description	Purchase and secure a fire and flood proof safe for municipal record storage
Hazards Addressed	Flooding, Grass/Wildfire, Severe Thunderstorms
Status	Completed - The local planning team has purchased a small fireproof/floodproof safe to store backup copies of computer systems and thumb drives.

ACTION	Alert Siren
Description	Evaluate and improve current warning alert systems.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	Completed - Union completed the installation of a new alert system in 2023.

Community Profile

City of Weeping Water

Lower Platte South NRD Multi-Jurisdictional Hazard Mitigation Plan 2025 Update

Community Summary Fact Sheet

Weeping Water City, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

1,075

Population

38.8

Median Age

\$63,994

Median Household
Income

\$164,789

Median Home
Value

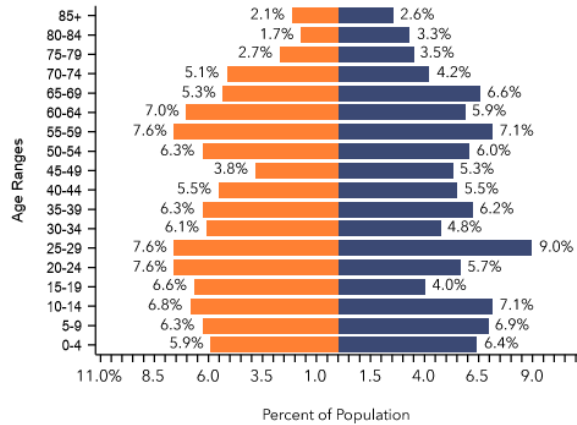
7.2%

Unemployment
Rate

10%

Households Below
the Poverty Level

AGE PYRAMID



● Males ● Females

TOTAL POPULATION

2023 Total Population (Estimate)	1,075
2020 Total Population (U.S. Census)	1,029
2010 Total Population (U.S. Census)	1,067
2000 Total Population (U.S. Census)	1,130

AT RISK POPULATION



131

Households With
Disability



199

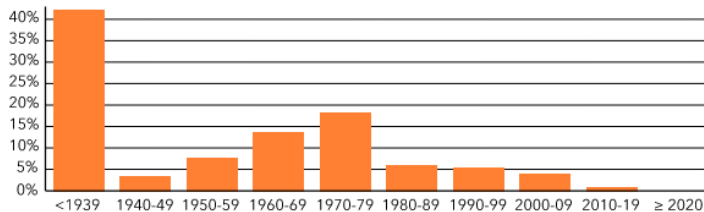
Population 65+



16

Households
Without Vehicle

HOUSING: YEAR BUILT



COMMUTER



0%

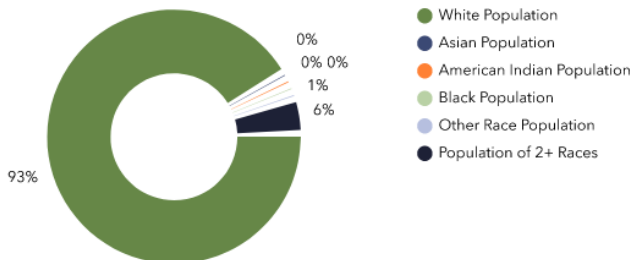
Workers Who Took
Public Transportation



1%

90+ Minute Commute

POPULATION BY RACE



HOUSING



5%

Vacant
Housing Units



27%

Renter
Households



1%

Mobile
Homes



Source: Esri, U.S. Census, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, 2028.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Linda Sheenan	City Clerk	City of Weeping Water	Profile Development
Michael Barret	Mayor	City of Weeping Water	Profile Development; Attended Meetings
Charlie Cover	Councilman	City of Weeping Water	Profile Development

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 Mayor, City Clerk, and Maintenance Supervisor will be responsible for reviewing and updating the community profile outside of the five-year update. The City of Weeping Water will review the plan annually and the public will be notified during council meetings, on the website, and through social media.

Location and Geography

The City of Weeping Water is in the central portion of Cass County, approximately 15 miles west of the Missouri River and 10 miles south of the Platte River. The City covers an area of 0.97 square miles. There are two major waterways near the town. The largest is the Weeping Water Creek which flows east-and-west through the center of town and is the main stem for the tributary South Cedar Creek north of town. These bodies of water form a confluence three miles east of town.

Capability Assessment

The planning team assessed the City of Weeping Water's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes

Capability/Planning Mechanism		Yes/No
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes – County
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	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	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	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)	No

Weeping Water Overall Capability

Capability	2020 Plan Limited/Moderate/High	2025 Plan Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate	Moderate
Staff/Expertise to Implement Projects	Moderate	Moderate
Public Support to Implement Projects	High	High
Time to Devote to Hazard Mitigation	Moderate	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	12/28/1973
Floodplain Administrator:	Linda Sheehan
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	11
Total NFIP Premium (\$):	\$14,737
Total NFIP Coverage (\$):	\$1,893,000
Number of Claims Paid Out:	17
Total Amount of Claims Paid Out (\$):	\$158,710
Number of Repetitive Loss Structures:	2
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both

The City of Weeping Water's floodplain permitting process begins once a building permit is requested. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. Depending on the findings, instructions are given to the builder on how to proceed. The City enforces local floodplain regulations with the help from the Cass County Zoning Department.

To identify substantially damaged structures after the flood, the City will travel through the town and inspect potentially damaged areas. Knowledge about the NFIP program and how it is run is an identified barrier for Weeping Water when operating the program. Letters of Map Change are compiled and kept in a file within the City.

Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of September 2024. 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. Several structures in Weeping Water have been removed from the floodplain via LOMA. A summary of LOMAs identified for Weeping Water can be found in the table below.

Parcel Improvements and Value in the 100 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
532	\$68,093,153	92	\$9,932,437	17.3%

Parcel Improvements and Value in the 500 Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
532	\$68,093,153	42	\$4,000,025	7.9%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31025CIND0A	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0220D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0250D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0360D	11/26/2010	Current FIRM Panel
FIRM Panel	31025C0380D	11/26/2010	Current FIRM Panel
LOMA	12-07-0793A-310036	01/12/2012	Current LOMA
LOMA	13-07-0072A-310036	10/18/2012	Current LOMA
LOMA	13-07-0535A-310036	01/17/2013	Current LOMA
FIRM Panel	31025CIND0B	08/14/2024	Pending FIRM

Source: Flood Map Service Center

Plans and Studies

Weeping Water has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the city updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan update.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the City and was last updated in 2023. The comprehensive plan does not limit development in areas adjacent to known hazardous areas.

Capital Improvement Plan

The capital improvement plan outlines projects the City would like to pursue and provides a planning schedule and financing options. There is no plan or timeline to update the City's capital improvement plan. Wells and main water line are areas the local planning team identified as needing improvements.

Ordinances and Regulations

The City's zoning ordinance outlines where and how development should occur in the future and subdivision regulations govern the division of land from one or more larger parcels into smaller lots. Weeping Water's zoning ordinance and subdivision regulations were updated in 2023 and is

in the process of updating its floodplain regulations. The City's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the City promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility of purchasing flood insurance for property owners. These documents limit development in the floodplain and limit development in the ETJ.

Building Codes

The building code sets standards for constructed buildings and structures. Weeping Water abides by the Cass County building codes, which are the 2018 International Building Codes. Enforcement of the building codes are done by the county inspectors.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of this Community Wildfire Protection Plan (CWPP) is to provide a tool for effectively managing fire and hazardous vegetative fuels and to bolster collaboration and communication among the various agencies and organizations who manage fire in Southeast Nebraska. The entirety of Cass County lies within the tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The lands most at-risk from wildfire are in the northern and eastern parts of the county, along the Missouri and Platte Rivers, where topography is rough and woody fuels are dense in some areas, creating high fire hazard.

Cass County Local Emergency Operations Plan

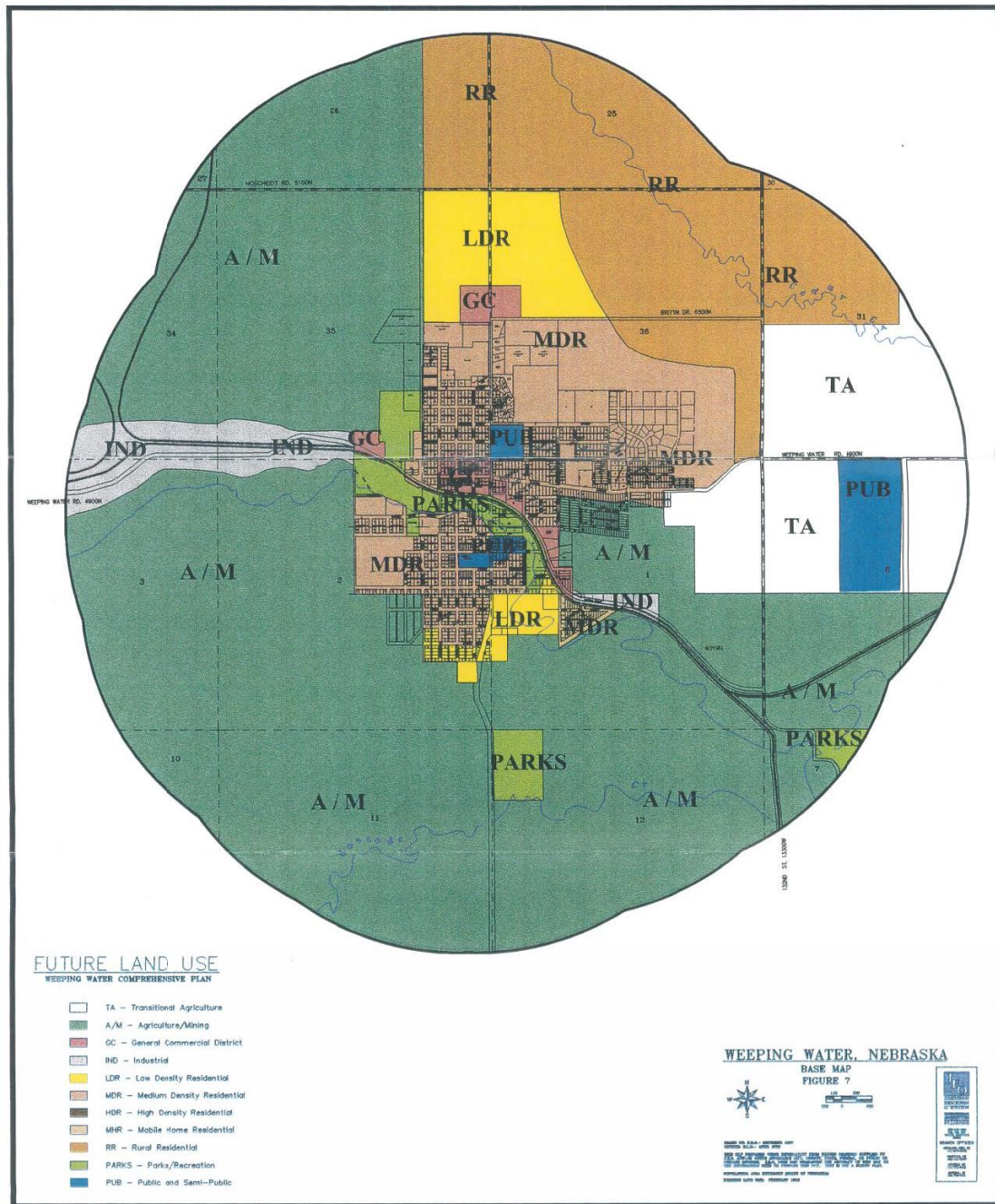
The Cass County Local Emergency Operations Plan (LEOP) was last updated in 2020. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that would require evacuation; identifies sheltering locations; and provides clear assignment of responsibility during an emergency. Several departments are familiar with the County LEOP including fire departments and city staff.

Future Development Trends

The City of Weeping Water has had several changes occur over the past 10 years, including a new business, Dollar General, open at 156th St and Weeping Water Road and a new housing development. The new housing development has had nearly all available lots purchased over the past 10 years. Additional phases II and III of development have been initiated in the new housing area in the last five years.

The previous plan indicated that other commercial businesses may be opening in the next few years, including a beauty shop which has not yet occurred. A restaurant has recently opened and there are several new businesses in the downtown area and many home businesses that have opened. The population of the City is relatively stable, which the local planning team attributes to several limestone quarries in the area employing a significant amount of the local population. No new structures have been developed in the floodplain or any hazardous areas. In the near future, the Vogler Addition development phases III and IV are set to start, and the locations are not in the floodplain.

Future Land Use Map (1999)



Community Lifelines

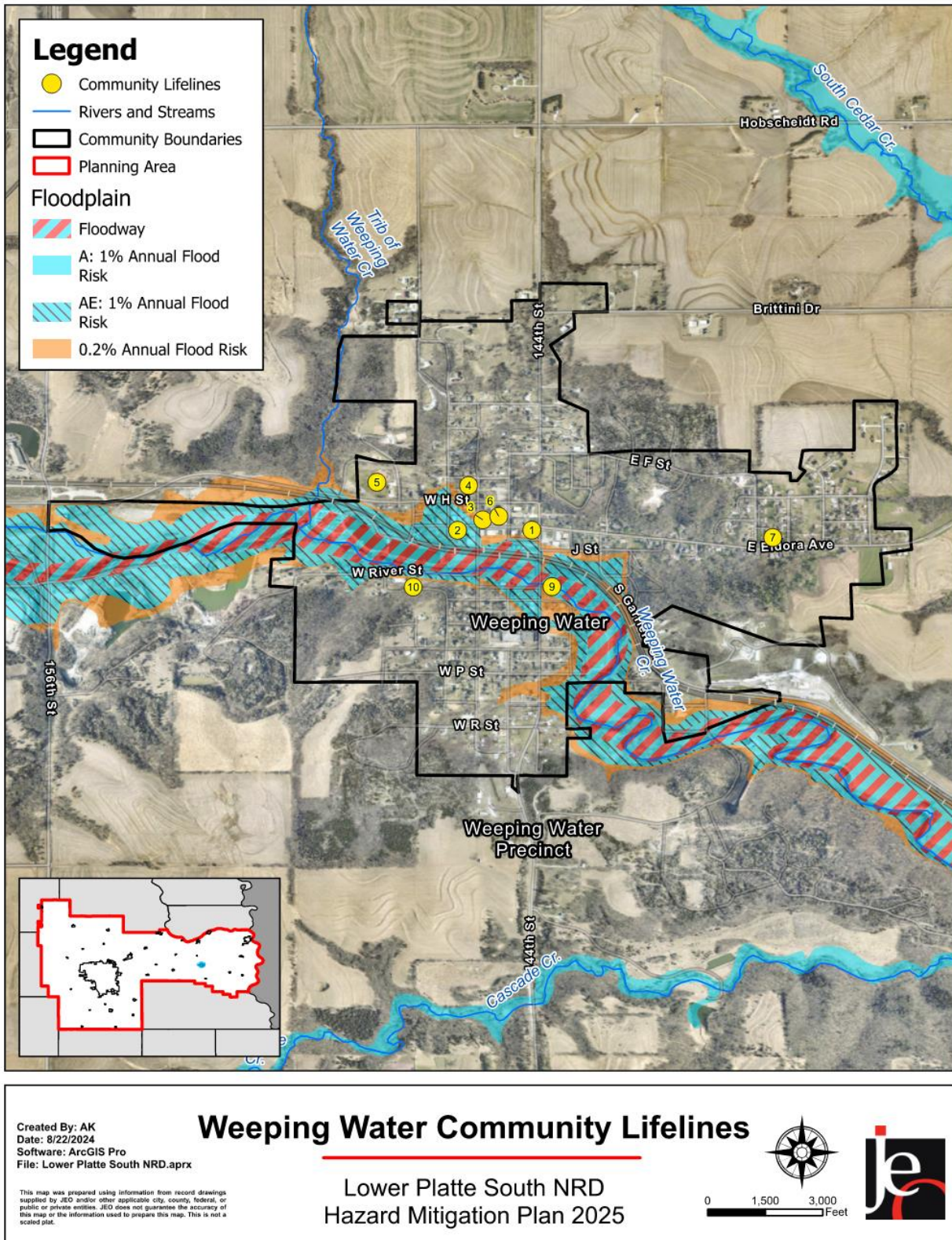
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Weeping Water Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	In the Floodplain
1	Safety and Security	Community Building, Public Library, City Hall, & Gibson Hall	N	Y	N
2	Safety and Security	Fire and Rescue Station	Y	N	Y
3	Food, Water, Shelter	Grocery Store	N	N	N
4	Health and Medical	Medical Center	N	N	N
5	Transportation	Memorial Field / Helicopter Landing Zone	N	N	N
6	Safety and Security	Siren (Main)	N	N	N
7	Safety and Security	Siren (Secondary)	N	N	N
8*	Food, Water, Shelter	Wastewater Treatment Plant	Y	N	Y
9	Food, Water, Shelter	Water Reservoir	N	N	Y
10	Food, Water, Shelter	Water Tower	Y	N	N
11*	Food, Water, Shelter	Water Wells	Y	N	N

*Not mapped, located outside city boundaries.



Hazard Prioritization and Mitigation Strategy

The Lower Platte South NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Weeping Water which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Weeping Water. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Four* and *Appendix A*.

Hazard Risk Assessment for Cass County

HAZARD TYPE		CASS COUNTY		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	15	18	N/A
	Plant Disease ³	18	N/A	\$100,878
Hazardous Materials	Chemical Fixed Sites ⁵	38	\$0	N/A
	Chemical Transportation ⁶	11	\$1,478	N/A
Civil Disorder/Terrorism ¹⁰		3	0	\$0
Dam Failure ⁷		0	1	\$0
Drought ⁸		443 out of 1550 months	443 out of 1550 months	\$0
Extreme Temperatures ¹¹	Extreme Heat ⁹	Avg 5 days per year	\$0	\$4,714,474
	Extreme Cold/Wind Chill	Avg 38 days per year	\$0	\$56,386
Flooding ¹	Flash Flood	22	\$62,000	\$2,713,476
	Flood	49	\$16,830,000	
Grass/Wildfires ⁴		847	449	2,633.74 acres
High Winds and Tornadoes	High Winds ¹	19	\$0	\$195,152
	Tornadoes ¹	29	\$1,009,000	
Severe Thunderstorms ¹	Thunderstorm Wind Avg: 57mph Range: 45-100mph	134	\$544,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	200	\$1,000,000	\$2,230,008
	Heavy Rain	8	\$0	\$4,013,312
	Lightning	2	\$300,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$0	\$145,044
	Heavy Snow	5	\$3,000,000	
	Ice Storm	3	\$0	
	Winter Storm	44	\$0	
	Winter Weather	17	\$0	

HAZARD TYPE	CASS COUNTY		
TOTAL	1,994	1074	\$22,746,478.00

Flooding

Flooding is a major hazard of concern for the City of Weeping Water due to the creek which runs through the center of town. The local planning team stated there have not been flooding issues in town over the past five years, however the creek has been outside of its banks on several occasions. Some flooding occurs nearly every year. On average, moderate floods occur approximately once every 4 years and major floods occur once every ten years.

Flooding in September 2010 and June 2008 did cause significant damage to private and public property along Weeping Water Creek. In particular, the Water/Wastewater Treatment Plant has experienced damage from flood events and several homes in the city were damaged in 2010. The 2010 flood event eventually led to portions of the city being evacuated to higher ground. Heavy thunderstorms in September of 2018 caused minor flooding at the Weeping Water campground according to NCEI data. The local planning team indicated primary concerns are for flash flooding in the City with inadequate stormwater drainage to handle such large volumes.

There is designated floodplain from Weeping Water Creek which bisects the city to the north and south. Impacts from flooding can impact utilities, access to major transportation corridors, emergency services, and homes or businesses through the city. The largest risk of damage from flooding in Weeping Water is for roads. The primary road through Weeping Water, Eldora Ave/State Spur 13K are within flood risk hazard areas. Additionally, the Missouri Pacific Railroad line runs alongside the creek and is within the floodplain. The railroad berm may provide minimal flood protection, but can not be relied upon to protect vulnerable assets.

Of note, in early 2024 the Lower Platte South NRD approved an application for a bank stabilization and realignment project in the City of Weeping Water. As noted, *“During the Urban Subcommittee report, the Board approved the Community Assistance Program (CAP) application for the Weeping Water Creek Stabilization and Realignment Project. The location of the project is located at the western edge of the City Park where there are concerns about the existing stream path and erosion impacting park property. The current channel path has moved to the north over time, impacting an existing tributary and encroaching on park property. In addition to redirecting the channel’s flow to its original location, the design, provided by E&A Consulting Group, INC. will include stabilizing and armoring impacted banks along with repairing existing grade stabilization structures of the north tributary. The application for cost share is for 50% of the design phase of the project, not to exceed \$36,125.”*

ACTION	Join the Community Rating System
Description	Join the CRS program. Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Participation in CRS can help reduce flood insurance premiums.
Hazards Addressed	Flooding
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Funds
Lead Agency	City of Weeping Water – Floodplain Manager
Timeline	2-5 years

ACTION	Join the Community Rating System
Priority	Medium
Status	Not Yet Started – Goal is to help alleviate flood insurance burden on residents and identify strategies to reduce flood risk hazard in the City.

ACTION	Preserve Natural and Beneficial Functions
Description	Preserve natural and beneficial functions of floodplain land through measures such as: retaining natural vegetation, restoring streambeds, and preserving open space in the floodplain.
Hazards Addressed	Flooding
Estimated Cost	\$60,000
Potential Local Funding	General Funds
Lead Agency	City of Weeping Water, LPSNRD
Timeline	2-5 years
Priority	High
Status	In Progress – a Creek Stabilization and Realignment Project is underway along Weeping Water Creek near the City Park. This project is currently in design phase and will help alleviate flooding issues on the campgrounds and surrounding greenspace.

ACTION	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. These improvements can serve to more effectively convey runoff, preventing interior localized flooding. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazards Addressed	Flooding
Estimated Cost	\$100,000+
Potential Local Funding	General Funds
Lead Agency	City of Weeping Water
Timeline	5+ years
Priority	Medium
Status	In Progress – The City recently completed a water and drainage study. Current alternatives are being evaluated to determine future course of action to protect existing infrastructure such as the wastewater treatment plant from flooding.

Severe Thunderstorms

Severe thunderstorms can cause significant damage to critical facilities from a combination of heavy rain, strong winds, lightning strikes, and hail. A severe thunderstorm in 2016 caused significant hail damage in the City and approximately 50 homes throughout town sustained roof damage. The primary concern regarding severe thunderstorms for the City of Weeping Water is power outages. Critical municipal records are protected by surge protectors, and the city office,

water wells, and treatment plant all have backup generators. The majority of power lines in the City are above ground. Recently the city has increased communications with OPPD in the event of a prolonged power outage, but needs to develop additional continuity planning in case of major outages.

ACTION	Promote Use of Higher Codes and Standards
Description	Promote the use of higher codes and standards, such as the Fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits. Evaluate areas in town which may not meet current code compliance for future assistance.
Hazards Addressed	Flooding, Grass/Wildfire, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Staff Time
Potential Local Funding	General Funds
Lead Agency	City of Weeping Water – Planning Commission
Timeline	2-5 years
Priority	Medium
Status	In Progress – current focus is on ensuring all new construction and building permits meet and comply with 2018 IBC codes or higher, specifically in regard to flood or wind damages.

ACTION	Continuity Planning
Description	Continuity planning helps to ensure that services can be maintained during and after a disaster.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$0, Staff Time
Potential Local Funding	General Funds
Lead Agency	City of Weeping Water
Timeline	1 year
Priority	High
Status	Not Yet Started – the City has not yet developed a city specific Continuity of Operations Plan.

Severe Winter Storms

Severe Winter Storms include impacts from heavy snow, ice accumulation, and winter storms. Concerns about severe winter storms revolve around potential property damages and power loss. The winters of 2018-2019 and 2009-2010 had significant amounts of snow which caused damage to local roads. The City Maintenance Department and outside contractors remove snow from local streets, which during winters with heavy snow fall can strain the local budget and available resources. Major concerns regarding severe winter storms include the cost of repairs to local roads and purchasing necessary equipment, wear and tear on municipal equipment, and blocked access due to snow piles and drifts. The City does have designated snow routes but do not use snow fences.

Action	Vulnerable Population Assistance Database
Description	Develop a database of vulnerable populations and supporting organizations. Work with stakeholders to develop a database of vulnerable populations and organizations which support them.
Hazards Addressed	All hazards
Estimated Cost	\$0
Potential Local Funding	General Funds
Lead Agency	City of Weeping Water, Weeping Water Public Schools
Timeline	5+ years
Priority	Low
Status	Not Yet Started – this would focus on elderly or families with medical needs requiring assistance during power outages or periods of extreme cold, heavy snow, or lack of transportation access.

Completed/Removed Mitigation Actions

Action	Utilize Low-Impact Development and Green Infrastructure
Description	Low impact development practices and green infrastructure can reduce runoff and result in a reduction in stormwater related flooding
Hazards Addressed	Flooding
Status	Removed – this was identified as not a current priority for the City.