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County Profile

Lancaster County

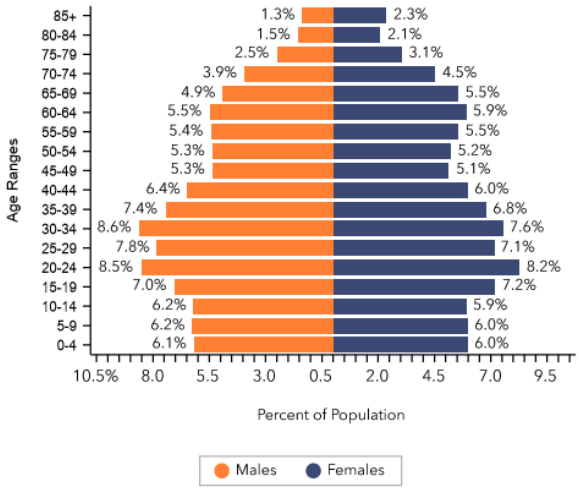
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

332,169	35.5	$66,865	$258,643	3.0%	12%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



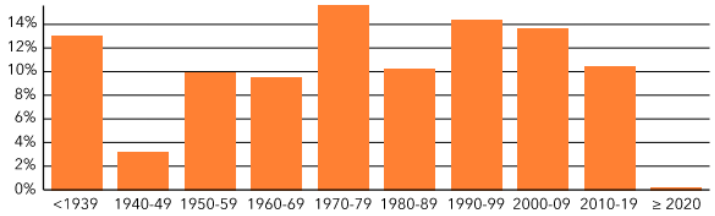
TOTAL POPULATION

2023 Total Population (Estimate)	332,169
2020 Total Population (U.S. Census)	322,608
2010 Total Population (U.S. Census)	285,407
2000 Total Population (U.S. Census)	250,291

AT RISK POPULATION

28,640	52,583	6,477
Households With Disability	Population 65+	Households Without Vehicle

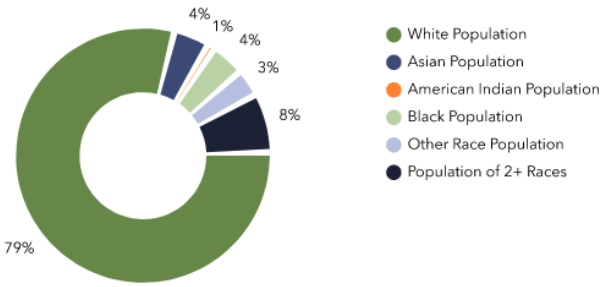
HOUSING: YEAR BUILT



COMMUTER

1%	1%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

6%	40%	1%
Vacant Housing Units	Renter Households	Mobile Homes

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
Jim Davidsaver	Director	Lincoln-Lancaster County Emergency Management
Amanda Burki	Deputy Director	Lincoln-Lancaster County Emergency Management
Leshan Taruru	Administrative Specialist	Lincoln-Lancaster County Emergency Management

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 Administrative Specialist, Lincoln-Lancaster County Emergency Management, and Lancaster County Engineer will be responsible for reviewing and updating the community profile outside of the five-year update. Lancaster County will review the plan annually and will notify the public during the Lancaster County Board of Commissioner's meetings.

Location and Geography

Lancaster County is in southeastern Nebraska and is bordered by Saunders, Cass, Otoe, Gage, Saline, Seward, and Butler Counties. The total area of Lancaster County is 846 square miles. Major waterways within the county include Salt Creek, Deadman's Run, Witstruck Creek, Oak Creek, Branched Oak Lake, and Antelope Creek, among others. The County is home to Salt Valley Lake System, which consists of 25 lakes used for both flood control and recreation. Most of Lancaster County lies in the rolling hills topographic region[1] , with most of the county's land characterized by agricultural fields.

Capability Assessment

The planning team assessed Lancaster 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	Yes
	Economic Development Plan	Yes

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

Capability/Planning Mechanism		Yes/No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	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	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	Yes
	Storm Water Service Fees	Yes
	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

Capability/Planning Mechanism		Yes/No
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Lancaster County Overall Capability

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

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	2/3/1982
Floodplain Administrator:	Terry Kathe
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	10
Total NFIP Premium ($):	$8,251
Total NFIP Coverage ($):	$1,806,000
Number of Claims Paid Out:	12
Total Amount of Claims Paid Out ($:)	$61,670
Number of Repetitive Loss Structures:	
Number of Severe Repetitive Loss Structures:	1
Is the Community Currently Suspended from the NFIP?	0
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 Lancaster County have been removed from the floodplain via LOMA. A summary of LOMAs identified for Lancaster County can be found in the table below.

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
120,431	$46,162,519,000	9,970	$5,166,532,500	8.3%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
120,431	$46,162,519,000	2,563	$1,243,761,600	2.1%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/13	Current FIRM Panel
FIRM Panel	31109C0020G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0040G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0045G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0065G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0070G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0090G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0095G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0115G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0135G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0145G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0155G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0156G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0157G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0158G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0159G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0165G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0170G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0176G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0177G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0178G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0179G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0183G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0184G	04/16/13	Current FIRM Panel
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FIRM Panel	31109C0187G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0188G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0191G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0194G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0205G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0210G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0215G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0216F	02/18/11	Current FIRM Panel
FIRM Panel	31109C0217G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0218G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0219G	04/16/13	Current FIRM Panel
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FIRM Panel	31109C0240G	04/16/13	Current FIRM Panel
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Type of Product	Product ID	Effective Date	Details
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FIRM Panel	31109C0331G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0332G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0334F	02/18/11	Current FIRM Panel
FIRM Panel	31109C0341F	02/18/11	Current FIRM Panel
FIRM Panel	31109C0342F	02/18/11	Current FIRM Panel
FIRM Panel	31109C0343F	02/18/11	Current FIRM Panel
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FIRM Panel	31109C0445G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0454G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0456F	02/18/11	Current FIRM Panel
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FIRM Panel	31109C0470G	04/16/13	Current FIRM Panel
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FIRM Panel	31109C0535G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0550G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0555G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0557G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0575G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0576G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0586G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0600G	04/16/13	Current FIRM Panel
FIRM Panel	31109C0625G	04/16/13	Current FIRM Panel
LOMA	13-07-1000A-310134	04/18/13	Current LOMA
LOMA	13-07-1148A-310134	04/16/13	Current LOMA

Type of Product	Product ID	Effective Date	Details
LOMA	13-07-1174A-310134	04/18/13	Current LOMA
LOMA	13-07-1684A-310134	06/27/13	Current LOMA
LOMA	14-07-1104A-310134	03/04/14	Current LOMA
LOMA	14-07-1153A-310134	03/04/14	Current LOMA
LOMA	15-07-0599A-310134	01/29/15	Current LOMA
LOMA	15-07-2163A-310134	08/26/15	Current LOMA
LOMA	16-07-0073A-310134	12/18/15	Current LOMA
LOMA	16-07-2019A-310134	09/21/16	Current LOMA
LOMA	18-07-1159A-310134	04/25/18	Current LOMA
LOMA	18-07-2090A-310134	11/13/18	Current LOMA
LOMA	19-07-0465A-310134	04/25/19	Current LOMA

Source: Flood Map Service Center

Plans and Studies

Lancaster 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 Lincoln-Lancaster Comprehensive Plan is designed to guide the future actions and growth of the city and county. The hazard mitigation plan has not been integrated with the comprehensive plan, but the plan does discuss hazards such as flooding and hazardous materials. This plan was adopted in 2021, with the plan of updating the document every 10 years and minor updates every five years.

Capital Improvement Plan

The capital improvement plan outlines projects the County would like to pursue and provides a planning schedule and financing options. There is a plan to update the capital improvement plan. Capital Improvement Projects (CIP) are listed in the Comprehensive Watershed Masterplan. In addition, Lancaster County has a scoping study underway to determine CIP projects in the rural areas of the County under FEMA grant, EMK-2022-BR-006 Lancaster County Nebraska BRIC Mitigation: Hazards. There are areas of the County in need of improvements—the Lancaster County Engineering Department continues to monitor conditions of drainage structures and bridges in its system.

Ordinances and Regulations

The County'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. Lancaster County Engineering Department will be reviewing and updating the Lancaster County Subdivision Regulations in the next 12 months as of October 2024. The County's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the County 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. Future updates to these documents will limit development in the floodplain.

For New Growth Areas the minimum elevation requirement above the 100-year flood elevation or Base Flood Elevation (BFE) that provides a margin of safety against extraordinary or unknown risks and said minimum elevation is one foot above the 100-year flood elevation where the floodplain or flood-prone area is based upon NOAA Atlas 14 precipitation, or two feet above the 100-year flood elevation where the floodplain or flood-prone area is not based upon NOAA Atlas 14 precipitation.

For areas of the County outside of the New Growth Areas the minimum elevation requirement above the 100-year flood elevation or Base Flood Elevation (BFE) that provides a margin of safety against extraordinary or unknown risks and said minimum elevation is one foot above the 100-year flood elevation.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

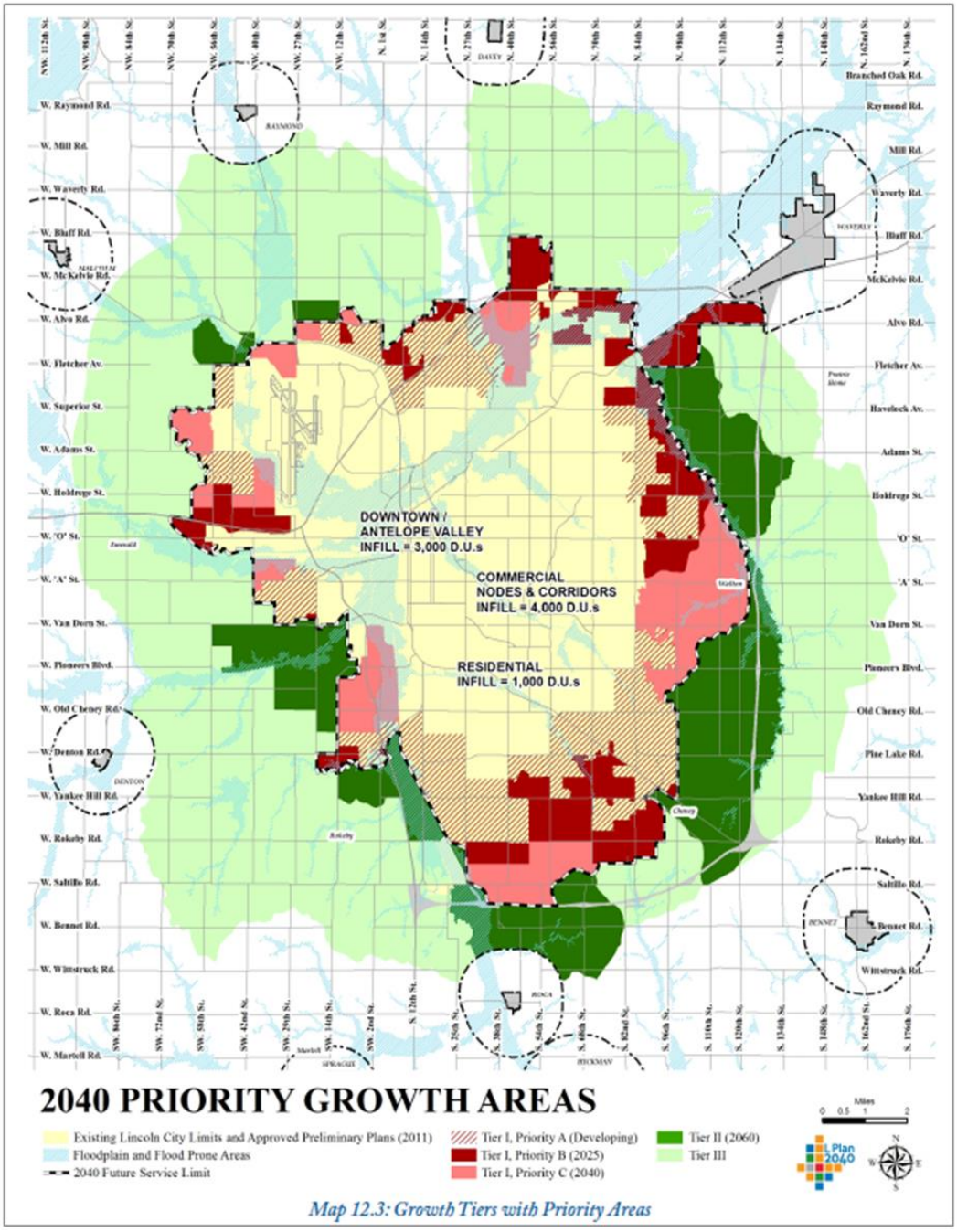
Future Development Trends

Lancaster County, by nature, cannot and will not change its borders and will not experience any future development outside of its established borders. Any future development will take place within the County as communities grow. In early 2019, Lincoln/Lancaster County Emergency Management entered a new facility. There is a need for additional storage space. A proposal for a new storage building ($1.2-1.5 million) has been submitted during the annual budget process for the past few years. To date, the project has not been funded. Several county facilities are currently undergoing upgrades and several more need repair and upgrades. Additionally, a new Monolith manufacturing plant has opened near Hallam and a new chicken plant located in SW Lancaster County has been approved for construction while one near Raymond has not yet.

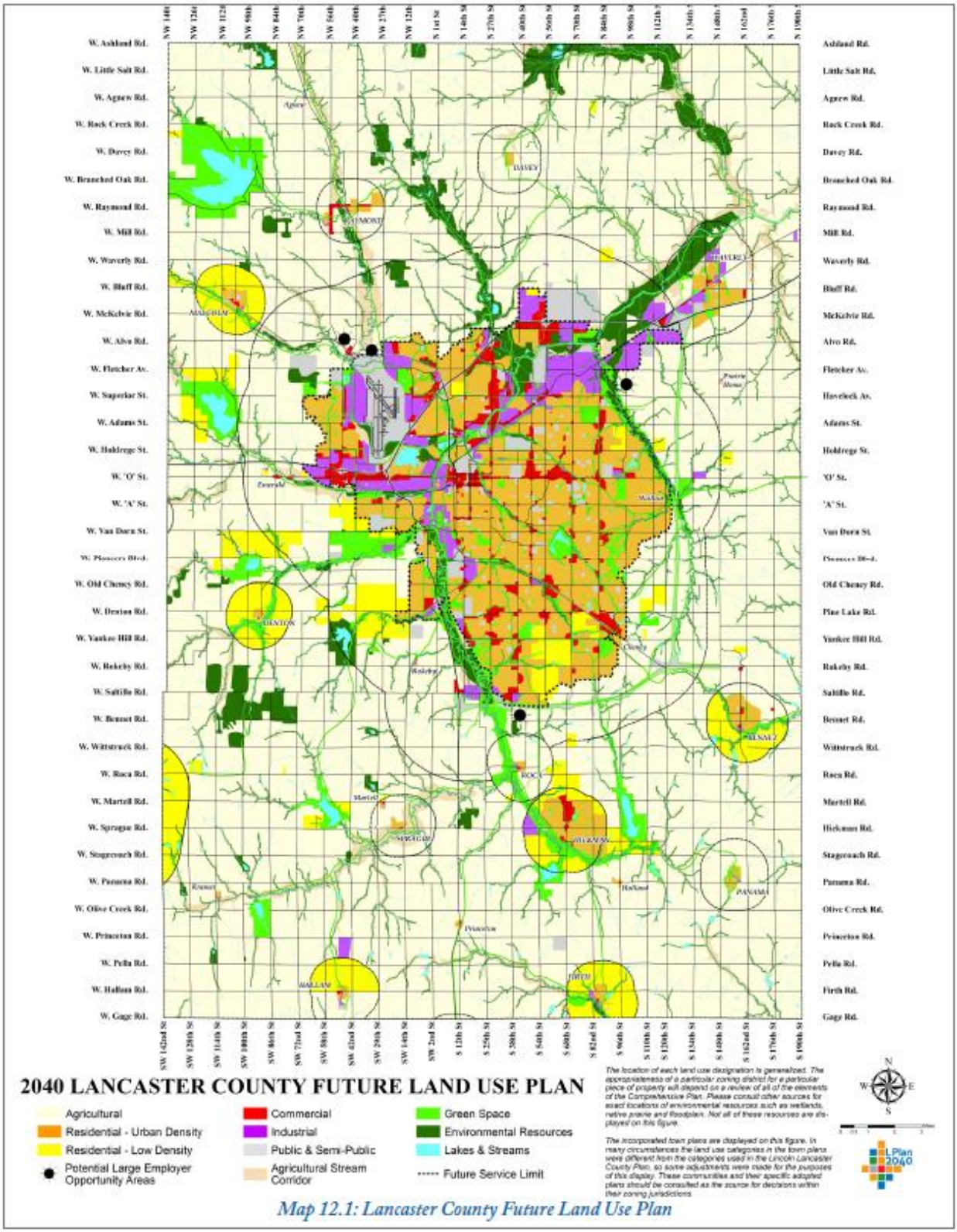
Most of the county's population is located in the capital city of Lincoln, with over 90% of Lancaster County's dwelling units in Lincoln in 2020. The local planning team indicated approximately 100 to 200 homes are scattered throughout rural Lancaster County and fall under the purview of the County. From the 2016 Lincoln/Lancaster County Comprehensive Plan, it is assumed by 2040 an additional 52,100 dwelling units will be added within the County, with around 16 percent of these built within Lincoln. According to the county comprehensive plan, the growth areas within the county are divided into tiers for their prioritization of future growth. The growth areas are broken up into four general regions: Redevelopment and infill in the existing city; Tier I; Tier II; and Tier III growth areas. Although all three Tiers include some land in the 1% annual floodplain, the plan

does state that: “The natural topography and features of the land should be preserved by new development to maintain the natural drainage ways and minimize land disturbance.” By using a timed future growth pattern, the County works to reduce development in unincorporated areas or areas lacking proper infrastructure or facilities and exposing residents to unnecessary risks. The following maps illustrate the 2040 Priority Growth Areas for the county and the 2040 Lancaster County Future Land Use Plan. For more detailed information regarding future growth within the county, see the County Comprehensive Plan.

2040 Priority Growth Areas



Future Land Use Map



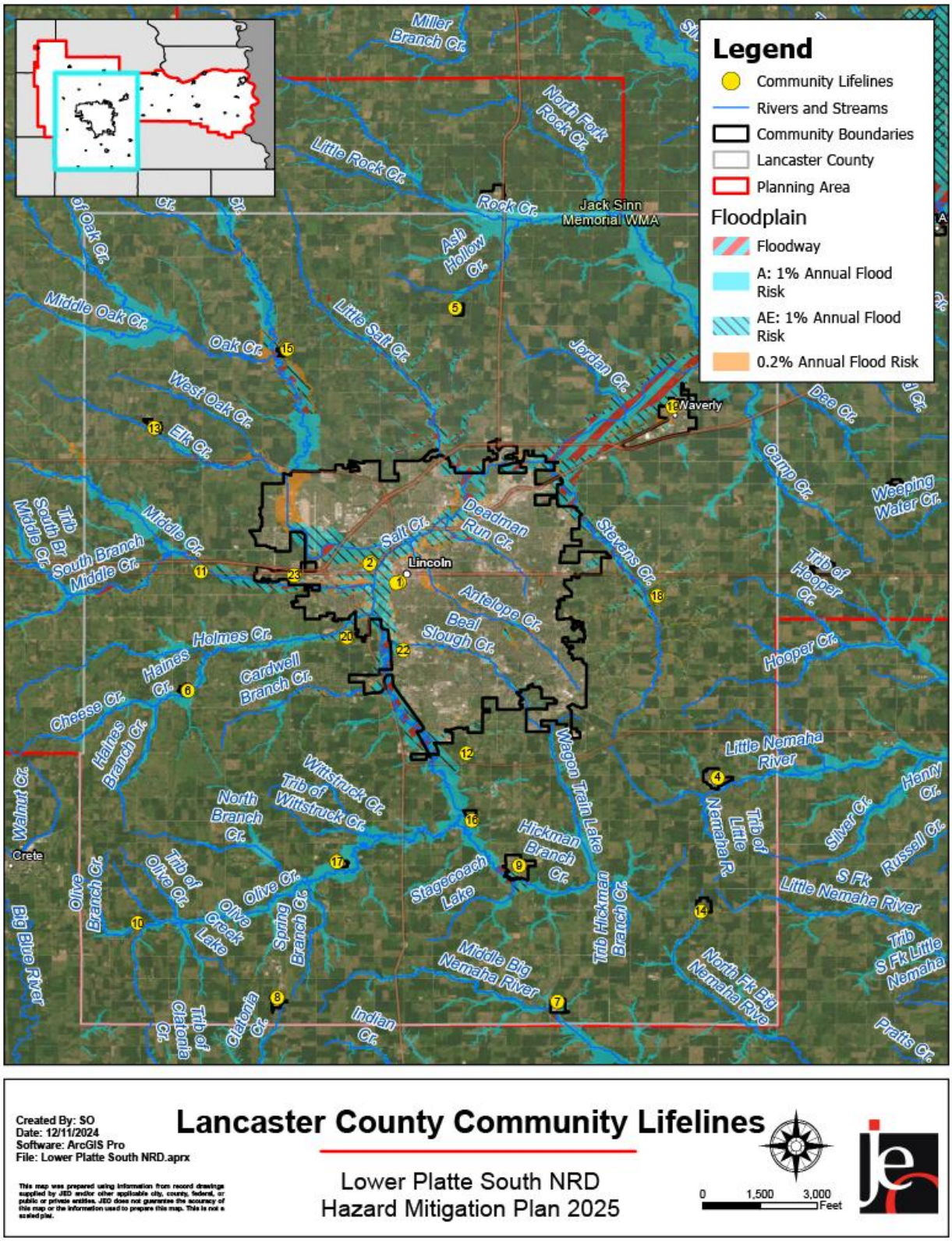
Map 12.1: Lancaster County Future Land Use Plan

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.

Lancaster County Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	County Courthouse & Sheriff's Office	Y	N	
2	Safety and Security	County Engineering Office	Y – portable	N	
3	Safety and Security	County Engineering Shop	N	N	
4	Transportation	County Roads Shop – Bennet	N	N	
5	Transportation	County Roads Shop – Davey	N	N	
6	Transportation	County Roads Shop – Denton	N	N	
7	Transportation	County Roads Shop – Firth	N	N	
8	Transportation	County Roads Shop – Hallam	N	N	
9	Transportation	County Roads Shop – Hickman	N	N	
10	Transportation	County Roads Shop – Kramer	N	N	
11	Transportation	County Roads Shop – Lincoln	N	N	
12	Transportation	County Roads Shop – Lincoln	N	N	
13	Transportation	County Roads Shop – Malcolm	N	N	
14	Transportation	County Roads Shop – Panama	N	N	
15	Transportation	County Roads Shop – Raymond	N	N	
16	Transportation	County Roads Shop – Roca	N	N	
17	Transportation	County Roads Shop – Sprague	N	N	
18	Transportation	County Roads Shop – Walton	N	N	
19	Transportation	County Roads Shop – Waverly	N	N	
20	Transportation	County Roads Shop – Yankee Hill	N	N	
21	Safety and Security	Crisis Center	Y	N	
22	Safety and Security	Emergency Operation Center/Youth Services Center	Y	N	
23	Safety and Security	Jail	Y	N	



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

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

Lancaster County Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

0 1,500 3,000 Feet

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 Lancaster 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 Lancaster 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Extreme Temperatures

Recent history and increased environmental awareness demonstrate the need to plan for extreme temperature events that pose a risk to the public safety and continuity of operations in Lancaster County. With an increasing number of community residents who are vulnerable on a 'good day', this increases the overall community risk during periods of extreme heat or cold. The Lincoln-Lancaster County Health Department (LLCHD) is leading the way to mitigate the effects of extreme temperatures. With a grant-funded position that started in 2023, LLCHD created a Climate & Health Resilience Coordinator to engage city/county departments and other community stakeholders to draft and implement an Extreme Heat Action Plan. Continued outreach and public education focusing on the personal health and community impacts of extreme temperatures is an ongoing effort the county is pursuing to mitigate the impacts of extreme temperatures.

ACTION	Vulnerable Population Assistance Database
Description	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them.
Hazards Addressed	Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Unknown
Potential Local Funding	Lancaster County Funds
Lead Agency	Lancaster County Emergency Management, Health Department, and Aging Partners
Timeline	2-5 years
Priority	Medium
Why this action is important.	Issuing timely, accurate information during an emergency or disaster is vital to the health, safety and welfare of all community members. This is even more important for vulnerable populations. Establishing and maintaining a database of those most vulnerable will increase the effectiveness and efficiency of information sharing during a crisis. This database will provide a significant enhancement to public safety promoting accountability of vulnerable individuals during and after a disaster.
Status	**In Progress** **What has been Done:** The necessary agencies and community stakeholders are identified and have established strong working relationships. **What is Still Needed:** We need to identify who will take 'ownership' of the database to ensure it contains current, accurate information. We also need to determine a suitable platform/mechanism to manage the data.

ACTION	Continuity Planning
Description	Develop continuity plans for critical community services and educate local businesses about the value of continuity planning. 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/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$150,000
Potential Local Funding	Lancaster County, Local Jurisdictions
Lead Agency	County Engineering
Timeline	2-5 years
Priority	Low
Status	Not Yet Started

ACTION	Emergency Operations Center
Description	Update the Emergency Operations Center to maintain pace with technology requirements. Identify and establish additional EOC facility as appropriate to meet the needs of the growing City/County.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies
Potential Local Funding	Lancaster County Funds
Lead Agency	Lancaster County Emergency Management
Timeline	2-5 years
Priority	High
Why this action is important.	1. Technological Advancements: Keeping pace with technology ensures the EOC can effectively and efficiently coordinate emergency responses using the latest tools and systems. 2. Improved Communication: Modern technology enables better information sharing and coordination among core critical agencies and responders. 3. Enhanced Decision-Making: Up-to-date systems provide real-time data and visualization tools, facilitating faster and more informed decision-making during crises. 4. Scalability: As the city/county grows, the EOC needs to expand its capacity to handle larger and more complex emergencies. 5. Operational Efficiency: Updated facilities and technology streamlines operations, allowing for more efficient and effective management of resources and personnel during emergencies.
Status	**In Progress** **What has been done:** 1. Emergency Management moved to its new facility in January 2019. 2. Technology needs are consistently reviewed and updated as appropriate at the EOC. **What is still needed:** 1. Continue to keep pace with evolving technology requirements for the EOC. This may include: • Upgrading and updating applicable hardware

ACTION	Emergency Operations Center
	• Improving communication technologies • Implementing data analysis and Geographic Information Systems (GIS) tools 2. Update operating procedures and training programs to reflect new technologies and facilities. 3. Develop and implement plans for increased cyber security.

Flooding

Flooding is a major concern for Lancaster County and the communities within its jurisdictional boundaries. The local planning team reports that various creeks, streams, and urban areas flood annually and identified bridges and culverts as a major vulnerability for flooding throughout the County due to aging infrastructure and changes in stream flow and direction. The County would like to improve or harden aging infrastructure to withstand continued flooding events. The County Engineering office maintains an inventory of culverts that need replacement and/or upsizing due to age, significant rusting, or scour issues. According to the County Engineer, Lancaster County has a total of 306 bridges. The County also includes in the 1- and 6-Year plan bridges that need repairs and bank stabilization.

During March 2019, significant flooding caused streambank erosion, washed out gravel roads, and scoured around culverts. Flood debris, such as large trees, hit bridge piers and clogged streams during the event which County Engineers indicate greatly reduces the overall expected lifespan of bridges and culverts. To compound flood repair issues, the cost of rock and gravel has gone up substantially as demand has soared across the region. As extreme weather events are likely to continue and increase in frequency, such as heavy rainfall or rain falling on frozen ground leading to flash melting of snowpack and flash flooding, the cost to repair infrastructure and the frequency with which infrastructure will need to be replaced will likely increase.

Another priority for the County is transportation corridor access for emergency services. Major transportation routes can be blocked or inaccessible during flood events. This has been a particular concern for school buses being unable to access school facilities or dropping students off near flooded streets. The Lincoln/Lancaster County Comprehensive Plan (2040) states that approximately 13.8% of the County is floodplain, but the overall policy for floodplains is a “No Adverse Impact” policy which seeks to ensure the actions of one property owner do not impact others in any adverse way.

According to the NCEI, 11 flood and 47 flash flood events have occurred in the County since 1996 and caused $105,159,000 in property damages. These totals do not include damage estimates from the March 2019 Presidentially Declared Disaster flood event which impacted several communities throughout the County.

The County participates in the NFIP with 10 policies in-force totaling $8,251 as of September 2024. There are no repetitive loss properties in unincorporated areas of Lancaster County as of September 2024.

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

ACTION	Preserve Natural and Beneficial Functions
Estimated Cost	N/A
Potential Local Funding	Lancaster County Funds
Lead Agency	Floodplain Administrator, LPSNRD
Timeline	2-5 years
Priority	Low
Status	Not Yet Started

ACTION	Stream Stabilization
Description	Monitor stream bed degradation occurring along river and creeks throughout the County. Install grade control structures including sheet-pile weirs, rock weirs, culverts, ponds, road dams, etc. to maintain channel beds and reduce flood impacts.
Hazards Addressed	Flooding
Estimated Cost	Varies by Project
Potential Local Funding	Lancaster County Funds
Lead Agency	Lancaster County Engineering
Timeline	5+ years
Priority	High
Why this action is important.	Existing streambed degradation continues to propagate upstream and threaten infrastructure in the rural areas of the County.
Status	In progress - The County has a BRIC grant for a scoping study to evaluate stormwater drainage patterns and stream bed degradation occurring along rivers and streams. One way vulnerable areas are being identified for Capital Improvement Projects is through this study. Such projects may include culvert repair and upsizing, streambank stabilization, grade control structures, etc.

ACTION	Utilize Low Impact Development and Green Infrastructure
Description	Utilize low impact development practices and green infrastructure to reduce flood risk. Low impact development practices and green infrastructure can reduce runoff and result in a reduction in stormwater related flooding
Hazards Addressed	Flooding
Estimated Cost	Varies
Potential Local Funding	Lancaster County Funds
Lead Agency	LPSNRD & Lancaster County Public Works, Floodplain Administrator
Timeline	2-5 years
Priority	Low
Status	Not Yet Started

ACTION	Rural Drainage Study
Description	Conduct a Rural Drainage Study to analyze the impact on heavy rainfall and flooding on County owned corridors.
Hazards Addressed	Flooding
Estimated Cost	$75,000
Potential Local Funding	LPSNRD, Lancaster County

ACTION	Rural Drainage Study
Lead Agency	Lancaster County Engineer and Emergency Management
Timeline	2-5 years
Priority	High
Why this action is important.	Bridges and culverts within the County are a major vulnerability for flooding. 1. Flood Risk Management: Identifies vulnerable areas and assesses the resilience of current drainage systems. 2. Public Safety: Helps prevent road closures and reduces accident risks during heavy rainfall. 3. Economic Impact: Minimizes long-term repair costs and maintains accessibility for local businesses and agriculture. 4. Environmental Protection: Manages runoff and prevents soil erosion, safeguarding local waterways. 5. Infrastructure Planning: Guides future development and prioritizes resource allocation for drainage improvements. 6. Climate Change Adaptation: Prepares infrastructure for increased rainfall and enhances long-term resilience.
Status	In Progress - The County has a BRIC grant for a scoping study to conduct a Rural Drainage Study to evaluate stormwater drainage patterns and stream bed degradation occurring along rivers and streams.

High Winds and Tornadoes

High winds and tornadoes pose a risk to public safety and continuity of operations in Lancaster County. Lancaster County has experienced several significant tornado events and reported that there are annual tornadic events throughout the entire county and in particular during the months of April, May, and June. Tornadoes are of particular concern due to the risk for catastrophic damage they can produce. According to the NCEI, Lancaster County has recorded 27 tornadoes between 1996 and 2023 ranging from EF0 to EF4 category events. The local planning team is concerned for the safety of employees, especially those working in remote or hard to access parts of the County. The main County Office has a damaged roof which would be a major hazard during a tornado event.

Emergency Management has a thorough testing process in place. The outdoor warning sirens are tested on the first Wednesday of the month. Most of the sirens have an assigned point of contact to monitor the siren for proper operation. Social media reminders give community members the opportunity to practice their severe weather sheltering plan during the test. Emergency Management takes the lead in monitoring high winds and tornado threats to promote situational awareness among the general public and community stakeholders via the department website and social media outlets. Public outreach and education regarding these threats is seasonal but ongoing.

Emergency Management has increased the number of outdoor warning sirens in Lancaster County to keep pace with growth and development of high-density population areas. A hazard mitigation project completed in early 2024 added three sirens. In late 2023, Lincoln-Lancaster County Emergency Management participated in a project with other southeast Nebraska emergency managers to distribute NOAA weather radios to vulnerable, underserved populations. This project is ongoing.

ACTION	Alert Sirens
Description	Install additional warning sirens as communities grow. Upgrade current warning siren system.
Hazards Addressed	Dam Failure, Flooding, Grass/Wildfires, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$30,000 each
Potential Local Funding	Lancaster County Funds
Lead Agency	Lancaster County Emergency Management and local jurisdictions
Timeline	2-5 years
Priority	High
Why this action is important.	1. Enhanced Public Safety: Wider coverage ensures more residents can hear alerts, especially in new areas, facilitating rapid notification during emergencies. 2. Emergency Preparedness: Sirens provide multi-hazard warnings, complementing other alert methods and promoting protective actions among the public. 3. Technological Advancements: Upgraded systems offer improved sound projection, reliability, and customizable alerts for various emergencies. 4. Community Growth Adaptation: Additional sirens maintain effective warning coverage as populations expand and address evolving community needs.
Status	**What has been Done:** 1. Installation of new sirens: In early 2024, three new sirens were installed in Lancaster County 2. Monthly Siren tests and annual comprehensive sirens inspections 3. Maintenance plan to ensure all sirens, new and existing, are good working order. 4. Updated contact information for all siren locations **What is Still needed:** 1. Increase number of sirens to keep pace with population growth. 2. Coverage assessment: A comprehensive review of the current siren coverage and identification of gaps or areas needing improved coverage should be conducted. 3. Technology evaluation: Assess the latest siren technology to incorporate state-of-the-art features. 4. Integration with other notification systems: Ensure the siren system is well-integrated with other emergency notification systems (e.g., mobile alerts, social media) for a comprehensive warning approach.

ACTION	Storm Shelters
Description	Identify, design, and develop storm shelters to protect community and critical facilities.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms
Estimated Cost	$200-$300/sf stand alone; $150-200/sf addition/retrofit
Potential Local Funding	LPSNRD, Lancaster County

ACTION	Storm Shelters
Lead Agency	LPSNRD, NEMA, & Lancaster County Emergency Management
Timeline	2-5 years
Priority	Medium
Why this action is important.	Identifying, designing, and developing storm shelters is crucial for enhancing public safety by providing secure refuge during severe weather, potentially saving lives and protecting critical infrastructure. These shelters improve community resilience, reduce injuries and fatalities from high winds and tornadoes, and minimize economic disruption. Additionally, they help communities comply with building codes and access disaster preparedness funding. Overall, this action significantly enhances safety and operational continuity in the face of severe weather events.
Status	2020 Plan - New shelters could potentially be added to new high school facilities. Other potentially identified shelter locations include between Rokeby and 40th St. Updates should be made to planning requirements to include shelter locations in new critical infrastructure and housing developments which primarily utilize slab-on-grade foundations. **What has been Done:** Raymond Volunteer Fire Department's new station includes a Safe Room/ Storm Shelter. **What is Still Needed:** Efforts are ongoing to encourage new construction sites to include designated safe rooms/storm shelters. Securing hazard mitigation funds to cover this added expense to new construction and having funds available to update/upgrade existing facilities is a priority.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region and the state. Severe thunderstorms can cause damage to property, infrastructures, trees, and crops or livestock from heavy rains, high winds, lightning strikes, or hail associated with storms. Thunderstorms pose a risk to public safety and continuity of operations in Lancaster County. Concerns exist from downed trees blocking major transportation routes for emergency services or downing power lines. Severe thunderstorms in the county have caused nearly $4,441,400 in property damages, primarily from lightning strike starting fires. The local planning team indicated primary concerns exist for ensuring staff safety during hazardous conditions, especially in rural portions of the county.

While Lancaster County does not have an all-inclusive warning or alert system in place for public notification, sirens are located throughout the county. Many communities throughout the County have sirens powered by AC single source power, except for the City of Lincoln who is connected to the electrical system and will remain operational during power outages. Lancaster County Emergency Management is currently working on an updated emergency alert system. Emergency Management takes the lead in monitoring severe weather threats to promote situational awareness among the general public and community stakeholders. Emergency Management can initiate and distribute an Integrated Public Alert and Warning (IPAWS) through its Code Red mass

notification system. Situational awareness is promoted via the department website and social media outlets. Public outreach and education regarding these threats is ongoing.

ACTION	Install Weather Station
Description	Install weather station to collect a variety of weather data in real time to determine emergency response requirements. Integrate various systems to produce cohesive reports and data access.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$2,000 per station
Potential Local Funding	Unknown at this time
Lead Agency	Emergency Management, Lancaster County Engineer
Timeline	2-5 years
Priority	Medium
Why this action is important.	Additional weather stations could be installed throughout the County to assist in emergency response. 1. Early Warning: Real-time weather data allows for early detection of severe weather conditions, enabling faster emergency response activation. 2. Accurate Decision-Making: Precise local weather information helps emergency management make more informed decisions about resource allocation and response strategies. 3. Tailored Response: Localized data enables customized emergency responses based on specific weather conditions in different areas of the county. 4. Timely Alerts: Real-time data facilitates the issuance of timely public warnings and advisories for severe weather events 5. Historical Analysis: Collected data can be used for trend analysis, improving long-term emergency planning and response strategies.
Status	2020 Plan – Currently we have one station at the EOC and one in Waverly. Additional stations are needed to clearly identify weather conditions including the Municipal Services Center. Lancaster County Engineering Department is in the process of evaluating emerging technologies that could be used to help monitor weather. **What is still needed:** 1. LTU needs additional weather stations for more thorough monitoring of severe weather and road conditions. 2. Lincoln-Lancaster County Emergency Management should identify viable locations for real time monitoring of weather threats.

ACTION	Hail Resistant Roofing
Description	Encourage the use of hail resistant roofing. Educate the public and business owners regarding hail resistant roofing.
Hazards Addressed	Severe Thunderstorms

ACTION	Hail Resistant Roofing
Estimated Cost	$0
Potential Local Funding	Lancaster County Funds
Lead Agency	Lancaster County Building Code Officials
Timeline	2-5 years
Priority	Low
Status	Not Yet Started

ACTION	Stormwater System and Drainage Improvements
Description	Improve drainage patterns throughout the County through upsizing of culverts and grade control structures for streambeds. 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
Estimated Cost	$100,000+
Potential Local Funding	LPSNRD, Lancaster County
Lead Agency	Lancaster County Engineer and Emergency Management
Timeline	5+ years
Priority	High
Why this action is important.	Bridges, culverts, and roadways within the County are a major vulnerability for flooding and stormwater due to aging/undersized infrastructure and changes in streambed profiles due to highly erosive soils in southeastern Nebraska.
Status	In Progress - The County is evaluating paved roads to improve drainage across the county. The County Engineering Department is developing guidance documents for establishing standards. The County's BRIC grant is evaluating stormwater drainage patterns in the rural areas of the county. The study report is the first step in identifying Capital Improvement Projects to protect County infrastructure. Such projects may include culvert repair and upsizing, and grade control structures.

Severe Winter Storms

The County local planning team identified severe winter storms as a significant concern for the community. According to the NCEI, a total of 92 severe winter storm events have occurred in the County, which have caused over $16 million in property damage. The winter of 2018-2019 was particularly brutal with several rounds of winter storms and blizzards that dumped upwards of a foot of snow, high winds, whiteout conditions, and bitterly cold temperatures. This led to several road closures including Interstate 80. The County noted that they have limited road clearing capabilities with one road crew available to clear roads of snow. They are looking to hire additional staff to allow for two road crew shifts.

The local planning team also noted that at the end of the 2018-2019 winter season, there was a significant rise in the number of frost boils reported throughout the County. Frost boils are created when frost in the gravel roadway melts in spring but can't drain away because of frozen ground below. The soggy roadbed eventually heaves, softens, and fails. Vehicles can easily become stuck in the liquified mud and leads to stretches of roadway closures until the ground thaws and the top layer dries.

Severe winter storms pose a risk to public safety and continuity of operations in Lancaster County. Emergency Management takes the lead in monitoring severe winter weather threats to promote situational awareness among the general public and community stakeholders. Public outreach and education regarding these threats is seasonal but ongoing. Situational awareness is promoted via the department website and social media outlets.

ACTION	Backup Generators
Description	Provide backup power systems to provide redundant power supply.
Hazards Addressed	Dam Failure, Extreme Temperatures, Flooding, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies by need
Potential Local Funding	Lancaster County Funds
Lead Agency	Lancaster County Emergency Management
Timeline	2-5 years
Priority	High
Why this action is important.	1. Reliable Power during Outages 2. Protection for essential Systems 3. Peace of mind 4. Versatility of Fuel Options 5. Continuity of operations
Status	In Progress - In Lancaster County, we have identified the locations that should have backup generators. We need to secure hazard mitigation funding and move forward with installing generators at those sites.

Other Hazards of Concern:

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

Levee Failure

There are seven USACE federally constructed levees and one non-USACE, locally constructed levee in Lancaster County, all of which are located within the City of Lincoln. According to the USACE National Levee Database these structures provide protection to 4,891 people at risk, 1,104 structures, and property valued at around $888 million. For more information, see Lincoln's Community Profile.

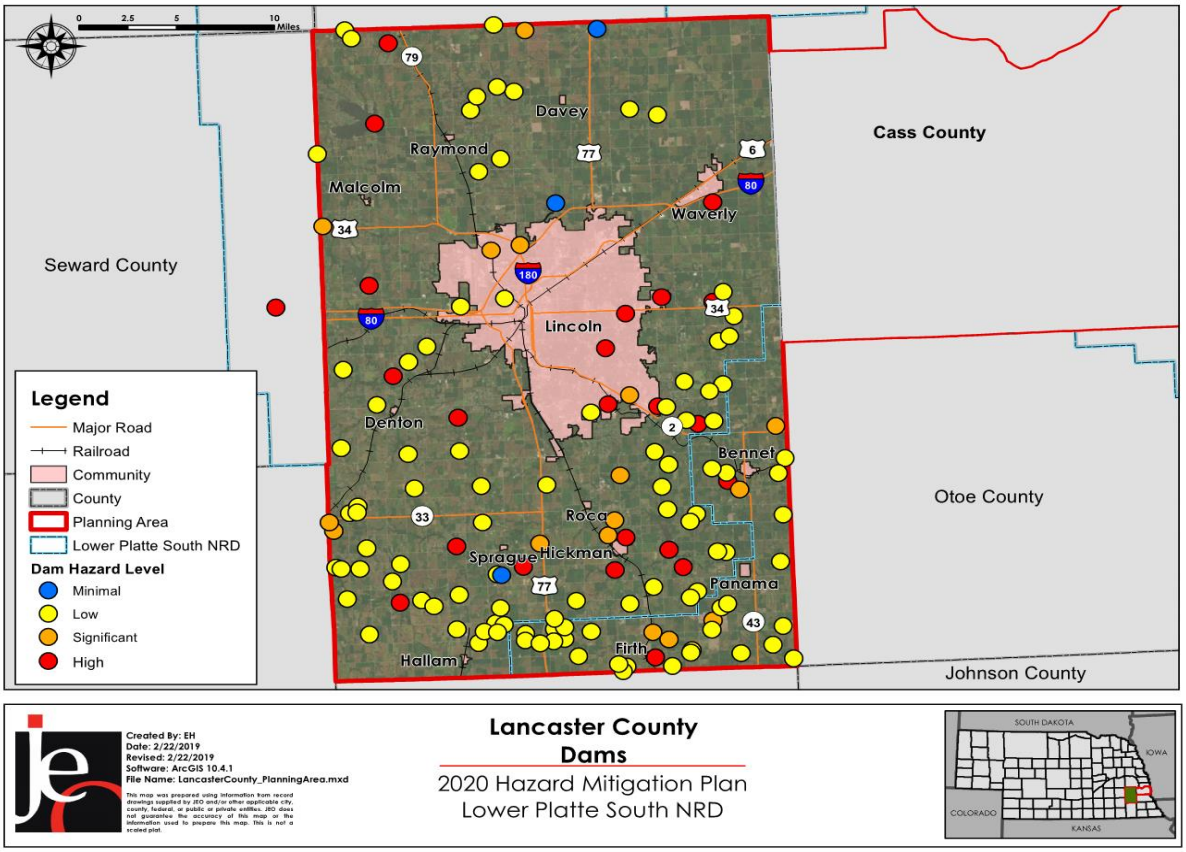
Dam Failure

The local planning team identified dam failure as a hazard of top concern for the county due to the large number of dams located within the county. Lancaster County has a total of 141 dams within its jurisdictional boundary. Of these, six are minimal hazard, 99 are low hazard, 14 are significant hazard, and the remaining 22 are high hazard dams. Dams classified as high hazard require the creation of an Emergency Action Plan (EAP). The EAP defines responsibilities and provides procedures designed to identify unusual and unlikely conditions which may endanger the structural integrity of the dam within sufficient time to take mitigating actions and to notify the appropriate emergency management officials of possible, impending, or actual failure of the dam.

The local planning team indicated concerns if the Branched Oak Lake/Salt Creek Site 18 Dam were to fail. During the March 2019 flood event, the dam spillway ran consistently for several weeks post flood. If the dam were to fail, it would likely impact the Village of Raymond; many roads and highways including Highways 34 and 79; and northwestern portions of Lincoln such as the Lincoln Airport, Kawasaki plant, and new housing developments in the area.

Continued monitoring of the risks is an ongoing action the county is doing to mitigate risks and impacts. Emergency Management has maintained its strong working relationship with the LPSNRD, County Engineering, City of Lincoln Transportation and Utilities, and other community stakeholders, The Upper Salt Creek 3-A dam located in Lancaster County is included in the 2021 Nebraska State HMP's list of "High Hazard Dams in Poor Condition." Lancaster County's dams are shown in the next figure.

Lancaster County Dams



Completed Mitigation Actions

ACTION	Public 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/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Status	Complete/Ongoing - Emergency Management has a well-established program for community outreach and public education. With the addition of a full-time Training Specialist in May 2024, the ability to expand this programming will increase. No additional actions were identified.
Why this action is important.	1. Enhanced Community Resilience: Informed individuals make better decisions during emergencies, leading to proactive preparedness and increased resilience. "We can't expect people to make good decision unless they have good information". 2. Improved Emergency Response: Knowledgeable citizens can react more quickly to emergencies, reducing the strain on emergency services. 3. Long-Term Risk Reduction: Education fosters a culture of safety and prepares future generations to prioritize disaster prevention. 4. Economic Benefits: Public education is cost-effective, helping to minimize disaster recovery expenses and reduce economic losses. 5. Compliance and Safety Standards: Educated, informed individuals are more likely to adhere to safety regulations, enhancing workplace safety and avoiding legal issues. 6. Psychological Preparedness: Knowledge alleviates anxiety about disasters and empowers individuals to take control of their safety.

ACTION	Shelter-In-Place Training
Description	Ensure that all CFs, businesses, and residents located near major transportation corridors are aware of how to safely shelter in place in the event of a chemical incident.
Hazards Addressed	Hazardous Materials
Status	Complete - The Standard Response Protocol (SRP) has been adopted by several school districts, agencies and businesses in Lancaster County. Efforts are ongoing to expand its adoption and implementation.
Why this action is important.	1. Coordinated Response: When everyone understands shelter-in-place protocols, it facilitates a more organized community response. 2. Reduced Strain on Emergency Services: Well-prepared citizens can better protect themselves, allowing first responders to focus on critical tasks. 3. Business Continuity: Trained businesses can better protect employees and assets, potentially reducing downtime and economic losses. 4. Infrastructure Preservation: Proper response can help safeguard critical infrastructure near transportation corridors. 5. Minimized Exposure: Proper shelter-in-place techniques can significantly reduce the risk of chemical exposure and related health impacts. 6. Containment of Incidents: Quick action by trained individuals can help prevent the spread of chemical hazards.

Community Profile

City of Bennet

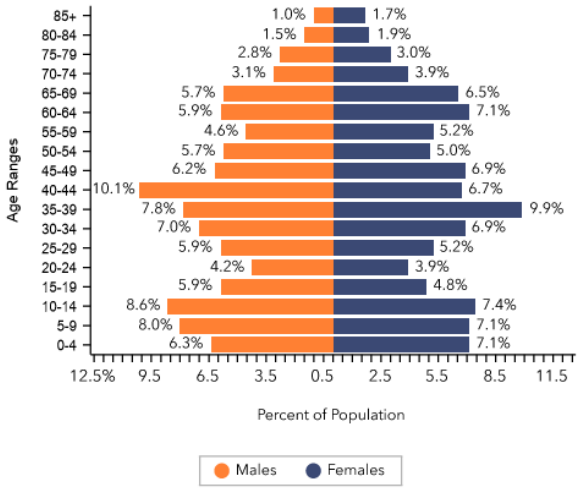
Lower Platte South NRD
Multi-Jurisdictional Hazard Mitigation Plan
2025 Update

Community Summary Fact Sheet

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

1,153	38.3	$96,977	$246,780	0.6%	3%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



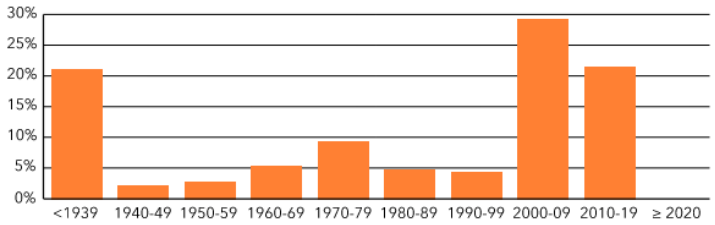
TOTAL POPULATION

2023 Total Population (Estimate)	1,153
2020 Total Population (U.S. Census)	1,082
2010 Total Population (U.S. Census)	741
2000 Total Population (U.S. Census)	601

AT RISK POPULATION

136	177	3
Households With Disability	Population 65+	Households Without Vehicle

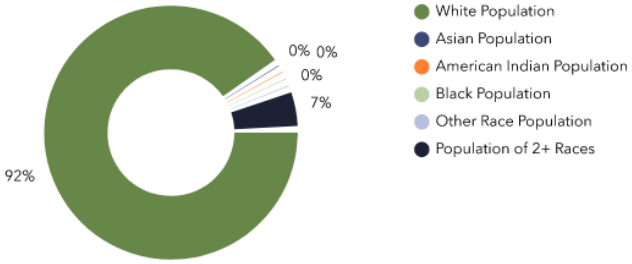
HOUSING: YEAR BUILT



COMMUTER

0%	1%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

3%	9%	1%
Vacant Housing Units	Renter Households	Mobile Homes

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
Greg Pohl	Planning Commission Chair	City of Bennet	Profile Development
Steve Bettendorf	City Council Member	City of Bennet	Profile Development
Michele Lincoln	City Clerk/Treasurer	City of Bennet	Profile Development; Attended Meetings
Sue Biltoft	City Clerk	City of Bennet	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 Board and Chairperson and the City Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. The City will review the plan annually in the fall and the public will be notified through the postings at local hubs such as the City Office and Post Office.

Location and Geography

The City of Bennet is in the southeast corner of Lancaster County, approximately two miles west of the County line and five miles northeast of the Wagon Train State Recreation Area. The City covers an area of 0.52 square miles. There is one major waterway near the town, the Little Nemaha River, which flows west-to-east on the south end of town. There is a Burlington Northern Railroad line which follows the river from east to west on the south side of town.

Capability Assessment

The planning team assessed the City of Bennet'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	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	No
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	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
	Chief Building Official	Yes
	Civil Engineering	Yes
	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	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.	Local Volunteer Fire Department
	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	Yes
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Bennet 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:	4/25/1975
Floodplain Administrator:	Michele Lincoln
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 ($:)	-
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 City of Bennet requires permits for all development within flood risk hazard areas. The city's 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. 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 county or state.

Section 154.26 of the Municipal Code states: A floodplain development permit shall be required before any development, construction, or substantial improvement is undertaken. No person, firm, corporation, government agency, or other entity shall initiate any floodplain development without first obtaining a floodplain development permit.

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 Bennet have been removed from the floodplain via LOMA. A summary of LOMAs identified for Bennet 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
595	$108,159,800	12	$2,545,400	2%

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
595	$108,159,800	4	$192,800	0.7%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	18-07-0720A-310251	04/24/2018	Property removed from SFHA
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0459G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0467G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0478G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0486G	04/16/2013	Current FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Bennet 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 and approved in 2024. One of the key goals of the Comprehensive Plan is to “Provide a guideline for the location of future uses and developments within the planning jurisdiction of Bennet”. The Comprehensive Plan noted the City of Bennet saw significant population growth over the past decade and charges the city to develop in safe and sustainable ways. The Comprehensive Plan also noted the median age for the city increased while the dependency ratio decreased – indicating a potential reduction in vulnerability to vulnerable populations (children and elderly).

The plan noted the majority of housing units in Bennet were built prior to 1980 and may require special weatherization assistance. The housing stock in Bennet is full and a need for additional homes was identified as a need to support the growing population. Key goals were identified that related to hazard mitigation such as:

- Housing Goal 2– existing housing is improved and preserved
    - Objective 2.2 – target funds toward property improvement for low and moderate income residents

    - Objective 2.4 – consider participation in the Southeast Area EDD code enforcement program.
- Housing Goal 3 – development costs are reduced where possible
    - Objective 3.2 – proactively extend public utilities to reduce the costs of development and encourage development in appropriate areas.
- Public Safety Goals 2: adequate fire protection services and emergency medical services are provided to the community.
    - Objective 2.2 – continue tot work closely with the fire department risk reduction division to ensure new and renovated buildings are safe and meet the city's building and fire codes
- Public Safety Goal 3 – Adequate Emergency management services are provided to the community
    - Objective 3.1 – continue tot participate in emergency management programs and exercises.
- **Hazard Goal 1 – the city provides adequate support for goals and objectives of the Hazard Mitigation Plan**
    - **Objective 1.2 – the city maintains conformance with the National Flood Insurance Program**
    - **Objective 1.3 – consider participating in the FEMA CRS to provide flood insurance premium discounts to property owners and tenants.**

Bennet's Facilities Plan in the Comprehensive Plan note several locations which increase the capacity of the City: city hall and offices, district OR-1 Public Schools, Bennet Senior Center, communications companies, and utilities.

The City of Bennet's Comprehensive Plan specifically references the Lower Platte South NRD 2020 Hazard Mitigation Plan and the hazards identified therein. The goals of the HMP were reviewed for consistency as the Comprehensive Plan was developed. Other sections reviewed and included are critical facilities (now referred to as Community Lifelines), risk assessment and common impacts, mitigation strategy, plan maintenance, and other resources. Updates to mitigation actions were included in the Comprehensive Plan and included in this HMP to further mitigation efforts.

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. Bennet's zoning ordinance and subdivision regulations were updated in 2021. The City's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. Section 154.25 through 154.99 outlines all floodplain management administration requirements. 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 and requires a base flood elevation of 1 ft.

Building Codes

The building code sets standards for constructed buildings and structures. The City of Bennet uses the 2018 International Building Codes. Enforcement of the building codes is done by the city's Chief Building Officer.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

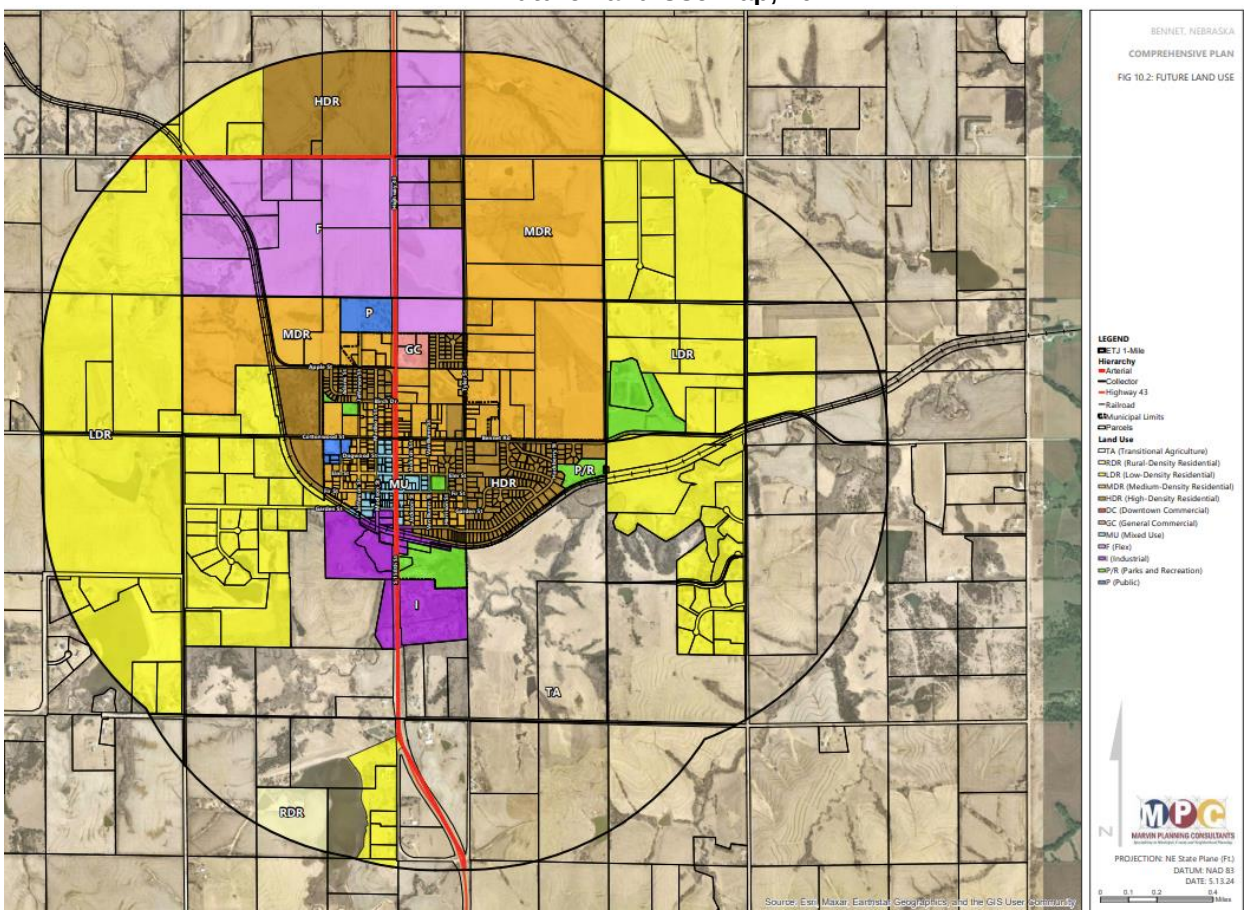
Future Development Trends

Over the past five years there have been several significant changes noted. The Secretary of State proclaimed the Village of Bennet be a City of the Second Class on March 21, 2022. There have been three new housing developments and an increase in businesses. New housing provides for an increased valuation and additional tax base for supporting the community. New businesses include Tailored Life 360, Bean Box Coffee Shop, and Antique Anthology. Tailored Life 360 is located in the 0.2% Annual Flood Risk Area. The overall population of Bennet is increasing, which is attributed to the proximity to Lincoln as well as the recently constructed housing development. There are additional housing developments on the northeast corner of the City called Cedar Brook and Cochranes Corner and another to the east called Evergreen Place. Part of Evergreen Place and Cochranes Corner are located in the 0.2% Annual Flood Risk Zone. No housing or businesses are located near the anhydrous tanks, propane tanks, or other coop chemicals. Future potential business Viter Microbrewery 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.

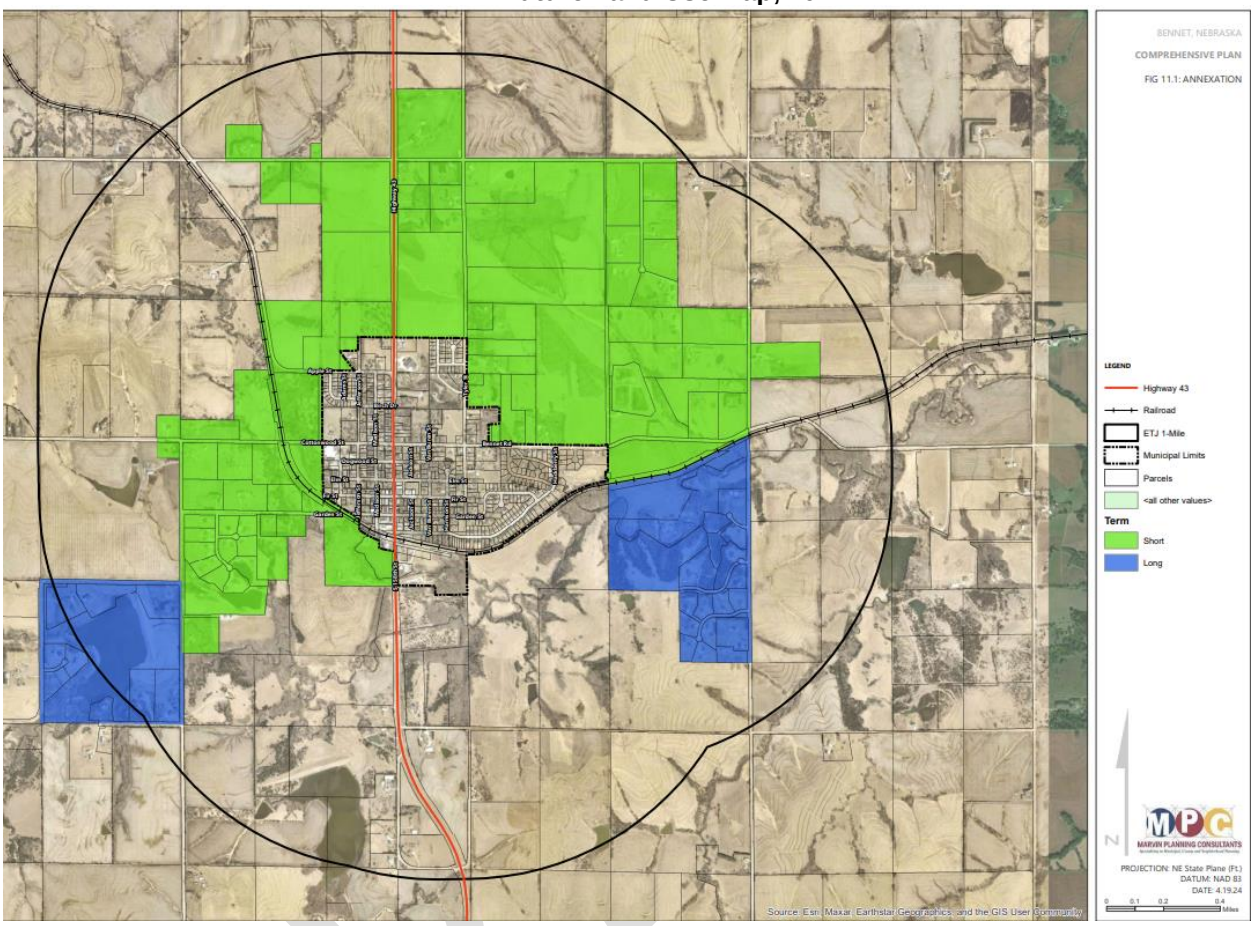
The future land use map indicates potential growth areas and their potential land uses for the City of Bennet. Residential development is expected to continue to the north, east, and west of the community. Industrial use is planned to the south of city limits and along Highway 43. Commercial and public development are expected to develop in the north along Highway 43. Note these areas of future development are away from flood risk hazard areas to the edges and south of town.

Future Land Use Map, 2024



As the City of Bennet is growing at a rapid rate, the City is exploring considerations to annex several areas to the east, north, and west of town.

Future Land Use Map, 2024

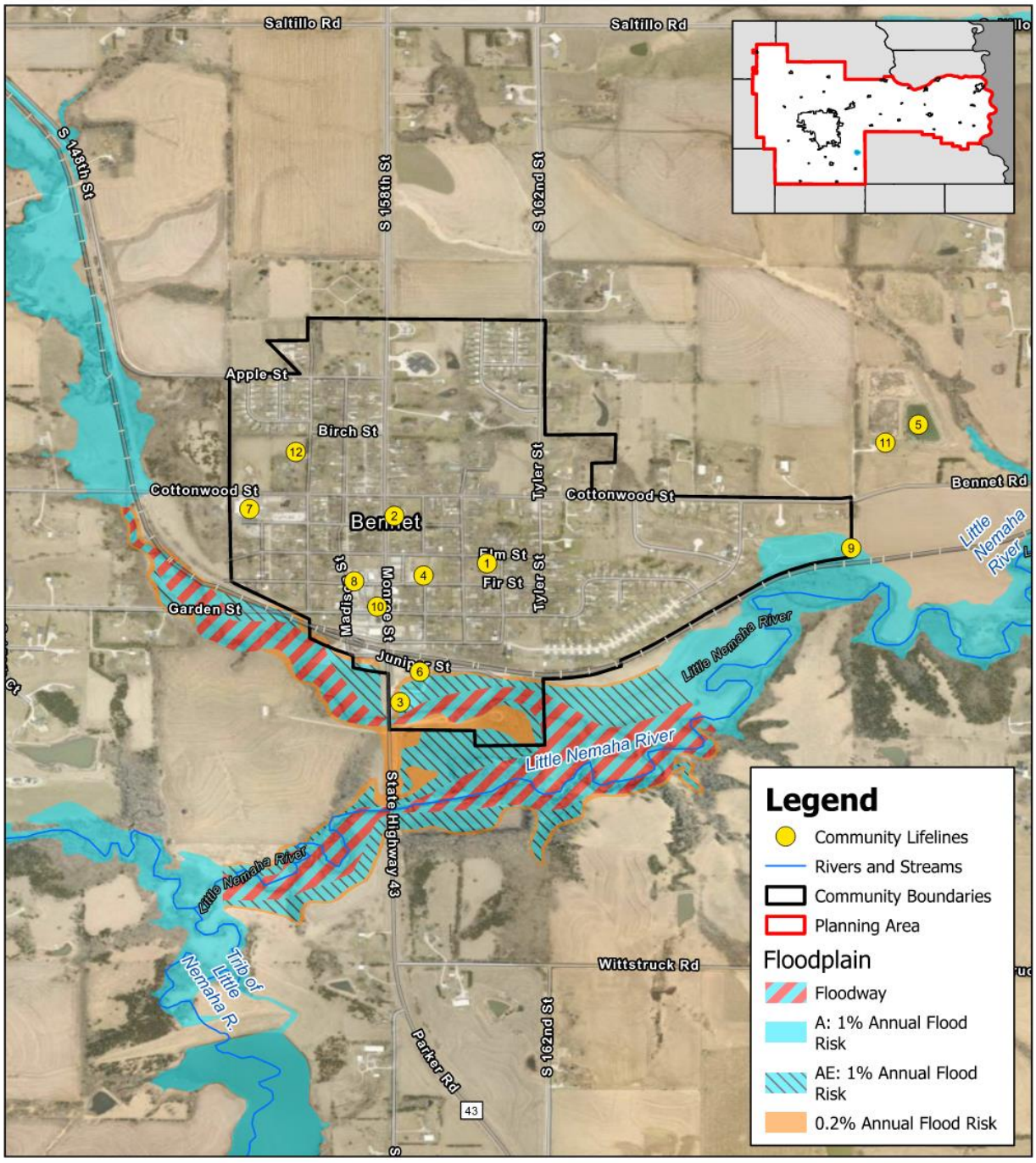


Community Lifelines

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.

Bennet Community Lifelines

CF #	Lifelines	Name	Generator	Shelter	Located in Floodplain
1	Food, Water, Shelter	Bennet City Park Shelter	N	Y	N
2	Other	Bennet Community Church	N	Y	N
3	Other	Bennet Legion Post #280/Senior Hall	N	Y	Y
4	Safety and Security	Bennet Rural Fire District	N	N	N
5	Food, Water, Shelter	Lagoon	Y	N	N
6	Other	Maintenance Street Shop	Y	N	N
7	Other	Palmyra School District OR-1	Y	Y	N
8	Food, Water, Shelter	Rural Water District #1	Y	N	N
9	Food, Water, Shelter	Sewer Lift Station	Y	N	Y – 0.2%
10	Safety and Security	City Office	N	N	N
11	Food, Water, Shelter	Wastewater Treatment Plant	Y	N	N
12	Food, Water, Shelter	Water Tower	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 JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

Bennet Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

0 1,500 3,000 Feet

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 Bennet 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 Bennet. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Drought

Drought is a pervasive hazard which can severely harm the surrounding agricultural economy. Water for the City is provided by the rural water district. Concerns exist for overall water quantity. The City has water use restrictions outlined in the case of water shortages but does not have a water conservation program. There are several wells in town that have been abandoned due to high nitrate levels. In cases of drought, additional wells may experience high nitrate concentrations and pose concerns for water quality. In May 2022, the City adopted seasonal water restrictions for the period of May 15 to October 31 of each year. As a result, lawn and landscaping watering schedules were created depending on even/odd numbered addresses. No watering or irrigation is allowed on Mondays and penalties were established for violations resulting in fines and disconnection of water services.

ACTION	Investigate New Sources of Water
Description	Study alternate water sources or develop additional storage options in the event that the water system fails.
Hazards Addressed	Drought
Estimated Cost	$10,000+
Potential Local Funding	Water fund reserve
Lead Agency	City Engineer
Timeline	1 year
Priority	High
Status	Not yet started – This plan has not yet been started due to lack of funding.

Flooding

Flooding concerns in the City stem from the close proximity of the Little Nemaha River and from heavy rainfall from thunderstorms and poor stormwater drainage throughout the City. Heavy rain events commonly cause localized flooding, blocking transportation routes and damaging property. A tributary of the Little Nemaha River is located directly south of the City with extensive floodplain located to the east, south, and west of town along major transportation routes and the railroad line. Flooding events in 2004 closed several local parks. The City of Bennet participates in the National Flood Insurance Program and has discussed joining the Community Rating System to implement additional flood risk reduction strategies and alleviate flood insurance premiums for residents.

Additional Concern regarding Dam Failure

According to the Lancaster County Local Emergency Operations Plan (LEOP), the Big Nemaha Dam (11-A) would inundate 100% of the City of Bennet in the case of a dam failure event. This dam is classified as a high hazard dam and is required to have an Emergency Action Plan (EAP). Other dams upstream of Bennet include Kuhn Dam Wiedeman Dam which are low hazard dams, and Upper Little Nemaha 23 Dam which is a significant hazard dam. Thus far, no dam failure events have occurred locally. The City of Bennet does not own any of these dams and is limited in their capacity to maintain the dam infrastructure or reduce risk of flooding due to dam failure.

ACTION	Complete City-wide Flood Project Master Plan
Description	Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas, and potentially multiple drainage improvements for each.
Hazards Addressed	Flooding, Severe Thunderstorms (stormwater flooding)

Estimated Cost	$10,000 +
Potential Local Funding	Bonds
Lead Agency	*Engineering*
Timeline	5+ years
Priority	High
Status	Not yet started – This plan has not yet been started due to lack of funding.

ACTION	**Educate Public and Businesses on Flood Mitigation Projects**
Description	Educate the public and business owners regarding rain gardens, green roofs, and other minor mitigation measures.
Hazards Addressed	Flooding
Estimated Cost	Varies
Potential Local Funding	General tax dollars
Lead Agency	Floodplain Administrator
Timeline	5+ years
Priority	Low
Status	Not yet started – This plan has not yet been started due to lack of funding.

ACTION	**JOIN COMMUNITY RATING SYSTEM**
Description	Evaluate and join FEMA's Community Rating System to reduce flood insurance rate premiums for residents and reduce flood risk across the community.
Hazards Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Staff Time
Potential Local Funding	General Fund
Lead Agency	Floodplain Administrator
Timeline	2-5 years
Priority	Medium
Status	This is a new mitigation action.

Hazardous Materials Release

Hazardous materials releases are a concern for the City of Bennet from the potential impact on resident health and contamination. For chemical fixed site spills, the local planning team indicated that some small anhydrous leaks have occurred locally. The local Co-Op has a large propane fill station and there are other facilities in town which may store potentially hazardous chemicals, such as the Nebraska Bulk Transportation facility. The majority of chemical spills occur during the loading or unloading of materials, making fixed sites in the city a greater risk and concern.

Chemical transportation is also a present concern for the City of Bennet due to the high volume of hazardous chemicals transported through the City via highway and railroad. Major transportation routes through the City include Highways 43 and 2. A rail line owned by the Omaha Public Power District run west-east by the City and commonly transports energy sector materials. There are critical facilities located along major routes and most of the City lies within a half-mile buffer of these major routes. There are no education programs in place to warn or educate residents about safety measures in the case of a chemical spill. If a chemical spill does occur, the local fire department are the primary responders. The City needs to work with the local Farmers

Co-Op to move its anhydrous tanks outside of the corporate limits. The City implemented the Text.My.Gov alert system which may be utilized for emergency information regarding chemical releases.

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 event of a chemical incident.
Hazards Addressed	Hazardous Materials (Transportation)
Estimated Cost	$1,000 +
Potential Local Funding	General tax fund
Lead Agency	Local volunteers
Timeline	1 year
Priority	High
Status	Not yet started.

High Winds and Tornadoes

High winds and tornadoes are common across the planning area and can cause damage to homes and infrastructure. The local planning team is particularly concerned with damages to power lines and cell towers which cause prolonged power outages and disrupt communications. The City experienced an EF0 tornado in 2008, an EF1 tornado in 2009, and an EF2 tornado in 2014, none of which caused injuries, fatalities, or significant property damage. Additional high wind events causing damage occurred in April and July 2024 which dropped trees and damaged roofs across the region. The city utilizes building codes and requires all new development to meet such requirements, but many older homes across the city may need additional weatherization or are at higher risk to damages during severe weather.

Recent regional tornado events have alerted the City to potentially need local procedures to handle looting, restricting access to affected areas, debris removal, sheltering for displaced residents, and a command center for rescue personnel and volunteers. Local municipal records are backed up on the cloud and some critical facilities have sustained minor wind damage in the past. Lancaster County manages the warning and alert sirens in the City, but there are no tornado safe rooms located within the City. Additionally, the City has mutual aid agreements in place with Palmyra and Douglas to provide assistance in case of a severe weather event. Lancaster County has an emergency text alert system for severe weather events, and the City implemented a Text.My.Gov system to allow for immediate alerts and information that can easily be sent out to all residents that have signed up for the service.

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	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Sever Winter Storms
Estimated Cost	Varies
Potential Local Funding	LPSNRD, Lancaster County & City of Bennet
Lead Agency	City Clerk
Timeline	2-5 years

ACTION	Promote Use of Higher Codes and Standards
Priority	Medium
Status	Not yet started.

Severe Thunderstorm

The local planning team identified heavy rain producing localized flooding and hail causing severe property damage as parts of severe thunderstorms hazard risk. The City experiences damaging events regularly and subsequent damage can cause a significant financial burden on community resources and residents. No facilities or homes in the City have hail resistant roofing and a severe hail event in 2016 caused damage to roofs throughout the City. City buildings are insured for hail related damages. Damages from hail are common to homes, vehicles, utilities, and trees. Heavy rain events also lead to pluvial flooding and can block transportation routes through the city. The city identified a need to do a Flood Project Master Plan to help address some of these areas.

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, Severe Thunderstorms (stormwater flooding)
Estimated Cost	$5,000 +
Potential Local Funding	Taxes, City Funds, Grants
Lead Agency	Park Committee
Timeline	2-5 years
Priority	Medium
Status	The Master Park Plan identified several locations that can benefit from functional floodplain uses including Whispering Pines and the south ballfield in town. Specific improvements to these areas have not yet started. The City is exploring funding options.

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	Bonds
Lead Agency	Streets
Timeline	5+ years
Priority	High
Status	Not yet started – This city-wide project has not yet started due to lack of funding. Would be evaluated at the same time as the City-wide Flood Project Master Plan.

Completed/Removed Mitigation Actions

ACTION	Improve Snow Removal Resources
Description	Purchase snowplow / equipment
Hazards Addressed	Severe Winter Storms
Status	*Completed – new purchase of snow removal equipment. Current resources are adequate.*

ACTION	Tree Education
Description	Educate the public on tree planting and establish and annual tree trimming program to assist those with low income and the elderly.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	Completed – tree education and guidelines for new trees in town is an ongoing action with information shared via newsletters as 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	*Completed – Identified as completed in the Comprehensive Plan. City passed resolution No. 2022-9.3 in, 2022 to address this need.* *In 2022, the City adopted seasonal water restrictions for the period of May 15 to October 31 of each year. As a result, lawn and landscaping watering schedules were created depending on even/odd numbered addresses. No watering or irrigation is allowed on Mondays and penalties were established for violations resulting in fines and disconnection of water services.*

Community Profile

Village of Davey

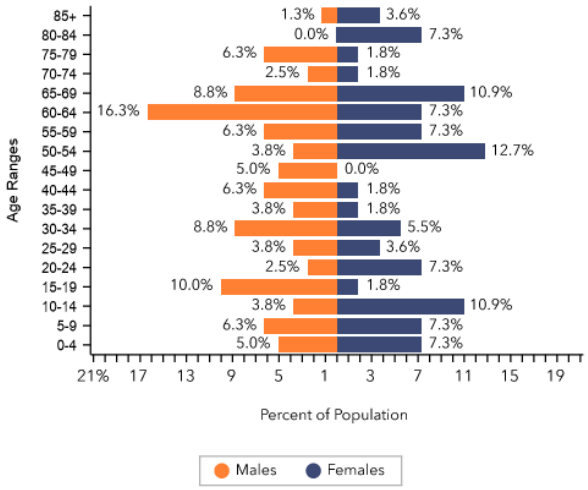
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

135	46.9	$118,950	$375,000	2.6%	9%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



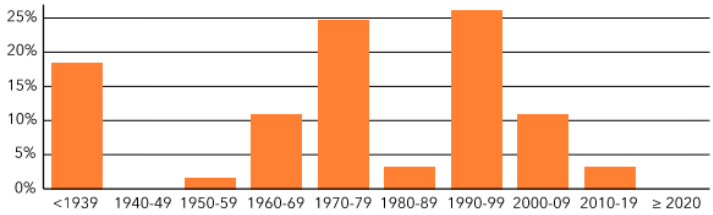
TOTAL POPULATION

2023 Total Population (Estimate)	135
2020 Total Population (U.S. Census)	135
2010 Total Population (U.S. Census)	142
2000 Total Population (U.S. Census)	126

AT RISK POPULATION

15	29	0
Households With Disability	Population 65+	Households Without Vehicle

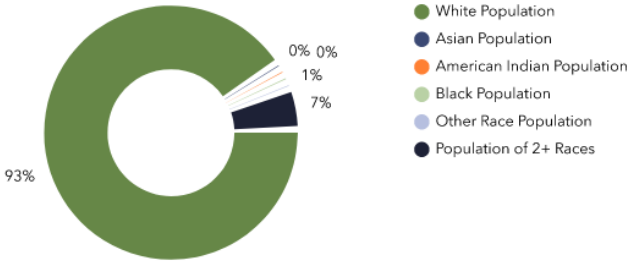
HOUSING: YEAR BUILT



COMMUTER

0%	0%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

17%	14%	0%
Vacant Housing Units	Renter Households	Mobile Homes

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

Please include your name, title, and jurisdiction you represent in the table below.

Name	Title	Jurisdiction

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 Davey will review the plan annually and the public will be notified through public notices that can be located at board meetings and three posting locations in the Village.

Location and Geography

The Village of Davey is in the north-central portion of Lancaster County, approximately four miles south of the Saunders County line and 10 miles east of Branched Oak Lake. The Village covers an area of 0.15 square miles. There are no major waterways near the town.

Capability Assessment

The planning team assessed the Village of Davey'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	Comprehensive Plan	Yes

Capability/Planning Mechanism		Yes/No
& Regulatory Capability	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	No
	Building Codes	No
	Water System Emergency Response Plan	No
	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	No
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	
Fiscal Capability	1- & 6-Year Plan	No
	Applied for Grants in the Past	No
	Awarded a Grant in the Past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	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,	No

Capability/Planning Mechanism		Yes/No
	Household Preparedness, Environmental Education)	
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No

Davey Overall Capability

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

The Village of Davey does not participate in the National Flood Insurance Program because there are no areas within the Village's corporate limits that fall within the floodplain. The Village Clerk review building permits to ensure they follow necessary regulations. Davey does not anticipate joining NFIP in the next five years.

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

Parcel Value in the Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
98	$15,622,400	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM
FIRM Panel	31109C0070G	04/16/2013	Current FIRM
FIRM Panel	31109C0177G	04/16/2013	Current FIRM
FIRM Panel	31109C0183G	04/16/2013	Current FIRM
FIRM Panel	31109C0184G	04/16/2013	Current FIRM
FIRM Panel	31109C0184G	04/16/2013	Current FIRM

Source: Flood Map Service Center

Plans and Studies

Davey 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 of Davey's Comprehensive Plan does not discuss natural hazards, but does direct development away from major transportation routes, primarily Davey Road to the north of town. There is currently no update planned for the Comprehensive Plan.

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. Davey's Zoning Ordinance was adopted in June 1977. Some parts of the ordinance have been revised over time, however additional updates for zoning and building codes are needed.

Water Emergency Plans

Davey has a Water Emergency Plan which was last updated in 2016 and will be undergoing revision in December 2019. This plan outlines water restrictions and assigns specific responsibilities. The Lower Platte South NRD has assisted the Village of Davey with a Wellhead Protection Plan to protect drinking water supplies. There are signs alerting residents of the protected area, well set back requirements in the zoning ordinance, and some outreach programs to inform residents.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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 five years there has been no major development either residentially or commercially in Davey. The population of Davey has been increasing over the previous twenty years, which

local mitigation planners attribute to the village's proximately to Lincoln. There are no housing developments planned in the next five years nor any new businesses.

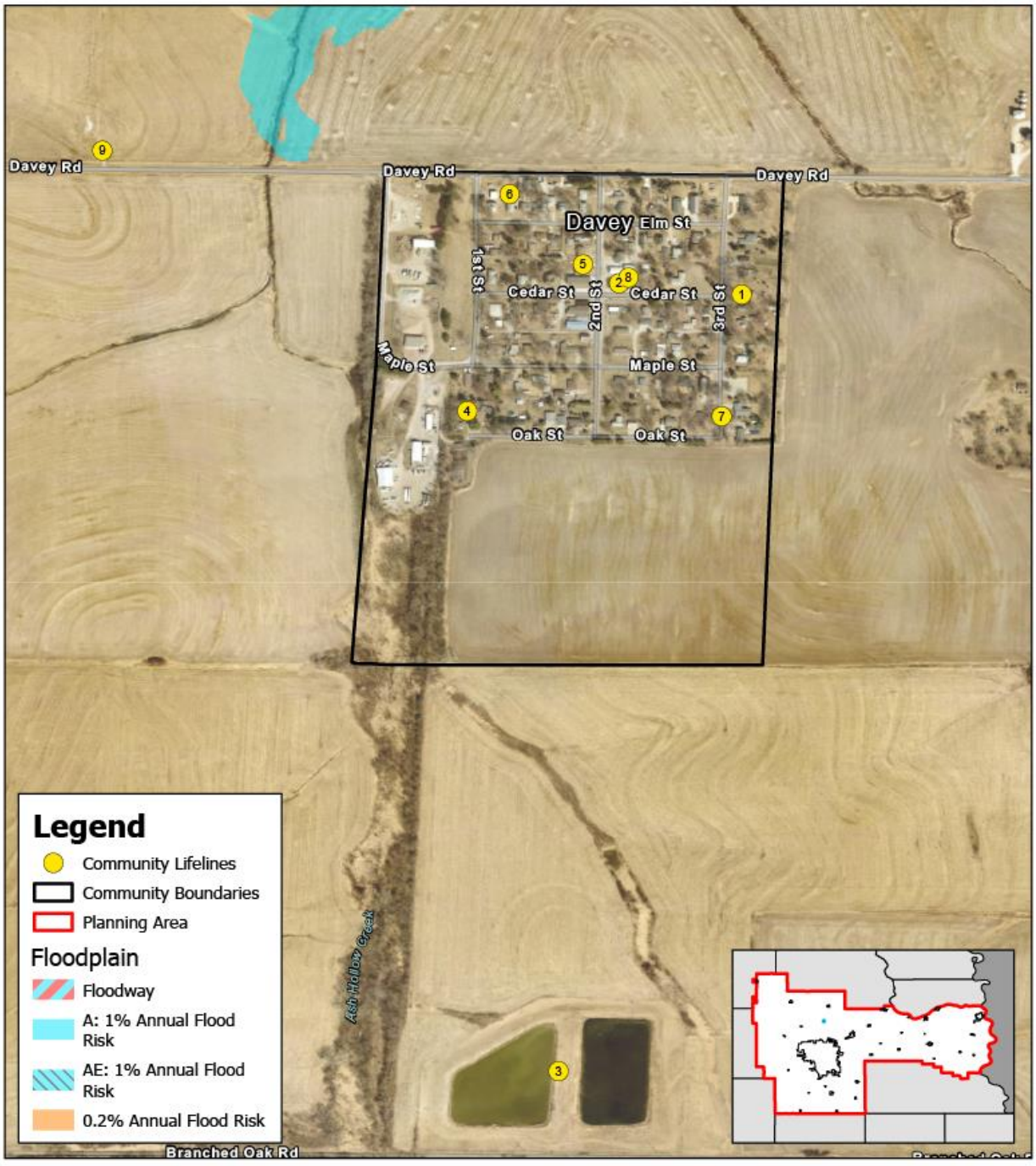
Community Lifelines

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.

Davey Community Lifelines

CF #	Lifelines	Name	Generator	Shelter	Floodplain
1	Food, Water, Shelter	Bethlehem Lutheran Church	N	Y	N
2	Food, Water, Shelter	Community Center	N	Y	N
3	Food, Water, Shelter	Lagoon	N	N	N
4	Transportation	Lancaster County Shop	N	N	N
5	Transportation	Maintenance Shed	N	N	N
6	Food, Water, Shelter	Old Sewer Treatment Plant	N	N	N
7	Food, Water, Shelter	Saint Mary's Catholic Church	N	Y	N
8	Food, Water, Shelter	Water Storage Tank	N	N	N
9	Food, Water, Shelter	Well House	Y	N	N

Davey Community Lifelines



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 Davey 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 Davey. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

High Winds and Tornadoes

The local planning team identified high winds as a significant hazard of concern for the community. The local planning team reported wind damages in June 2008 which damaged numerous trees throughout town. High wind events have the potential to damage power lines, emergency alert equipment, community trees, and residential and business roofs or siding. The Village of Davey experienced a categorized F0 tornado in 2004. While the tornado did not cause any reported damages, tornadoes have the capability to cause catastrophic damages to critical infrastructure and pose a high risk to residents' safety. There are no safe rooms located in the Village of Davey. The Village has identified a need to update zoning and building ordinances to promote the use of better building standards and to evaluate local trees that have recently began dropping limbs.

ACTION	Bury Main Power Lines
Description	Bury Power lines
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies
Potential Local Funding	Norris Public Power District, Lancaster County & Village of Davey
Lead Agency	Norris Public Power District, Village Board
Timeline	1 year
Priority	Low
Status	Not yet started. Village does not bury lines, but can update local codes/ordinances that any new development should be buried.

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	$0, Staff Time
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started. An inventory should be completed for all trees in the Village.

Severe Thunderstorms

Severe thunderstorms are common across the planning area and for the Village of Davey. Severe thunderstorms can include impacts from heavy rain, strong winds, and lightning strikes. Hail is a concern for the local community due to its potential to cause damage to public and private properties, agriculture, communication systems, and transportation routes. The local planning team indicated concern for blocked transportation routes, especially for older or more vulnerable residents. Surge protectors are needed for municipal buildings to protect critical records. The NCEI reports 12 severe weather events which have directly impacted the Village of Davey. Two of these events reported hail up to 1.75 inches. While no damages were reported with these events, it is likely they caused damage to privately owned homes and businesses.

ACTION	Promote Use of Higher Codes and Standards
Description	Evaluate and improve current building standards/codes/requirements. Promote use of higher codes and standards, such as fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits.

Hazards Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0, Staff Time
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	1 year
Priority	Low
Status	Not yet started. Building codes have not been adopted specifically by the village.

ACTION	Surge Protectors
Description	Purchase and install surge protectors on sensitive equipment in critical facilities
Hazards Addressed	Severe Thunderstorms
Estimated Cost	$25 per unit
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	1 year
Priority	Medium
Status	Not yet started.

Severe Winter Storms

Concerns for severe winter storms primarily stem from the potential for loss of power. Severe winter storms can include blizzards, extreme cold, winter storms, ice accumulation, and general winter weather. Heavy snow fall can block transportation routes and prevent emergency access. The local planning team reported a 1998 snow event which included loss of power for three days. While the well house has a backup generator, no other critical facilities currently have generators.

ACTION	Backup Generators
Description	Add a generator on the lagoon
Hazards Addressed	Dam Failure, Extreme Temperatures, Flooding, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$15,000-$30,000 per generator
Potential Local Funding	LPSNRD, Lancaster County & Village of Davey
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

Completed/Removed Mitigation Actions

ACTION	Public Education
Description	Increase public awareness of vulnerability and risk reduction through hazard education.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms

Reason for Removal	Not currently a priority – no specific activities have been identified.

Community Profile

Village of Denton

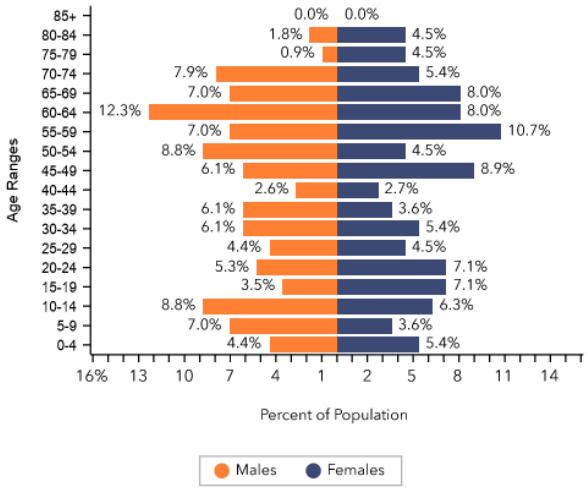
Lower Platte South NRD
Multi-Jurisdictional Hazard Mitigation Plan
2025 Update

Community Summary Fact Sheet

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

226	47.1	$98,113	$413,462	4.1%	0%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



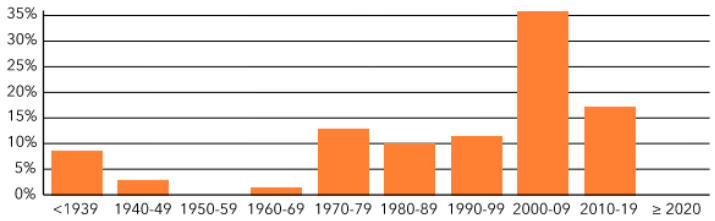
TOTAL POPULATION

2023 Total Population (Estimate)	226
2020 Total Population (U.S. Census)	189
2010 Total Population (U.S. Census)	145
2000 Total Population (U.S. Census)	99

AT RISK POPULATION

7	45	0
Households With Disability	Population 65+	Households Without Vehicle

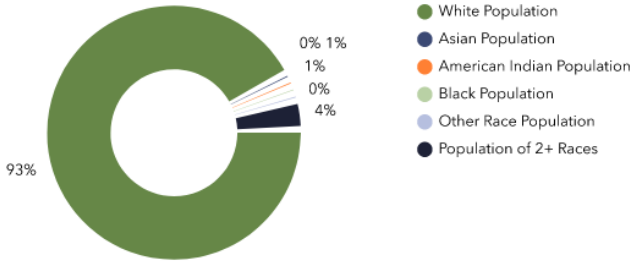
HOUSING: YEAR BUILT



COMMUTER

1%	1%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

7%	3%	3%
Vacant Housing Units	Renter Households	Mobile Homes

esri THE SCIENCE OF WHERE

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

Note: the local planning team shared that the percentage of renter households is higher than the 3% reflected in the graphic. Data from the Community Summary Fact Sheet is pulled from U.S. Census Bureau estimates which may not reflect current or accurate data in the community.

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Charlotte TeBrink	Village Clerk	Village of Denton	Profile Development One-on-one 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 Clerk and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Denton will review the plan annually and the public will be notified at the Village Board public notices.

Location and Geography

The Village of Denton is in the west-central portion of Lancaster County, approximately four miles east of the County line and five miles southwest of downtown Lincoln. The Village covers an area of 0.12 square miles. There are three major waterways near the town which form into one of the major branches of the larger Salt Creek. The largest is the Haines Branch of the Salt Creek. It is the main stem of the tributary Cheese Creek. This main stem continues to flow until converging with the tributary Spring Creek on the southern edge of town. All these creeks flow from south to north.

Capability Assessment

The planning team assessed the Village of Denton'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 - 2006
	Capital Improvement Plan	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes, County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes – 2007 (update in progress)
	Subdivision Regulation/Ordinance	Yes - 2007
	Floodplain Ordinance	Yes
	Building Codes	Yes

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	No
	Civil Engineering	Yes
	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	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)	-
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)	-

Denton Overall Capability

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

NFIP Overview	
Date of NFIP Participation:	09/21/2001
Floodplain Administrator:	Joseph Hobelman
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 ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$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?	No
FIRMs Digital or Paper?	Digital

The Village of Denton plans to continue its involvement in the National Flood Insurance Program. Development in the floodplain requires a separate permit, which includes new construction, improvements, and other developments. All development in flood risk hazard areas require a permit and to be elevated at least one foot above based flood elevation. According to the Village's zoning ordinance, the Zoning Administrator reviews the development permit to determine if it follows the necessary requirements. The floodplain regulations follow the State of Nebraska requirements. The local planning team is not aware of barriers or challenges to running the NFIP effectively at this time.

Parcel Improvements and Valuation

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

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
125	$20,656,100	3	$203,100	2.4%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
125	$20,656,100	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31109CIND0B	04/16/2013	Current FIRM Panels
FIRM Panels	31109C0290G	04/16/2013	Current FIRM Panels
FIRM Panels	31109C0405G	04/16/2013	Current FIRM Panels

Source: Flood Map Service Center

Plans and Studies

Denton 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 Denton. There is no plan or timeline to update the comprehensive plan and was last updated in 2006. The comprehensive plan outlines goals and objectives in line with Smart Growth strategies such as provide development opportunities efficiently, encourage appropriate land use patterns, and promote land uses that maintain and provide a safe and sanitary environment. Development is discouraged in hazardous areas, such as the floodplain. The hazard mitigation plan has not been integrated with the comprehensive plan.

Capital Improvement Plan (Annual Budget)

The capital improvement plan outlines projects the city would like to pursue and is reviewed on an annual basis. A sewer lagoon expansion project has been identified as a potential improvement in the annual budget. A preliminary study has been completed and the Village is searching for funding opportunities to complete the project either through the U.S. Department of Agriculture or other mechanisms.

Ordinances and Regulations

The Village'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. The floodplain regulations in the zoning 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 zoning ordinance limits development in the floodplain and other hazardous areas. The floodplain regulations require structures developed in the floodplain are built one foot above Base Flood Elevation. These documents will be updated by 2025 to include details regarding renewable energy.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

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The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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 Ordinance

The purpose of wellhead protection ordinances 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. Denton's wellhead protection ordinance was adopted in April 1995 and the hazard mitigation plan has not been integrated with the ordinance.

Future Development Trends

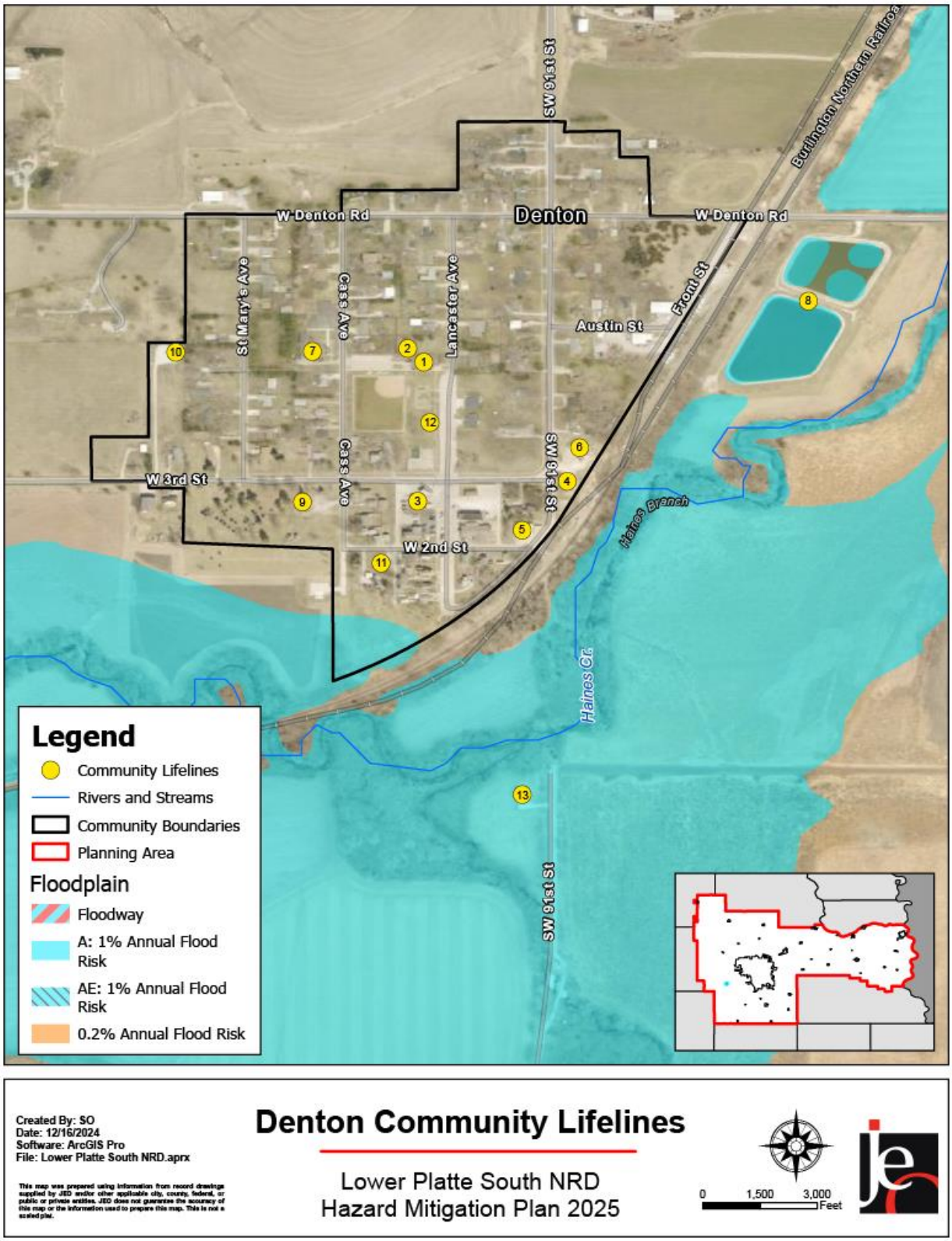
During 2019, three new homes have been built in town. The population of Denton is increasing, which the local planning team attributed to the proximity to Lincoln but lower cost of housing. Over the past five years, a trailer house has been removed. A new storage facility has been approved by the Village within the corporate limits, construction has not started to date. In the future, a developer is planning a new subdivision to the west of the community. The subdivision will include duplex residential development within the corporate limits, and a church and religious group home facility developed in potentially annexed land adjacent to the duplex development. No new structures have been developed in hazardous locations, but 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.

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.

Denton Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Community Center/Village Office	N	N	N
2	Other	Community Center Storage	N	N	N
3	Energy	Convenience Gas Station	N	N	N
4	Other	County Maintenance Building	N	N	N
5	Transportation	Denton Maintenance Building	N	N	N
6	Safety and Security	Fire Hall	N	N	N
7	Food, Water, Shelter	Lagoon	N	N	Y
8	Other	Saint Mary's Catholic Church	N	Y	N
9	Communications	Siren	N	N	N
10	Other	United Methodist Church	N	Y	N
11	Food, Water, Shelter	Water Tower	N	N	N
12	Food, Water, Shelter	Well House #1	N	N	Y
13	Food, Water, Shelter	Well House #2	N	N	N


Denton
W Denton Rd
W Denton Rd
SW 91st St
Burlington Northern Railroad
St Mary's Ave
Cass Ave
Lancaster Ave
Front St
Austin St
W 3rd St
W 2nd St
Haines Branch
Haines Cr
Legend
Community Lifelines
Rivers and Streams
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
Created By: SO
Date: 12/16/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx
This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a sealed plat.
Denton Community Lifelines
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

Hazard Prioritization and Mitigation Strategy

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Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Flooding

Primary concerns for the local planning team are flash flood events in Denton. During heavy rain events water pools alongside the lagoons; however, the railroad acts as a small flood prevention measure. There is sufficient stormwater drainage within the Village. Haines Brach Creek runs along the eastern side of town which then splits into Haines and Spring Creek south of town. The March 2019 flood event did not directly impact the Village. Flooding in Denton is at a low risk for private properties as most structures are built outside of the floodplain. Well House #2 is located in the floodplain and has been elevated. Potential lagoon improvements would need to be adequate with proper regulations. In general, future development is discouraged in the floodplain and is included in the Village's floodplain regulations.

ACTION	Lagoon Expansion and Elevation
Description	The current lagoon is too small to meet local needs causing frequent discharges for the Village and subsequent flooding has damaged property in surrounding areas. The lagoon needs to be raised and increased in capacity.
Hazards Addressed	Flooding
Estimated Cost	$1,400,000
Potential Local Funding	General Fund, Grants
Lead Agency	Village Clerk, Maintenance
Timeline	2-5 years
Priority	High
Status	In Progress – a preliminary study has been completed and the Village is searching for funding opportunities to complete the project either through the U.S. Department of Agriculture loan forgiveness program or other opportunities.

Hazardous Materials Release

While NDEE does not identify any fixed chemical sites in the Village of Denton, the local planning team identified the water treatment plant as storing chemicals and as potentially hazardous. A vacated COOP that used to store granular fertilizer is located right alongside the BNSF railroad. There is reduced vulnerability of fixed site transportation spills with the removal of the fertilizer facility. The Village lagoon is also located adjacent to the COOP on the other side of the railroad. Potential spills would be addressed by the Volunteer Fire Department which has some hazmat training, however additional resources would be needed.

An active railroad line borders the Village along the eastern and southeastern border with trains passing through about once every half hour. One past derailment event produced no damage and was cleared quickly by BNSF; however, the local planning team indicated concerns from a lack of knowledge of what chemicals are transported through the community. BNSF has been reached out regarding mitigation risks from hazardous materials releases, but the community has not heard back from the railroad company. There are currently arms at the intersection and the crossing is blocked for extended periods of time. Potential derailments could block access to homes or emergency services depending on the location.

ACTION	Public 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/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0-$1,000
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	5+ years
Priority	Medium
Status	In Progress – The Village currently does education on backflow prevention yearly. Continued training as needed, especially on how to shelter in place during emergency situations.

High Winds and Tornadoes

Tornadoes are a hazard of top concern due to their potential to cause catastrophic damage and the threat to lives and safety of residents. While no tornadic events have directly impacted Denton, straight-line winds have damaged trees and roofs in town. Concerns exist for the water treatment plant and water tower sustaining damage which could cause a loss of water availability for the community. There is an alert siren located in the center of town which can be heard by all residents. There are no community shelters or safe rooms located in Denton. The Catholic Church, Community Center, and residential homes with basements are used as shelters. More emergency management and operational training is needed to know what to do if a tornadic event were to occur in the community.

ACTION	Storm Shelter
Description	Identify, design, and develop storm shelters to protect vulnerable populations in the community. The Village is in a high risk area for high winds, tornadoes, and severe winter storms.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$200-$250/sf stand alone; $150-$200/sf addition/retrofit
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	5+ years
Priority	High
Status	In progress – community members go to the Catholic Church's basement during extreme weather events. There are no signs that indicate there is a shelter at the church, but there are signs for the community center across the street. Storm shelter information is also in the town newsletter. Signage of public shelter facilities is needed.

Severe Thunderstorms

Hail is a common occurrence across the planning area and several events have caused damage in the Village of Denton. The planning team's primary concerns regarding hail stem from property damage and potential injuries to residents. The Community Center and numerous homes throughout the Village have sustained roof damage from significant hail events. The maintenance shed and wellhouses have reinforced roofs to reduce potential damage. Previous thunderstorm events have caused residents to lose power for short periods. In April 2024, a severe

thunderstorm led to extensive tree damage throughout the community. Tree removal near power lines is done through the public power district in town.

ACTION	Bury Main Power Lines
Description	Bury power lines underground.
Hazards Addressed	High Winds and Tornadoes, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	Varies by scope
Potential Local Funding	General Fund
Lead Agency	Village Clerk
Timeline	5+ years
Priority	Low
Status	Not yet started – Village is not responsible for power lines; Norris Public Power District operates them. Need additional funding and coordination with PPD.

Completed Mitigation Actions

ACTION	Backup Generators
Description	Provide backup power systems to provide redundant power supply to critical facilities.
Hazards Addressed	Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms
Status	Completed – the Village has an agreement with the local generator rental company.

ACTION	New Bridge Construction
Description	Design and construct a bridge to improve access to wellfield/well house #2.
Hazards Addressed	Flooding
Status	Completed – Lancaster County completed new bridge construction in fall 2023.

Community Profile

Village of Firth

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

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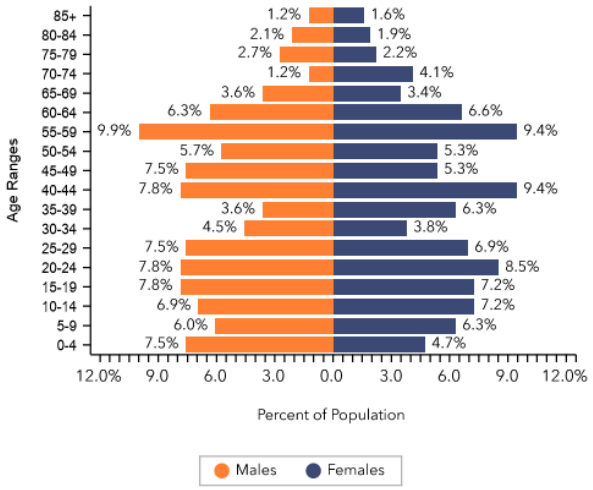
Community Summary Fact Sheet

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

651	38.7	$111,622	$436,842	0.0%	8%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



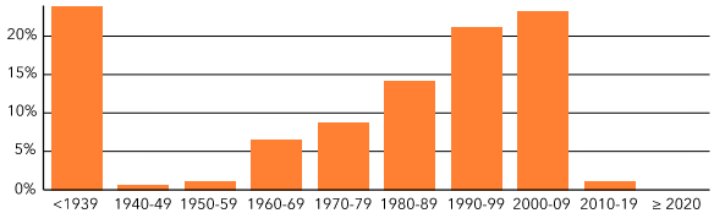
TOTAL POPULATION

2023 Total Population (Estimate)	651
2020 Total Population (U.S. Census)	649
2010 Total Population (U.S. Census)	633
2000 Total Population (U.S. Census)	487

AT RISK POPULATION

68	78	0
Households With Disability	Population 65+	Households Without Vehicle

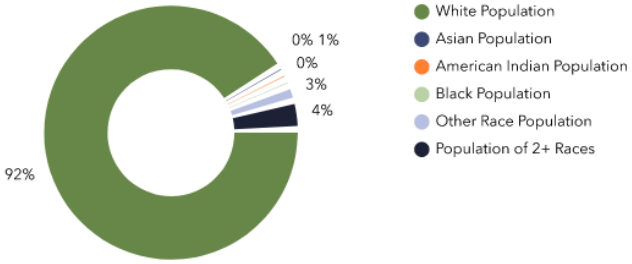
HOUSING: YEAR BUILT



COMMUTER

0%	0%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

5%	9%	1%
Vacant Housing Units	Renter Households	Mobile Homes

esri THE SCIENCE OF WHERE

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

Local Planning Team

The Village of Firth's local planning team for this hazard mitigation plan update are listed in the table below, along with their involvement. All planning worksheets were filled out and returned by members of the local planning team.

Local Planning Team

Name	Title	Jurisdiction	Engagement
Jill Hoefler	Village Clerk	Village of Firth	Attended Meetings
Kami Beaty	Village Board Chair	Village of Firth	

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, Maintenance, and Board Chair will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Firth will review the plan bi-annually and the public will be notified during board meetings and through website updates.

Location and Geography

The Village of Firth is on the southern border of Lancaster County, half a mile north of the Gage County line and directly adjacent to the Big Nemaha River Reservoir 11A. The Village covers an area of 0.28 square miles. There are two major waterways near the town. The largest is the Big Nemaha River Reservoir 11A, on the east side of town. The second is the Middle Branch of the Nemaha River, which flows north-to-south on the southwest side of town.

Capability Assessment

The planning team assessed the Village of Firth'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, updated 2019
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes, County
	Floodplain Management Plan	Yes, Will be updated
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes

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	Yes
	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	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)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Firth 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	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)

The Village of Firth 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.

The Firth ordinance notes: *Within identified special flood hazard areas of the Village, no development shall be located, extended, converted or structurally altered without lull compliance with the terms of this ordinance and other applicable regulations. No person, firm or corporation shall initiate any floodplain development or substantial improvement or cause the same to be done without first obtaining a separate permit for development.*

New Development. Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, be required to assure that (1) all such proposals are consistent with the need to minimize flood damage, (2) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located, elevated and constructed to minimize or eliminate flood damage, (3) adequate drainage is provided so as to reduce exposure to flood hazards, and (4) proposals for development (including proposals for manufactured home parks and subdivision) of 5 acres or 50 lots, whichever is lesser, include within such proposals the base flood elevation.

NFIP Information

NFIP Overview	
Date of NFIP Participation:	4/15/1981
Floodplain Administrator:	Jill Hoefler
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	3
Total NFIP Premium ($):	$3,109
Total NFIP Coverage ($):	$666,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$-
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
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 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 Firth have been removed from the floodplain via LOMA. A summary of LOMAs identified for Firth can be found in the table below.

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
278	$58,804,000	24	$3,603,200	8.6%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
278	$58,804,000	5	$1,321,500	1.8%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panels	31109CIND0B	04/16/2013	Current FIRM Panels
FIRM Panels	31109C0575G	04/16/2013	Current FIRM Panels
FIRM Panels	31109C0586G	04/16/2013	Current FIRM Panels
FIRM Panels	31109C0588G	04/16/2013	Current FIRM Panels
FIRM Panels	31109C0600G	04/16/2013	Current FIRM Panels

Source: Flood Map Service Center

Plans and Studies

Firth 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 been integrated into the 2019 plan with the inclusion of the most updated floodplain information. Development is limited in the floodplain. There is no plan or timeline to update the comprehensive plan. The planning commission reviewed the 2019 comprehensive plan in August 2024. It was determined that the current comprehensive plan is still accurate for the needs of Firth and does not need a full update until 2029. However, the Future Land Use map will be updated as an amendment to the current comprehensive plan in 2025.

Capital Improvement Plan

The capital improvements plan outlines projects the Village would like to pursue and provides a planning schedule and financing options. The Village is working on replacing oldest water and

sewer mains to keep systems running smoothly. There is no plan or timeline to update the Capital Improvement Plan.

Ordinances and Regulations

The Village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, Firth 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. Subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The Village's zoning ordinance outlines where and how development should occur in the future and was updated in December of 2020. There is no plan or timeline to update these ordinances and regulations. These documents limit development in the floodplain and limit development in the ETJ. Structures built in the floodplain are required to be one foot above Base Flood Elevation. Future updates will limit development in the wildland urban interface.

Building Codes

The Village of Firth has adopted the 2009 International Building Codes and plan on adopting the 2021 or 2024 IBC in 2025. The building code sets standards for constructed buildings and structures. Enforcement of the building code is done through requiring that all building projects receive a building permit and meet code.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

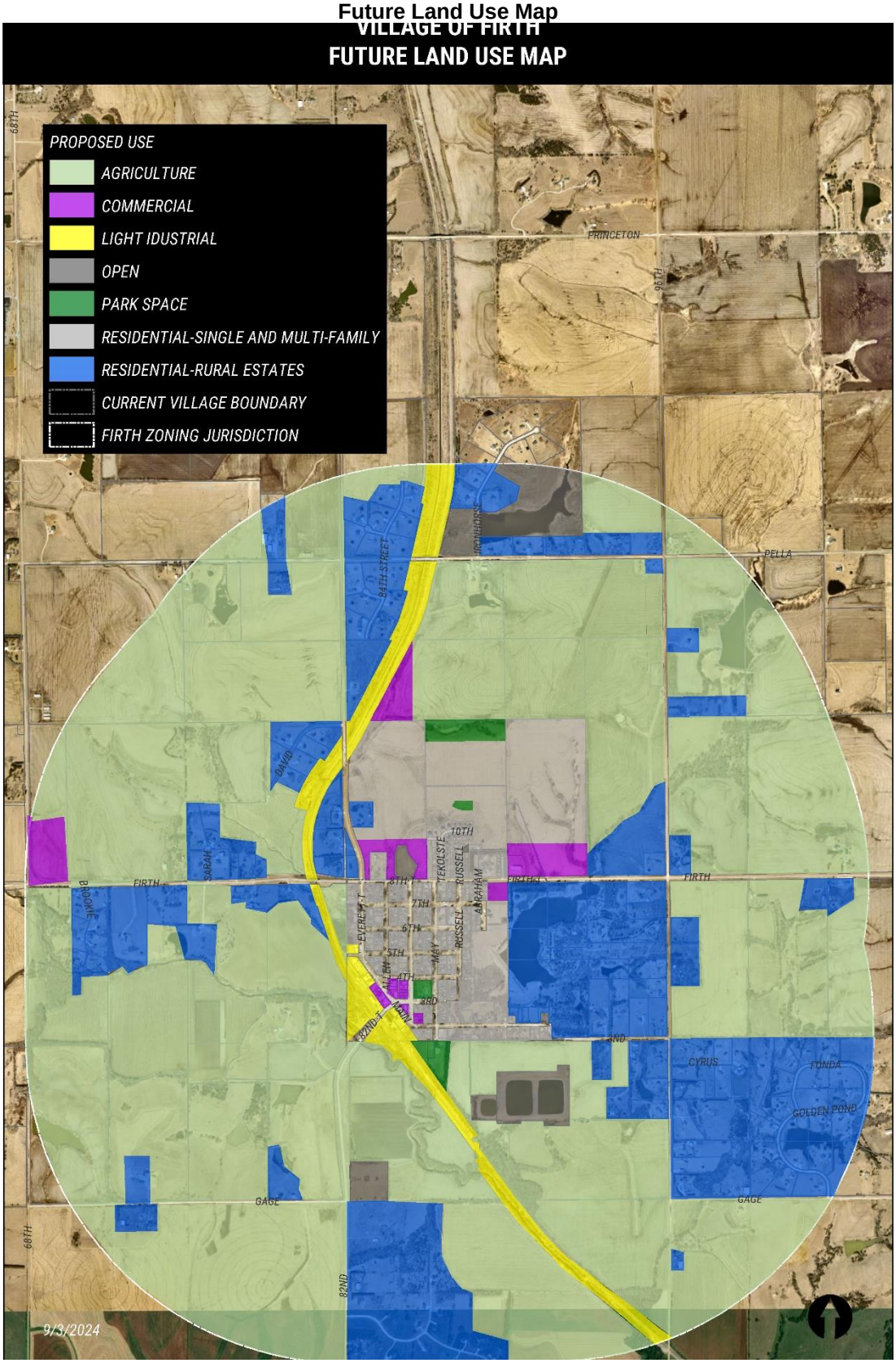
The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. The LEOP incorporates hazard mitigation through the following: addresses hazards of top concern; assigns specific responsibilities to individual communities; identifies scenarios that would require evacuation; identifies 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 10 years, the North Ridge development was annexed to the village. Phase one of the annexation included 19 residential lots, which are now fully built and all occupied. Phase two will include up to 40 residential lots along with five to six commercial lots. The second phase has been on hold for the last four years and any change in the status is indefinite. Overall, this new housing development has been attracting residents to Firth, allowing the population to be relatively stable.

The previous plan identified a new Monolith Materials manufacturing plant in Hallam that has been expected to bring more new residents to Firth. The North Ridge phase two would likely be the next development to happen in the Village and will not be located in the floodplain or other hazardous areas.

Future Land Use Map

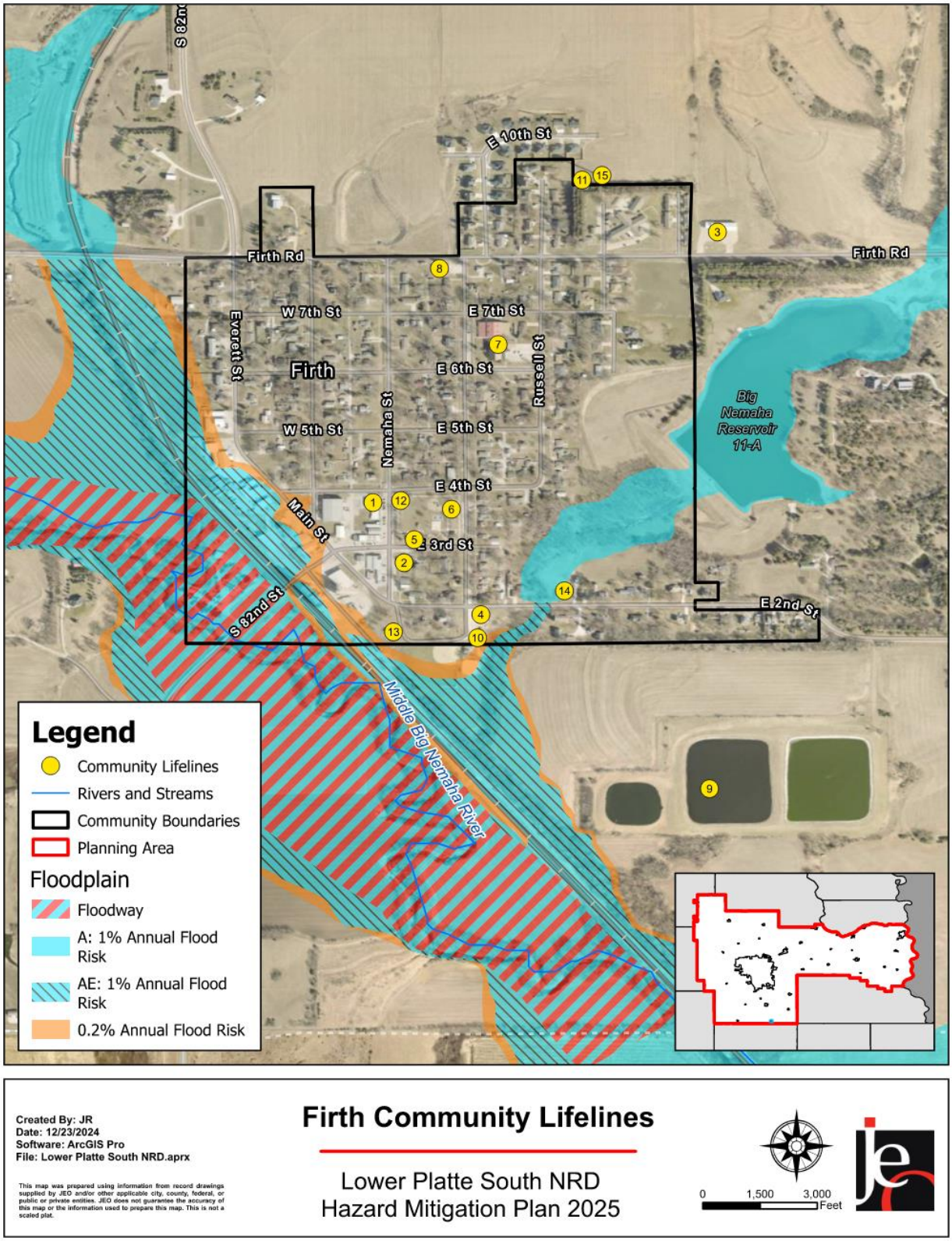


Community Lifelines

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.

Firth Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Food, Water Shelter	Firth Community Center	N	Y	N
2	Other	Firth Bible Church	N	N	N
3	Safety and Security	Firth Fire Station	N	N	N
4	Safety and Security	Firth Maintenance Building #1	N	N	N
5	Safety and Security	Firth Maintenance Building #2	N	N	N
6	Food, Water, Shelter	Firth Park Shelters	N	Y	N
7	Other	Firth Reformed Church	N	N	N
8	Transportation	Lancaster Co Shop	N	N	N
9	Food, Water, Shelter	Sewage Lagoons	N	N	N
10	Food, Water, Shelter	Sewage Lift Station	Y	N	N
11	Food, Water, Shelter	Village Well #1	N	N	N
12	Food, Water, Shelter	Village Well #2	N	N	N
13	Food, Water, Shelter	Village Well #3	N	N	N
14	Food, Water, Shelter	Village Well #4	Y	N	N
15	Food, Water, Shelter	Water Tower	N	N	N


S 82nd
E 10th St
Firth Rd
Firth Rd
W 7th St
E 7th St
Everett St
Firth
E 6th St
Russell St
Big Nemaha Reservoir 11-A
W 5th St
Nemaha St
E 5th St
E 4th St
Main St
E 3rd St
S 82nd St
E 2nd St
Middle Big Nemaha River
Legend
Community Lifelines
Rivers and Streams
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
Created By: JR
Date: 12/23/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx
This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.
Firth Community Lifelines
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

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 Firth 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 Firth. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Drought

Drought is a pervasive hazard that can severely harm the surrounding agricultural economy. Water mains in the Village broke during the 2022-23 drought which was likely caused by dry ground settling. Firth has added a new well house since the previous plan that currently has a generator. The current water restriction policies in Firth do not have clear for extended drought events. Future plans for the Village include having well-defined water restriction policies and having them readily available to the community.

ACTION	UPDATE DROUGHT ORDINANCE
Description	Update and/or create water restriction ordinances to account for long-term drought conditions to protect existing water resources.
Hazards Addressed	Drought, Extreme Temperatures
Estimated Cost	$5,000+, Staff Time
Potential Local Funding	General Funds
Lead Agency	Village Board
Timeline	1 year
Priority	Medium
Status	This is a new mitigation action.

Flooding

Flooding has been a primary concern for the Village because of its proximity to the middle branch of the Nemaha River. Firth has not seen many flooding events since 2010, when the Nemaha ditch and detention cell project was completed; however, part of the Co-Op facility is still located in the floodplain. The rail line which runs between the river and the Village provides some level of flood protection. Firth is in the initial stages of coordinating with the Nebraska Department of Natural Resources to update the Village (plus the 1-mile ETJ) floodplain ordinance and create a plan to mitigate obstacles within the floodplain to better serve the community. FEMA is in the process of changing the FIRM maps which will enlarge the floodplain area in the jurisdiction.

ACTION	Stormwater System and Drainage Improvements
Description	Firth can 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. These improvements can serve to more effectively convey runoff within villages, preventing interior localized flooding.
Hazards Addressed	Flooding, Severe Thunderstorms
Estimated Cost	$10,000 – 50,000
Potential Local Funding	General Fund, Street Maintenance Funds
Lead Agency	Village Board, Village Maintenance
Timeline	2-5 years
Priority	High
Status	Some areas along Everett St are being reworked to improve drainage as needed.

Hazardous Materials Release (Transportation)

Chemical spills via transportation are of concern due to the high volume of hazardous chemicals transported through the community. Firth Road and the rail line running along the edge of town regularly see large volumes of coal, oil, and agricultural chemicals transported. Primary concerns

regarding chemical spills include the proximity of the only chemical fixed site, the Co-Op, being located near the rail line. While no chemical spills have occurred to date at these locations, a combined spill event would be particularly difficult for the Village. The Village is looking into developing an evacuation plan that could be utilized during this event and coordinating with the Co-Op on an emergency plan and potential mitigation measures.

ACTION	EVACUATION PLAN
Description	Develop an all-hazards evacuation plan for the community to utilize during hazard events, particularly those that block key transportation routes or hazardous material routes.
Hazards Addressed	Hazardous materials, Flooding, Dam Failure, Grass/Wildfire, High Winds and Tornadoes
Estimated Cost	$15,000
Potential Local Funding	General Funds
Lead Agency	Village Board
Timeline	2-5 years
Priority	High
Status	This is a new mitigation action.

High Winds and Tornadoes

Tornadoes are a significant hazard of concern due to their potential to cause large-scale damage and injury or death to residents. While local churches and the community building are used as local shelters, there are no FEMA-certified storm shelters located in the Village. The Village also has an alert siren in town which is owned and controlled by Lancaster County Emergency Management. Social media posts to alert residents of incoming severe weather has been identified as a potential action to reduce the impacts of high winds and tornado events.

ACTION	Comprehensive Village Disaster/Emergency Response Plan
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation. Develop/update a Comprehensive Village Disaster and Emergency Response Plan.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$5,000+, Staff Time
Potential Local Funding	General Funds
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

Community Profile

Village of Hallam

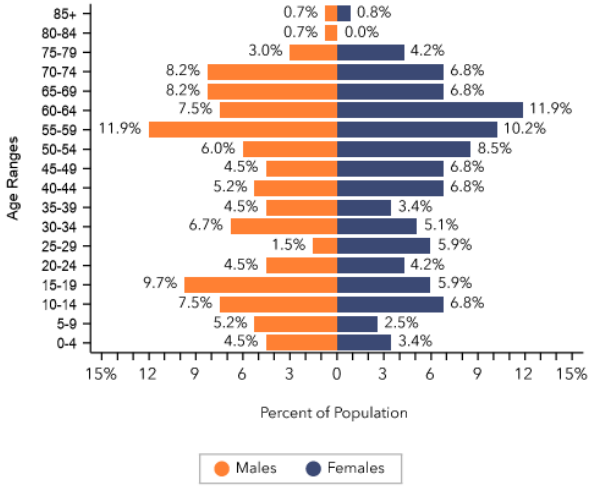
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

252	47.9	$92,212	$376,190	0.0%	7%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



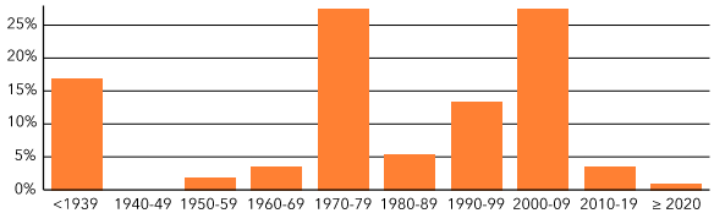
TOTAL POPULATION

2023 Total Population (Estimate)	252
2020 Total Population (U.S. Census)	268
2010 Total Population (U.S. Census)	242
2000 Total Population (U.S. Census)	238

AT RISK POPULATION

40	50	0
Households With Disability	Population 65+	Households Without Vehicle

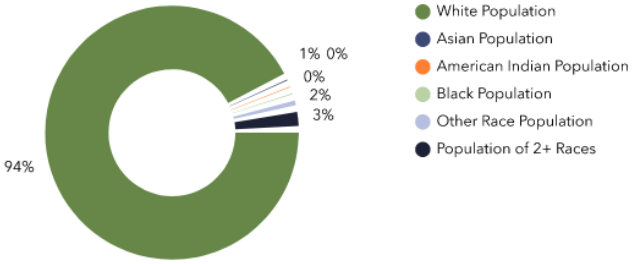
HOUSING: YEAR BUILT



COMMUTER

0%	3%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

12%	5%	3%
Vacant Housing Units	Renter Households	Mobile Homes

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
Gary Vocasek	Chairperson: Subcommittee Finance	Village of Hallam	Profile Development
Brad Niemeyer	Chairperson Pro-tem: Subcommittee Utilities	Village of Hallam	Profile Development
Sheila Taylor	Trustee: Subcommittee Public Safety	Village of Hallam	Profile Development
Robin Likens	Village Clerk/Treasurer	Village of Hallam	Profile Development
Vicky Polak	Deputy Village Clerk/Treasurer	Village of Hallam	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 Chairperson and Village Clerk will be responsible for leading the process to review and update the community profile outside of the five-year update. Hallam will review the plan annually and the public will be notified through board meetings, website updates, and/or social media.

Location and Geography

The Village of Hallam is in the southwest corner of Lancaster County, less than a mile north of the Gage County line and about one mile south of the Sheldon Power Plant. The Village covers an area of 0.17 square miles. The nearest waterway is the head of the Clatonia Creek, which flows north-to-south about one mile south of town.

Capability Assessment

The planning team assessed the Village of Hallam'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	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes, County
	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	No
	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	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 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.	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	Yes
	StormReady Certification	No
	Firewise Communities Certification	Yes
	Tree City USA	No
	Other (if any)	

Hallam 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)

The Village of Hallam does not participate in the National Flood Insurance Program because there are no areas within the Village's corporate limits that fall within the floodplain. The 1-mile ETJ does have areas within the floodplain; however, there are no structures except for a driveway built in the floodplain. The Village Building Inspector and Zoning Administrator review building permits to ensure they follow necessary regulations. Hallam does not anticipate joining NFIP in the next five years.

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

Parcel Value in the Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
206	$37,329,900	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	**31109CIND0B**	**04/16/2013**	**Current FIRM Panel**
FIRM Panel	**31109CIND0B**	**04/16/2013**	**Current FIRM Panel**

Source: Flood Map Service Center

Plans and Studies

Hallam 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 of Hallam's Comprehensive Plan was last updated in 2011 and discusses several hazards consistent with the Hazard Mitigation Plan including flooding, unstable geological areas, and environmentally sensitive areas. The plan also contains goals aimed at safe growth development, limits or prohibits development in the floodplain, encourages infill development and clustering of development, encourages retrofits for historic structures, and encourages elevation of structures in the floodplain.

Ordinances and Regulations
The Village's zoning ordinance was last updated in 2013. The Village anticipates updating the zoning ordinance in 2020. Currently it discourages development in the floodplain, prohibits filling wetlands, discourages development near chemical storage sites and in the ETJ, and accounts for current population trends. The future update will also consider the wildfire and wildland urban interface.

Building Codes
The Village adopted the 2012 International Building Codes in 2017. These codes require elevation of structures in the floodplain, outline proper sump pump installation, allow raingardens, require hurricane clips during construction, and encourage and/or require the use of fire-resistant building materials for new construction.

Capital Improvements Plan
The Village's Capital Improvement Program was last updated in 2020. The Plan identifies a range of actions consistent with hazard mitigation goals including: stormwater projects, regular maintenance for drainage structures, stormwater system improvements, improving the water treatment facility, wind breaks, and trail and park improvements.

Additional plans the Village has in place include a Blight Study which was completed in 2017, a General Redevelopment Plan (2017), and a Wellhead Protection Plan (2007).

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan
The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

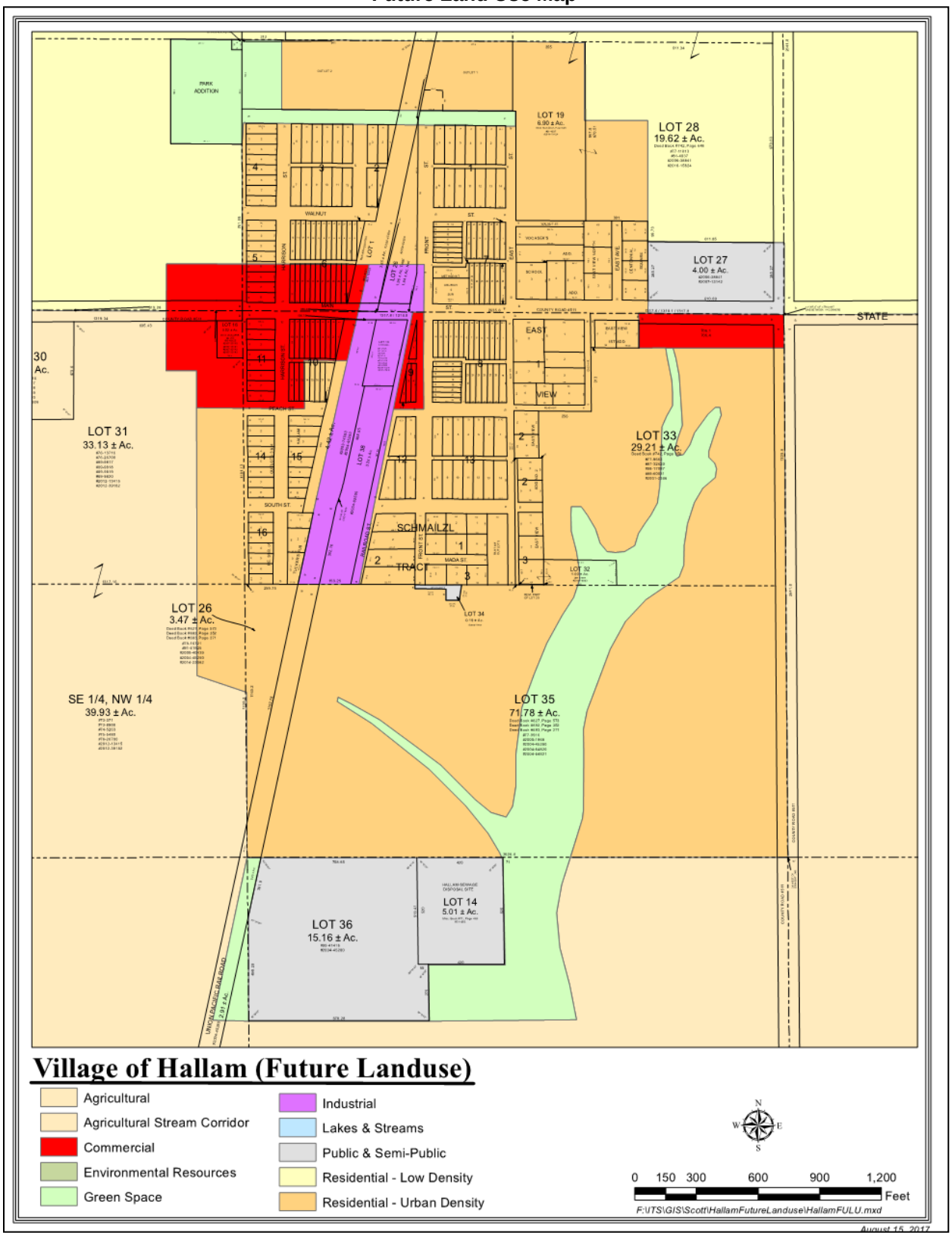
Future Development Trends

In the last 10 years, Hallam has annexed land to the southern part of the village to add a new housing subdivision of approximately 55 homes, Louis Carl Estates. Several houses have been built on five existing empty lots in the subdivision and two others are in progress. The remaining street infrastructure in the Louis Carl Estates has been completed, south of Front Street. Housing has been augmented with an eight-unit apartment building and several private residential homes that have been built in town. The annexation also included adding the Village cemetery into town. Improvements have been made to the Village public park. There were also several new businesses in town including Hallam Station and an automotive parts business which replaced the previous dairy business shop.

Phase one of the Monolith Manufacturing Power Plant has been built, and the company has leased a building for its warehouse and an office in the commercial district. Monolith produces carbon black rather than power. Monolith plans to expand its carbon black manufacturing and produce anhydrous ammonia. The location will be east and north of the current facility, east of the railroad tracks to Pella Road. Another AGR subdivision is being built northwest of the Village in the ETJ on SW 58th Street and W Pella Road. A commercial business plans to build a retail space to sell produce west of the restaurant on Main Street and within corporate limits. At the east edge of the Village, SW 42nd Street is not an asphalt road from Hallam Road to Pella Road.

Hallam's population is relatively stable with no major changes which the local planning team attributed to residents enjoying the smaller, close-knit, and quieter town life. Additional housing and businesses currently under construction will allow Hallam's population to continue growing. No structures are being built or are expected to be built in the floodplain. The Future Land Use map below illustrates the intended growth of the Village. Residential and some green space land uses are anticipated in the southeast of Hallam, with some commercial land uses to the north of those uses or east of the Village.

Future Land Use Map



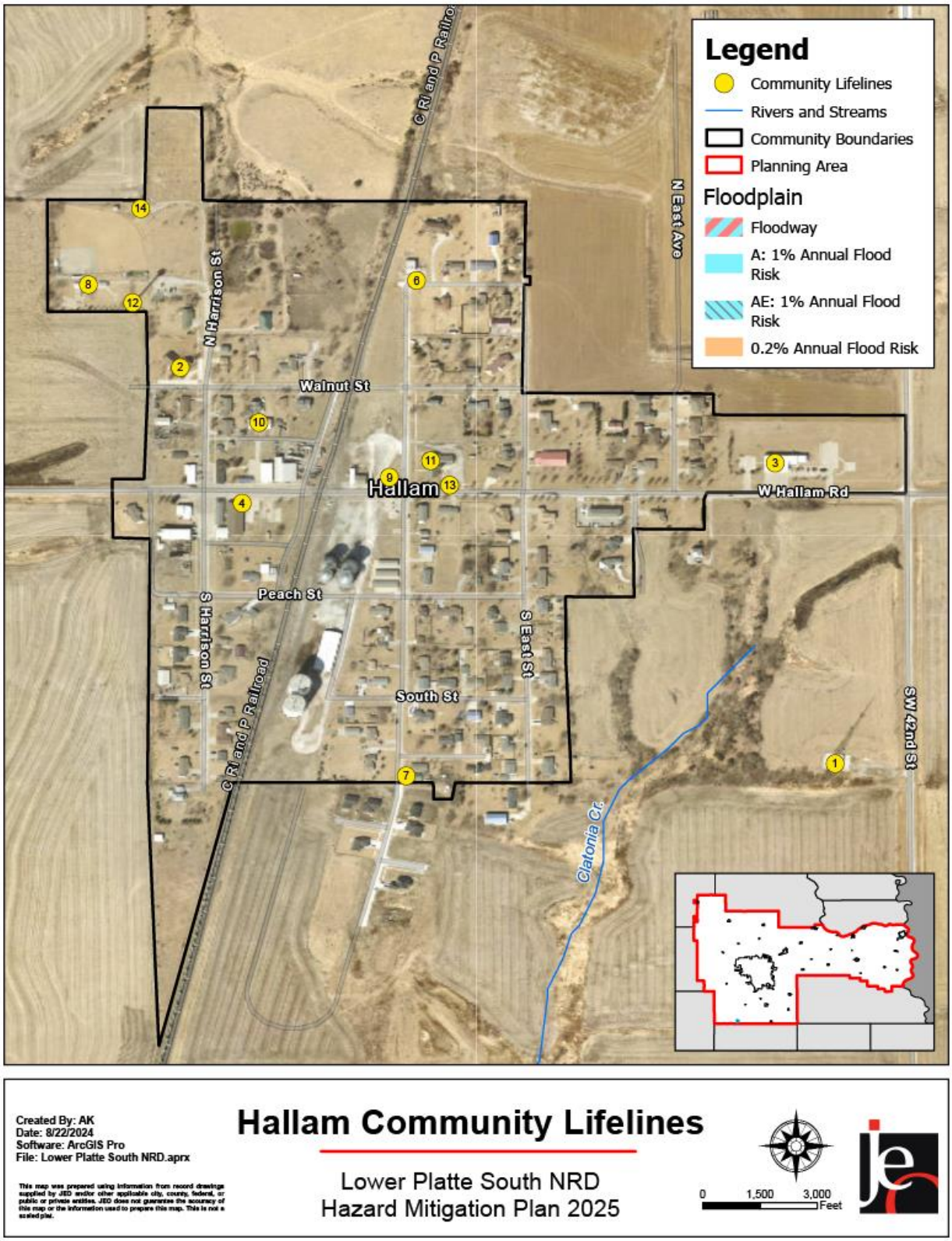
Community Lifelines

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.

Hallam Community Lifelines

CF #	Lifelines	Name	Generator	Shelter	Floodplain
1	Communications	Communications Tower	N	N	N
2	Food, Water, Shelter	Congregational United Church of Christ	N	Y	N
3	Safety and Security	Fire Station	Y	N	N
4	Food, Water, Shelter	Hallam Auditorium/Village Hall	Y	Y	N
5	Food, Water, Shelter	Lagoons*	N	N	N
6	Transportation	Lancaster County Shop	N	N	N
7	Food, Water, Shelter	Lift Station	N	N	N
8	Energy	Storage - Portable Generator	Y	N	N
9	Food, Water, Shelter	Proposed Storm Shelters	N	N	N
10	Communications	Siren	Battery	N	N
11	Communications	Telephone Substation	N	N	N
12	Food, Water, Shelter	United Methodist Church	N	N	N
13	Food, Water, Shelter	Water Tower	N	N	N
14	Food, Water, Shelter	Well (East)	N	N	N
15	Food, Water, Shelter	Well (North)	N	N	N

**located south of town*


Legend
Community Lifelines
Rivers and Streams
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
C R and P Railroad
N East Ave
N Harrison St
Walnut St
Hallam
W Hallam Rd
Peach St
S Harrison St
S East St
South St
SW 42nd St
Clatonia Cr.
1
2
3
4
6
7
8
9
10
11
12
13
14
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 JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a sealed plat.
Hallam Community Lifelines
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

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 Hallam 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 Hallam. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Drought

Drought can be a pervasive hazard which can harm the surrounding agricultural community. The 2012 drought caused severe impacts in the region. Drought can impact water resources for the people, livestock, and businesses in Hallam. The Village has implemented water restrictions to limit the impacts drought impacts through its Water Drought Emergency procedures. The procedures are done once a declaration of a water supply watch, warning, or emergency to implement voluntary and mandatory water conservation measures. Declarations are published through the local newspaper. The details of the declarations can be found in the Village Ordinance (Chapter 3, Section 127), and are as followed:

- DECLARATION OF WATER WATCH – determined if the Village indicates the probability of a drought or other cause of a water supply shortage, a water watch is declared. The public is asked to voluntarily reduce water use until the resolution has ended.
- DECLARATION OF WATER WARNING – determined when the Village finds that drought conditions or instances of a major water supply shortage and supply is starting to decline. Restrictions on nonessential uses are recommended until the end of the resolution.
- DECLARATION OF WATER EMERGENCY – determined if the Village finds that there is a shortage of water supply needed for essential uses. Mandatory restrictions on water use will be enforced throughout the emergency timeframe by the Village Chairman, Water Superintendent, or other Village officials.

ACTION	Public Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards.
Hazards Addressed	Drought
Estimated Cost	$0-$5,500
Potential Local Funding	General Funds
Lead Agency	Village of Hallam
Timeline	2-5 years
Priority	Low
Status	Not yet started. Additional information regarding local drought restrictions and ordinances should be developed to share with general public.

Grass/Wildfire

According to the Nebraska Fire Service there were 119 reported fires by the Hallam Fire Department from 2000 to 2018. The housing stock in Hallam is primarily wood built structures which could be significantly impacted by a wildfire event. There was a major wildfire west of Hallam where multiple fire departments responded. Hallam is surrounded by agricultural lands mostly used for crops and some livestock operations. In a grass/wildfire event, the fire could spread rapidly creating concerns regarding the ability of community members to evacuate with little notice. Having an alternative road to evacuate has been identified as a need to reduce the risks from grass/wildfires. Hallam Road (Main Street) is the only exit east and west, and there is a minimally maintained railroad right of way heading south.

ACTION	Evacuation Planning

Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation
Hazards Addressed	Civil Disorder/Terrorism, Dam Failure, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$500-$3,000
Potential Local Funding	General Funds
Lead Agency	Village of Hallam, Lancaster County Emergency Management
Timeline	1 year
Priority	High
Status	Evacuation planning in process with the Village of Hallam and Lancaster County EMA. No formal plan has been developed yet.

Hazardous Materials

Data from the NRC shows that Hallam has experienced eight fixed site chemical spills since 1990. In 1998 a boiler tank explosion released asbestos into the surrounding area. The co-op is currently the only Tier II listed facility in the Village; however, it is located in the center of the community. A new Monolith manufacturing plant opened in 2019 which commonly houses hazardous chemicals. Monolith plans to expand its carbon black manufacturing and produce anhydrous ammonia. The company has assured the Village that the anhydrous ammonia will not be moved by rail transportation. Generally, there is a continual risk of spillage during loading and unloading or due to equipment error. If a large spill were to occur, main transportation routes could be blocked, or nearby residents and businesses could be forced to evacuate. The Hallam fire department would likely be the first to respond to a major spill.

The Co-Op in the middle of the Village does not store chemicals; chemicals are dispersed at the Agronomy Plant outside of Hallam's jurisdiction. The Sheldon Power Plant is also located near the Village which increases the amount of chemicals being transported near the community. Two minor spills have been reported near the Village. Neither spill resulted in major damages and were cleaned up on the spot. The Union Pacific rail line also runs directly through the community and is located near several critical facilities. The railroad primarily carries coal to the power plant and will eventually transport carbon black. If a railroad spill were to occur, it would likely affect transportation and surrounding structures.

ACTION	Evacuation Planning
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation
Hazards Addressed	Civil Disorder/Terrorism, Dam Failure, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$500-$3,000
Potential Local Funding	General Funds
Lead Agency	Village of Hallam, Lancaster County Emergency Management
Timeline	1 year
Priority	High
Status	Evacuation planning in process with the Village of Hallam and Lancaster County EMA. No formal plan has been developed yet.

High Winds and Tornadoes

NCEI data shows that Hallam has experienced three tornado events since 1996. According to the previous hazard mitigation plans, there was a reported tornado in 1912 referred to as "The Hallam Cyclone". Although the village was not directly hit, there was one death and damage to homes, barns, and machinery. On May 22nd, 2004, an F4 tornado directly struck the community destroying or severely damaging 95% of buildings. There was one fatality and 30 injuries from the event. Estimated property damage from the tornado was $100,000,000. The village also lost critical information stored in the Village Hall that was needed for rebuilding. At the time of the tornado the building and zoning codes had not been updated since 1979, therefore reconstructing buildings and bringing them up to code was a major challenge for the community. During the rebuilding process, Hallam adopted Lancaster County's building code and updated their comprehensive plan. These steps were significant in rebuilding the village after the disaster and have increased the capabilities of Hallam.

In the event of a major power outage, vulnerable populations in Hallam could be at greater risk of harm. The Village auditorium can be powered by a portable generator for residents who need to seek shelter.

ACTION	Obtain Tree City USA 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	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$1,500
Potential Local Funding	General Funds, Arbor Day Foundation
Lead Agency	Village of Hallam
Timeline	2-5 years
Priority	High
Status	Not yet started.

ACTION	Storm Shelter
Description	Identify, design, and develop storm shelters to protect community and CFs.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms
Estimated Cost	$200-$350/sf stand alone; $150-$250/sf addition/retrofit
Potential Local Funding	General Funds
Lead Agency	Village of Hallam, Lancaster County Emergency Management
Timeline	5+ years
Priority	Medium
Status	Not yet started.

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	Not needed due to lack of floodplain through the Village.

ACTION	Stormwater System and Drainage Improvements
Description	Hallam 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. These improvements can serve to more effectively convey runoff within villages, preventing interior localized flooding.
Hazards Addressed	Flooding, Severe Thunderstorms
Status	This is an ongoing action. No specific areas have been identified for projects.

Community Profile

City of Hickman

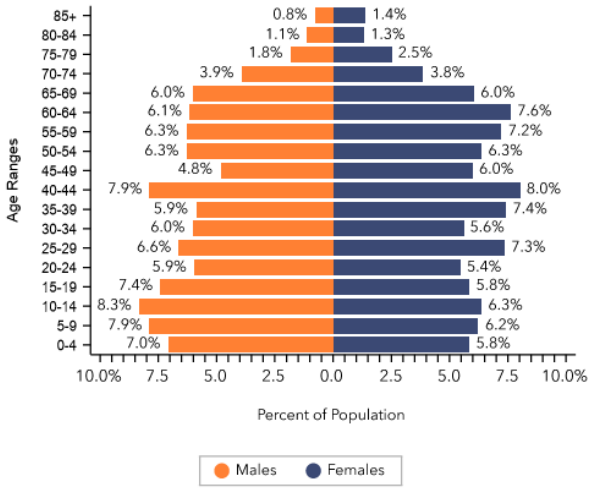
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

2,759	38.1	$105,796	$278,618	0.3%	2%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



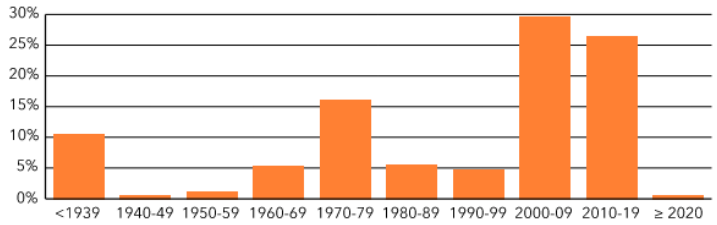
TOTAL POPULATION

2023 Total Population (Estimate)	2,759
2020 Total Population (U.S. Census)	2,607
2010 Total Population (U.S. Census)	1,690
2000 Total Population (U.S. Census)	1,173

AT RISK POPULATION

127	394	52
Households With Disability	Population 65+	Households Without Vehicle

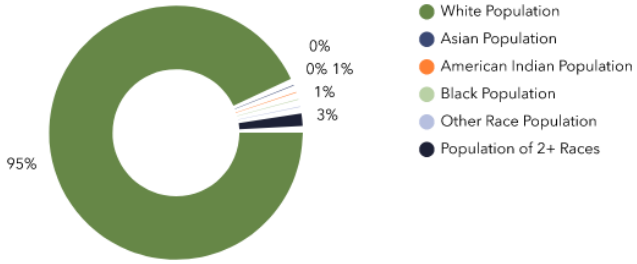
HOUSING: YEAR BUILT



COMMUTER

0%	2%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

5%	9%	0%
Vacant Housing Units	Renter Households	Mobile Homes

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
Heidi Hoglund	Zoning Enforcement Officer	City of Hickman	Profile Development
Kelly Oelke	City Administrator	City of Hickman	Profile Development
Wade Luther	Public Works Director	City of Hickman	Profile Development
Michele Lincoln	City Clerk	City of Hickman	Profile Development
Cari Forbes	City Treasurer	City of Hickman	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, Zoning Administrator, and Public Works Director will be responsible for reviewing and updating the community profile outside of the five-year update. The City of Hickman will review the plan annually and the public will be notified through website updates, CIP meetings, council meetings, and/or social media.

Location and Geography

The City of Hickman is in the southern, central portion/corner of Lancaster County, approximately two miles northeast of the Stagecoach Lake State Recreation Area and 2.5 miles west of the Wagon Train Lake State Recreation Area. The City covers an area of 0.78 square miles. There are three major bodies of water near the town. The largest is the Wagon Train Lake, a 315-acre lake east of town. The second is the Stagecoach Lake, a 195-acre lake south of town. And third is the Hickman Branch of the Salt Creek, which flows southeast-to-northwest on the southwest side of town.

Capability Assessment

The planning team assessed the City of Hickman'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	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes

Capability/Planning Mechanism		Yes/No
	Subdivision Regulation/Ordinance	Yes
	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	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	Yes
	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	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No

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

Hickman 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	Limited	Moderate
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:	2/28/1978
Floodplain Administrator:	Heidi Hoglund
Is Floodplain Administrator a Certified Floodplain Manager?	Yes
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	16
Total NFIP Premium ($):	$13,405
Total NFIP Coverage ($):	$2,598,000
Number of Claims Paid Out:	16
Total Amount of Claims Paid Out ($:)	$136,345
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 City of Hickman plans to continue its involvement with the NFIP in the future. To develop in the floodplain, a floodplain development permit is received and 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. Movement of dirt in the Special Flood Hazard Area (SFHA) requires a floodplain development permit. Regulatory development prohibits manufactured or mobile homes be built of moved into the SFHA. Hickman requires elevation of new and substantially improved structures to be built of floodproofed to an elevation of one foot above Base Flood Elevation (BFE). Utility equipment is also to be built one foot above BFE.

Hickman Floodplain Administrator utilizes the FEMA Map Service Center, the FEMA LOMA lookup site, and the Nebraska Department of Natural Resources. 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. The Chief Building Inspector and Zoning Enforcement Officer, who is also the Floodplain Administrator, jointly review building permits. With the help of Public Works, they visibly identify work to existing structures. The Floodplain Administrator will contact the property owner and complete the substantial improvement worksheet with them for determination.

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.

Hickman uses social media and the municipal website to provide information regarding flood protection. Phone calls and emails are received to the City regarding properties and local information is conveyed to the inquiring party. Letters of Map Change are sent by FEMA to the Mayor and scanned into municipal computers. A physical file is kept by address in a filing cabinet. Any copies of LOMA, LOMC, CLOMR, and CLOMR-F that are researched and would be scanned, printed, and retained by the City Floodplain Administrator.

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

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
1147	$330,869,700	115	$19,389,800	10%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
1147	$330,869,700	45	$17,468,400	3.9%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0444G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0445G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0463G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0557G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0575G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0576G	04/16/2013	Current FIRM Panel
LOMA	13-07-2007A-310136	07/16/2013	
LOMA	16-07-1715A-310136	08/19/2016	
LOMA	17-07-1419A-310136	06/23/2017	
LOMA	17-07-1652A-310136	07/12/2017	
LOMA	18-07-1438A-310136	06/22/2018	
LOMA	19-07-0892A-310136	05/24/2019	
LOMA	21-07-0564A-310136	03/17/2021	
LOMA	24-07-0203A-310136	02/20/2024	

Source: Flood Map Service Center

Plans and Studies

Hickman 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 City is currently updating their Comprehensive Plan with anticipated completion end of 2024 or early 2025. The current plan does discuss natural hazards including flooding and hazardous materials. The updated plan specifically directs development away from the floodplain, prevents rebuilding in areas of total loss, encourages infill development and clustering in sensitive areas, encourages elevation of structures in the floodplain, and allows for emergency access to all areas of town.

Ordinances and Regulations

The City's Zoning Ordinance was last updated in 2023. 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. 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 control development in the ETJ. 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. Hickman has adopted the 2012 International Building Code and 2023 NEC. Enforcement of the building code is handled by the chief building inspector. These codes also reinforce floodplain regulations including limiting development, requiring structure or utility elevations, and outlining stormwater detentions. The codes also encourage fire resistant building materials and proper sump pump installations.

Capital Improvements Plan

The City's Capital Improvement Program wis updated annually. Current projects identified in the CIP which align with hazard mitigation goals include storm water management projects, upsizing culverts and drainage structures, improve transportation routes, widening roadways, installing new municipal wells, updating and/or burying powerlines and electrical system, installing emergency generators at critical facilities, constructing a new water tower, and upgrading the wastewater treatment plant.

The City has also pursued numerous other plans that can be consulted when reviewing and pursing mitigation actions. These plans include a Heat Response Plan, Trail Master Plan (2017), Stormwater Master Plan (2011), Drinking Water Study (2017), Sanitary Sewer Extension Study (2017), Blight and Substandard Study (2015), Strategic Plan (2018), 68th St Widening Study (2016), and Parks Master Plan (2010).

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

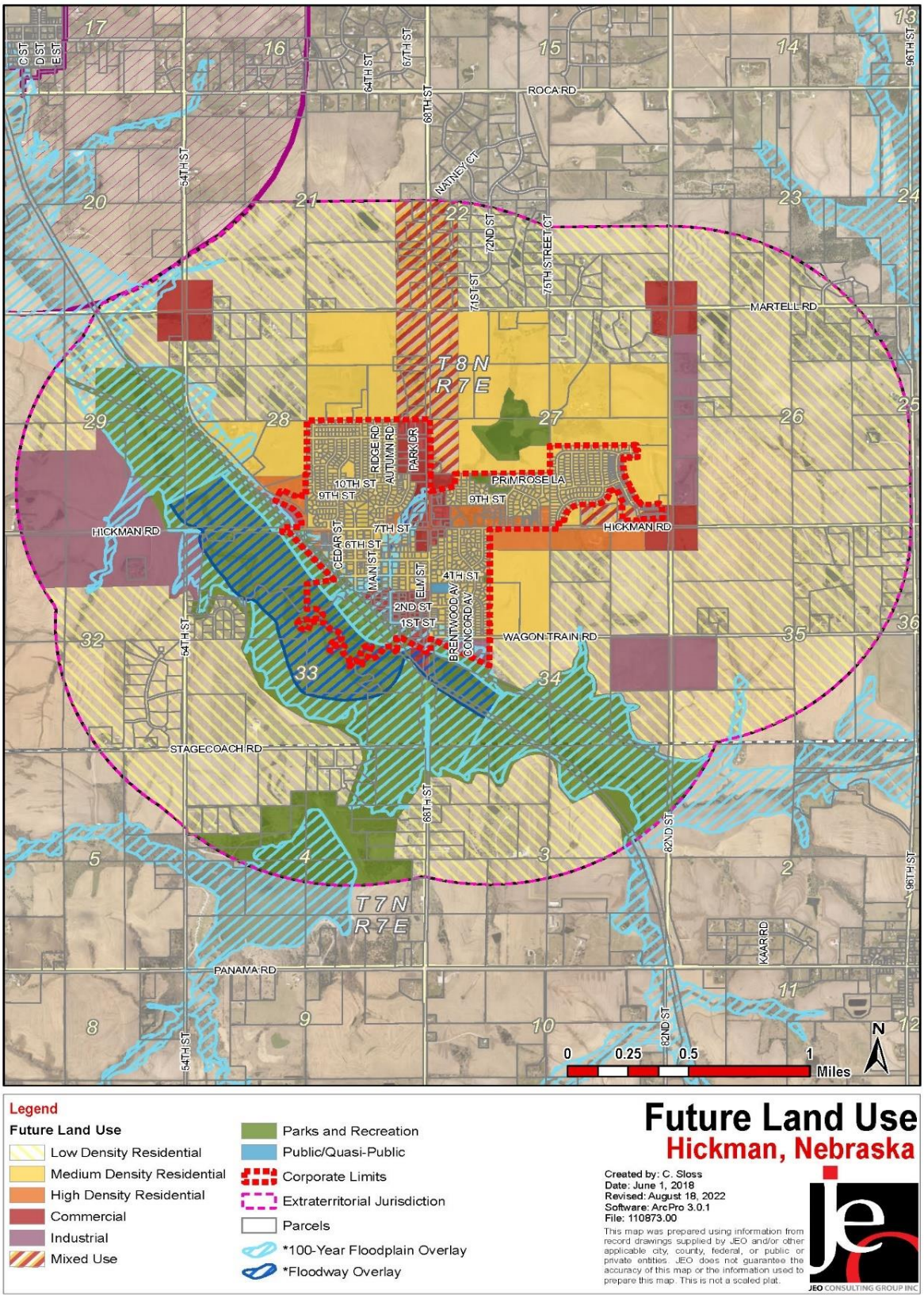
Future Development Trends

In the last 10 years the City has continued to grow for residential homes. The City has also demolished the old grocery store at 217 Locust Street, city hall, and two single family homes. The Nebraska Communities Playhouse built a new structure on the downtown side where the old grocery store was located. This structure was built to floodplain specifications.

In the last five years, Hickman city limits have expanded when it annexed land in the west and northeast for the Hickman Hills apartments Terrace View subdivision, and the Wizkidz additional lots one and two. The Wizkidz additional property contains 75.02 acres, of which, LPSNRD Upper Salt Creek Dam 35-A is located. Three apartment building lots were platted but building permit applications have not been received. If approved, there will be a total of 84 units located at Barber Estates Addition at approximately 6950 Hickman Road. B&R Stores proposed a mixed-use development with a grocery store, additional commercial spaces, apartments, and high-density housing that may be located near Dam 35-A which is considered a high-hazard dam. The project is currently on hold. Etmund Estates Addition Lot One is not located in the floodplain and will begin the platting process for approximately 70 single-family and two-family attached residential homes.

According to the U.S. Census Bureau, Hickman's population is growing which the local planning team attributes to residents' preference to live in a smaller community, but within reasonable distance to larger metropolitan areas. The Future Land Use Map below illustrates intended growth areas and their designated uses for the City. Development is anticipated to continue primarily away from the floodplain with residential, mixed-used, and commercial development concentrated to the north and east of Hickman. Industrial land use is designated to the west of the floodplain, and east of the city limits.

Future Land Use Map



Community Lifelines

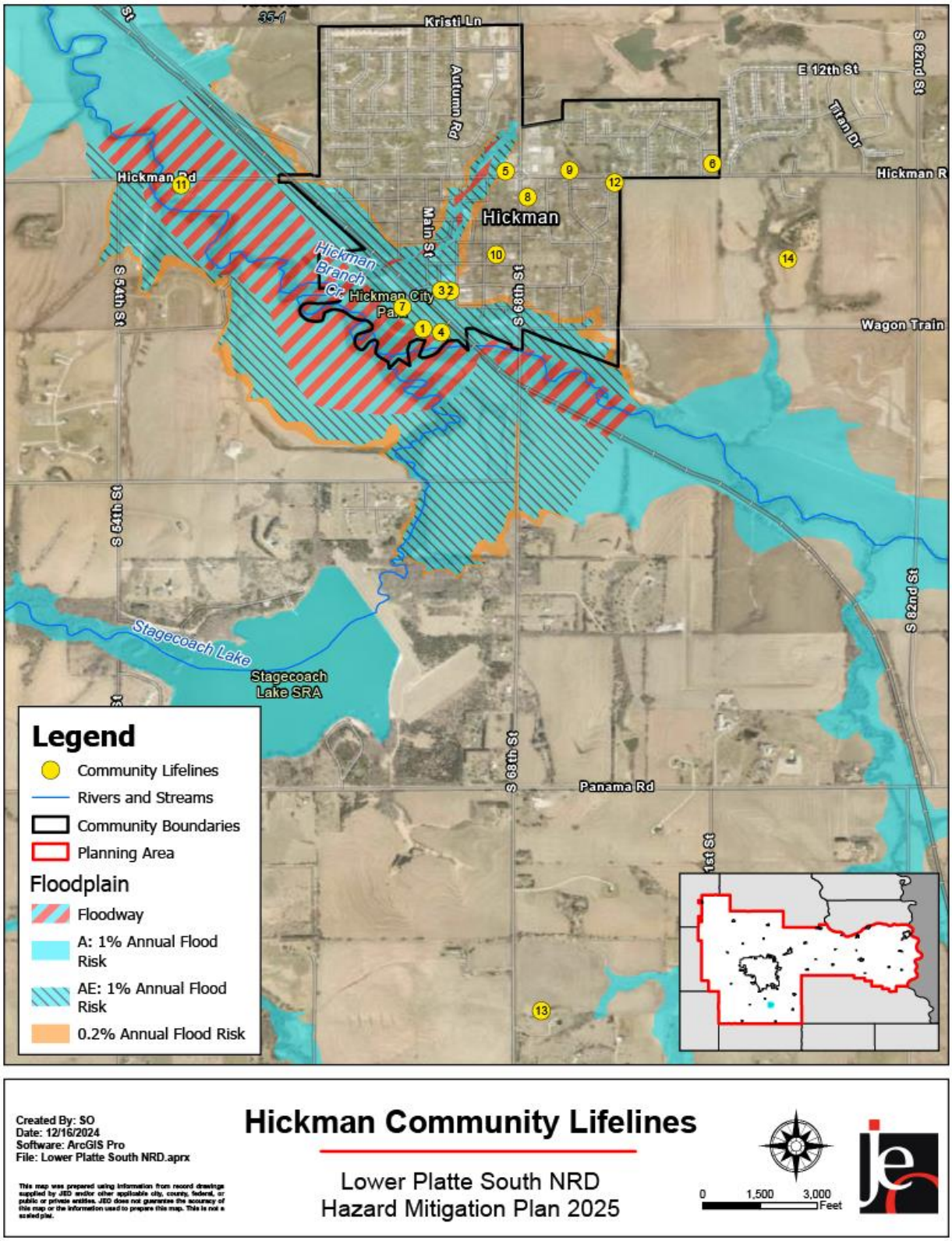
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories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

Hickman Community Lifelines

CF #	LIFELINES	NAME	GENERATOR	SHELTER	FLOODPLAIN
1	Other	American Legion	N	N	Y – 100y
2	Safety and Security	City Hall/ Community Center	N	N	Y – 100y
3	Safety and Security	City Maintenance Building	N	N	Y – 100y
4	Safety and Security	City Maintenance Building	N	N	Y – 100y
5	Safety and Security	City Maintenance Building	N	N	N
6	Health and Medical	Haven Manor	N	N	N
7	Food, Water, Shelter	Park Shelter	N	Y	Y – 100y
8	Safety and Security	Rural Fire Department	N	N	N
10	Food, Water, Shelter	United Presbyterian Church	N	N	N
11	Food, Water, Shelter	Wastewater Treatment Plant	Y	N	N
12	Food, Water, Shelter	Water Tower	N	N	Y-Floodway
13	Food, Water, Shelter	Water Treatment Plant	Y	N	N
14	Food, Water, Shelter	Well #1 and #3	N	N	N
15	Food, Water, Shelter	Well #2 and #4*	N	N	N
16	Food, Water, Shelter	Well #9	N	N	N

**located outside of map boundary*

Hickman Community Lifelines



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 Hickman 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 Hickman. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Dam Failure

The City of Hickman has three high hazard dams surrounding the community. One, Upper Salt Creek 35-A, is located directly northeast of the city boundaries. The dam is owned and managed by the Lower Platte South NRD. Two, Salt Creek 8 – Wagon Train dam is located east of Hickman. Three, Salt Creek 9 – Stagecoach Dam is located southwest of Hickman. Evacuation mapping is needed for Stagecoach and Wagon Train dam failures.

High hazard dams are required to 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. Projects over the past five years include draining Wagon Train Lake in 2022 to remove sediment build up on the bottom. The City is waiting for the rains to refill the lake. The water levels have been low the past two years, presenting less of a risk than previous years. Upper Salt Creek 35-A has emergency contact sheets with notification sheets that define the level of emergency and a script for communicating with mutual aid emergency contact professionals. The location of the dam is included in the script. Emergency action contact plans have not been started for the other two high hazard dams.

Future projects include conducting tabletop exercises with City Staff to determine the level of response scenarios in the event of a dam failure and determine how to designate a point of gathering at the onset of an emergency event. Emergency contact sheets should be readily available at each location used as a point of gathering during an emergency and should include the current Mayor, City Administrator and Public Works Director's phone numbers and be updated when changes are made to ensure the flow of information during an event.

ACTION	EMERGENCY EXERCISE: DAM FAILURE
Description	Conduct a tabletop exercise to test city and emergency response capacity and capabilities in the circumstance of a dam failure event. Include evacuation planning efforts as part of exercise. Determine how to designate a point of gathering at the onset of an emergency event.
Hazards Addressed	Hazardous Materials
Estimated Cost	Staff Time, Contractor if needed
Potential Local Funding	General Fund
Lead Agency	City Administrator, County EMA
Timeline	2-5 years
Priority	Medium
Status	This is a new mitigation action

Drought

The City's water system includes four metered wells which are monitored monthly for water level. The County has a drought monitoring board, but the City has its own drought response plan that has been used in previous dry years for water restrictions. The City has high nitrates in some wells which can be exacerbated by drought conditions. During past drought periods the local water supply has been sufficient. However, the local planning team indicated with the population growth Hickman has experienced, additional water supplies are currently being investigated for any future events. Ordinance 2021-13 has amended the restricted water use regulations and allows the City Council or facilities and maintenance director to order a reduction in water use or shut off the water if needed. Water restrictions are in effect once the regulations are enforced due to seasonal lack of sufficient pumping capacity and water supplied to the City's water storage facilities.

Beginning June 2021, the City implemented a yearly mandatory odd and even watering days policy beginning May 1st and ending September 30th each year, including a policy for warnings and fines. The City has completed construction of additional water vessels that have doubled the capacity for treatment. The City also drilled two test wells in search of new water sources that were unsuccessful but there is an option to redrill current wells to a larger diameter and install a turbine to pump to increase volume. Transmission lines are anticipated to be replaced and upgraded from the water treatment plant to the city limits within the next two years. The City is adding a booster station at the current water tower location to increase water pressure in the city for residents and businesses north of Hickman Road, and is in the design phase. A future project is to install a two-million gallon ground storage facility at the treatment plant with a high service pump to supplement the current 300,000-gallon water tower, This would allow the use of the current wells and decrease the head pressure, which will increase the ability to pump more water to the storage containers. The City plans to budget and seek funding sources for this project include it in the capital improvement plan.

ACTION	Source Water Contingency Plan
Description	Evaluate and locate new sources of groundwater to ensure adequate supplies to support the existing community and any additional growth which may occur.
Hazards Addressed	Drought, Grass/Wildfire
Estimated Cost	$25,000
Potential Local Funding	Water Fund
Lead Agency	Public Works, City Administration
Timeline	1 year
Priority	High
Status	Not yet started.

ACTION	STORAGE FACILITY
Description	Construct a two-million-gallon ground storage facility with high service pump.
Hazards Addressed	Drought, Extreme Temperatures, Grass/Wildfire
Estimated Cost	$2,000,000
Potential Local Funding	General Budget (CIP allocation), seeking other funding options
Lead Agency	Public Works, City Administration
Timeline	5+ years
Priority	High
Status	This is a new mitigation action.

Flooding

The local planning team estimated that future flood events could impact more than 40 percent of the city's population and would interrupt critical facility operations. Approximately ten percent of the structures located within the city are within the one percent annual flood risk area. There are several facilities located in the floodplain including the City Maintenance Shop and the Concession Stand for the city park. The Concession Stand was built to be greater than one foot above Base Flood Elevation. The City has acquired another shop location out of the floodplain which now stores several vehicles, equipment, and maps. In June 2020, a severe thunderstorm with high winds and intense rain caused flash flooding in the main park and downtown area. Salt

Creek backed up to Main Park and washed-out part of the BNSF railroad tracks which allowed water to flow into the downtown area. Damage occurred to the railroad tracks, playground equipment, trails, ball fields, and several downtown businesses and houses.

Hickman continues to follow its floodplain regulations, and in December of 2023, the City updated them to include more definitions, diagrams and pictures with the goal of making them easier to follow and understand. Within the update, the City opted to prohibit the placement of manufactured (mobile) homes within the Special Flood Hazard Area as it currently does not have any located in SFHA. Future projects include creating a plan and contract out to record a drone fly over of the Hickman Branch of Salt Creek, focusing on the area from the overpass around the back of Main Park to Hickman Road. Main Park is the recurring source of floodwaters and debris, causing damage to play equipment and trails, and it becomes an entry point for floodwaters into downtown businesses and houses. The footage will be used to identify areas with fallen trees and beaver dams that need to be cleared for flow. The Flood Administrator and Public Works are expected to review the drone footage at least every six months. A historical record will be kept for reference and to track changes to the stream bank. Drone fly overs will also occur immediately after each intense rain event to identify hot spots not seen under normal conditions. Other identified projects are to create a budget for mitigation to clear the debris and stabilize stream banks and to work with adjacent property owners who have portions of the Salt Creek run through their land to clear out those areas as it also impacts their property.

ACTION	Elevate Infrastructure
Description	Elevate pad transformers and switch gear above base flood elevation to eliminate damages from flooding.
Hazards Addressed	Flooding
Estimated Cost	Varies by number needed to elevate
Potential Local Funding	Electrical Funds
Lead Agency	Public Works
Timeline	2-5 years
Priority	High
Status	Not yet started.

Hazardous Materials Release (Transportation)

Chemical transportation spills are a concern for the local planning team due to the potential contamination of land and surface water. The City experiences heavy traffic flows through town on highways and rail lines which can be carrying hazardous materials. On December 24, 2016, a flammable chemical tanker train was recorded traveling along the BNSF Railway near Hickman Park on West 2nd Street. The contents within the tank are unknown except for the flammable chemical symbol on the side of the tankers. Transportation routes of top concern include the BNSF rail line, 68th St, and Hickman Road. Critical facilities including City Hall by the rail line and the Fire Department on Hickman Road are vulnerable to chemical transportation spill incidents.

Tabletop exercises with City Staff to determine the level of response and corresponding scenarios in the event of a chemical transportation spill are needed to reduce the risk. Additionally, having emergency contact information readily available for any employee to implement. The notification sheets should define the level of emergency and script to be used when communicating with mutual aid emergency contact professionals. Information should also include the location of emergency and who they will be coordinating with from the City. Include the Mayor, City

Administrator and Public Works Director's phone numbers for communication of the event and be updated when changes are made to ensure the flow of information during an event.

ACTION	EMERGENCY EXERCISE: HAZARDOUS MATERIAL SPILL
Description	Conduct a tabletop exercise to test city and emergency response capacity and capabilities in the circumstance of a hazardous material spill event. After action report should include detailed notification sheets, communication language and protocols, and chain or command.
Hazards Addressed	Hazardous Materials
Estimated Cost	Staff Time, Contractor if needed
Potential Local Funding	General Fund
Lead Agency	City Administrator, County EMA
Timeline	2-5 years
Priority	Medium
Status	This is a new mitigation action

High Winds and Tornadoes

A tornado in October 2013 damaged nine residential homes with significant hail and damaged the local schools. In June 2020, high winds and intense rain caused the main park and downtown area to flood. Salt Creek backed up to Main Park and washed out part of the BNSF railroad tracks which allowed water to flow into the downtown area. Damage occurred to the railroad tracks, playground equipment, trails, ball fields, and several downtown businesses and houses, Tree limbs and several trees throughout town fell. Two firework tents were damaged and collapsed. Most recently, high wind events occurred on June 1st and June 16th, 2024, where both left tree debris in the Main Park area, on the City trail system, and across City streets. Municipal records are backed up locally to the cloud. Wind events are difficult to predict, and damage can occur to healthy trees. Hickman has one warning siren located on Chestnut Street which is activated by Lancaster County Emergency Management. There are no FEMA certified safe rooms in Hickman. The City has mutual aid agreements and additional resources identified in the Lancaster County Local Emergency Operations Plan. The 2024 tornadoes in Omaha and surrounding areas signify the need for Hickman to have items and land for alerting, sheltering after an event, searching, restricting access to impacted areas to prevent looters, debris removal, a central command center, FEMA trailers for showers and restrooms, donation drop off sites, and more resources as needed.

Other future projects to reduce the impacts could include:

1. Designating an area for post-storm shelter and FEMA trailers if necessary.
2. A hardwire warning alert sirens.
3. Accounting for the number of vehicular barriers and accessing the number of entry points to the City as continued growth has added new roads and entrances to Hickman. Increasing the number of barriers as needed to adequately protect the City from trespassers post-storm event.
4. Having adequate signage to put on barricades or in what was the ROW to direct people.
5. Having adequate signage to put out in key areas as identified ahead of time in case of downed communications directing people to shelters and contact information.

ACTION	Backup Generators

Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and CFs.
Hazards Addressed	Dam Failure, Extreme Temperatures, Flooding, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$15,000-$30,000 per generator
Potential Local Funding	Water Funds, General Funds, NHHS Security Grant
Lead Agency	Public Works Department
Timeline	2-5 years
Priority	High
Status	In progress – generator installed on Well #4. Other needs: 1. A backup generator for City Hall to power a group of residents who may need to shelter in place for a period until housing can be found for them. Have a pet policy in place, which may include an off-site location or two separate shelter locations. 2. A backup generator hardwired at each well site. 3. Providing protection of the backup generator, either placed in a building or build a structure to house them safely. 4. Evaluating working order and power capabilities of the City's portable generator that was purchased in 2008. 5. Hardwired full capability backup generators for water and wastewater treatment facilities. 6. Keeping a log of planned maintenance checklist standard inspections for all generators (including portable).

ACTION	Storm Shelters
Description	Design and construct storm shelters and safe rooms in high vulnerability areas such as mobile home parks, campgrounds, schools, and other areas.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms
Estimated Cost	$200-$300/sf stand alone; $150-$200/sf addition/retrofit
Potential Local Funding	General Funds, HMGP, PDM
Lead Agency	Public Works Department
Timeline	5+ years
Priority	Low
Status	Not yet started. The City has identified the community center as a preferred location for a storm shelter; however funding is currently limited.

Additional Hazard of Concern - Grass/Wildfire

The Hickman Rural Fire Protection District built a new station in Hickman. Rural fires within the south district of Lancaster County are under the coverage of the station, along with the mutual aid of surrounding rural fire stations. During fire emergencies the fire district generally fills its grass rigs and tanks at the nearest community to the fire; however, some small communities do not have a large amount of storage or pumping ability to supply the needs, so they supplement the need for water by coming to Hickman or another adequate facility. During the October 2022 Hallam fire event, water was utilized from Hickman. The fire destroyed three homes and injured two firefighters. A future project to reduce the impacts of grass/wildfires include increasing the water storage capacity in Hickman to two times the peak usage for fire safety.

Completed/Removed Mitigation Actions

ACTION	Tree City USA
Description	Work to maintain Tree City USA status 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	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Status	Complete – City of Hickman remains a member of the Tree City USA program and no additional actions are needed.

ACTION	Floodplain Management
Description	Continue to enforce local floodplain regulations for structures located in the 1% annual floodplain. Strict enforcement of the type of development and elevations of structures should be considered through issuance of building permits by any community or County.
Hazards Addressed	Flooding
Status	Complete – Ordinances were recently updated and enforcement of them is an ongoing priority for the City.

ACTION	Public Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Status	Complete - This is an ongoing activity for the city, but no specific activities have been identified at this time.

ACTION	Bank Stabilization
Description	Stabilize banks along streams and rivers. This may include, but is not limited to: reducing bank slope, addition of riprap, installation of erosion control materials/fabrics.
Hazards Addressed	Flooding
Reason for Removal	Not currently a priority – no areas identified for stabilization.

ACTION	3-D Dam Failure Modeling
Description	Create 3-D dam failure modeling with the assistance of the U.S. Army Corps of Engineers.
Hazards Addressed	Dam Failure, Flooding
Reason for Removal	Identified as no longer needed for the community.

Community Profile

City of Lincoln

Lower Platte South NRD
Hazard Mitigation Plan 2025

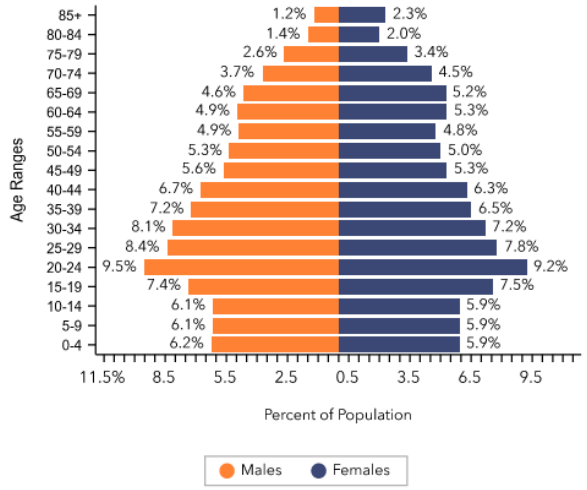
.

Community Summary Fact Sheet

Lincoln, NE
Lower Platte South NRD Hazard Mitigation Plan 2025

Population	Median Age	Total Households	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level
299,860	34.6	121,690	$68,699	$278,782	2.4%	12%

AGE PYRAMID



TOTAL POPULATION

2023 Total Population (Estimate)	299,860
2020 Total Population (U.S. Census)	291,116
2010 Total Population (U.S. Census)	258,847
2000 Total Population (U.S. Census)	227,683

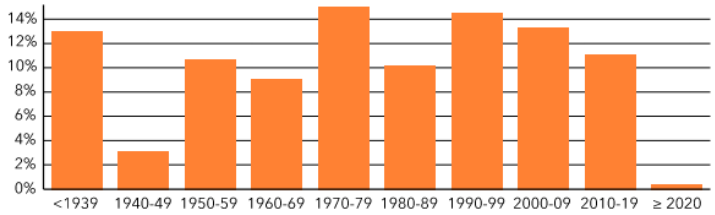
AT RISK POPULATION

27,174
Households With Disability

46,467
Population 65+

6,426
Households Without Vehicle

HOUSING: YEAR BUILT

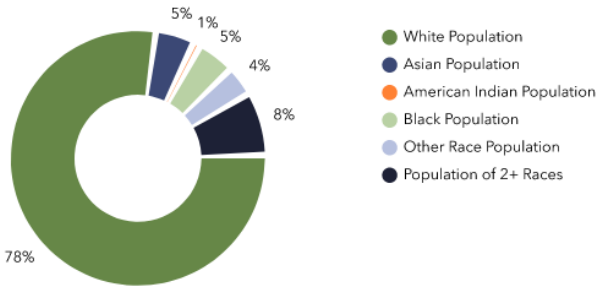


COMMUTER

1%
Workers Who Took Public Transportation

27.5%
15-19 Minutes Commute

POPULATION BY RACE



HOUSING

6%
Vacant Housing Units

43%
Renter Households

2%
Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, ACS. Esri forecasts for 2024, 2020, 2010, 2000, 2018-2022, 2029.

Local Planning Team

City of Lincoln Local Planning Team

Name	Title	Jurisdiction	Engagement
Al Langdale	Lower Platte South NRD	Lower Platte South NRD	Attend Meetings, Profile Development
Allison Speicher	Parks and Recreation	City of Lincoln	Attend Meetings, Profile Development
Ben Kopsa	Police Captain	City of Lincoln	Attend Meetings, Profile Development
David Potter	Assistant General Manager	Lower Platte South NRD	Attend Meetings, Profile Development
Emma Martin	City Planner	City of Lincoln	Attend Meetings, Profile Development
Jared Nelson	Watershed Management Division	City of Lincoln	Attend Meetings, Profile Development
Jim Davidsaver	Director of Emergency Management	Lincoln/Lancaster County Emergency Management	Attend Meetings, Profile Development
Kim Morrow	Chief Sustainability Officer	City of Lincoln	Attend Meetings, Profile Development
Leshan Taruru	Lincoln/Lancaster County Emergency Management	Lincoln/Lancaster County	Attend Meetings, Profile Development
Mike Smith	Assistant Fire Chief	City of Lincoln	Attend Meetings, Profile Development
Tim Zach	Watershed Management Division	City of Lincoln	Attend Meetings, Profile Development
Travis Laughlin	Transportation and Utilities Security Manager	City of Lincoln/Lancaster County	Attend Meetings, Profile Development

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Lincoln has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The City of Lincoln is governed by a Mayor and a seven member City Council. The following offices that may help implement mitigation actions:

- Aging Partners*
- Building & Safety*
- Lincoln City Libraries*
- Planning*
- Purchasing*
- Lincoln Transportation and Utilities
- Urban Development Department
- Communications Center
- Health*
- Human Resources*
- Human Rights Commission*
- Information Services*
- Fire Department
- Police Department
- Parks & Recreation Department

**indicates an agency which is shared with the County*

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this profile as changes can occur before or after a major event. The local planning team will include a representative from each department who engaged in the plan review and development process. However, the Superintendent of Stormwater (Tim Zach) or the Security Manger for Lincoln Transportation and Utilities (Travis Laughlin) will lead the review and update process annually. The public will be notified of the plan review and revision through social media posts, press releases, and website updates.

Location and Geography

The City of Lincoln is the county seat of Lancaster County, occupying most of the center of the county. The City covers an area of approximately 101 square miles and serves a population of about 294,000 residents. Prior to the city's incorporation in 1869, Native Americans inhabited the area for thousands of years and lived and hunted along Salt Creek. The first westward settlers were also drawn to the area due to the abundance of salt.

Lancaster County is primarily within the Salt Creek watershed with several major waterways in and around the City. The largest is the Salt Creek, which flows south to north on the west side of City. When it rains in Lincoln, stormwater flows into drainage inlets, gutters, and underground pipes before reaching Salt Creek, which drains into the Platte River. Additionally, Antelope Creek, which flows southeast to northwest through Lincoln, converges with Salt Creek. Deadman's Run runs southeast to northwest before converging with Salt Creek. Rain that falls on hard surfaces like rooftops, parking lots and other surfaces can carry pollutants into our streams and lakes. Lincoln occasionally gets more rain than the storm drain system or streams can adequately convey, which can lead to flooding.

Transportation

The City of Lincoln has several major transportation corridors, including Interstates 80 and 180; US Highways 77, 6, and 34; and Nebraska Highway 2. Interstates 80 and 180 run east and west and north and south, respectively. The US Highways (77, 6, and 34) run north and south, east and west, and north-and-south, respectively. The City of Lincoln roadway network consists of almost 200 million square feet of paved surfaces with varying surface conditions. Key changes to the transportation network within the City included the completion of the Lincoln South Beltway. Construction of the 11-mile, east-west, four-lane freeway was designed to reduce congestion on Nebraska Highway 2 through Lincoln and improve regional mobility. Work began in February of 2020, and this project had a total cost of $352 million. With the beltway constructed, Highway 2 through southern Lincoln was renamed to Nebraska Parkway. Roundabouts have also been built more frequently across the city to improve safety and reduce congestion including at 70th St and Pine Lake, 84th and Saltillo, and along Yankee Hill Rd.

There are three rail lines, which converge in the City and are owned by Burlington-Northern-Santa Fe (BNSF), Union Pacific (UP), and Omaha Public Power District (OPPD). The tracks run into the center of the City at a railyard and the lines haul agricultural and energy products.[2] The Lincoln Municipal Airport is located in the northwestern part of the City. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

[2] Nebraska Department of Roads. "Nebraska Railroads." Accessed December 2018. http://opportunity.nebraska.gov/files/businessdevelopment/winergy/NebraskaRailMap.pdf.

Capability Assessment

The planning team assessed the City of Lincoln'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	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Mapped Area Only
	National Flood Insurance Program	Yes
	Community Rating System	Yes – Class 5
	Community Wildfire Protection Plan	Yes
	Climate Action Plan	Yes
	Other (if any)	City Emerald Ash Borer Response and Recovery Plan
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

Capability/Planning Mechanism		Yes/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	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

Lincoln Overall Capability

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

There are specific capabilities areas the City may be able to enhance or have identified specific limitations. Available funding to implement projects and/or hire qualified staff to implement/manage projects is the primary limiting factor by the local planning team. Public support to implement projects is heavily tied to the type and political nuance of the project being implement; however, adequate education or outreach campaigns can influence both support and outcry for projects. The city identified the ongoing need for more engagement specifically for non-planning related flood mitigation related activities. Adequate public participation planning (P2 planning) must be part of the initial conversation with a strategy developed prior to project implementation. For example, the city saw a heavily positive outreach as part of the Woods Park Expansion discussion with multiple meetings held at various times across different days to capture the largest audience. Conversely, major public backlash was heard when plans to build a new jail in north Lincoln moved forward and the public felt they were not properly notified or consulted.

The time to devote to hazard mitigation is heavily tied to available staff capacity and varies by department and project type. Lincoln Parks and Recreation Forestry Division noted their limited capacity to implement new projects as they lack adequate staff and equipment to maintain all

existing parks and land management requirements. Projects will also vary in their level of time required to implement due to complexity and timeline. Often times recommendations for projects or improvements are made by staff but the final ruling, discussion, timeline, and budget allocation is made by senior staff which requires additional time and effort.

There are some limitations placed on the ability to expand and improve capabilities due to statutory and regulatory requirements. Staff, responsibilities, budget agreements, or other considerations must be reviewed to ensure expansion and growth does not violate such regulations.

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	4/27/71
Floodplain Administrator:	Yes
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	1,065
Total NFIP Premium ($):	$801,185
Total NFIP Coverage ($):	$266,039,000
Number of Claims Paid Out:	260
Total Amount of Claims Paid Out ($:)	$2,563,621
Number of Repetitive Loss Structures:	7 (21 total losses)
Number of Severe Repetitive Loss Structures:	1 (9 total losses)
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Both
Date of CRS Participation	10/01/91

For the city, floodplain management is a collaborative effort between local authorities and state agencies to mitigate flood risks and ensure safe development within designated flood-prone areas. The City of Lincoln plans to continue its involvement with the NFIP in the future. To develop in the floodplain, a floodplain development permit is required and must be reviewed by the Floodplain Administrator.

Development within Lincoln's floodplain areas requires adherence to specific regulations to minimize flood risks. The permit process is as follows:

- Application Submission: Developers must complete a Flood Plain Development Permit Application, available from the Lincoln Building and Safety Department or online.
- Plan Requirements: Applicants must provide three sets of plans detailing existing and proposed site contours, with all elevations submitted in NAVD 1988 datum. Additionally, approvals of all other required permits, such as the Notice of Intent (NOI) or Section 404 permit, must be included.
- Compliance Review: The Building and Safety Department reviews the application to ensure compliance with the Lincoln Municipal Code, particularly Sections 27.52 and 27.53, which govern floodplain management.
- Permit Issuance: Upon approval, the permit is issued with conditions to ensure that the development complies with floodplain regulations, such as elevating the lowest floor of residential buildings at least one foot above the base flood elevation.

- Inspections and Certification: After construction, the developer must provide certification by a registered engineer, architect, or land surveyor of the "as-built" lowest floor elevation or floodproofed elevation of any new or substantially improved building.

It's important to note that all development in a floodplain, whether an addition or a new structure, requires a permit. A new structure must meet existing Base Flood Elevation (BFE) requirements. An addition to an existing structure must also meet BFE requirements if it is a "substantial improvement," defined as any reconstruction, rehabilitation, addition, or other improvement to a structure where the total cost equals or exceeds 50 percent of the structure's market value before improvement begins.

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 large number of properties have been removed from the floodplain via LOMA. There are 8 Letter of Map Revision (LOMR) and 266 Letter of Map Amendment (LOMA). Due to the large number LOMCs, a full list is not provided here. All LOMCs can be viewed via FEMA's Flood Map Service Center.

Parcel Improvements and Value in the Floodplain

Year	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2020	87,831	$19,303,072,500	6,483	$1,894,522,400	7.4%
2024	99,189	$38,462,026,800	5926	$3,563,020,200	6%

Source: County Assessor, 2024

Plans and Studies

The City of Lincoln 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 City of Lincoln-Lancaster County 2050 Comprehensive Plan was last updated in 2021. This plan does include natural hazard layers including the floodplain. As such, the plan directs development away from the floodplain and chemical storage facilities. It also encourages infill development, development clustering, structure elevation in the floodplain, and the preservation of open space in hazard-prone areas such as parks. During the plan update process, planners involved with the hazard mitigation plan update were available at public open house meetings to

address questions regarding hazard mitigation and the integration of mitigation goals into the comprehensive plan. These concerns and priorities identified by the public, were integrated into the plan and its fifteen key goals. This ensures that hazard mitigation and preparedness is emphasized and consistently represented throughout the entire plan document.

As part of the Comprehensive Plan, other key sectors were discussed as described below.

Economic Development
Economic sectors in Lincoln include (from largest to smallest) Business and Commerce, Government, Industrial, and Agricultural. The "Greater Lincoln Workforce Development Area Local Plan" was developed by the Greater Lincoln Workforce Development Board and is responsible for planning the use of federal Workforce Innovation and Opportunity Act funds to impact employer and worker success. Lancaster County's workforce, the presence of the University, and the strength of the agricultural economy make it particularly attractive for development of several specialized industries such as biotech, insurance, health care, and advanced manufacturing.

Environmental Resources:
Securing the long-term permanence of green space is a basic dilemma in natural resources planning. The use of PlanForward 2050 3.53 Elements "green space development incentives" (e.g., setting aside non-buildable areas, creating green space preserves, density bonuses) should be a primary consideration in implementing this plan.

Redevelopment:
All Redevelopment Corridors must also meet specific criteria including "*In areas that minimize floodplain and other environmental impacts. Areas within the floodplain that already have buildings and fill are appropriate for redevelopment; projects that receive public assistance should meet a higher standard to preserve flood storage. This criterion encourages redevelopment while protecting sensitive environmental areas. Preservation or restoration of natural resources within or adjacent to mixed use redevelopment areas should be encouraged."*

Capital Improvement Plan

The Capital Improvements Plan (CIP) is updated bi-annually as part of the municipal budget. The CIP includes numerous projects the City is pursuing including: storm water projects; upsizing culverts and drainage ditches; upgrading and maintaining the storm water system; improving transportation routes; widening roadways for future growth and current emergency access; bridge improvements; water system and well improvements; residential water meter installation; updates to electrical distribution system; constructing and/or improving community facilities including fire halls, community centers, public works facility, and libraries; development of additional parking garages; and expansion of the public transportation system. Each of these project types impact or are affected by natural hazards; therefore, a hazard-informed CIP can help to build a more resilient community now and into the future.

Ordinances and Regulations

The City's jurisdictional zoning ordinance is updated and amended on an as-needed basis based on recommendations by the City or at the request of an applicant. The current ordinance discourages, limits, and/or prohibits development in the floodplain/floodway and identifies these areas as parks or open space. While the ordinance does not prohibit wetland filling, additional permitting is required to do so. The ordinance also accounts for the current population and future expected trends. The City of Lincoln also utilizes the Lancaster County Zoning Ordinance which

was last updated in November 2018. The County ordinance discourages development in the floodplain, requires elevation of structures in the floodplain, contains natural hazard layers, and limits development in the extra-territorial jurisdictional area. The City's subdivision regulations were updated in February 2019. While the subdivision ordinance does not directly address conservation or cluster subdivisions, there are density bonuses possible in certain areas by the Community Unit Plan in exchange for substantial protection of open space as designated in the Comprehensive Plan. There are also regulations that allow density transfers in hazard areas and restrict subdivision of land within or adjacent to the floodplain depending if the land is in an Existing Urban Area or New Growth Area.

The Historic Preservation Commission works with neighborhood groups, preservation advocates, property owners, and the State Historical Society to discover, protect, and share the community's heritage. The zoning code provides protection for designated historic property and incentives for creative uses that maintain the vitality of historic places.

Lower Platte River Consortium

The City of Lincoln is also a key stakeholder in the Lower Platte River Consortium which includes the Lower Platte South NRD, Lower Platte North NRD, MUD, Papio-Missouri NRD, and NeDNR. The Consortium's purpose is "To study long-term water supplies available to the lower subbasin for enhancing stream flows or aquifer storage to support sustainable public water systems." The consortium worked together to develop a Drought Contingency Plan, approved in 2019, with the overall goal of sustaining public water supplies in the basin. The plan evaluates potential drought mitigation measures and drought monitoring techniques for the Consortium to adopt and implement.

Building Codes

Under the City of Lincoln's Building and Safety Department, a set of building codes have been adopted by the city council and enforced by staff to ensure new structures or improvements to existing structures are in compliance with necessary safety measures and protect the integrity of the area or neighborhood where these improvements are taking place. Within the City of Lincoln's Building Codes are several divisions and sections, including Homeowner Building Permits, Residential Building, Commercial Building, Residential Charts and Diagrams, Permit Applications, Inspections, Mechanical, Electrical, Plumbing, Residential Rental and Property Maintenance, and the Bureau of Fire Prevention. Current municipal building codes were updated in 2018 along with ordinance and regulation updates.

Southeast Nebraska Community Wildfire Protection Plan

The Southeast Nebraska Community Wildfire Protection Plan was adopted in August 2020 for the counties of Butler, Cass, Gage, Johnson, Lancaster, Nemaha, Otoe, Pawnee, Richardson, Sarpy, Saunders , and Seward. As the plan states, "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". This plan assists communities within the 12 county area in their ability to respond to and approach wildfire hazards and hazardous events.

City of Lincoln Climate Action Plan

The Climate Action Plan for the City of Lincoln was adopted in 2021. With an understanding that severe climate events and their impacts have been increasing over the last decades, Mayor Gaylord Baird commissioned a group to begin the planning process for this document. "This Climate Action Plan has come about from an understanding of the need to significantly reduce

greenhouse gas (GHG) emission to slow the pace of climate change and protect Lincoln residents' way of life". Hazardous events like drought, food insecurity and access, flooding and severe rain, as well as health impacts from events like these and others are addressed in this plan and directly paly a role in the community's overall resiliency to hazardous events and weather.

City of Lincoln Flood Mitigation Master Plan

The City of Lincoln partnered with the Lower Platte South NRD to establish its Flood Mitigation Master Plan in 2023. This plan has helped both entities "to identify actions that can help reduce the negative impacts caused by flooding and to protect the natural and beneficial functions of the floodplains in the city". Part of this plan includes a risk assessment that was performed for the City's stormwater and riverine flood hazards, as well as any other hazards associated with dam and/or levee failures. The actions identified in this plan include projects that fit under the following categories – Structural, Public Information, Property Protection, Preventive Activities, Natural Resource Protection, and Emergency Services.

Affordable Housing Coordinated Action Plan

In late 2020, the City of Lincoln adopted its Affordable Housing Coordinated Action Plan. This plan serves as a strategy to address housing issues such as cost, availability, stock, and diversity, as well as to identify new opportunities to grow and expand housing options in the community to better serve current and future residents. Hazard mitigation is not directly mentioned in this plan, however its impacts to public health and safety as it relates to housing are recognized as a top concern for city officials when they consider what investments need to be made to help stimulate the local housing market.

Airport Master Plan

The Lincoln Airport Master Plan was last updated in 2007. Since then, the airport has undergone significant renovations and improvements beyond those recommended in this plan document. At the time, the master plan was developed to evaluate the facility's current capabilities, project future demand for air travel and use in the community, and strategically plan for future development growth. Emergency actions are outlined in this master plan document, including emergency communications, fire prevention and mitigation, emergency aircraft coordination, and handling cargo hazards and materials. The services provided by a regional airport like the Lincoln Airport can play a significant role during a hazardous event and may be able to improve mitigation responses and preparedness for a city or county.

Lincoln Comprehensive Watershed Master Plan

The Lincoln Department of Transportation and Utilities (LTU) adopted its most recent watershed master plan in 2022. This plan includes an evaluation of all watersheds within Lincoln city limits and future growth areas that expand into parts of Lancaster County. In total, there are 14 watersheds that are mentioned in this plan and projects to improve hydrologic conditions and quality are recommended for each of them. The priorities outlined in this plan play a direct role in the community's ability to respond to or prepare for a hazardous event. These priorities include Maximizing Safety, Minimizing Flood Damage, Conserving Natural Resources, and Ensuring Quality of Life for Future Generations.

Wastewater Facilities Master Plan

The final report of the LTU Facilities Master Plan Update was adopted in July 2020. This plan was developed for the City to assist in an evaluation of their current facilities, provide a 12-year CIP focused on facility improvements and investments, forecast future population growth and growth

areas as it relates to expansion of utilities and services, and gave special consideration for how climate change impacts the City's infrastructure and utility service network. This special consideration for extreme climate and hazardous events brings attention to how mitigation efforts can help to conserve and extend the lifespan of city assets, ultimately making a community more resilient in the future.

Other key plans which have a nexus with the overall goals and priorities for the City of Lincoln may include the Long Range Transportation Plan, Lincoln Local Food System Plan, Lincoln-Lancaster County Health Department Community Health Improvement Plan, Subdivision Ordinances, or other specific city regulations adopted on an as needed basis.

Future Development Trends

The City of Lincoln is a fast growing city with much of the city's growth tied to the continual effect of the University of Nebraska-Lincoln, Innovation Campus, and expansive businesses across the city. Other influencing factors include startup companies and large employers located in town including the University, Google, HUDL, Olsson, Spreetail, and Nelnet. The local planning team also indicated the refugee and international population is growing in Lincoln.

Commercial development has continued to develop in the City, especially in the South and West Haymarket areas for shops and restaurants. A data center was approved and constructed has begun with drainage and grading already completed (northwest of Highway 77 and I-80). Major roadway improvements have included the South Beltway, improvements to NW 48th St, Yankee Hill Rd, and Pine Lake Road. The grain silos in Lincoln are anticipated to be demolished in the next five years. The Pershing Center in central Lincoln was demolished in 2023 to be replaced with new affordable housing apartments. Other new housing developments are planned throughout the City, with the highest levels now concentrated in northern Lincoln. The areas that will continue to grow the fastest will be the Southwest Village Heights area west of Hwy 77, north of Denton Road which is not in the floodplain.

Two new high schools have been built – Northwest High School and Standing Bear High School. Based on the Stevens Creek trunk line, additional space east of Lincoln has also been opened for future development. Future development will be focused within the Growth Tier I, Priority A and B areas which is primarily undeveloped land which has already been approved for development. The Lincoln Police and Fire Departments continue to expand to accommodate Lincoln's expanding boundaries.

As indicated in the Future Land Use Map green space and environmental resource areas are identified, and development will be guided away from the floodplain and chemical storage facilities. The City's Flood Mitigation Master Plan noted "…there has been new growth outside of the City limits, but New Growth floodplain regulations require development to meet "No Adverse Impact" to ensure that development doesn't increase flood depths and velocities, maintains floodplain conveyance and storage and preserves the minimum flood corridor."

The City acquired an additional 154-acre parcel in the northwestern portion of the city boundary for the future Cornhusker Bank Park. This area would include 85 acres for wetland/floodplain conservation, 58 acres for active park use, and 11 acres for the future home of the Lower Platte South NRD office. The future park is directly west of the 127-acre Arbor Lake Conservation Area and south of the 156-acre Shoemaker Marsh Conservation Area, both of which are owned by the City of Lincoln. The new park is also less than one mile away from Alvo Road Trail in the City's

trail network and within a three-mile service area for nearly 9,000 residences. Anticipated completion of initial buildout that includes a parking lot and some trails by the end of 2025.

The City is emphasizing growth within all existing plans, specifically developing in areas that have been identified in other plans such as the Comprehensive Plan.

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.

There are standing agreements between Lincoln/Lancaster County Emergency Management and the Lincoln Public Schools District to utilize school facilities as sheltering locations and/or distribution centers in the case of a disaster. Two new high schools are also under development, although their location and capacity have yet to be determined. The utilization of some or all of these facilities is dependent upon the type and severity of the hazard being experienced. Additionally, various Lincoln Parks and Recreation facilities across the City can be used as sheltering locations.

The City of Lincoln's four wellfields, treatment facilities, and water transmission lines are primarily located near Ashland and along the Platte River. This infrastructure is critical for City function and resiliency. During the March 2019 flood event, the wellfields were inundated, and the City of Lincoln implemented voluntary and mandatory water restrictions. The City has water storage available in case of water shortage.

Lincoln Community Lifelines

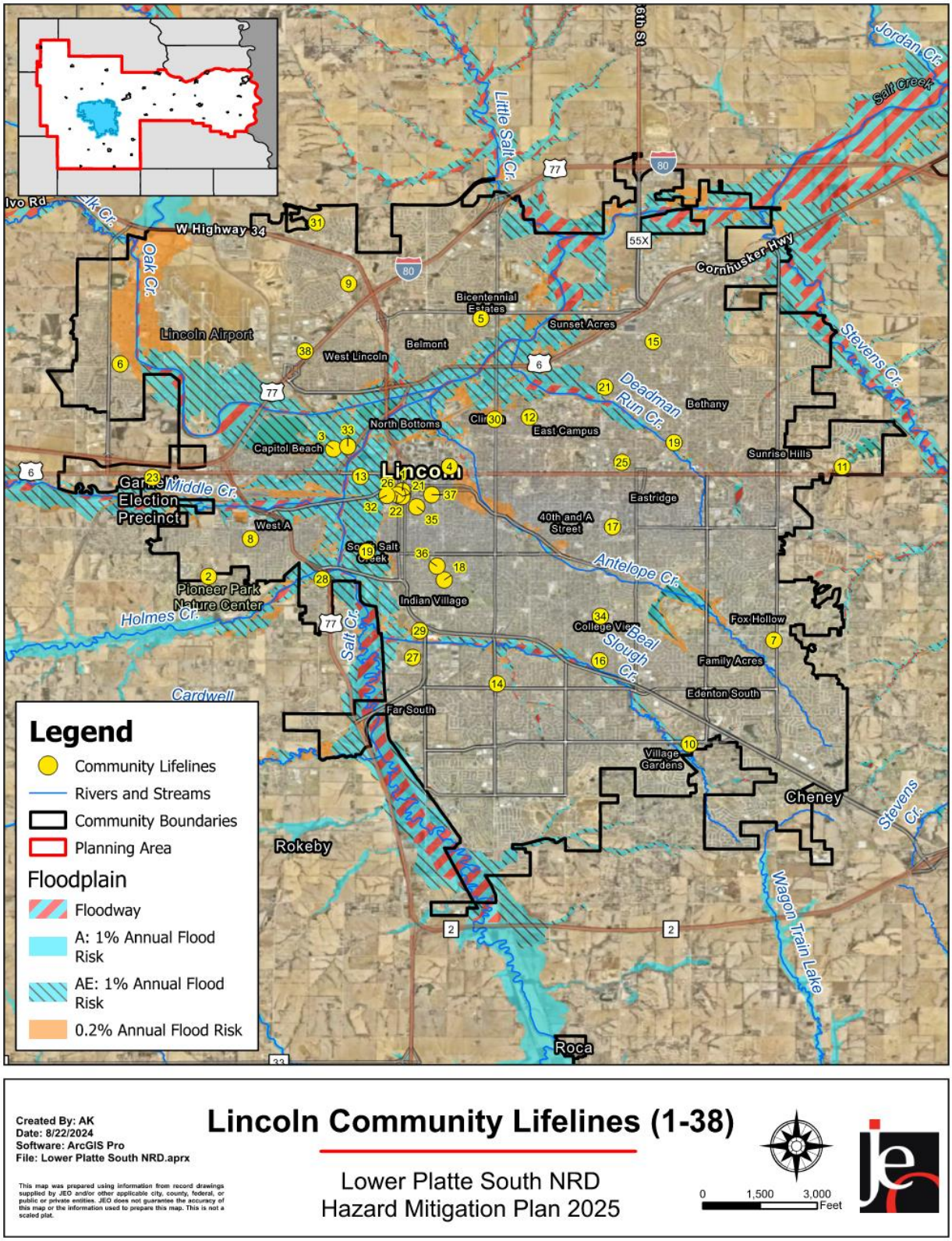
#	Critical Facility	Address	Lifeline Type	Floodplain	Gen
1	City of Lincoln Offices	555 S 10th St	Safety and Security	N	N
2	Community Corrections Center	2720 W Van Dorn St, Lincoln NE	Safety and Security	N	N
3	Emergency Operations/Maintenance/ Lancaster County Sherriff	444 N Cherrycreek Rd	Safety and Security	Y (0.2%)	N
4	Fire Station #1	1801 Q St.	Safety and Security	N	N
5	Fire Station #10	4421 N 24th St	Safety and Security	N	Y
6	Fire Station #11	4600 W Adams St	Safety and Security	N	Y
7	Fire Station #12	4405 S 84th St	Safety and Security	N	Y
8	Fire Station #13	1700 S Coddington Ave	Safety and Security	N	N
9	Fire Station #14	5435 NW 1st St	Safety and Security	N	Y

#	Critical Facility	Address	Lifeline Type	Floodplain	Gen
10	Fire Station #15/Southeast Team Police Department	6601 Pine Lake Rd	Safety and Security	N	Y
11	Fire Station #16	9765 Boathouse	Safety and Security	Y (1%)	N – in progress
12	Fire Station #2	1545 N 33rd St	Safety and Security	N	N
13	Fire Station #3*	2nd and N St	Safety and Security	Y (1%)	N
14	Fire Station #4	5600 S 27th St	Safety and Security	N	N
15	Fire Station #5	3640 Touzalin Ave	Safety and Security	N	N
16	Fire Station #6	5051 S 48th	Safety and Security	N	N
17	Fire Station #7	1345 S Cotner St	Safety and Security	N	N
18	Fire Station #8	2760 S 17th St	Safety and Security	N	Y
19	Fire Station #9*	901 N Cotner Blvd	Safety and Security	N	N – in progress
20	Fire Training Facility	South Street	Safety and Security	Y (1%)	N
21	Lancaster Community Correction	605 S 10th St	Safety and Security	N	N
22	Lancaster County Crisis Center	825 J St	Safety and Security	N	N
23	Lancaster County Dept of Correction	3801 W O St	Safety and Security	N	N
24	Lincoln Municipal Services Center	901 and 949 W Bond St	Safety and Security	N	N
25	Lincoln Police – Northeast Team Station	5201 R St	Safety and Security	N	Y
26	Lincoln Police – Southwest Team Station / Headquarters	575 S 10th St	Safety and Security	N	N
27	Lincoln/Lancaster County Emergency Management Juvenile Detention Center	1200 Radcliff St	Safety and Security	N	Y
28	NE Dept of Correctional Services	801 W Prospector	Safety and Security	N	N
29	Nebraska State Penitentiary	4201 S 14th St	Safety and Security	Y (1%)	N
30	Northwest Team Police Department Sub-Station	1501 N 27th St	Safety and Security	N	N
31	Northwest Team Police Department Sub-station	700 Penrose Drive	Safety and Security	N	N
32	Police Equipment Garage	635 J St	Safety and Security	Y (0.2%)	Shelter
33	Police Light Fleet Garage	100 Oak Creek	Safety and Security	Y (1%)	N
34	Southeast Team Police Department Sub-station	3800 S 48th St	Safety and Security	N	N
35	Southwest Team Police Department Sub-station	1225 F St	Safety and Security	N	N
36	Southwest Team Police Department Sub-station	2300 S 16th St	Safety and Security	N	N
37	State Capital Building	1445 K St	Safety and Security	N	N

#	Critical Facility	Address	Lifeline Type	Floodplain	Gen
38	16 Lift Stations	(not mapped)	Food, Water, Shelter	-	N
39	NE Treatment Plant	7000 N 70th St	Food, Water, Shelter	Y (0.2%)	N
40	Pinnacle Bank Arena	400 Pinnacle Arena Dr, Lincoln, NE 68508	Food, Water, Shelter	Y (1%)	N
41	Potable Water Pump Stations	(not mapped)	Food, Water, Shelter	N	N
42	Sandhills Global Event Center	4100 N 84th St, Lincoln, NE 68507	Food, Water, Shelter	Y (1%)	N
43	Stormwater Pump	48th St and Cornhusker	Food, Water, Shelter	N	N
44	Stormwater Pump	56th St and Cornhusker	Food, Water, Shelter	N	N
45	Wastewater Facility	2400 Theresa St	Food, Water, Shelter	Y (1%)	N
46	Water Production & Distribution	2021 N 27th St	Food, Water, Shelter	Y (0.2%)	N
47	Water Storage Reservoirs	(not mapped)	Food, Water, Shelter	N	N
48	Wellfields/Water Facilities/Ashland Treatment Plant	(not mapped – near Ashland)	Food, Water, Shelter	Y (1%)	N
49	April Sampson Cancer Center	4101 Tiger Lily Rd	Health and Medical	N	N
50	Bryan Medical Center – East	1600 S 48th St	Health and Medical	N	N
51	Bryan Medical Center – West	2300 S 16th St	Health and Medical	N	N
52	City Health Dept/Parks Dept	3140 N St	Health and Medical	N	N
53	Lincoln Surgical Hospital	1710 S 70th St	Health and Medical	N	N
54	Madonna Rehabilitation Hospital	5401 South St	Health and Medical	N	N
55	Nebraska Heart Hospital	7500 S 91st St	Health and Medical	N	N
56	Saint Elizabeth Regional Medical Center	555 S 70th St	Health and Medical	N	N
57	Black Hills Natural Gas Transmission Lines	(not mapped – run throughout City)	Energy	-	N
58	LES	9445 Rokeby Rd	Energy	N	N
59	LES Generation Stations	(not mapped)	Energy	-	N
60	LES*	2600 Fairfield St	Energy	Y (1%)	N
61	Windstream	1440 M St	Communications	N	N
62	Lincoln Municipal Airport	2400 W Adams	Transportation	Y (1%)	N
63	StarTran	710 J St	Transportation	N	N
64	Street Maintenance Facility	3200 Baldwin Ave	Transportation	Y (0.2%)	N
65	Street Maintenance Facility	3180 South Street	Transportation	N	N
66	Lincoln Landfill	6001 Bluff Rd, Lincoln, NE 68517	Hazardous Material	N	N
67	Lincoln Small Vehicle Transfer Station	5101 N 48th St, Lincoln, NE 68504	Hazardous Material	Y (1%)	N

#	Critical Facility	Address	Lifeline Type	Floodplain	Gen
68	58 Additional Elementary and Middle Schools	(Not mapped)	Other	-	N
69	Lincoln East High School	1000 S 70Th St	Other	N	N
70	Lincoln High School & Infant Toddler	2229 J St	Other	Y (0.2%)	N
71	Lincoln Northeast High School	2635 N 63Rd St	Other	N	N
72	Lincoln Southeast High School	2930 S 37Th St	Other	N	N
73	North Star High School, Infant Toddler	5801 N 33Rd St	Other	N	N
74	Northwest High School	4901 W Holdrege St, Lincoln, NE 68528	Other	N	N
75	Southwest High School	7001 S 14Th St	Other	Y (1%) – property not building	N
76	Standing Bear High School	11100 S 70th St, Lincoln, NE 68516	Other	N	N
77	Air Park Community Center	4900 Mike Scholl St	Other	N	N
78	Belmont Community Center	3335 N 12th St	Other	N	N
79	Calvert Recreation Center	4500 Stockwell St	Other	N	N
80	Easterday Recreation Center	6130 Adams St	Other	N	N
81	F Street Community Center	1225 F St	Other	N	N
82	Irving Recreation Center	2010 Van Dorn St	Other	N	N

**Has floodgates per Lincoln FHMP; Generator was not included in 2020 HMP*



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

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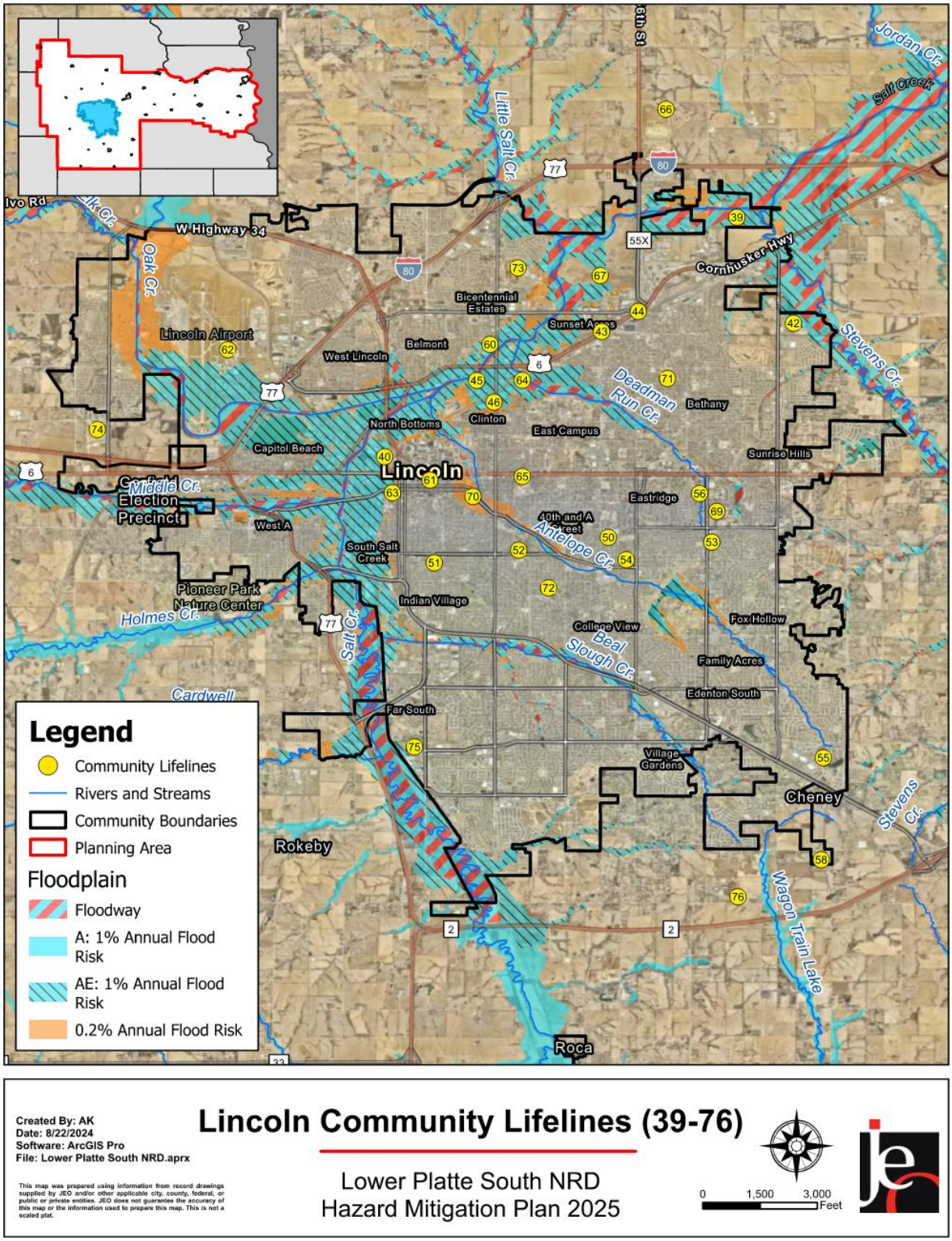
Lincoln Community Lifelines (1-38)

Lower Platte South NRD
Hazard Mitigation Plan 2025

0 1,500 3,000 Feet


Legend
Community Lifelines
Rivers and Streams
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
Lincoln
Cheney
Roca
Rokeby
Lincoln Airport
Pioneer Park Nature Center
Election Precinct
Capitol Beach
North Bottoms
Clinton
East Campus
Bethany
Sunrise Hills
Eastridge
Fox Hollow
College View
Family Acres
Edenton South
Village Gardens
Far South
Indian Village
South Salt Creek
West A
West Lincoln
Belmont
Bicentennial Estates
Sunset Acres
Cornhusker Hwy
W Highway 34
Little Salt Cr.
Salt Creek
Jordan Cr.
Stevens Cr.
Deadman Run Cr.
Antelope Cr.
Beal Slough Cr.
Middle Cr.
Holmes Cr.
Oak Cr.
Wagon Train Lake
Created By: AK
Date: 8/22/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx
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Lincoln Community Lifelines (39-76)
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

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 the City of Lincoln 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 Lincoln. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Agricultural Plant and Animal Disease

Concerns related to Agricultural Plant and Animal Disease for the City of Lincoln specifically relate to the presence and destruction caused by the Emerald Ash Borer. As part of the plan, the City is working to remove and replace or treat approximately 14,000 Ash trees located in public rights-of-way and spaces such as parks and golf courses, with a goal of removing 800 Ash trees per year. Additionally, as of 2020, an estimated 50,000 Ash trees remained on private property within city limits. The initial projected cost for the Lincoln response and recovery effort over a 15-year period was $22.8 million, which covers only the 14,000 public trees.

Lincoln Parks and Recreation has budgeted an average of $394,700 annually over the next 6 years in its CIP (2024-2030) using General Revenue funds for Emerald Ash Borer Treatment, Removal & Recovery. This funding is based on an annual work plan which includes installing replacement plantings for approximately 800 removed ash trees and treatment of approximately 2,550 ash trees per year.

As of fall 2024, 8,027 public Ash trees remain within the city limits. The City's response plan has evolved over time and now includes a significant treatment component. Of the remaining 8,027 public Ash trees remaining, approximately 5,100 are receiving ongoing treatments to protect against the Emerald Ash Borer (EAB) and extend their lifespan. During the fiscal year 2022-23 (September 1, 2022 - August 31, 2023), 1,021 Ash trees were removed, and 547 trees were planted as replacements. Based on current data and procedures, around 2,927 untreated Ash trees are scheduled for removal as part of the ongoing response.

The At-Risk/Ash Tree Removal and Replanting Programs provide grant funding to low- and moderate-income (LMI) homeowners in Lincoln to remove hazardous trees from private properties and replace them on a one-to-one basis. Initially focused on at-risk trees, the program was modified, based on the funding source, to apply only to Ash tree removals due to the threat of the Emerald Ash Borer (EAB). Funded by the U.S. Forest Service and the Lincoln Community Foundation, the programs offer financial support to homeowners for tree removal and replacement, helping to maintain public safety, property values, and the urban forest canopy. The program is administered through partnerships among the City of Lincoln's Parks and Recreation Department, Urban Development Department, and the Nebraska Forest Service. Environmental considerations, such as the protection of local wildlife, are integrated into the program's execution. The program is designed to be adaptable, with ongoing evaluations to ensure it meets the needs of the community.

ACTION	UPDATE AND IMPLEMENT EAB RESPONSE AND RECOVERY PLAN
Description	To reduce the risk posed by EAB, it is essential to secure ongoing funding and ensure continued implementation of the Emerald Ash Borer (EAB) Response and Recovery Plan. Affected ash trees must be removed from public spaces and remaining Ash trees to be treated.
Hazards Addressed	Agricultural Plant and Animal Disease
Estimated Cost	Varies by tree, $100,000
Potential Local Funding	Parks and Recreation, Urban Development, NFS
Lead Agency	Parks and Recreation
Timeline	5+ years
Priority	High
Status	This is a new mitigation action.

ACTION	HEAT MAPPING EXERCISES
Description	Collect and analyze temperature data across the city for heat island pockets such as around heavy development and limited vegetation. Develop strategies to mitigate their effects, such as increasing green spaces, improving building materials, and enhancing urban planning practices. Evaluate areas with lack of canopy cover or declining tree stock health for improvement.
Hazards Addressed	Agricultural Plant and Animal Disease, Drought, Extreme Temperatures
Estimated Cost	$25,000+
Potential Local Funding	Health Dept Budget, Grant Funding
Lead Agency	Health Department
Timeline	2-5 years
Priority	Medium
Status	This is a new mitigation action.

Hazardous Materials Release

Hazardous Material spills are a major concern for the City of Lincoln. As noted above in the Transportation section, there are several major transportation corridors that bisect the community, including highways, interstates, and railways. A variety of hazardous chemicals are transported along these major routes every day, particularly those used for agricultural and industrial purposes. Hundreds of chemical spills have occurred during transportation in the city since 1971 with the majority of them not causing any damages or injuries. According to PHMSA, eight hazardous chemical spills have caused the most damages at over $1.1M in damages. However, a major decrease in vulnerability should be noted as the old Nebraska Highway 2 to Nebraska Parkway bypass has completed construction. This bypass reduces truck traffic through town for chemical transport. Conversely as the city continues to grow, additional development occurs in areas along and near rail lines, stadium, and PBA arena.

There are 188 of chemical fixed sites located within Lancaster County, with the majority of them located within the City of Lincoln. It is reasonable to assume spill events will occur regularly. The local planning team noted that spills likely occur which are underreported in available data sets. Spills are also increasing in frequency in recent years. A major railyard diesel spill and chemical release at the Continental Plant occurred in 2022.

City regulations state no residential development occurs within 300ft of industrial uses. Additional Pipeline Planning Area restrictions exist near vulnerable populations including schools, daycares, residential areas. Additional evacuation protocols and permitting is required for new industrial development. The City Fire Department regularly trains for hazardous material releases and has access to protective gear. Lincoln/Lancaster County Emergency Management has also conducted table top exercises which include hazardous material release events to train and prepare all response staff in case of incident. The Lancaster County Emergency Operations Plan outlines the direction, control, roles, and responsibilities for a coordinated response to a hazardous material spill.

ACTION	Source Water Contingency Plan

Description	Evaluate and add a secondary source water for the City of Lincoln
Hazards Addressed	Drought, Extreme Temperatures, Hazardous Materials
Estimated Cost	Varies by need
Potential Local Funding	Water Revenues/Bonds, HMGP, PDM, WSF
Lead Agency	*Lincoln Water System*
Timeline	*5+ years*
Priority	*High*
Status	*In Progress – the City has secured $250M in funding and have identified preferred sites. Currently conducting land negotiations.*

ACTION	Continuity Plan
Description	Develop continuity plans for critical community services
Hazards Addressed	Agricultural Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism
Estimated Cost	$150,000
Potential Local Funding	General Obligation Funds
Lead Agency	*Risk Management*
Timeline	*2-5 years*
Priority	*Medium*
Status	*Not Yet Started – due to high turnover in some key City departments since 2019 no formal continuity plan has been developed. This is still a need. Past efforts to be evaluated for accuracy prior to full plan development.*

High Winds and Tornadoes

High winds and tornadoes were added as a new hazard of concern for the City of Lincoln. While a large tornado has not directly hit the city, if one were to occur it would have the ability to cause large scale damage to buildings, trees, and infrastructure. Due to the high population and density of the city, it is likely that a tornado could cause many injuries and fatalities.

Past high wind and tornado events in the City of Lincoln are detailed below:

- **June 16, 2017:** A brief tornado occurred near 48th and Leighton Street on the University of Nebraska East Campus. No damage was reported.
- **May 5, 2019:** Multiple tornadoes touched down in west Lincoln. Storm spotters confirmed a tornado was on the ground north of NW 48 and W 'O' causing minimal property damage. Another tornado touched down in southwest Lincoln near Pioneers Park destroying the Dairy Sweet shop at S Coddington and W Van Dorn and causing considerable tree damage.
- **April 26, 2024:** Multiple tornadoes occurred in and around the City of Lincoln. Minor damage occurred in southwest Lincoln. Just northeast of Lincoln, a tornado directly hit Garner Industries, which suffered a complete structural collapse with 70+ personnel in the building at the time. Due to advanced warning including activation of the outdoor warning sirens, they were able to move to their shelter location. Only a few minor injuries were

reported. A stationary 31-car Burlington Northern Sante Fe train was also pushed off the tracks and landed on its side.

- **July 31, 2024:** 84 mph wind gusts caused extensive tree and power line damage across the city. More than 40,000 people were without power, many for more than a day. Estimated damage to public property and critical infrastructure was around $2.3 million. A federal disaster declaration was declared from this event.

To help mitigate the risk of this hazard the city has implemented a Severe Weather Awareness Week (3rd week of March) and participates in Nebraska's annual Severe Weather Awareness Poster Contest for third-grade students to increase awareness and educate the public about weather-related hazards. The city has also collaborated with local emergency management agencies and state-level organizations to improve preparedness and response capabilities. Community members are also able to serve as emergency management volunteers and community liaisons to monitor severe weather risks.

In the future the city would like to work on the following items to help reduce tornado and high wind risk.

1. Enhance early warning systems and communication channels to ensure residents receive timely alerts about approaching severe weather.
2. Investing in infrastructure improvements, such as underground power lines, to reduce the impact of high winds on electrical systems.
3. Expanding public education programs beyond Severe Weather Awareness Week to maintain year-round preparedness.
4. Developing and regularly updating emergency response plans specifically tailored to severe weather.
5. Conducting regular tree maintenance programs to reduce the risk of falling branches and trees during storms.

ACTION	Alert Sirens
Description	Install additional warning sirens. Upgrade current warning siren system.
Hazards Addressed	Severe Thunderstorms, High Winds and Tornadoes
Estimated Cost	$30,000 each
Potential Local Funding	HMGP, PDM, General Obligation Funds
Lead Agency	Emergency Management
Timeline	*2-5 years*
Priority	*Medium*
Status	*In Progress – The Lincoln/Lancaster County Emergency Management Agency recently replaced three sirens in 2022. However, as additional annexations and development occur for the city additional sirens are a need. New City land purchase in Northeast Lincoln should be evaluated for siren coverage. L/LCEMA conducts monthly and annual comprehensive sirens inspections. There is a maintenance plan in place to ensure all sirens, new and existing, are in good working order.*

ACTION	Alert Sirens
	What is still needed: increase number of sirens to keep pace with Lincoln's growing population, conduct a coverage assessment to identify existing gaps or areas needing improved coverage, evaluation of existing siren technology for compatibility with emergency tech, and integration with other notification systems (e.g. mobile alerts, social media).

ACTION	Storm Shelters/Safe Rooms
Description	Design and construct storm shelters and safe rooms in high vulnerability areas such as mobile home parks, campgrounds, schools, fire stations, EOC, police departments, and other areas.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms
Estimated Cost	$200-$300/sf stand alone; $150-$200/sf addition/retrofit
Potential Local Funding	HMGP, PDM, General Obligation Funds
Lead Agency	*Emergency Management, Planning, Lincoln Public Schools, LFR*
Timeline	*5+years*
Priority	*Medium*
Status	*In Progress – New high schools should be evaluated for shelter capacity. Recreational facility shelters have been identified as a need, as well as the Lincoln Children's Zoo and Holmes Lake.* *Additionally updates should be made to planning requirements to include shelter locations in new critical infrastructure and housing developments which primarily utilize slab-on-grade foundations.*

ACTION	Hazard Education
Description	Increase public awareness of vulnerability and risk reduction measures through hazard education
Hazards Addressed	Agricultural Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism
Estimated Cost	Varies
Potential Local Funding	General Obligation Funds, HMGP, PDM
Lead Agency	Emergency Management, Lincoln Public Schools, Mayors Office
Timeline	2-5 years
Priority	High
Status	In Progress – Due to discussion on liability and the rapid growth and development of the city, additional education needs to be shared with the public regarding the difference between "safe rooms" and "storm shelters". Other things needed include enhanced participation in education outreach activities, broader dissemination of preparedness

	information, continued development and refinement of preparedness plans (especially in collaboration with health departments or other agencies), increased focus on new technologies and data to improve forecasting, communication, and response; more comprehensive education and training programs for the public, schools, and private businesses; and ensuring adequate resources and funding are allocated for mitigation, preparedness, and response activities. Actions taken to date include: severe weather awareness week and poster contest held on the 3rd week of March (goal to educate young students and community about the importance of being prepared for severe weather events), National Preparedness Month (observed every September with goal to encourage residents to take steps to prepare for emergencies at home, work, and in the community), and improved collaboration with other agencies, specifically between Lincoln/Lancaster County EMA and Health Departments to develop and implement comprehensive preparedness plans and heat action plans.

Severe Thunderstorms

Lightning, hail, heavy rain, and high winds from severe thunderstorms can result in loss of electricity, blocked roadways, damages to trees, and flooding. Blocked roadways, as a result of downed threes, may also present life safety concerns to those needing immediate medical attention. Damages to roofs and siding can result in significant losses for homeowners as well as business owners. The local planning team noted that lightning has struck some of its critical facilities and caused small electrical fires.

The NCEI reports 183 severe thunderstorm events which have impacted the City of Lincoln directly since 1996. In total, nearly $1.8 million in damages were reported since 1996 in Lincoln. The most damaging severe thunderstorm event occurred on May 22, 1996, when wind gusts to 83 mph blew the roof off of Duncan Aviation and flipped several aircraft. Water damaged the State Fair Park's grandstand and a large part of the roof blew off. There was extensive powerline and tree damage to much of Lincoln. In total, $1.4 million in damages were reported. The most damaging lightning strike occurred on August 8, 2006 when one strike caused a fire and over $200,000 damage to a laundry facility. The lightning struck the roof next to the east wall and smoldered for several hours before being noticed. Most of the damage was confined to the east side of the roof of the building.

Current data records and trends indicate that severe thunderstorm events remain a persistent and regular occurrence for the city. Current climatic models also indicate an increasing threat of frequency and severity of impacts, specifically with moisture and wind events. The Lincoln/Lancaster County Emergency Operations Center has activated for severe weather threats regularly over the past five years to serve the area for preparedness and proactive monitoring of severe weather threats.

The Lincoln/Lancaster Emergency Management Agency (L/LEMA) moved to a new Emergency Operations Center (EOC) in 2020 with more space and improved technology access. However, the local planning team noted technology needs are consistently reviewed and updated as appropriate. The City has has identified that current growth trends will require a larger facility in the future. Per the L/LCEMA, activations and required staff hours are listed in the table. This data shows a general upward trend in both the frequency of activations and the total hours of operation, with 2024 seeing a significant increase in both metrics.

YEAR	ACTIVATIONS	STAFF HOURS
2020	***14***	***575***
2021	***10***	***300***
2022	***13***	***669***
2023	***15***	***498***
2024 (Jan-Jun)	***21***	***816***

Other identified needs include additional weather stations for easier monitoring of severe weather and road conditions. The L/LEMA should identify suitable locations for real time monitoring of weather events. Other opportunities for improvement include: upgrading technology requirements, implementing data analysis and GIS tools for weather patterns, update operating procedures and training programs to reflect new technologies, and develop and implement plans for increased cybersecurity.

ACTION	Replace Lincoln Police Department Mobile Command Vehicle
Description	Replace the Mobile Command Vehicle and upgrade the Cradlepoint Router upgrade, Cradlepoint roof antenna, 300W Portable Power Station 260Wh Outdoor Solar Generator, RV Pole and mount, Upgraded Windows computers, Axon body camera dock, Outlet and video on side of RV and Fotokite Areal camera. Additional items needed include Mini light towers and Kawasaki Mule Pro-FXT and trailer
Hazards Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism
Estimated Cost	$1,145,000
Potential Local Funding	
Lead Agency	*Lincoln Police Department*
Timeline	*5+ years*
Priority	
Status	*Not Yet Started*

ACTION	CRITICAL INFRASTRUCTURE SITE SECURITY AND HARDENING
Description	LES provides power to government entities inside Lancaster County including the City of Lincoln, Lancaster County, State of Nebraska and the Federal agency offices in the metro area. It is important to have these CCTV and area monitoring devices in place to increase resiliency and reliability of the LES grid. Increasing grid security helps to protect against actions that could initiate power outages or rolling brown outs. Surveillance assists with identifying faults and isolating them to prevent

	widespread outages and facilitate quicker repairs. Monitoring and controlling substations allow for redundant pathways for the electricity to travel when disrupted, and during emergency response to wildfire the ability to stop transmission lines overhead conducting electricity to ensure the safety of first responders.
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms, Extreme Temperatures, High Winds and Tornadoes, Grass/Wildfire, Terrorism, Flooding
Estimated Cost	$80,000 per substation
Potential Local Funding	LES Budget
Lead Agency	Safety & Security Specialist – LES
Timeline	2-5 years
Priority	High
Status	This is a new mitigation action. The use of CCTV and area monitoring devices play a vital role in mitigating impacts and protecting these critical infrastructures. Increasing our mitigation measures will directly reduce the impact to the public power grid as well as the reducing the cascading impact to the community of Lincoln, hospitals, long term care facilities, dialysis centers, fire and police stations, water treatment facilities, fuel pumps, well pumps, banks, commercial stores to name a few. Over the next 5 years LES would like to have coverage at all substation locations.

Severe Winter Storms

Due to the regular occurrence of heavy snow, severe cold, and ice storms, the local planning team identified severe winter storms as a concern for the community. Heavy snow and ice can damage critical facilities, infrastructure, and downed power lines. The elderly may be more likely to sustain an injury or have a medical emergency as a result of shoveling snow following a winter storm. Community members and families below the poverty line are also as higher risk related to severe winter storms, as they may lack resources needed to sustain themselves through a major severe winter storm. The city has established snow removal procedures using both city-owned equipment and private contractors. The city has identified the need to update and expand its snow removal and emergency response equipment fleet. Winter 2023 the community and other stakeholders were involved in monitoring the severe winter weather storms as well helping in clean up and restoration services.

Major severe winter storm events in the City of Lincoln are detailed below:

- **January 12, 1975:** The snowstorm referred to as “The Blizzard of the Century”, produced 16 inches of snowfall that transpired over a 24-hour period. Both of Nebraska’s metropolitan cities, Lincoln and Omaha, were brought to a standstill. Record low atmospheric pressures in the region were recorded, and strong winds created snow drifts reaching 15 feet.
- **1982:** An ice storm caused massive power outages. Nearly all of Lancaster County was impacted and some of the county residents were without power for three days.
- **January 26, 1994:** Freezing rain and sleet caused icing of trees and power lines. Some electrical outages also occurred. $50,000 worth of property damage was incurred.
- **October 25, 1997:** A rare winter storm brought 13 inches of wet, heavy, snow that weighed down and broke power lines and tree limbs. As a result, many residential areas and businesses were without power for several days and some areas for over a week. “Disaster areas” were declared and accrued over $50 million in public property damage.

The cleanup was extensive, continuing well into the following summer. The Lincoln Water System reported that they were without power at three critical pumping stations for several hours. The Lincoln Airport and West Lincoln business areas were two pressure districts affected by the storm.

- **December 24, 2009:** A prolonged winter storm and blizzard hit the area closing many roads and highways for several days. Interstate 80 was closed for a while east of Lincoln. A total of 12-14 inches fell across the region with extended periods of white out conditions due to northwest winds gusting over 40 mph.

Those most at risk during severe winter storms are the unhoused population, those without stable housing, those in substandard housing without adequate heat, and those traveling during hazardous conditions. The majority of injuries and fatalities that occur during severe winter storm conditions are from vehicular accidents.

The City identified several needs to improve resiliency to future severe winter storm events including: update and expand the city's snow removal and emergency response equipment fleet, as the current resources have been identified as aging and insufficient; develop targeted outreach and assistance programs for vulnerable populations, particularly the elderly and those below the poverty line, who are at higher risk during severe winter storms; enhance power grid resilience to minimize outages during ice storms and heavy snow events; implement a public education campaign on winter storm preparedness, including the importance of emergency kits and safe snow removal practices; establish warming centers and ensure they are well-publicized and accessible to those most in need during extreme cold events; develop plans to ensure continuity of critical services, such as water pumping stations, during prolonged power outages; collaborate with local businesses and organizations to create a community-wide emergency response plan for extended winter storm events; and conduct regular drills and exercises to test and improve winter storm response plans.

ACTION	Backup Generators
Description	Identify and evaluate current backup and emergency generators; Obtain additional generators based on identification and evaluation. Develop a long-term plan for critical infrastructure generators to provide stationary and portable backup power. These generators would be necessary to provide power to fire stations to continue providing operations for the City.
Hazards Addressed	All hazards
Estimated Cost	Varies by need
Potential Local Funding	General funds, Sales Tax, PDM, HMGP
Lead Agency	*Lincoln Fire Rescue*
Timeline	*2-5 years*
Priority	*High*
Status	*In Progress - The City and LFR is currently evaluating funding sources to purchase generators across all fire stations. The Lincoln Municipal Services Center, StarTran facilities, and city municipal pump stations were identified as needing a generator.*

ACTION	Capability to Connect to Portable Generators to Operate City Vehicle Fuel Sites
Description	Conduct a comprehensive study of remote City vehicle fueling sites to identify electrical components required for utilization of portable back-up generators. Project would also include installation of those components, generators to be provided by local emergency management or contractual services.
Hazards Addressed	Severe Thunderstorms, Extreme Heat, Severe Winter Storms, Hazardous Materials, High Winds and Tornadoes
Estimated Cost	Varies by Site
Potential Local Funding	General obligation bonds
Lead Agency	*LTU*
Timeline	*5+ years*
Priority	*Low*
Status	*Not Yet Started*

ACTION	Redundancy Power for Water System
Description	Evaluate current backup and emergency power transmission for Lincoln Water System infrastructure. Develop a long-term plan for critical infrastructure. These generators would be necessary to provide power to Water Systems to ensure water security for the City.
Hazards Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes, Extreme Temperatures
Estimated Cost	$5,000,000+
Potential Local Funding	Utility funds, Water Revenues/Bonds, OPPD, HMGP, PDM
Lead Agency	*Lincoln Water System, OPPD*
Timeline	*5+ years*
Priority	*Low*
Status	*Not Yet Started - Currently OPPD has one transmission line to the Lincoln Wells, an additional power transmission line or access needs to be evaluated for redundancy. The City of Lincoln is currently in discussion with OPPD for power redundancy options which will be integrated into an approach for a secondary water transmission line.*

Dam Failure

While there have been no known dam failure incidents, portions of Lincoln would be inundated with flood waters, damaging homes and businesses, if a high hazard dam in or near the city was to fail. The following table lists high hazard dams, including upstream dams, that could cause significant property damage and loss of life if one of them was to fail. The dams are inspected and maintained regularly and emergency action plans, as required, are in place. The city collaborates with Lincoln/Lancaster Emergency Management, the LPSNRD, and other dam owners to conduct dam failure exercises.

Lancaster County/Lincoln High Hazard Dams

#	NIDID	Dam Name	Owner	Location
1	NE00527	Wedgewood Lake Dam	Wedgewood Manor Lake Assoc	Lincoln
2	NE01055	Salt Creek Site 12 – Conestoga Dam	USACE	Lincoln
3	NE01058	Salt Creek Site 10 – Yankee Hill Dam	USACE	Lincoln
4	NE01060	Salt Creek Site 13 – Twin Lakes Dam	USACE	Lincoln (Seward)
5	NE01061	Salt Creek Site 17 – Antelope Creek Dam (Holmes Lake)	USACE	Lincoln
6	NE02652	Korver Dam	Appian Way Lake Assoc Inc	Rural Lincoln
7	NE02756	Stevens Creek A2-1	LPSNRD	Rural Lincoln
8	NE02757	Stevens Creek A17-1	LPSNRD	Rural Lincoln
9	NE02805	Village Gardens Dam	Village Gardens LLC	Lincoln
10	NE02837	Waterford Estates Dam	Lower Platte South NRD	Lincoln
11	NE01063	Salt Creek Site 18 – Branched Oak*	USACE	Raymond
12	NE01057	Salt Creek Site 14 – Pawnee Dam	USACE	Emerald
13	NE01062	Salt Creek Site 2 – Olive Creek	USACE	Sprague
14	NE01064	Salt Creek Site 4 – Bluestem	USACE	Sprague
15	NE01056	Salt Creek Site 8 – Wagon Train	USACE	Hickman
16	NE01059	Salt Creek Site 9 – Stagecoach	USACE	Hickman
17	NE00505	Upper Slat Creek 3-A	LPSNRD	Hickman
18	NE00523	Upper Salt Creek 35-A	LPSNRD	Hickman
19	NE00533	Upper Salt Creek 10-A	LPSNRD	Hickman
20	NE00550	Upper Big Nemaha 11-A	Nemaha NRD	Firth
21	NE02518	Upper Little Nemaha 21	Nemaha NRD	Bennet
22	NE08364	Ash Hollow Dry Dam	LPSNRD	Waverly

Source: NeDNR, 2024[3]

While Branched Oak Lake is located approximately 15 miles northwest of the City of Lincoln, the local planning team indicated concerns exist for the northern portion of the City if the dam were to fail. During the March 2019 flood event, the Branched Oak Dam spillway ran consistently for several weeks post flood. If the dam were to fail it would likely impact the Kawasaki plant north of town; many roads and highways including Highways 34 and 79; and new housing developments in the area.

The LPSNRD sponsored a dam failure tabletop exercise for the Ash Hollow High Hazard Dam in March 2023. The purpose and goals of the exercise were to:

- Become more familiar with the dam emergency action plan.
- Understand dam components and potential failure modes.
- Understand roles and responsibilities.
- Identify any potential planning gaps and areas for improvement.
- Test the EAP in a low stress environment.

An exercise facilitator along with the Nebraska DNR presented to over 40 stakeholders. Since Ash Hollow Dam operates as a dry dam, the exercise and discussion educated stakeholders on the unique operation of the dam and how to identify potential dam issues that could lead to a

[3] Nebraska Department of Natural Resources. 2019. “Nebraska Dam Inventory.” https://dnr.nebraska.gov/dam-safety/nebraska-dam-inventory .

failure. The workshop also provided opportunities for attendees to network with emergency responders and gain further knowledge of the incident command system utilized during high water emergencies.

Extreme weather events like the March 2019 flood event could continue to add undue stress on dams in the future. However, mandated inspections of high hazard dams will mitigate dam failures as issues can be identified early and repaired. During periods of drought, it's important to note that stored water behind dams will lead to greater rates of evaporation, leading to a greater loss of critical water use for agriculture, recreation, and aquifer recharge.

ACTION	Business Continuity Plan for Lincoln Water System
Description	Develop a business continuity plan for the Lincoln Water System.
Hazards Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism
Estimated Cost	$100,000
Potential Local Funding	Water Revenue/Bonds
Lead Agency	*Lincoln Water System*
Timeline	*5+ years*
Priority	*Low*
Status	*Not Yet Started*

Levee Failure

On May 6th-7th, 2015, severe thunderstorms brought significant heavy rain to the Salt Creek Basin. Rain began on the evening of May 6th and continued into early the next morning after upwards of seven inches had fallen. The stream gauge on the Salt Creek in Lincoln rose from 4.4 feet to 16.6 feet in two hours and continued to rise. By the afternoon of May 7th, Salt Creek crested at 28.87 feet, which is now the record crest at the 27th Street Bridge. It broke the previous record from July 1993 which was 26.52 feet. The levee was nearly overtopped in a few spots and voluntary evacuations were ordered in the North and South Bottoms of Lincoln. These areas saw significant water in the streets and basements because stormwater was unable to drain due to the high water in Salt Creek. Due to the quick response of the LPSNRD and the USACE, any issues identified during the flood were addressed quickly. Boils were ringed along the Salt Creek left bank and Oak Creek left bank levee and another near Haymarket Park.

On March 14, 2019, rapid snow and ice melt along with heavy rains caused high water in Salt Creek. Officials reported damage to the Salt Creek Levee System. The U.S. Army Corps of Engineers repaired 14 locations along the levee system at a cost of nearly $5 million.

The city coordinates with the LPSNRD regarding the levees and provides support and emergency response personnel when requested. City officials attended two emergency preparedness planning (EPP) workshops and provided valuable information that assisted the NRD in developing an EPP for the Salt Creek Levee System. The LPSNRD and the City of Lincoln work closely together to develop System Wide Improvement Frameworks (SWIF) for levees including consistent repairs to the levee system to ensure adequate flood risk reduction for residents. The city has developed policies to limit fill and preserve storage in the floodplain on the landward side of the Salt Creek Levees.

The following table lists the levee systems located in Lincoln. All levees are built to withstand the 2% annual chance flood.

Table LNK.6: Lincoln Levees

Name	Sponsor	Watercourse	Length (miles)	Protected Area (sq. miles)	FEMA Accreditation	USACE Rehabilitation Status
Oak Creek Levee 1	N/A	Oak Creek	3.32	1.62	Non-Accredited	Not Enrolled
Salt Creek LB & Haines LB & Middle Cr RB	LPSNRD	Salt Creek	1.26	0.47	Non-Accredited	Active
Salt Creek LB & Haines RB	LPSNRD	Salt Creek	1.24	0.19	Non-Accredited	Active
Salt Creek LB & Middle Creek LB	LPSNRD	Salt Creek	1.50	0.46	Non-Accredited	Active
Salt Creek LB & Oak Creek LB	LPSNRD	Salt Creek	1.72	0.44	Non-Accredited	Active
Salt Creek RB	LPSNRD	Salt Creek	4.71	1.33	Non-Accredited	Active
Salt Creek RB & Dead Man's Run RB	LPSNRD	Salt Creek	1.29	0.38	Non-Accredited	Active
Salt Creek RB to Dead Man's Run	LPSNRD	Salt Creek	1.62	0.44	Non-Accredited	Active

The National Levee Database contains information on the number people, buildings, and property value within leveed areas. The table below shows the data for the Salt Creek Levee System and Oak Creek Levee.

Table LNK.7: Values in the Leveed Area

Levee System	People	Buildings	Property Value
Salt Creek Levee System	4,630	1,098	$833 million
Oak Creek Levee	261	6	$4.6 million

Source: National Levee Database

Flooding

Riverine and flash flooding have consistently impacted the City of Lincoln. The most severe flooding has occurred in late spring and early summer because of snowmelt, heavy rainfall, ice jams, or a combination of the three.

As noted by Lincoln Watershed Management, flooding in Lincoln is caused by 11 main sources: Salt Creek, Oak Creek, Middle Creek, Antelope Creek, Beal Slough, Haines Branch, Cardwell Branch, Elk Creek, Lynn Creek, Deadman's Run, and Little Salt Creek. Of note, flooding along Salt Creek and Oak Creek is typically of long duration with ample warning time prior to the peak. Little Salt Creek, Middle Creek, and Haines Branch have smaller drainage basins with shorter flood duration and less warning time prior to the peak. Flooding along Antelope Creek, Beal Slough, Cardwell Branch, Elk Creek, Lynn Creek, Stevens Creek, and Deadman's Run is of short duration with little warning time prior to the peak.

The City Comprehensive Plan states for Floodplains: "This feature refers to land that is susceptible to flooding or that has flood prone soils. Approximately 13.8% of Lancaster County is covered by floodplains. Floodplains provide multiple benefits to both the natural (flood storage, habitat, water quality) and built (recreation, public health and safety, economic) environments. The overriding policy for the floodplain is a "No Adverse Impact" policy for the City and County,

which means that the community has a goal of insuring that the action of one property owner does not adversely impact the flooding risk for other properties." The city utilizes several key strategies to address flooding:

- Designate areas for future urban development outside of the floodplain and floodway.
- Preserve and enhance vegetative buffers along stream corridors and other natural functions of the floodplain.
- Implement a Rain to Recreation watershed approach to reduce flood damages, protect water quality and natural areas, while providing for recreational and educational opportunities so as to realize multiple benefits.

The City identified four main types of flooding they are at risk to in the City of Lincoln Flood Mitigation Master Plan which include Riverine Flooding, Urban Flooding and Flash Flooding, [flooding from] Dam Failure, and [flooding from] Levee Failure. From the report, a HAZUS analysis was done to evaluate potential impacts. The report noted: Notably, building losses would be expected to be quite high during a near-term 1-percent-annual-chance flood event: around $427 million dollars in the City of Lincoln based on the modeled scenario from the Existing Conditions on All Currently Effective Floodplains in the City of Lincoln, including $328 million dollars along Salt Creek alone according to the Existing Conditions on Salt Creek Only scenario. These losses are anticipated to grow substantially as a result of climate change and land use changes in the future, with potential losses in the year 2100 of approximately $862 million dollars on Salt Creek alone. For further break down of loss estimates, refer to the City of Lincoln Flood Risk Master Plan.

The City of Lincoln is currently in the process of evaluating flood risk hazard maps. The Lincoln Watershed Management division, in partnership with the Federal Emergency Management Agency (FEMA) is working to update flood maps for Lincoln and portions of Lancaster County. This multi-year effort will provide up-to-date data that will strengthen the community's understanding and awareness of flood risk. through the Risk Mapping service with FEMA. With the existing flood maps from the 2010s, the City has prioritized a need for the inclusion of new data resources including topography, rainfall data, and new modeling techniques. This project includes 13 watersheds within Lincoln and Lancaster County broken across four phases. These include: Phase 1 – Cardwell Branch, Beal Slough; Phase 2 – Stevens Creek, Southeast Upper Salt Creek, Upper Wagon Train; Phase 3 – Middle Creek, Haines Branch, Deadmans Run; and Phase 4 – Little Salt Creek, Oak Creek, North Salt Creek, Lynn Creek, Antelope Creek, and South Salt Creek. Work began in August 2023 and is anticipated to be completed in 2027.

	RISK MAP STEP	STATUS*
Phase 1	1 – Discovery	• Topographic surveying completed in fall 2023 • Discovery-phase public meetings anticipated to occur in winter/spring 2025
Phase 2	1 – Discovery	• Topographic surveying to occur March 2024 - October 2024
Phase 3	–	• Work anticipated to start in April 2025
Phase 4	–	• Work anticipated to start in April 2026
City-wide Flood Maps and Risk MAP products		• Work anticipated to start in October 2027

** Dates after 2024 are approximate and dependent on FEMA funding distribution.*

The City of Lincoln participates in the Community Rating System. The Community Rating System (CRS) was implemented in 1990 as a voluntary program developed by the Federal Emergency Management Agency (FEMA) to rate communities on how effectively they manage their floodplains. Local governments participating in the CRS go beyond the minimum standards for floodplain management. The City of Lincoln has been actively involved with FEMA's CRS Program since October 1991 and is currently a Class 5, providing a 25% reduction.

The National Flood Insurance Program (NFIP) is a federally funded program established in 1968 to make flood insurance available at a reasonable cost. To qualify for the NFIP, a community must adopt and enforce a floodplain management ordinance to regulate development in flood hazard areas. A property must reside in a community that participates in the NFIP to be covered by a flood insurance policy (for the structure and/or its contents).

With the Salt Creek Levee System, the Antelope Valley Project, flood control dams, and reservoirs flood frequency and magnitude have improved. However, these improvements have not completely eliminated the flood problem in the community. As noted in the Lancaster County Flood Insurance Rate Study (revised April 2013), offsetting a part of the protection gained will be the increase in runoff resulting from anticipated additional development in the valleys.

Key Flood events identified by the NCEI Storm Events Database Include:

- **August 14, 1996:** $60,000 in reported property damage was caused by four inches of rain that produced a flash flood. Local businesses and homes were also damaged.
- **May 15, 1998:** Heavy rain from thunderstorms generated significant street flooding in the southeast part of the City of Lincoln. Water rose to car headlights in low lying areas.
- **August 28, 2002:** A slow moving thunderstorm dumped torrential rain over mostly the northern and eastern parts of Lincoln. Rainfall amounts varied from 1.66 inches to upwards of 4 inches over a short period of time. The water overwhelmed the sewer system in mainly northeast Lincoln and caused Antelope Creek and Dead Man's Run to become bank full. There were numerous reports of cars flooded up to their roofs in various intersections. Water that came up through the sewage system flooded parts of Gateway Mall in northeast Lincoln as water surged several inches deep in several stores.
- **April 14, 2012:** Rainfall of two to three inches caused flash flooding across several streets in Lincoln and along Antelope Creek. Damage was apparently minimal.
- **May 6, 2015:** Rainfall of three to seven inches fell across a large portion of Lancaster County. Numerous reports of flash flooding were received, especially in and around Lincoln. There were a large number of flooded streets as well as a few water rescues that took place. The local planning team indicated that Fire Station #3 required sandbagging during the 2015 flood event; however, water did not enter or damage the property.
- **May 9, 2016:** $1.5 million in reported property damage due to over 5 inches of rainfall in the region. This along with areas of several inches accumulation of hail led to widespread street flooding in the area. Small streams and creeks in the area also overflowed. Water was flowing over the bridge where Holdridge Street crosses Stevens Creek. Several water rescues were performed for stranded motorists.
- **May 26, 2016:** Several reports of flash flooding were received. This led to several road closures due to high water, including US Highway 77, which had debris filled water flowing across the road. Other roadways impacted were State Highway 2 and Cornhusker Road.
- **September 4, 2018:** Flash flooding was reported near 73rd and O Street. People were stranded in a flooded vehicle and needed to be rescued.
- **July 1, 2024:** Flooding caused 48th street just south of Cornhusker Highway to close due to water over the roadway. Shortly after this, the intersection of Havelock and Cornhusker

was also closed due to rising water over the roadway. At midnight, Lincoln Fire and Rescue reported 3 vehicles submerged at the 48th and Cornhusker Highway intersection. Over the next several hours, multiple reports from emergency management, amateur radio, and public sources reported water flowing over numerous roads and intersections extending from the railyards in Lincoln, northeast into southern Waverly.

The following history was listed in the 2015 LPSNRD HMP for Lincoln:

- Salt Creek flooded 136 times between 1900 and 1952. Of these events, 22 were considered major.
- **May 8, 1950:** Salt Creek peaked at a height of 26.05 feet with a flow of 27,800 cfs. This occurred after 5.5 inches of rain fell in six hours and accumulated to 14 inches. 20,000 acres of land was flooded including 600 homes and 80 businesses. The total damage incurred amounted to $1,643,000 and nine deaths.
- **June 2, 1951:** Antelope Creek flooded. Water was waist deep at 28th and D streets, and one foot deep at 33rd and Normal. Salt Creek peaked at 26.15 feet with a flow of 28,200 cfs.
- **June 14, 1951:** Antelope Creek flooded. Eight inches of rain fell and caused $2,000,000 worth of damage. 92 businesses, 298 homes and the railroad were all damaged in the area.
- **June 1952:** Another Antelope Creek flood occurred when 2.18 inches fell, causing $63,000 in damage.
- Between 1962 and 1993, a series of eight floods occurred on Salt Creek. The total amount of federal funds contributed was $668,800, with the largest lump sum contribution of $487,185 in 1993.
- **June 13, 1984:** Little Salt Creek flooded when three to four inches of rain caused the creek to peak at 16.20 feet and flow 7,500 cfs. The flood was classified as a 10-year flood.
- **March 1993:** The Lincoln Water System reports an ice jam on the Platte River that caused severe flooding along Salt Creek and Highway 6. The flood waters eroded embankments and exposed a 48-inch and 54-inch water transmission line from one of the Lincoln Water System's well fields. This exposure caused sections of the pipeline to break and float away.
- **July 24, 1993:** Flooding resulted when Lincoln received three times the normal amount of rain for July.
- **July 20, 1996:** Beal Slough flooded when over five inches of rain fell in south Lincoln over an 18-hour period. Flooding occurred on a number of roadways including Highway 2. Residential basements and recreational areas were flooded. Flooding also occurred near 33rd Street and Pioneers Boulevard as well as in many areas along the Tierra Branch in the Tierra, Williamsburg, Seven Oaks, and Cripple Creek Subdivisions. A similar incident occurred in 1989 when heavy rains filled and overtopped the creek. The waters spread to Tierra and Briarhurst Parks, and other nearby open spaces.

The Lincoln Journal Star recounts the following flood events:

- **1892:** Extensive flooding drove 300 people from their homes.
- **1902:** Flooding left 1,000 residents homeless and caused 9 deaths
- **July 23, 1993:** Little Salt Creek peaked at 4 feet over flood stage. Lynn and Stevens Creek tributaries left their banks flooding streets, parking lots, businesses, and homes. The City received $823,997 from the Federal Emergency Management Agency for partial damage reimbursement. The total damage to public property was $2.9 million.
- **June 15, 1982:** Stevens Creek peaked at a height of 18.85 feet with a flow of 3,820 cfs. Up to five inches of rain blocked roads, threatened homes, and left cars stranded in high

water. There was a police advisory encouraging Lincoln residents not to drive and at one point during the downpour, the police were instructed to park their cruisers unless they were needed somewhere. Lincoln Electric System reported several power outages, one of which was the result of flooded underground cables.

- **June 13, 1984:** Stevens Creek flooded with a peak of 19.57 feet and a flow of 4,620 cfs. The flood was classified as a 10-year flood and it claimed two lives when a car was swept off Highway 34.
- **July 4, 1984:** Water back log from Beal's Slough caused damage to local area businesses. One business reported damage of $4,000.
- **September 13, 1989:** Heavy rains caused $20,000 in damage to Lancaster County rock and gravel roads.
- **July 25, 1990:** Five inches of rain washed out roads, flooded basements, damaged businesses, and flooded parking lots.

The local planning team discussed the March 2019 flood impacts on the community. In general, the community fared well with minimal impacts to streams and roadways. However, the Lincoln wellfields are located along the Platte River, which was inundated with flood waters and ice jams. Flood conditions along the Platte River resulted in some power outages in and around City of Lincoln wellfields and a temporary loss of water production capacity for the City. This triggered water use restrictions to be enacted for Lincoln Water System (LWS) customers to preserve the water supply and water quality during critical repairs. Within three days of mandatory water restrictions, power was restored to the wellfields and water restrictions were elevated to voluntary. By day five, water production was at full capacity and all water restrictions were lifted.

As the science indicates, extreme weather events are anticipated to continue and increase in frequency, such as heavy rainfall or rain falling on frozen ground leading to flash melting of snowpack and flash flooding. Flood debris, such as large trees, hit bridge piers and clogged streams during flooding, which can reduce the overall expected lifespan of bridges and culverts. As seen during the recovery phase of the March 2019 flood, materials such as gravel, rock, and riprap are in high demand, which leads to shortages and price increases. As flood frequencies increase so too will repair costs and the frequency with which infrastructure will need to be replaced. Flooding issues are still present at the following locations:

- 52nd and O St.
- Along Deadmans Run
- Along Salt Creek
- Cornhusker Hwy, particularly near N 14th St.
- West O St
- North and South Bottoms
- 14th to 27th on Saltillo
- 27th St – north of Saltillo
- 84th Street – Havelock to Fletcher Ave
- 48th and 56th Underpasses off Cornhusker (have pumps)
- 49th & Rentworth
- Old Cheney, near 7th Street
- Fletcher, near N 57th St.

Flood Specific Mitigation Actions

Mitigation Action	Flood Reduction within Deadman's Run Watershed
Description	City of Lincoln will address flooding and drainage deficiencies, including channel improvements, within the Deadman's Run

Mitigation Action	Flood Reduction within Deadman's Run Watershed
	watershed. Areas include: Cornhusker Highway, University of Nebraska East Campus, University Place Park, 52nd Street to 56th Street
Hazard(s) Addressed	Flooding
Estimated Cost	$24,000,000
Potential Funding	Cost-shared: 42% USACE, 29% LPSNRD, 29% City
Timeline	2-5 years
Priority	High
Lead Agency	LTU – Watershed Management Department
Status	Project will remove 500+ residential and commercial properties from Deadman's Run floodplain between 33rd and 48th Streets. As part of the project a detention pond will be constructed at Fleming Fields. Construction to start late 2020 to early 2021. ***Project listed in Lincoln FMMP. Will be updated to reflect FMMP status.***

Mitigation Action	High Risk Properties
Description	Mitigate or acquire property that is high risk to flooding
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Potential Funding	HMGP, FMA, PDM, General Obligation Bonds
Timeline	2-5 years
Priority	Medium
Lead Agency	Watershed Management
Status	Planning Stage - Includes conservation easements as appropriate. ***Project listed in Lincoln FMMP. Will be updated to reflect FMMP status. "Repetitive Loss Structure/High Risk Property Plan and Implementation"***

Mitigation Action	Preserve the Floodplain
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.
Hazard(s) Addressed	Flooding
Estimated Cost	N/A
Potential Funding	FMA, PDM, General Obligation Funds
Timeline	Ongoing
Priority	High
Lead Agency	Watershed Management
Status	Currently revising the drainage criteria manual for consideration by elected officials. Includes conservation easements as appropriate. ***Project listed in Lincoln FMMP. Will be updated to reflect FMMP status. "Preserve the Floodplain"*** ***Parks to send acquisition priority areas****

Mitigation Action	Floodproof Facilities
Description	Improve resiliency of critical infrastructure to reduce overall risk to flooding
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by need
Potential Funding	Water Revenues/Bonds, OPPD, HMGP, PDM
Timeline	5+ years
Priority	High
Lead Agency	Lincoln Water System and OPPD
Status	Numerous facilities and infrastructure owned and managed by the City of Lincoln's Water System should be hardened, retrofitted, or raised to reduce future flood risk potential. This may include floodproofing wells and/or hardening existing electrical and fiber lines.

City of Lincoln Flood Mitigation Master Plan Flood Mitigation Actions
The list below identifies mitigation actions identified in the City of Lincoln's Flood Mitigation master Plan which will be referenced here in the HMP. However, as these actions were developed and finalized in the October 2023 FMMP they will not be updated as part of this HMP process.

- Salt Creek Flood Reduction Feasibility Study
- Flood Reduction within Deadmans Run Watershed
- Structural Flood Mitigation Evaluation and Implementation
- Continue Urban Drainage Studies throughout City
- Stormwater Drainage System Improvements
- Public Education on Flood Risk Reduction
- Public Information Office Coordination and Training
- Evaluate Incentives and Requirements for Landlords to Inform Tenants of Flood Risk
- Targeted Public Education to Renters on Flood Risk
- Dam-related Flood Warning (911) Improvements
- Repetitive Loss Structure High Risk Property Plan and Implementation
- Develop and Implement a Property Acquisition Program
- Develop and Implement a Building Elevation Program
- Make updates to LID/Green Infrastructure/Local Detention Requirements
- Evaluate Adopting Community-wide No Adverse Impact Language
- Investigate and Obtain Dam Failure Modeling/Mapping/Risk Assessment
- Develop and Implement Stormwater/Wastewater Inflow and Infiltration Reduction Program
- Secure Consistent Stormwater Funding Source
- Future Conditions Flood Hazard Modeling and Mapping
- Update Compensatory Storage Code/Policy
- Update Final Plat Requirements Code/Policy
- Fluvial Hazard Zone Mapping
- Preserve the Floodplain
- Evaluate and Plan for Implications of Continued Climate Change (Atlas 15+)
- Improve Incentives for Cluster Subdivision and Conservation Design
- Deed Restrictions for Current/Future Open Space Parcels
- Evaluate Native/Natural Vegetation Incentives/Requirements
- Update Emergency Actions Plans for Transportation and Utilities Divisions
- Improve/Develop Real Time Flood Alert Map/System

Completed Mitigation Actions

ACTION	Tree City USA
Description	Continue participating in Tree City USA designation. Additional actions need to be taken to reduce overall risk to city owned trees for Emerald Ash Borer.
Hazards Addressed	High Winds, Severe Thunderstorms, Severe Winter Storms, Agricultural Disease (EAB)
Status	Completed – The City has been a Tree City USA member since 1976 and has implemented tree management requirements across the city to address Emerald Ash Borer.

Mitigation Action	Complete City-wide Flood Project Master Plan
Description	Complete a city-wide Master Plan to prioritize all flooding related projects.
Hazard(s) Addressed	Flooding
Status	Complete – City of Lincoln Flood Mitigation Master Plan completed October 2023.

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	Agricultural Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism
Status	Complete – The City of Lincoln has adopted and enforces the 2018 edition of the International Building Code and local amendments.

ACTION	Install Weather Station
Description	Install weather station to collect a variety of weather data in real time to determine emergency response requirements. Integrate various systems to produce cohesive reports and data access.
Hazards Addressed	Severe Thunderstorms, High Winds, Severe Winter Storms, Tornadoes
Status	Completed – One station located at the EOC, one station located in Waverly, and several private owned stations are used to supplement emergency management. LTU also has road weather conditions throughout the City which can also be used to inform decisions.

ACTION	Emergency Operations Center
Description	Update the Emergency Operations Center to maintain pace with technology requirements. Identify and establish additional EOC facility as appropriate to meet the needs of the growing City.

ACTION	Emergency Operations Center
Hazards Addressed	All hazards
Status	Completed – The 5201 R St meets all current needs for the EOC.

ACTION	Improve Emergency Response Resources
Description	Improve/replace current resources to respond to emergencies or current operations. Examples: snowplow, blowers, four-wheel drive vehicles, etc.
Hazards Addressed	Severe Winter Storms, Severe Thunderstorms, Hazardous Materials, High Winds and Tornadoes
Status	Completed – The City recently purchased new snow trucks for snow removal and liquid application.

Mitigation Action	Bank Stabilization
Description	Implement riverbank stabilization measures for city-owned property along the Platte River, particularly near the Lincoln well fields. Current erosion pattern will impact the ability to develop that area for wells to meet future production demands.
Hazard(s) Addressed	Flooding
Status	Completed - Completed design and construction in Fall 2019. Project Phase 1 completed by May 2020.

Mitigation Action	Green Mitigation
Description	Educate the public and business owners regarding rain gardens, green roofs, and other minor mitigation measures
Hazard(s) Addressed	Flooding, Drought
Status	Completed – Have implemented best management practices and built them into routine process. Multiple educational programs (school discussions, Earth Day open houses, workshops, etc.) have been implemented to educate residents.

Mitigation Action	Improve Drainage at Forest Lake Blvd
Description	Culvert upsizing along Forest Lake Blvd and South 67th Street for flood risk reduction to adjacent properties
Hazard(s) Addressed	Flooding
Status	Completed

Mitigation Action	Utilize Low-Impact Development and Green Infrastructure
Description	Utilize low impact development practices and green infrastructure to reduce flood risk
Hazard(s) Addressed	Flooding
Status	BMPs have been built into routine process as part of current zoning and development.

Community Profile

Village of Malcolm

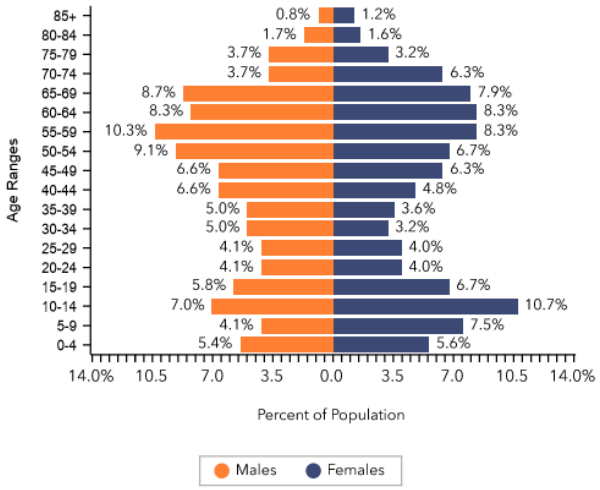
Lower Platte South NRD
Multi-Jurisdictional Hazard Mitigation Plan
2025 Update

Community Summary Fact Sheet

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

494	46.1	$91,750	$418,644	2.2%	3%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



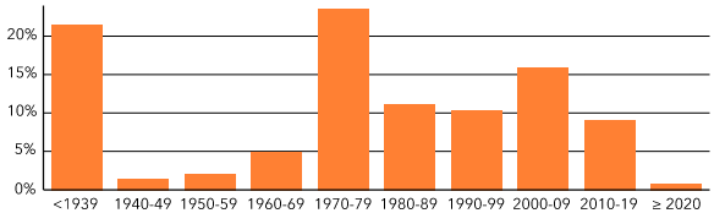
TOTAL POPULATION

2023 Total Population (Estimate)	494
2020 Total Population (U.S. Census)	457
2010 Total Population (U.S. Census)	416
2000 Total Population (U.S. Census)	411

AT RISK POPULATION

28	96	1
Households With Disability	Population 65+	Households Without Vehicle

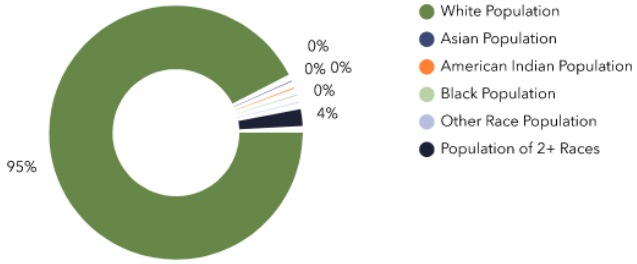
HOUSING: YEAR BUILT



COMMUTER

0%	1%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

7%	9%	1%
Vacant Housing Units	Renter Households	Mobile Homes

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
April Faubion	Village Clerk	Village of Malcolm	Attended Meetings
Nadine Link	Village Clerk	Village of Malcolm	Attended Meetings

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 Civil Defense will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Malcolm will review the plan bi-annually and the public will be notified on the website and with residential letters.

Location and Geography

The Village of Malcolm is in the northwestern portion of Lancaster County, approximately 2.6 miles east of the Seward County Line and 3.5 miles north of Pawnee Lake. The Village covers an area of 0.15 square miles. There is one major waterway near the town, the Elk Creek, which flows north-to-south on the southwest side of town.

Capability Assessment

The planning team assessed the Village of Malcolm'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, recent update
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	Under Revision (2024)
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes – Updated (2024)
	Wellhead Protection Plan	Yes – Being Updated
	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	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Volunteer Fire Department
	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	NPPD
	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.	Nebraska Emergency Management
	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)	-

Malcolm 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

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

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	3/30/2009
Floodplain Administrator:	Nadine Link
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 ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$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?	No
FIRMs Digital or Paper?	Both

The Village of Malcolm has a floodplain ordinance which requires permits for development within flood risk hazard areas and requires a one foot base flood elevation. 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 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 Malcolm have been removed from the floodplain via LOMA. A summary of LOMAs identified for Malcolm can be found in the table below.

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
196	$40,241,000	2	$264,900	1%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
196	$40,241,000	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panels
FIRM Panel	31109C0145G	04/16/2013	Current FIRM Panels
FIRM Panel	31109C0165G	04/16/2013	Current FIRM Panels

Source: Flood Map Service Center

Plans and Studies

Malcom 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 local planning team stated that safe and sustainable growth for the Village is a top priority. The comprehensive plan also discusses directing development away from hazardous areas including the floodplain and chemical storage facilities. The previous plan was adopted in 2019 and discussed floodplain and wellhead protection areas.

Environmental Goal 1 in the Comprehensive Plan includes the following language regarding flooding and stormwater management:

- *Goal – maintain a community that recognizes the surrounding environment and support sustainable practices*
    - *Objective 1 - Take into consideration impacts that developments and other community land use changes have on storm water runoff and promote practices that properly manage runoff*
    - *Objective 5 – promote open space and low impact land uses and limit or avoid development within the floodplain.*

Building Codes

The building code sets standards for constructed buildings and structures. The Village of Malcolm follows the City of Lincoln's building code which is the 2018 International Building Code. Lincoln has made multiple amendments to the code. Evaluation and enforcement of the building code is handled with plumbing, HVAC, and framing inspectors. While landowners may subdivide property to sell, there are size restrictions in place for residential or agricultural land to ensure the community grows sustainably. The Building Code includes a special provision to require sewer backflow valves for structures in the floodplain and requires certain fire-resistant building materials to be used in some cases.

Emergency Response Plans

Malcolm has two local emergency operations plan – one for their wells and one for their water treatment plant – as well as is part of the Lancaster County Local Emergency Operations Plan. The well and water treatment plan emergency operation plans were last updated in 2015. These plans assign specific responsibilities to staff members, provide contact information to appropriate contacts or providers, and describe what type of equipment is available. The LEOP also assigns specific responsibilities, provides contact information, and identifies sheltering locations. The local planning team indicated that currently identified shelters are sufficient to meet community needs

and copies of the emergency plans are held with the Village Clerk, Maintenance Department, and with the Nebraska Department of Health and Human Services.

Drought Ordinance/Management Plan

Malcolm's drought ordinance outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. Emergency procedures are declared by the village board where voluntary or mandatory measures are enacted depending on the severity of the conditions. Enforcement of the drought ordinance is handled by the village board or an appointed water marshal.

Ordinances and Regulations

The Village'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. 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. These documents are currently being updated. There is no development in the floodplain.

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 Village has a Wellhead Protection Area which has signs in place to alert community members of the area. Malcolm also has a water conservation plan in place which describes specific drought triggers and actions to be taken to reduce water consumption during periods of drought.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

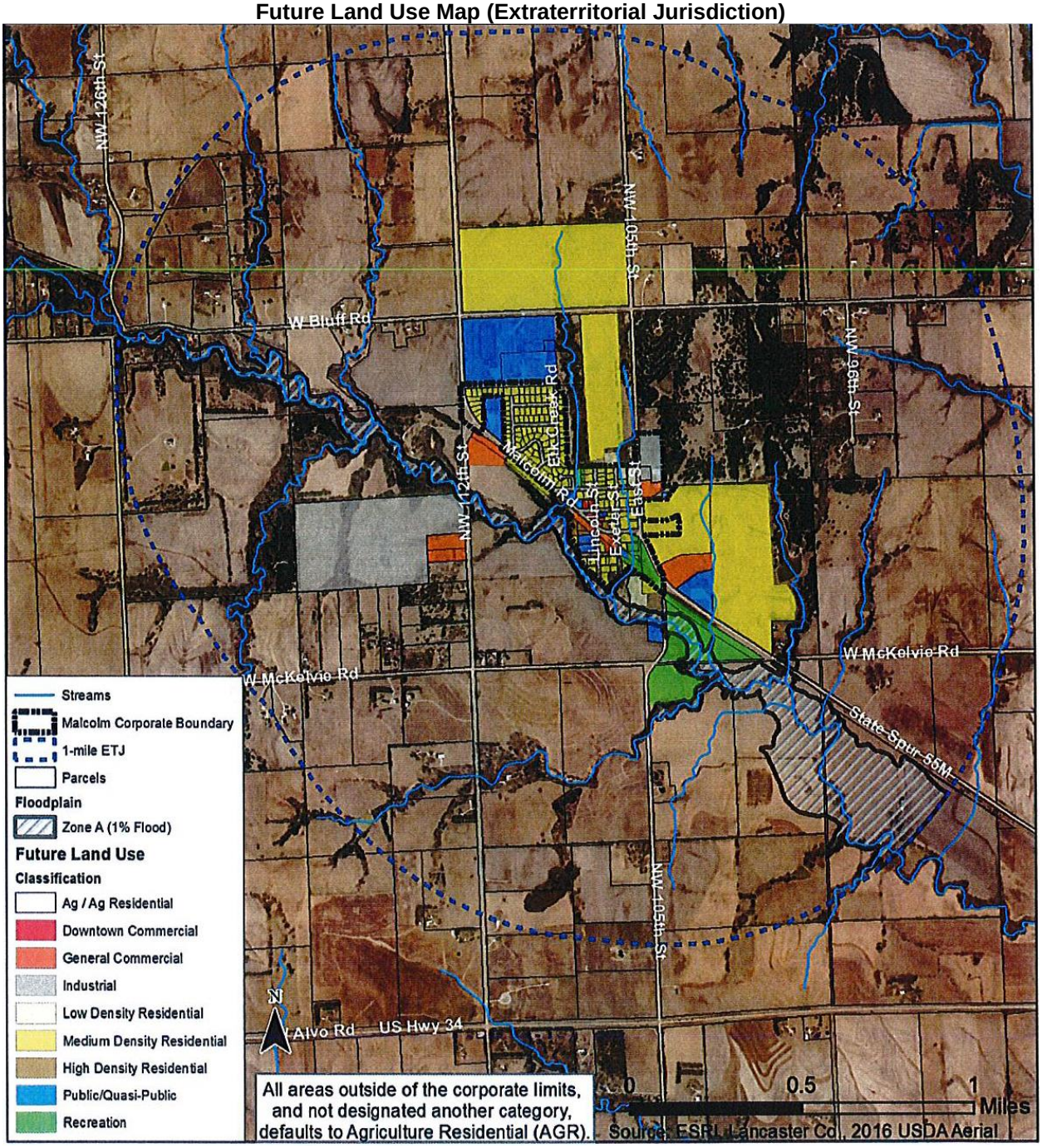
Future Development Trends

The Village of Malcolm has undergone significant changes in multiple areas since the previous mitigation plan update. Malcolm Public School received a $1 million addition which increased the overall capacity of the school. A new development area, the Hudkins Subdivision, brought 11 new lots into the Village. There has also been a recent increase in acreages around the area. Malcolm has added three new ballfields, additional storage units, three to four new homes, and two new businesses to the area. Another ballfield in the Village is under renovation. No new structures were built in the floodplain or in hazardous areas. According to recent census data the population of Malcolm has been relatively stable. This is attributed to the public school containing classes from pre-kindergarten to 12th grade in the Village. This is also indicative of Malcolm's proximity to Lincoln, Omaha, and Seward which increases the potential for residential development.

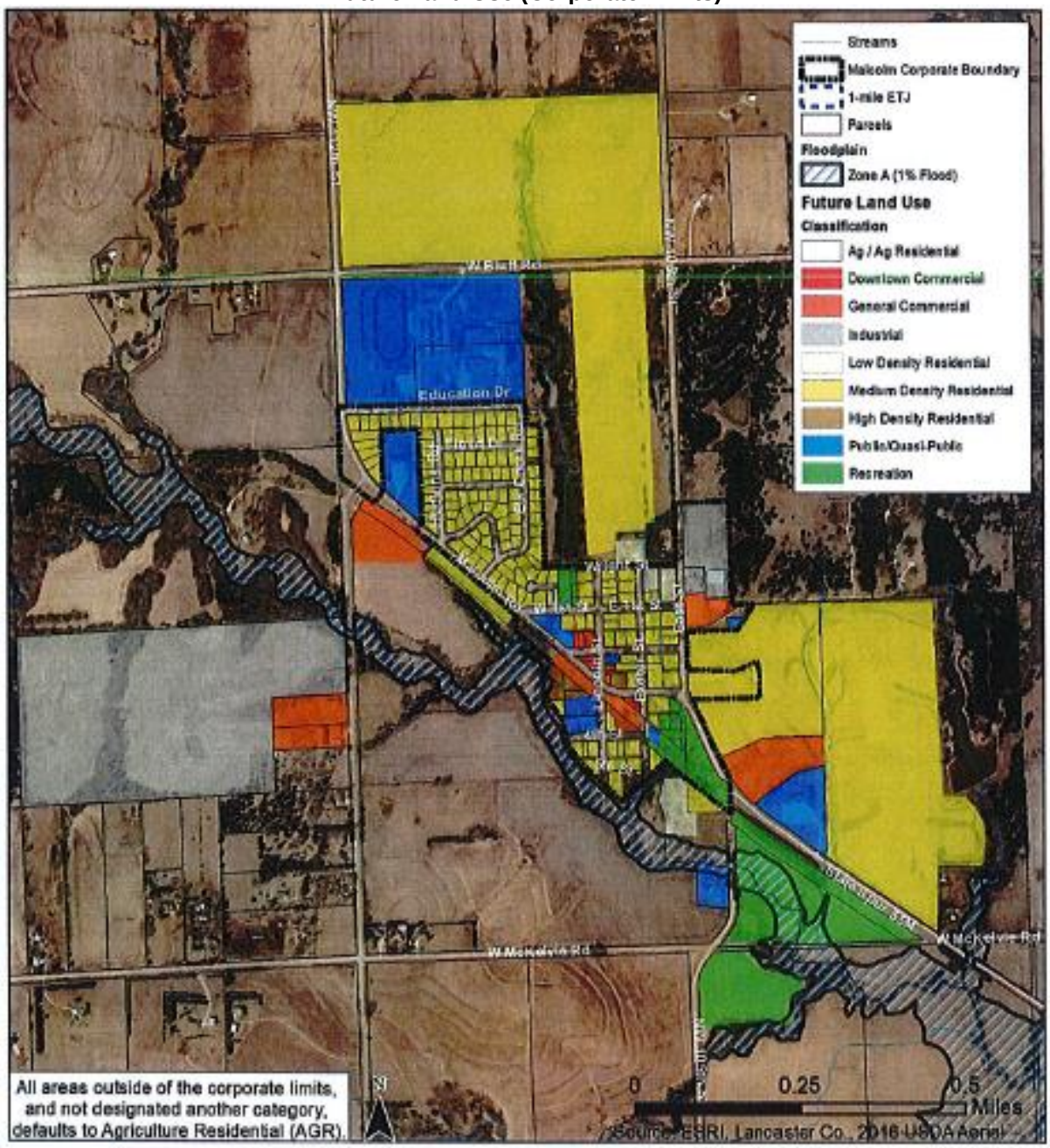
There is a planned housing development adjacent to Village limits but no specific plans for additional housing developments. However, local representatives are confident there will be additional housing developments prior to the next mitigation plan update. There is a potential gas station that will be constructed in the Village, and the fire department plan on moving to a new location in the future.

The future land use map illustrates expected growth and development for Malcolm. The future land use maps below indicate that residential development is expected to develop to the north and the southeast of the community, commercial land use mostly to the west and along Malcolm Road/State Road 55M, and recreational use in the south. 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.

Future Land Use Map (Extraterritorial Jurisdiction)



Future Land Use (Corporate Limits)

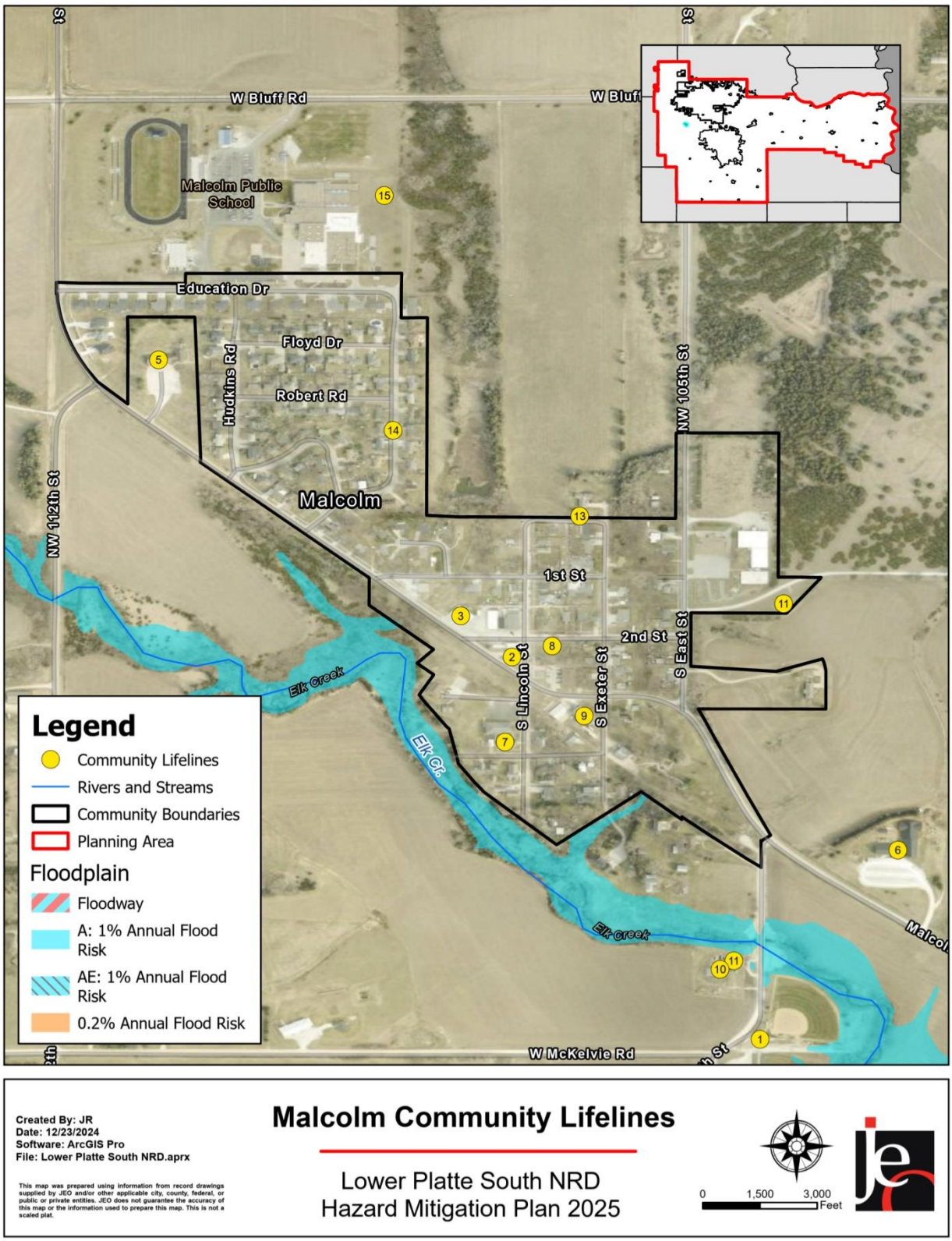


Community Lifelines

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.

Malcolm Community Lifelines

CF #	Lifelines	Name	Generator	Shelter	In the Floodplain
1	Other	Ballfield Concession	N	N	N
2	Transportation	Lancaster County Shop	N	N	N
3	Safety and Security	Malcolm Fire & Rescue	Y	N	N
4	Food, Water, Shelter	Malcolm General Store	N	N	N
5	Food, Water, Shelter	Methodist Church of Malcolm	N	Y	N
6	Food, Water, Shelter	Northwest Community Church	N	Y	N
7	Food, Water, Shelter	St. Paul's Lutheran Church	N	Y	N
8	Safety and Security	Village Hall/Office	Y	N	N
9	Safety and Security	Village Maintenance Shop	Y	N	N
10	Food, Water, Shelter	Wastewater Lagoon	N	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	Well # 1	N	N	N
14	Food, Water, Shelter	Well # 2	N	N	N
15	Food, Water, Shelter	Well # 3	N	N	N


W Bluff Rd
Malcolm Public School
Education Dr
Floyd Dr
Robert Rd
Hudkins Rd
NW 112th St
NW 105th St
Malcolm
1st St
2nd St
S East St
S Lincoln St
S Exeter St
Elk Creek
Elk Cr.
W McKelvie Rd
Legend
Community Lifelines
Rivers and Streams
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
Created By: JR
Date: 12/23/2024
Software: ArcGIS Pro
File: Lower Platte South NRD.aprx
This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.
Malcolm Community Lifelines
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

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 Malcolm 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 Malcolm. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Drought

The Village of Malcolm has adopted water drought emergency procedures as part of the local municipal code. The code identifies the actions the community will take in the case of diminished water supply or drought conditions, including water shut offs and enforcement. The Village relies on the University of Nebraska-Lincoln Drought Mitigation Center to define drought and provide information about current conditions. All properties within Malcolm are metered and each of the three wells in town are monitored for water levels. The wells are limited in their capacity and concerns exist locally for water quantity for the Village. The Village has a drought ordinance in place in the case of drought conditions prompting the village board to enforce a water watch or water shortage/drought emergency. Continued monitoring of water usage and communication with the community has been identified to reduce the risk of this hazard.

ACTION	Continuity Planning
Description	Develop continuity plans for critical community services
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0
Potential Local Funding	Village of Malcolm Funds
Lead Agency	Engineering
Timeline	2-5 years
Priority	Medium
Status	Not yet started.

Flooding

The local planning team indicated the greatest concern about flooding stems from flash flooding. Areas of the Village most prone to flooding include the older part of Malcolm by Harriett Circle Park, behind residential homes on north and south Exeter Street, and through the park and creek bed by the sewer plant. Elk Creek, located on the southwest side of the community, is the primary drainage for the community, including a tributary that flows intermittently through Harriet Circle Park. The local planning team identified water and sewer lines along the creek as a primary concern at risk of damage from trees, branches, or other debris during flood events.

Significant flooding in spring 2008 caused damage to vegetation through the Village. The Village requested help from NEMA and FEMA to help clear out downed trees, branches, and brush. During the March 2019 flooding event that impacted most of eastern Nebraska, Malcolm experienced only minor flooding on some local roads and the driveway into the sewer plant.

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 flood plain
Hazards Addressed	Flooding
Estimated Cost	Varies by need
Potential Local Funding	Bonds
Lead Agency	Village of Malcolm Board, Village Clerk
Timeline	5+ years
Priority	Low

Status	Not yet started.

ACTION	Promote Use of High 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 of building retrofits. This includes hail resistant roofing for all new construction.
Hazards Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$5,000+
Potential Local Funding	LPSNRD, Lancaster County, Village of Malcolm
Lead Agency	Village of Malcolm Board, Planning Commission
Timeline	1 year
Priority	High
Status	In Progress – adopted and use the most recent IBC version. Reviewing for additional amendments as needed for the village.

ACTION	Public Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods. Additional information about continuity planning can be shared with departments and businesses.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0-$5,000+
Potential Local Funding	General Fund, LPSNRD, Volunteer Fire Department
Lead Agency	Village of Malcolm Board, Malcolm Fire Department
Timeline	2-5 years
Priority	Medium
Status	The Village provides information to residents about flooding threats during the building permit process and the Volunteer Fire Department is active in the community to share hazard reduction information. The School has safety meetings with the Village, local law enforcement, and the volunteer fire department in order to discuss emergency procedures.

Community Profile

Village of Panama

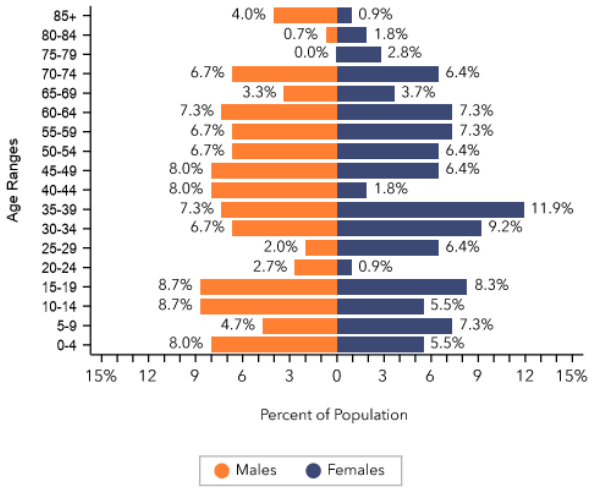
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

259	39.3	$112,546	$410,870	0.0%	4%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



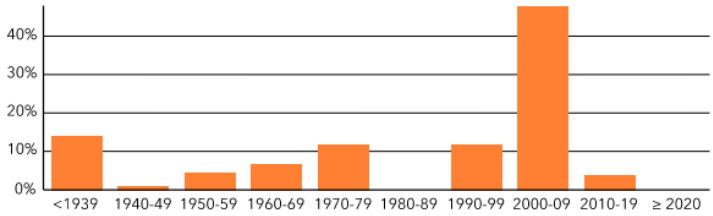
TOTAL POPULATION

2023 Total Population (Estimate)	259
2020 Total Population (U.S. Census)	235
2010 Total Population (U.S. Census)	217
2000 Total Population (U.S. Census)	210

AT RISK POPULATION

36	39	0
Households With Disability	Population 65+	Households Without Vehicle

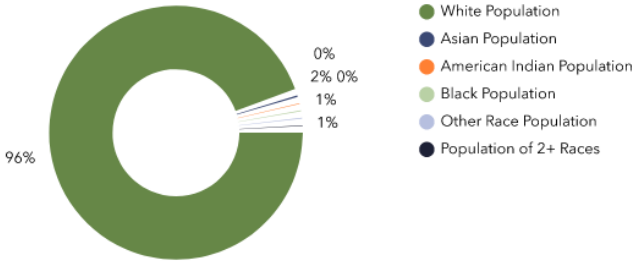
HOUSING: YEAR BUILT



COMMUTER

0%	9%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

9%	14%	3%
Vacant Housing Units	Renter Households	Mobile Homes

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

Please include your name, title, and jurisdiction you represent in the table below.

Name	Title	Jurisdiction

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 Panama will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Panama is in the southeast corner of Lancaster County, approximately 2.25 miles west of the Otoe County line and 4.5 miles southeast of the Wagon Train Lake. The Village covers an area of 0.28 square miles.

Capability Assessment

The planning team assessed the Village of Panama'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

Capability/Planning Mechanism		Yes/No
	Emergency Operations Plan	Yes, County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	Yes
	Water System Emergency Response Plan	No
	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	No
	Floodplain Administrator	No
	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	No
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	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)	No

Capability/Planning Mechanism		Yes/No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Panama 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	Limited	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	-	Limited

National Flood Insurance Program (NFIP)

The Village of Panama 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, the village 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 Panama have been removed from the floodplain via LOMA. A summary of LOMAs identified for Panama can be found in the table below.

Parcel Value in the Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
158	$25,535,500	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	05/16/2013	Current FIRM Panel
FIRM Panel	31109C0600G	05/16/2013	Current FIRM Panel
FIRM Panel	31109C0625G	05/16/2013	Current FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Panama 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 of Panama's Comprehensive Plan was last updated in 2013 and includes a future land use map but does not discuss natural hazards. The local planning team has identified that the plan needs updated again to include current goals and actions for the Village.

Emergency Plan

The Village has its own Emergency Operations Plan which is updated annually. This plan assigns responsibilities specifically to Village personnel, particularly the Village Board, Water Operator and Clerk. The Village also has an annex to the Lancaster County Local Emergency Operations Plan which assigns responsibilities and identifies shelter locations.

Building Code

The Village follows the City of Lincoln's Building Code, Zoning Ordinances, and Subdivision Ordinances and updates them as needed at the local level. Currently they are following the 2012 International Building Codes.

Capital Improvements Plan

The Village's Capital Improvement Plan is updated annually and primarily focuses on stormwater and drainage improvements. Currently lagoon improvements are the top priority identified for the Village. As the Village's annual municipal budget is fairly limited, all available funds are earmarked for the lagoon improvement.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

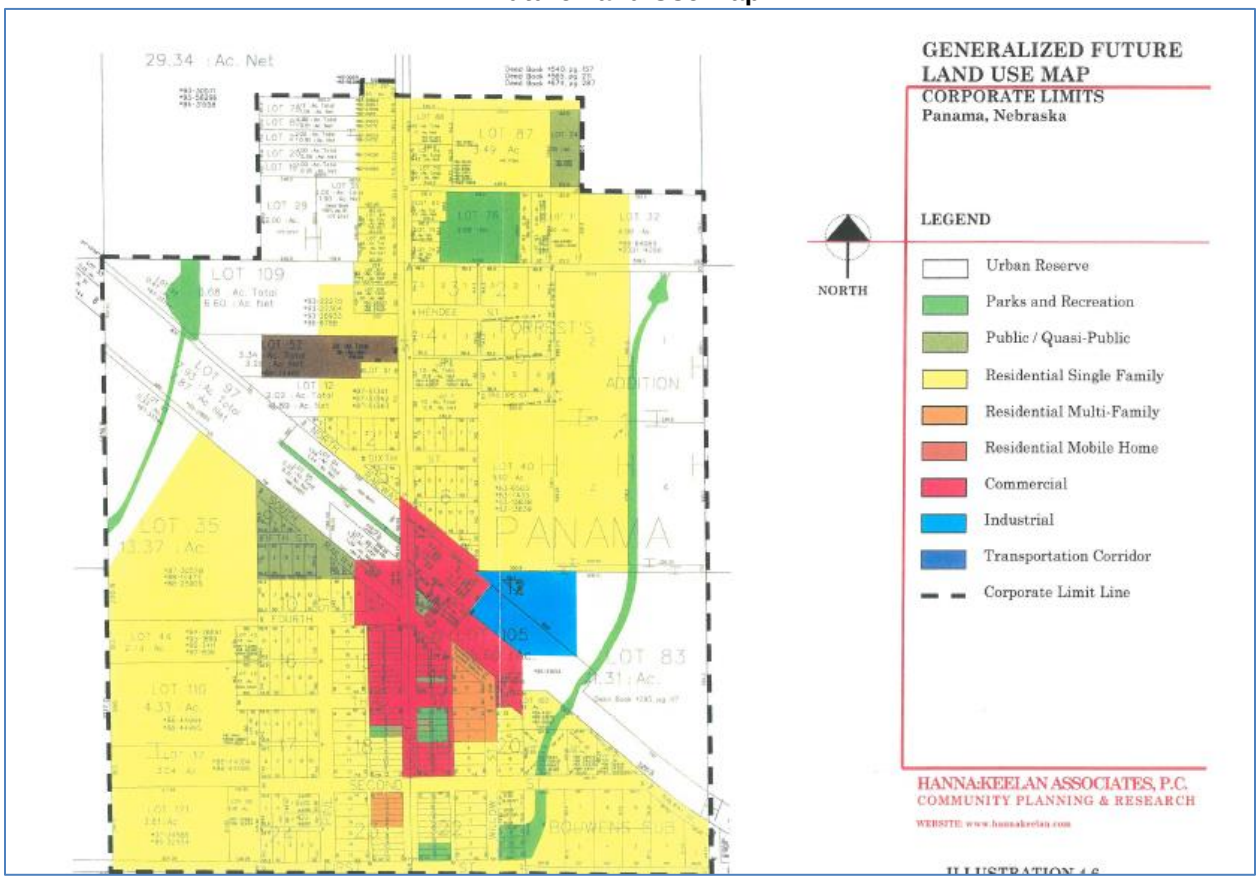
Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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 the Village built a few new homes to account for the growing population. The local planning team indicated Panama is growing due to an influx of younger families with kids moving to town. At this time there are no plans for future residential or commercial developments in the Village.

Future Land Use Map



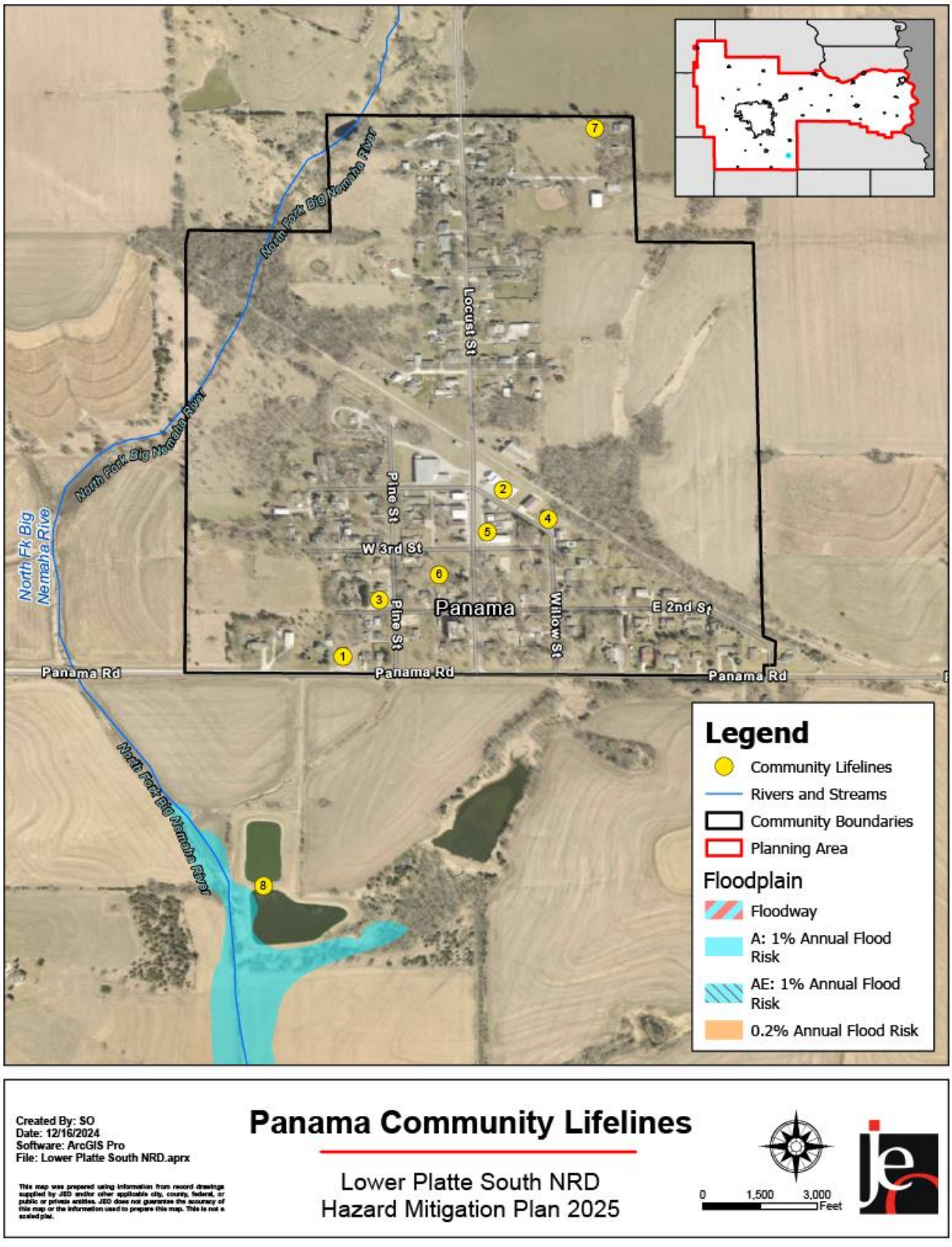
Community Lifelines

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.

Panama Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Transportation	County Maintenance Shop	N	N	N
2	Safety and Security	Panama Fire & Rescue	N	N	N
3	Food, Water, Shelter	Panama Presbyterian Church	N	Y	N
4	Transportation	Town Maintenance Shop	N	N	N
5	Safety and Security	Village Offices	N	N	N
6	Food, Water, Shelter	Village Well	N	N	N
7	Food, Water, Shelter	Water Tower	N	N	N
8	Food, Water, Shelter	Wastewater Lagoon	N	N	N

Panama Community Lifelines



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 Panama 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 Panama. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

High Winds and Tornadoes

Tornadoes are a concern to the local planning team because of the hazard's potential to cause widespread property damages and loss of life. Residents without basements or underground cellars are at heighted potential risk from tornadoes. At this time there are no designated community safe rooms or an official Emergency Operations Center. While no tornadic events have directly impacted the Village of Panama, tornadoes in the surrounding areas have prompted concerns for the local planning team.

Mitigation Action	Continuity Planning
Description	Continuity planning helps to ensure that services can be maintained during and after a disaster.
Hazard(s) Addressed	All hazards
Estimated Cost	$5,000+, Staff Time
Potential Funding	General Funds
Timeline	5+ years
Priority	High
Lead Agency	Village of Panama
Status	This project has not yet been started.

Mitigation Action	Educate Local Businesses about Continuity Planning
Description	Educate local businesses about the value of continuity planning. Continuity planning helps to ensure that services can be maintained during and after a disaster.
Hazard(s) Addressed	All hazards
Estimated Cost	$1,000+
Potential Funding	General Funds
Timeline	1 year
Priority	High
Lead Agency	Village of Panama
Status	Currently developing educational materials.

Mitigation Action	Evacuation Plan
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation
Hazard(s) Addressed	All hazards
Estimated Cost	$5,000+, Staff Time
Potential Funding	General Funds, PDM, HMGP
Timeline	2-5 years
Priority	Low
Lead Agency	Village of Panama, Lancaster County Emergency Management
Status	This project has not yet been started.

Mitigation Action	Storm Shelters
Description	Identify, design, and develop storm shelters to protect community and critical facilities.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms

Estimated Cost	$200-$300/sf stand alone; $150-$200/sf addition/retrofit
Potential Funding	General Funds, PDM, HMGP
Timeline	5+ years
Priority	High
Lead Agency	Village of Panama, Lancaster County Emergency Management
Status	This project has not yet been started.

Severe Thunderstorm

The Village of Panama has historically experienced flash flooding damages. While riverine flooding is not common in Panama, a flash flood in 1996 caused a reported $1,500,000 in damages to infrastructure in Panama and the surrounding areas. During the March 2019 flood event, many residents reported water intrusion in their basements and the Village lagoon filled to capacity and was at risk of overtopping. The Village is currently evaluating options to increase their lagoon capacity. Additionally, hail damage impacts siding, roofing, windows, and vehicles across the Village. This is an annual threat to the village. A severe hailstorm in 2015 reported hail up to two inches in diameter and caused significant damage to roofs throughout the Village. Many of the damaged roofs were replaced.

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to critical facilities.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$30,000+
Potential Funding	General Funds, PDM, HMGP
Timeline	5+ years
Priority	High
Lead Agency	Village of Panama
Status	This project has not yet been started.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Panama can 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. These improvements can serve to more effectively convey runoff within villages, preventing interior localized flooding.
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000,000
Potential Funding	General Funds, PDM, HMGP
Timeline	2-5 years
Priority	High
Lead Agency	Village of Panama
Status	This project has not yet been started. The Village's lagoon needs to be expanded. Current bids have estimated over $2 million in work which is financially prohibitive for the Village. The Village is currently looking into dredging the lagoon.

Severe Winter Storms

The Village of Panama experiences severe winter storms every year which stretch local resources. Concerns from severe winter storms include power loss from downed or damaged

power lines, property damage, and blocked transportation routes in and out of town. The local planning team indicated no facilities in town have backup generators.

Mitigation Action	Automated Telephone Dialer
Description	Develop and implement telephone warning system such as Reverse 911.
Hazard(s) Addressed	All hazards
Estimated Cost	$5,000
Potential Funding	General Funds, PDM, HMGP
Timeline	2-5 years
Priority	High
Lead Agency	Village of Panama, Lancaster County Emergency Management
Status	Not yet started.

Other Capacity Building Actions

Mitigation Action	Update Comprehensive Plan
Description	Update Village Comprehensive Plan
Hazard(s) Addressed	All hazards
Estimated Cost	$10,000
Potential Funding	General Fund, HMGP, PDM
Timeline	2-5 years
Priority	Medium
Lead Agency	Village of Panama
Status	This is a new mitigation action.

Mitigation Action	Public Education
Description	Increase public awareness of vulnerability and risk reduction measures through hazard education.
Hazard(s) Addressed	All hazards
Estimated Cost	$1,000+, Staff Time
Potential Funding	General Fund, PDM, HMGP
Timeline	2-5 years
Priority	High
Lead Agency	Village of Panama, Lancaster County Emergency Management, LPSNRD
Status	This project has not yet been started.

Mitigation Action	Vulnerable Populations Assistance Database
Description	Work with stakeholders to develop a database of vulnerable populations and organizations which support them
Hazard(s) Addressed	All hazards
Estimated Cost	$5,000+, Staff Time
Potential Funding	General Funds
Timeline	2-5 years
Priority	High
Lead Agency	Village Board
Status	This project has not yet been started.

Completed/Removed Mitigation Actions

Mitigation Action	Educate Public and Businesses on Flood Mitigation Projects
Description	Educate the public and business owners regarding rain gardens, green roofs, and other minor mitigation measures.
Hazard(s) Addressed	Flooding
Reason for Removal	Not currently a priority.

Mitigation Action	Emergency Operations Center
Description	Identify an Emergency Operations Center.
Hazard(s) Addressed	All hazards
Reason for Removal	Local emergency management handled by Lincoln/Lancaster County EMA. New EOC built in Lincoln for L/LCEMA.

Mitigation Action	Preserve Natural and Beneficial Floodplain 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
Hazard(s) Addressed	Flooding
Reason for Removal	No floodplain areas within village boundaries.

Mitigation 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
Hazard(s) Addressed	Flooding
Reason for Removal	Not currently a priority due to lack of floodplain.

Community Profile

Village of Raymond

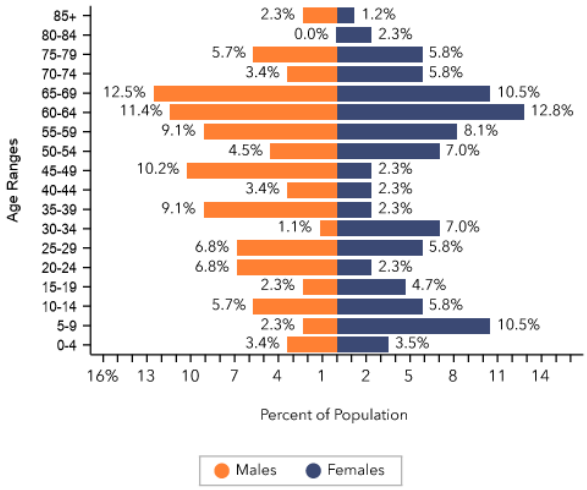
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

174	51.0	$109,288	$450,000	3.9%	1%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



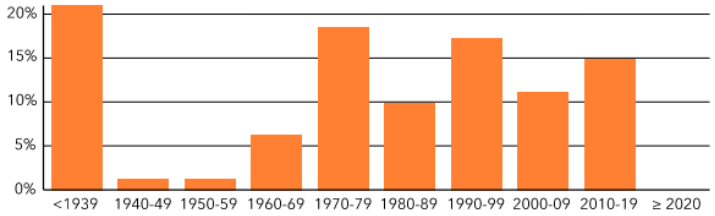
TOTAL POPULATION

2023 Total Population (Estimate)	174
2020 Total Population (U.S. Census)	159
2010 Total Population (U.S. Census)	146
2000 Total Population (U.S. Census)	136

AT RISK POPULATION

10	43	0
Households With Disability	Population 65+	Households Without Vehicle

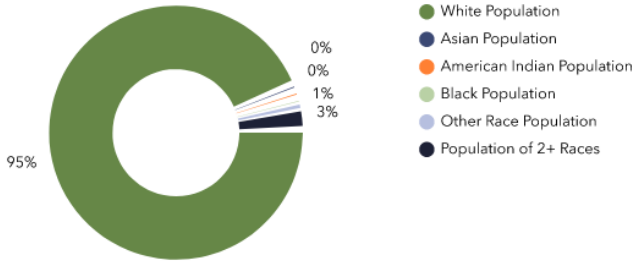
HOUSING: YEAR BUILT



COMMUTER

0%	2%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

1%	8%	2%
Vacant Housing Units	Renter Households	Mobile Homes

esri THE SCIENCE OF WHERE

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

**The local planning team noted Median income is lower than reported here. Data may be skewed if including 1-mile ETJ with higher value homes.*

Local Planning Team

Local Planning Team

Name	Title	Jurisdiction	Engagement
Judy Nissen	Village Clerk	Village of Raymond	Profile Development Attend 1-1 Meeting
Wayne Regnier	Water Operator	Village of Raymond	Profile Development, Attend 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 the Village Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. The Village of Raymond will review the plan annually in the fall and the public will be notified through the local paper (Waverly), postings at key sites such as post office, Co-op, and local bar, and at local board meetings.

Location and Geography

The Village of Raymond is in the northwest corner of Lancaster County, approximately 4.6 miles east of Branched Oak Lake and 11 miles northwest of downtown Lincoln. The Village covers an area of 0.13 square miles. There are two major waterways near the town. The main stem, Oak Creek, flows north-to-south. It forms a confluence with North Branch Oak Creek, which flows north-to-south on the western end of town. The confluence is located less than a mile southwest of town.

Capability Assessment

The planning team assessed the Village of Raymond'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	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	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	No
	Awarded a Grant in the Past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	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)	

Raymond 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:	04/18/1985
Floodplain Administrator:	Frank Robbins
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 ($):	$707
Total NFIP Coverage ($):	$161,000
Number of Claims Paid Out:	1
Total Amount of Claims Paid Out ($:)	$11,086
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 Raymond requires a permits for any development within flood risk hazard areas. Flood maps from the FEMA Flood Map Service Center are reviewed to determine if the property is located in a floodplain or floodway. All building permits are then reviewed by the Floodplain Manager before going to the Village Board for final approval. Any structures in flood risk hazad areas must be built up above 1ft BFE. 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 Raymond have been removed from the floodplain via LOMA. A summary of LOMAs identified for Raymond can be found in the table below.

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
127	$16,191,400	4	$113,500	3.1%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
127	$16,191,400	5	$492,800	3.9%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0156G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0157G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0158G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0159G	04/16/2013	Current FIRM Panel

Source: Flood Map Service Center

Plans and Studies

Raymond 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 and was adopted in May 2000. The hazard mitigation plan has not been integrated with Raymond's comprehensive plan. The plan does recommend future development should be focused in vacant lands within the Village's jurisdiction. Development is discouraged in natural hazard areas such as the floodplain. At this time there is no plan to update the Village's Comprehensive Plan.

The Natural Environment and Land Use Goals and Policies states: *[village will] Discourage development in natural hazard areas such as floodplains, steep slopes and unstable geological areas.*

1/6 Year Plan

The Village's 1 and 6-year plan outlines projects the village would like to pursue and provides a planning schedule and financing options. Raymond has identified the need to extension the road along Maple and do some patch repair jobs by the Co-Op.

Ordinances and Regulations

The Village'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. The floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. Structures developed in the floodplain are required to be one foot above Base Flood Elevation.

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. Lancaster County lies within the upland tallgrass prairie vegetation zone. Agriculture crop fields, hay land, and grazing lands cover much of the county. The Bennet Fire Department noted that their greatest concerns are the speed that a fire might spread and structures in the fire's path, specifically the chief expressed concern about "acreage subdivisions" and said that most developments, including one in the Village of Bennet, only have one way in and out.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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

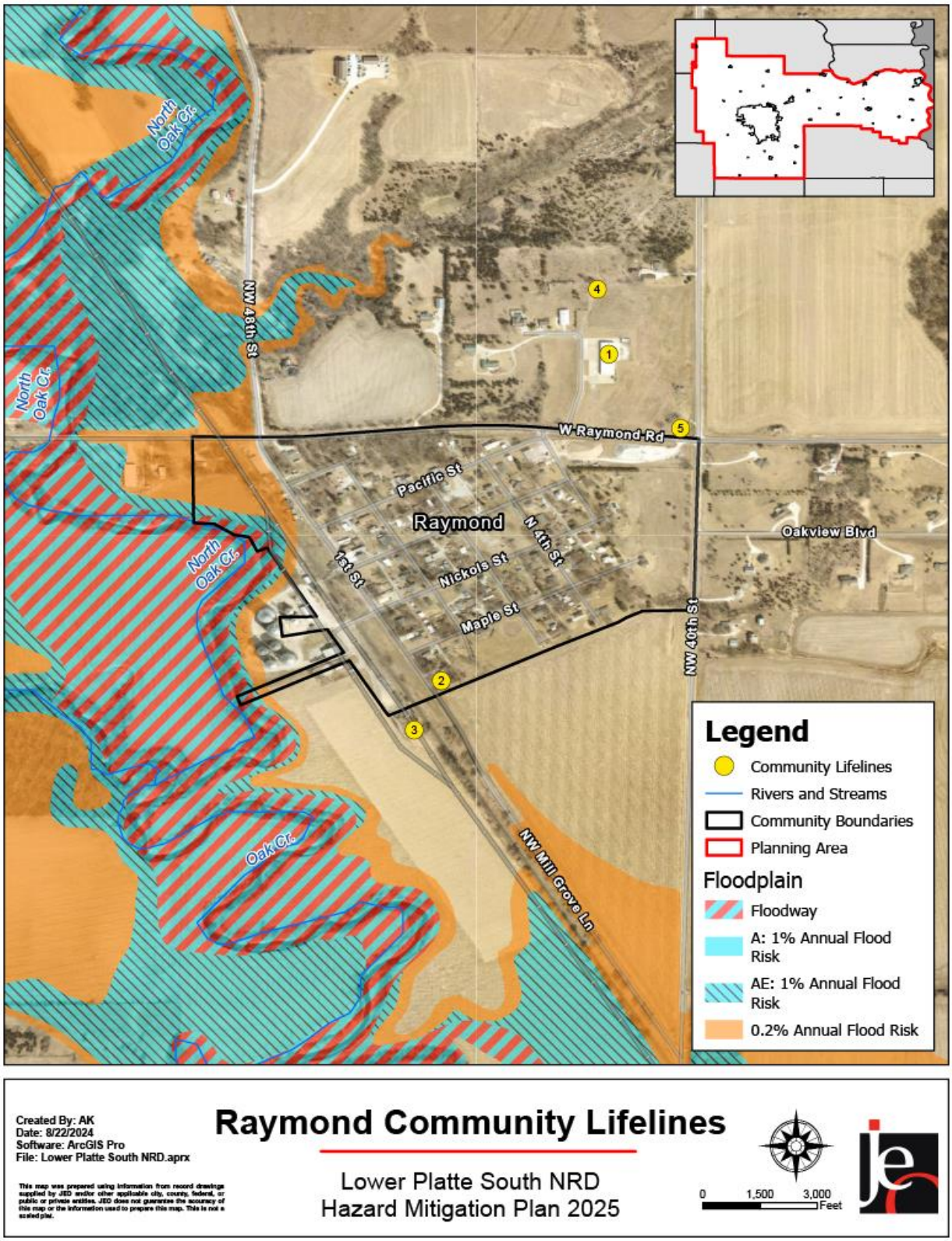
Over the past ten years a few new homes have been constructed throughout town and one new business leased property in town for storage. The Co-Op has also expanded its storage capacity in the past ten years. In the past five years, the Village built new lagoons south of town and turned the old sewer plant into a lift station. The local bar closed temporarily for repairs, one new home has been built, and two new businesses came to Raymond. There are no other future housing or commercial developments currently planned. The Village is currently evaluating potential revenue streams for the village in order to implement other projects, including road and drainage projects.

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.

Raymond Community Lifelines

CF #	LIFELINE	NAME	GENERATOR	SHELTER	FLOODPLAIN
1	Safety and Security	Fire & Rescue	Y	Y	N
2	Energy	NPPD Substation	Unknown	N	N
3	Food, Water, Shelter	Lift Station	N	N	N
4	Food, Water, Shelter	Water Tower	N	N	N
5	Food, Water, Shelter	Well House	Y - stationary	N	N
6	Food, Water, Shelter	Lagoons	N	N	Y


North Oak Cr.
NW 48th St
W Raymond Rd
Pacific St
Raymond
N 4th St
1st St
Nickols St
Maple St
Oakview Blvd
NW 40th St
NW Mill Grove Ln
Oak Cr.
1
2
3
4
5
Legend
Community Lifelines
Rivers and Streams
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
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 JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a sealed plat.
Raymond Community Lifelines
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

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 Raymond 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 Raymond. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
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Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
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	Flood	10	$100,154,000	
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High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
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	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Flooding

Flooding has been a primary concern for the village because of its proximity to Oak Creek. Past floods have occurred in the Village, including a flash flood which caused $50,000 in damages in 2014. The local planning team indicated flooding has been reduced in town with dam projects completed upstream by the NRD. Part of the Co-Op facility and some residential homes are still located in the floodplain. The rail line which runs between the river and the Village provides some level of flood protection.

ACTION	EVALUATE/ELEVATE LIFT STATION
Description	Conduct an evaluation of flood risk to local lift stations. Elevate or floodproof structures as needed.
Hazards Addressed	Flooding
Estimated Cost	$15,000-20,000
Potential Local Funding	General Fund
Lead Agency	Village Board, Water/Sewer Operator
Timeline	2-5 years
Priority	Low
Status	This is a new mitigation action.

Severe Thunderstorms

Severe thunderstorms occur annually in the State of Nebraska and the planning area. Damage from severe thunderstorms typically is associated with high winds, lightning strikes, and heavy rain. Primary concerns for severe thunderstorms include blocked transportation routes, loss of power, and downed tree limbs or damage from trees. The majority of power lines in the Village are above ground. The fire and rescue station, wells, and sewer plant have backup generators in case of power outages.

ACTION	Bury Main Power Lines
Description	Work with local Public Power Districts or electric department to identify vulnerable transmission and distribution lines and plan to bury lines undergrounds or retrofit existing structures to be less vulnerable to storm events. Electrical utilities should be required to use underground construction methods where possible for future installation of power lines.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies by scope
Potential Local Funding	General Fund, NPPD
Lead Agency	Engineering
Timeline	5+ years
Priority	Medium
Status	In Progress – new development is required to be buried from pole to structure. All main lines are overhead. The Village will need to work with Norris PPD to transfer any overhead lines to underground. Currently this project is cost prohibitive.

High Winds and Tornadoes

Tornadoes are a significant hazard of concern due to their potential to cause large-scale damage and injury or death to residents. The Fire and Rescue station would be used as a local shelter

and was built to an EF5 tornado rating. The Village also has an alert siren in town which is owned and controlled by Lancaster County Emergency Management. The local planning team noted that during the Arbor Day tornadoes in 2014 the sirens did not go off in Raymond. On Mother's Day in 2014 two tornadoes hit near town and destroyed one home and damaged several others. The NCEI provided the following summaries of the two events:

- … the first and stronger of the two tornadoes that tracked near the Raymond area. This track was around 2.5 miles long. Although relatively short in length, this tornado impacted several farmsteads along its path. The first of these was as it crossed Northwest 48th Street where some structural damage was done to a home. The tornado increased in intensity as it reached Northwest 40th Street where a well-built garage was completely destroyed, and a camper was rolled over 100 yards. The tornado reached maximum intensity as it crossed Northwest 12th Street where the roof was partially removed from a home. In addition, outbuildings were completely destroyed, and farm machinery was tossed at this location. The tornado quickly dissipated after this location.
- … the second tornado to track near the Raymond area from this event. This particular tornado had a path length of around 5.3 miles. The tornado was generally weak throughout the path but did remove the roof from a well-built large outbuilding as it crossed North 14th Street at Branch Oak Road. Otherwise damage was confined to mainly tree damage.

A string of tornado impacted the Lancaster County area on Arbor Day weekend in 2024. Thankfully, no touchdowns occurred in Raymond, but high winds during other events damaged trees, roofs, and siding of properties throughout town. All power lines in town are above ground, but new development requires buried lines from pole to structure.

ACTION	Hazardous Tree Removal
Description	Identify and remove hazardous trees throughout the community.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$200+ per tree
Potential Local Funding	General Fund, Arbor Day Foundation
Lead Agency	Engineering
Timeline	5+ years
Priority	Low
Status	Not Yet Started – village has an informal inventory developed by local committee. New trees are needed around community park.

Completed/Removed Mitigation Actions

ACTION	New Sewer Plant
Description	Construct a new sewer plant to increase capacity in order to meet local needs.
Hazards Addressed	Flooding
Status	Complete – new lagoons built south of town in 2022 and old sewer plant converted to lift station.

Community Profile

Village of Roca

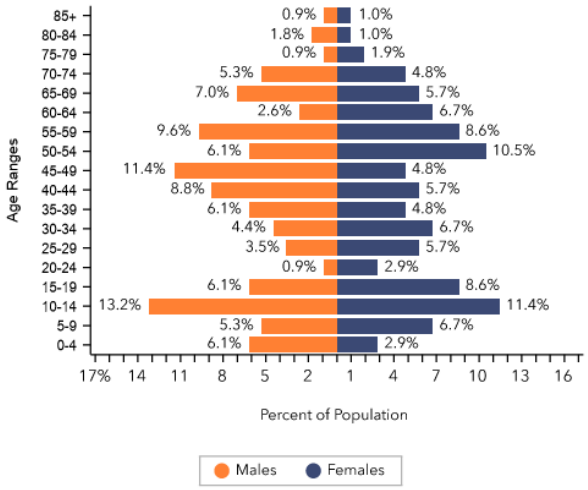
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

219	41.7	$108,260	$414,000	0.0%	1%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



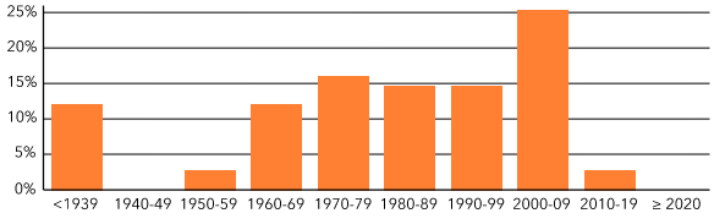
TOTAL POPULATION

2023 Total Population (Estimate)	219
2020 Total Population (U.S. Census)	201
2010 Total Population (U.S. Census)	154
2000 Total Population (U.S. Census)	130

AT RISK POPULATION

13	33	0
Households With Disability	Population 65+	Households Without Vehicle

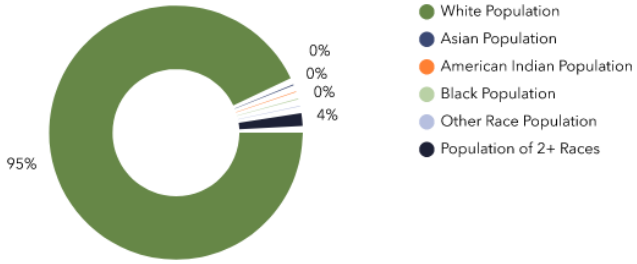
HOUSING: YEAR BUILT



COMMUTER

0%	1%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

5%	6%	1%
Vacant Housing Units	Renter Households	Mobile Homes

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

Please include your name, title, and jurisdiction you represent in the table below.

Name	Title	Jurisdiction

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 Roca will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Roca is in the south, central portion of Lancaster County, approximately 11 miles south of downtown Lincoln and 4.5 miles northwest of Wagon Train Lake. The Village covers an area of 0.14 square miles. There is one major waterway near the town, the Salt Creek, which flows south-to-north on the west side of town.

Capability Assessment

The planning team assessed the Village of Roca'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 & **	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes

Capability/Planning Mechanism		Yes/No
Regulatory Capability	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	No, County
	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
	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 - CDBG
	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)	No

Capability/Planning Mechanism		Yes/No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Roca 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:	01/28/2014
Floodplain Administrator:	Diane Osreloo
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	3
Total NFIP Premium ($):	$2,697
Total NFIP Coverage ($):	$814,000
Number of Claims Paid Out:	4
Total Amount of Claims Paid Out ($:)	$19,574
Number of Repetitive Loss Structures:	1
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

A floodplain permit is required before development in the floodplain begins. New and substantially improved structures, an elevation certificate needs to be submitted to the floodplain administrator and completed be a licensed surveyor, engineer, or architect. The floodplain administrator is responsible for enforcing local floodplain regulations and ensuring compliance. The Village of Roca has adopted the State of Nebraska's requirements for floodplain regulation. In the 100-year flood zone, all new construction and substantial improvements must be elevated at least one foot above Base Flood Elevation.

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

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
114	$20,863,800	33	$4,197,400	29%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
114	$20,863,800	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0444G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0445G	04/16/2013	Current FIRM Panel
LOMA	21-07-0776A-310139	05/13/2021	Current LOMA

Source: Flood Map Service Center

Plans and Studies

Roca 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 2017 comprehensive plan is designed to guide the future actions and growth in Roca. The plan states that the comprehensive plan should be updated approximately every five years to include major updates within the community. The hazard mitigation plan is integrated into Roca's comprehensive plan. Floodplain regulations and wellhead protection areas are discussed in the plan in relation to land use development. Development is discouraged in hazardous areas. Low density residential development is discouraged near arterial transportation corridors, development is discouraged in the floodplain, and incompatible land uses are discouraged from being adjacent to each other.

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. Roca has a floodplain overlay district that outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain regulation, 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. These documents were adopted in 2018. The zoning ordinance limits development in the floodplain and requires

structures built in the floodplain are one foot above Base Flood Elevation. The wildland urban interface is not discussed in these documents and there are no limitations to developing in the Village's ETJ.

Building Codes

The Village of Roca has adopted the 2018 International Building Code to set standards for constructed buildings and structures. Enforcement of the building code is handled by the Building Inspector.

Southeast Nebraska Community Wildfire Protection Plan

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. There were no fires reported in Roca between the years 2000 to 2018 according to the CWPP. Recommendations relating to emergency preparedness, training and education, fuels mitigation and maintenance strategies are discussed in this plan. This document is updated every five years.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

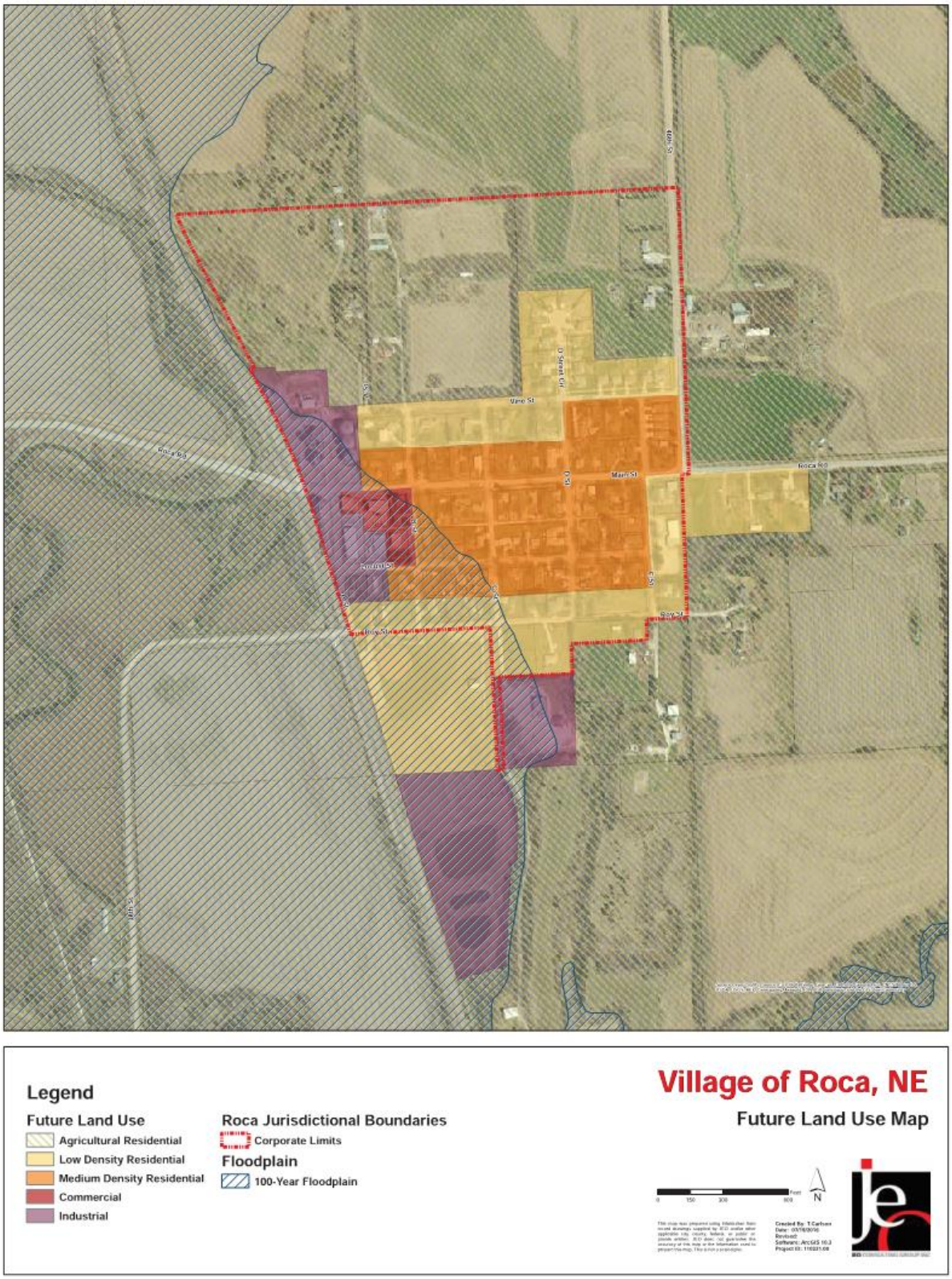
Future Development Trends

Over the last 10 years there have been four new homes built. The Village has a shortage of housing in town which the local planning team indicated is caused by a lack of available land to build on. However, Roca's population is relatively stable. Several grain bins owned by the Co-Op have been demolished in the past year, but there are no plans for any further demolitions or commercial or residential developments.

The future land use map below indicates that low-density residential development is planned for to the east and southwest of the Village. The southwest is within the 100-year floodplain, adjacent to the railway, and is nearby the lagoons and existing industrial use properties.

Future Land Use Map

Map #: Future Land Use Map, Roca



Community Lifelines

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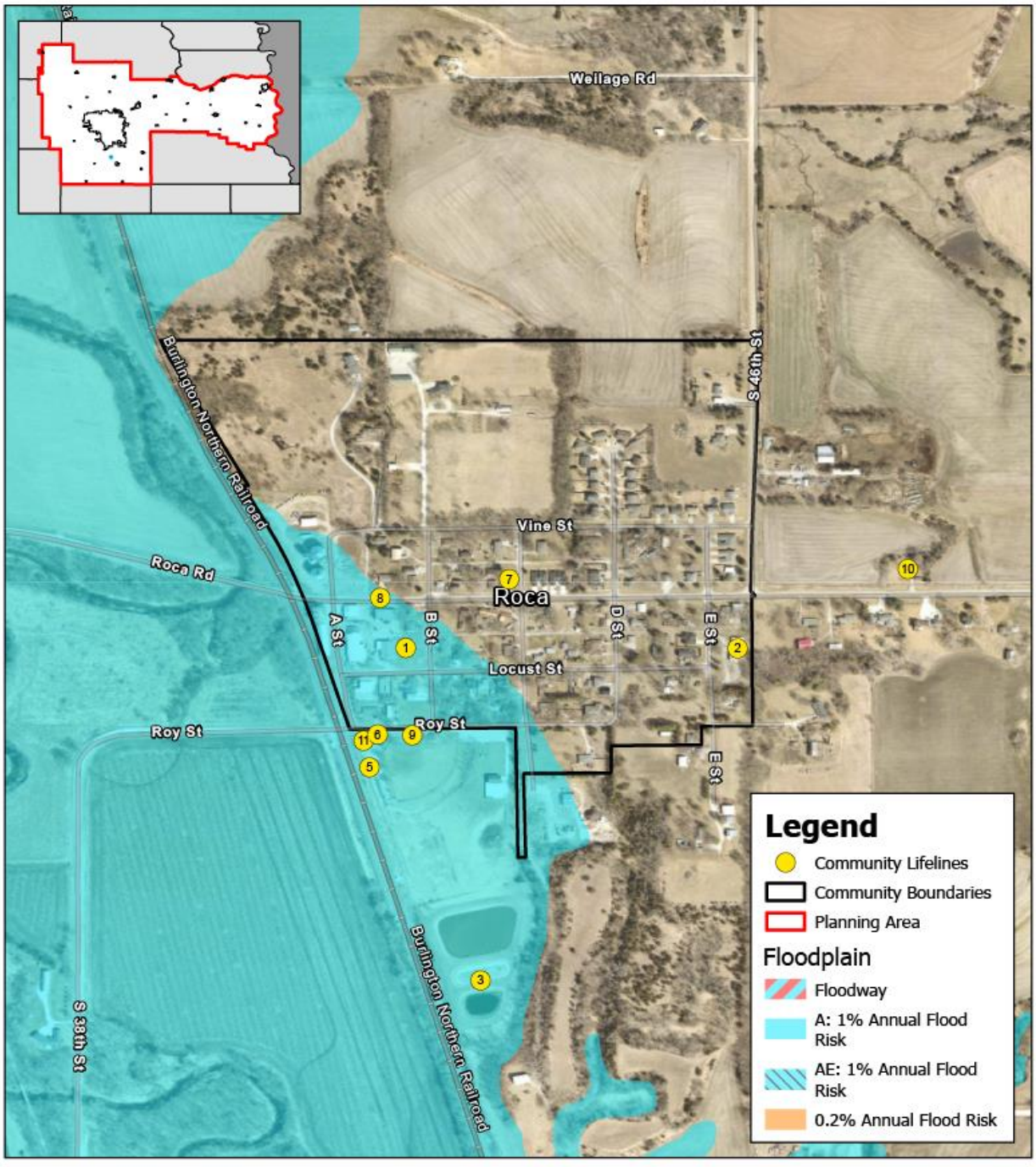
Roca Community Lifelines

CF #	Community Lifeline Type	Name	Generator	Shelter	Floodplain
1	Safety and Security	Community Center/Village Office/Siren	N	Y	Y
2	Other	Faith of Our Father Lutheran Church	N	N	N
3	Food, Water, Shelter	Lagoons	N	N	Y
4	Food, Water, Shelter	Sanitary Lift Station	Y	N	Y
5	Food, Water, Shelter	Sanitary Lift Station	N	N	Y
6	Communications	Siren	N	N	Y
7	Other	United Methodist Church	N	N	N
8	Safety and Security	Village Hall	N	N	Y
9	Other	Village Storage/ Baseball Field Complex	Y	N	Y
10	Food, Water, Shelter	Water Tower	Y	N	N
11	Food, Water, Shelter	Well House	N	N	Y



Created By: AK
Date: 8/22/2024
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Roca Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

0 1,500 3,000 Feet

Hazard Prioritization and Mitigation Strategy

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Hazard Risk Assessment for Lancaster County

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	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Flooding

Flooding is a major concern for the Village of Roca. The Village is part of the National Flood Insurance Program and part of the west side of town is located within the floodplain. Both riverine and flash flooding are concerns for the Village. Main Street has recently been repaired and has upgraded sewer and stormwater systems to aid in mitigating interior flood issues. The March 2019 flood event occurred before construction could be completed but the event showcased that the stormwater system improvements were effective. The Village did experience approximately $15,000 in damages, particularly to other side roads and the local ballfield.

ACTION	Stormwater System and Drainage Improvements
Description	Roca can 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, Severe Thunderstorms
Estimated Cost	$10,000-$50,000
Potential Local Funding	Village Tax, Levy
Lead Agency	Water/Sewer Department, Utilities Superintendent
Timeline	5+ years
Priority	Medium
Status	Improvements made along Main Street. Additional improvements are needed by the ball fields, along A and B Streets, and along the railroad tracks.

Hazardous Materials Release (Fixed Site)

The Village is concerned about chemical fixed site spills as the local co-op has some hazardous chemical storage tanks which are currently in the floodplain. The above ground storage tanks are currently being moved towards the intersection of A Street and Main Street. Burlington Northern Santa Fe Rail is a project partner in the move. While there have been no past chemical spills in town, the Village Administration is taking proactive steps in monitoring how the tanks are being moved, where they will be placed to be outside of flood risk areas, and safety procedures. The new storage site will be located near the local bar and grill and will be outfitted with a fence and security cameras. The facility will also have an Emergency Action Plan prepared in case of any spill events. While the Village does not currently have any education programs about chemical spills currently in place, an education effort will be incorporated into the storage tank move.

ACTION	EMERGENCY ACTION PLAN
Description	Develop /implement Emergency Chemical Spill Action Plan. Establish inner-operable communications and continuity planning.
Hazards Addressed	
Estimated Cost	$5,000, Staff Time
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	1 year
Priority	High
Status	This is a new mitigation action.

High Winds and Tornadoes

Tornadoes are a primary concern due to the potential for catastrophic damage. While no tornadic events have occurred in Roca, neighboring communities such as Hallam have experienced tornadoes in recent years. There are no tornado safe rooms in town, but restrooms at the ballfield and residential basements are used as shelter locations.

ACTION	Storm Shelters
Description	Identify, design, and develop storm shelters to protect critical facilities and the community.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms
Estimated Cost	$200-$300/sf stand alone; $150-$200/sf addition/retrofit
Potential Local Funding	General Funds, Community Betterment Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	This project has not yet started. For new facilities land would need to be acquired. A storm shelter is needed at the local community center used as a shelter.

Severe Thunderstorms

Severe thunderstorms are a common occurrence across the state and planning area. They can commonly be associated with heavy rain, hail, lighting strikes, and strong winds. There is a new siren in town located at the Village Office which was sponsored and installed by the Lower Platte South NRD. The local planning team indicated the siren is loud enough to reach all residents. Municipal records are backed up and all historical records have been preserved via electronic backups or in a fireproof safe. Powerlines in town are all above ground and power is supplied by NPPD. The local water tower does not have a lightning rod. The Village is currently undergoing a 5-year cleaning plan for the water tower. Most residents in town have basements to use as a storm shelter, but those without could go to a neighbor that does.

ACTION	Backup Generators
Description	Provide a portable or stationary source of backup power to critical facilities.
Hazards Addressed	Dam Failure, Extreme Temperatures, Flooding, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$15,000+
Potential Local Funding	Community Betterment Fund, General Funds
Lead Agency	Village Clerk, Village Board
Timeline	2-5 years
Priority	Medium
Status	This project has not yet started. A backup generator is needed at any new storm shelters constructed at the community center. Additional backup power is needed for the water tower and maintenance supply building.

Community Profile

Village of Sprague

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

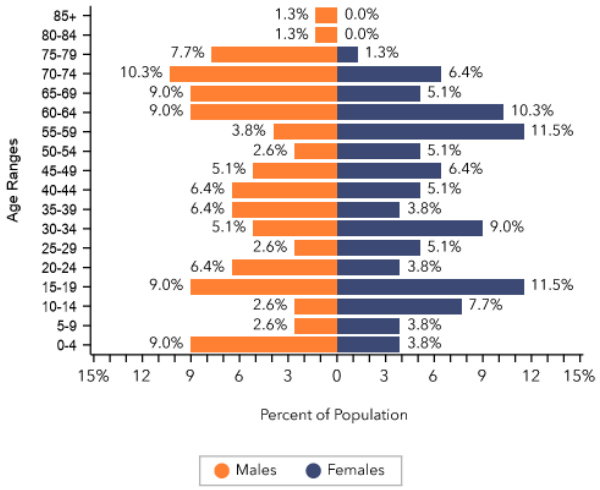
.

Community Summary Fact Sheet

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

156	43.3	$82,480	$395,455	1.2%	10%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



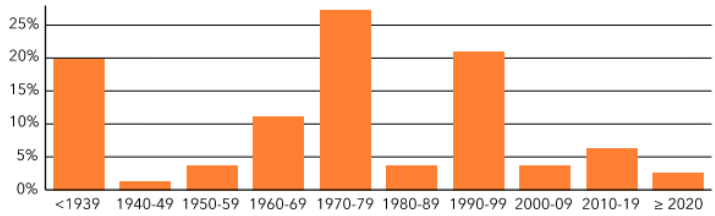
TOTAL POPULATION

2023 Total Population (Estimate)	156
2020 Total Population (U.S. Census)	136
2010 Total Population (U.S. Census)	118
2000 Total Population (U.S. Census)	100

AT RISK POPULATION

32	33	0
Households With Disability	Population 65+	Households Without Vehicle

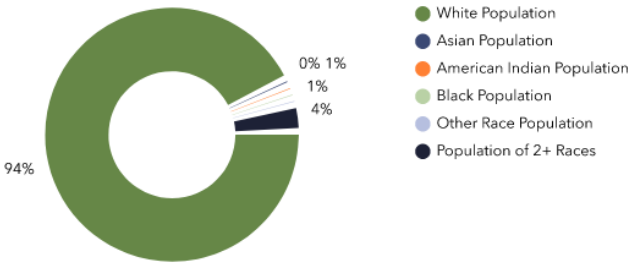
HOUSING: YEAR BUILT



COMMUTER

0%	1%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

6%	6%	4%
Vacant Housing Units	Renter Households	Mobile Homes

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
Luke Foote	Chairman	Village of Sprague	
Staci Hayden	Clerk	Village of Sprague	
Terry Maul		Village of Sprague	Attended Meetings

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 Sprague will review the plan bi-annually and the public will be notified during board meetings.

Location and Geography

The Village of Sprague is in the southern, central portion of Lancaster County, approximately three miles east of the Bluestem Lake State Recreation Area and 5.5 miles west of Stagecoach Lake. The Village covers an area of 0.1 square miles. There are two major waterways near the town. The largest is the Salt Creek, which flows west-to-east on the south side of town. The second is the Bluestem Lake, a 325-acre lake at the center of a local State Recreation site. The Village of Sprague's one-mile extra-territorial jurisdictional boundary includes portions of the unincorporated community of Martell to the northwest. The local volunteer fire department which responds to both communities is located in Martell.

Capability Assessment

The planning team assessed the Village of Sprague'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	No
	Subdivision Regulation/Ordinance	No

Capability/Planning Mechanism		Yes/No
	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 – Contracted
	Chief Building Official	No
	Civil Engineering	Yes
	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	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)	-

Sprague 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	Moderate	Moderate
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:	11/1/1984
Floodplain Administrator:	Luke Foote
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 ($):	$532
Total NFIP Coverage ($):	$175,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$-
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 Sprague has a floodplain ordinance which requires permits for development within flood risk hazard areas. The board chairman serves as the Floodplain Administrator and the FA and the Village Clerk are 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 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 Sprague have been removed from the floodplain via LOMA. A summary of LOMAs identified for Sprague can be found in the table below.

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
90	$13,180,300	11	$1,487,000	12.2%

Parcel Value in the 500 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
90	$13,180,300	0	0	-

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0420G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0440G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0535G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0555G	04/16/2013	Current FIRM Panel

Source: Flood Map Service Center

Plans and Studies

The Village of Sprague has limited plans in which to integrate mitigation goals and actions. 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 and Zoning Ordinance were written in 1977 and there are currently no plans to update them. The Comprehensive Plan does not discuss natural hazards. The Village does have a 1 & 6 Year which is reviewed annually. This plan identifies projects the Village is working on. Many of these projects align with hazard mitigation projects identified in this HMP including road improvements, stormwater management improvements, and road repairs.

Municipal Budget

The Village's annual municipal budget is fairly limited to maintaining current facilities and municipal systems. Other available funds are currently earmarked for current or ongoing projects. The local planning team indicated that contractor availability has been a limiting factor in pursuing current projects. Overall the amount of municipal funds has remained the same over the last decade.

Lancaster County Local Emergency Operations Plan

The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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.

Southeast Nebraska Community Wildfire Protection Plan

The Nebraska Forest Service updated the Southeast Nebraska Community Wildfire Protection Plan (CWPP), which includes Lancaster County in August 2020. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among

organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. There were no specific areas at highest risk surrounding the Village of Sprague identified in the CWPP.

Future Development Trends

In the past ten years one new business and a major employer opened and one home was lost in a house fire. A new storage facility and a carwash have been constructed on the south side of the community. The local planning team indicated no other changes have occurred as the housing stock and community is stable. In the next five years a new processing plant will be relocated to one mile west of town.

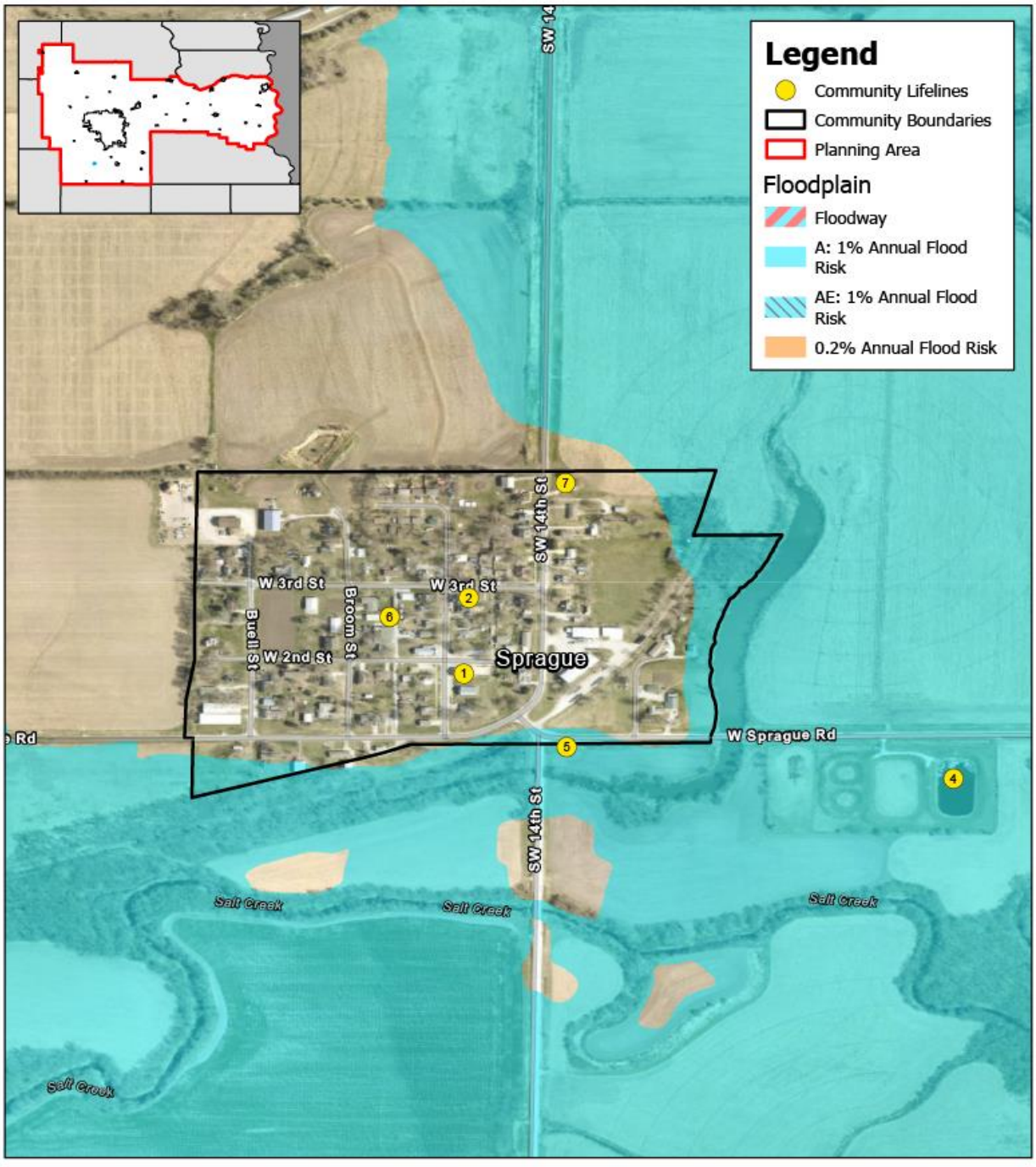
Community Lifelines

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.

Sprague Community Lifelines

CF #	Lifeline	Name	Generator	Shelter	Floodplain
1	Safety and Security	Village Office	N	N	N
2	Food, Water, Shelter	Community Church	N	Y	N
3*	Safety and Security	Fire Department	N	N	N
4	Food, Water, Shelter	Lagoons	N	N	Y
5	Food, Water, Shelter	Lift Station	Y	N	Y
6	Food, Water, Shelter	Well 1/Siren	Y	N	N
7	Food, Water, Shelter	Well 2	N	N	N

*Community Lifeline not displayed in map viewing area.



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 JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a sealed plat.

Sprague Community Lifelines

Lower Platte South NRD
Hazard Mitigation Plan 2025

0 1,500 3,000 Feet

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 Sprague 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 Sprague. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Drought

Drought is a pervasive hazard which can severely harm the surrounding agricultural economy. Concerns exist for overall water quantity and quantity as the wells in town are currently blended to reduce nitrate levels. In cases of drought, additional wells may experience high nitrate concentrations and pose concerns for water quality. During the 2012 drought, water supplies were sufficient to meet local needs. Sand has been pumped in Well #2 and the village has applied for a grant to drill a new well. A new well is needed to reduce the risk of future drought conditions.

ACTION	Improve Water Supply
Description	Study water supply deficiencies, identify alternative solutions, and implement cost effective measures to increase/improve supply for residents and fire protection.
Hazards Addressed	Drought, Extreme Temperatures, Grass/Wildfire
Estimated Cost	Unknown
Potential Local Funding	General Fund, Water Service Fees
Lead Agency	Volunteer Fire Department, Village Board
Timeline	5+ years
Priority	High
Status	Not yet started.

Flooding

Both poor stormwater drainage and riverine flooding are of concern for the Village of Sprague. During the 2015 flood event the bridge south of town was washed out. Disaster assistance funds were used to repair the structure. The Village did not sustain any damage during the March 2019 flood event but riverine flooding can be an issue. While the lagoons are in the floodplain, currently they are not being used to full capacity. A drainage project has been completed through most of the Village to address stormwater drainage conditions; however, grants are needed to complete the drainage project. More drainage work is needed to reduce the risk of future flooding, particularly around the local church and on Buelle Street.

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, Severe Thunderstorms
Estimated Cost	$10,000-$50,000
Potential Local Funding	Roads Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started – improvements are needed along Buelle Street and around the church.

Severe Thunderstorms

Severe thunderstorms are a common occurrence across the State of Nebraska and the planning area, with the Village annually experiencing events. Primary concerns from severe thunderstorms include loss of power and blocked transportation routes from downed trees or hail.. Heavy rain

flows also contribute to significant interior ponding and stormwater drainage problems. Several drainage culverts in town have been identified to be cleaned and upsized. Some drainage and culvert projects has been implemented. A new generator has been installed at Well #1. Another generator is needed at Well #2.

ACTION	BACKUP GENERATORS
Description	Provide backup generators for the city maintenance shop, wells, city hall, and wastewater treatment plan
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$20,000+
Potential Local Funding	General Fund
Lead Agency	Village Board
Timeline	2-5 years
Priority	Medium
Status	Not yet started. A 10kWh duel-powered propane/diesel generator is needed at the village office and at Well #2.

Community Profile

City of Waverly

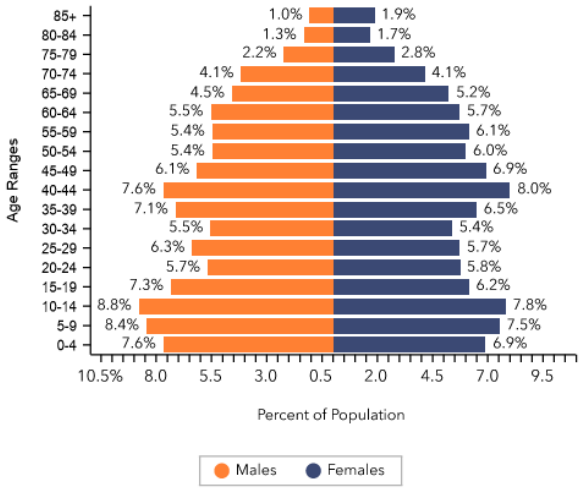
Lower Platte South NRD
Hazard Mitigation Plan 2025

Community Summary Fact Sheet

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

4,560	36.9	$95,830	$249,758	1.0%	3%
Population	Median Age	Median Household Income	Median Home Value	Unemployment Rate	Households Below the Poverty Level

AGE PYRAMID



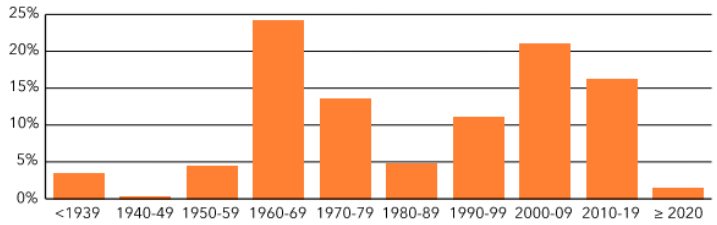
TOTAL POPULATION

2023 Total Population (Estimate)	4,560
2020 Total Population (U.S. Census)	4,279
2010 Total Population (U.S. Census)	3,279
2000 Total Population (U.S. Census)	2,453

AT RISK POPULATION

246	657	55
Households With Disability	Population 65+	Households Without Vehicle

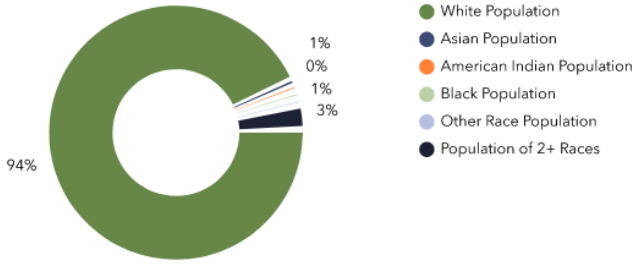
HOUSING: YEAR BUILT



COMMUTER

0%	3%
Workers Who Took Public Transportation	90+ Minute Commute

POPULATION BY RACE



HOUSING

1%	19%	0%
Vacant Housing Units	Renter Households	Mobile Homes

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
Robin Hoffman	Emergency Services Coordinator	City of Waverly	Plan Development
Stephanie Fisher	City Administrator	City of Waverly	Plan Development, Attended Meetings
Tracey Whyman	Public Works Director	City of Waverly	Plan Development
Mike Palm	Building Inspector/Zoning Administrator	City of Waverly	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 City Administrator, Building Inspector, Emergency Services Coordinator, and Public Works Director will be responsible for reviewing and updating the community profile outside of the five-year update. The City of Waverly will review the plan annually and the public will be notified through website updates, CIP meetings, council meetings, and/or social media.

Location and Geography

The City of Waverly is in the northeast corner of Lancaster County, approximately 15 miles southwest of the Platte River and 12 miles northeast of downtown Lincoln. The City covers an area of 2.34 square miles. There is one major waterway near the town, the Salt Creek, which flows south-to-north on the northeast side of town.

Capability Assessment

The planning team assessed the City of Waverly'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	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	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	Yes
	National Flood Insurance Program	Yes
	Community Rating System	Yes – Class 9
	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
	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)	TIF, Franchise Fees, City Sales Tax, Property Taxes
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	Yes
	Other (if any)	

Waverly Overall Capability

Capability	2020 Plan	2025 Plan
Financial Resources to Implement Mitigation Projects	Moderate	Moderate
Staff/Expertise to Implement Projects	High	High
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	-	Moderate

National Flood Insurance Program (NFIP)

NFIP Overview	
Date of NFIP Participation:	04/15/1982 CRS (Class 9) – 10/01/2024
Floodplain Administrator:	Mike Palm
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	16
Total NFIP Premium ($):	$12,190
Total NFIP Coverage ($):	$8,220,000
Number of Claims Paid Out:	6
Total Amount of Claims Paid Out ($:)	$98,081
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 Floodplain Administrator enforces the floodplain regulations and ensures that development is compliant with the Salt Freek Valley Floodplain/Floodway Overlay District requirements. An additional permit is required for the construction of new or substantially improved structures in the floodplain. Information about the NFIP can be found on the City's website, along with information regarding community risks from flood events. Letters of Map Change can be found on the FEMA Map Service Center website.

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

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
1,685	$549,444,700	140	$72,072,300	8.3%

Parcel Value in the 100 Year Floodplain

Number of Parcels	Total Parcel Value	Number of Parcels in Floodplain	Value of Parcels in Floodplain	Percentage of Parcels in Floodplain
1,685	$549,444,700	100	$29,338,300	5.9%

Source: County Assessor, 2024

Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIRM Panel	31109CIND0B	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0210G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0215G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0216F	02/18/2011	Current FIRM Panel
FIRM Panel	31109C0217G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0218G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0219G	04/16/2013	Current FIRM Panel
FIRM Panel	31109C0240G	04/16/2013	Current FIRM Panel
LOMA	11-07-0721A-310140	02/18/2011	Current LOMA
LOMA	11-07-1016A-310140	03/01/2011	Current LOMA
LOMA	11-07-1680A-310140	05/19/2011	Current LOMA
LOMA	11-07-1755A-310140	04/25/2011	Current LOMA
LOMA	11-07-1942A-310140	05/11/2011	Current LOMA
LOMA	11-07-2133A-310140	08/16/2011	Current LOMA
LOMA	11-07-2320A-310140	08/04/2011	Current LOMA
LOMA	11-07-2614A-310140	09/13/2011	Current LOMA
LOMA	11-07-2698A-310140	08/01/2011	Current LOMA
LOMA	11-07-2834A-310140	08/15/2011	Current LOMA
LOMA	11-07-2851A-310140	09/30/2011	Current LOMA
LOMA	11-07-2863A-310140	08/16/2011	Current LOMA
LOMA	11-07-2888A-310140	08/16/2011	Current LOMA
LOMA	12-07-0670A-310140	11/30/2011	Current LOMA
LOMA	12-07-1591A-310140	03/06/2012	Current LOMA
LOMA	12-07-1592A-310140	03/08/2012	Current LOMA
LOMA	12-07-1594A-310140	03/15/2012	Current LOMA
LOMA	12-07-1595A-310140	03/06/2012	Current LOMA
LOMA	12-07-1596A-310140	03/08/2012	Current LOMA
LOMA	12-07-1597A-310140	05/29/2012	Current LOMA
LOMA	12-07-1749A-310140	04/05/2012	Current LOMA
LOMA	12-07-2081A-310140	05/01/2012	Current LOMA
LOMA	12-07-2350A-310140	05/31/2012	Current LOMA
LOMA	12-07-2351A-310140	05/31/2012	Current LOMA
LOMA	12-07-2353A-310140	05/31/2012	Current LOMA
LOMA	12-07-2355A-310140	05/31/2012	Current LOMA
LOMA	12-07-2357A-310140	05/31/2012	Current LOMA
LOMA	12-07-2358A-310140	05/31/2012	Current LOMA
LOMA	12-07-2359A-310140	05/31/2012	Current LOMA
LOMA	12-07-2360A-310140	05/31/2012	Current LOMA
LOMA	12-07-2361A-310140	05/31/2012	Current LOMA
LOMA	12-07-2362A-310140	05/31/2012	Current LOMA

Type of Product	Product ID	Effective Date	Details
LOMA	12-07-2447A-310140	08/21/2012	Current LOMA
LOMA	12-07-2761A-310140	07/19/2012	Current LOMA
LOMA	12-07-2762A-310140	07/26/2012	Current LOMA
LOMA	12-07-2763A-310140	07/19/2012	Current LOMA
LOMA	12-07-2764A-310140	07/17/2012	Current LOMA
LOMA	12-07-2765A-310140	07/19/2012	Current LOMA
LOMA	13-07-0011A-310140	12/21/2012	Current LOMA
LOMA	13-07-0075A-310140	10/09/2012	Current LOMA
LOMA	13-07-0354A-310140	12/18/2012	Current LOMA
LOMA	13-07-0387A-310140	12/20/2012	Current LOMA
LOMA	13-07-0703A-310140	01/11/2013	Current LOMA
LOMA	13-07-0724A-310140	01/11/2013	Current LOMA
LOMA	13-07-0828A-310140	01/29/2013	Current LOMA
LOMA	13-07-0829A-310140	01/29/2013	Current LOMA
LOMA	13-07-0986A-310140	03/26/2013	Current LOMA
LOMA	13-07-2261A-310140	09/05/2013	Current LOMA
LOMA	14-07-0612A-310140	02/24/2014	Current LOMA
LOMA	14-07-1488A-310140	04/29/2014	Current LOMA
LOMA	14-07-2376A-310140	09/04/2014	Current LOMA
LOMA	15-07-0382A-310140	01/06/2015	Current LOMA
LOMA	15-07-2355A-310140	09/25/2015	Current LOMA
LOMA	16-07-1329A-310140	06/10/2016	Current LOMA
LOMA	16-07-1436A-310140	07/15/2016	Current LOMA
LOMA	17-07-1203A-310140	04/24/2017	Current LOMA
LOMA	17-07-2214A-310140	09/07/2017	Current LOMA
LOMA	19-07-1063A-310140	04/30/2019	Current LOMA
LOMA	19-07-1267A-310140	06/21/2019	Current LOMA
LOMA	19-07-1341A-310140	06/17/2019	Current LOMA
LOMA	19-07-1996A-310140	10/28/2019	Current LOMA
LOMA	20-07-0881A-310140	05/21/2020	Current LOMA
LOMA	20-07-1404A-310140	10/13/2020	Current LOMA
LOMA	21-07-0390A-310140	02/08/2021	Current LOMA
LOMA	22-07-0746A-310140	06/03/2022	Current LOMA
LOMA	22-07-1172A-310140	10/13/2022	Current LOMA
LOMA	24-07-0020A-310140	11/08/2023	Current LOMA

Source: Flood Map Service Center

Plans and Studies

Waverly 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 2023-2033 Comprehensive Plan is designed to guide the future actions and growth of the City of Waverly. This is a 10-year plan and encourages annual reviews to ensure the vision, goals, and objectives are accurate to the needs of the community. Development is discouraged in the floodplain. The hazard mitigation plan has not been integrated with the comprehensive plan; however, the comprehensive plan does have goals aimed at Smart Growth. Such goals include safe routes to school, increasing connectivity, increasing different housing types, and preserving open space such as agricultural and natural resources.

Ordinances and Regulations
Waverly'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. These documents were adopted in 2013. The zoning ordinance has the Salt Creek Valley Floodplain/Floodway Overlay District that outlines requirements for structures and developments located within its district. These documents limit development in the floodplain. New or substantially improved structures must be built at least one foot above Base Flood Elevation. Development is permitted in the ETJ, and the wildland urban interface is not discussed in the zoning ordinance or subdivision regulations.

Watershed Master Plan
The Watershed Master Plan was completed in October 2010, and later revised in February 2011. The key goal of the plan was to analyze existing drainage conditions for the surrounding water basins and identify projects for flood mitigation and stormwater management. Projects included the construction of the Ash Hollow dam, culvert and road drainage improvements, and channel work and easements on Waverly Tributaries.

Building Codes
The City of Waverly has adopted the 2018 International Building Code to set standards for constructed buildings and structures. The City made amendments regarding one-story detached accessory dwelling units, not permitting embedded posts in R-1 through R-4 zones and requiring concrete footings extended below the frost line for certain buildings, and requiring certain buildings to have a concrete perimeter extending below the frost line and have vertical insulation. Enforcement of the building code is handled by the City Building Inspector.

Southeast Nebraska Community Wildfire Protection Plan
The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Between 2000 to 2018, there were 30 fires that burned 111 acres in Waverly according to the CWPP. Recommendations relating to emergency preparedness, training and education, fuels mitigation and maintenance strategies are discussed in this plan. This document is updated every five years.

Lancaster County Local Emergency Operations Plan
The Lancaster County Local Emergency Operations Plan (LEOP) was last updated in 2022. 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

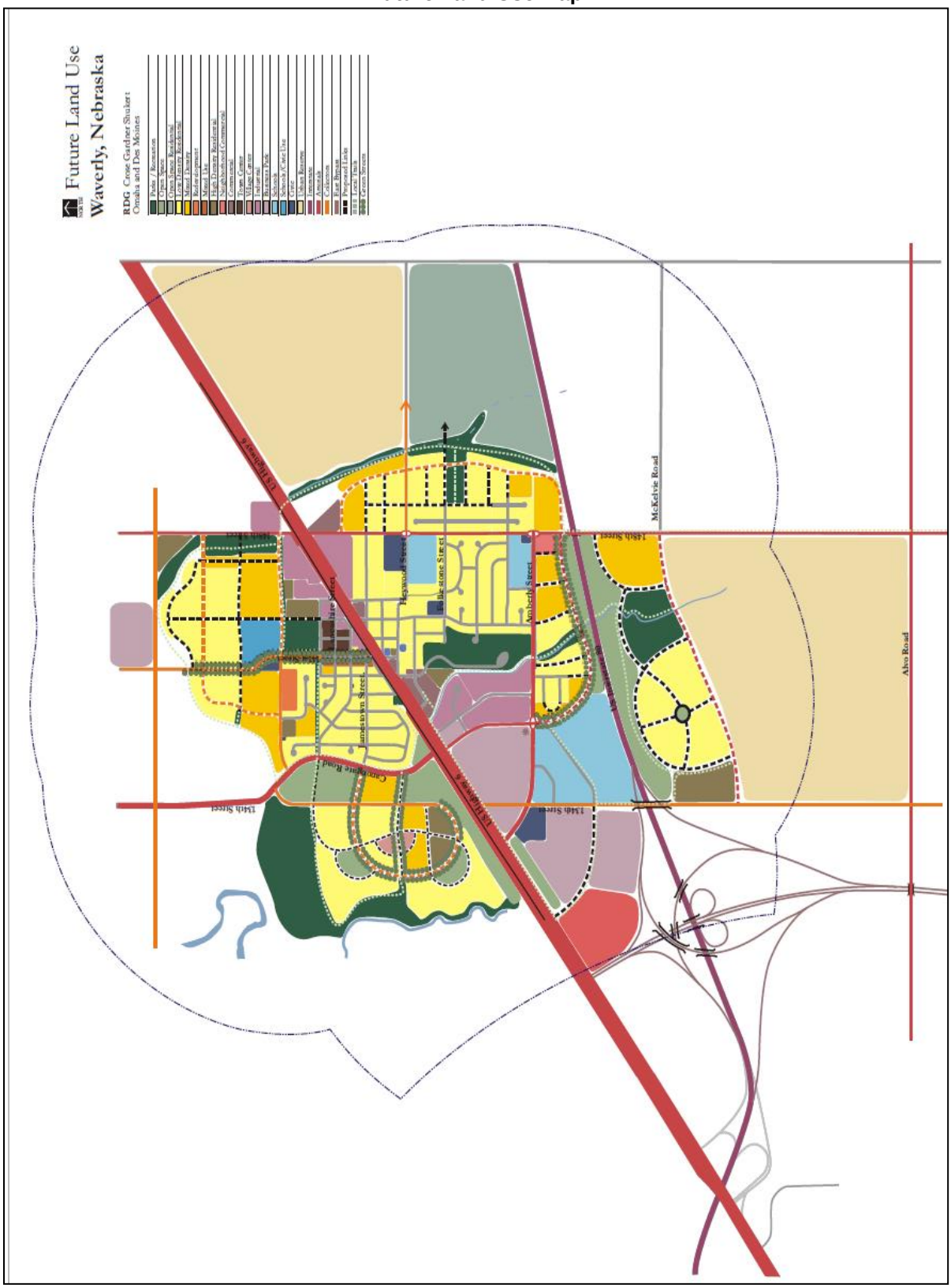
About 50 new homes have been added to the community each year for the past seven years. This trend is likely to continue, though more lots will need to be annexed to accommodate continued growth at this rate. One major developer is building most of this new housing. They have a preliminary plat on the north side of Waverly that would accommodate 200 homes – 80 of these have already been platted and the newest phase of development will add 37 lots with working utilities. There is an area for sale on the southeast side of the town that is zoned for both commercial and residential properties. Another development on the south side of town will have about 17 townhomes and 90 apartments. Any new developments must bury utilities. They must also have tree coverage. Waverly has been a member of Tree City USA for 20 years. Residents cost-share to remove deceased trees on the right-of-way and to plant new trees. An arborist is contracted by the city.

There is continued residential development on the north side of Waverly, with approximately 100 lots yet to be developed to reach full buildout. A new residential subdivision is being developed on the east-southeast side and will have approximately 471 residential lots at full buildout, estimated in 5 to 10 years. Light industrial development inside the city limits slowly continues along Amberly Road, Dovers Street and Woodstock Street. Commercial and Retail development is being sought to fill in along Hwy 6 and Callum Drive, and soon along Hwy 6 and N 148th St. Light industrial development has grown quickly in the area adjacent and to the northeast of the city limits, very near Salt Creek. This area is planned for continued expansion to the east as the city has received several plats in the last year. There is still one heavily trafficked street that is gravel, Oldfield St from Canongate Rd to N 141st St. Grant funds are tentative and the City is committed to improving the street surface to concrete with a 10-foot walking path on the north side. The City also moved from a Community Development Agency (CDA) to a Community Redevelopment Authority (CRA) that oversees Tax Increment Financing (TIF) projects and the use of TIF funds.

The baseball field built in 2006 has evolved into a large sports complex in the last eight years. The facilities are rented, leading to higher traffic on the weekends but also an economic boost for the city from rental fees. A new tractor supply retail store has been built recently, and the grocery store bought by Russ's Market and renovated. Two new facilities have been developed in potentially hazardous areas: Empire Fence/The Wave built at 14650 Woodstock St. – obtained a LOMR and an addition built Commercial Plastics at 10240 Deer Park Rd which did not include a LOMR.

In the coming decade additional development is anticipated. New Waverly Ridge residential lots being developed generally located at Hwy 6 & N 148th St. This includes a small area of floodplain which will contribute to change in storm water flows downstream, Empire Addition lots being developed generally located at 12901 N 148th St and are located in the floodplain, and TMCO has purchased a 20 acre parcel generally located at Dovers St & N 134th St that is not in a floodplain. Families are attracted to Waverly because of its proximity to the Cities of Lincoln and Omaha, good school system, and small-town feel. The population is expected to grow to between 5,000 to over 6,000 by 2033.

Future Land Use Map



Community Lifelines

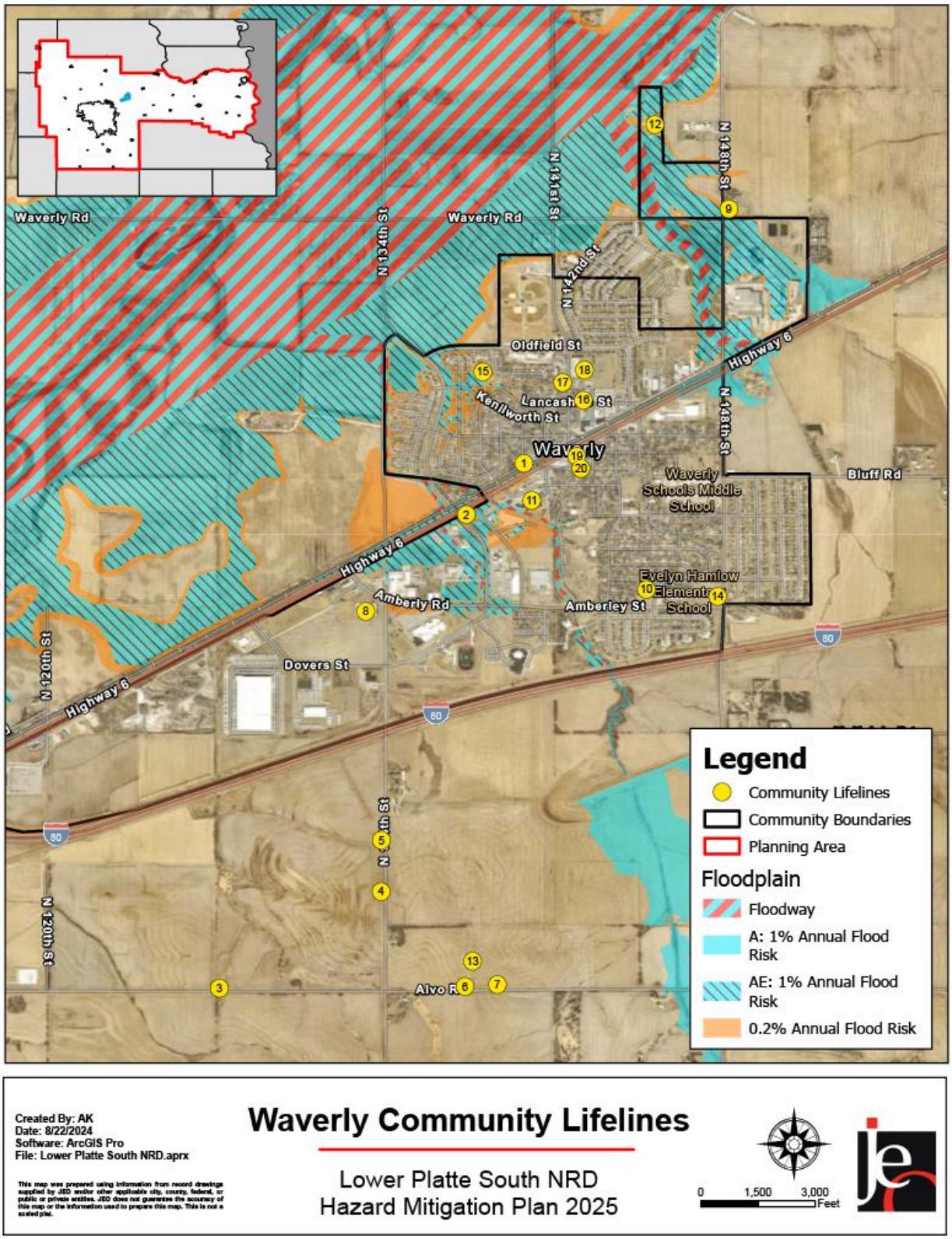
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories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

Waverly Community Lifelines

CF #	Community Lifeline Type	Name	Generator	Shelter	Floodplain
1	Food, Water, Shelter	City Well #4	N	N	N
2	Food, Water, Shelter	City Well #5	N	N	Y
3	Food, Water, Shelter	City Well #6	Y*	N	N
4	Food, Water, Shelter	City Well #7	Y*	N	N
5	Food, Water, Shelter	City Well #8	Y*	N	N
6	Food, Water, Shelter	City Well #9	Y*	N	N
7	Food, Water, Shelter	City Well #10 & #11	Y	N	N
8	Energy	LES Substation	N	N	N
9	Communications	MCI Communication	N	N	N
10	Other	Peace Lutheran Church	N	N	N
11	Other	Phantom II Post #9875	N	N	N
12	Food, Water, Shelter	Wastewater Treatment Facility	Y^	N	Y
13	Food, Water, Shelter	Water Storage Tank	N	N	N
14	Food, Water, Shelter	Water Tower	N	N	N
15	Health and Medical	Waverly Care Center	Y	N	N
16	Safety and Security	Waverly City Office	N	N	N
17	Other	Waverly City Shop	Y	N	N
18	Other	Waverly Community Foundation	N	N	N
19	Safety and Security	Waverly Fire & Rescue	Y	N	N
20	Communications	Windstream Communication	Y	N	N
	Food, Water, Shelter	Russ's Market Grocery Store			

CF #	Community Lifeline Type	Name	Generator	Shelter	Floodplain
	Health and Medical	Waverly Health Care Urgent Care			
	Health and Medical	Family Practice of Waverly			
	Energy	Cubby's Gas Station			
	Energy	Casey's Gas Station			
	Energy	Mammoth Station			

**a portable diesel generator is available for hookup. ^While the Wastewater Treatment Facility has a small diesel generator, it is not sufficient to meet local needs.*


Waverly Rd
N 134th St
Waverly Rd
N 141st St
N 142nd St
N 148th St
Oldfield St
Highway 6
Kenilworth St
Lancashire St
Waverly
Waverly Schools Middle School
Bluff Rd
Evelyn Hamlow Elementary School
Amberly Rd
Amberley St
Highway 6
N 120th St
Dovers St
Highway 6
N 120th St
Alvo Rd
Legend
Community Lifelines
Community Boundaries
Planning Area
Floodplain
Floodway
A: 1% Annual Flood Risk
AE: 1% Annual Flood Risk
0.2% Annual Flood Risk
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 JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a sealed plat.
Waverly Community Lifelines
Lower Platte South NRD
Hazard Mitigation Plan 2025
0
1,500
3,000
Feet

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 Waverly 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 Waverly. 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 Lancaster County

HAZARD TYPE		LANCASTER COUNTY		
		Count	**Property**	**Crop**
Agricultural Disease	**Animal Disease[2]**	45	388	N/A
	Plant Disease[3]	22	N/A	$200,119
Hazardous Materials	**Chemical Fixed Sites[5]**	172	$1,500,000.00	N/A
	Chemical Transportation[6]	75	$1,239,064	N/A
Civil Disorder/Terrorism[10]		3	Minor (<$1 million)	N/A
Dam Failure[7]		0	$0	N/A
Drought[8]		443 out of 1550 months	$0	$79,060,597
Extreme Temperatures[11]	**Extreme Heat[9]**	Avg 5 days/yr	$0	$4,325,321
	Extreme Cold/Wind Chill	Avg 38 days/yr	$100,000	$303,069
Flooding[1]	**Flash Flood**	47	$5,005,000	$64,569
	Flood	10	$100,154,000	
Grass/Wildfires[4]		847	6,444.75 acres	$0.00
High Winds and Tornadoes	**High Winds[1]**	34	$28,000	$913,713
	Tornadoes[1]	28	$100,300,000	
Severe Thunderstorms[1]	**Thunderstorm Wind** Avg: 57mph Range: 45-100mph	216	$1,505,000	N/A
	Hail Avg: 1.17" Range: 0.52" - 5.0"	381	$2,000,000	$5,543,263
	Heavy Rain	8	$0	$5,626,632
	Lightning	12	$936,400	N/A
Severe Winter Storms[1]	**Blizzard**	10	$0	$423,880
	Heavy Snow	6	$16,000,000	
	Ice Storm	3	$0	
	Winter Storm	53	$0	
	Winter Weather	22	$75,000	
TOTAL		**1,994**	**$228,842,464**	**$96,461,163**

Hazardous Materials Release (Transportation)

Large liquid nitrogen, liquid oxygen, and milk spills have all occurred in Waverly. The community does not know the identity of most chemicals that are transported through the community, leading to concern that they may not be prepared for a spill. The fire station is vulnerable to spills and transportation incidents because it is near the railroad. Waverly does not have an evacuation plan for the community, though it has an informal agreement with the Waverly Public School District to use their buses in case of an evacuation.

ACTION	Shelter in Place Training
Description	Provide shelter in place training to facilities housing vulnerable populations (nursing homes, childcare facilities, schools, etc.)
Hazards Addressed	Hazardous Materials (Transportation)
Estimated Cost	$100 per person, Staff Time
Potential Local Funding	General Fund
Lead Agency	City Administration
Timeline	2-5 years
Priority	Medium
Status	This action not yet started.

ACTION	Evacuation Planning
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation
Hazards Addressed	Civil Disorder/Terrorism, Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0
Potential Local Funding	General Fund
Lead Agency	Emergency Services Coordinator
Timeline	2-5 Years
Priority	High
Status	This project has not yet been started

ACTION	Evacuation Planning
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation
Hazards Addressed	Civil Disorder/Terrorism, Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0
Potential Local Funding	General Fund
Lead Agency	Emergency Services Coordinator
Timeline	2-5 Years
Priority	High
Status	This project has not yet been started

Dam Failure

While there have been no dam failure incidents in the past, Waverly would be devastated if the Ash Hollow Dry Dam, a high hazard dam, south of the city were to fail. The dam was built in 2017

in a cost-share project between the city and the Lower Platte South NRD. Waverly maintains the dam. The dam has an Emergency Action Plan (EAP) established in case of failure.

ACTION	Develop Dam Failure Emergency Action and Evacuation Plans
Description	Work with officials to develop emergency action and evacuation plans if a dam were to fail.
Hazards Addressed	Dam Failure
Estimated Cost	$10,000+
Potential Local Funding	General Fund
Lead Agency	Floodplain Administrators
Timeline	2-5 years
Priority	Medium
Status	In progress – completed a TTX for Ash Hollow Dam. Still need to develop an official evacuation plan and agreement with local schools as a shelter location. Elementary school is not located within the inundation area. The city's Emergency Action Plan (EAP)for the Ash Hollow Dry Dam was last updated in August of 2021 in conjunction with the LPSNRD

Flooding

Waverly frequently experiences heavy rains that could lead to localized flash flooding especially as there are few drainage areas or stormwater sewers. Flooding tends to occur on the west side of town (near 135th and Jonestown Streets), and flooding in 2017 left water along Waverly Rd and 144th Street. Lancashire and 144th Streets also have poor drainage. Flooding conditions can block transportation routes and prevent access to emergency services for residents. Riverine flooding along Salt Creek is also a concern for the local planning team. New homes in the floodplain are elevated to conform to NFIP regulations. A new dry dam has been constructed south of town which has significantly helped reduce flood risk to the City. Waverly began its participation in the Community Rating System on October 1, 2024 to provide lower flood insurance rates for residents. The City is in Class 9 and has a five percent discount on insurance rates.

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. Channel work is planned by Ash Hollow, with the priority being to keep the floodplain where it is but reduce residential flood risk. Restrictions will be placed to restrict new development in the floodplain.
Hazards Addressed	Flooding
Estimated Cost	$5,000+
Potential Local Funding	General Fund, LPSNRD cost-share, WSF NET
Lead Agency	Building & Zoning Department, Floodplain Administrators
Timeline	2-5 years
Priority	Low
Status	Channel improvements to Ash Hollow, between Amberly Rd. and Hwy 6. Ash Hollow stabilization work, from 134th St. to Salt Creek, was complete in Summer of 2024. There are no current plans in place (other

	than discussion) for Ash Hollow channel improvements between Hwy 6 and N 134th St.

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. Some projects are listed in the Stormwater Management Plan and some are identified in the CIP.
Hazards Addressed	Flooding
Estimated Cost	$100,000+
Potential Local Funding	CIP, LPSNRD cost-share
Lead Agency	Public Works
Timeline	2-5 years
Priority	Medium
Status	This project has not yet been started. All new storm drainage systems must comply with the city of Waverly Drainage Criteria Manual requirements. Undersized culverts at Hwy 6 and N 148th St. will be addressed with future intersection improvements. Requires funding and planning coordination with NDOT.

Severe Thunderstorms

Hail is one of the most damaging aspects of thunderstorms in Waverly. Hail damage from a 2017 storm required nearly one third of the town to replace roofs. The building code does not require hail resistant roofing materials. Most critical facilities have flat roofs while some well houses have hail-resistant, metal roofs. Power outages are also a concern during severe thunderstorms. Trees in older neighborhoods are at risk of dropping limbs onto power lines.

ACTION	New Fire Hall
Description	Build a new fire hall with a FEMA-certified storm shelter and a full-sized back-up generator that can also be used to power the city hall. The facility will also be used to house the EOC, Fire Department, and City Hall.
Hazards Addressed	Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$8 million
Potential Local Funding	General Fund, Forestry Services, Fire Grants
Lead Agency	City Administrator
Timeline	2-5 Years
Priority	High
Status	Currently there are no community shelter facilities in the City. Current fire hall does not meet the needs for Waverly's growing population and emergency management team. The new fire hall will improve available space for training and education outreach efforts, training for staff and storm spotters, and shelter for residents and those traveling through Waverly during poor conditions. The current Fire Hall is also located in

	a highly vulnerable area near railroad tracks and main transportation route. A land purchase is currently under development for siting the new fire hall. Land purchase is complete. Conceptual plans have been developed. Next steps are to secure financing and begin design engineering.

ACTION	Public Education
Description	Increase public awareness of vulnerability and risk reduction measure through hazard education. This would include information on trees and home flooding, and a flyer on backflow prevention.
Hazards Addressed	Agricultural Disease, Civil Disorder/Terrorism, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials, High Winds and Tornadoes, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0-1,000
Potential Local Funding	General funds
Lead Agency	City Clerk
Timeline	2-5 years
Priority	Medium
Status	Flooding and backlow prevention information is available on the city website. Informational backflow flyers are sent to businesses and residents. Commercial properties are required to have an annual inspection performed on backflow devices. Inspection results are filed with the city.

High Winds and Tornadoes

Tornadoes have not yet occurred in the community, though they would have a large impact if they were to occur. There is a handshake agreement in place with the schools to use their buses in the case of an evacuation. Approximately 90% of residents have a basement in case they need shelter during a storm.

ACTION	Storm Shelters
Description	Design and construct storm shelters and safe rooms in vulnerable areas which are available to the public during hazard events. Establish a community safe room or safe area for residents.
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$200-$250 per sf
Potential Local Funding	General Fund
Lead Agency	City Administration
Timeline	2-5 years
Priority	High
Status	A safe room/storm shelter is included in the new fire station preliminary plans. There are no current plans for an additional storm shelter at the community pool, due to planning and cost.

ACTION	Backup Generators
Description	Provide backup generators for the city maintenance shop, wells, city hall, and wastewater treatment plan
Hazards Addressed	All

Estimated Cost	Varies
Potential Local Funding	General Fund
Lead Agency	City Administrator
Timeline	2-5 Years
Priority	High
Status	The city currently has permanent generators on two (out of eight) water wells along with one portable generator. A generator is available at the wastewater treatment plant to allow for primary functions. Data servers at city hall have a battery backup. Cost/Budget has prevented installation of permanent generators at the remaining wells, city hall, and maintenance shop. Several generators are needed including two for wells, one large unit at Water Treatment Facility, and one at the City Office. The City is currently evaluating size and cost estimates for generators.

ACTION	Hazardous Tree Inventory
Description	Tree inventory to ID problem trees that may lose or drop branches and ash trees that are vulnerable to the Emerald Ash Borer
Hazards Addressed	High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$0 for inventory; $2,000/tree removal
Potential Local Funding	General Fund
Lead Agency	Parks & Recreation Department, Tree Committee
Timeline	1 year
Priority	Low
Status	Condition of trees are regularly monitored by the city Arborist and Zoning Administrator. Parks Department monitors park trees. Trees are removed as needed. This has been completed for city owned properties. The city sends letters to residents if their trees encroach on streets or sidewalks.

Completed or Removed Mitigation Actions

ACTION	Utilize Low Impact Development and Green Infrastructure
Description	Utilize low impact development practices and green infrastructure to reduce flood risk
Hazards Addressed	Flooding
Status	Completed - All new development in or around the floodplain is reviewed for flood risk. All development must comply with the city of Waverly Drainage Criteria Manual requirements

ACTION	Dam Failure Exercise
Description	Conduct tabletop exercises to determine the response scenarios in the event of dam failure.
Hazards Addressed	Dam Failure
Status	Completed – City of Waverly participated in a TTX with the NRD regarding Ash Hollow Dam in 2023.

ACTION	New Overpass Construction
Description	Design and construct an overpass to provide an additional transportation route across railroad tracks in town.
Hazards Addressed	Hazardous Materials (Transportation)
Status	Removed - This action is no longer applicable. Construction of additional overpass will require elimination of current at grade crossings.