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County Profile

Phelps County

**Tri-Basin NRD
Hazard Mitigation Plan**

2023

Local Planning Team

Phelps County's local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by the local planning team.

Table PCO.1: Phelps County Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Dennis Ostrgen	County Commissioner	Phelps County	Holdrege	Holdrege
Justin Norris	Emergency Manager	Phelps County	-	Holdrege
Tori Johnston	Deputy Emergency Manager / Floodplain Administrator	Phelps County	-	Holdrege
Teresa Chramosta	County Executive Director	Phelps County Farm Service Agency	Holdrege	Holdrege

Location, Geography, and Climate

Phelps County is located in southeastern Nebraska and is bordered by Buffalo, Dawson, Furnas, Gosper, Harlan, and Kearney Counties. There are five incorporated communities in the county, the Village of Atlanta, Village of Bertrand, Village of Funk, City of Holdrege, and Village of Loomis. The City of Holdrege serves as county seat. The total area of Phelps County is 540 square miles. Major waterways include Spring Creek, North Dry Creek, and the Platte River which runs along the northern border. Topographic regions in the county include plains, sand hills, valleys, and dissected plains.¹

Climate

Phelps County, like almost all of the Midwest, sits in the humid continental climate zone of the United States, and thus, experiences a wide temperature difference between its average high and low temperatures. The average high temperature in Phelps County for the month of July is 87.3 degrees Fahrenheit and the average low temperature for the month of January is 13.2 degrees Fahrenheit. On average, Phelps County receives over 27 inches of rain and 25.4 inches of snowfall per year. The table below compares county-wide climate indicators with those of the entire state. Climate data are helpful in determining if certain events are higher or lower than normal. For example, if the high temperatures in the month of July are running well into the 90s, high heat events are likely to impact vulnerable populations.

Table PCO.2: Phelps County Climate

	Phelps County	State of Nebraska
July Normal High Temp	87.3°F	87.3°F
January Normal Low Temp	13.2°F	13.9°F
Annual Normal Precipitation	27.6"	24.2"
Annual Normal Snowfall	25.4"	25.9"

Source: NCEI 1991-2020 Climate Normals²

Precipitation includes all rain and melted snow and ice.

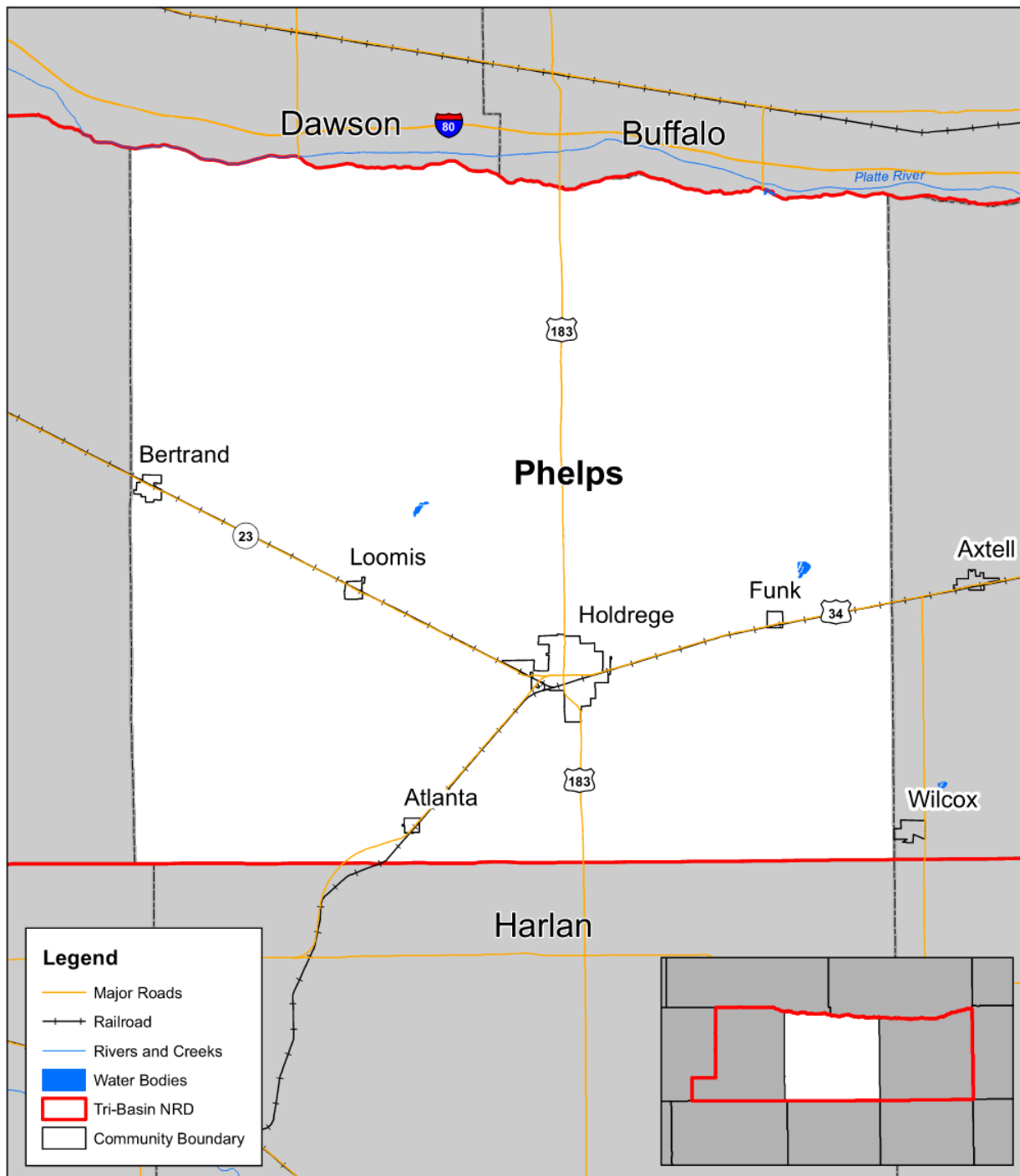
¹ University of Nebraska-Lincoln, 1973. "Topographic Regions Map".

<https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1461&context=conservationsurvey>.

² National Centers for Environmental Information. "Data Tools: 1991-2020 Normals." Accessed September 2022.

<https://www.ncei.noaa.gov/access/us-climate-normals/>.

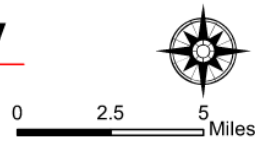
Figure PCO.1: Phelps County



Created By: LV
 Date: 9/23/2022
 Software: ArcGIS 10.7.1
 File Name: Tri-Basin_NRD_County Boundary Maps.mxd
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Phelps County

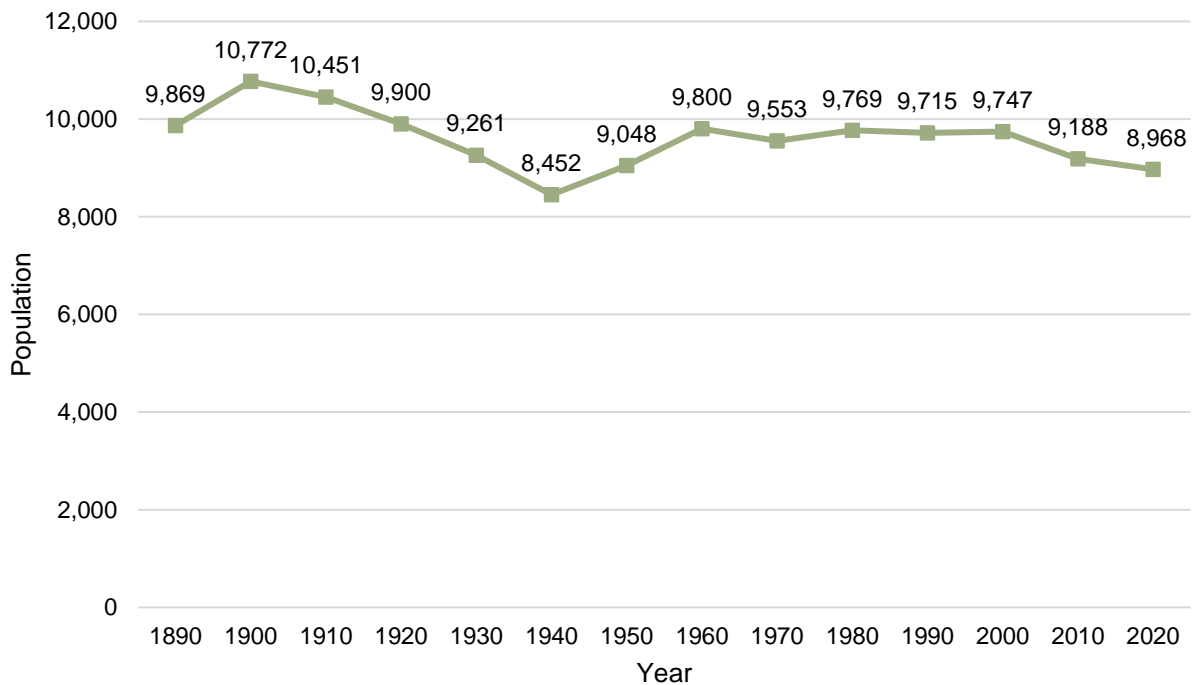
County Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2020. This figure indicates that the population of Phelps County has been decreasing since 2000 to 8,968 people in 2020. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Unoccupied housing may also be an economic indicator that future development is unlikely to occur. Furthermore, with fewer residents, tax revenue decreases for the county, which could make implementing mitigation projects more fiscally challenging. Phelps County’s population accounted for 0.46% of Nebraska’s population in 2020.³

Figure PCO.2: Population 1890 - 2020

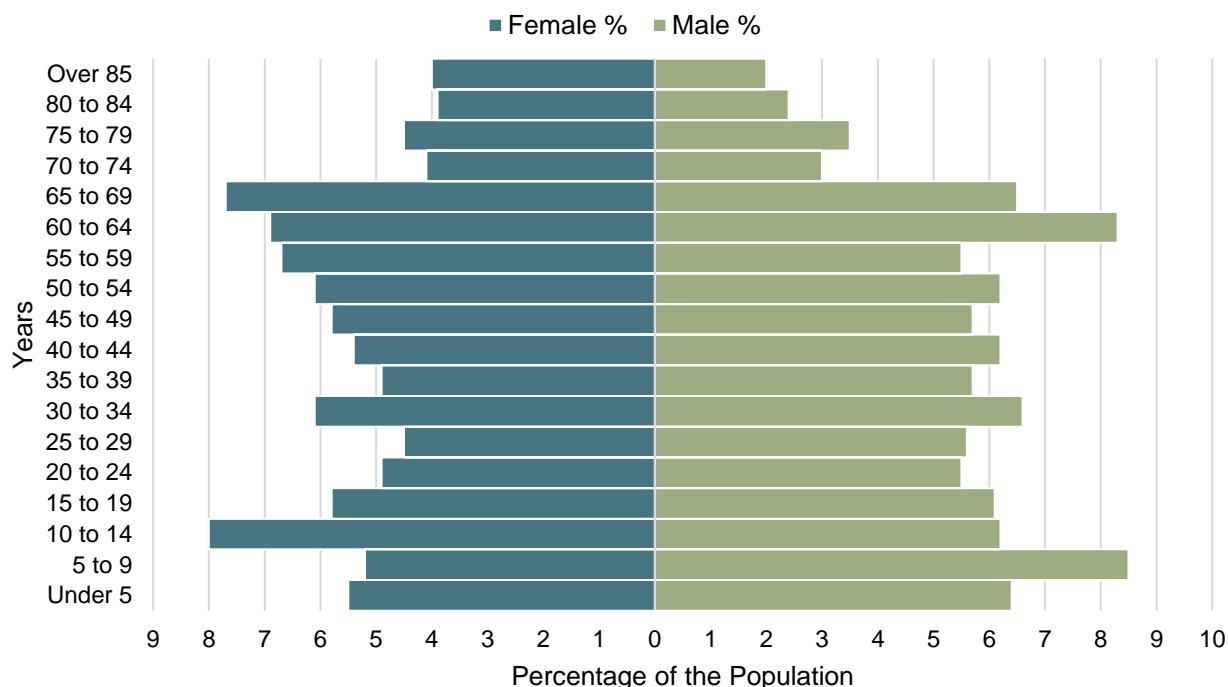


The young and elderly populations may be at greater risk from hazards than other age groups. The following figure shows Phelps County’s population percentage broken down by sex and five-year age groups.⁴ Phelps County’s population is equally spread out between different age groups. This indicates that the population is likely to remain stable in the future. For a more elaborate discussion of this vulnerability, please see *Section Four | Risk Assessment*.

³ United States Census Bureau. “2020 Census Bureau Decennial Census: P1: Race.” <https://data.census.gov/>.

⁴ United States Census Bureau. “2020 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov/>.

Figure PCO.3: Phelps County's Population Pyramid



Economics and Housing

The following table indicates that median household income and per capita income for the county is lower than the State of Nebraska. Median home value and rent are also both lower than the rest of the state. Areas with relatively low economic indicators may influence a county's level of resilience during hazardous events.

Table PCO.3: Housing and Income

	Phelps County	State of Nebraska
Median Household Income	\$58,105	\$63,015
Per Capita Income	\$31,259	\$33,205
Median Home Value	\$139,900	\$164,000
Median Rent	\$648	\$857

Source: U.S. Census Bureau^{5,6}

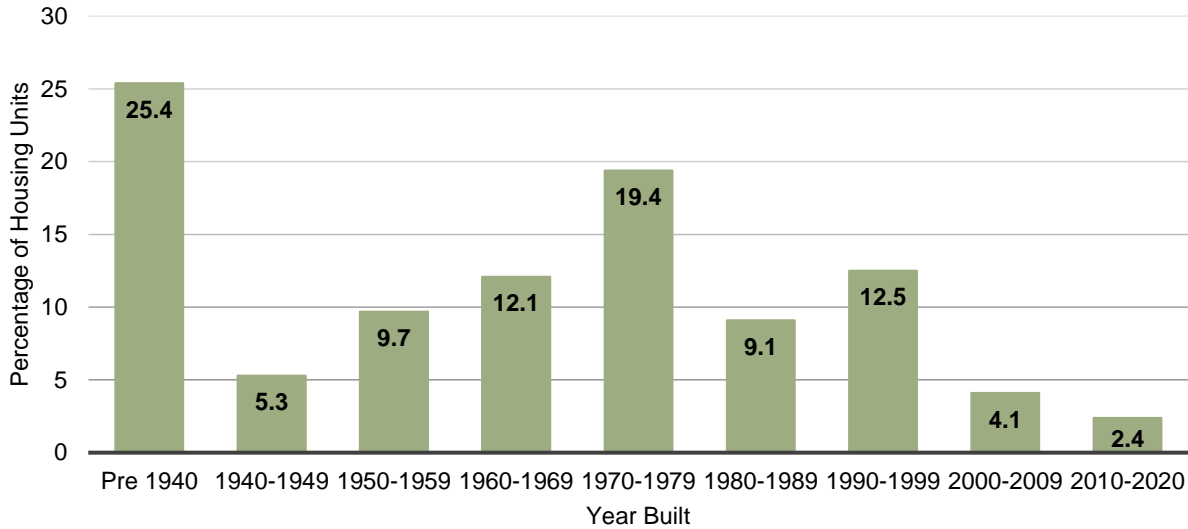
The following figure indicates that most of the housing in Phelps County was built prior to 1940 (25.4%). Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes may be at greater risk. The State of Nebraska first adopted building codes in 1987, with the International Building Code (IBC) adopted in 2010. The current edition of the IBC was updated in 2018. According to the 2020 American Community Survey, the county has 4,268 housing units with 91.4% of those units occupied. There are approximately 250 mobile homes in the county. Counties with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Most of the mobile homes are located within the City of Holdrege. Renters are particularly vulnerable, as renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disaster. Renters are less likely than

5 United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." <https://data.census.gov/>.

6 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov/>.

homeowners to have flood insurance, have ready access to financial resources to evacuate, or to know their risks to flooding and other hazards.

Figure PCO.4: Housing Units by Year Built



Source: U.S. Census Bureau⁵

Table PCO.4: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Phelps County	3,900	91.4	368	8.6	2,775	71.2	1,125	28.8
Nebraska	766,663	90.8%	77,585	9.2%	507,291	66.2%	259,372	33.8%

Source: U.S. Census Bureau⁵

Broadband Access

Internet or broadband access—through Wi-Fi or cellphone coverage—is a critical means of sharing and receiving information regarding hazardous events, including storm warnings, evacuation orders, or weather updates. Rural communities often lack adequate internet or broadband access. However, internet access is as vital a utility as electricity, as seen through the COVID-19 pandemic when many people worked or attended school from home.

- **82.4% of households have a broadband internet subscription.** Phelps County has a smaller share of households with broadband (82.4%) compared to the state (85.6%).⁷

Employment

According to 2020 Business Patterns Census Data, Phelps County had 346 business establishments. The following table presents the number of businesses, number of paid employees, and the annual payroll in thousands of dollars.

⁷ United States Census Bureau. "2020 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." <https://data.census.gov/>.

Table PCO.5: Business in Phelps County

	Total Businesses	Number of Paid Employees	Annual Payroll (In Thousands)
Total for All Sectors	346	3,934	\$172,124

Source: U.S Census Bureau⁸

Agriculture is the backbone of Nebraska’s economy. Phelps County’s 371 farms cover 341,523 acres of land, about 98.8% of the county’s total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute to agriculture by producing, processing, and marketing farm products. These businesses generate income, employment, and economic activity throughout the region.

Table PCO.6: Agricultural Inventory

Agricultural Inventory	
Number of Farms with Harvested Cropland	371
Acres of Harvested Cropland	341,523

Source: USDA Census of Agriculture, 2017⁹

Governance

The county’s governmental structure impacts its capability to implement mitigation actions. Phelps County is governed by a board of commissioners. Other offices and departments that may be involved in implementing hazard mitigation initiatives are listed below.

- County Clerk
- County Assessor
- County Treasurer
- Emergency Management
- Highway Superintendent
- Floodplain Administrator
- Planning and Zoning
- Sheriff’s Department
- Surveyor

Capability Assessment

The planning team assessed Phelps County’s hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the county’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Phelps does not plan on adding or improving capabilities in the near future.

County funds are limited to maintaining current facilities and systems. A large portion of funds are already dedicated to bridge replacement and road maintenance. Funds have stayed the same in recent years.

⁸ United States Census Bureau. “County Business Patterns and 2020 Nonemployer Statistics.” <https://data.census.gov/>.

⁹ United States Department of Agriculture. “2017 Census of Agriculture.” <https://www.nass.usda.gov/Publications/AgCensus/2017/>.

Table PCO.7: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes (State)
	National Flood Insurance Program	Yes
	Community Rating System	No
	Regional Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local staff who can assess county's vulnerability to hazards	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	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No

Capability/Planning Mechanism	Yes/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
Other (if any)	-

Table PCO.8: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a county’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Phelps County is Relatively Moderate (13.78). The average for the State of Nebraska is 9.43.¹⁰

- **Social Vulnerability:** Social groups in Phelps County have a Relatively Moderate (39.81) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Phelps County have a Very High (57.92) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruption when compared to the rest of the U.S.

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

Table PCO.9: Rural Capacity Index

Components of Index	Phelps County
County is Metropolitan?	No
Has a Head of Planning?	Yes
Has a College or University?	No
Adults with Higher Education:	23%
Families Below Poverty Level:	6%
Households with Broadband:	79%
People without Health Insurance:	4%
Voter Turnout:	81%

¹⁰ Federal Emergency Management Agency. “National Risk Index”. Accessed September 2022. <https://hazards.fema.gov/nri/map>.

Components of Index	Phelps County
Income Stability Score (0 to 100):	38
Population Change (2000 to 2019):	-713
Overall Rural Capacity Index Score	68

Source: Headwaters Economics¹¹

National Flood Insurance Program (NFIP)

Phelps County is a member of the NFIP having joined on 2/1/1990, and the county's Floodplain Administrator (Tori Johnston) oversees the commitments and requirements of the NFIP including enforcement of the local floodplain management regulations. The initial FIRM for the county was delineated on 2/1/1990 and the current effective map date is 1/16/2008, which has been adopted and incorporated into the county's floodplain management regulations in 2022. As of April 12, 2023, there are three NFIP policies in-force covering \$453,000. Phelps County currently does not have any repetitive loss or severe repetitive loss structures. The county requires permits for any development in the floodplain. Any violations of the floodplain management regulations are first notified in writing and given time to correct. If not corrected fines are enforced and the County Attorney will send cease and desist orders. After a flood event, the county implements substantial improvement and substantial damage provisions as outlined in the Substation Damage Assessment Handbook from the Nebraska Department of Natural Resources, which can be found here:

https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/20220301_eSDA_Handbook_FINAL.pdf. The local planning team has said Phelps County will remain in good standing and will continue involvement with the NFIP in the future.

Plan Integration

Phelps 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 (2022)

The comprehensive plan is designed to guide the future actions and growth of the county. It has not been integrated with the hazard mitigation plan. However, it contains goals and objectives aimed at safe growth, directs development away from the floodplain, directs housing away from chemical storage facilities, directs housing and other vulnerable populations away from major transportation routes, and encourages the elevation of structures in the floodplain. There is no timeline set to update the comprehensive plan.

Capital Improvements Plan (2022)

The capital improvements plan outlines projects and budgets that the county would like to pursue in the future. The hazard mitigation plan has not been integrated with this plan. However, projects identified include upsizing culverts and drainage structures and bridge improvements. These projects have been added as mitigation actions for the county.

¹¹ Headwaters Economics. January 2022. "Rural Capacity Map". Accessed September 2022.
<https://headwaterseconomics.org/equity/rural-capacity-map/>.

Floodplain Regulations (2022), Zoning Ordinance (2022), and Subdivision Regulations (2022)

The county's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. They have not been integrated with the hazard mitigation plan; however, the documents discourage development in the floodplain, limit population density in the floodplain, discourage housing and vulnerable populations near chemical storage sites, include well setback requirements, and restrict the subdivision of land located within the floodplain.

Phelps County Local Emergency Operations Plan (2021)

The Phelps County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has not been integrated with this plan. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

South Central West Nebraska Community Wildfire Protection Plan (2021)

The purpose of the South Central West 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 2018 HMP were included in the CWPP and wildfire projects in the current HMP will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this county profile and information was used in the Hazard Prioritization section. This document is updated every five years.

Future Development Trends

Over the last five years, some businesses across the county closed and some new businesses opened. New housing was added in Holdrege along Madison Avenue and Valley Street. This likely made the county more vulnerable to hazards as there is more property that could be damaged. However, that vulnerability is minimized as none of the new buildings or homes were built in the floodplain or other known hazardous areas. There was also demolition of abandoned buildings and structures converted to housing or agricultural use. Roads and bridges in the northern portion of the county were also repaired following the 2019 flood. These changes likely decreased the county's vulnerability to hazards. In the next five years, housing is expected to expand in the City of Holdrege due to the projected population growth. Most other communities and the rural areas of the county are likely to see population decline with little new construction.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and safety. The table below lists Safety and Security Lifelines for Phelps County.

Table PCO.10: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Phelps County Agricultural	S	N
2	Phelps County Roads Department	-	N
3	Phelps County Courthouse / State Patrol / Sheriff / Jail / EM Office	G	N

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for Phelps County are included in the table below.

Table PCO.11: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
4	Bertrand Community Building	S	N
5	Bertrand Schools	S	N
6	Funk Community Center	S	N
7	Fridhem Lutheran Church	S	N
8	Holdrege City Auditorium	S	N
9	Holdrege Market Place	-	N
10	Holdrege Middle School	S	N
11	Holdrege Senior High	S	N
12	Holdrege Water Tower	-	N
13	Holdrege Water Treatment	G	N
14	Loomis Public Schools	S	N
15	Methodist Church	S	N
16	North Park Assembly	S	N
17	Sunmart	-	N
18	Trinity Church	S	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. The following medical and health facilities are located within the county.

Table PCO.12: Health and Medical Lifelines

CL Number	Name	Type of Facility	Number of Beds	Generator (G) Shelter (S)	Floodplain (Y/N)
19	Bertrand Nursing Home	Assisted Living & Long Term Care	39	-	N
20	Christian Homes Health Care Center	Assisted Living & Long Term Care	116	-	N
21	Holdrege Memorial Homes, Inc	Assisted Living & Long Term Care	140	-	N
22	Lexington Regional Health Center Bertrand	Rural Health Clinic	0	-	N
23	Phelps Memorial Health Center	Hospital & Rural Health Clinic	25	G	N

Source: Nebraska Department of Health and Human Services^{12,13,14,15}

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for the county.

Table PCO.13: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
24	Bosselman Energy	-	N
25	Casey's North	-	N
26	Casey's West	-	N
27	Cenex Station	-	N
28	NPPD Substation	-	N
29	Pump & Pantry	-	N

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Communication Lifelines for Phelps County are included in the table below.

Table PCO.14: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
30	AM Radio	-	N
31	EM Tower #1 / State Tower	G	N
32	EM Tower #2	G	N
33	EM Tower #3	G	N
34	EM Tower #4	G	N
35	Holdrege Police Department	G	N
36	Warning Siren #1	-	N
37	Warning Siren #2	-	N
38	Warning Siren #3	-	N
39	Warning Siren #4	-	N
40	Warning Siren #5	-	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Phelps County's major transportation corridors include US Highways 6, 34, and 183 and Nebraska State Highway 23. The most traveled route is Highway 6 with an average of 10,795 vehicles daily, 680 of which are trucks.¹⁶ A Burlington Northern Santa Fe Railway/Amtrak line and a Nebraska Kansas Colorado Railway line run through the county. The county also has three air landing strips located within it; the public Brewster Field Airport is two miles northeast of Holdrege, the private Olson Field Airport is 10 miles northwest of Holdrege,

12 Department of Health and Human Services. 2022. "State of Nebraska: Assisted Living Facilities." <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

13 Department of Health and Human Services. 2022. "State of Nebraska Roster: Hospitals." <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

14 Department of Health and Human Services. 2022. "State of Nebraska Roster: Long Term Care Facilities." <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

15 Department of Health and Human Services. 2022. "State of Nebraska Roster: Rural Health Clinic." https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

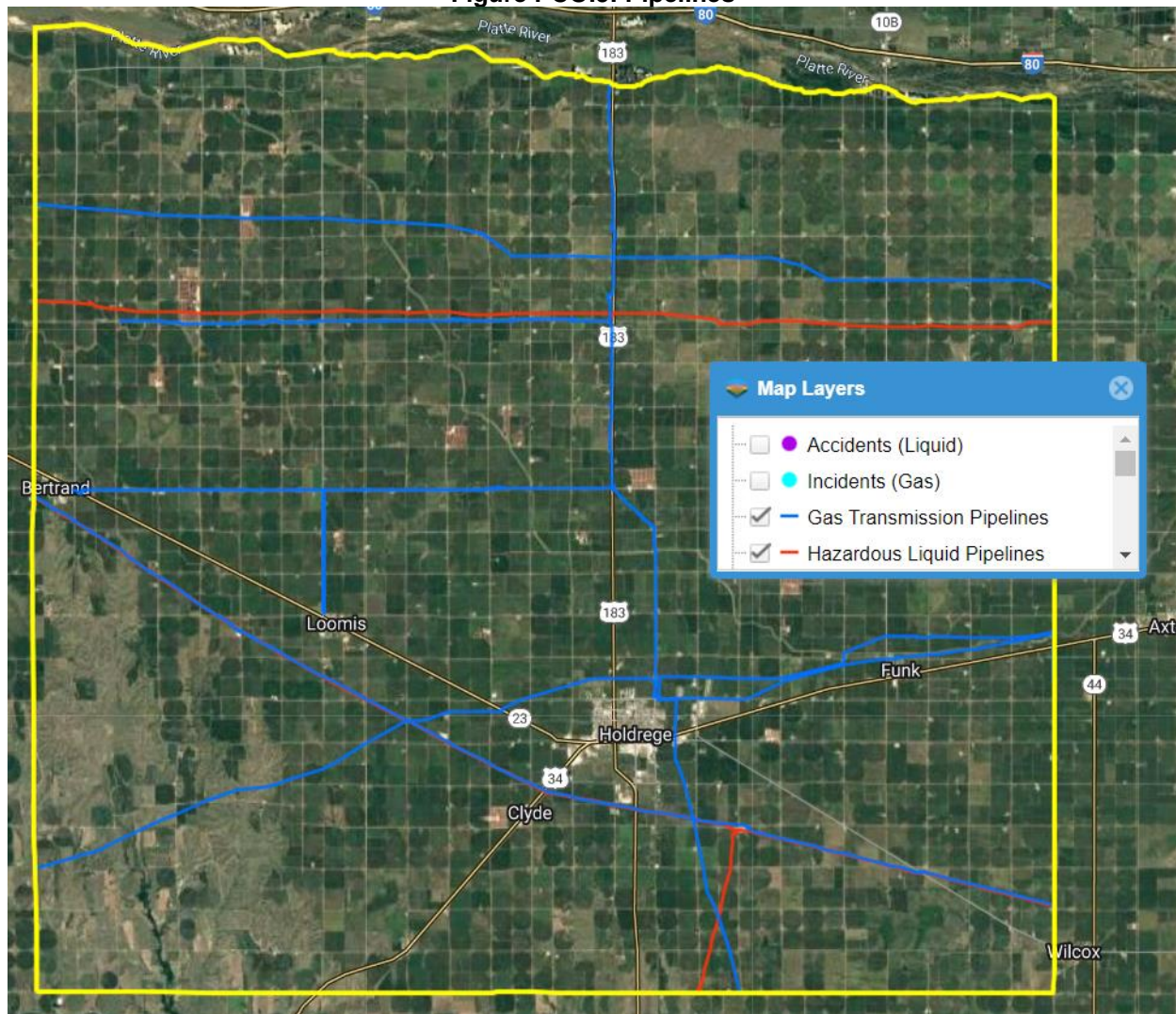
16 Nebraska Department of Transportation. 2021. "Annual Average Daily Traffic Flow." Accessed September 2022. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

and the private Wells Airport is five miles northeast of Holdrege. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors, as well as areas more at risk of transportation incidents.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are several gas transmission and hazardous liquid pipelines that travel through the county and can be seen in the figure below.

Figure PCO.5: Pipelines



Source: National Pipeline Mapping System¹⁷

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 29 chemical storage sites throughout Phelps County which house hazardous materials. Figure PCO.7 shows the location of the chemical storage sites.

17 National Pipeline Mapping System. 2022. "Public Viewer." Accessed September 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.

Table PCO.15: Chemical Storage Sites

Name	Generator (G)	Floodplain (Y/N)
Aurora Co-op Elevator Company	-	N
Becton Dickinson / eMbecta	-	N
Bertrand Compressor Station	-	N
Bosselman Energy Inc Station	-	N
Briggs & Stratton Corporation	-	N
CenturyLink	-	N
CHS Holdrege Station	-	N
CHS Inc	-	N
CHS Inc	-	N
CHS Inc	-	N
CHS Inc	-	N
CHS Inc	-	N
CHS Inc	-	N
CHS Inc	-	N
Cooperative Producers Inc	-	N
Cooperative Producers Inc	-	N
Country Partners Cooperative	-	N
Helena Agri-Enterprises LLC	-	N
Holdrege Station	-	N
KRVN Transmitter	-	N
NDOT Holdrege Yard	-	N
Nebraskaland Aviation Inc	-	N
Nebraskaland Aviation Inc	-	N
Nutrien Ag Solutions	-	N
Olson Aerial	-	N
Paulsen Inc	-	N
Rusty's Fertilizer Inc	-	Y
Titan Machinery Inc	-	N
Wells Flying Svc & Nutrien Ag	-	N

Source: Nebraska Department of Environment and Energy¹⁸

Other Community Lifelines

Phelps County identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the county. The other community lifelines are listed in the table below.

Table KCO.16: Other Community Lifelines

CL Number	Name	Address or Intersection	Generator (G) Shelter (S)	Floodplain (Y/N)
41	Cobblestone	814 Burlington St	-	N
42	Plains Motel	619 US Hwy 6	-	N
43	Roadway Inn	420 Broadway	-	N

¹⁸ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

Figure PCO.6: Community Lifelines

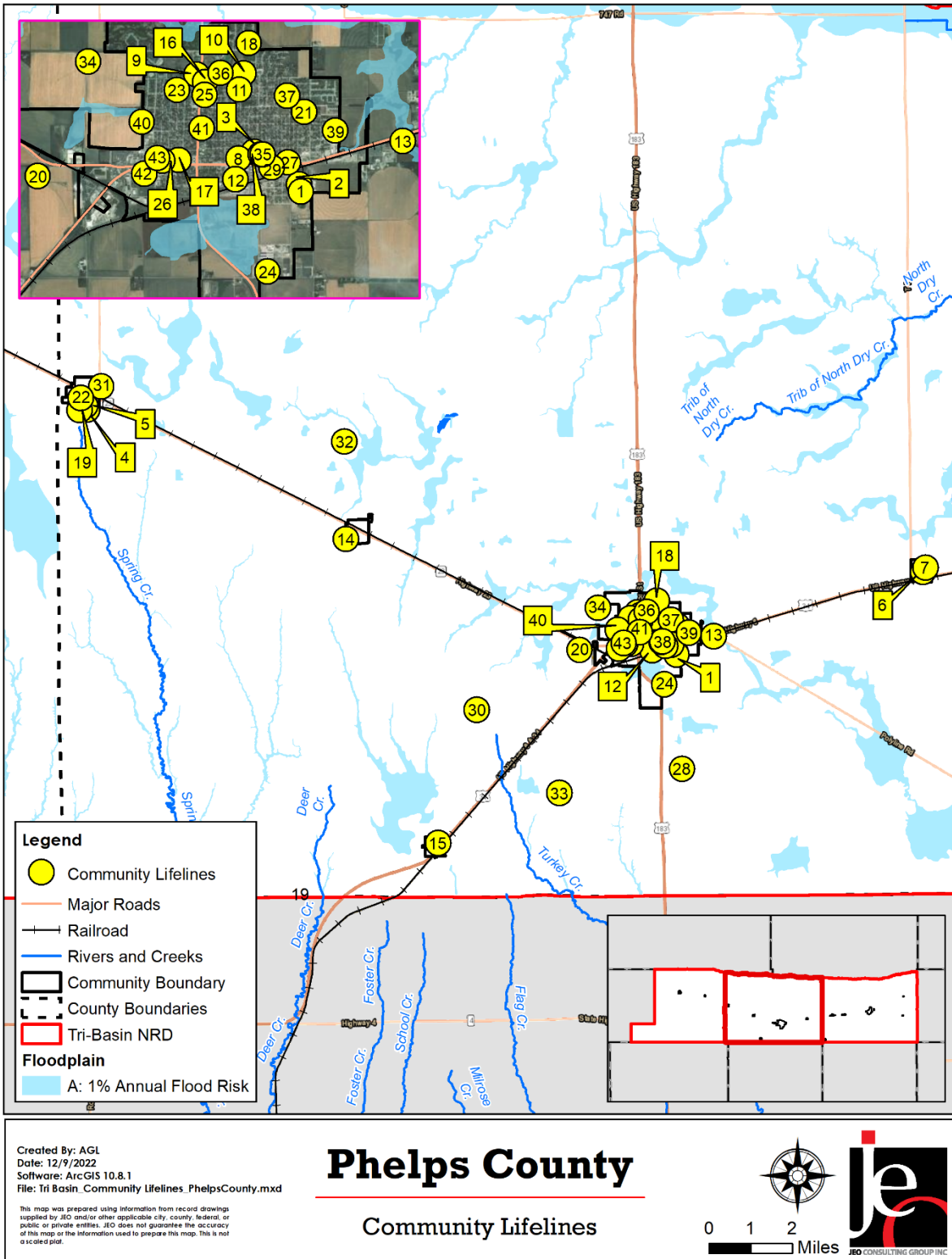
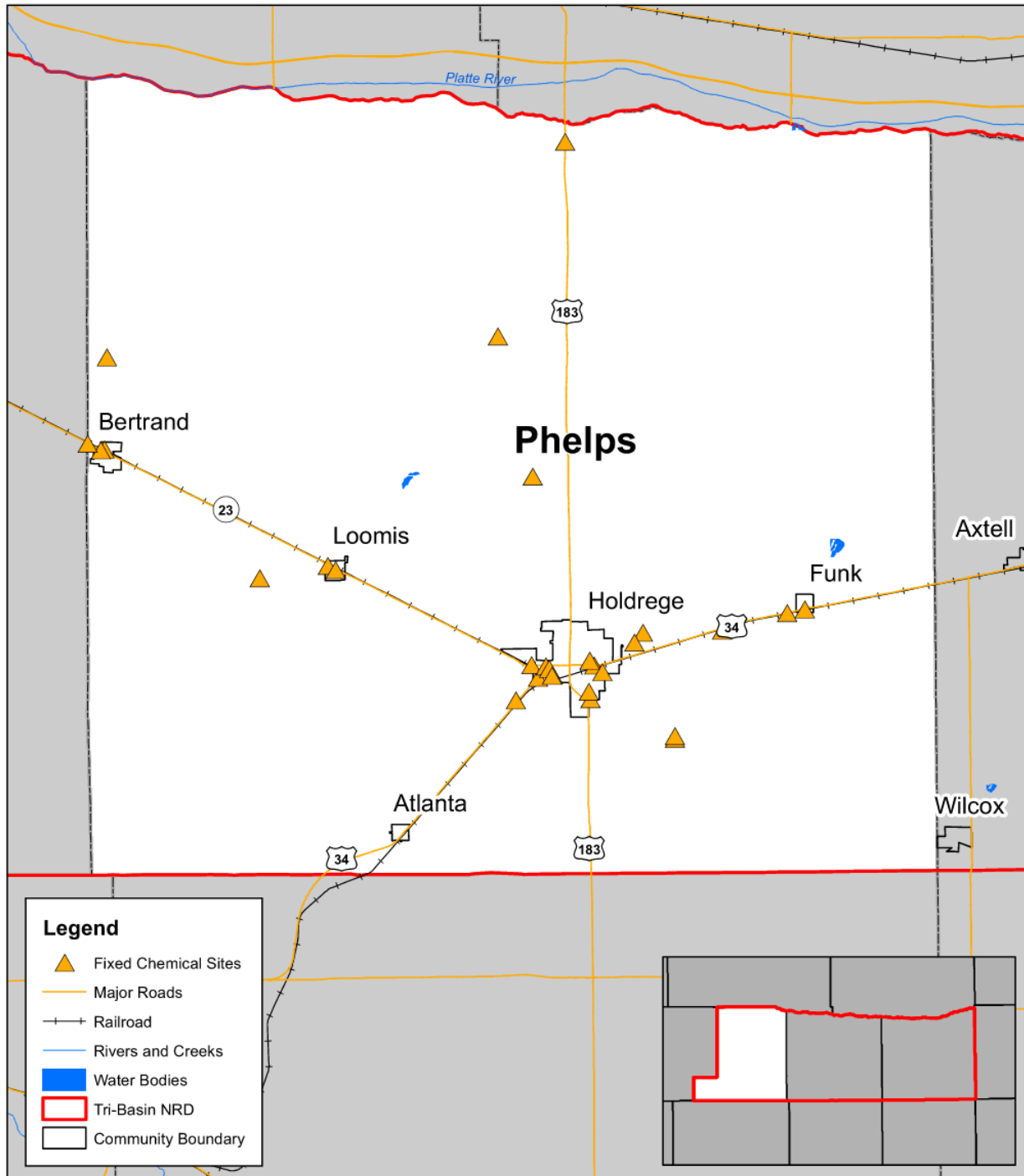


Figure PCO.7: Chemical Storage Sites



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Phelps County

Chemical Storage Sites

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) 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.

Table PCO.17: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
3,547	\$414,460,595	193	\$29,592,925	5.4%

Source: County Assessor, 2022

Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the county. The property damages from the NCEI Storm Events Database (January 1996 through April 2022) should be considered only as broad estimates. Crop damages reports come from the USDA Risk Management Agency for Phelps County between 2000 and 2021.

Table PCO.18: County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage ²
Animal and Plant Disease	Animal Disease ¹	11	252 Animals	N/A
	Plant Disease ²	15	N/A	\$207,003
Dam Failure⁵		0	\$0	N/A
Drought⁶		489 out of 1,531 Months	\$0	\$8,456,626
Earthquakes¹¹		0	\$0	\$0
Extreme Heat⁷		Avg. 7 Days a Year	N/A	\$1,916,036
Flooding⁸	Flash Flood	9	\$1,425,000	\$687,449
	Flood	4	\$55,000	
Grass/Wildfires⁹ <i>2 Injuries</i>		99	\$5,950	\$38,425
Hazardous Materials Release	Fixed Site ³ <i>2 Injuries</i>	36	\$0	N/A
	Transportation ⁴	1	\$70,300	N/A
Public Health Emergency		2	N/A	N/A
Severe Thunderstorms⁸	Hail Range: 0.75-2.75 in. Average: 1.16 in.	164	\$4,164,000	\$3,590,712
	Thunderstorm Wind Range: 40-71 mph Average: 56.2 mph	109	\$1,918,000	
	Heavy Rain	13	\$20,000	
	Lightning	0	\$0	
	Blizzard	10	\$325,000	
Severe Winter Storms⁸	Extreme Cold/Wind Chill	4	\$0	\$541,960
	Heavy Snow	4	\$0	
	Ice Storm	6	\$10,320,000	
	Winter Storm	44	\$190,000	

Hazard Type		Count	Property Damage	Crop Damage ²
Terrorism and Cyber Security ¹⁰	Winter Weather	35	\$15,000	
		0	\$0	N/A
Tornadoes and High Winds ⁸	High Winds Range: 55-86 mph Average: 64.9 mph 7 Injuries	39	\$1,282,080	\$4,030,324
	Tornadoes Range: EF0-EF2 Average: EF1	11	\$1,700,000	\$32,779
Total		616	\$21,490,330	\$54,378,034

N/A: Data not available
 1 – NDA, 2014 – 2021
 2 – USDA RMA, 2000 – 2021
 3 – NRC, 1990 – July 2022
 4 – PHSMA, 1971 – July 2022
 5 – DNR Communication, June 2022

6 – NOAA, 1895 – July 2022
 7 – High Plains Regional Climate Center, 1897 – 2022
 8 – NCEI, 1996 - April 2022
 9 – NFS, 2000 - 2021
 10 – University of Maryland, 1970 – Aug 2022
 11 – USGS, 1900 – Aug 2022

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Phelps 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 hazards of top concern identified by the 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 | Risk Assessment*.

Animal and Plant Disease

This hazard was selected by both the county and the Farm Service Agency. Agricultural disease is a concern to Phelps County because the local economy is largely agriculture-based. There were 15 instances of plant disease recorded by the USDA RMA from 2000 – 2021 and 11 instances of animal disease since 2014. These events resulted in \$207,003 in crop damages and 252 animal fatalities. Bird flu is not an issue currently and has not been an issue in the past. Animal disease outbreaks are more likely to occur at large feedlots due to the high number of animals in close contact. There are four large feedlots in the county with three located near Holdrege. Combined they have over 100,00 head of cattle. Educational material regarding plant and animal disease is done through extension services.

Flooding

This hazard was selected by both the county and the Farm Service Agency. According to the NCEI, there were 13 reported flooding events in Phelps County from 1996 - April 2022. These events resulted in \$1,480,000 in property damages and \$687,449 in crop damages. The most recent flooding event occurred in July 2019. It caused \$125,000 in property damage to county roads and homes in the Bertrand and Atlanta areas and north along the Platte River. Also, in 2019 flooding of agricultural land caused a large number of cattle losses during calving season and crop loss due to standing water. After the floods, Phelps County Farm Service Agency implemented the ECP program to repair impacted agricultural land and also administered a Livestock Indemnity Program for cattle that perished in the floods. Since the 2019 floods, many roads and bridges that were damaged have been repaired. The northern part of the county and river/stream basins are the areas most likely to flood in the county. Some elderly populations are

located in flood hazard areas. According to the Risk Factor website, Phelps County has a moderate risk of flooding with 500 properties and 159 miles of roads having a greater than 26% chance of being affected by flooding over the next 30 years. That risk is unlikely to change and may even go down slightly in the next 30 years.¹⁹ In the future culverts in the county need to be improved to better allow water to flow rather than holding it.

Figure PCO.8: Phelps County Flooded Field in 2019



Source: Nebraska Farm Service Agency

Severe Winter Storms

This hazard was selected by both the county and the Farm Service Agency. Severe winter storms have the potential to shut down activity in the county and cause traffic accidents. The NCEI recorded 103 severe winter storm events in Phelps County from 1996 – April 2022. These events resulted in \$10,850,000 in property damages and \$541,960 in crop damages. The most significant event occurred in December of 2006. Freezing rain, sleet, and snow during the event lead to significant ice accumulations, power outages, and damages to trees, power lines, and power poles. The storm caused an estimated \$10 million in damages. Snow removal is done by the State of Nebraska on highways, local jurisdictions, and the County Roads Department on county

¹⁹ Risk Factor. "Flood Factor: Phelps County, Nebraska". Accessed November 2022. https://riskfactor.com/county/phelps-county-ne/31137_fsid/flood.

roads. Snow fences are utilized along community boundaries next to agricultural land to help reduce drifting snow. There are seven identified warming shelters in the county: four in Holdrege, one in Loomis, one in Bertrand, and one in Atlanta. The county is at an increased risk of power outages with only an estimated 20% of power lines buried.

Terrorism and Cyber Security

This hazard was selected by the Farm Service Agency. While no terrorism events have occurred in the past, a terrorist attack or cyber security attack could occur at any time. The most likely targets in the county are government facilities and schools. The Farm Service Agency feels like the county needs to be proactive in addressing this issue rather than reactive after an event occurs.

Tornadoes and High Winds

This hazard was selected by both the county and the Farm Service Agency. Tornadoes have the potential to cause significant damages and loss of life. There have been 11 tornadoes in Phelps County from 2000 – April 2022. These events have caused \$1,700,000 in property damages and \$32,779 in crop damages. The local planning team indicated that high wind events are common in Phelps County and more have been occurring recently. NCEI recorded 39 high wind events from 1996 – April 2022 that resulted in \$1,282,080 of property damages and \$4,030,324 in crop damages. One significant high wind event in 2002 resulted in blowing dust and poor visibility. The poor visibility caused a seven-vehicle accident east of Loomis, leading to five injuries. On December 15, 2021, 72 mph wind created a dust storm and hail that damaged irrigation pivots and structures. Then in June 2022, high winds damaged crops and more center pivots. All villages and cities in the county have alert sirens and no rural areas were identified as needing a siren. There is no safe room in the county; however, County Emergency Management has the ability to set up shelters after the hotels are full.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Bridge Improvements
Description	Repair and improve bridges in the county.
Hazard(s) Addressed	Flooding
Estimated Cost	\$500,000+
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Roads Department
Status	Planning Stage. Improvements are set to take place in June 2023.

Mitigation Action	Communication Equipment
Description	Upgrade the communication equipment used by the sheriff's department.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Sheriff, County Emergency Management
Status	Not Started. The county does not have the capability to implement this project.

Mitigation Action	Cyber Security Planning Meeting
Description	Have a cyber security planning meeting with county emergency management, school officials, local communities, and stakeholders to identify possible risks and what can be done to prepare for an event.
Hazard(s) Addressed	Terrorism and Cyber Security
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management, Local Jurisdictions, Local School Districts, Phelps County Farm Service Agency
Status	Not Started. The county has the capability to implement this project.

Mitigation Action	Implement Actions Identified in the CWPP
Description	Implement actions identified in the CWPP and assist the county fire districts implement actions. Actions identified include increasing emergency preparedness, training and education, and fuels mitigation.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	Staff Time - \$100,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management, Local Fire Districts
Status	Not Started. The county does not have the capability to implement this project.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural and manmade 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.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Local Funding	General Fund
Timeline	Ongoing
Priority	Low
Lead Agency	County Emergency Management
Status	In Progress. County Emergency Management provides educational materials regularly.

Mitigation Action	Safety Equipment
Description	Purchase additional safety equipment that will be used by county emergency management.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$10,000
Local Funding	General Budget
Timeline	Ongoing
Priority	Low
Lead Agency	County Emergency Management
Status	Ongoing. Safety equipment is purchased when needed and funds are available.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Improve and repair culverts throughout the county to better allow water to flow.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Roads Department
Status	Not Started. The county has the capability to improve some culverts but not all due to limited funding.

Mitigation Action	Update Communication Towers
Description	Update lights on the three county communication towers.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$15,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management
Status	Planning Stage. Currently getting quotes for completing the project.

Kept Mitigation Actions

Mitigation Action	Safe Room and Storm Shelters
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas. Work with the Tri-Basin NRD to turn the old armory building into a safe room. Work with Loomis Public School to construct a multi-purpose safe room. Work with All Saints Catholic School to construct a safe room.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$200-\$250 per square foot
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management, Tri-Basin NRD, Loomis Public Schools, All Saints Catholic School
Status	Not Started. The county does not have the capability to implement this project without financial assistance through a grant or working with another entity.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside county planning documents (e.g., annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms. County Emergency Management and the Kearney County Farm Service Agency Executive Director will be responsible for reviewing and updating this county profile outside of the five-year update. Phelps county will review the plan annually and the public will be notified through county commissioner meetings and social media.

Community Profile

Village of Atlanta

Tri-Basin NRD Hazard Mitigation Plan

2023

Local Planning Team

The Village of Atlanta’s local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by the local planning team.

Table ATL.1: Atlanta Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Noelle Ortgiesen	Board Chairperson & Floodplain Administrator	Village of Atlanta	Holdrege	Recording

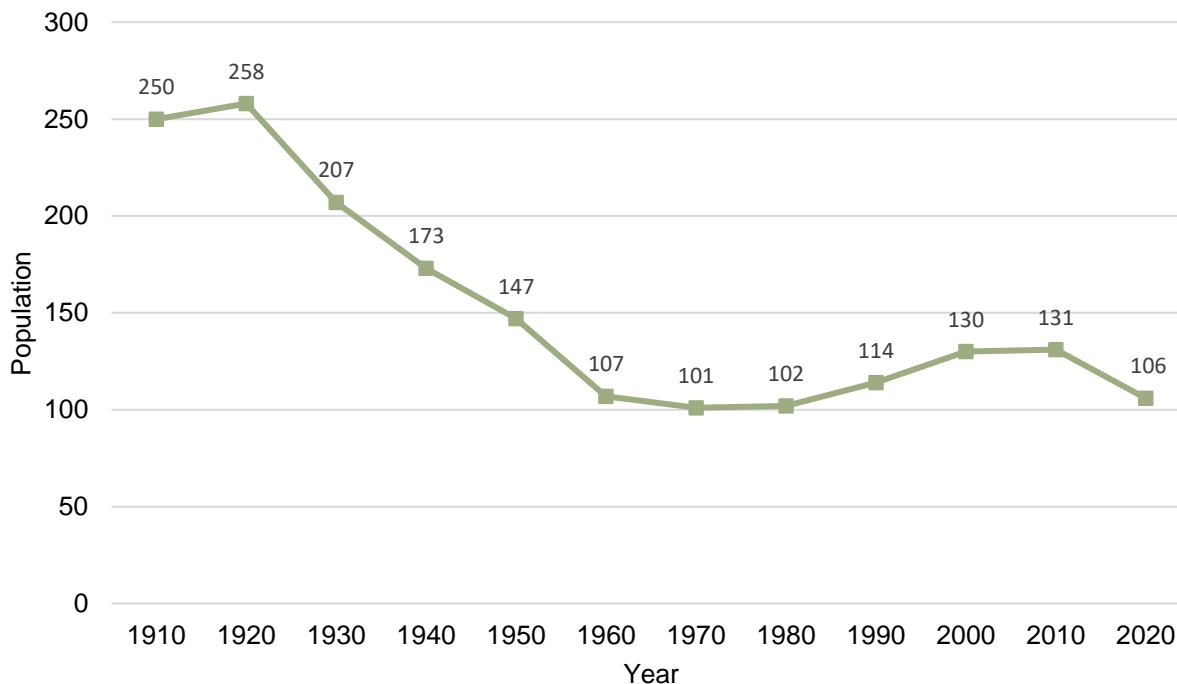
Location and Geography

The Village of Atlanta is in south central Phelps County and covers an area of 0.2 square miles. No major bodies of water are located near the community, but the Atlanta Marsh National Wildlife Refuge is located northwest of the village.

Demographics

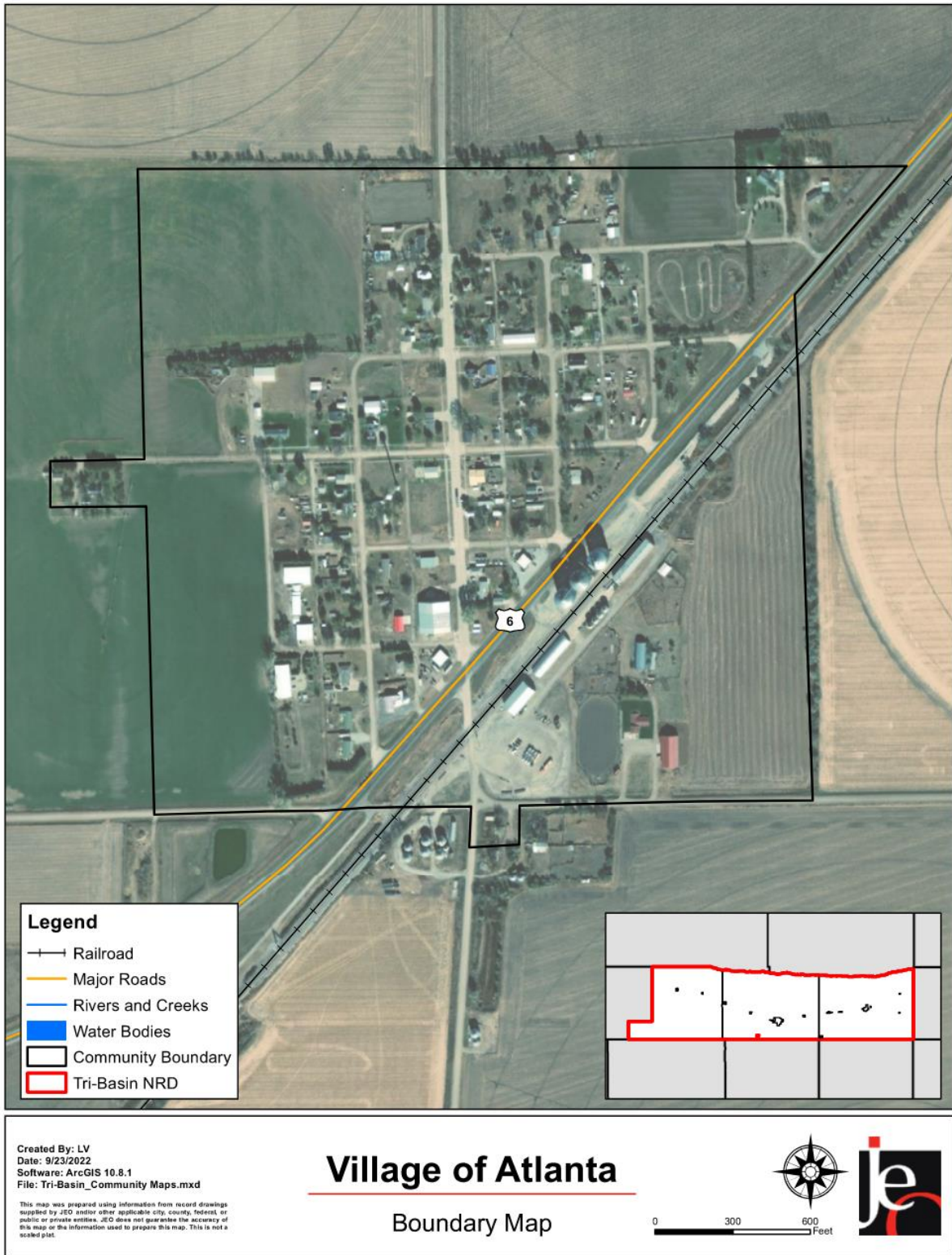
The following figure displays the historical population trend for the Village of Atlanta. This figure indicates that the population of Atlanta has been declining since 2010 to 106 people in 2020. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Unoccupied housing may also be an economic indicator that future development is unlikely to occur. Furthermore, with fewer residents, tax revenue decreases for the community, which could make implementing mitigation projects more fiscally challenging. Atlanta’s population accounted for 1.2% of Phelps County’s population in 2020.²⁰

Figure ATL.1: Population 1910 - 2020



²⁰ United States Census Bureau. “2020 Census Bureau Decennial Census: P1: Race.” <https://data.census.gov/>.

Figure ATL.2: Village of Atlanta



The young, elderly, and minority populations may be more vulnerable to hazards than other groups. Looking at Atlanta's population:

- **8.5% is non-white.** Since 2010, Atlanta has become more ethnically diverse. In 2010, 0.8% of the Atlanta's population was non-white. By 2020, 8.5% was non-white.²¹
- **Median age of 32.5.** The median age of Atlanta was 32.5 years old in 2020. The population became younger since 2010, when the median age was 46.8.²²

Employment and Economics

Low-income populations, long distance commuters, and the unemployed may be more vulnerable to certain hazards like extreme heat and flooding than other groups. Atlanta's population has:

- **5.6% of people living below the poverty line.** The poverty rate (5.6%) in the Village of Atlanta was lower than the state's poverty rate (10.4%) in 2020.²³
- **\$96,000 median household income.** Atlanta's median household income in 2020 (\$96,000) was \$32,985 higher than the state (\$63,015).²³
- **0% unemployment rate.** In 2020 Atlanta has a lower unemployment rate (0%) when compared to the state (3.4%).²³
- **18.2% of workers commuted 30 minutes or more to work.** Fewer workers in Atlanta commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (18.2% compared to 63.6%).²⁴

Major Employers

Businesses within Atlanta are primarily self-employed with few to no employees. A large percentage of residents commute to Holdrege for employment.

Housing

Multiple factors inform the vulnerability of housing units to hazard events. Housing age, for example, may indicate which housing units were built prior to the development of state building codes. Older houses and vacant housing generally more vulnerable to hazards if poorly maintained. Additionally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Renters are particularly vulnerable, as renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. Renters are less likely than homeowners to have flood insurance, have ready access to financial resources to evacuate, or to know their risks to flooding and other hazards. Atlanta's housing stock has:

- **55.4% of housing built prior to 1970.** Atlanta has a larger share of housing built prior to 1970 than the state (55.4% compared to 45.5%).²⁵

21 United States Census Bureau. "2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." <https://data.census.gov/>.

22 United States Census Bureau. "2020 Census Bureau American Community Survey: S0101: Age and Sex." <https://data.census.gov/>.

23 United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." <https://data.census.gov/>.

24 United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." <https://data.census.gov/>.

25 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov/>.

- **39.3% of housing units vacant.** Atlanta has a higher vacancy rate 39.3% compared to the rest of the state (9.2%).²⁵
- **12.5% mobile and manufacture housing.** The Village of Atlanta has a larger share of mobile and manufactured housing (12.5%) compared to the state (3.3%).²⁵
- **0% renter-occupied.** The rental rate of Atlanta was 0% in 2020. This is lower than the state's rate of 33.8%.²⁵

Broadband Access

Internet or broadband access – through Wi-Fi or cellphone coverage – is a critical means of sharing and receiving information regarding hazardous events, including storm warnings, evacuation orders, or weather updates. Rural communities often lack adequate internet or broadband access. However, internet access is as vital a utility as electricity, as seen through the COVID-19 pandemic when many people worked or attended school from home.

- **85.3% of households have a broadband internet subscription.** Atlanta has a slightly smaller share of households with broadband (85.3%) compared to the state (85.6%).²⁶

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. The Village of Atlanta is governed by a village board; other governmental offices and departments that may be involved in implementing hazard mitigation initiatives are listed below.

- Clerk/Treasurer
- Planning Commission
- Floodplain Administrator

Capability Assessment

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

According to the local planning team, municipal funds are limited to maintaining current facilities and systems. Additionally, the amount of municipal funds has stayed relatively the same over recent years. The community currently has no plans to add or improve existing capabilities and plans due to a lack of funds.

26 United States Census Bureau. "2020 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." <https://data.census.gov/>.

Table ATL.2: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Regional Community Wildfire Protection Plan	Yes
	Other (if any)	Water System Emergency Response Plan, Wellhead Protection Plan
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No
	Local staff who can assess community's vulnerability to hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
	Fiscal Capability	1- & 6-Year Plan
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

Capability/Planning Mechanism	Yes/No
Ex. CERT Teams, Red Cross, etc.	
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)	-

Table ATL.3: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Public support to implement projects	Limited
Time to devote to hazard mitigation	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Phelps County, which includes Atlanta, is Relatively Moderate (13.78). The average for the State of Nebraska is 9.43.²⁷

- **Social Vulnerability:** Social groups in Phelps County have a Relatively Moderate (39.81) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Phelps County have a Very High (57.92) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

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

²⁷ Federal Emergency Management Agency. “National Risk Index”. Accessed July 2022. <https://hazards.fema.gov/nri/map>.

Table ATL.4: Rural Capacity Index

Components of Index	Village of Atlanta	Phelps County
County is Metropolitan?	No	No
Has a Head of Planning?	No	Yes
Has a College or University?	No	No
Adults with Higher Education:	8%	23%
Families Below Poverty Level:	0%	6%
Households with Broadband:	86%	79%
People without Health Insurance:	7%	4%
Voter Turnout:	81%	81%
Income Stability Score (0 to 100):	38	38
Population Change (2000 to 2019):	-60	-713
Overall Rural Capacity Index Score	42	68

Source: Headwaters Economics²⁸

National Flood Insurance Program (NFIP)

Atlanta is a member of the NFIP, having joined on 1/16/2008. The village’s Floodplain Administrator (Noelle Orgiesen) oversees the commitments and requirements of the NFIP, including enforcement of the local floodplain management regulations. However, the local planning was not able to find the local floodplain management regulations and are not aware of what is outlined in them. Because of this, the village is in the process of creating updated floodplain management regulations so they can remain in good standing with the NFIP. A mitigation action has been added to address this issue.

The initial FIRM for the village was delineated on 1/16/2008 and the current effective map date is 1/16/2008, which has been adopted and incorporated into the local floodplain management regulations. As of April 12, 2023, there are no NFIP policies in-force for the village. Atlanta does not currently have any repetitive loss or severe repetitive loss structures.

Plans and Studies

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

Building Code

The building code sets standards for constructed buildings and structures. Any new construction in the community must get a building permit and is reviewed by the planning commission committee.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated and the local planning team indicated that it does not contain hazard mitigation principles.

²⁸ Headwaters Economics. January 2022. “Rural Capacity Map”. Accessed July 2022. <https://headwaterseconomics.org/equity/rural-capacity-map/>.

Floodplain Regulations, Zoning Ordinance, and Subdivision Regulations

The village's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. The hazard mitigation plan has not been integrated with these documents. The floodplain regulations are in the process of being updated.

Phelps County Local Emergency Operations Plan (2021)

Bertrand is an annex in the Phelps County Local Emergency Operations Plan (LEOP). The hazard mitigation plan has not been integrated with this plan, however, the LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

Wellhead Protection Plan

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

Future Development Trends

According to the planning team, no new development has occurred over the past five years, which is consistent with the population decline seen in recent years. Vulnerability to hazards is likely the same as it was five years ago due to the lack of development. However, the village's vulnerability to hazards could increase if structures and infrastructure are not being properly maintained. No commercial or residential development is currently planned for the next five years. This is consistent with the projected population decline.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. The table below lists Safety and Security Lifelines for Atlanta.

Table ATL.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Building	S	N

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for the Village of Atlanta are included in the table below.

Table ATL.6: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
2	Water Tower	-	N
3	Well #1	-	N
4	Well #2	G	N
5	Atlanta United Methodist Church	S	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. According to DHHS and the local planning team, there are no medical and health facilities located within the community.^{29,30,31,32}

Energy

Energy Lifeline components include power, the power grid, and fuel. No Energy Lifelines were identified for Atlanta by the local planning team.

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Communication Lifelines for the Village of Atlanta are included in the table below.

Table ATL.7: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
6	Tornado Siren	-	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Atlanta’s major transportation corridor is U.S. Highway 6. It is traveled by an average of 2,570 vehicles daily, 380 of which are trucks.³³ Atlanta has one Burlington Northern Santa Fe Railway/Amtrak line traveling on the southeast portion of the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

29 Department of Health and Human Services. 2022. “State of Nebraska: Assisted Living Facilities.” <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

30 Department of Health and Human Services. 2022. “State of Nebraska Roster: Hospitals.” <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

31 Department of Health and Human Services. 2022. “State of Nebraska Roster: Long Term Care Facilities.” <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

32 Department of Health and Human Services. 2022. “State of Nebraska Roster: Rural Health Clinic.” https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

33 Nebraska Department of Transportation. 2021. “Annual Average Daily Traffic Flow.” Accessed July 2022. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. No gas transmission or hazardous liquid pipelines travel in or near the community.³⁴ According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are no chemical sites within or near Atlanta which house hazardous materials.³⁵

Other Community Lifelines

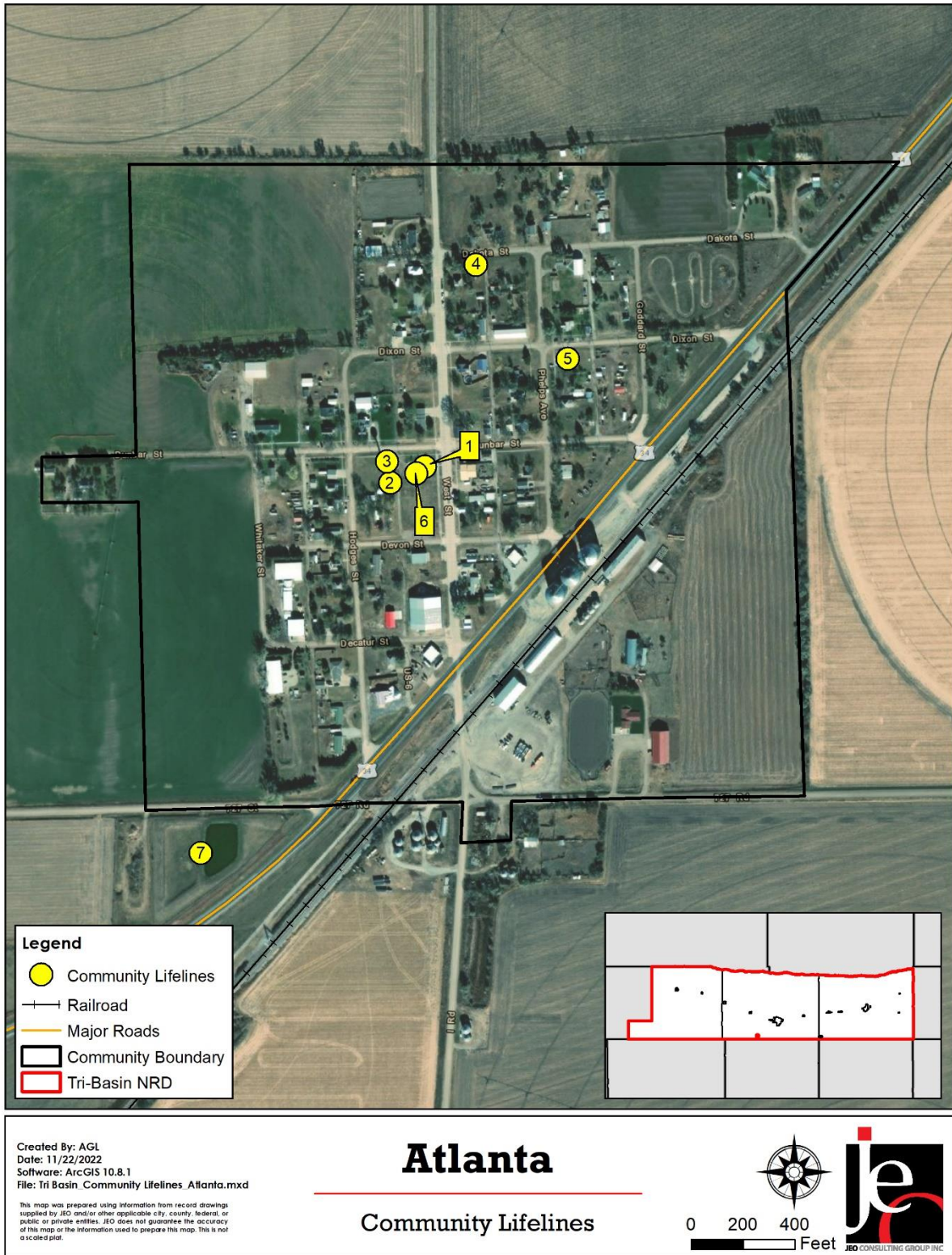
The Village of Atlanta identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the community. The other community lifelines are listed in the table below.

Table ATL.8: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
7	Sewer Lagoon	-	N

34 National Pipeline Mapping System. 2022. "Public Viewer." Accessed July 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.
 35 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

Figure ATL.3: Community Lifelines



*No streams or mapped floodplain within community boundary.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) 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.

Table ATL.9: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
47	\$2,002,745	0	\$0	0%

Source: County Assessor, 2022

Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Atlanta which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by the Village of Atlanta. 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: Risk Assessment*.

Severe Thunderstorms

Severe thunderstorms are common events in the planning area and were identified as a top concern for the community. Severe thunderstorms may consist of heavy rain, lightning, hail, and thunderstorm wind and can result in the loss of electricity, blocked roadways, property and crop damage, and flooding. The NCEI recorded 26 severe thunderstorm events in Atlanta from 1996 to April 2022. These storms resulted in \$306,000 in property damage and \$6,200,000 in crop damage. Residents are notified of severe weather by the tornado siren. No powerlines are currently buried. To mitigate against the impacts from thunderstorm damages, the village-owned buildings are insured against hail damage and have steel roofs.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Atlanta. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the local planning team, power outages have impacted the community during past winter storm events. Snow removal is handled by village board members. Snow removal equipment includes a tractor and is sufficient to meet the needs of the village.

Tornadoes and High Winds

Tornadoes and high winds have the potential to cause significant property damages, power outages, and loss of life. According to the NCEI, there have been no recorded tornadoes in Atlanta between 1996 and April 2022. Tornadic and high wind events are a concern to the local planning team as there are no shelters available for residents. Mobile homes located on the east and west

side of town are more vulnerable to high wind and tornadic events than those in single family-detached homes. The village has one warning siren which provides coverage to all areas of the community. Besides Well #2, no other buildings have backup generators, which increases vulnerability during power loss events.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or the placement of new sirens. Purchase and install new warning sirens.
Hazard(s) Addressed	Tornadoes and High Winds
Estimated Cost	\$40,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, County Emergency Manager
Status	Not Started. The village currently does not have the capability to implement this project due to funding.

Mitigation Action	Increase Floodplain Management Capabilities
Description	Update the village's floodplain regulations and educate village personnel on what is included.
Hazard(s) Addressed	Flooding
Estimated Cost	\$1,000+, Staff Time
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Floodplain Administrator, Village Attorney
Status	In Progress. Currently working with the Village Attorney to update the floodplain regulations.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural and manmade 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.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The village does not have the capability to implement this project because of funding.

Kept Mitigation Actions

Mitigation Action	Safe Room and Storm Shelters
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$250,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. The village does not currently have the capability to implement this project due to a lack of funds.

Plan Maintenance

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

The Village Board will be responsible for reviewing and updating this community profile outside of the five-year update. Atlanta will review the plan bi-annually and the public will be notified through village board meetings.

Community Profile

Village of Bertrand

**Tri-Basin NRD
Hazard Mitigation Plan**

2023

Local Planning Team

The Village of Bertrand’s local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by members of the local planning team.

Table BTD.1: Bertrand Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Marcus Schwarz	Street Foreman	Village of Bertrand	Elwood	-
Matt Gregg	Utility Superintendent	Village of Bertrand	-	Holdrege

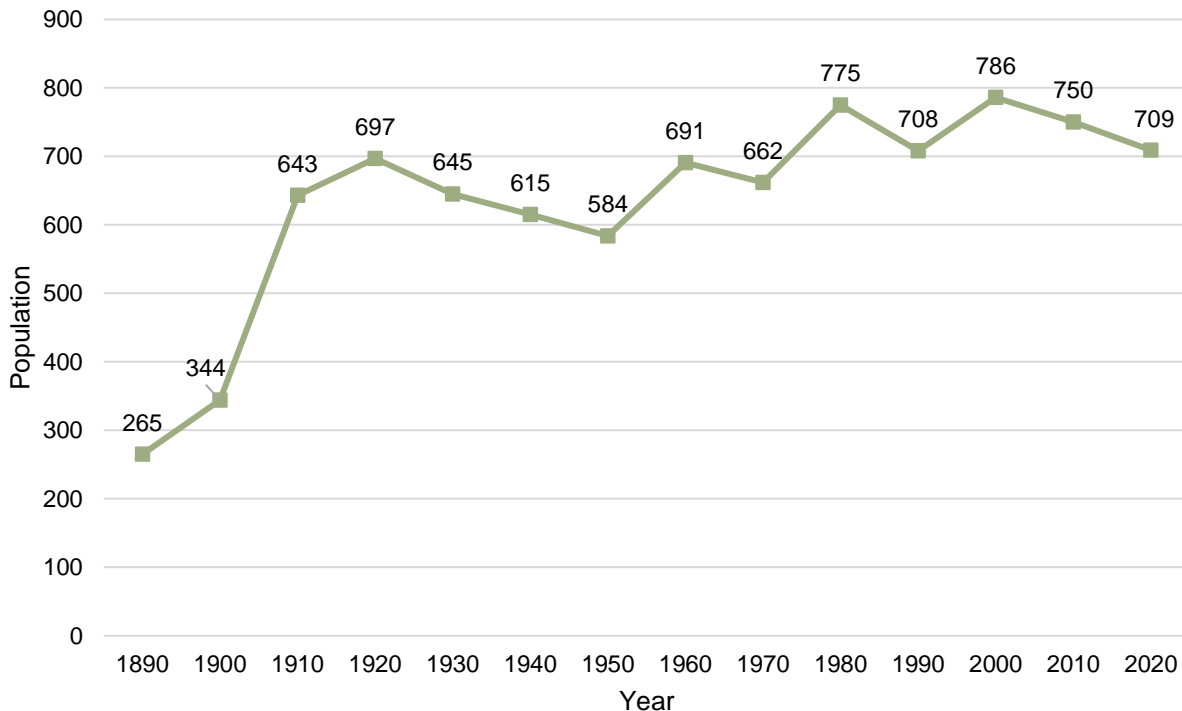
Location and Geography

The Village of Bertrand is located in western Phelps County and covers an area of 0.55 square miles. No major waterways are located near the village.

Demographics

The following figure displays the historical population trend for the Village of Bertrand. This figure indicates that the population of Bertrand has been declining since 2010 to 709 people in 2020. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Unoccupied housing may also be an economic indicator that future development is unlikely to occur. Furthermore, with fewer residents, tax revenue decreases for the community, which could make implementing mitigation projects more fiscally challenging. Bertrand’s population accounted for 7.9% of Phelps County’s population in 2020.³⁶

Figure BTD.1: Population 1890 - 2020



³⁶ United States Census Bureau. “2020 Census Bureau Decennial Census: P1: Race.” <https://data.census.gov/>.

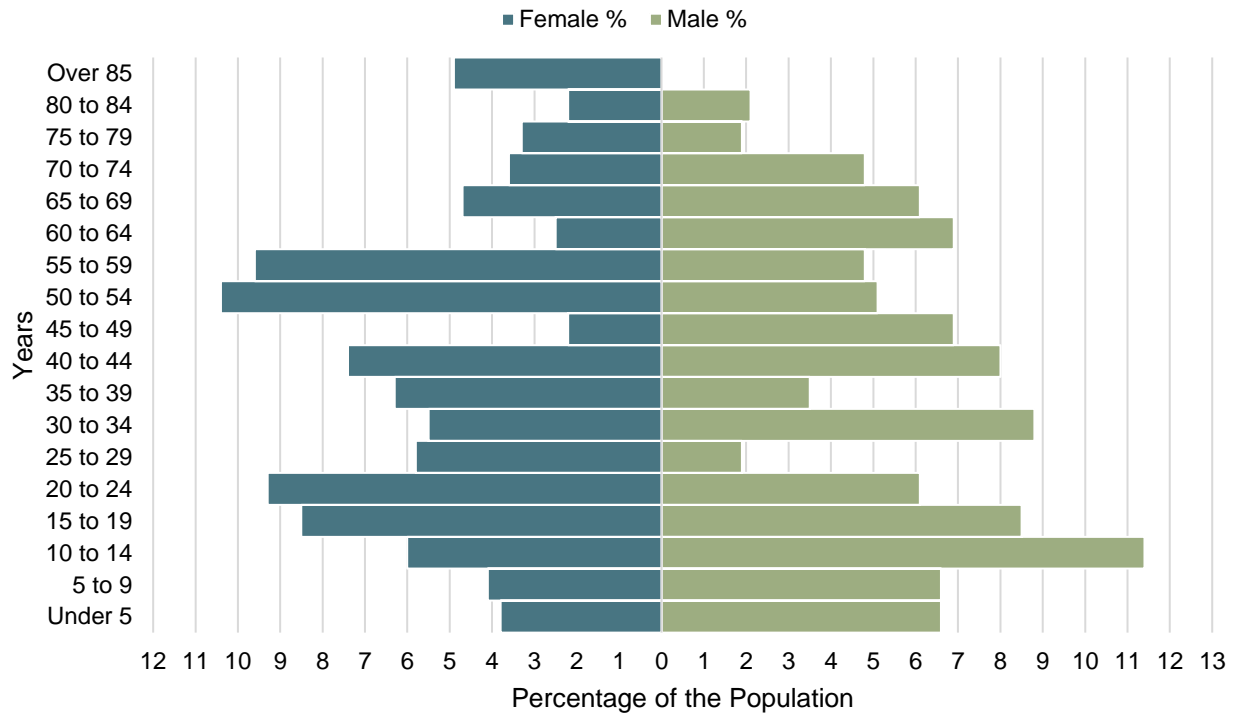
Figure BTD.2: Village of Bertrand



The young, elderly, and minority populations may be more vulnerable to hazards than other groups. Looking at Bertrand’s population:

- **8.2% is non-white.** Since 2010, Bertrand has become more ethnically diverse. In 2010, 2.3% of the Bertrand’s population was non-white. By 2020, 8.2% was non-white.³⁷
- **Median age of 38.1.** The median age of Bertrand was 38.1 years old in 2020. The population became younger since 2010, when the median age was 44.³⁸

Figure BTD.3: Bertrand’s Population Pyramid



The figure above shows Bertrand’s population percentage broken down by sex and five-year age groups. Bertrand’s population is relatively spread out between different age groups. This indicates that the population is likely to remain stable in the future.

Employment and Economics

Low-income populations, long distance commuters, and the unemployed may be more vulnerable to certain hazards like extreme heat and flooding than other groups. Bertrand’s population has:

- **7.6% of people living below the poverty line.** The poverty rate (7.6%) in the Village of Bertrand was lower than the state’s poverty rate (10.4%) in 2020.³⁹
- **\$56,786 median household income.** Bertrand’s median household income in 2020 (\$56,786) was \$6,229 lower than the state (\$63,015).³⁹

37 United States Census Bureau. “2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates.” <https://data.census.gov/>.

38 United States Census Bureau. “2020 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov/>.

39 United States Census Bureau. “2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics.” <https://data.census.gov/>.

- **1.4% unemployment rate.** In 2020 Bertrand has a lower unemployment rate (1.4%) when compared to the state (3.4%).³⁹
- **20.8% of workers commuted 30 minutes or more to work.** Fewer workers in Bertrand commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (20.8% compared to 51.9%).⁴⁰

Major Employers

Major employers within Bertrand include Bertrand Public Schools, Aurora Co-op, Cross Diamond, Dahlgren Cattle, Paul Johnson & Sons, feedlots, South Central Feeds, Central Nebraska Public Power and Irrigation District, First State Bank and Agency, CHS, and Bertrand Nursing Home. A large percentage of residents commute to surrounding communities for employment.

Housing

Multiple factors inform the vulnerability of housing units to hazard events. Housing age, for example, may indicate which housing units were built prior to the development of state building codes. Older houses and vacant housing generally more vulnerable to hazards if poorly maintained. Additionally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Renters are particularly vulnerable, as renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. Renters are less likely than homeowners to have flood insurance, have ready access to financial resources to evacuate, or to know their risks to flooding and other hazards. Bertrand's housing stock has:

- **73% of housing built prior to 1970.** Bertrand has a larger share of housing built prior to 1970 than the state (73% compared to 45.5%).⁴¹
- **10.1% of housing units vacant.** Bertrand has a higher vacancy rate 10.1% compared to the rest of the state (9.2%).⁴¹
- **4.3% mobile and manufactured housing.** The Village of Bertrand has a larger share of mobile and manufactured housing (4.3%) compared to the state (3.3%).⁴¹ Five mobile homes are located on two different trailer parks.
- **25.3% renter-occupied.** The rental rate of Bertrand was 25.3% in 2020. This is lower than the state's rate of 33.8%.⁴¹

Broadband Access

Internet or broadband access through Wi-Fi or cellphone coverage is a critical means of sharing and receiving information regarding hazardous events, including storm warnings, evacuation orders, or weather updates. Rural communities often lack adequate internet or broadband access. However, internet access is as vital a utility as electricity, as seen through the COVID-19 pandemic when many people worked or attended school from home.

- **82.1% of households have a broadband internet subscription.** Bertrand has a smaller share of households with broadband (82.1%) compared to the state (85.6%).⁴²

40 United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." <https://data.census.gov/>.

41 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov/>.

42 United States Census Bureau. "2020 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." <https://data.census.gov/>.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. The Village of Bertrand is governed by a five-member village board; other governmental offices and departments that may be involved in implementing hazard mitigation initiatives are listed below.

- Clerk/Treasurer
- Planning Commission
- Floodplain Administrator
- Utility Superintendent
- Street Foreman

Capability Assessment

The planning team assessed the Village of Bertrand's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. The local planning team does not anticipate improving on or adding to existing capabilities due to limited funding and personnel.

Municipal funds are limited to maintaining current facilities and systems. Bonding does allow the village to pursue new capital projects. A large portion of funds are already dedicated to an additional sewer lagoon and a new water main the housing development. Funds have increased slightly over recent years.

Table BTD.2: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Regional Community Wildfire Protection Plan	Yes
	Other (if any)	Water System Emergency Response Plan, Wellhead Protection Plan
Administrative & Technical	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	Yes
	Local staff who can assess community's vulnerability to hazards	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)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes
	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)	-

Table BTD.3: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Limited
Staff/expertise to implement projects	Moderate
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Phelps County, which includes Bertrand, is Relatively Moderate (13.78). The average for the State of Nebraska is 9.43.⁴³

- **Social Vulnerability:** Social groups in Phelps County have a Relatively Moderate (39.81) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Phelps County have a Very High (57.92) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

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

Table BTD.4: Rural Capacity Index

Components of Index	Village of Bertrand	Phelps County
County is Metropolitan?	No	No
Has a Head of Planning?	No	Yes
Has a College or University?	No	No
Adults with Higher Education:	21%	23%
Families Below Poverty Level:	4%	6%
Households with Broadband:	82%	79%
People without Health Insurance:	12%	4%
Voter Turnout:	81%	81%
Income Stability Score (0 to 100):	38	38
Population Change (2000 to 2019):	1	-713
Overall Rural Capacity Index Score	46	68

Source: Headwaters Economics⁴⁴

National Flood Insurance Program (NFIP)

Bertrand is a member of the NFIP having joined on 6/24/2008, and the village’s Floodplain Administrator (Lori Vinzant) oversees the commitments and requirements of the NFIP including enforcement of the local floodplain management regulations. The initial FIRM for the village was delineated on 1/16/2008 and the current effective map date is 1/16/2008, which has been adopted and incorporated into the local floodplain management regulations on 4/8/2008. As of April 12, 2023, there are no NFIP policies in-force for the village. Bertrand does not currently have any repetitive loss or severe repetitive loss structures. Ordinance No. 573 requires permits for any new developments located in the floodplain. Enforcement of the floodplain regulations is handled by a review and penalties can be administered for any violations.

43 Federal Emergency Management Agency. “National Risk Index”. Accessed July 2022. <https://hazards.fema.gov/nri/map>.

44 Headwaters Economics. January 2022. “Rural Capacity Map”. Accessed July 2022. <https://headwaterseconomics.org/equity/rural-capacity-map/>.

After a flood event, the community implements substantial improvement and substantial damage provisions as outlined in the Substation Damage Assessment Handbook from the Nebraska Department of Natural Resources, which can be found here: https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/20220301_eSDA_Handbook_FINAL.pdf. The local planning team has said that Bertrand will remain in good standing and will continue involvement with the NFIP in the future.

Plans and Studies

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

Building Code (2021)

The building code sets standards for constructed buildings and structures. The village has not adopted the international building codes. Village building codes only discuss setback requirements, footings, and height. All building permits must be approved by the Village Board prior to construction. The building code has not been integrated with the hazard mitigation plan.

Floodplain Regulations (2008)

The village’s floodplain regulations outline where and how development can occur in the floodplain. The hazard mitigation plan has not been integrated with the regulations. However, it does limit population density in the floodplain and discourages development in the floodplain. There is no timeline to update the floodplain regulations.

Phelps County Local Emergency Operations Plan (2021)

Bertrand is an annex in the Phelps County Local Emergency Operations Plan (LEOP). The hazard mitigation plan has not been integrated with this plan, however, the LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Water System 1- and 10-Year Plan (2022)

The Water System 1- and 10-Year Plan outlines water system projects the village would like to pursue. Projects identified in the plan include upsizing water distribution pipes in the new housing area. The plan is updated annually by the village board.

Water System Emergency Response Plan (2020)

A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system’s response during those events. The hazard mitigation plan has not been integrated with this plan.

Wellhead Protection Plan (2003)

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

Future Development Trends

Over the past five years much has changed within the village. Five new businesses were added on Main Street. A new \$2.5 million pool was constructed, and a new apartment building has begun construction. These additions likely increased the village’s vulnerability to hazards as more property could be damaged. However, the increased vulnerability was minimized as none of the newly constructed buildings are located in the floodplain or other known hazardous areas. Five homes were demolished, which helps to reduce vulnerability to hazards. In the next five years, homes will be added in Boggs Addition, the apartments on Mason Avenue will be completed, and a new fire hall is planned.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. The table below lists Safety and Security Lifelines for Bertrand.

Table BTD.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Building	S	N
2	Fire Department	-	N
3	Village Office	-	N

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for the Village of Bertrand are included in the table below.

Table BTD.6: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
4	Bertrand Schools	S	N
5	Convenience Plus	-	N
6	Cross Country Market	-	N
7	Main Well	-	N
8	Water Tower	-	N
9	Well #2	Power Drive with Engine	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. The following medical and health facilities are located within the community.

Table BTD.7: Health and Medical Lifelines

CL Number	Name	Type of Facility	Number of Beds	Generator (G) Shelter (S)	Floodplain (Y/N)
10	Bertrand Health Clinic	Rural Health Clinic	0	-	N
11	Nursing Home	Assisted Living Facility & Long Term Care	39	G	N

Source: Nebraska Department of Health and Human Services^{45,46,47,48}

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for Bertrand.

Table BTD.8: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
12	CHS	-	N

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Communication Lifelines for the Village of Bertrand are included in the table below.

Table BTD.9: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
13	American Cell Tower	G	N
14	Verizon Cell Tower	G	N
15	Viaero Cell Tower	G	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Bertrand’s major transportation corridor is Nebraska Highway 23. It is traveled by an average of 1,535 vehicles daily, 190 of which are trucks.⁴⁹ Bertrand has one Nebraska, Kansas, and Colorado Railway line that travels along the northeast portion of the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. No significant transportation events have occurred locally.

45 Department of Health and Human Services. 2022. “State of Nebraska: Assisted Living Facilities.” <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

46 Department of Health and Human Services. 2022. “State of Nebraska Roster: Hospitals.” <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

47 Department of Health and Human Services. 2022. “State of Nebraska Roster: Long Term Care Facilities.” <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

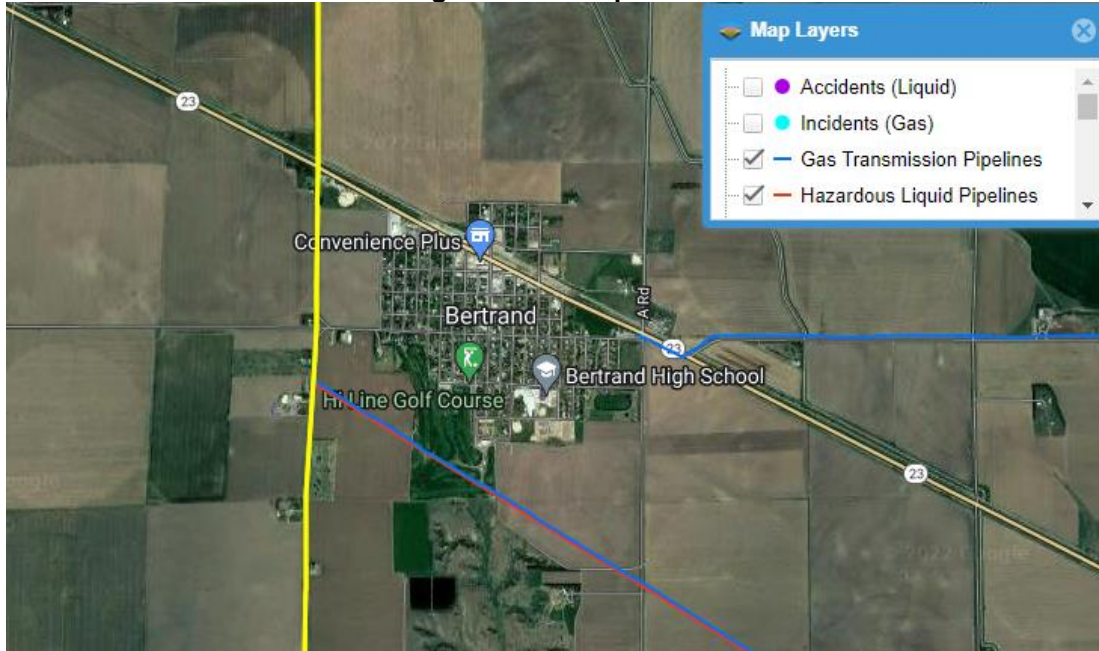
48 Department of Health and Human Services. 2022. “State of Nebraska Roster: Rural Health Clinic.” https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

49 Nebraska Department of Transportation. 2021. “Annual Average Daily Traffic Flow.” Accessed July 2022. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are two gas transmission pipelines and one hazardous liquid pipeline that travel through or near the community and can be seen on the figure below.

Figure BTD.4: Pipelines



Source: National Pipeline Mapping System⁵⁰

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are three chemical sites within or near Bertrand which house hazardous materials (listed below). One site (CHS) is already listed under the energy lifeline.

Table BTD.10: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
16	CHS Inc	-	N
17	CHS Inc	-	N

Source: Nebraska Department of Environment and Energy⁵¹

Other Community Lifelines

The Village of Bertrand identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the community. The other community lifelines are listed in the table below.

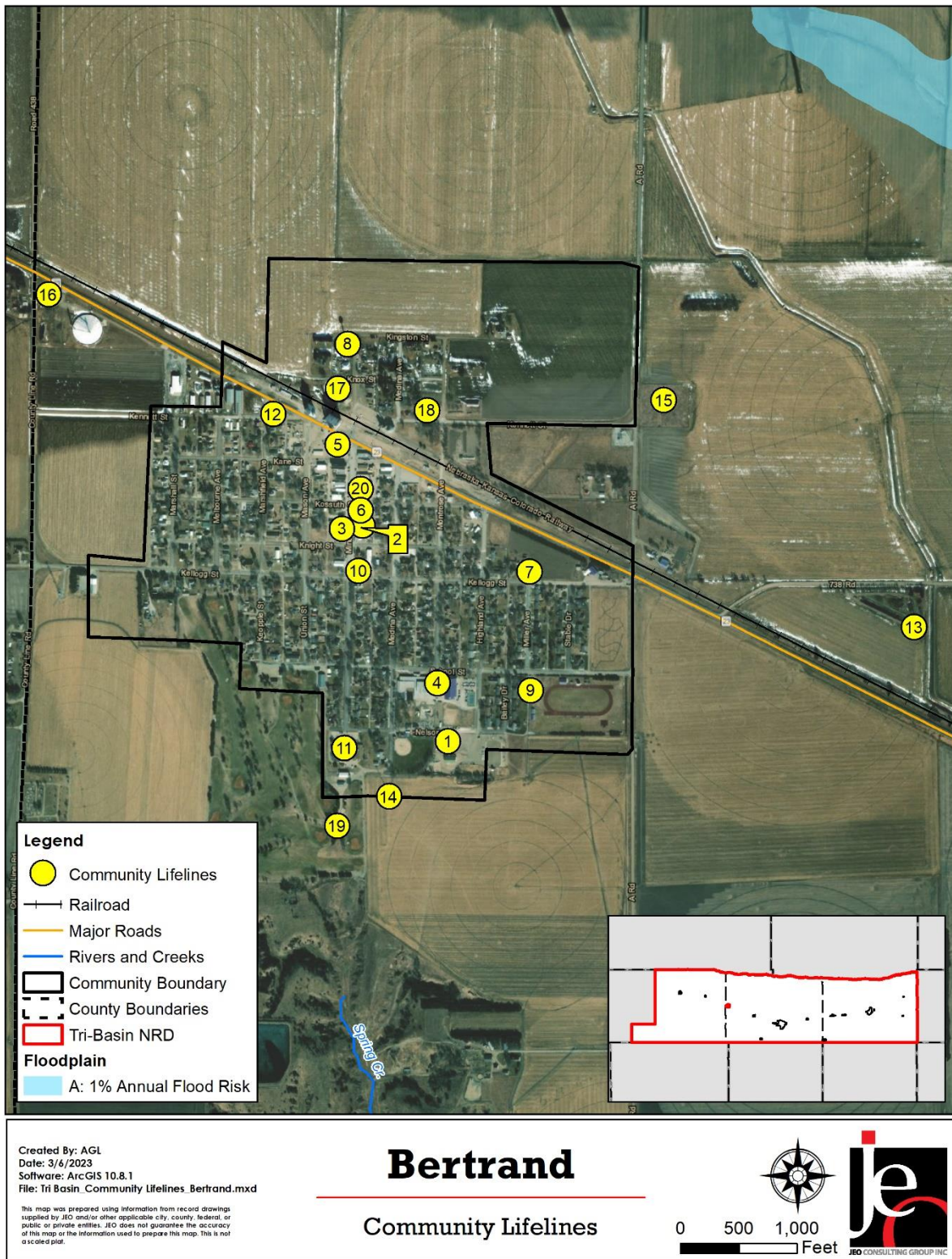
Table BTD.11: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
18	County Roads Shop	-	N
19	Lift Station	G	N
20	Preschool	-	N

50 National Pipeline Mapping System. 2022. "Public Viewer." Accessed July 2022. <https://pvnprms.phmsa.dot.gov/PublicViewer/>.

51 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

Figure BTD.5: Community Lifelines



*No streams located in community boundary.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) 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.

Table BTD.12: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
297	\$23,198,315	0	\$0	0%

Source: County Assessor, 2022

Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Bertrand which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by the Village of Bertrand. 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: Risk Assessment*.

Animal and Plant Disease

The local economy is largely dependent on agriculture. Any outbreak for plants or crops could have a significant impact on the economy. An animal disease outbreak is more likely to occur where a high number of animals are located in one place like feed lots. There are three large feed lots located within five miles of the village. Bertrand’s risk to this hazard has increased in recent years as nearby feed lots have expanded. The Emerald Ash Borer is also a concern for the village as 25% of the trees in the village are Ash. To help reduce the spread and impact of Emerald Ash Borer the village has tried to plant a variety of trees and has done education on Ash Tree treatment.

Grass/Wildfire

Bertrand has an increased risk from wildfires because it is completely surrounded by agricultural land with pastures located to the south. Past wildfires in the area have not directly damaged the village but have pushed the fire department to the limit. The local planning team is also concerned with the loss of protection in the community when the fire department is out at a nearby wildfire. To help reduce the risk of wildfires impacting the community, disking is in the nearby fields to help create fire breaks. However, high winds can lead to fires jumping over those areas.

Severe Thunderstorms

Severe thunderstorms are a concern because they can damage property, trees, and power lines. Severe thunderstorms can lead to the loss of services and utilities such as electricity and water. Previous thunderstorms have felled trees, caused property damage, and knocked out power in the village. In May 2016, a thunderstorm wind event caused \$175,000 in damages to trees and

irrigation pivots. The village is at a high risk of power loss from tree limbs and downed poles because none of the powerlines are buried. There are also trees that need to be trimmed, which the village does regularly. Residents are notified of severe weather through the radio, television, and the warning siren. To help reduce the impacts of hail, some village owned buildings have steel roofs and all are insured against hail damage.

Severe Winter Storms

On January 1, 2007, an ice storm crippled the region. Trees were damaged and power was lost for several days. Power loss was then an issue for the rest of the winter. Severe winter storms are a concern to the local planning team due to the potential for power outages. The village is currently supplied power from one source. Damage to power lines due to winter weather would harm the basic functions of the community. Other concerns include the hindrance of transportation routes, having a shelter for people to go, and fuel access. A new fire hall is planned for the next five years and could be used as a possible shelter location. Snow removal is handled by the village using a skid steer, loader, three trucks, and a grader. The local planning team indicated that the equipment is sufficient to meet most snowstorms. In addition, the village has local agreements for additional equipment if needed.

Tornadoes and High Winds

Tornadoes concern the local planning team as they can destroy large portions of the community, and severely damage the tax base. In June 1993, multiple vortex tornadoes started four miles north of Bertrand and struck an airstrip, damaging a hanger and airplane. The tornadic event continued onto Phelps, Dawson, and Buffalo Counties. High winds are a concern to the local planning team because Bertrand has several large trees that may sustain damages during a high wind event. A wind event 1997 caused major tree damage in the village. Bertrand has two warning sirens that can be heard from anywhere in the village. To further reduce the impacts of tornadoes and severe thunderstorms the village provides educational materials for storm shelter areas. The village has also created a yard waste site where debris can be dropped off after a storm.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	New Fire Hall
Description	Construct a new fire hall for the Bertrand Fire Department.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	\$1,000,000+
Local Funding	Bonds, Fire Department Funds, Fundraising
Timeline	2-5 Years
Priority	High
Lead Agency	Fire Department, Village Board
Status	Planning Stage. The village and fire department have the capability to implement this project.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural and manmade 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.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The village has the capability to implement this project.

Kept Mitigation Actions

Mitigation Action	Safe Room and Storm Shelters
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$250,000
Local Funding	Bonds
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Planning Stage. This project will likely be part of the new fire department building.

Plan Maintenance

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

The Utilities Superintendent, Maintenance Foreman, and Village Clerk will be responsible for reviewing and updating this community profile outside of the five-year update. Bertrand will review the plan annually and the public will be notified using social media and the village website.

Community Profile

Village of Funk

Tri-Basin NRD Hazard Mitigation Plan

2023

Local Planning Team

The Village of Funk’s local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by the community.

Table FNK.1: Funk Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Keith Jauken	Village Chairperson	Village of Funk	-	Minden
Brad Goothius	Water Operator	Village of Funk	-	-
Greg Vandell	Fire Chief	Funk Rural Fire Department	-	-
Rudy Mattson	Emergency Specialist	Village of Funk	-	-
Michelle Boulware	Village Clerk	Village of Funk	Minden	Minden

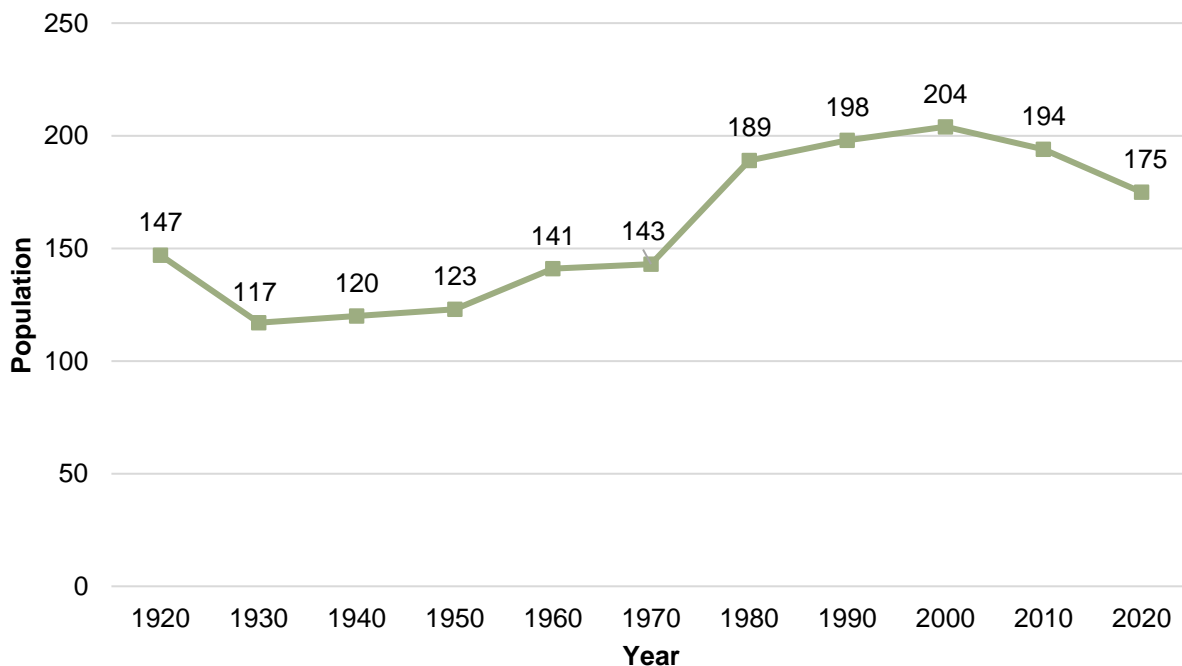
Location and Geography

The Village of Funk is located in east central Phelps County and covers an area of 0.26 square miles. There are no major bodies of water located near the community.

Demographics

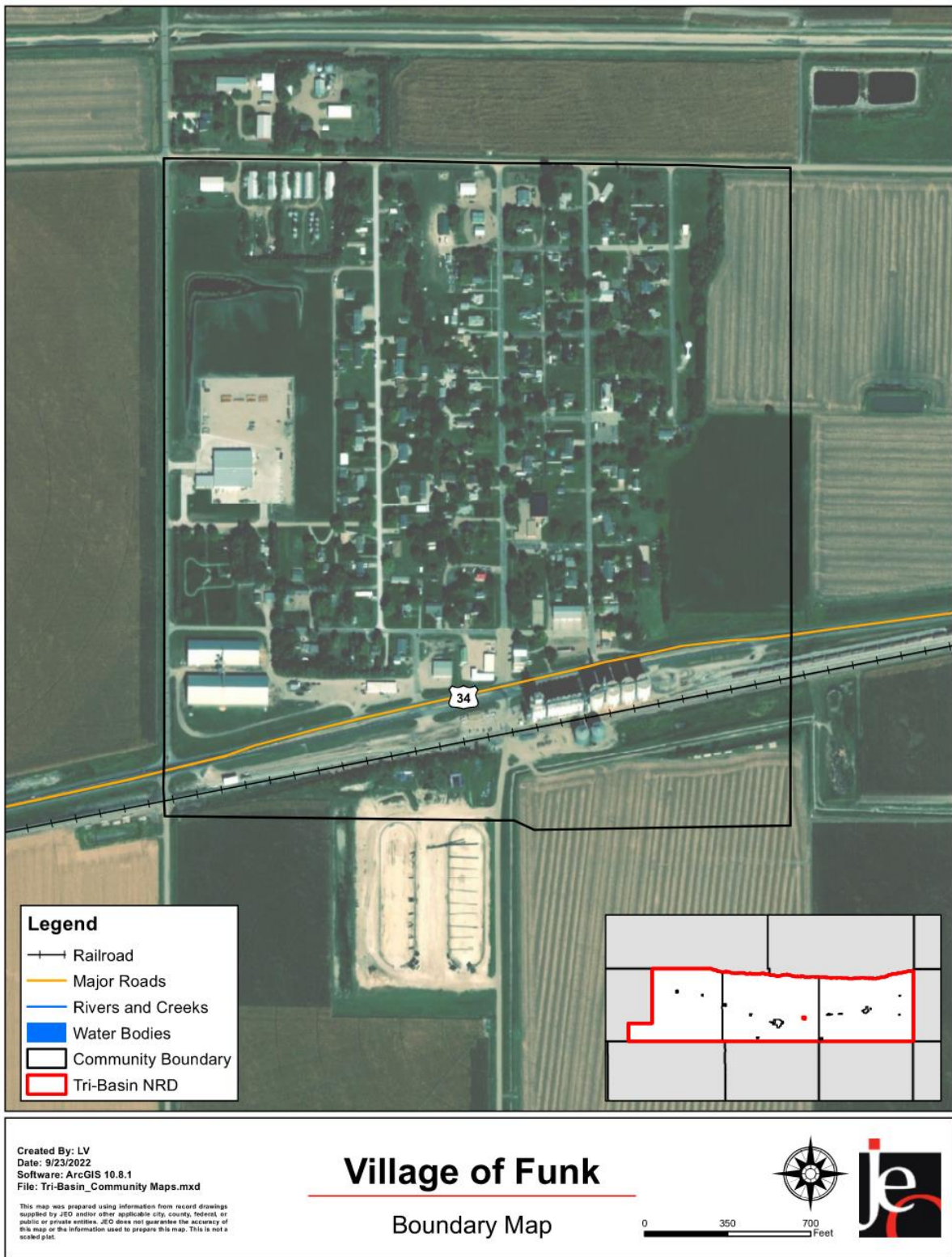
The following figure displays the historical population trend for the Village of Funk. This figure indicates that the population of Funk has been declining since 2010 to 175 people in 2020. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Unoccupied housing may also be an economic indicator that future development is unlikely to occur. Furthermore, with fewer residents, tax revenue decreases for the community, which could make implementing mitigation projects more fiscally challenging. Funk’s population accounted for 2% of Phelps County’s population in 2020.⁵²

Figure FNK.1: Population 1920 - 2020



52 United States Census Bureau. “2020 Census Bureau Decennial Census: P1: Race.” <https://data.census.gov/>.

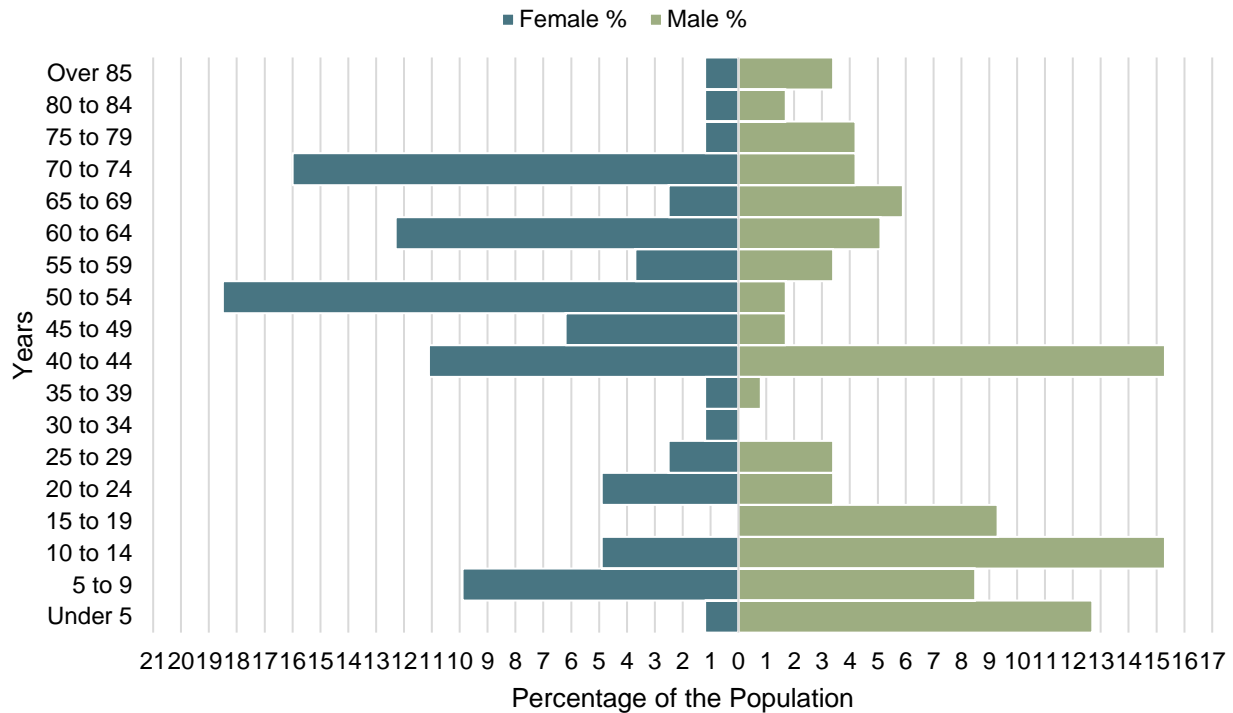
Figure FNK.2: Village of Funk



The young, elderly, and minority populations may be more vulnerable to hazards than other groups. Looking at Funk’s population:

- **8% is non-white.** Since 2010, Funk has become more ethnically diverse. In 2010, 4.1% of the Funk’s population was non-white. By 2020, 8% was non-white.⁵³
- **Median age of 44.** The median age of Funk was 44 years old in 2020. The population became younger since 2010, when the median age was 49.⁵⁴

Figure FNK.3: Funk’s Population Pyramid



The figure above shows Funk’s population percentage broken down by sex and five-year age groups. Funk’s population is relatively top heavy, suggesting a possible population decline as older generations are replaced by fewer younger residents.

Employment and Economics

Low-income populations, long distance commuters, and the unemployed may be more vulnerable to certain hazards like extreme heat and flooding than other groups. Funk’s population has:

- **2.5% of people living below the poverty line.** The poverty rate (2.5%) in the Village of Funk was lower than the state’s poverty rate (10.4%) in 2020.⁵⁵
- **\$71,250 median household income.** Funk’s median household income in 2020 (\$71,250) was \$8,235 higher than the state (\$63,015).⁵⁵

53 United States Census Bureau. “2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates.” <https://data.census.gov/>.

54 United States Census Bureau. “2020 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov/>.

55 United States Census Bureau. “2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics.” <https://data.census.gov/>.

- **0% unemployment rate.** In 2020 Funk has a lower unemployment rate (0%) when compared to the state (3.4%).⁵⁵
- **28.8% of workers commuted 30 minutes or more to work.** Fewer workers in Funk commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (28.8% compared to 51.3%).⁵⁶

Major Employers

Major employers within Funk include Cooperative Producers Inc. Services. A large percentage of residents commute to Holdrege and other communities for employment.

Housing

Multiple factors inform the vulnerability of housing units to hazard events. Housing age, for example, may indicate which housing units were built prior to the development of state building codes. Older houses and vacant housing generally more vulnerable to hazards if poorly maintained. Additionally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Renters are particularly vulnerable, as renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. Renters are less likely than homeowners to have flood insurance, have ready access to financial resources to evacuate, or to know their risks to flooding and other hazards. Funk's housing stock has:

- **65.5% of housing built prior to 1970.** Funk has a larger share of housing built prior to 1970 than the state (65.5% compared to 45.5%).⁵⁷
- **6.4% of housing units vacant.** Funk has a lower vacancy rate 6.4% compared to the rest of the state (9.2%).⁵⁷
- **14.1% mobile and manufactured housing.** The Village of Funk has a larger share of mobile and manufactured housing (14.1%) compared to the state (3.3%).⁵⁷ There are eight mobile homes located at the north end of Easy Street.
- **9.6% renter-occupied.** The rental rate of Funk was 9.6% in 2020. This is lower than the state's rate of 33.8%.⁵⁷

Broadband Access

Internet or broadband access through Wi-Fi or cellphone coverage is a critical means of sharing and receiving information regarding hazardous events, including storm warnings, evacuation orders, or weather updates. Rural communities often lack adequate internet or broadband access. However, internet access is as vital a utility as electricity, as seen through the COVID-19 pandemic when many people worked or attended school from home.

- **71.2% of households have a broadband internet subscription.** Funk has a smaller share of households with broadband (71.2%) compared to the state (85.6%).⁵⁸

56 United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." <https://data.census.gov/>.

57 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov/>.

58 United States Census Bureau. "2020 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." <https://data.census.gov/>.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. The Village of Funk is governed by a five-member village board; other governmental offices and departments that may be involved in implementing hazard mitigation initiatives are listed below.

- Clerk/Treasurer
- Grade 4 Water Operator
- Fire Chief
- Floodplain Administrator

Capability Assessment

The planning team assessed the Village of Funk's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. The local planning team does not plan to add or improve on existing capabilities due to limited staffing.

Funk's municipal funds are sufficient to pursue new capital projects; however, a large portion of funds are already allocated for a generator, variable frequency drives for the wells, and road updates. Funds have slightly increased over recent years.

Table FNK.2: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes (State)
	National Flood Insurance Program	Yes
	Community Rating System	No
	Regional Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes

Capability/Planning Mechanism		Yes/No
	Local staff who can assess community's vulnerability to hazards	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	Yes
	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. Ex. CERT Teams, Red Cross, etc.	Yes
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural disaster or safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Table FNK.3: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Phelps County, which includes Funk, is Relatively Moderate (13.78). The average for the State of Nebraska is 9.43.⁵⁹

- **Social Vulnerability:** Social groups in Phelps County have a Relatively Moderate (39.81) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Phelps County have a Very High (57.92) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

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

Table FNK.4: Rural Capacity Index

Components of Index	Village of Funk	Phelps County
County is Metropolitan?	No	No
Has a Head of Planning?	No	Yes
Has a College or University?	No	No
Adults with Higher Education:	19%	23%
Families Below Poverty Level:	0%	6%
Households with Broadband:	71%	79%
People without Health Insurance:	3%	4%
Voter Turnout:	81%	81%
Income Stability Score (0 to 100):	38	38
Population Change (2000 to 2019):	-12	-713
Overall Rural Capacity Index Score	46	68

Source: Headwaters Economics⁶⁰

National Flood Insurance Program (NIFP)

Funk is a member of the NFIP, having joined on 1/16/2008. The village’s Floodplain Administrator (Keith Jauken) oversees the commitments and requirements of the NFIP, including enforcement of the local floodplain management regulations. The initial FIRM for the village was delineated on 1/16/2008 and the current effective map date is 1/16/2008, which has been adopted and incorporated into the local floodplain management regulations. As of April 12, 2023, there are no NFIP policies in-force for the village. Funk does not currently have any repetitive loss or severe repetitive loss structures. The local planning team was unable to locate the village’s floodplain regulations and is not aware of what is written in them. A mitigation action has been added to address this issue. Funk is not located in a flood hazard area, so it has not been an issue in the

59 Federal Emergency Management Agency. “National Risk Index”. Accessed July 2022. <https://hazards.fema.gov/nri/map>.

60 Headwaters Economics. January 2022. “Rural Capacity Map”. Accessed July 2022. <https://headwaterseconomics.org/equity/rural-capacity-map/>.

past. The local planning team has said that Funk will remain in good standing and continue involvement with the NFIP in the future.

Plans and Studies

Funk 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 was unable to find the comprehensive plan and is not aware of what is listed in it. Currently, the Village Board is looking into updating all the village's planning documents.

Floodplain Regulations, Zoning Ordinance, and Subdivision Regulations

The village's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. The local planning team was unable to find these documents and is not aware of what is listed in them. Currently, the Village Board is looking into updating all the village's planning documents.

Phelps County Local Emergency Operations Plan (2021)

Funk is an annex in the Phelps County Local Emergency Operations Plan (LEOP). The hazard mitigation plan has not been integrated with this plan, however, the LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Water System Emergency Response Plan (2022)

A water system emergency response plan serves as a guideline for water operators and city administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

Future Development Trends

Over the past five years, Southern Public Power purchased land in the community and built a new large building. The building is not located in the floodplain or other known hazardous areas. A generator was added to the fire/community hall and variable frequency drives were added to the wells. These changes make the village less vulnerable to hazards. In the next five years, there are currently no planned housing or commercial developments. This is consistent with the projected population decline.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. The table below lists Safety and Security Lifelines for Funk.

Table FNK.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Building	-	N
2	Fire/Community Hall	G,S	N
3	Village Office	-	N

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for the Village of Funk are included in the table below.

Table FNK.6: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
4	City Well #1	G	N
5	City Well #2	-	N
6	Fridhem Lutheran Church	S	N
7	Water Tower	-	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. There are no medical and health facilities located within the community.^{61,62,63,64}

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for Funk.

Table FNK.7: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
8	CPI Gas Station	-	N
9	Southern Public Power	G	N

61 Department of Health and Human Services. 2022. "State of Nebraska: Assisted Living Facilities." <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

62 Department of Health and Human Services. 2022. "State of Nebraska Roster: Hospitals." <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

63 Department of Health and Human Services. 2022. "State of Nebraska Roster: Long Term Care Facilities." <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

64 Department of Health and Human Services. 2022. "State of Nebraska Roster: Rural Health Clinic." https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Communication Lifelines for the Village of Funk are included in the table below.

Table FNK.8: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
10	Exterior Emergency Notification Siren	-	N

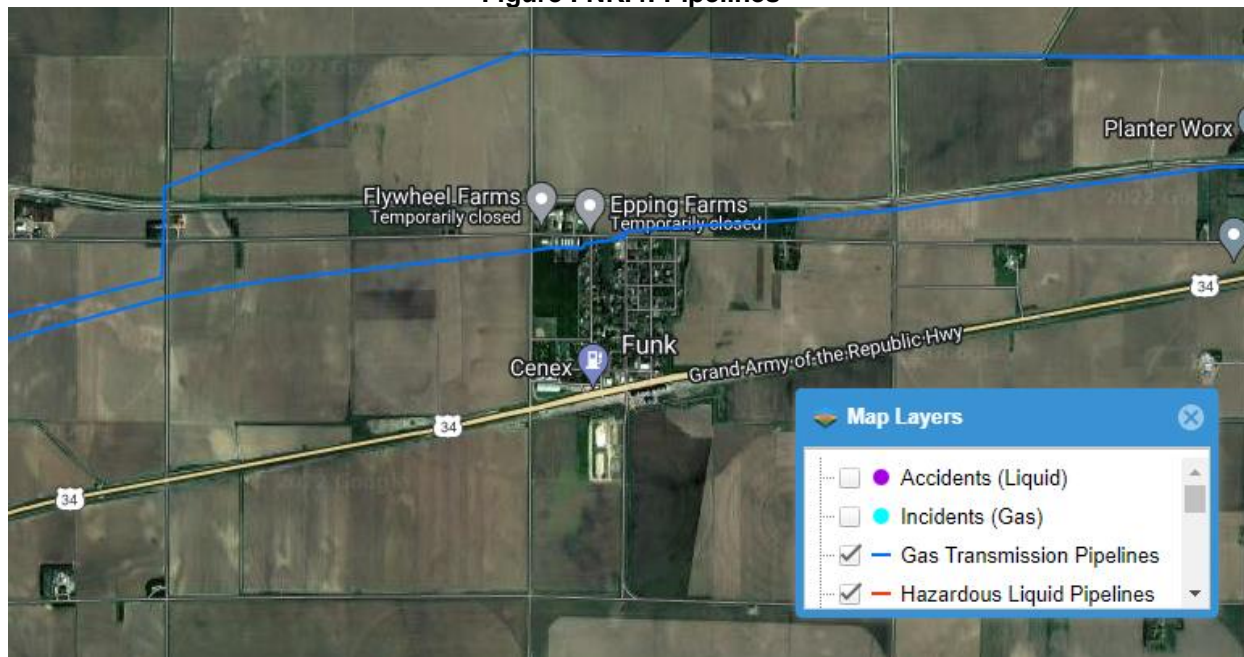
Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Funk’s major transportation corridor is U.S. Highway 34. It is traveled by an average of 4,725 vehicles daily, 540 of which are trucks.⁶⁵ In addition, T Road is also a concern for the local planning team as it is the only paved road that goes north out of the village. Funk has one Burlington Northern Santa Fe Railway/Amtrak line that travels along the southern portion of the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. No significant transportation events have occurred in the village.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are two gas transmission pipelines that travel through or near the community and can be seen in the figure below.

Figure FNK.4: Pipelines



Source: National Pipeline Mapping System⁶⁶

65 Nebraska Department of Transportation. 2021. “Annual Average Daily Traffic Flow.” Accessed July 2022.

<https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

66 National Pipeline Mapping System. 2022. “Public Viewer.” Accessed July 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical sites within or near Funk which house hazardous materials (listed below).

Table FNK.9: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
11	Cooperative Producers Inc	-	N
12	Mustang Ag	-	N

Source: Nebraska Department of Environment and Energy⁶⁷

Other Community Lifelines

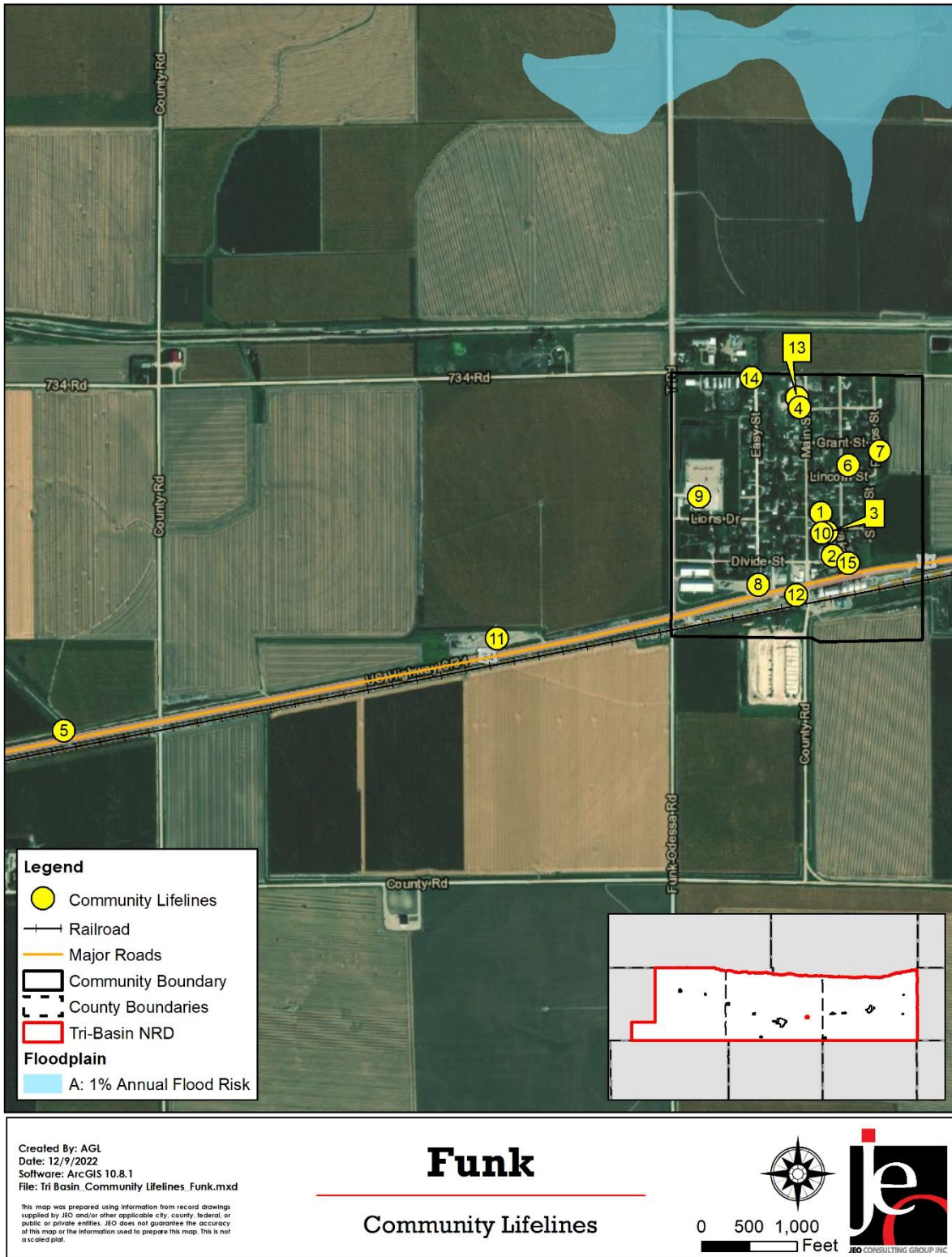
The Village of Funk identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the community. The other community lifelines are listed in the table below.

Table FNK.10: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
13	County Roads Shop	-	N
14	Sewer Lift Station	G	N
15	Village Shop	-	N

⁶⁷ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

Figure FNK.5: Community Lifelines



*No streams located in the community.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) 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.

Table FNK.11: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
76	\$6,765,500	0	\$0	0%

Source: County Assessor, 2022

Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Funk which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by the Village of Funk. 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: Risk Assessment*.

Flooding

The Village of Funk does not have any mapped special flood hazard areas located within or near the village limits. However, there are areas that have been identified as having poor drainage. This poor drainage leads to ponding and localized flooding in yards and fields. Two new culverts were recently installed just outside of the community to help address this issue. In addition, Southern Public Power put in a catching pond when they developed their property. During the March 2019 floods, T Road was washed out and had to be repaired. No community lifelines have been damaged from past flooding. Regular maintenance and replacement of old culverts is needed in the future. According to the Risk Factor website, Funk has a minor risk of flooding with 33 properties and one mile of road having a greater than 26% chance of being affected by flooding over the next 30 years. That risk is unlikely to change in the next 30 years.⁶⁸

Grass/Wildfires

On August 9, 2022, grassfires occurred north of the village. While no structures were damaged, air quality in the community was an issue due to the smoke. Air quality is the primary concern for the local planning team. Funk and the surrounding areas are covered by the Funk Rural Fire Department. To help reduce the risk of wildfires near the community, the state performed a prescribed burn at the Funk Lagoon. The village recently purchased variable frequency drives for the wells, they just need to be installed. This will help reduce the risk of a fire caused by the well motors. According to the Nebraska Forest Service's *Wildfire Risk Explorer*, the area around the community has low wildfire risk.⁶⁹

⁶⁸ Risk Factor. "Flood Factor: Funk, Nebraska". Accessed December 2022. https://riskfactor.com/city/funk-ne/3117880_fsid/flood.

⁶⁹ Nebraska Forest Service. "Nebraska Wildfire Risk Explorer". Accessed October 2022. <https://nebraskawildfirerisk.com/>.

Severe Thunderstorms

Severe thunderstorms have the potential to cause widespread property damage. The local planning team indicated that losing power is a major concern as only 10% of power lines are buried in the area. A backup generator was added to the fire/community hall recently to help with this issue. The NCEI recorded 46 severe thunderstorm events in Funk since 1996 that caused \$386,000 in property damages. The most severe event occurred in June 2014 and caused over \$150,000 in property damages roofs, trees, and siding. Since then, several hazardous trees have been removed from the community. There are still trees near the village shop and water tower that need to be removed. Village owned buildings do not have hail resistant materials but are insured against hail and other storm damage. In the future more electrical lines need to be buried.

Severe Winter Storms

Severe winter storms have the potential to cause property damages, power outages, and hinder transportation. Past winter storms have caused power loss and hazardous road conditions. The village has limited transportation routes, making access to emergency services difficult during severe winter events. The village recently purchased a backhoe to help push snow. A pickup with a snowblade is also used. This equipment is sufficient to handle most snowstorms.

Tornadoes and High Winds

One tornado occurred near the village but did not impact any structures in the community. High winds during the winter of 2021 caused tree damage, broken fences, and damage to roofs. The primary concerns related to tornadoes and high winds are damage to property and risk of injuries. Funk has one tornado siren which can be heard in all areas of the village. The tornado siren was recently upgraded. There is no safe room in the community, but a majority of homes have basements. People seeking safe shelter can also go to the fire station.

Mitigation Strategy

Completed Mitigation Actions

Mitigation Action	New Warning Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or the placement of new sirens. Purchase and install new sirens.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Status	Completed

Mitigation Action	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Completed

New Mitigation Actions

Mitigation Action	Increase Floodplain Management Capabilities
Description	Find the village's floodplain regulations and ensure that the floodplain administrator and other village board members are aware of what is written in them.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	1 Year
Priority	Low
Lead Agency	Floodplain Administrator, Village Board
Status	In Progress. Currently looking for the floodplain regulations.
Mitigation Action	Bury Power and Service Lines
Description	Bury power lines in the community so that they are less likely to be knocked down during severe storm events.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$150,000
Local Funding	General Fund, Resident Cost Share
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. The village currently does not have the capability to implement this project due to a lack of funds.
Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural and manmade 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.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The village has the capability to implement this project.
Mitigation Action	Update Community Planning Documents
Description	Update the village's comprehensive plan, zoning ordinance, subdivision regulations, and floodplain ordinance.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time, \$10,000+
Local Funding	Staff Time, General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started. The village will need to find the existing documents prior to updating them.

Kept Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power for community lifelines.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism, Tornadoes and High Winds
Estimated Cost	\$50,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Planning Stage. Discussions currently taking place with the community building to see about them getting a generator to become a certified Red Cross Shelter.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Drainage improvements may include ditch upsizing, ditch cleanout, and culvert improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	\$15,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The village currently does not have the capability to implement this project as private landowners currently own the land where the drainage needs to be changed.

Plan Maintenance

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

The Village Board will be responsible for reviewing and updating this community profile outside of the five-year update. Funk will review the plan bi-annually and the public will be notified using social media.

Community Profile

City of Holdrege

Tri-Basin NRD Hazard Mitigation Plan

2023

Local Planning Team

The City of Holdrege’s local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by the local planning team.

Table HLD.1: Holdrege Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Kim Parsons	Municipal Services Director / Floodplain Administrator	City of Holdrege	Elwood	Elwood
Brian Brinkman	Utility Superintendent	City of Holdrege	Elwood	Elwood

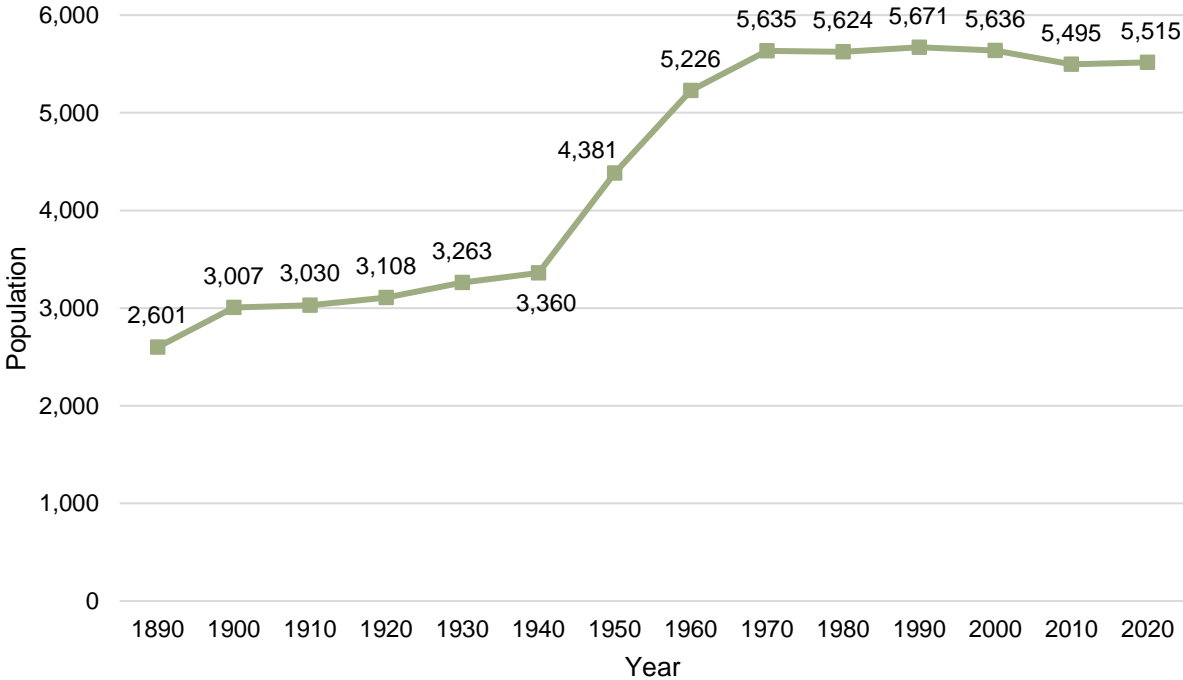
Location and Geography

The City of Holdrege is in south-central Phelps County and covers an area of 4.25 square miles. It is the largest community in the county and is the county seat. There are no major bodies of water located near the city.

Demographics

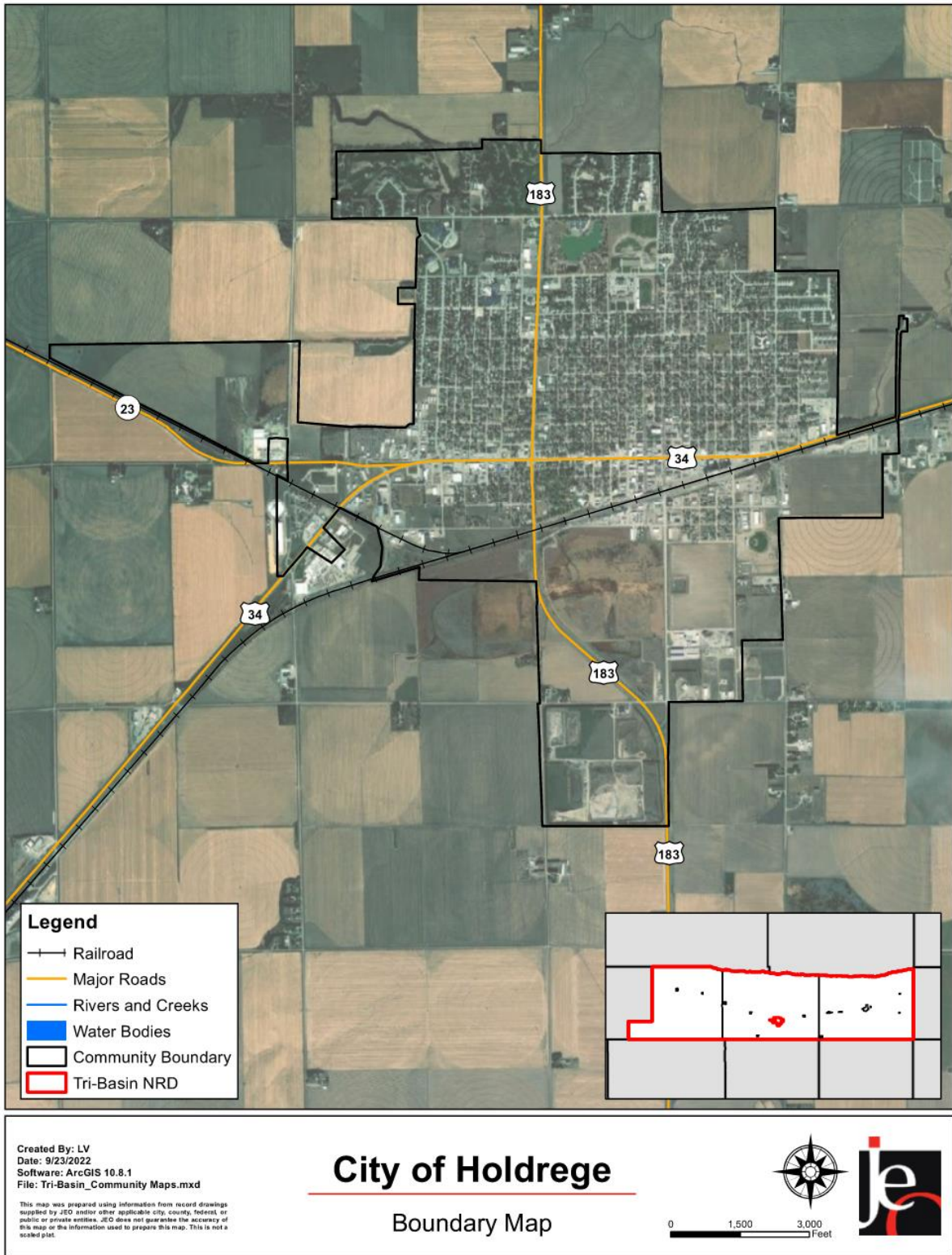
The following figure displays the historical population trend for the City of Holdrege. This figure indicates that the population of Holdrege has been increasing since 2010 to 5,515 people in 2020. Increasing populations are associated with more robust hazard mitigation and emergency planning requirements for development. Growing populations can also increase tax revenues, allowing communities to pursue additional mitigation projects. Holdrege’s population accounted for 61.5% of Phelps County’s population in 2020.⁷⁰

Figure HLD.1: Population 1890 - 2020



70 United States Census Bureau. “2020 Census Bureau Decennial Census: P1: Race.” <https://data.census.gov/>.

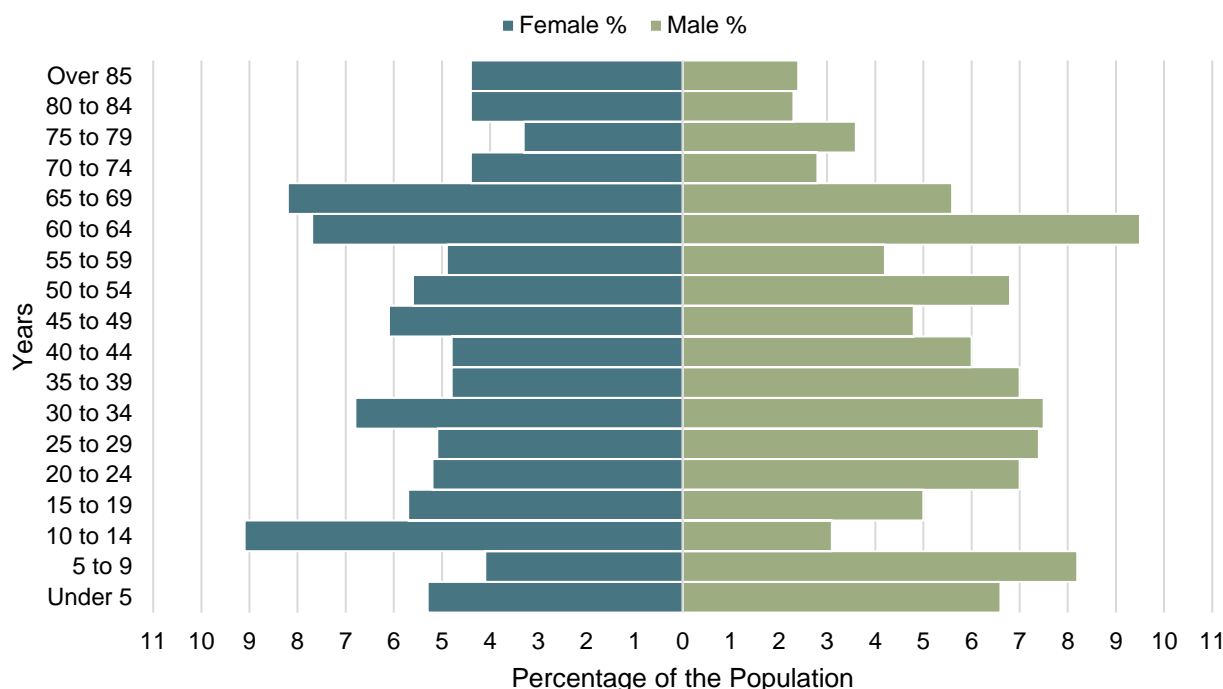
Figure HLD.2: City of Holdrege



The young, elderly, and minority populations may be more vulnerable to hazards than other groups. Looking at Holdrege’s population:

- **7.9% is non-white.** Since 2010, Holdrege has become more ethnically diverse. In 2010, 3.3% of the Holdrege’s population was non-white. By 2020, 7.9% was non-white.⁷¹
- **Median age of 40.4.** The median age of Holdrege was 40.4 years old in 2020. The population became younger since 2010, when the median age was 44.⁷²

Figure HLD.3: Holdrege’s Population Pyramid



The figure above shows Holdrege’s population percentage broken down by sex and five-year age groups. The city’s population is equally spread out between different age groups. This indicates that the population is likely to remain stable in the future.

Employment and Economics

Low-income populations, long distance commuters, and the unemployed may be more vulnerable to certain hazards like extreme heat and flooding than other groups. Holdrege’s population has:

- **15.2% of people living below the poverty line.** The poverty rate (15.2%) in the City of Holdrege was higher than the state’s poverty rate (10.4%) in 2020.⁷³
- **\$53,241 median household income.** Holdrege’s median household income in 2020 (\$53,241) was \$9,774 higher than the state (\$63,015).⁷³
- **0.7% unemployment rate.** In 2020 Holdrege has a lower unemployment rate (0.7%) when compared to the state (3.4%).⁷³

71 United States Census Bureau. “2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates.” <https://data.census.gov/>.

72 United States Census Bureau. “2020 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov/>.

73 United States Census Bureau. “2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics.” <https://data.census.gov/>.

- **20.5% of workers commuted 30 minutes or more to work.** Fewer workers in Holdrege commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (20.5% compared to 73.6%).⁷⁴

Major Employers

Major employers within Holdrege include Becton Dickinson, Allman Bros., and Phelps Memorial Health Center. Some residents commute to Kearney for employment.

Housing

Multiple factors inform the vulnerability of housing units to hazard events. Housing age, for example, may indicate which housing units were built prior to the development of state building codes. Older houses and vacant housing generally more vulnerable to hazards if poorly maintained. Additionally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Renters are particularly vulnerable, as renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. Renters are less likely than homeowners to have flood insurance, have ready access to financial resources to evacuate, or to know their risks to flooding and other hazards. Holdrege's housing stock has:

- **56.7% of housing built prior to 1970.** Holdrege has a larger share of housing built prior to 1970 than the state (56.7% compared to 45.5%).⁷⁵
- **4.8% of housing units vacant.** Holdrege has a lower vacancy rate 4.8% compared to the rest of the state (9.2%).⁷⁵
- **6.8% mobile and manufacture housing.** The City of Holdrege has a larger share of mobile and manufactured housing (6.8%) compared to the state (3.3%).⁷⁵ Mobile homes are located along both the east and west edges of the city.
- **32.4% renter-occupied.** The rental rate of Holdrege was 32.4% in 2020. This is lower than the state's rate of 33.8%.⁷⁵

Broadband Access

Internet or broadband access through Wi-Fi or cellphone coverage is a critical means of sharing and receiving information regarding hazardous events, including storm warnings, evacuation orders, or weather updates. Rural communities often lack adequate internet or broadband access. However, internet access is as vital a utility as electricity, as seen through the COVID-19 pandemic when many people worked or attended school from home.

- **83.1% of households have a broadband internet subscription.** Holdrege has a smaller share of households with broadband (83.1%) compared to the state (85.6%).⁷⁶

74 United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." <https://data.census.gov/>.

75 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov/>.

76 United States Census Bureau. "2020 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." <https://data.census.gov/>.

Governance

A community’s governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. The City of Holdrege is governed by a city council; other governmental offices and departments that may be involved in implementing hazard mitigation initiatives are listed below.

- Clerk/Treasurer
- Chamber of Commerce
- Mayor
- Community Redevelopment Authority
- Housing Authority
- Civil Service Commission
- Planning Commission
- Fire Department
- Police Department
- Utility Department
- City Administrator
- City Attorney
- Planning Commission
- Floodplain Administrator
- Phelps County Development Corporation
- Utilities Superintendent
- Municipal Services Director

Capability Assessment

The planning team assessed the City of Holdrege’s hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the community’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. The local planning team does not anticipate adding or improving capabilities or plans due to budget and personnel constraints.

Municipal funds are sufficient to pursue new capital projects depending on the type of project. A large portion of funds are not already dedicated to a specific project. Funds have stayed the same over recent years.

Table HLD.2: Capability Assessment

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

Capability/Planning Mechanism		Yes/No
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Regional Community Wildfire Protection Plan	Yes
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Local staff who can assess community's vulnerability to hazards	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	Yes
	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. Ex. CERT Teams, Red Cross, 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)	

Table HLD.3: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Limited
Staff/expertise to implement projects	High
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Phelps County, which includes Holdrege, is Relatively Moderate (13.78). The average for the State of Nebraska is 9.43.⁷⁷

- **Social Vulnerability:** Social groups in Phelps County have a Relatively Moderate (39.81) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Phelps County have a Very High (57.92) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

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

Table HLD.4: Rural Capacity Index

Components of Index	City of Holdrege	Phelps County
County is Metropolitan?	No	No
Has a Head of Planning?	Yes	Yes
Has a College or University?	Yes	Yes
Adults with Higher Education:	23%	23%
Families Below Poverty Level:	7%	6%
Households with Broadband:	78%	79%
People without Health Insurance:	3%	4%
Voter Turnout:	81%	81%
Income Stability Score (0 to 100):	38	38
Population Change (2000 to 2019):	-181	-713
Overall Rural Capacity Index Score	57	68

Source: Headwaters Economics⁷⁸

77 Federal Emergency Management Agency. “National Risk Index”. Accessed July 2022. <https://hazards.fema.gov/nri/map>.

78 Headwaters Economics. January 2022. “Rural Capacity Map”. Accessed July 2022. <https://headwaterseconomics.org/equity/rural-capacity-map/>.

National Flood Insurance Program (NFIP)

Holdrege is a member of the NFIP having joined on 4/2/1986, and the city's Floodplain Administrator (Kim Parsons) oversees the commitments and requirements of the NFIP including enforcement of the local floodplain management regulations. The initial FIRM for the city was delineated in 4/2/1986 and the current effective map date is 1/16/2008, which has been adopted and incorporated into the local floodplain management regulations on 11/6/2007. April 12, 2023, there are three NFIP policies in-force for the city covering \$576,000. Holdrege does not currently have any repetitive loss or severe repetitive loss structures. All new structures are required to get a building permit prior to construction. The floodplain administrator reviews these permits to see if they are located in the floodplain and need to follow the city's floodplain regulations. Enforcement of the floodplain regulations is handled by the floodplain administrator using the city's ordinances. After a flood event, the community implements substantial improvement and substantial damage provisions as outlined in the Substation Damage Assessment Handbook from the Nebraska Department of Natural Resources, which can be found here: https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/20220301_eSDA_Handbook_FINAL.pdf. The local planning team has stated that Holdrege will remain in good standing and continue involvement with the NFIP in the future. However, assistance from NeDNR may be needed to help with floodplain management challenges. This has been added as a mitigation action.

Plans and Studies

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

Building Code (2018)

The building code sets standards for constructed buildings and structures. The city has adopted the 2018 International Building Code and 2018 International Residential Code. Parts of both codes were not included, as they did not apply to the city. Enforcement of the code is done by City of Holdrege employees. The hazard mitigation plan has not been integrated into it.

Capital Improvements Plan

The capital improvements plan outlines projects the city would like to pursue and provides a planning schedule and financing options. Projects include stormwater and drainage improvements, installing new municipal wells, installing water meters for residential structures, updating the electrical system, burying power lines, and installing backup generators. The hazard mitigation plan has not been integrated into the capital improvements plan. Projects from the capital improvements plan are reviewed for including in the hazard mitigation plan.

Comprehensive Plan (2017)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has not been integrated; however, it contains goals aimed at safe growth, directs development away from the floodplain, encourages infill, directs housing and vulnerable populations away from major transportation routes, and encourages the elevation of structures located in the floodplain. There is currently no timeline to update the comprehensive plan.

Floodplain Regulations (2007), Zoning Ordinance, and Subdivision Regulations

The city's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. The hazard mitigation plan has not been integrated with these documents. However, the documents discourage development in the floodplain and include well setback requirements. There is no timeline to update any of these documents.

Phelps County Local Emergency Operations Plan (2021)

Holdrege is an annex in the Phelps County Local Emergency Operations Plan (LEOP). The hazard mitigation plan has not been integrated with this plan, however, the LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and city administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

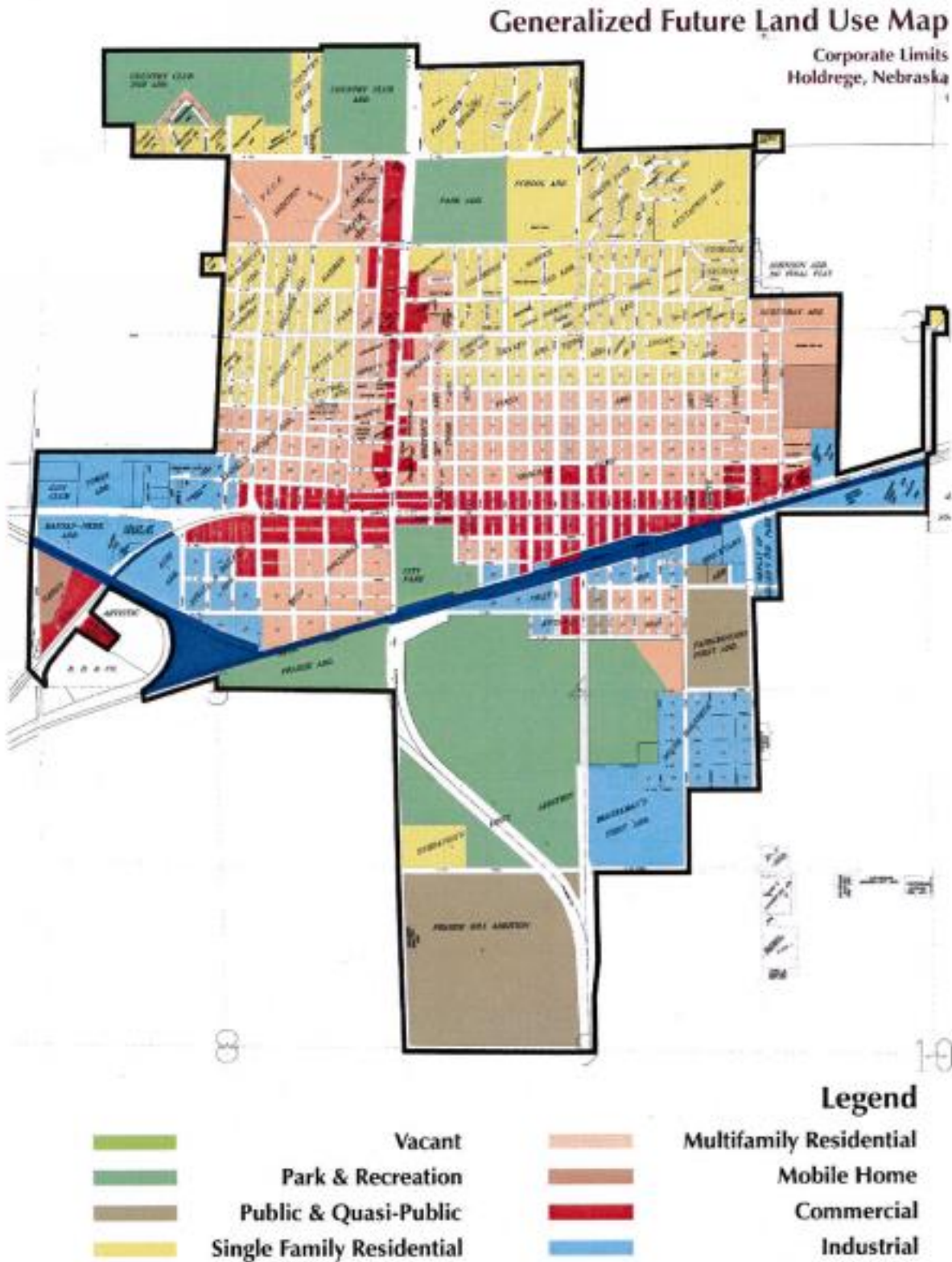
Wellhead Protection Plan

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

Future Development Trends

Over the past five years, new housing has been built in Holdrege, which is consistent with the population growth seen in the city. This new housing likely increased the city's vulnerability to hazards as there is more property that could be damaged. However, that increase is minimized as none of the new housing was located in the floodplain or other known hazardous areas. In the next five years, a new housing development will possibly be added to the northeast portion of the city. The future land use map for Holdrege (Figure HLD.4) shows that residential housing is planned in the northern portion of the city and commercial/industrial is located along the highways.

Figure HLD.4: Future Land Use Map



Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. The table below lists Safety and Security Lifelines for Holdrege.

Table HLD.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	City Office	G	N
2	Fire Department / Police Department	G	N
3	State of Nebraska Office	-	N
4	Utilities Building – Electric Shop	G	N
5	Central Maintenance Shop	G	N
6	Phelps County Courthouse	G	N

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for the City of Holdrege are included in the table below.

Table HLD.6: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
7	Assembly of God Church/North Park Assembly	S	N
8	City Auditorium	S	N
9	Holdrege High School	G,S	N
10	Holdrege Market Place	-	N
11	Holdrege Middle School	G,S	N
12	Phelps County Ag Center	S	N
13	Sun Mart Foods	G	N
14	Trinity Church	S	N
15	Water Tower / Well #6	-	N
16	Well #1	-	N
17	Well #5	-	N
18	Well #12	-	N
19	Well #13	-	N
20	Well #14	-	N
21	Well #15	-	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. The following medical and health facilities are located within the community.

Table HLD.7: Health and Medical Lifelines

CL Number	Name	Type of Facility	Number of Beds	Generator (G) Shelter (S)	Floodplain (Y/N)
22	Christian Homes Health Care Center	Assisted Living Facility & Long Term Care	116	-	N
23	Holdrege Memorial Homes, Inc.	Assisted Living Facility & Long Term Care	140	-	N
24	Phelps Memorial Health Center	Hospital & Rural Health Clinic	25	G	N
25	Family Medical Specialties	Rural Health Care	0	-	N

Source: Nebraska Department of Health and Human Services^{79,80,81,82}

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for Holdrege.

Table HLD.8: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
26	High Street Substation	-	N
27	Becton Dickinson Substation	-	N
28	Central Nebraska Public Power/Irrigation District	G	N
29	East Substation	-	N
30	Power Plant	-	N
31	South Substation	-	N
32	Southern Power District	G	N
33	West Substation	-	Y

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Communication Lifelines for the City of Holdrege are included in the table below.

Table HLD.9: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
34	Verizon Cell Tower	-	N
35	Viaero Cell Tower #1	-	N
36	Viaero Cell Tower #2	-	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Holdrege’s major transportation corridors include U.S. Highways 6, 34, and 183 and State Highway 23. The most traveled route is Highway 6 with an average of 10,795

79 Department of Health and Human Services. 2022. “State of Nebraska: Assisted Living Facilities.” <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

80 Department of Health and Human Services. 2022. “State of Nebraska Roster: Hospitals.” <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

81 Department of Health and Human Services. 2022. “State of Nebraska Roster: Long Term Care Facilities.” <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

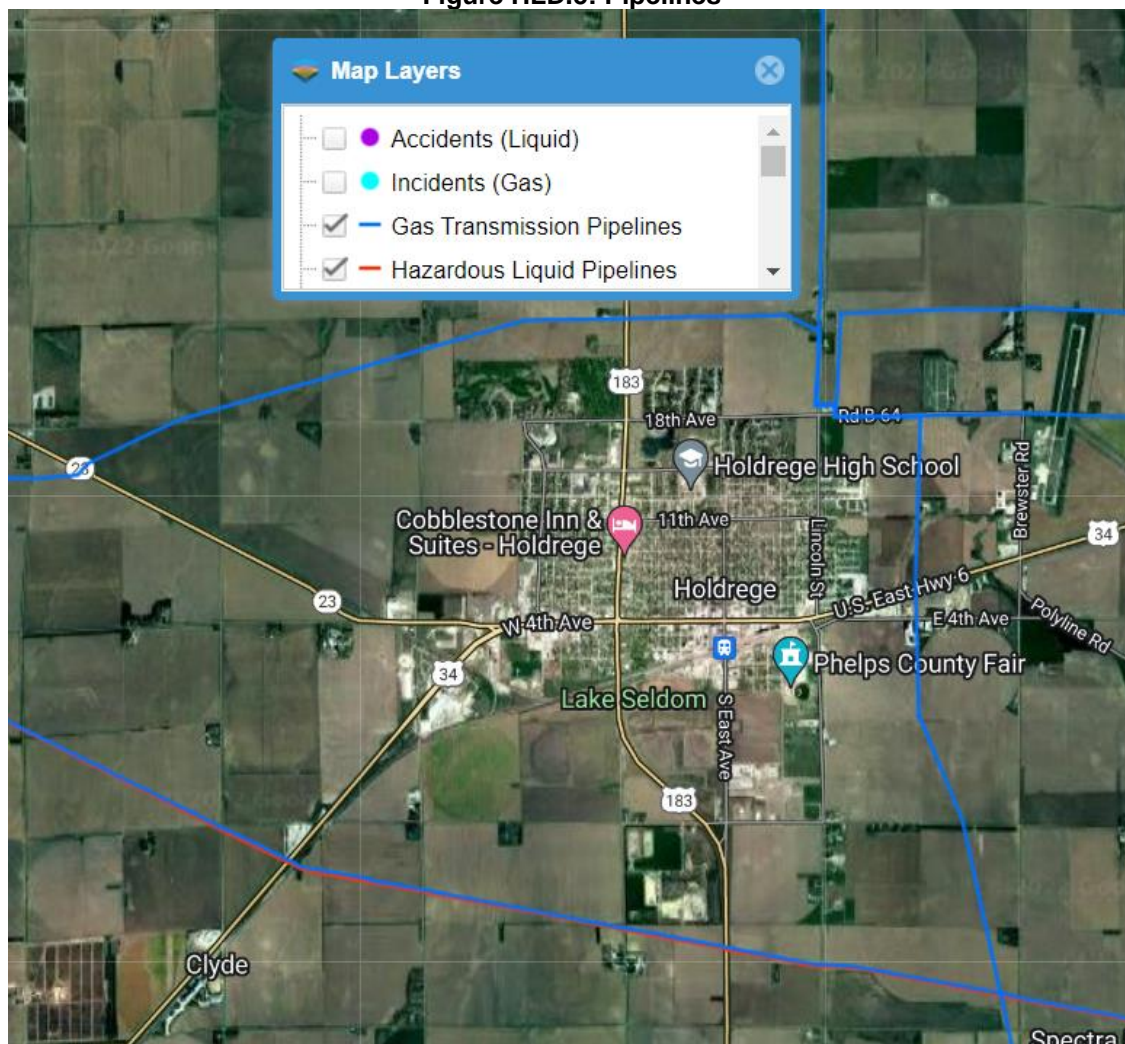
82 Department of Health and Human Services. 2022. “State of Nebraska Roster: Rural Health Clinic.” https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

vehicles daily, 680 of which are trucks.⁸³ Holdrege has two rail lines. One Burlington Northern Santa Fe Railway/Amtrak line on the southeastern portion of the community and one Nebraska Kansas Colorado Railway line on the western portion. Three airports are located near the community. The public Brewster Field Airport is located two miles northeast, the private Olson Field Airport is located 10 miles northwest, and the private Wells Airport is located five miles northeast of Holdrege. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. No significant transportation events have occurred locally.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are several gas transmission pipelines and one hazardous liquid pipeline that travels through the community and can be seen in the figure below. Chemicals are regularly transported on the rail lines, highways, and roadways to local businesses.

Figure HLD.5: Pipelines



Source: National Pipeline Mapping System⁸⁴

83 Nebraska Department of Transportation. 2021. "Annual Average Daily Traffic Flow." Accessed July 2022.

<https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

84 National Pipeline Mapping System. 2022. "Public Viewer." Accessed July 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 11 chemical sites within or near Holdrege which house hazardous materials (listed below).

Table HLD.10: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
37	Becton Dickinson Consumer Prod	-	N
38	Bosselman Energy Inc Station	-	N
39	CenturyLink	-	N
40	CHS Inc	-	N
41	CHS Inc	-	N
42	CHS Inc	-	N
43	Helena Agri-Enterprises LLC	-	N
44	Nebraskaland Aviation Inc	-	N
45	Nebraskaland Aviation Inc	-	N
46	Paulsen Inc	-	N
47	Wells Flying Svvc & Nutrien Ag	-	N

Source: Nebraska Department of Environment and Energy⁸⁵

Other Community Lifelines

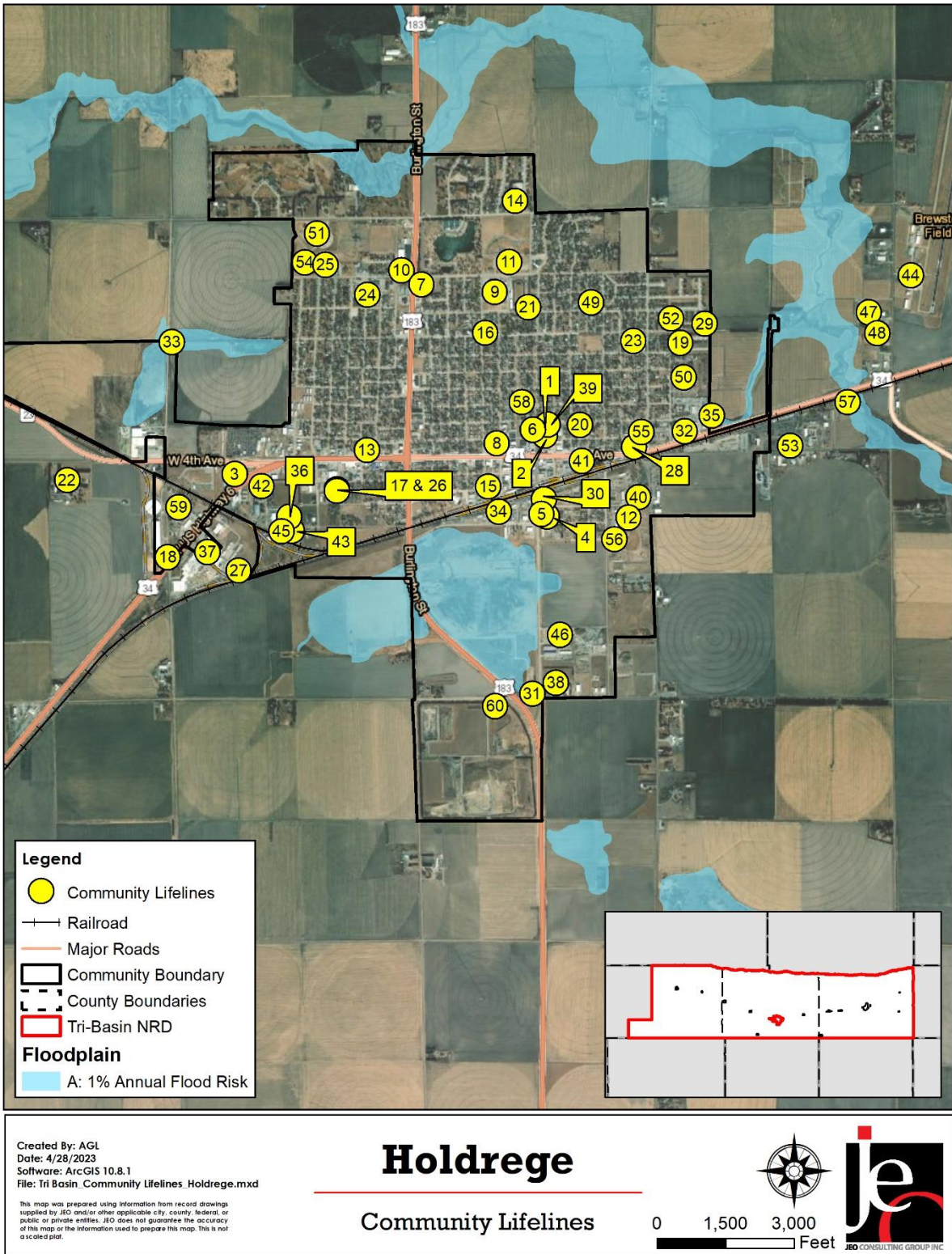
The City of Holdrege identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the community. The other community lifelines are listed in the table below.

Table HLD.11: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
48	Adam Seed Co	-	N
49	All Saints Catholic Church and School	-	N
50	Eastside Trailer Park	-	N
51	Holdrege Elementary School	-	N
52	Holdrege Low Income Housing	-	N
53	Holdrege Veterinary Clinic	-	N
54	Holdrege YMCA	-	N
55	Little Learner Children’s Academy	-	N
56	Phelps County Fairgrounds	-	N
57	Sewer Plant	-	Y
58	Tutoring Tots	-	N
59	Westside Trailer Park	-	N
60	Mid-NE Community Service	-	N

85 Nebraska Department of Environment and Energy. “Search Tier II Data.” Accessed May 2022.

Figure HLD.6: Community Lifelines



Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) 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.

Table HLD.12: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2,188	\$236,382,120	38	\$1,501,290	1.7%

Source: County Assessor, 2022

Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Holdrege which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by the City of Holdrege. 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: Risk Assessment*.

Drought

The primary concern related to drought is having enough water for residents. While it has not occurred in the past, during a long severe drought, it is possible the city may have a water shortage. If needed, the city has the ability to implement water restrictions. Staff would discuss what restrictions are needed and then would make recommendations to the City Council. Water restrictions have not been implemented in the past. In the future the city would like to add an additional water well to increase the city’s capacity. Drought can also have major economic impacts. Holdrege is a rural community that relies on agriculture as a big portion of the local economy. During a drought, crops are impacted which could impact the city’s economy.

Extreme Heat

Extreme heat events can strain the electrical grid and cause blackouts. Power outages during extreme heat events can be deadly for those with medical equipment that needs power and those with preexisting health conditions. Local concerns include the availability of cool centers and water for vulnerable populations. Currently, the city does not have identified cooling centers for residents. There are no policies in place for canceling events, but the city does public education and outreach on extreme heat.

Flooding

Localized flooding occurred in the city in 2018. During this even a subdivision outside of the city limits flooded along with flooding on the golf course, wastewater treatment plant, and museum. In April 2007 the city experienced a flash flood event that caused \$75,000 in damages to roadways and ditches. Areas most likely to flood are located in the 100-year floodplain. These areas are on

the western edge, southern portion, and northern edge of the city. According to the Risk Factor website, Holdrege has a minor risk of flooding with 44 properties and 16 miles of roads having a greater than 26% chance of being affected by flooding over the next 30 years. That risk is unlikely to change in the next 30 years.⁸⁶ The city regularly communicates with the public on potential flooding impacts. The local planning team identified stormwater system improvements as an action to mitigate localized flooding during heavy rain events.

Hazardous Materials Release

The local planning team is concerned with chemical spills during transportation due to the proximity of critical facilities to major transportation routes. Additional concerns include residents not having the equipment to shelter in place, and communication concerns depending on the location and time of day of the spill. The largest reported spill occurred in 2018 when a storage tank released 2,000 pounds of sulfuric acid. No damages or injuries were reported. The closest hazmat teams are located in Grand Island and Hastings. However, the local fire department has been trained in initial response to chemical spills and has some equipment to clean up a spill.

Severe Thunderstorms

Severe thunderstorms have the potential to cause flooding, hindrances to transportation routes, and damages to property and community lifelines. Hail is a concern to the local planning team due to the potential for widespread property and crop damages. Severe thunderstorms are an annual occurrence for the city. The most damaging event occurred in 1998 when a 2.75-inch hail caused \$1,000,000 in property damages. Vehicles, storage bins, roofs, windows, and siding were all damaged in the event. Residents are notified of severe weather through the local news station. All city owned buildings are insured in the event of hail or wind damage. The local planning team estimates that 60% of power lines are buried in the city which helps to protect against power loss.

Severe Winter Storms

Severe winter storms are a concern to the local planning team due to the potential for power outages and hindrance of transportation routes. Large winter storms can strain local snow removal resources. When transportation routes are blocked, first responders may not be able to reach vulnerable populations without power or heat. Severe winter weather can also lead to an increase in traffic accidents and carbon monoxide poisonings. The city is responsible for snow removal and uses snowplow trucks, motor graders, loaders, backhoes, skid loaders, and tractors. Designated snow routes are also used throughout the community to prioritize major roadways. No warming centers have been identified in the city.

Tornadoes and High Winds

Three tornadoes have occurred near the city, but none have impacted structures within the community. However, tornadoes cause many concerns to the local planning team. Tornadoic events could cause damage to community lifelines and widespread structural damage. If certain community lifelines are damaged, the communication and coordination of emergency response would be affected. The local planning team is also concerned with proper education of the risks of tornadoic events; if residents attempt to look at the tornado when sirens are heard. Holdrege has four warning sirens which provide coverage across the entire city. The city does not have a public safe room and residents must use low lying areas and basements for shelter during a tornado.

86 Risk Factor. "Flood Factor: Holdrege, Nebraska". Accessed October 2022. https://riskfactor.com/city/holdrege-ne/3122640_fsid/flood.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Burying Power and Service Lines
Description	Identifying locations where burying power lines would be beneficial. Work with the electrical company to bury power lines within the city.
Hazard(s) Addressed	Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$100,000
Local Funding	Bonds, Electrical Rates, CDBG
Timeline	Ongoing
Priority	Medium
Lead Agency	Utilities Department
Status	Ongoing. Power lines are buried as locations are identified and funds are available.
Mitigation Action	Communication Equipment
Description	Upgrade the communication equipment used by the Police Department.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$10,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Police Chief
Status	Not Started. The department does not have the capability to implement this project.
Mitigation Action	Increase Floodplain Management Capabilities
Description	Work with NeDNR to help with floodplain management challenges and capabilities.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	1 Year
Priority	Medium
Lead Agency	Floodplain Administrator, NeDNR
Status	Not Started. The city has the capability to implement this action.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural and manmade 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.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	Ongoing
Priority	Low
Lead Agency	City Administrator, Utilities Department
Status	Not Started. The city has the capability to implement this project.

Mitigation Action	Safe Room and Storm Shelters
Description	Work with the Tri-Basin NRD and All Saints Catholic School to construct safe rooms in the community.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$1,000,000+, Staff Time
Local Funding	Cost Share, Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Council, Tri-Basin NRD, All Saints Catholic School
Status	Not Started. The city has the capability to help the Tri-Basin NRD and All Saints Catholic School.

Mitigation Action	Safety Equipment
Description	Purchase additional safety equipment that will be used by the police department.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$10,000
Local Funding	General Fund
Timeline	Ongoing
Priority	Low
Lead Agency	Police Chief
Status	Ongoing. Safety equipment is purchased when needed and funds are available.

Mitigation Action	Water Well
Description	Construct another water well in order to increase the city's capacity.
Hazard(s) Addressed	Drought
Estimated Cost	\$800,000
Local Funding	Bonds
Timeline	2-5 Years
Priority	High
Lead Agency	Utilities Department
Status	Not Started. The city does not currently have the capability to implement this project due to a lack of funding.

Kept Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or the placement of new sirens. Purchase and install new warning sirens.
Hazard(s) Addressed	Tornadoes and High Winds
Estimated Cost	\$40,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Utilities Department, County Emergency Manager
Status	Not Started. The city currently does not have the capability to implement this project due to funding.

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to produce redundant power supplies at community lifelines. A backup generator is needed at the landfill, Well #6, and communication equipment.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$80,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Utilities Department, County Emergency Manager
Status	Not Started. The city does not currently have the capability to implement this project due to funding and needing a design.

Mitigation Action	Electric System Looped Distribution/Redundancies
Description	Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$3,000,000
Local Funding	Bonds, Electrical Rates, CDBG
Timeline	2-5 Years
Priority	High
Lead Agency	Utilities Department
Status	Design Stage. The city currently does not have the capability to implement this project due to funding, lack of equipment, and lack of manpower.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Improve stormwater system. This may include pipe upsizing, additional inlets, retention and detention facilities.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000+
Local Funding	Bonds, CDBG
Timeline	5+ Years
Priority	High
Lead Agency	Utilities Department
Status	Not Started. The city does not currently have the capability to implement this project due to funding and needing a design.

Plan Maintenance

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

The City Administrator, Municipal Services Director, and Utilities Superintendent will be responsible for reviewing and updating this community profile outside of the five-year update. Holdrege will review the plan annually and the public will be notified using social media, city website, and public city council meetings.

Community Profile

Village of Loomis

**Tri-Basin NRD
Hazard Mitigation Plan**

2023

Local Planning Team

The Village of Loomis’ local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by members of the local planning team.

Table LMS.1: Loomis Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
MJ Pristavec	Clerk / Treasurer / Utility Superintendent	Village of Loomis	Holdrege	Holdrege
Keith Fagot	Board Chairman	Village of Loomis	-	-
Don Masten	Board Vice Chairman	Village of Loomis	-	-
Ben Collin	Board Member	Village of Loomis	-	-
Max Berry	Board Member	Village of Loomis	-	-
Melanie Freeman	Board Member	Village of Loomis	-	-

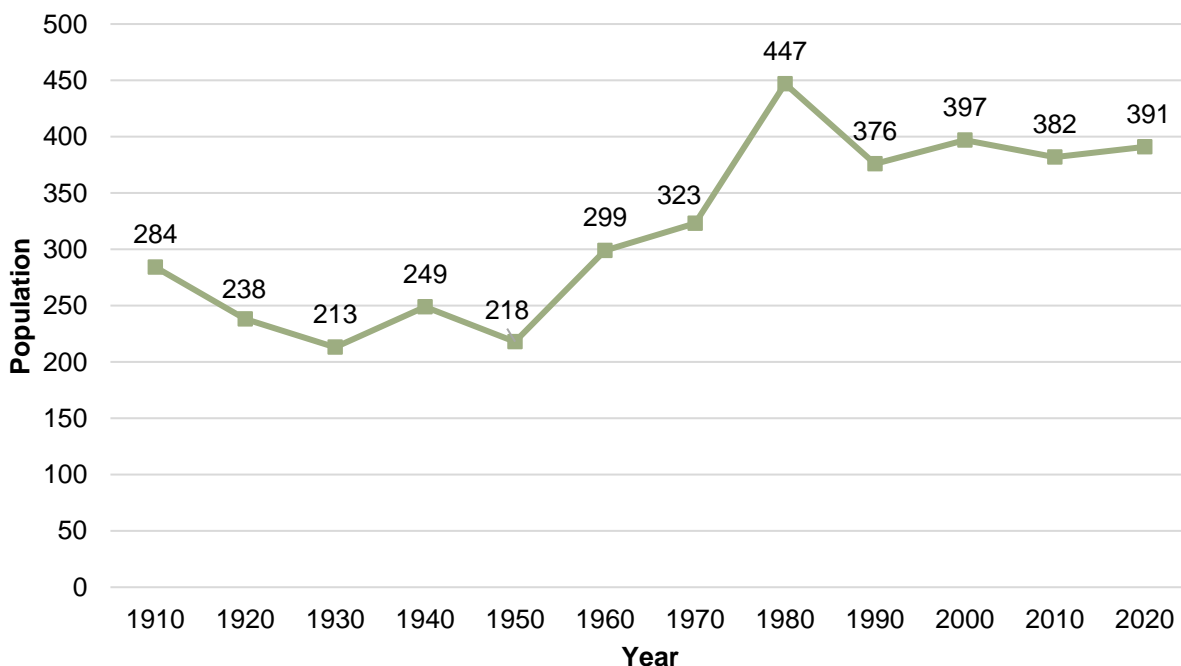
Location and Geography

The Village of Loomis is located in west central Phelps County and covers an area of 0.33 square miles. No major waterways are located in or near the community.

Demographics

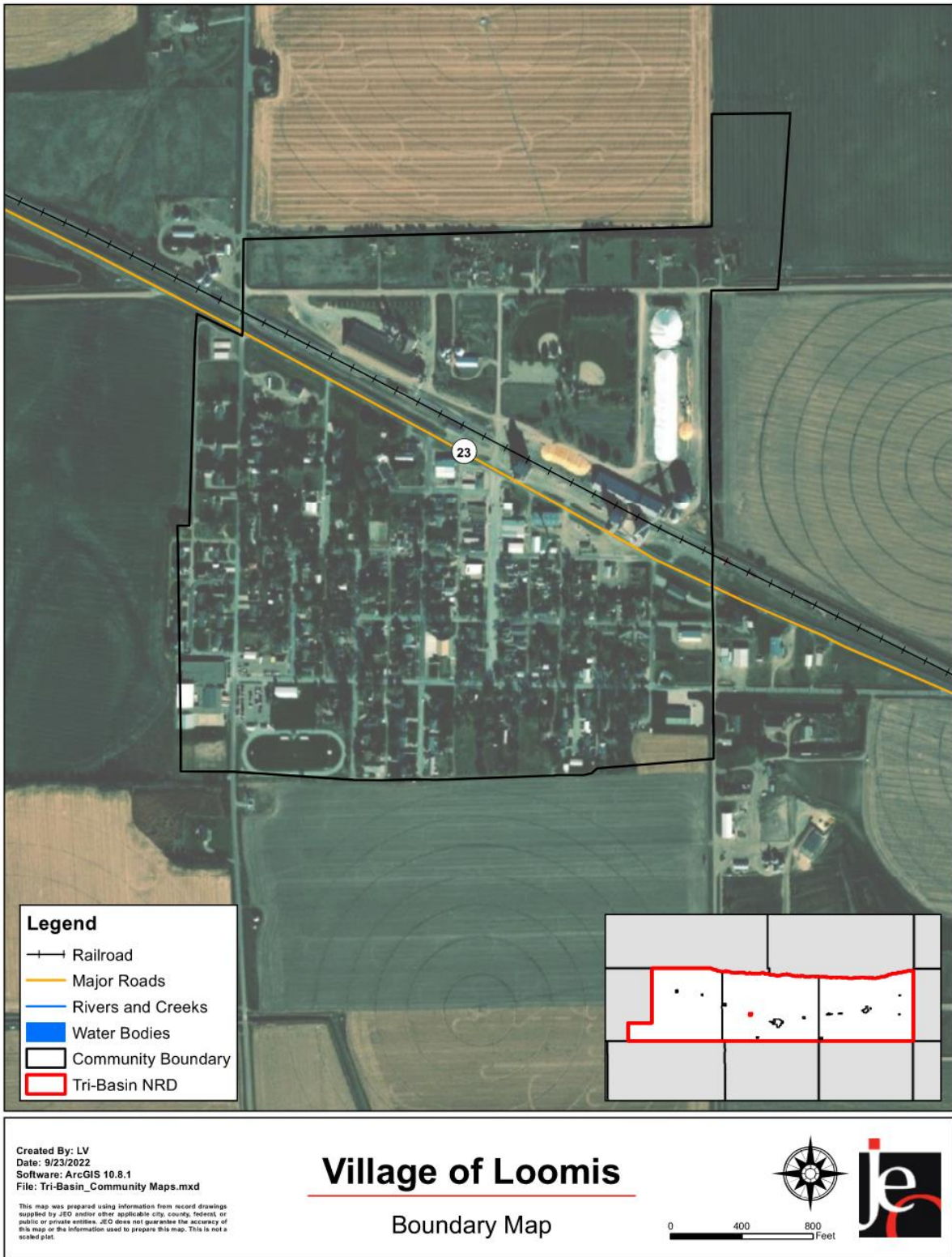
The following figure displays the historical population trend for the Village of Loomis. This figure indicates that the population of Loomis has been increasing since 2010 to 391 people in 2020. Increasing populations are associated with more robust hazard mitigation and emergency planning requirements for development. Growing populations can also increase tax revenues, allowing communities to pursue additional mitigation projects. Loomis’s population accounted for 4.4% of Phelps County’s population in 2020.⁸⁷

Figure LMS.1: Population 1910 - 2020



87 United States Census Bureau. “2020 Census Bureau Decennial Census: P1: Race.” <https://data.census.gov/>.

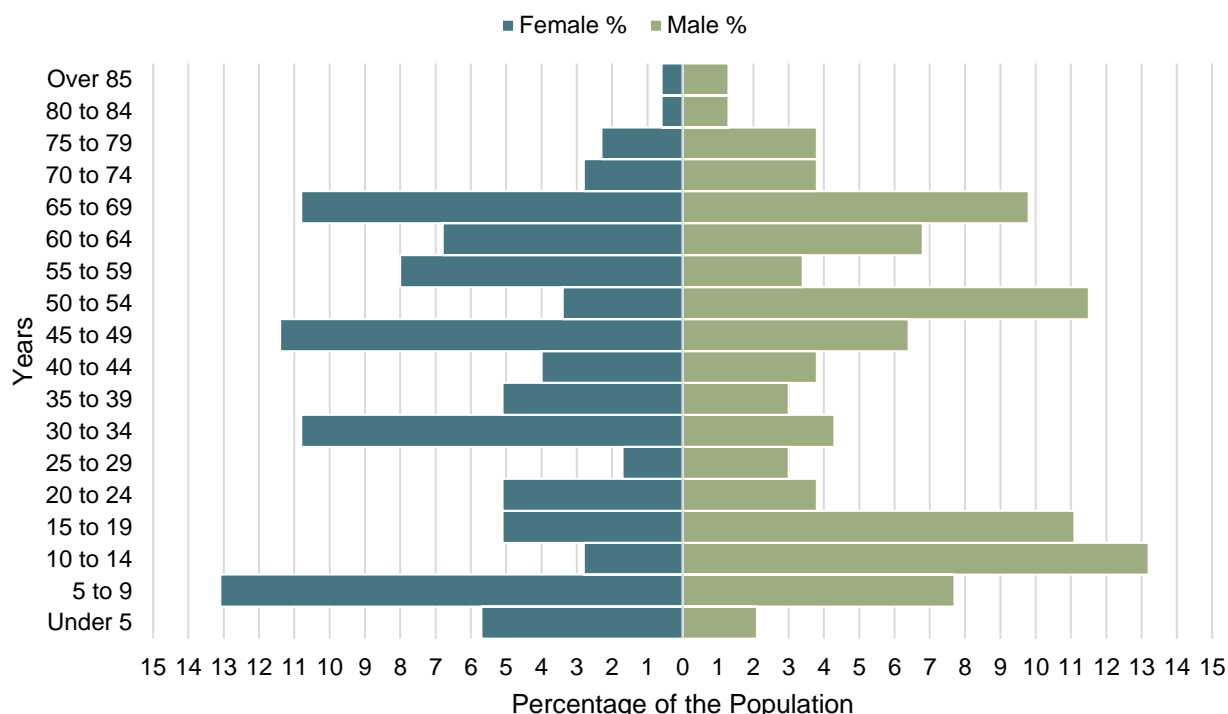
Figure LMS.2: Village of Loomis



The young, elderly, and minority populations may be more vulnerable to hazards than other groups. Looking at Loomis’s population:

- **8.7% is non-white.** Since 2010, Loomis has become more ethnically diverse. In 2010, 3.4% of the Loomis’s population was non-white. By 2020, 8.7% was non-white.⁸⁸
- **Median age of 41.3.** The median age of Loomis was 41.3 years old in 2020. The population became older since 2010, when the median age was 36.3.⁸⁹

Figure LMS.3: Loomis’ Population Pyramid



The figure above shows Loomis’ population percentage broken down by sex and five-year age groups. Loomis’ population is relatively spread out between different age groups. This indicates that the population is likely to remain stable in the future.

Employment and Economics

Low-income populations, long distance commuters, and the unemployed may be more vulnerable to certain hazards like extreme heat and flooding than other groups. Loomis’s population has:

- **3.5% of people living below the poverty line.** The poverty rate (3.5%) in the Village of Loomis was lower than the state’s poverty rate (10.4%) in 2020.⁹⁰
- **\$59,375 median household income.** Loomis’s median household income in 2020 (\$59,375) was \$3,640 lower than the state (\$63,015).⁹⁰

88 United States Census Bureau. “2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates.” <https://data.census.gov/>.

89 United States Census Bureau. “2020 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov/>.

90 United States Census Bureau. “2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics.” <https://data.census.gov/>.

- **0.5% unemployment rate.** In 2020 Loomis has a lower unemployment rate (0.5%) when compared to the state (3.4%).⁹⁰
- **19.5% of workers commuted 30 minutes or more to work.** Fewer workers in Loomis commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (19.5% compared to 62.7%).⁹¹

Major Employers

Major employers within Loomis include Loomis Public Schools, CHS, First State Bank and the Bridal Isle. A large percentage of residents commute to Holdrege for employment.

Housing

Multiple factors inform the vulnerability of housing units to hazard events. Housing age, for example, may indicate which housing units were built prior to the development of state building codes. Older houses and vacant housing generally more vulnerable to hazards if poorly maintained. Additionally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Renters are particularly vulnerable, as renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. Renters are less likely than homeowners to have flood insurance, have ready access to financial resources to evacuate, or to know their risks to flooding and other hazards. Loomis's housing stock has:

- **44.3% of housing built prior to 1970.** Loomis has a smaller share of housing built prior to 1970 than the state (44.3% compared to 45.5%).⁹²
- **2.2% of housing units vacant.** Loomis has a lower vacancy rate 2.2% compared to the rest of the state (9.2%).⁹²
- **1.1% mobile and manufactured housing.** The Village of Loomis has a smaller share of mobile and manufactured housing (1.1%) compared to the state (3.3%).⁹²
- **19% renter-occupied.** The rental rate of Loomis was 19% in 2020. This is lower than the state's rate of 33.8%.⁹²

Broadband Access

Internet or broadband access – through Wi-Fi or cellphone coverage – is a critical means of sharing and receiving information regarding hazardous events, including storm warnings, evacuation orders, or weather updates. Rural communities often lack adequate internet or broadband access. However, internet access is as vital a utility as electricity, as seen through the COVID-19 pandemic when many people worked or attended school from home.

- **90.5% of households have a broadband internet subscription.** Loomis has a larger share of households with broadband (90.5%) compared to the state (85.6%).⁹³

91 United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." <https://data.census.gov/>.

92 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov/>.

93 United States Census Bureau. "2020 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." <https://data.census.gov/>.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. The Village of Loomis is governed by a five-member village board; other governmental offices and departments that may be involved in implementing hazard mitigation initiatives are listed below.

- Clerk/Treasurer/Utility Superintendent
- Planning Commission
- Floodplain Administrator
- Volunteer Fire & Rescue

Capability Assessment

The planning team assessed the Village of Loomis's hazard mitigation capabilities by reviewing local existing policies, regulations, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. The local planning team does not anticipate adding to or improving on existing capabilities due to limited personnel and time.

Municipal funds are limited to maintaining current facilities and systems. A large portion of the village's funds are going towards drilling a new well. Funds have remained the same over recent years.

Table LMS.2: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Regional Community Wildfire Protection Plan	Yes
Other (if any)	Water System Emergency Response Plan, Wellhead Protection Plan	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	Yes

Capability/Planning Mechanism		Yes/No
	Local staff who can assess community's vulnerability to hazards	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)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural disaster or safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Table LMS.3: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Social Vulnerability

FEMA’s National Risk Index is a new mapping tool that analyzes a community’s risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). The overall risk for Phelps County, which includes Loomis, is Relatively Moderate (13.78). The average for the State of Nebraska is 9.43.⁹⁴

- **Social Vulnerability:** Social groups in Phelps County have a Relatively Moderate (39.81) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Phelps County have a Very High (57.92) ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

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

Table LMS.4: Rural Capacity Index

Components of Index	Village of Loomis	Phelps County
County is Metropolitan?	No	No
Has a Head of Planning?	No	Yes
Has a College or University?	No	No
Adults with Higher Education:	14%	23%
Families Below Poverty Level:	3%	6%
Households with Broadband:	90%	79%
People without Health Insurance:	5%	4%
Voter Turnout:	81%	81%
Income Stability Score (0 to 100):	38	38
Population Change (2000 to 2019):	11	-713
Overall Rural Capacity Index Score	47	68

Source: Headwaters Economics⁹⁵

National Flood Insurance Program (NFIP)

Loomis is not a member of the NFIP because the village is not located in an identified flood hazard area. The local planning team indicated the village is not interested in participating in the NFIP in the future. However, NFIP participation will be reevaluated if floodplain maps change. The initial FIRM for the village was delineated on 1/16/2008 and the current effective map date is 1/16/2008. Loomis does not currently have any repetitive loss or severe repetitive loss structures.

94 Federal Emergency Management Agency. “National Risk Index”. Accessed July 2022. <https://hazards.fema.gov/nri/map>.

95 Headwaters Economics. January 2022. “Rural Capacity Map”. Accessed July 2022. <https://headwaterseconomics.org/equity/rural-capacity-map/>.

Plans and Studies

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

Building Code (2009)

The building code sets standards for constructed buildings and structures. The village has not adopted the international building codes. Village building codes only discuss set back requirements. All building permits must be approved by the Village Clerk prior to construction. The building code has not been integrated with the hazard mitigation plan.

Phelps County Local Emergency Operations Plan (2021)

Loomis is an annex in the Phelps County Local Emergency Operations Plan (LEOP). The hazard mitigation plan has not been integrated with this plan, however, the LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

Wellhead Protection Plan

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

Zoning Ordinance and Subdivision Regulations

The village's zoning ordinance and subdivision regulations outline where and how development should occur in the future. The hazard mitigation plan has not been integrated with these documents. However, the documents include well setback requirements and include the ability to implement water restrictions.

Future Development Trends

Over the past five years, three new homes have been built and the village purchased a tract of land on the south side of the community to maintain an alleyway. These new homes likely increased the village's vulnerability to hazards as there is more property that could be damaged. However, this vulnerability is minimized as none of the new homes were developed in the

floodplain or other known hazardous areas. In the next five years, a new convenience store / gas station may be built on the far east side of the community.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. The table below lists Safety and Security Lifelines for Loomis.

Table LMS.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Building	-	N
2	Fire Hall	G	N
3	Village Office	-	N

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for the Village of Loomis are included in the table below.

Table LMS.6: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
4	Loomis Elementary and High School	S	N
5	Water Tower	-	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. There are no medical and health facilities located within the community.^{96,97,98,99}

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for Loomis.

Table LMS.7: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
6	CHS Inc.	G	N

96 Department of Health and Human Services. 2022. “State of Nebraska: Assisted Living Facilities.” <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

97 Department of Health and Human Services. 2022. “State of Nebraska Roster: Hospitals.” <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

98 Department of Health and Human Services. 2022. “State of Nebraska Roster: Long Term Care Facilities.” <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

99 Department of Health and Human Services. 2022. “State of Nebraska Roster: Rural Health Clinic.” https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. All Communication Lifelines have already been identified in other lifelines.

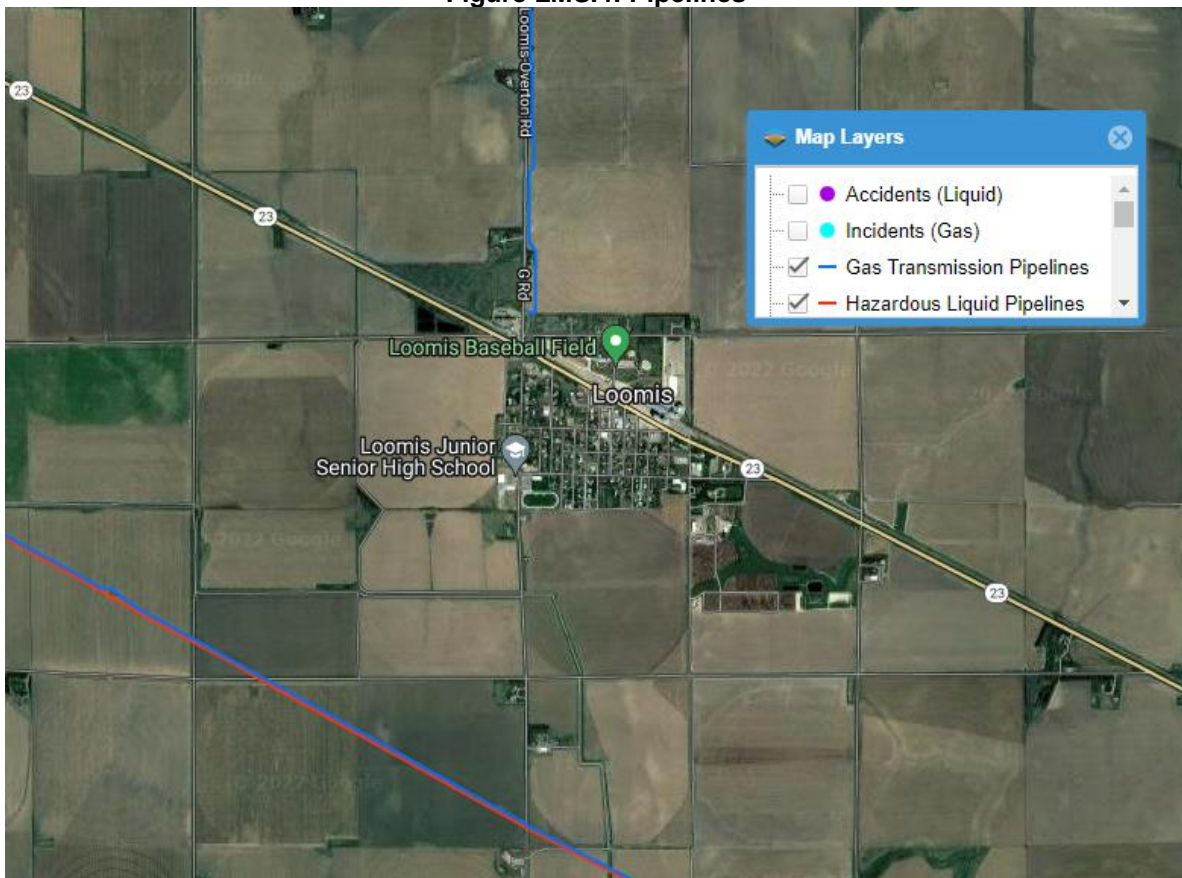
Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Loomis’s major transportation corridor is Nebraska Highway 23. It is traveled by an average of 2,085 vehicles daily, 185 of which are trucks.¹⁰⁰ Loomis has one Nebraska, Kansas, and Colorado Railway line that travels along the northeast portion of the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. No significant transportation events have occurred locally. Local routes do carry liquid and dry fertilizers, fuel gas, diesel, and propane.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are two gas transmission pipelines and one hazardous liquid pipeline that travel through or near the community and can be seen in the figure below.

Figure LMS.4: Pipelines



Source: National Pipeline Mapping System¹⁰¹

100 Nebraska Department of Transportation. 2021. “Annual Average Daily Traffic Flow.” Accessed July 2022.

<https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

101 National Pipeline Mapping System. 2022. “Public Viewer.” Accessed July 2022. <https://pvnpmns.phmsa.dot.gov/PublicViewer/>.

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical site within or near Loomis which house hazardous materials and has already been identified under the Energy Lifeline.¹⁰²

Other Community Lifelines

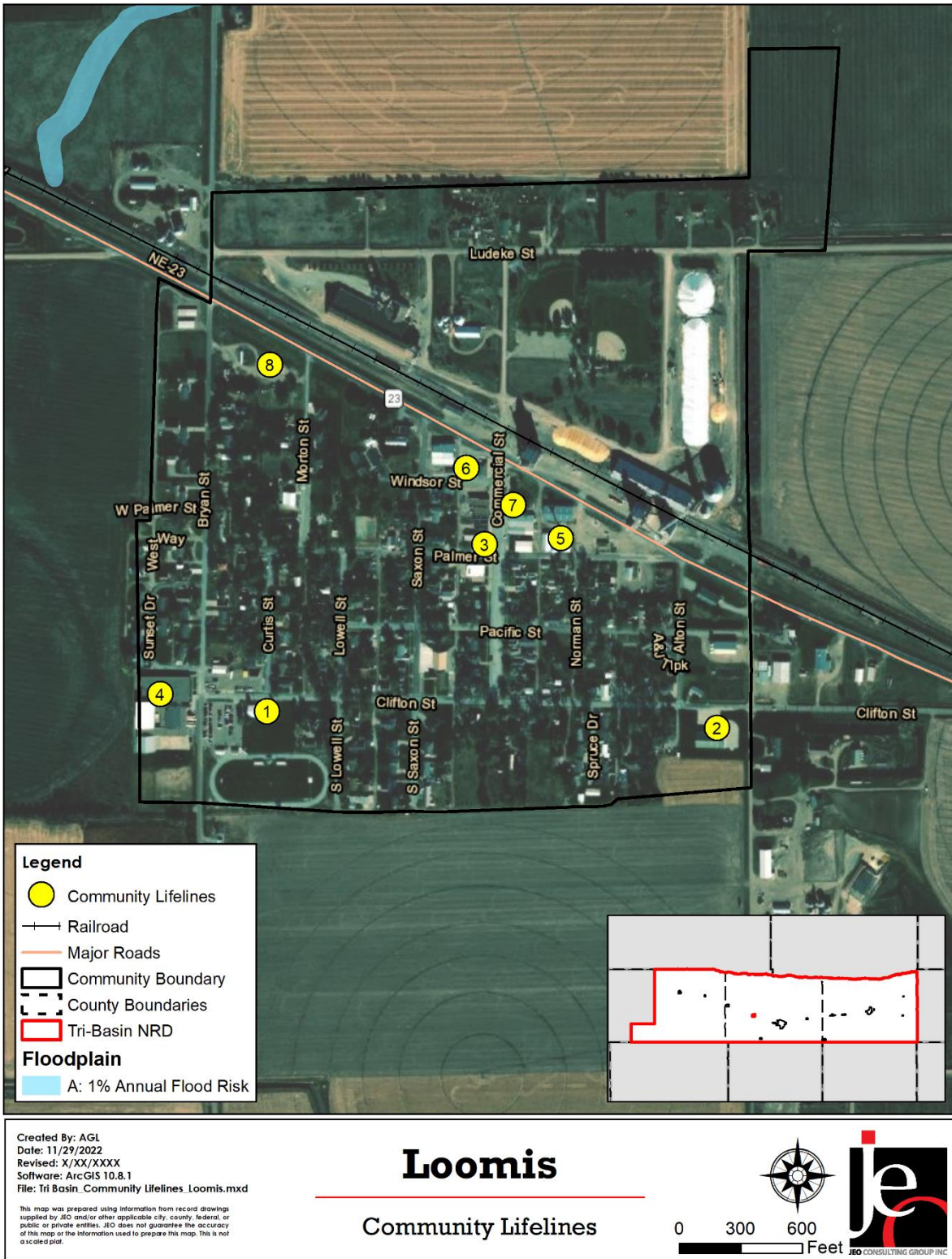
The Village of Loomis identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the community. The other community lifelines are listed in the table below.

Table LMS.8: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
7	Village Shop	-	N
8	County Roads Shop	-	N

102 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

Figure LMS.5: Community Lifelines



*No streams in the community boundary.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) 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.

Table LMS.9: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
160	\$14,699,365	0	\$0	0%

Source: County Assessor, 2022

Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for Loomis which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by the Village of Loomis. 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: Risk Assessment*.

Drought

Drought is a concern to the local planning team as the local economy is largely dependent on agriculture. A significant drought could reduce the income of local farmers and negatively impact the economy of Loomis. A significant drought could also threaten water supplies, as usage increases during drought periods. Loomis and the region are currently experiencing a prolonged drought event since 2021. A lower water table is the biggest impact that is being felt. The village currently has two drinking water wells but only one is in operation due to high nitrates. To help increase supply, the village is in the process of drilling a new well. During periods of drought or during a water emergency the Village Clerk and Village Board are able to implement water restrictions if needed.

Severe Thunderstorms

Severe thunderstorms occur several times annually in Loomis. These storms have the potential to cause power outages, localized flooding, and damages to property and community lifelines. One significant severe thunderstorm occurred on June 30, 2018, when 2.75-inch hail caused \$1 million in damages to roofs, trees, and siding. Loomis has a high vulnerability to power loss as very few power lines in the community are buried. Residents are notified of severe weather through local news, radio, and warning sirens. Some village owned buildings have hail resistant roofs and all are insured against hail and other storm damage. In the spring of 2022, the village trimmed all the trees along the streets in the community. Loomis plans do the same with all alley ways in the fall of 2022.

Severe Winter Storms

Severe winter storms have the potential to cause property damages, hinder transportation routes, and cause power outages. In November 2005, a severe winter storm swept through the central plains, including Loomis. After raining for much of the day, cold air and strong winds changed the rain to snow by the early evening. Heavy snowfall of approximately eight inches and 50 mph wind gusts led to “white out” conditions and large snow drifts. Many residents in the area lost power. Snow removal in the community is done by the Village Clerk / maintenance person using a tractor with a back blade and a skid loader. Farmers have also helped in the past when there are large amounts of snow. The local planning team indicated that a dump truck with a snowplow on it is needed in the future.

Tornadoes and High Winds

Tornadoes have the potential to cause significant property damages and loss of life. In October 1998, a tornado touched down a few miles southwest of Loomis and moved northeast. Along its path, grain bins were damaged, power poles snapped, and a roof was torn from a large storage building. One farmstead northeast of Loomis sustained major damage. The roof was ripped from the house and two walls were moved from the foundation. This tornado caused an estimated \$400,000 in property damages. One previous high wind event in December of 2011 destroyed a large empty grain bin located two miles east of Loomis, resulting in \$50,000 in damages. There are two warning sirens in the village, and they provide coverage to all areas of the community. However, the sirens are very old and need to be updated.

Mitigation Strategy

Completed Mitigation Actions

Mitigation Action	Map Municipal Infrastructure
Description	Acquire Geographic Information System (GIS) to map municipal infrastructure (water and sewer lines).
Hazard(s) Addressed	Drought, Flooding, Severe Thunderstorms
Status	Completed

New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Purchase and install updated alert sirens for the village.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$40,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. The village does not currently have the capability to implement this project due to a lack of funding.

Section Seven | Village of Loomis Community Profile

Mitigation Action	Dump Truck
Description	Purchase a new or used dump truck with a snowplow blade.
Hazard(s) Addressed	Severe Thunderstorms
Estimated Cost	\$100,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. The village does not currently have the capability to implement this project due to a lack of funding.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural and manmade 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.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The village has the capability to implement this project.

Mitigation Action	Safe Room and Storm Shelters
Description	Work with Loomis Public Schools to construct a multi-purpose building that could also be used as a community safe room.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$1,000,000+
Local Funding	Cost Share, Bonds
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Loomis Public Schools
Status	Not Started. The village does not currently have the capability to implement this project due to a lack of funding.

Mitigation Action	Water Well
Description	Determine a location for a new municipal well. Drill and install the well at the identified location.
Hazard(s) Addressed	Drought
Estimated Cost	\$100,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The village does not currently have the capability to implement this project due to a lack of funding.

Kept Mitigation Actions

Mitigation Action	Storm Shelter Identification
Description	Identify any existing private or public storm shelters.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	1 Year
Priority	Medium
Lead Agency	Village Clerk
Status	Not Started. The village has the capability to implement this project.

Removed Mitigation Actions

Mitigation Action	Tree Care Ordinance
Description	Pass and enforce a tree care ordinance to improve tree health and to remove dangerous trees and limbs.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed. Southern Public Power District handles tree trimming around power lines and the village will remove trees if needed.

Plan Maintenance

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

The Village Clerk and Village Board will be responsible for reviewing and updating this community profile outside of the five-year update. Loomis will review the plan annually and the public will be notified using social media, village website, and letters.

School District Profile

Holdrege Public Schools

**Tri-Basin NRD
Hazard Mitigation Plan**

2023

Local Planning Team

Holdrege Public Schools' local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by the school district.

Table HPS.1: Holdrege Public Schools Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Corey Young	Maintenance and Bus Driver	Holdrege Public Schools	Holdrege	Holdrege

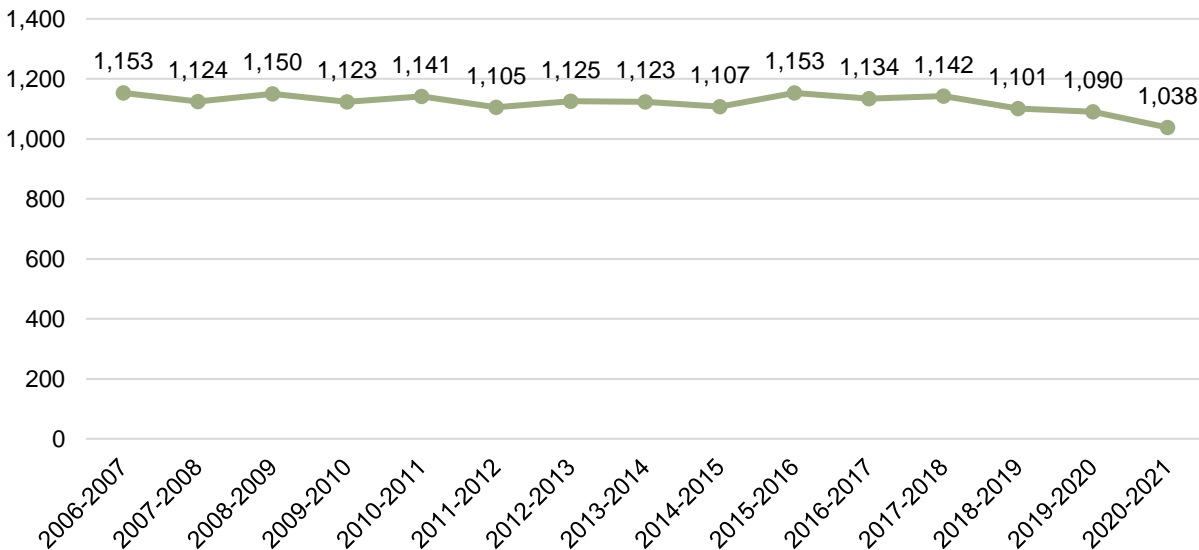
Location

Holdrege Public Schools is located primarily in central Phelps County and serves four schools, Holdrege Public Schools Early Childhood Education Center, Holdrege Elementary School, Holdrege Middle School, and Holdrege High School. Other district owned buildings include the Central Office, bus barns, Excel Building, greenhouse, and the Tassel Performing Arts Facility. The school district provides services to students in the communities of Holdrege, Funk, Atlanta, and the rural areas surrounding them.

Demographics

The following figure displays the historical student population trend starting with the 2006-07 school year and ending with the 2020-2021 year. It indicates that the student population has been declining since 2018. There are 1,038 students enrolled in the district.¹⁰³ A declining student population can mean there is a decreasing tax revenue for the school district, which could make implementation of mitigation projects more fiscally challenging. The local planning team anticipates little change in student population over the next several years. English, Spanish, and Ukrainian are all spoken in the district. Emergency notices are available in English and Spanish with updates currently going on to add Ukrainian. Emergency communications are mainly done through email, newsletters, social media, and text notification.

Figure HPS.1: Student Population 2007-2021



Source: Nebraska Department of Education

103 Nebraska Department of Education. September 2022. "Nebraska Education Profile." <https://nep.education.ne.gov/>.

Figure HPS.2: Holdrege Public Schools

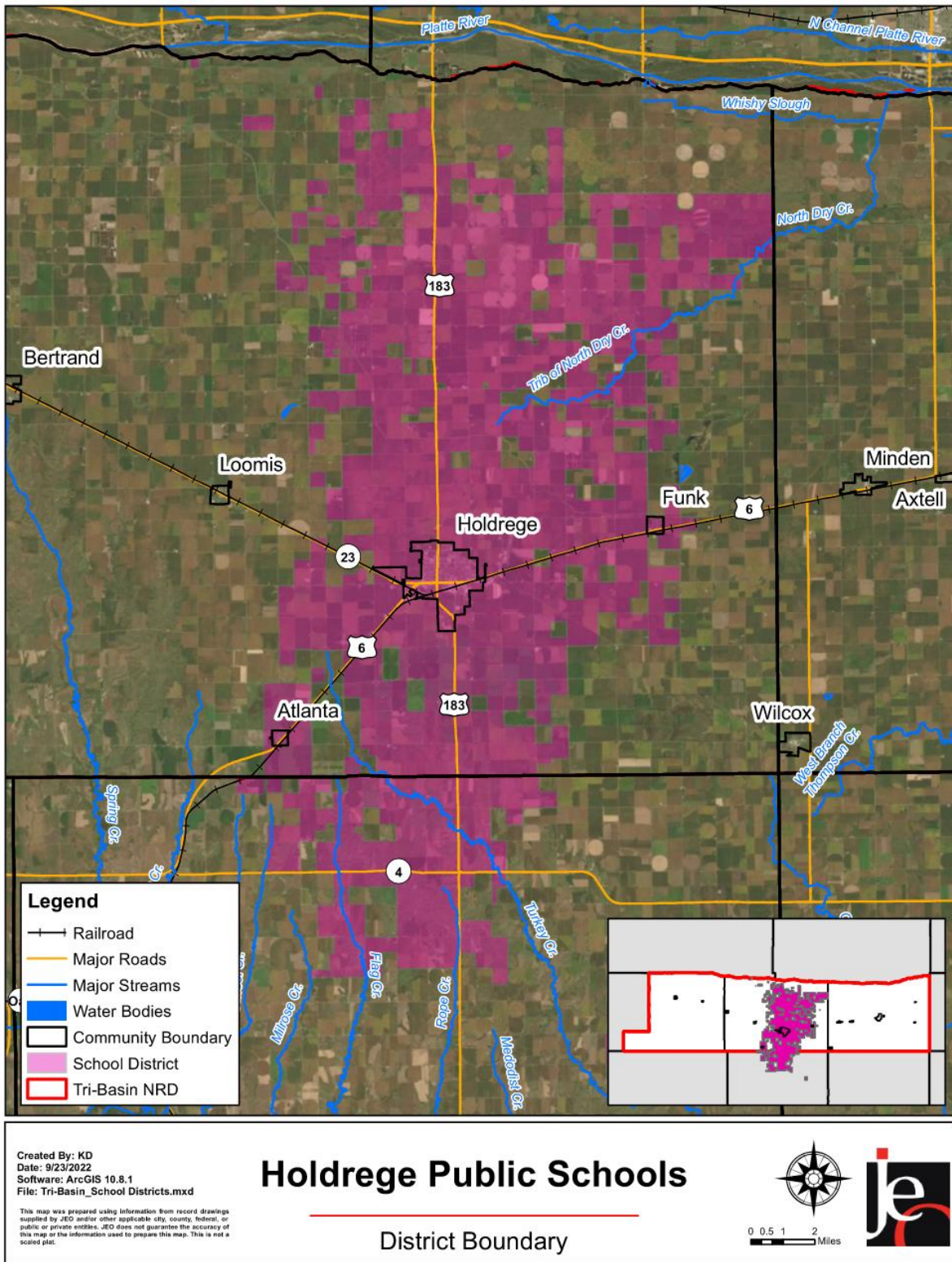
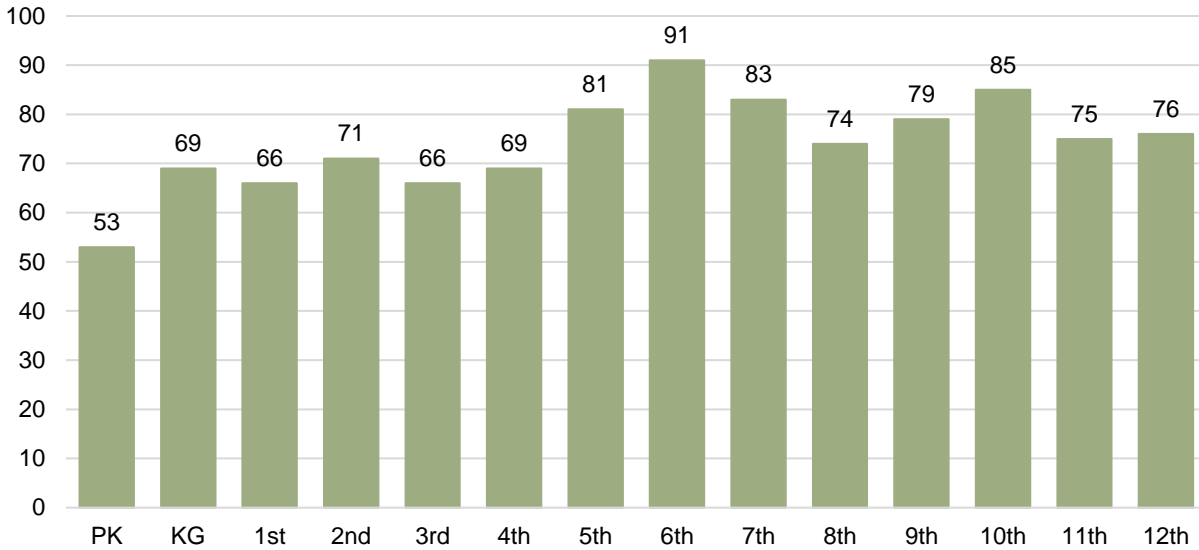


Figure HPS.3: Number of Students by Grade, 2020-2021



Source: Nebraska Department of Education

The figure above indicates that the largest number of students were in 6th and 10th grades using 2020-21 data. The lowest population of students were in Pre-Kindergarten, 1st and 3rd grades. According to the Nebraska Department of Education (NDE), 42.9% of students receive either free or reduced priced meals at school. This is lower than the state average of 46.3%. Additionally, 19.1% of students are in the Special Education Program, the school mobility rate is 15%, and 1.8% of students are English Language Learners. These particular students may be more vulnerable during a hazardous event than the rest of the student population.

Table HPS.2: Student Statistics, 2020-2021

	School District	State of Nebraska
Free/Reduced Priced Meals	42.9%	46.3%
School Mobility Rate	15.0%	9.1%
English Language Learners	1.8%	7.3%
Special Education Students	19.1%	15.7%

Source: Nebraska Department of Education¹

Administration and Staff

The school district has a superintendent and three principals. The school board is made up of a six-member panel. These individuals will be in charge of implementing hazard mitigation principles and actions. There are 170 staff members employed by the district. Each school has a safety team that trains staff in emergency procedures. In addition, there is a district safety team.

Capability Assessment

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

District funds are sufficient to pursue new projects, however a large portion of funds are already dedicated to past projects. The amount of funds has been staying the same recently, however, the local planning team anticipates funds to decrease in the future.

Table HPS.3: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	Yes
	Continuity of Operations Plan	No
	Crisis Response Plan	Yes
	Strategic Plan	Yes
	Other (if any)	-
Administration & Technical Capability	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	Applied for grants in the past	No
	Awarded grants in the past	No
	Authority to levy taxes for specific purposes such as mitigation projects	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved bonds in the past	Yes
	Flood Insurance	Yes
	Other (if any)	-
Education & Outreach Capability	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, Crisis Response Teams, etc.)	Yes
	Hazard education or information program	No
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	Monthly
	Tornado	1 / year
	Intruder	1 / year
	Bus evacuation	1 / year
	Evacuation	1 / year
	Other (if any)	-

Table HPS.4: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Moderate
Staff/expertise to implement projects	Limited
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Plans and Studies

Holdrege Public Schools has several planning documents that discuss or relate to hazard mitigation. The plans are listed below along with a short description of how they are integrated with the hazard mitigation plan or how they contain hazard mitigation principles. When the school district updates these or other 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.

Crisis Response Plan (2022)

The district's crisis response plan outlines how staff and administration will handle a variety of hazard events. The plan assigns specific responsibilities to individuals, addresses shelter in place protocols, identifies critical evacuation routes and scenarios, and identifies sheltering locations. This plan is reviewed and updated as needed before each school year. The hazard mitigation plan has not been integrated with this plan. The Safety Team, school administrators, maintenance, groundskeeper, and administrative assistant are all familiar with the crisis response plan.

Facility Improvements Plan (2022)

Holdrege Public School's facility improvements plan outlines projects to be undertaken at school owned facilities and buildings. Projects include a description of the work to be completed, a rough cost estimate if available, and a timeline of when the project will likely be completed. Applicable projects from the facility improvements plan have been added as mitigation actions. The facility improvements plan is constantly updated.

Strategic Plan (2022)

The strategic plan for the school district outlines goals and objectives for the next several years. Included in these goals and objectives is keeping students and staff safe during hazardous events. This plan is updated and reviewed prior to each school year. It has not been integrated with the hazard mitigation plan.

Future Development Trends

Over the past five years, a weight room has been added to the high school and the football field has got new bleachers. These changes likely make the district more vulnerable to hazards as more property could be damaged. In the 10-year plan, the district is looking at a new front entry and doorways that will be added to the high school and middle school.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. No Safety and Security Lifelines were identified for Holdrege Public Schools.

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for Holdrege Public Schools are included in the table below.

Table HPS.5: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Holdrege Elementary School	S,G	N
2	Holdrege High School / Central Office	S	N
3	Holdrege Middle School	G,S	N
4	Mount Calvary Church	S	N
5	Phelps County Ag Center	S	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. The following medical and health facilities are located within the district.

Table HPS.6: Health and Medical Lifelines

CL Number	Name	Type of Facility	Number of Beds	Generator (G) Shelter (S)	Floodplain (Y/N)
6	Family Medical Specialties	Clinic	0	G	N
7	Phelps Memorial Health Center	Hospital & Rural Health Clinic	25	G	N

Source: Nebraska Department of Health and Human Services^{104,105,106,107}

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for the district.

Table HPS.7: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
8	Black Hills Energy	-	N
-	Dawson PPDS*	G	N

*Not mapped but located near Lexington

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Communication Lifelines for the school district have been identified with other lifeline types. The district also uses Instagram, Facebook, and Twitter for communication with students, families, and the public.

104 Department of Health and Human Services. 2022. "State of Nebraska: Assisted Living Facilities." <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

105 Department of Health and Human Services. 2022. "State of Nebraska Roster: Hospitals." <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

106 Department of Health and Human Services. 2022. "State of Nebraska Roster: Long Term Care Facilities." <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

107 Department of Health and Human Services. 2022. "State of Nebraska Roster: Rural Health Clinic." https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Four major transportation corridors travel through the district: US Highways 6/34 and 183 and Nebraska State Highways 4 and 23. The most traveled route is Highway 6/34 with an average of 10,795 vehicles daily, 680 of which are trucks.¹⁰⁸ A Burlington Northern Santa Fe Railway/Amtrak line and a Nebraska Kansas Colorado Railway line travel through the district. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the district, as well as areas more at risk of transportation incidents. The district is most concerned with the railroad due to hazardous chemicals. Next would be Highway 183 due to the proximity of trucks carrying hazardous materials. Main Street is also a concern because agricultural products are transported on the north side of the elementary school. Past accidents have caused the rerouting of bus routes to and from the schools. The district owns 12 school buses and has five bus routes. Approximately 115 students use the buses.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are several gas transmission pipelines and one hazardous liquid pipeline that travels near the school and can be seen on the figure on the next page.

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 13 chemical sites within or near school buildings which house hazardous materials (listed below).

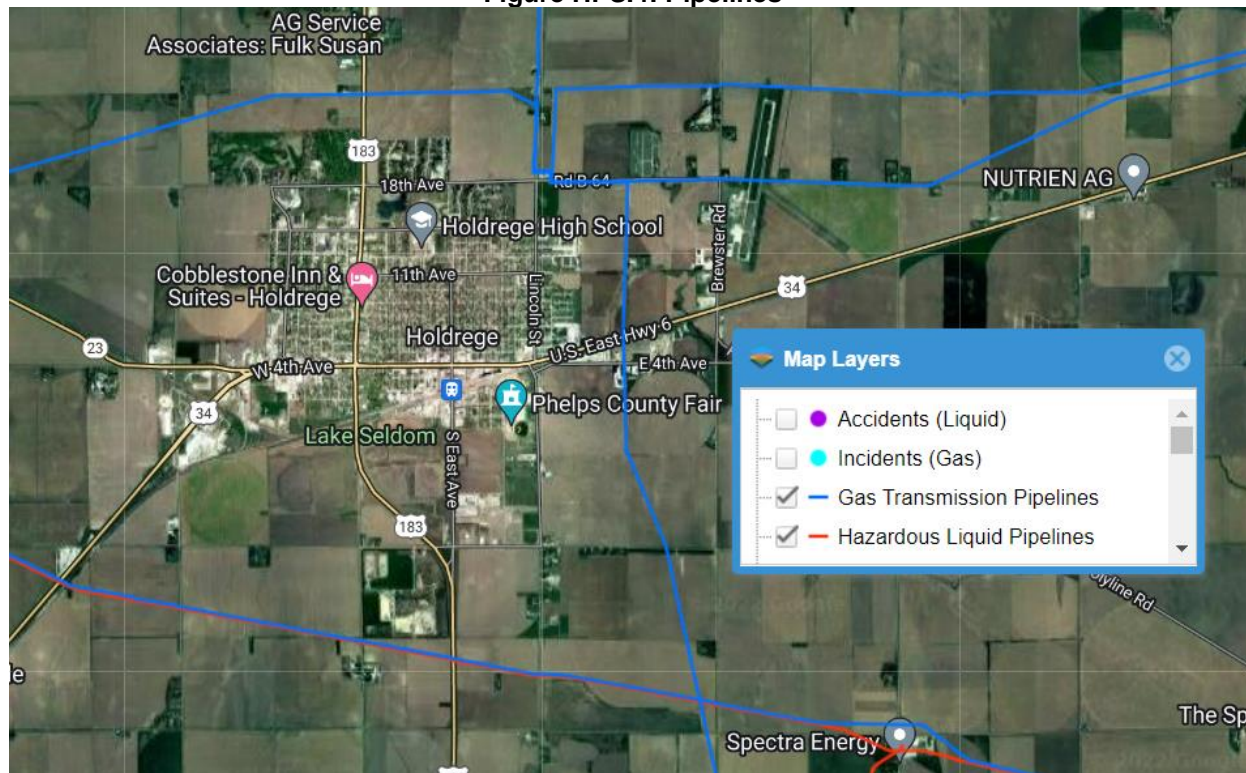
Table HPS.9: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
9	Becton Dickinson Consumer Prod	-	N
10	Bosselman Energy Inc Station	-	N
11	Briggs & Stratton Corporation	-	N
12	CenturyLink	-	N
13	CHS Inc	-	N
14	CHS Inc	-	N
15	CHS Inc	-	N
16	Helena Agri-Enterprises LLC	-	N
17	NDOT Holdrege Yard	-	N
18	Nebraskaland Aviation Inc	-	N
19	Nebraskaland Aviation Inc	-	N
20	Paulsen Inc	-	N
21	Wells Flying Svac & Nutrien Ag	-	N

Source: Nebraska Department of Environment and Energy¹⁰⁹

108 Nebraska Department of Transportation. 2021. "Interactive Statewide Traffic Counts Map." <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.
 109 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2022.

Figure HPS.4: Pipelines



Source: National Pipeline Mapping System¹¹⁰

Other Community Lifelines

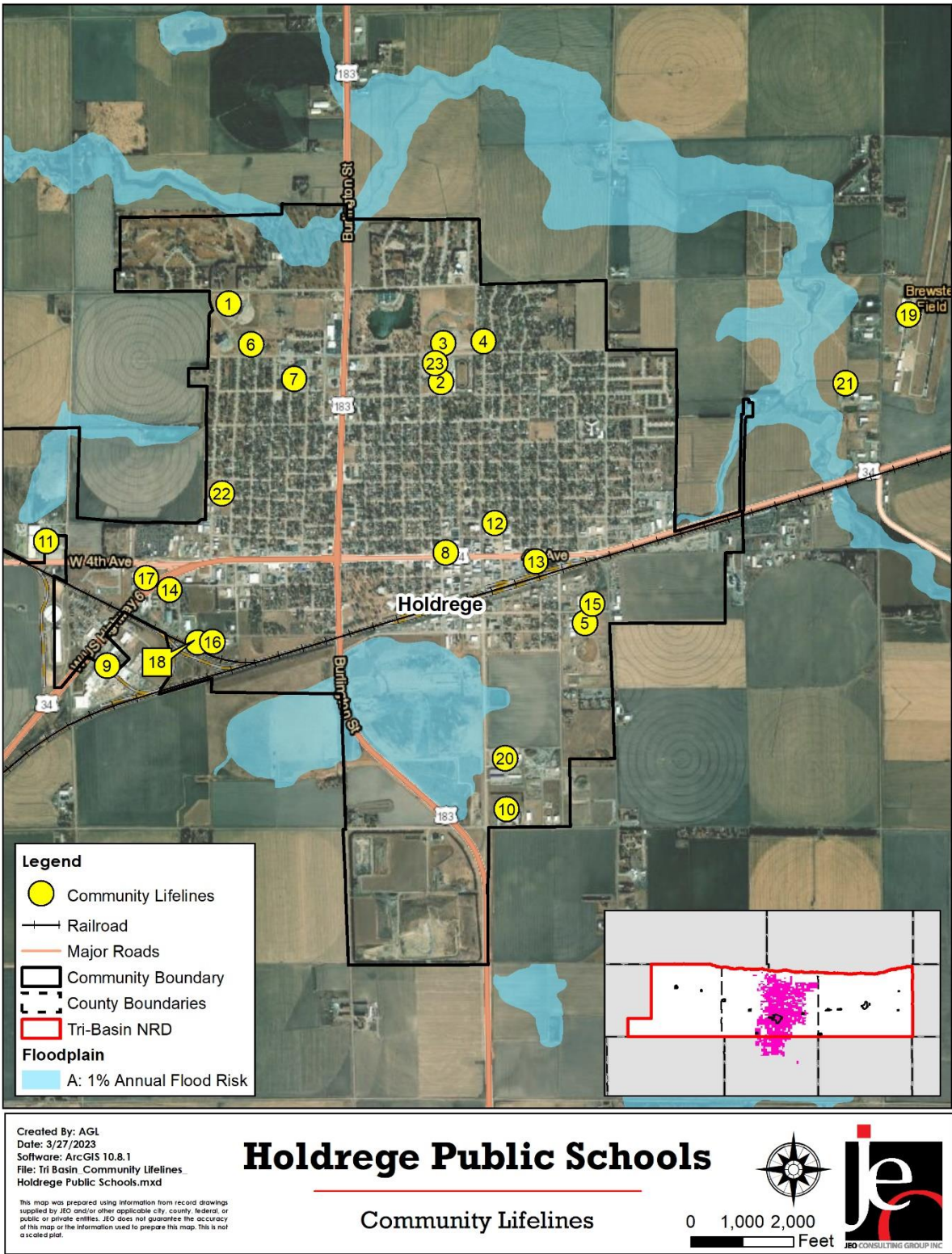
Holdrege Public Schools identified lifelines that did not fit into the previous seven FEMA lifeline categories but are considered lifelines by the district. The other community lifelines are listed in the table below.

Table HPS.10: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
22	Bus Barns & West Storage Facilities	-	N
23	Tassel Performing Arts Center / AT&T Cell Tower	G (For Cell Tower Only)	N

110 National Pipeline Mapping System. 2022. "Public Viewer." Accessed September 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.

Figure HPS.5: Community Lifelines



Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the district which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by Holdrege Public Schools. 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: Risk Assessment*.

Hazardous Materials Release

Chemical spills are a concern to the school district due to the proximity of Highway 183, Highway 34, Main Street, and the railroad. Chemicals are regularly transported along those routes; however, there has not been a chemical spill in recent memory. A plan is in place in the event that a chemical spill impacts one of the school buildings.

Public Health Emergency

The ongoing COVID-19 pandemic has had major impacts on the school district. The magnitude of the pandemic has made the schools better prepared for future potential outbreaks. To help reduce the spread of the virus, the district implemented public health measures as recommended by the local health department. Additional cleaning equipment was purchased and is now used regularly. Additional staff training has also taken place and will occur in the future.

Severe Thunderstorms

The main concerns for the school district regarding severe thunderstorms include damages to buildings, having to shelter in place, and power outages. Past hailstorms have resulted in roof damages to the school buildings. As roofs age they become more susceptible to damage. School roofs are redone every so often to help minimize potential damages. Both elementary and middle schools have back-up generators should power loss occur. If the high school loses power, the superintendent will decide on what would be done. All power lines leading to the school buildings are buried.

Severe Winter Storms

The school district is concerned with the possibility of staff and students being stranded in the building due to a winter storm. During a past winter storm, people had to shelter-in-place over night. The 2007 ice storm caused the school district to be out of power for an extended period of time. Snow removal is handled by maintenance staff, groundskeeper, transportation supervisor, and custodians using a UTV with a snowblower and sweeper. However, the UTV model has been discontinued and support for the replacement parts is difficult to find. The local planning team indicated that the district has to cancel school one to two times each year because of winter storms. The district would like to have a heated concrete approach to the high school and additional snow removal equipment.

Tornadoes and High Winds

Tornadoes have the potential to cause significant damages to school buildings and loss of life. Past high winds have damaged field lights at the softball field. The school district has two methods to notify students, staff, and parents in the event of severe weather. One, called Weather Threat, sends a message out to the media to inform them of the situation. The school district is also able to send out alerts via text message and email to students, staff, and parents. The elementary school has a tornado safe room. Middle and High School students go to interior rooms with no windows or skylights. Metal light poles are needed at athletic fields as they would hold up better to high wind events.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Heated Concrete Approach
Description	Install a heated concrete approach to the high school's main door in order to reduce slip and fall hazards.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Board of Education, Superintendent
Status	Planning Stage.
Mitigation Action	Metal Light Poles at Athletic Fields
Description	Install metal light poles at all athletic fields that stand up better to high wind events.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$5,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Superintendent
Status	Not Started. The district does not have the capability to implement this project due to limited funding.
Mitigation Action	New Building Entrance
Description	Update the high school and middle school entrances to improve security.
Hazard(s) Addressed	Terrorism and Cyber Security
Estimated Cost	\$50,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Board of Education, Superintendent
Status	Currently budgeting for this project.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase student and family awareness of natural and manmade hazards.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	Ongoing
Priority	Low
Lead Agency	Superintendent
Status	Student education on hazards is an annual project.

Mitigation Action	Snow Removal Equipment
Description	An additional truck with mount salt spreader and a small skid steer with a snowblower attachment is needed to help with snow removal.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$50,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent, Board of Education
Status	Not Started. The district does not have the capability to implement this project due to a lack of funds.

Kept Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide portable or stationary source of backup power to community lifelines. A backup generator is needed at the high school and Tassel building.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	\$50,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Board of Education, Superintendent
Status	Not Started. The district does not have the capability to implement this project due to a lack of funds.

Mitigation Action	Safe Room and Storm Shelters
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$150,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Board of Education, Superintendent
Status	The elementary school has a safe room, but one is needed for the middle school and high school. The district does not have the capability to implement this project due to a lack of funds.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside district planning documents (e.g., annual budgets and Crisis Response Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The Superintendent and Administrative Assistant to the Superintendent will be responsible for reviewing and updating this school district profile outside of the five-year update. Holdrege Public Schools will review the plan bi-annually and the public will be notified through school board meetings.

School District Profile

Loomis Public Schools

**Tri-Basin NRD
Hazard Mitigation Plan**

2023

Local Planning Team

Loomis Public School’s local planning team for the hazard mitigation plan are listed in the table below along with the meetings attended. All planning worksheets were filled out and returned by the local planning team.

Table LPS.1: Loomis Public Schools Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Nate Weaver	Principal	Loomis Public Schools	Holdrege	Holdrege
Sam Dunn	Superintendent	Loomis Public Schools	-	-
Gary Regelia	School Board Member	Loomis Public Schools	Holdrege	-

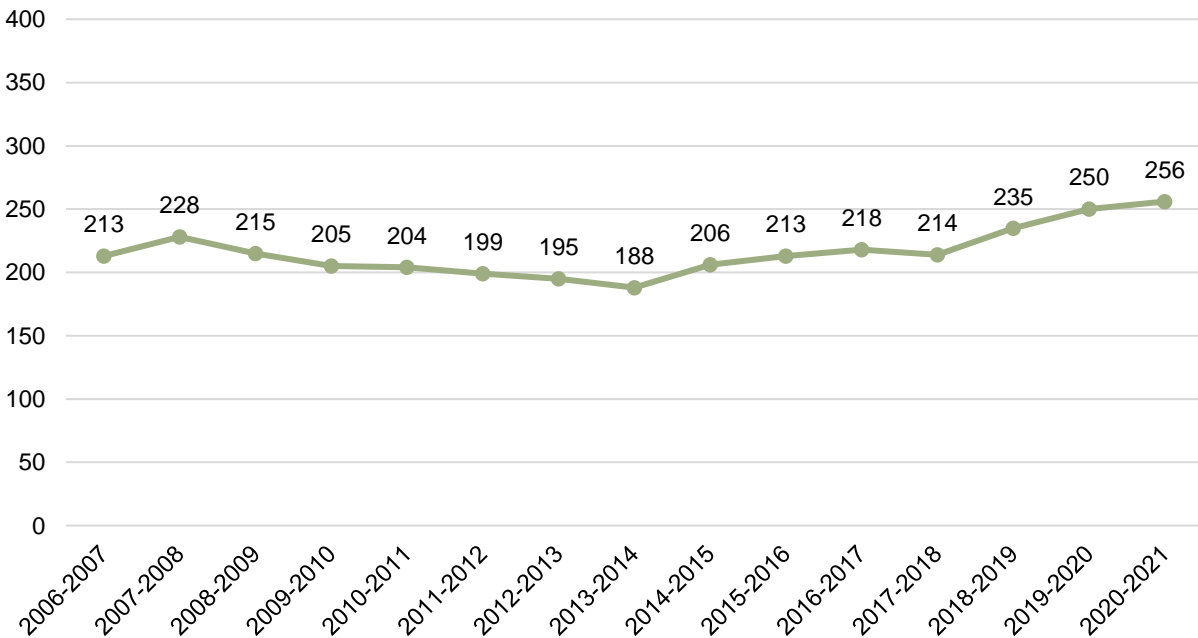
Location

Loomis Public Schools is located in west-central Phelps County and northern Harlan County. It serves two schools in one building, Loomis Elementary School and Loomis Secondary School. In addition, the district owns five small outbuildings located near the main school building. The school district provides services to students in the community of Loomis and the rural areas surrounding it.

Demographics

The following figure displays the historical student population trend starting with the 2006-07 school year and ending with the 2020-2021 year. It indicates that the student population has been increasing since 2018. There are 256 students enrolled in the district.¹¹¹ An increasing student population can mean there is increasing tax revenue for the school district, which could make implementation of mitigation projects easier. However, it is also associated with increased emergency planning requirements and increased development. The local planning team anticipates the student population to continue to grow in the coming years.

Figure LPS.1: Student Population 2007-2021



Source: Nebraska Department of Education

111 Nebraska Department of Education. November 2022. "Nebraska Education Profile." <https://nep.education.ne.gov/>.

Figure LPS.2: Loomis Public Schools

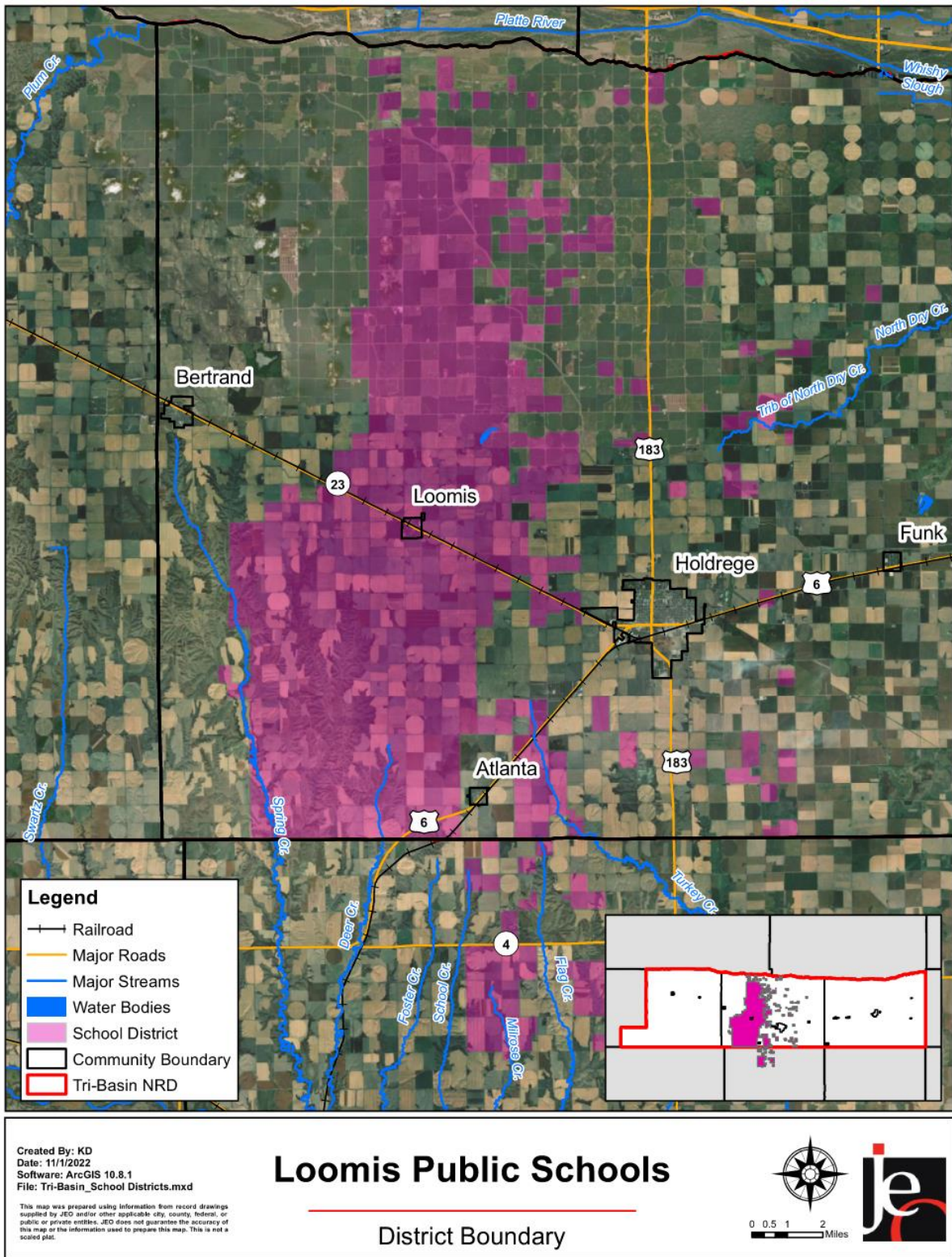
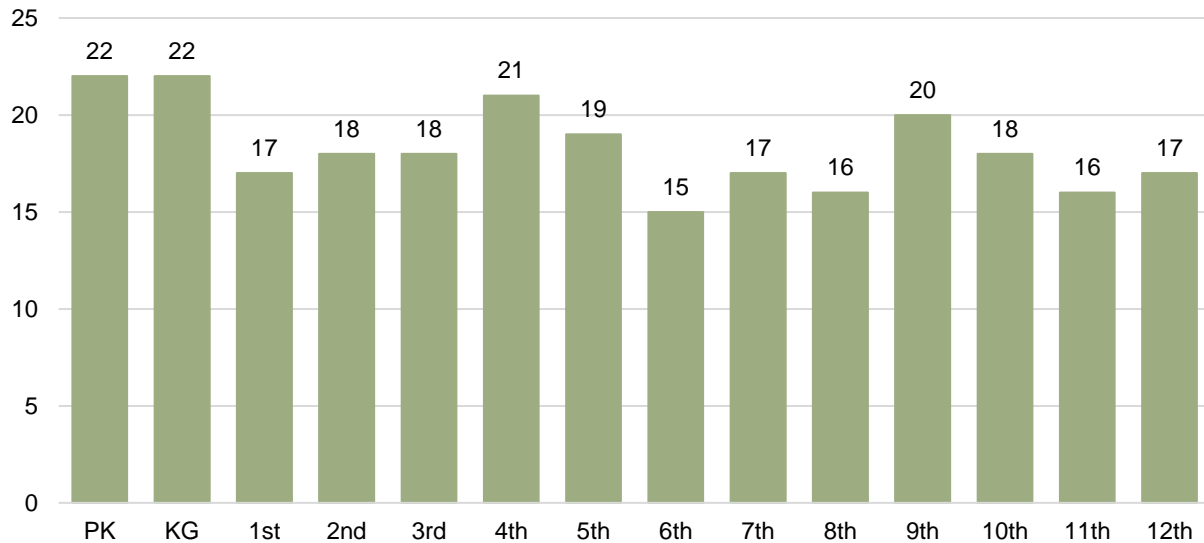


Figure LPS.3: Number of Students by Grade, 2020-2021



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in Pre-Kindergarten and Kindergarten. The lowest population of students are in 6th and 8th grades. According to the Nebraska Department of Education (NDE), 30.9% of students receive either free or reduced priced meals at school. This is lower than the state average of 46.3%. Additionally, 10.7% of students are in the Special Education Program. These particular students may be more vulnerable during a hazardous event than the rest of the student population. Other than English, some students speak Spanish. Emergency instructions and notices are all in English.

Table LPS.2: Student Statistics, 2020-2021

	School District	State of Nebraska
Free/Reduced Priced Meals	30.9%	46.3%
School Mobility Rate	*	9.1%
English Language Learners	*	7.3%
Special Education Students	10.7%	15.7%

*Indicates fewer than 10 students

Source: Nebraska Department of Education¹

Administration and Staff

The school district has a superintendent and one principal. The school board is made up of a six-member panel. These individuals will be in charge of implementing hazard mitigation principles and actions. The district employs 40+ staff. Staff are trained in emergency procedures through in-person and online training.

Capability Assessment

The planning team assessed the school district’s hazard mitigation capabilities by reviewing local existing policies, plans, and programs related to hazard mitigation. The following tables summarize the district’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Students and families are educated about emergency procedures through social media and drills. The district partners with the local fire department for fire drills. The local planning team indicated that the planning documents listed under planning capability are reviewed for updates annually.

District funds are limited to maintaining current facilities and system. New large projects would need to be a long-term plan. A large portion of funds are already dedicated to an update of the school building. District funds have stayed the same over recent years.

Table LPS.3: Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	No
	Continuity of Operations Plan	No
	Crisis Response Plan	Yes
	Strategic Plan	No
	Other (if any)	Visions and Goals
Administration & Technical Capability	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	Applied for grants in the past	Yes
	Awarded grants in the past	Yes
	Authority to levy taxes for specific purposes such as mitigation projects	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved bonds in the past	Yes
	Flood Insurance	Yes
	Other (if any)	-
Education & Outreach Capability	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, Crisis Response Teams, etc.)	Yes
	Hazard education or information program	Yes
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	Monthly
	Tornado	2 / year
	Intruder	1-2 / year
	Bus evacuation	2 / year
	Evacuation	1-2 / year
	Other (if any)	-

Table LPS.4: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources to implement mitigation projects	Moderate
Staff/expertise to implement projects	Limited
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Plans and Studies

Loomis Public Schools has several 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 school district 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.

Crisis Response Plan (2022)

The crisis response plan for the school provides response protocols for unique crisis situations such as a significant weather event or criminal activity. Because this is the district first time participating the plan has not been integrated with the hazard mitigation plan; however, it provides assignment of responsibility during an emergency, addresses shelter in place protocols, identifies scenarios that would require evacuation, identifies evacuation routes, and lists sheltering locations. In addition, the plan directly discusses fire and severe weather. All staff are aware of the plan, and it gets reviewed for updates annually.

Visions and Goals (2023-24)

On an annual basis the Loomis Board of Education meets to identify their visions and goals for the upcoming years. Goals are split into three categories: priority goals, intermediate goals, and long-term goals. A FEMA funded Community Tornado Shelter / Multi-Purpose Room was listed as a priority and intermediate goal. As part of the visions and goals, maintenance items and committed funds were also discussed. All mitigation related projects identified in this document were added as actions in the Mitigation Strategy section.

Future Development Trends

The district has added a new storage building as well as a new three-story crow’s nest in the past five years. This likely increased the district’s vulnerability to hazards as there are now more structures that could be damaged. In the next five years, the district may add a multipurpose room in the existing school building and construct a shelter near the football field.

Community Lifelines

Each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following subsections list those community lifelines by type, as identified by the local planning team.

Safety and Security

The Safety and Security Lifeline includes law enforcement, security, fire services, search and rescue, government services, and community safety. The table below lists Safety and Security Lifelines for Loomis Public Schools.

Table LPS.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	City Building	-	N
2	Loomis Volunteer Fire Department & Ambulance	-	N
3*	Phelps Co Sheriff	-	N

**Not Mapped but is located in the City of Holdrege*

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. Food, Water, and Shelter Lifelines for Loomis Public Schools are included in the table below.

Table LPS.6: Food, Water, and Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
4	Evangelical Free Church	S	N
5	First Baptist Church	S	N
6	School Building	S	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. The following medical and health facilities are located within the district.

Table LPS.7: Health and Medical Lifelines

CL Number	Name	Type of Facility	Number of Beds	Generator (G) Shelter (S)	Floodplain (Y/N)
7*	Phelps Memorial Hospital	Hospital and Rural Health Clinic	25	G	N

**Not mapped but is located in the City of Holdrege*

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for the district.

Table LPS.8: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
8	CHS	-	N

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. All communication lifelines were identified by other lifelines.

Transportation

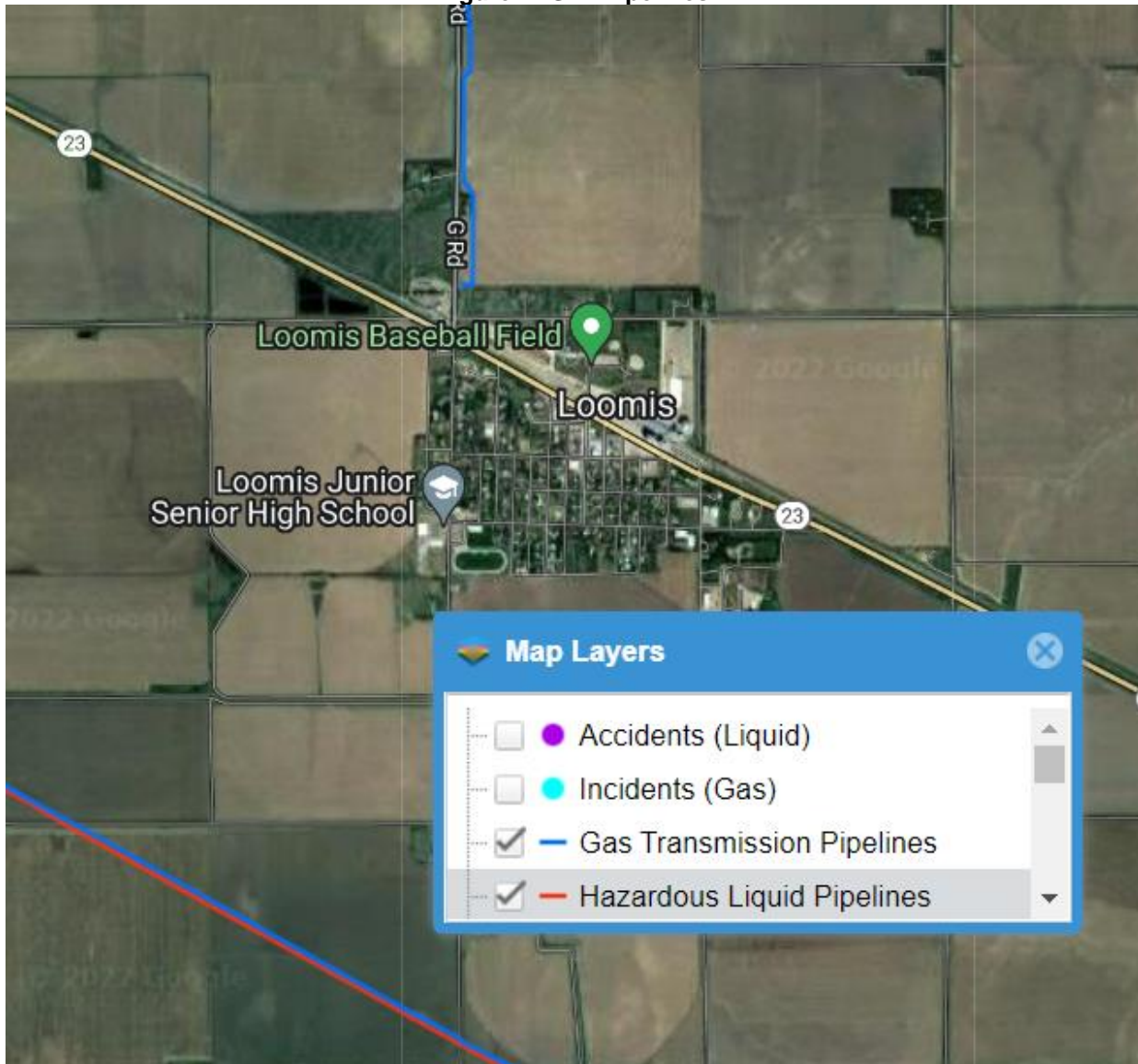
Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Four major transportation corridors travel through the district: US Highways 6/34 and 183 and Nebraska State Highways 4 and 23. The most traveled route is Nebraska 23 with an average of 905 vehicles daily, 115 of which are trucks.¹¹² A Nebraska Kansas Colorado Railway line and a Burlington Northern Santa Fe / Amtrak line travel through the district. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the district, as well as areas more at risk of transportation incidents. The district has four bus routes, seven buses, and approximately 100-110 students bused to and from school each day. There has been one accident involving a bus, when an individual ran a stop sign and hit a bus.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are two gas transmission pipelines and one hazardous liquid pipeline that travels near the school and can be seen in the figure below.

112 Nebraska Department of Transportation. 2021. "Interactive Statewide Traffic Counts Map." <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Figure LPS.4: Pipelines



Source: National Pipeline Mapping System¹¹³

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical sites within or near school buildings which house hazardous materials (listed below). One (CHS) is already identified under the energy lifeline. No chemical spills have impacted the school in the past.

Table LPS.9: Chemical Storage Lifelines

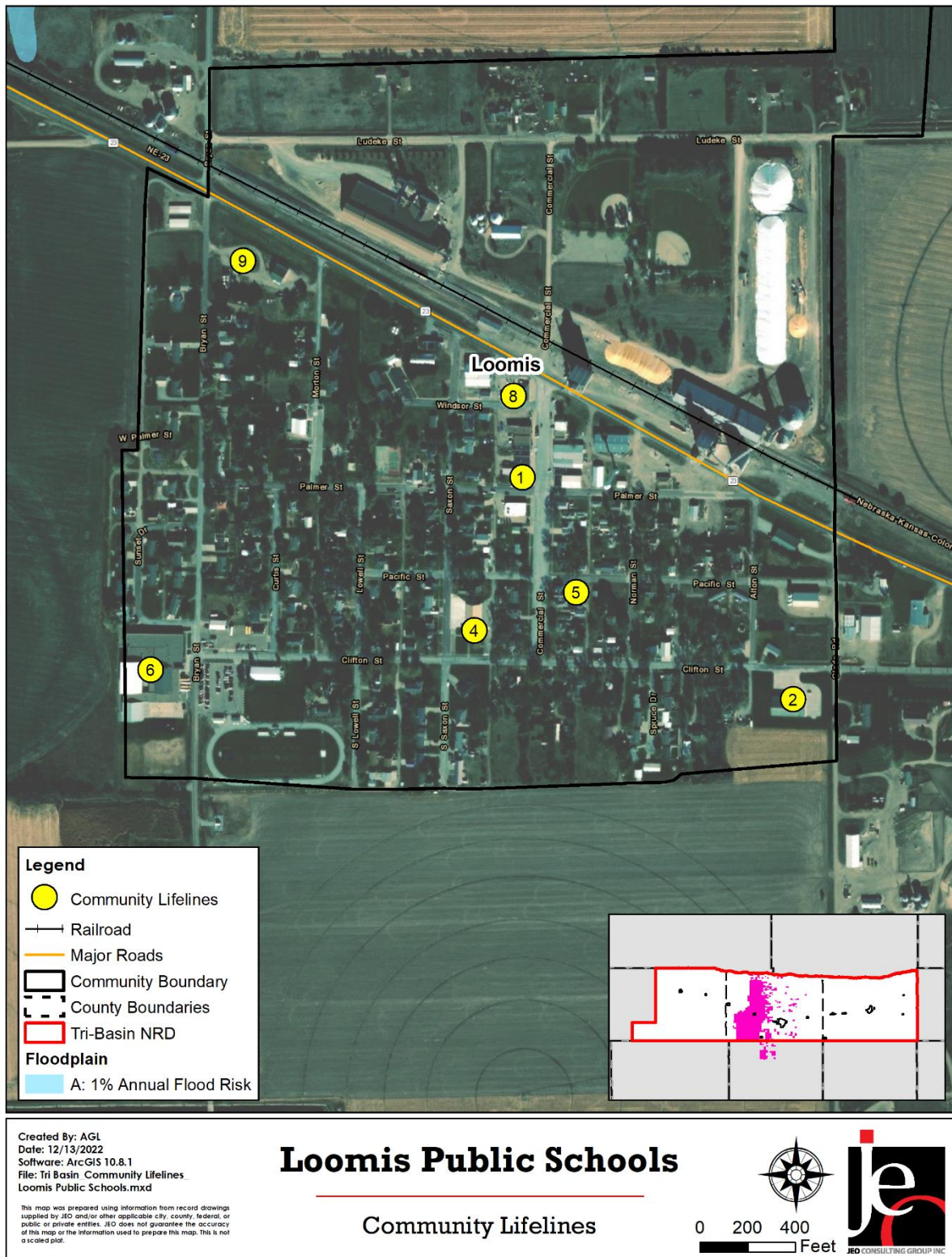
CL Number	Name	Generator (G)	Floodplain (Y/N)
9	County Partners Cooperative	-	N

Source: Nebraska Department of Environment and Energy¹¹⁴

113 National Pipeline Mapping System. 2022. "Public Viewer." Accessed September 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.

114 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2022.

Figure LPS.5: Community Lifelines



Historical Occurrences

See the Phelps County profile for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The Tri-Basin NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. However, during the planning process, the local planning team identified specific hazards of top concern for the district which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the hazards of top concern identified by Loomis Public Schools. 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: Risk Assessment*.

Public Health Emergency

This hazard was chosen because of the impacts from the COVID-19 pandemic. At the beginning of the pandemic the school did go remote. However, the district found that in-person was a better learning environment. Online learning took a toll on the social and emotional growth of students. Many extra-curricular events were cancelled or postponed during the first year.

With so many students and staff in the same location, sicknesses can spread very quickly. To help reduce the spread of viruses in the air, the district purchased disinfectant mister machines and fans. Masking, social distancing, and table shields were also implemented. The school also purchased COVID test kits. The district still has the capabilities to go remote if needed but prefers in-person learning whenever possible. Additional equipment is still needed to help maintain cleanliness.

Severe Thunderstorms

In the summer of 2021, a lightning strike knocked out part of the building's electrical system. Luckily, students were on summer break, and everything was able to be repaired before the start of the school year. Concerns related to severe thunderstorms include hazardous travel, building damage, and student and staff safety. Regular maintenance and electrical inspections are performed to help reduce the impacts of severe storms. All district owned buildings have ALICAP insurance protection. If power is lost during the school day, administration would call the city and find out how long the outage was expected to last. If out for a prolonged period, school would be canceled for the day. The local planning team indicated that a backup generator is needed in the event of a power loss.

Severe Winter Storms

Severe winter storms have not damaged any buildings in the past but have impacted travel and roadways to and from school. One of the biggest concerns with severe winter storms is the speed of the storm and communication to families. The district has protocol in place for monitoring storms and regularly communicates with other schools for updates. In the future, the district would like additional storm monitoring equipment. Snow removal on school property is handled by district personnel, custodian, and administration. The district owns a skid loader, several snow blowers, and a mower with a snowbrush attachment. If the school is unable to handle the amount of snow, there is a contract with a local farmer to help if needed. The school is typically closed between 5-8 days because of winter storms. Students and families are notified of a closure using a ONE-CALL system, radio, television, and social media.

Terrorism and Cyber Security

A terroristic event has not occurred in the past but is something that the district does not want to happen. To reduce the likelihood of an event, the school building has a security system in place that keeps all doors locked. However, the local planning team indicated that protocols have been lax in the past because the school is in a small town, and everybody knows everyone else. Cyber security for the district is done through the local education service unit. The sheriff’s office and state patrol have been to the building to ensure the district’s safety plan is good. The local planning team indicated that additional safety equipment is needed to help with security and door locks.

Tornadoes and High Winds

Tornadoes and high winds have not impacted or damaged the school in the past; however, they could cause damage and present a safety hazard to students and staff. One of the concerns expressed by the district was the speed of storm versus the speed of protocol. The district performs at least two tornado drills each year and it can be completed in five minutes. However, if the notification time is short, there is the possibility of injury. In the event of a tornado, students and staff are directed to go downstairs and away from windows. There is also a concern for tornadoes during outdoor activities and sports. The district follows the Nebraska Schools Activities Association protocol for outside events that are impacted by weather.

Loomis Public Schools is considering constructing a multi-purpose room that could also be used as a community tornado shelter for the 400+ residents of Loomis, students, and staff. Currently there is not such a building for the Village of Loomis and is much needed. This structure would be rated to protect from winds up to 250 mph and would serve as an activity center for the district. The multi-purpose room would be located at 101 Bryan Street with parking adjacent to the building. If needed the school district would also consider utilizing the room as a shelter location during other natural disasters.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Backup Generators
Description	Install a backup generator for the school building in the event that a power loss occurs.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$150,000-\$250,000
Local Funding	Building Fund, Tax Asking
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Board of Education
Status	Not Started. The district has the capability to implement this project.

Mitigation Action	Cleaning Equipment
Description	Purchase additional cleaning equipment to help reduce the spread of COVID-19 and other viruses. The current equipment spray and disinfectant machine is not working.
Hazard(s) Addressed	Public Health Emergency
Estimated Cost	\$2,000
Local Funding	Building Fund
Timeline	1 Year
Priority	Low
Lead Agency	Superintendent, Board of Education
Status	Not Started. The district has the capability to implement this project.

Mitigation Action	Public Awareness and Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase student and family awareness of natural and manmade hazards to the district and ways to protect people and property from these hazards.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Superintendent, Board of Education
Status	Not Started. The district has the capability to implement this project.

Mitigation Action	Safe Room and Storm Shelters
Description	Construct a multi-purpose room that would also be used as a community tornado shelter for the 400+ residents of Loomis. The multi-purpose room / community tornado shelter is proposed to be located at 101 Bryan Street with parking adjacent to the building.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$5,000,000+
Local Funding	Building Fund (15-25% of the Building), Tax Asking
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent, Board of Education
Status	Planning Stage. The district currently does not have the capability to implement this project due to a lack of funds.

Mitigation Action	Safety Equipment
Description	Purchase and install additional cameras. Install a better door security system.
Hazard(s) Addressed	Terrorism and Cyber Security
Estimated Cost	\$10,000
Local Funding	Building Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Board of Education
Status	Not Started. The district currently does not have the capability to implement this project.

Mitigation Action	Storm Monitoring Equipment
Description	Purchase additional radar monitoring equipment to better track storms as they progress.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$5,000-\$10,000
Local Funding	Building Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Board of Education
Status	Not Started. The district currently does not have the capability to implement this project.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside district planning documents (e.g., annual budgets and Crisis Response Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The Superintendent, Principal, Board President, and Board Vice President will be responsible for reviewing and updating this school district profile outside of the five-year update. Loomis Public Schools will review the plan annually and the public will be notified using social media, school website, newsletters, and during public meetings.