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County Profile

Hayes County

Hayes, Hitchcock, and Frontier Counties
Hazard Mitigation Plan

2023

Local Planning Team

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

Table HCO.1: Hayes County Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Char Hamilton	Emergency Manager	Hayes County	Hayes Center	Hayes Center
Joe Miller	Deputy Emergency Manager	Hayes County	Hayes Center	Hayes Center
Jeff Unger	County Commissioner	Hayes County	Hayes Center	Hayes Center

Location, Geography, and Climate

Hayes County is located in southwestern Nebraska and is bordered by Chase, Dundy, Frontier, Hitchcock, Lincoln, and Perkins Counties. There are two incorporated communities in the county the Village of Hamlet and Village of Hayes Center. The Village Hayes Center serves as county seat. The total area of Hayes County is 713 square miles. Major bodies of water include Blackwood Creek, Frenchman Creek, Red Willow Creek, and Stinking Water Creek. Topographic regions in the county include sand hills, plains, valleys, and dissected plains.[1]

Climate

Hayes 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 Hayes County for the month of July is 89.1 degrees Fahrenheit and the average low temperature for the month of January is 14.8 degrees Fahrenheit. On average, Hayes County receives over 21 inches of rain and 30 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.

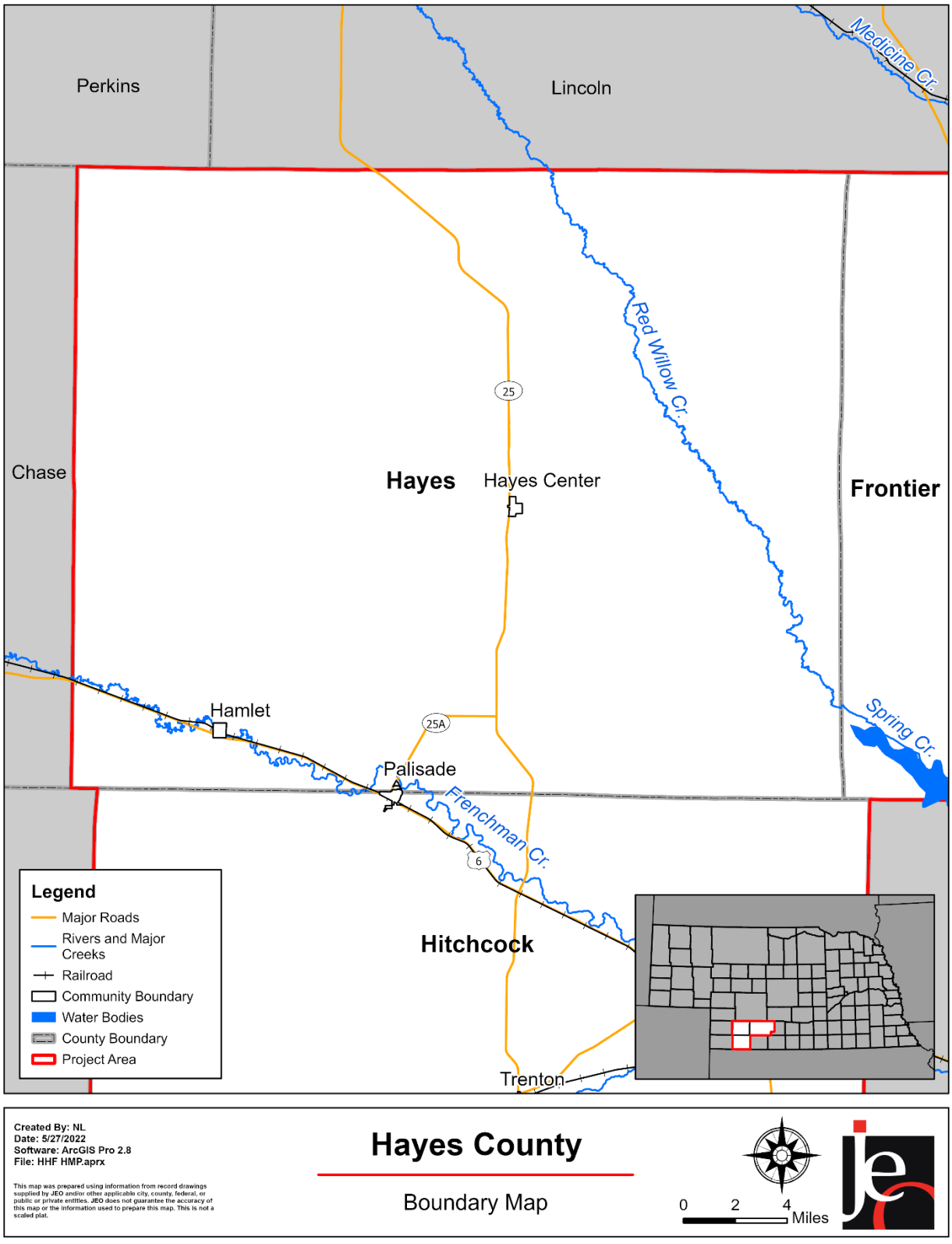
Table HCO.2: Hayes County Climate

	Hayes County	State of Nebraska
July Normal High Temp	89.1°F	87.3°F
January Normal Low Temp	14.8°F	13.9°F
Annual Normal Precipitation	21.5”	24.2”
Annual Normal Snowfall	30.2”	25.9”

Source: NCEI 1991-2020 Climate Normals[2]
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 June 2022. https://www.ncei.noaa.gov/access/us-climate-normals/.

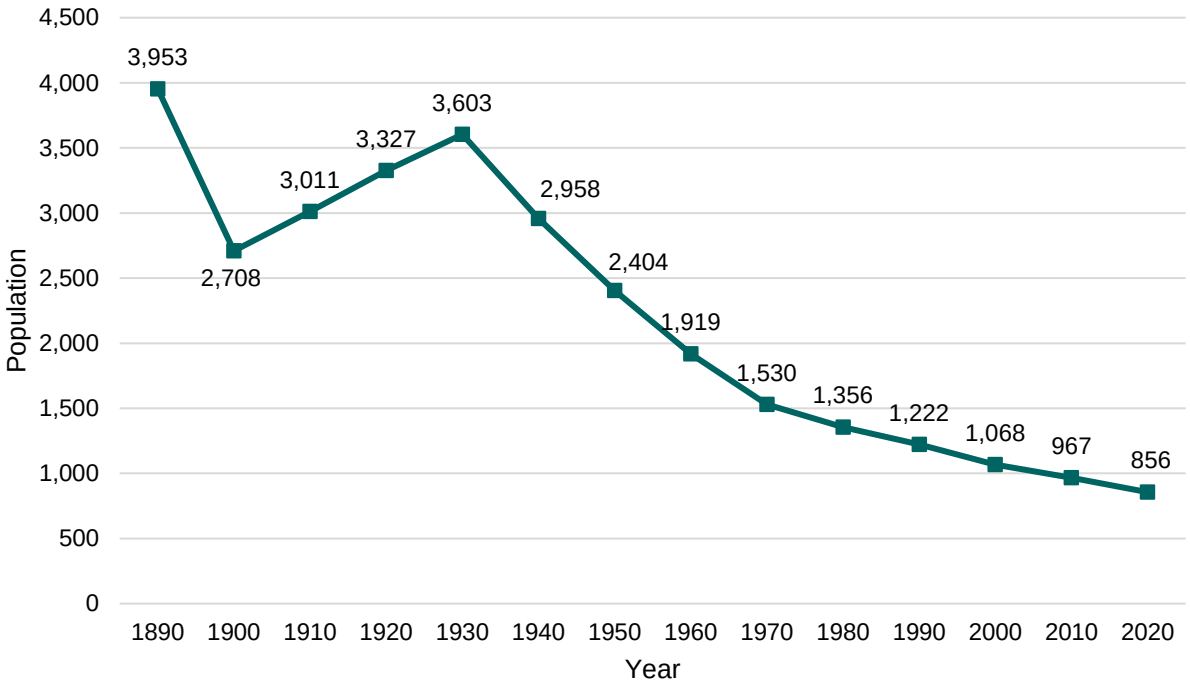
Figure HCO.1: Hayes County



Demographics

The following figure displays the historical population trend from 18900 to 2020. This figure indicates that the population of Hayes County has been decreasing since 1930 to 856 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. Hayes County's population accounted for 0.04% of Nebraska's population in 2020.[3]

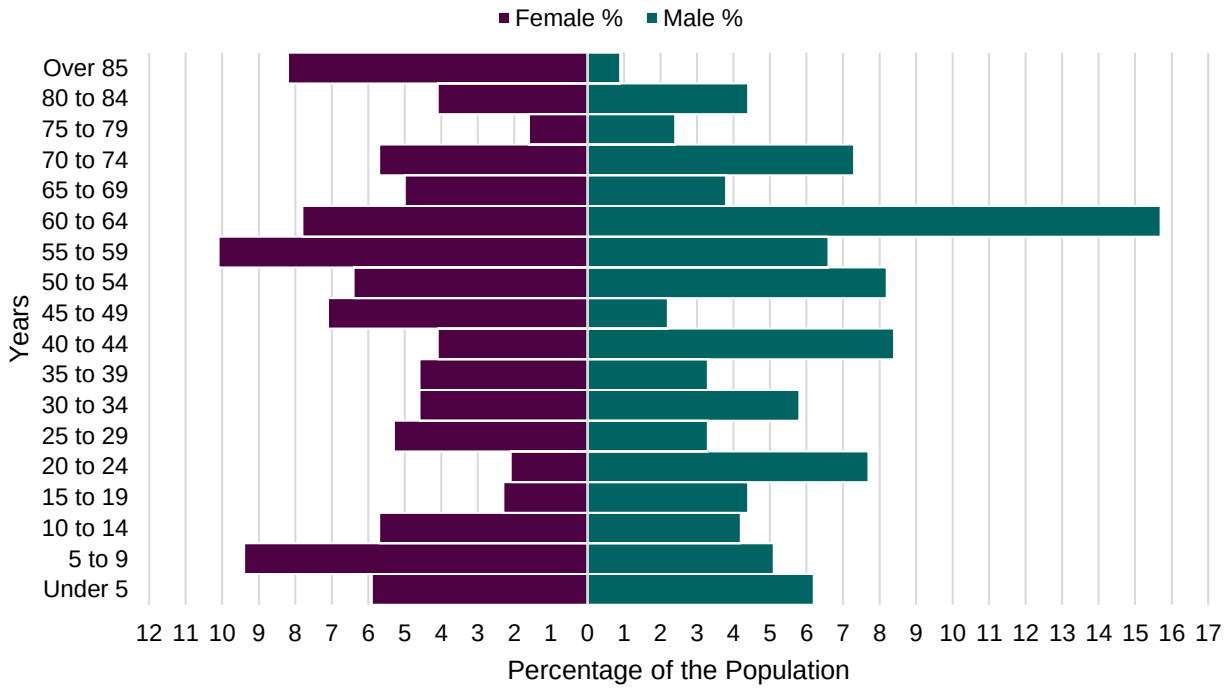
Figure HCO.2: Population 1890 - 2020



The young and elderly populations may be at greater risk from hazards than other age groups. The following figure shows Hayes County's population percentage broken down by sex and five-year age groups.[4] population is top heavy. This suggests future population decline as older generations are replaced by fewer younger residents. 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 HCO.3: Hayes 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 HCO.3: Housing and Income

	Hayes County	State of Nebraska
Median Household Income	$52,396	$63,015
Per Capita Income	$30,768	$33,205
Median Home Value	$81,000	$164,000
Median Rent	$456	$857

Source: U.S. Census Bureau[5,6]

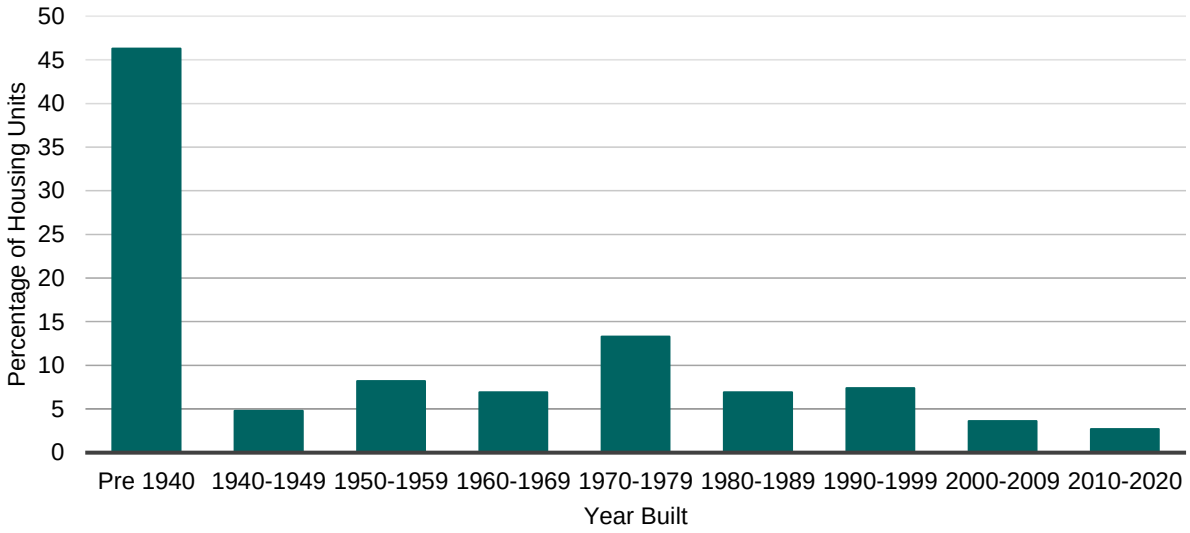
The following figure indicates that most of the housing in Hayes County was built before 1940 (46.3%). Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes may be at greater risk. The State of Nebraska first adopted building codes in 1987, 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 525 housing units with 74.1% of those units occupied. There are approximately 30 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. There are no mobile home parks, but mobile homes are scattered throughout the county. 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

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/.

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.

Figure HCO.4: Housing Units by Year Built



Source: U.S Census Bureau[5]

Table HCO.4: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hayes County	389	74.1%	136%	25.9%	277	71.2%	112	28.8%
Nebraska	766,663	90.8%	77,585	9.2%	507,291	66.2%	259,372	33.8%

Source: U.S. Census Bureau[5]

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.

- **82.0% of households have a broadband internet subscription**. Hayes County has a smaller share of households with broadband (82.0%) compared to the state (85.6%).[7]

Employment

According to 2020 Business Patterns Census Data, Hayes County had 19 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 HCO.5: Business in Hayes County

	Total Businesses	Number of Paid Employees	Annual Payroll (In Thousands)
Total for All Sectors	19	54	$1,708

Source: U.S Census Bureau[8]

Agriculture is the backbone of Nebraska's economy. Hayes County's 220 farms cover 436,754 acres of land about 95.7% 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 HCO.6: Agricultural Inventory

	Agricultural Inventory
Number of Farms with Harvested Cropland	220
Acres of Harvested Cropland	436,754

Source: USDA Census of Agriculture, 2017[9]

Governance

The county's governmental structure impacts its capability to implement mitigation actions. Hayes 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 Assessor
- County Attorney
- County Treasurer
- County Clerk
- Emergency Manager
- Highway Superintendent
- Planning/Zoning
- Floodplain Administrator
- County Roads Department

Capability Assessment

The planning team assessed Hayes 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. The local planning team does not anticipate adding or improving on existing capabilities due to limited funds and limited resources.

County funds are limited to maintaining current facilities and systems, with a large portion of funds already dedicated to road and bridge projects. Funds have stayed the same over 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 HCO.7: 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	No
	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)	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 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)	Yes
	Natural disaster or safety related school programs	No
	StormReady Certification	No
	Other (if any)	-

Table HCO.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	Limited to Moderate
Time to devote to hazard mitigation	Limited to Moderate

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 Hayes County is Very Low (3.61). The average for the State of Nebraska is 9.43.[10]

- **Social Vulnerability:** Social groups in Hayes County have a Very Low (24.91) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Hayes County have a Relatively Low (50.50) 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 Hayes County.

Table HCO.9: Rural Capacity Index

Components of Index	Hayes County
County is Metropolitan?	No
Has a Head of Planning?	Yes
Has a College or University?	No
Adults with Higher Education:	18%
Families Below Poverty Level:	6%
Households with Broadband:	80%
People without Health Insurance:	8%
Voter Turnout:	77%

10 Federal Emergency Management Agency. "National Risk Index". Accessed July 2022. https://hazards.fema.gov/nri/map.

Components of Index	Hayes County
Income Stability Score (0 to 100):	16
Population Change (2000 to 2019):	-146
Overall Rural Capacity Index Score	**63**

Source: Headwaters Economics[11]

National Flood Insurance Program (NFIP)

Hayes County is a member of the NFIP having joined on 5/5/2008, and the county's Floodplain Administrator (Tammy Schwenk) oversees the commitments and requirements of the NFIP including enforcement of the local floodplain management regulations. The initial FIRM for the county was delineated in 2/6/2008 and the current effective map date is 2/6/2008, which has been adopted and incorporated into the local floodplain management regulations in 2011. As of August 31, 2021, there are three NFIP policies in-force for the county covering $373,000. Hayes County does not currently have any repetitive loss or severe repetitive loss structures. The county requires permits for any development located in floodplain and enforces the floodplain ordinance through a review process done by the floodplain administrator.

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 that Hayes County will remain in good standing and will continue involvement with the NFIP in the future.

Plans and Studies

Hayes 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 (2011)

The comprehensive plan is designed to guide the future actions and growth of the county. Due to the age of the plan, it has not been integrated with the hazard mitigation plan. The comprehensive plan contains goals and objectives aimed at safe growth, directs development away from the floodplain, and encourage the elevation of structures located in the floodplain. There is currently no timeline to update the comprehensive plan.

Floodplain Regulations (2011) and Zoning Ordinance (2011)

The county's floodplain regulations and zoning ordinance outline where and how development should occur in the future. Due to the age of the documents, they have not been integrated with the hazard mitigation plan. However, these documents require more than one foot of elevation above base flood elevation for buildings in the floodplain and include well setback requirements. There are no plans to update these documents at this time.

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

Hayes County Local Emergency Operations Plan (2016)

The Hayes 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.

Southwest Nebraska Community Wildfire Protection Plan (2019)

The purpose of the Southwest 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. This document is updated every five years.

Wellhead Protection Plan (2011)

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

Future Development Trends

Over the past five years, new homes, a body shop, fuel pumps, a new storage building, and a hog farm were all added in the county. These new developments likely increased the county's vulnerability to hazards as there are buildings that could be damaged. However, that vulnerability is minimized as none of the new buildings or structures were built in the floodplain or other known hazardous areas. 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 safety. The table below lists Safety and Security Lifelines for Hayes County.

Table HCO.10: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	County Courthouse / Communications Equipment	-	N
2	Hayes County Volunteer Fire Department / Ambulance	-	N

Food, Water, Shelter

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

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

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
3	Baptist Church	S	N
4	Hamlet Union Church	S	N
5	Hayes Center Elementary School	S	N
6	Hayes Center High School	S	N
7	North Well	-	N
8	Scott's Grocery	-	N
9	South Well	G	N
10	Union Congregational Church	S	N
11	Water Tower	-	N
12	Way Station	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 only health and medical facility is the Hayes Center Ambulance, which is located with the fire department.[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 HCO.12: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
13	Bella Petroleum	-	N
14	Sub Station	-	N

Communications

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

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.

Table HCO.13: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
15	Communications Tower	-	N
16	Great Plains Communication	-	N
17	Verizon Tower	-	N
18	Viaero Tower	-	N
19	Viaero Tower	-	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Hayes County's major transportation corridors include US Highway 6 and Nebraska State Highways 25 and 25A. The most traveled route is Highway 6 with an average of 1,555 vehicles daily, 290 of which are trucks.[16] Other routes of concern include roads 737, 741, 742, avenues 368A, 374, and the route from Hayes Center to Maywood. One Nebraska Kansas Colorado Railway line runs east to west through the southwestern portion of the county. 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 no gas transmission or hazardous liquid pipelines that travel through the county.[17] According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there six chemical storage sites throughout Hayes County which house hazardous materials. Fuel, fertilizer, and other farm chemicals are all transported along local routes in the county.

Table HCO.14: Chemical Storage Sites

CL Number	Name	Generator (G)	Floodplain (Y/N)
20	Darling Ingredients Inc	-	N
21	Hayes Center Field – Vlassin	-	N
22	Hayes Center West Field – Gohl	-	N
23	Hayes County Co-op	-	N
24	NDOT Palisade Yard	-	N
25	Vast Farms 1-10	-	N

Source: Nebraska Department of Environment and Energy[18]

16 Nebraska Department of Transportation. 2021. "Annual Average Daily Traffic Flow." Accessed July 2022. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34.
17 National Pipeline Mapping System. 2022. "Public Viewer." Accessed July 2022. https://pvnpms.phmsa.dot.gov/PublicViewer/.
18 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

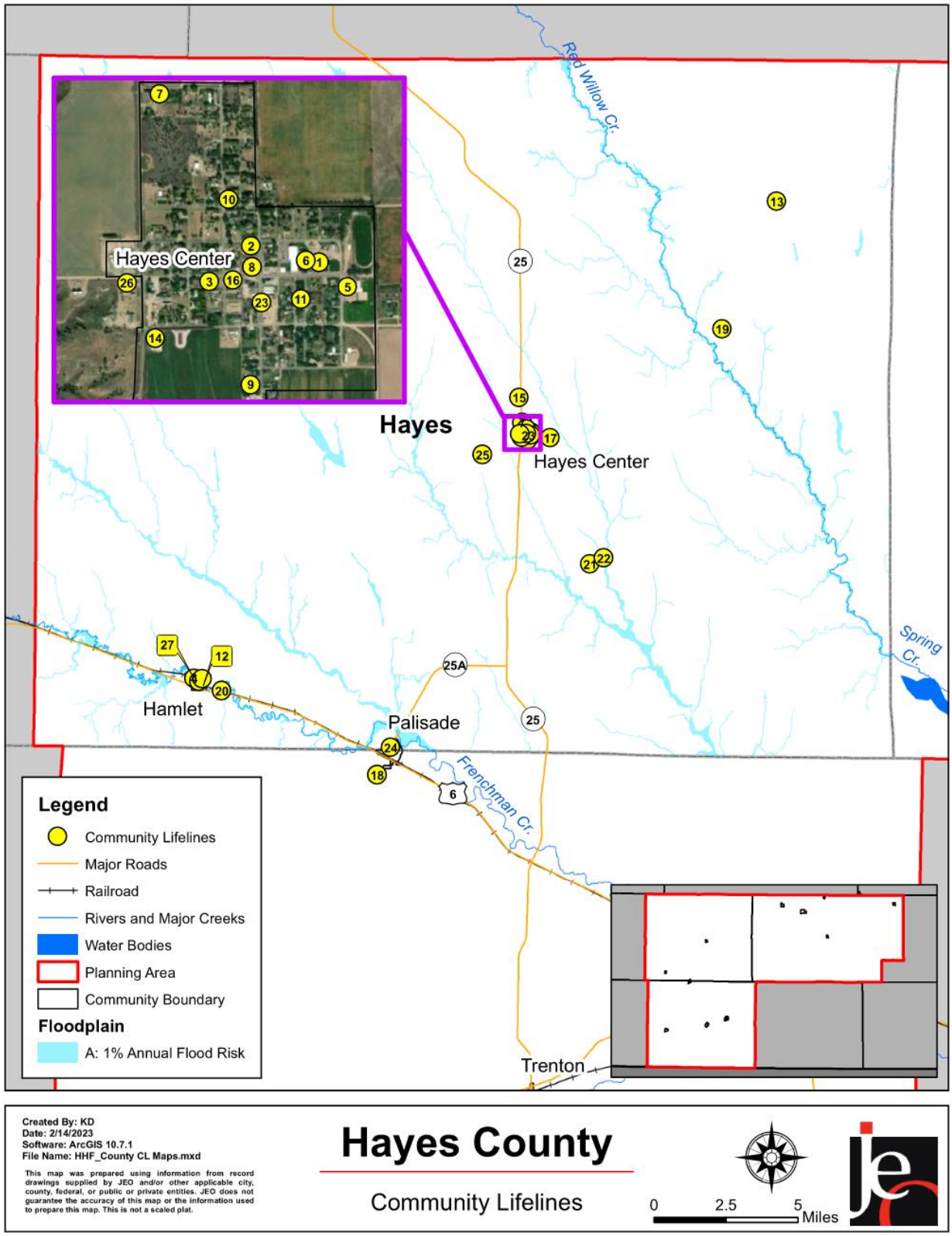
Other Community Lifelines

Hayes 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 HCO.15: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
26	County Shop – Hayes Center	-	N
27	County Shop - Hamlet	-	N

Figure HCO.5: 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 HCO.16: 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
768	$53,699,669	201	$13,088,555	26.2%

Source: County Assessor, 2021

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 February 2022) should be considered only as broad estimates. Crop damages reports come from the USDA Risk Management Agency for Hayes County between 2000 and 2021.

Table HCO.17: County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage[2]
Animal & Plant Disease	Animal Disease[1]	0	0 Animals	N/A
	Plant Disease[2]	17	N/A	$158,418
Dam Failure[5]		0	N/A	N/A
Drought[6]		446 out of 1,525 Months	$1,000,000	$36,340,452
Extreme Heat[7]		Avg. 7 Days a Year	N/A	$6,687,762
Flooding[8]	Flash Flood	21	$2,903,000	$244,475
	Flood	2	$75,000	
Grass/Wildfires[9] *1 Injury*		47	$28,500	$9,000
Hazardous Materials Release	Fixed Site[3]	0	$0	N/A
	Transportation[4]	0	$0	N/A
Public Health Emergency		2	N/A	N/A
Severe Thunderstorms[8]	Hail Range: 0.75 – 4.5 in. Average: 1.32 in.	192	$1,909,000	$35,560,320
	Thunderstorm Wind Range: 58 – 100 mph Average: 66 mph	51	$508,500	$1,874,456
	Heavy Rain	4	$0	
	Lightning	0	$0	
Severe Winter Storms[8]	Blizzard	7	$0	$3,750,741
	Extreme Cold/Wind Chill	3	$0	
	Heavy Snow	4	$0	
	Ice Storm	0	$0	
	Winter Storm	28	$0	
	Winter Weather	0	$0	

Hazard Type		Count	Property Damage	Crop Damage[2]
Terrorism and Cyber Security[10]		0	$0	N/A
Tornadoes and High Winds[8]	High Winds Range: 40 – 74 mph Average: 56 mph	39	$11,000	$1,981,295
	Tornadoes Range: EF0 – EF1 Average: EF0	9	$160,000	$0
Total		**426**	**$6,595,000**	**$86,606,919**

N/A: Data not available
1 - NDA, 2014 – 2021
2 - USDA RMA, 2000 –2021
3 - NRC, 1990 – 2021
4 - PHSMA, 1971 – April 2022
5 – DNR Communication, June 2022
6 - NOAA, 1895 – May 2022
7 – High Plains Regional Climate Center, 1905 – May 2022
8 - NCEI, 1996 - February 2022
9 - NFS, 2000 - 2020
10 - University of Maryland, 1970-2019

Hazard Prioritization

The Hayes, Hitchcock, and Frontier Counties 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 Hayes 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.*

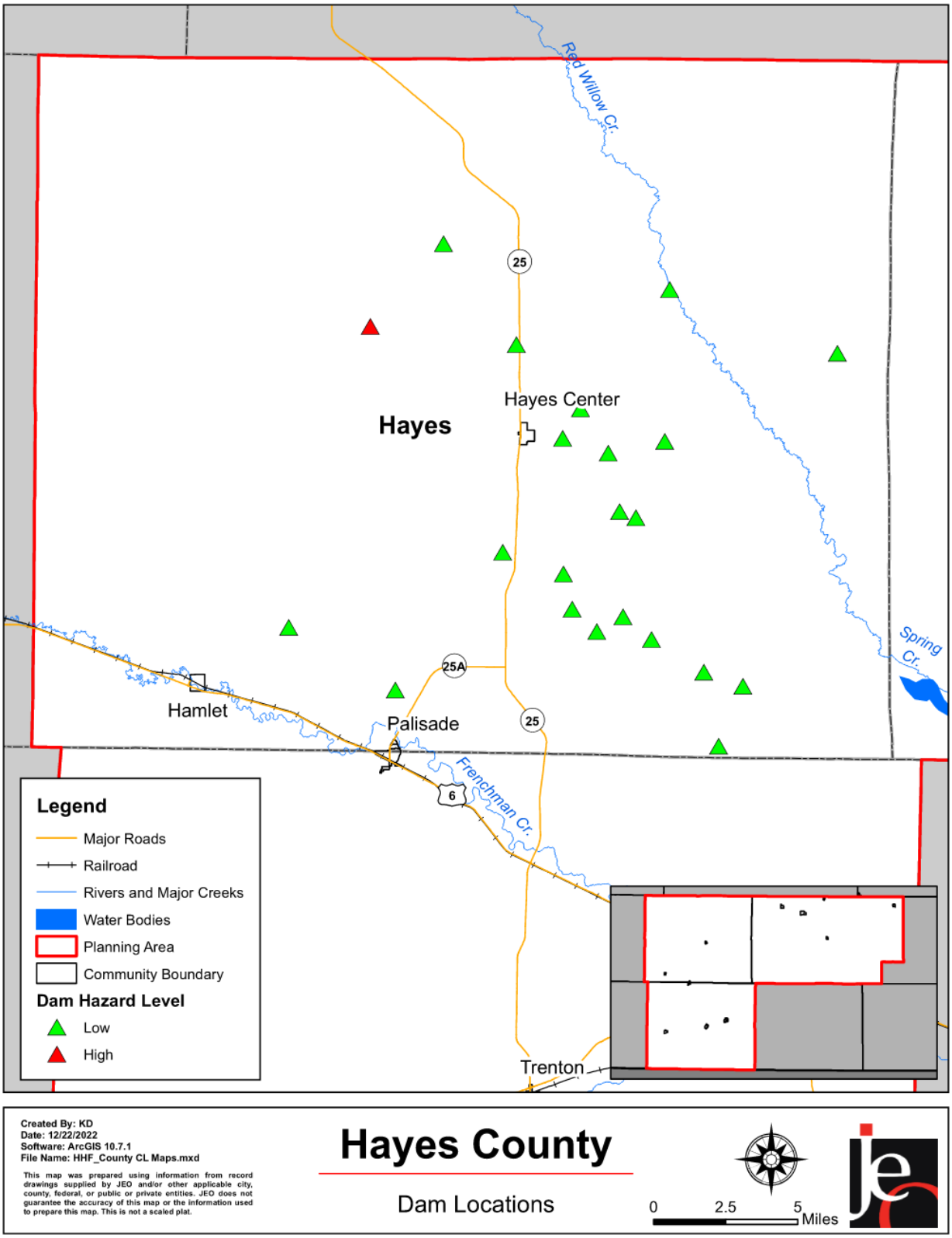
Dam Failure

While not identified as a hazard of top concern by the local planning team, Hayes County has one high hazard dam. The Blackwood Creek 11-A is located along Blackwood Creek with a normal storage area of 115 acre-feet. If the dam were to fail it would likely impact the City of McCook. The figure below shows the location of the dams in the county.

Drought

Currently the county and region are experiencing a prolonged drought event that started in 2021. The drought has caused crop loss which has led to dust storms from fields where there is little to no vegetation. In 2022 the county received a USDA Disaster Designation. County roads have also been impacted by the lack of moisture causing them to be very rough and difficult to repair. Wildfires have started to occur more often due to the dry vegetation. Primary concerns include local economic impacts, dust storms, and increased risk of large wildfires.

Figure HCO.6: Dam Locations



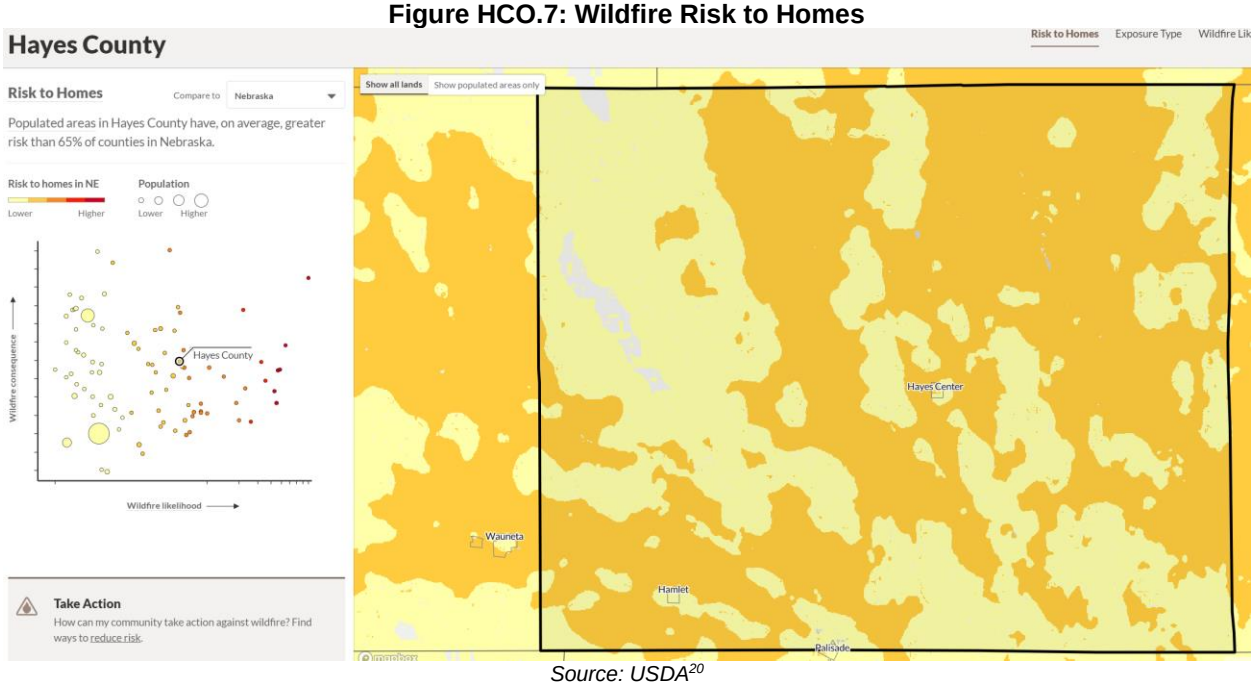
Grass/Wildfire

There have been 47 reported wildfire events in the county with the most recent occurring in April 2022. One injury was reported with a fire in May 2008. Primary concerns related to grass/wildfires is crop loss and possible damage to homes and buildings. In the future the county would like to add water hookups on center pivots so that the fire departments are able to use them for water if needed.

The Figure below shows the greatest wildfire risk to homes in Hayes County is located in the northeast and southwest. Populated areas in Hayes County have, on average, a greater risk than 65% of counties in Nebraska.

According to the 2019 Southwest Nebraska CWPP, "locations of special concern include population centers adjacent to grasslands and areas where eastern redcedar has encroached into grasslands and woodlands, creating high fire hazard, such as the area surrounding Hayes Center. The Hayes County fire chief identified Hayes Center as being of particular concern due to farm fields and grasslands immediately adjacent to homes. He said there is a bridge near the Hayes Center WMA that will not support the weight of a tanker. The topography, size, and lack of roads in certain areas of the district makes for some challenging situations. Hayes County Volunteer Fire Department feel that over half of the district could be described as 'nightmare' locations. Another high-risk area identified is the Frenchman WMA north of Palisade near the Hayes-Hitchcock County line."[19]

Figure HCO.7: Wildfire Risk to Homes

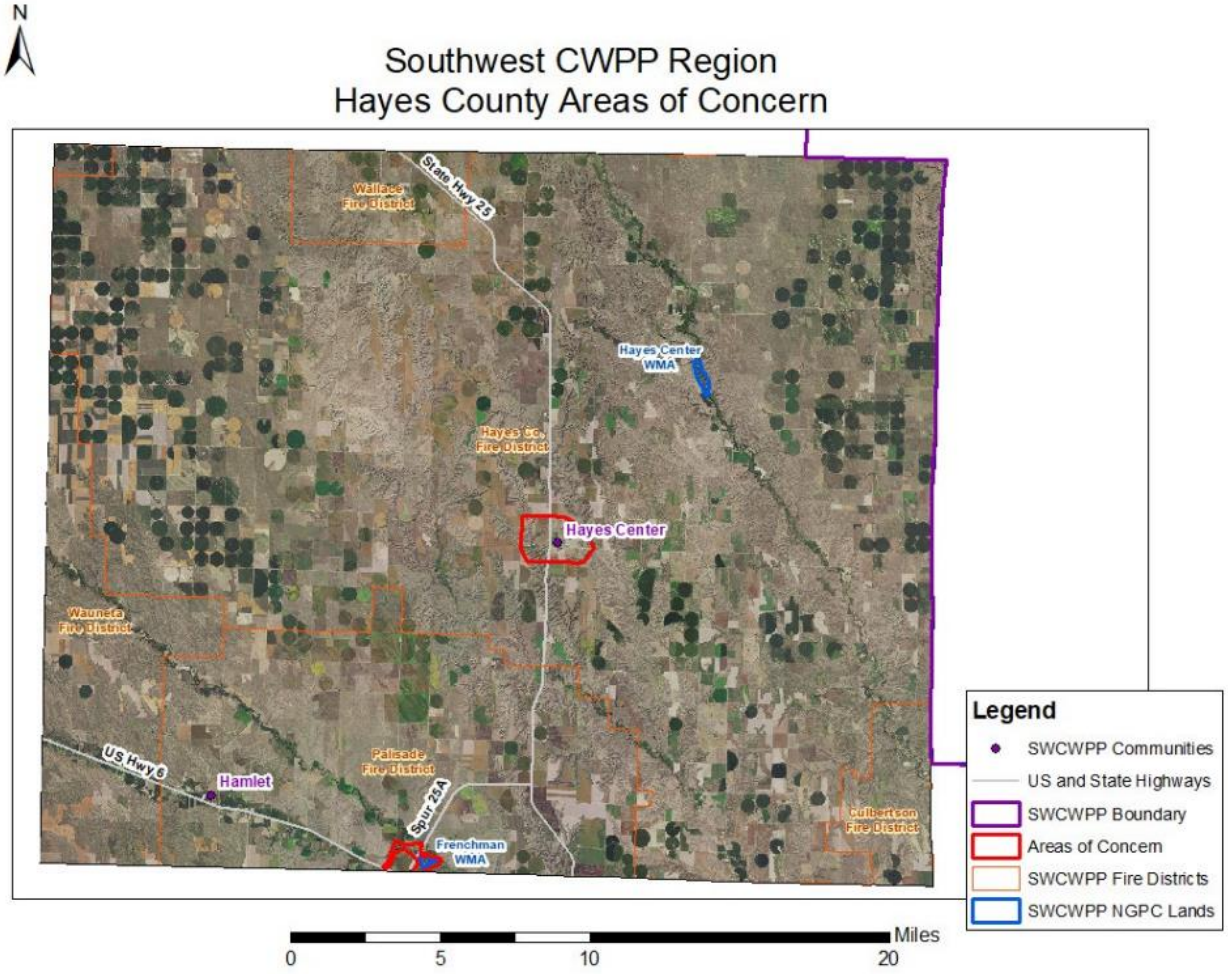


Source: USDA[20]

19 Nebraska Forest Service. 2019. "Southwest Nebraska Community Wildfire Protection Plan". https://nfs.unl.edu/community-wildfire-protection-plan.

20 20 United States Department of Agriculture, United States Forest Service. 2022. "Wildfire Risk to Communities." https://wildfirerisk.org/.

Figure HCO.8: Wildfire Areas of Concern



Source: Nebraska Forest Service

Severe Thunderstorms

NCEI has reported 254 severe thunderstorm events since 1996. The most damaging event occurred on June 4, 2008, when 4-inch hail caused $1,000,000 to vehicles, roofs, and siding. It also severely damaged a motel and the newspaper building. Most recently a lightning strike caused a wildfire that burned crops and pastureland. Primary concerns for the county include loss of power, lightning caused fires, and hazardous muddy roads. Generators are needed on key community lifelines in the event of power loss.

Severe Winter Storms

NCEI has reported 42 severe winter storm events in the county since 1996. While no damages were reported, the local planning team indicated that events have caused hazardous road conditions disrupting emergency vehicles and farmers being unable to feed livestock. Power loss is also a concern regarding severe winter storms and backup generators are needed at key community lifelines.

Tornadoes and High Winds

Nine tornado events have occurred since 1996. An F1 tornado Halloween 2000 caused $160,000 in damages near Hamlet. A garage was destroyed, several outbuildings were damaged, a calf shed was destroyed, and trees were uprooted. Power loss and damage to buildings are the primary concerns for the local planning team. Tornado sirens in the county are located in Hayes Center and Hamlet. No other areas have been identified as needing a siren.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Irrigation Pivot Hookups
Description	Work with private farmers to add hook-ups to irrigation systems that fire departments can use when responding to grass/wildfires.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management
Status	New action not started. The county currently has the capability to implement this project.

Kept Mitigation Actions

Mitigation Action	Alert and Warning Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking and remote activation.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$25,000+
Local Funding	General Fund
Timeline	Ongoing
Priority	Medium
Lead Agency	County Emergency Management
Status	Ongoing. Sirens are checked and repaired/replaced as needed in Hayes Center and Hamlet. The county currently has the capability to implement this project.

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other community lifelines. A backup generator is needed for the fire department and county office.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$35,000+ per Generator
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	County Emergency Management, County Commission
Status	Not Started. The county currently has the capability to implement this project.

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire equipment, ATVs, water tanks/truck, snow removal equipment, pumps, etc. This would also include developing backup systems for emergency vehicles, identifying and training additional personnel for emergency response, or continuing educational opportunities for current personnel.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Public Health Emergency, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	Ongoing
Priority	High
Lead Agency	County Commission, County Emergency Management, Roads Department
Status	Ongoing. A new fire truck was recently purchased. Funding for a new ambulance is currently in progress. The county currently does not have the capability to implement this project due to a lack of funds.

Mitigation Action	Drainage Assessment for Bridge and Culvert Improvements
Description	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas and potential drainage improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 - $100,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Engineering, Roads Department, Middle Republican NRD
Status	Not Started. The county currently has the capability to implement this project.

Mitigation Action	Emergency Communications
Description	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Public Health Emergency, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	Ongoing
Priority	Medium
Lead Agency	County Emergency Management
Status	Ongoing. The county is always looking for ways to improve communications with others.

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	Animal and Plant Disease, Dam Failure, Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Public Health Emergency, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management
Status	Not Started. The county has the capability to implement this project.

Mitigation Action	Stream Bank Stabilization
Description	Stream bank/bed degradation can occur along many rivers and creeks. Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented and improved to maintain the channel bed. Channel stabilization can protect structures, increase conveyance and provide flooding benefits. Flood protection for critical and/or highly vulnerable facilities, areas, populations, and infrastructure is key.
Hazard(s) Addressed	Flooding
Estimated Cost	$50,000 - $100,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Commission, Public Works, County Emergency Management, Middle Republican NRD
Status	Not Started. The county currently has the capability to implement this project.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$75 per Radio
Local Funding	General Fund
Timeline	Ongoing
Priority	Medium
Lead Agency	County Emergency Management
Status	Ongoing. Weather radios are purchased as needed. The county currently has the capability to implement this project.

Removed Mitigation Actions

Mitigation Action	Dam Engineering Analysis, Repairs, and Reinforcements
Description	Conduct a preliminary engineering analysis for dam repairs and reinforcement. Dams serve to provide flood protection to businesses and residents during large storm events. Improvements to existing dams will increase flood protection. The Emergency Action Plan, Dam Breech Analysis, and/or inspection/safety equipment training may need to be updated along with improvements.
Hazard(s) Addressed	Dam Failure
Status	Removed as this project would be handled by the NRD.

Mitigation Action	Electrical system Generation, Looped Distribution, and 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
Status	Removed as this project would be handled by SWPPD.

Mitigation Action	Evacuation Plan
Description	Prepare and implement an emergency evacuation plan for when the immediate and urgent movement of people away from the threat or actual occurrence of a hazard is necessary.
Hazard(s) Addressed	Dam Failure, Flooding, Grass/Wildfires, Hazardous Materials Release, Terrorism and Cyber Security
Status	Removed as this project is no longer a priority for the county.

Mitigation Action	Flood-Prone Property Acquisition
Description	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the National Flood Insurance Program. Repetitive loss structures are typically highest priority.
Hazard(s) Addressed	Flooding
Status	Removed as there are no properties that need to be acquired.

Mitigation Action	New Water Well, Tower, and Stand Pipe
Description	Evaluate the need to expand water storage capacity through a new water tower, stand pipe, etc. to provide a safe water supply for the community and additional water for fire protection. Communities can evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
Hazard(s) Addressed	Drought
Status	Removed as this project would be handled by Hayes Center.

Mitigation Action	Participate or Maintain Good Standing in the NFIP
Description	Participate in the NFIP or maintain good standing with the NFIP including floodplain management practices/requirements and regulation enforcement and updates. Hitchcock County will be the main manager of Trenton's participation in the NFIP. Hitchcock County will monitor and fully enforce floodplain management regulations as part of NFIP participation.
Hazard(s) Addressed	Flooding
Status	Removed as this is a maintenance action. The county will continue to maintain good standing with the NFIP.

Mitigation Action	Storm Shelter and Safe Rooms
Description	Assess, design and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as this project is not feasible for the county.

Mitigation Action	Tree City USA
Description	Work to become a Tree City U.S.A. through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation.
Hazard(s) Addressed	Animal and Plant Disease, Drought, Extreme Heat, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as this project would be handled by Hayes Center and Hamlet.

Mitigation Action	Underground or Identify and Retrofit Power and Service Lines
Description	Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Rural Water Districts can work with their county to identify vulnerable distribution lines near river crossings or creek beds and plan to place lines underground to reduce vulnerability from storm events and erosion.
Hazard(s) Addressed	Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as this project would be handled by SWPPD.

Mitigation Action	Warning Systems
Description	Improve city cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911.
Hazard(s) Addressed	All Hazards
Status	Removed because Great Plains is installing fiber optics to this is no longer 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.

County Emergency Management and the County Commissioners will be responsible for reviewing and updating this county profile outside of the five-year update. Hayes County will review the plan annually and will notify the public at a County Commissioners Meeting.

Community Profile

Village of Hamlet

Hayes, Hitchcock, and Frontier Counties
Hazard Mitigation Plan

2023

Local Planning Team

The Village of Hamlet'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 HMT.1: Hamlet Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Steve Christner	Board Chair	Village of Hamlet	Hayes Center	-
San-D Nolte	Clerk / Treasurer / Floodplain Administrator	Village of Hamlet	Hayes Center	-
Josh Taylor	Clerk / Treasurer in Waiting	Village of Hamlet	Hayes Center	Hayes Center

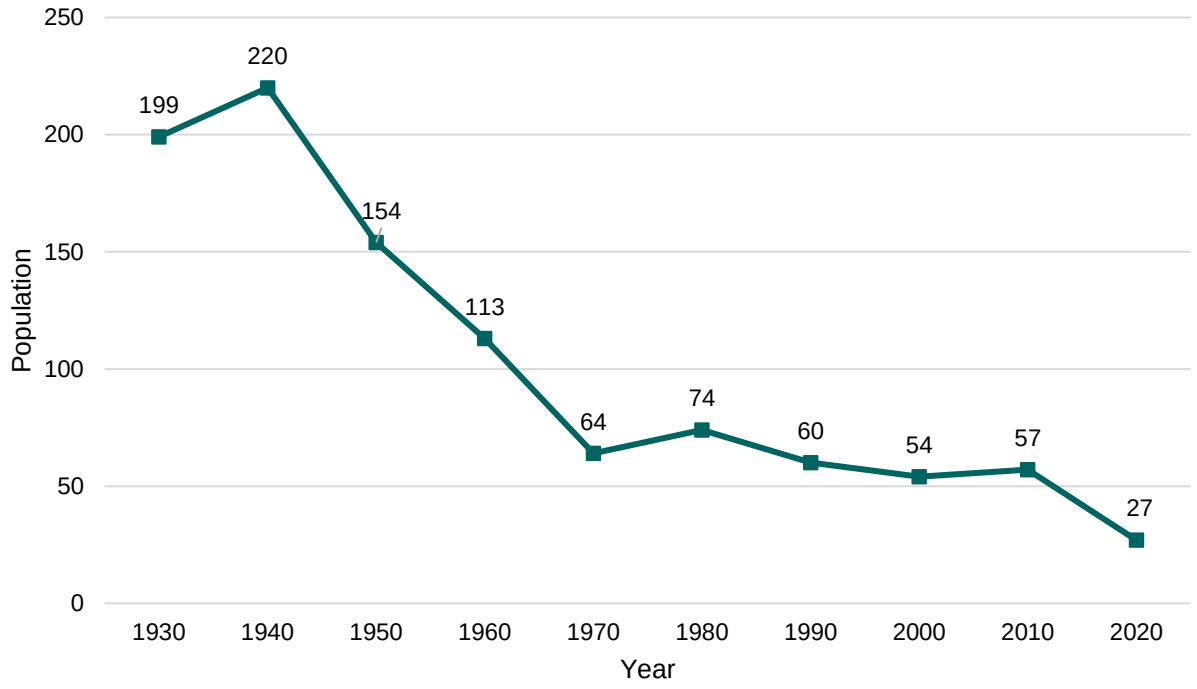
Location and Geography

The Village of Hamlet is in southwestern Hayes County and covers an area of 0.31 square miles. Frenchman Creek runs through the southern and western portions of the community.

Demographics

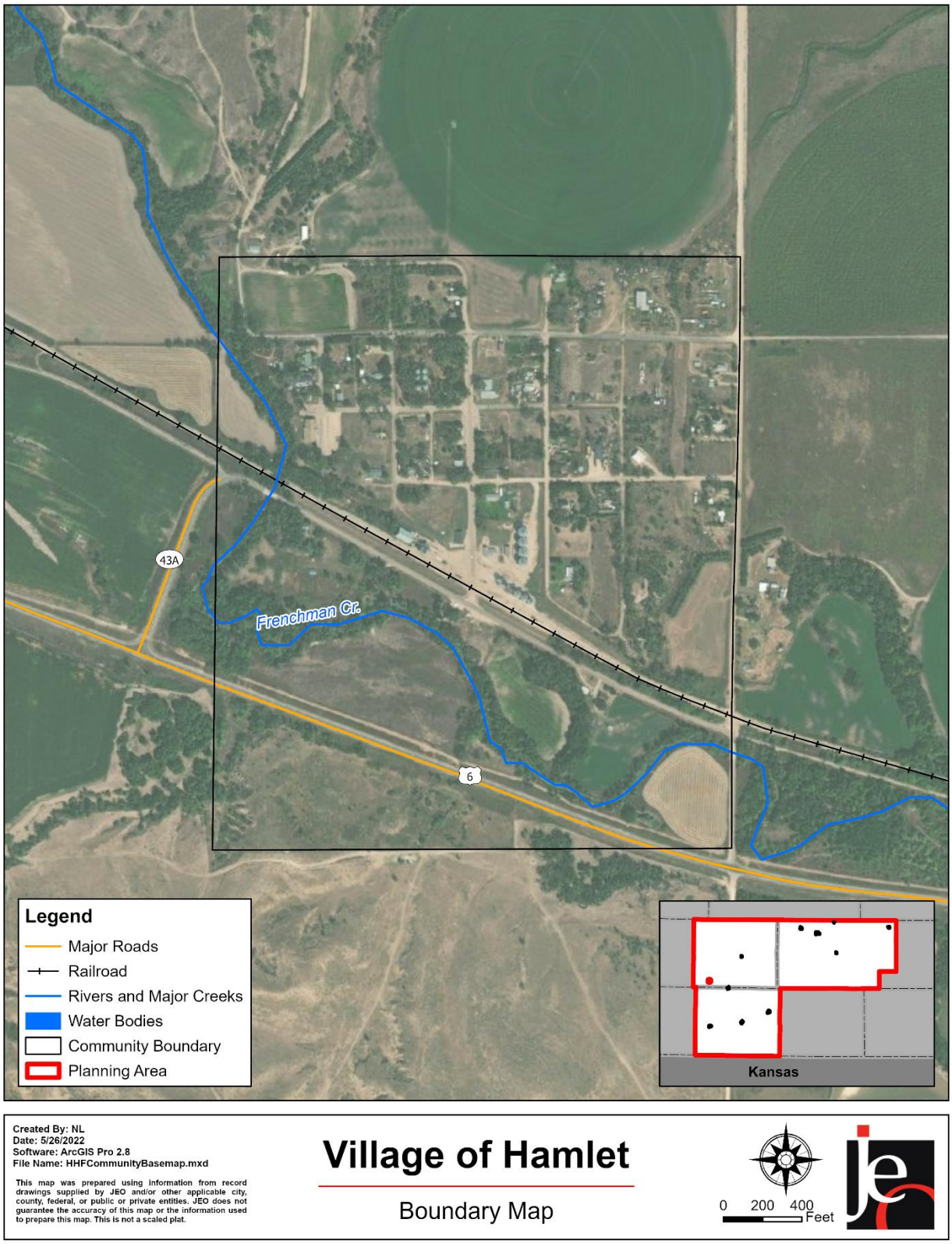
The following figure displays the historical population trend for the Village of Hamlet. This figure indicates that the population of Hamlet has been declining since 2010 to 27 people in 2020. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds 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. Hamlet's population accounted for 3.2% of Hayes County's population in 2020.[21]

Figure HMT.1: Population 1930 - 2020



21 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.

Figure HMT.2: Village of Hamlet



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

- **7.4% is non-white.** Since 2010, Hamlet became more ethnically diverse. In 2010, 5.3% of the Hamlet's population was non-white. By 2020, 7.4% was non-white.[22]
- **Median age of 59.5.** The median age of Hamlet was 59.5 years old in 2020. The population became older since 2010, when the median age was 57.5.[23]

Employment and Economics

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

- **45% of people living below the poverty line.** The poverty rate (45%) in the Village of Hamlet was higher than the state's poverty rate (10.4%) in 2020.[24]
- **$26,458 median household income.** Hamlet's median household income in 2020 ($26,458) was $36,557 lower than the state ($63,015).[24]
- **0% unemployment rate.** In 2020 Hamlet has a lower unemployment rate (0%) when compared to the state (3.4%).[24]
- **10.5% of workers commuted 30 minutes or more to work.** Fewer workers in Hamlet commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (10.5% compared to 47.4%).[25]

Major Employers

There are no major employers in Hamlet. Most residents are self-employed or travel to Wauneta, Palisade, Imperial, or McCook 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. Hamlet's housing stock has:

- **79.1% of housing built prior to 1970.** Hamlet has a larger share of housing built prior to 1970 than the state (79.1% compared to 45.5%).[26]

22 United States Census Bureau. "2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." https://data.census.gov/.
23 United States Census Bureau. "2020 Census Bureau American Community Survey: S0101: Age and Sex." https://data.census.gov/.
24 United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." https://data.census.gov/.
25 United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." https://data.census.gov/.
26 United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." https://data.census.gov/.

- **41.9% of housing units vacant.** Hamlet has a higher vacancy rate 41.9% compared to the rest of the state (9.2%).[26]
- **4.7% mobile and manufacture housing.** The Village of Hamlet has a larger share of mobile and manufactured housing (4.7%) compared to the state (3.3%).[26]
- **8.0% renter-occupied.** The rental rate of Hamlet was 8.0% in 2020. This is lower than the state's rate of 33.8%.[26]

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.

- **92.0% of households have a broadband internet subscription**. Hamlet has a larger share of households with broadband (92.0%) compared to the state (85.6%).[27]

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 Hamlet 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 / Floodplain Administrator

Capability Assessment

The planning team assessed the Village of Hamlet'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 the community to add or improve on existing capabilities. This is due to a lack of capacity, small population, and a lack of volunteers.

Municipal funds are limited to maintaining basic infrastructure like streets, sidewalks, and streetlights. A large portion of funds are already dedicated to a street chip and seal project. Funds have stayed the same over recent years.

Table HMT.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

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

Capability/Planning Mechanism		Yes/No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	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	No
	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local staff who can assess community's vulnerability to hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	No
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to levy taxes for specific purposes such as mitigation projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	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.	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

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

Table HMT.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 Hayes County, which includes Hamlet, is Very Low (3.61). The average for the State of Nebraska is 9.43.[28]

- **Social Vulnerability:** Social groups in Hayes County have a Very Low (24.91) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Hayes County have a Relatively Low (50.50) 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 out the components and scores for the Village of Hamlet compared to the county.[29]

Table HMT.4: Rural Capacity Index

Components of Index	Village of Hamlet	Hayes County
County is Metropolitan?	No	No
Has a Head of Planning?	No	Yes
Has a College or University?	No	No
Adults with Higher Education:	13%	18%
Families Below Poverty Level:	22%	6%
Households with Broadband:	93%	80%
People without Health Insurance:	18%	8%
Voter Turnout:	77%	77%
Income Stability Score (0 to 100):	16%	16%
Population Change (2000 to 2019):	-10	-146
Overall Rural Capacity Index Score	**40**	**63**

28 Federal Emergency Management Agency. "National Risk Index". Accessed July 2022. https://hazards.fema.gov/nri/map.
29 Headwaters Economics. January 2022. "Rural Capacity Map". Accessed July 2022. https://headwaterseconomics.org/equity/rural-capacity-map/.

National Flood Insurance Program (NFIP)

Hamlet is a member of the NFIP having joined on 3/30/2009, and the village's Floodplain Administrator (San-D Nolte) oversees the commitments and requirements of the NFIP including enforcement of the local floodplain management regulations. The initial FIRM for the village was delineated in 2/6/2008 and the current effective map date is 2/6/2008, which has been adopted and incorporated into the local floodplain management regulations on 2/6/2008. As of August 31, 2021, there are no NFIP policies in-force for the village. Hamlet does not currently have any repetitive loss or severe repetitive loss structures. Hamlet requires permits for developments in the floodplain and enforcement is handled through the village board.

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 the Village of Hamlet will remain in good standing and will continue involvement with the NFIP in the future.

Plans and Studies

Hamlet has two planning documents that discuss or relate to hazard mitigation. Each document 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.

Floodplain Regulations (2008)

The village's floodplain regulations outline where and how development in the floodplain should occur in the future. The hazard mitigation plan has not been integrated; however, this document discourages development in the floodplain by outlining regulations buildings must follow.

Hayes County Local Emergency Operations Plan (2016)

Hamlet is an annex in the Hayes 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.

Future Development Trends

There have been no major changes in development for the community over the past five years likely due to a declining population. This likely keeps Hamlet's vulnerability to hazards the same if properties and infrastructure are being properly maintained. If they are not, then vulnerability may increase as buildings and infrastructure age. In the next five years, a street chip and seal project will be completed. There are no planned housing or commercial developments at this time due to 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. No Safety and Security lifelines were identified by the local planning team.

Food, Water, Shelter

Components of this lifeline include food, water, shelter, and agriculture. The Food, Water, Shelter Lifelines are shown in the table below.

Table HMT.5: Food, Water, Shelter Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
2	Hamlet Scale	S	N
3	Hamlet Union 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. There are no health and medical facilities in the community.[30,31,32,33]

Energy

Energy Lifeline components include power, the power grid, and fuel. The local planning team did not identify any Energy lifelines.

Communications

Components of the Communications Lifeline include communication infrastructure, alerts, 911 dispatch, responder communications, and finance. Hamlet does not have any identified Communications lifelines.

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Hamlet's major transportation corridors include U.S. Highway 6 and State Highway 43A. The most traveled route is Highway 6 with an average of 1,555 vehicles daily, 290 of which are trucks.[34] One Nebraska, Kansas, Colorado Railway line travels east to west through the center of the community. No significant transportation events have occurred locally.

30 Department of Health and Human Services. 2022. "State of Nebraska: Assisted Living Facilities." https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf.
31 Department of Health and Human Services. 2022. "State of Nebraska Roster: Hospitals." https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf.
32 Department of Health and Human Services. 2022. "State of Nebraska Roster: Long Term Care Facilities." https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf.
33 Department of Health and Human Services. 2022. "State of Nebraska Roster: Rural Health Clinic." https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.
34 Nebraska Department of Transportation. 2021. "Annual Average Daily Traffic Flow." Accessed July 2022. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34.

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.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. No gas transmission or hazardous pipelines travel through or near the village.[35] According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical site within or near Hamlet which houses hazardous materials (listed below). In addition, chemicals are transported mainly along Highway 6 and the railroad.

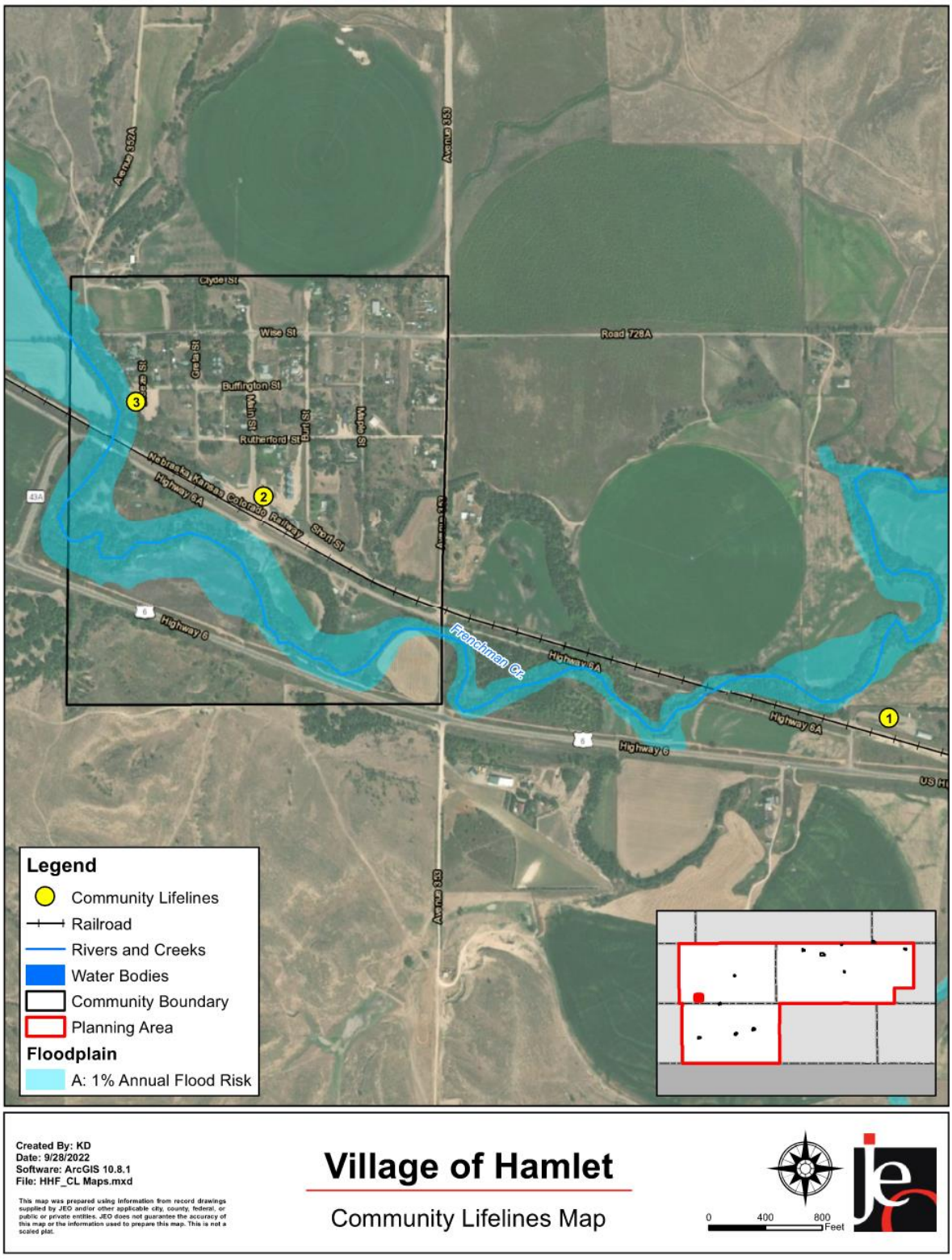
Table HMT.6: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
1	Darling Ingredients Inc.	-	N

Source: Nebraska Department of Environment and Energy[36]

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

Figure HMT.3: 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 HMT.7: 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
56	$1,511,520	9	$244,935	16.1%

Source: County Assessor, 2021

Historical Occurrences

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

Hazard Prioritization

The Hayes, Hitchcock, and Frontier Counties 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 Hamlet 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 Hamlet. 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.*

Extreme Heat

The local planning team indicated that extreme heat events have increased during the past couple of years during the summer months. This has led to the lowering of the water table and stressed vegetation. Extreme heat is especially dangerous to vulnerable populations like those with medical conditions and the elderly. With a median age of 59.5, Hamlet has a high population of elderly individuals. In addition, extreme heat can stress crops and cattle which could impact the local economy. Power loss is also a concern during times of extreme heat due added electrical usage from air conditioners. If power is lost there is no location that residents can use to cool down.

Severe Thunderstorms

Severe thunderstorms are an annual occurrence in the community, especially during the early summer months. Since 1996 there have been a reported $195,000 in damages from hail and windstorms. The most damaging event occurred on May 8th, 2003, when high winds caused $60,000 in damages to center pivots and sheds. In addition, several large trees were uprooted. Power loss is a concern for the local planning team as none of the powerlines are buried in the community and no buildings have a backup generator. Residents are notified of severe weather through the civil defense siren which is activated by NOAA out of Trenton.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Backup Generators
Description	A large generator is needed to provide power to the local church that would be used as a gathering place in the event of an emergency.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$20,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Village Clerk/Treasurer
Status	Not Started. Currently the village does not 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	Animal and Plant Disease, Dam Failure, Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Public Health Emergency, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Village Clerk/Treasurer
Status	Not Started. The Village does not have the capability to implement this project.

Removed Mitigation Actions

Mitigation Action	Participate or Maintain Good Standing in the NFIP
Description	Participate in the NFIP or maintain good standing with the NFIP including floodplain management practices/requirements and regulation enforcement and updates. Hitchcock County will be the main manager of Trenton's participation in the NFIP. Hitchcock County will monitor and fully enforce floodplain management regulations as part of NFIP participation.
Hazard(s) Addressed	Flooding
Status	Removed as this is a maintenance action. The village will continue to maintain good standing with the NFIP.

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 Chairman of the Village Board and Village Clerk/Treasurer will be responsible for reviewing and updating this community profile outside of the five-year update. Hamlet will review the plan annually and will notify the public of any changes using email notices and posting notices at USPS mailboxes.

Community Profile

Village of Hayes Center

Hayes, Hitchcock, and Frontier Counties
Hazard Mitigation Plan

2023

Local Planning Team

The Village of Hayes Center'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 HSC.1: Hayes Center Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Kim Primavera	Board Chairman	Village of Hayes Center	-	-
Jan Singleton	Clerk / Treasurer / Floodplain Administrator	Village of Hayes Center	Trenton	Hayes Center

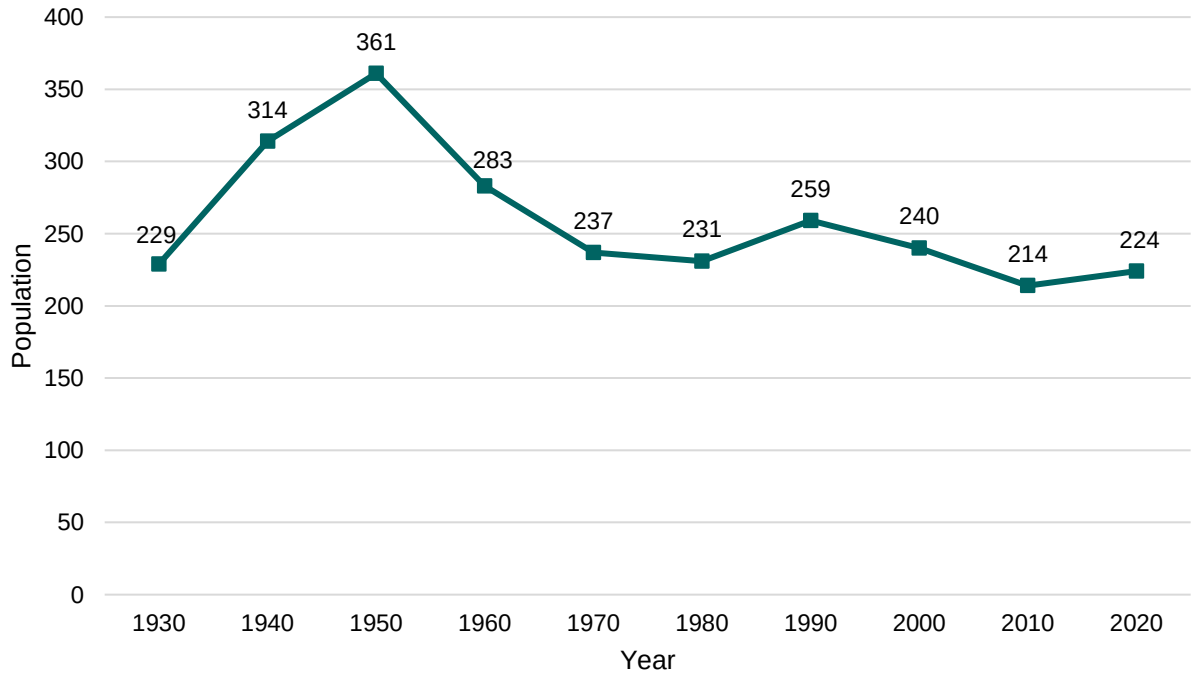
Location and Geography

The Village of Hayes Center is in central Hayes County and covers an area of 0.27 square miles. Hayes Center is the county seat and most populous community in Hayes County. No major bodies of water are located near the village.

Demographics

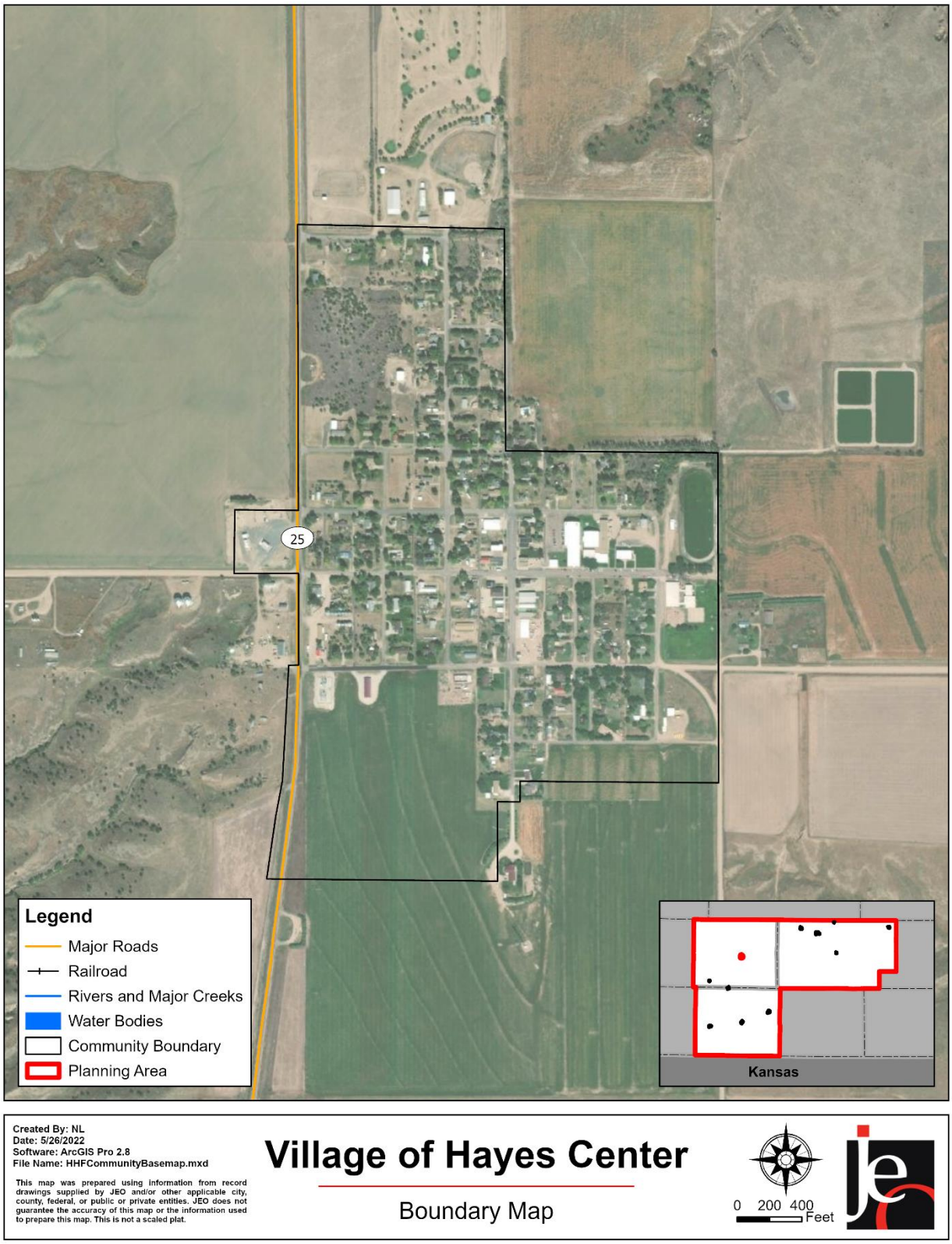
The following figure displays the historical population trend for the Village of Hayes Center. This figure indicates that the population of Hayes Center has been increasing since 2010 to 224 people in 2020. Increasing populations are associated with more robust hazard mitigation and emergency planning requirements for development. Growing populations can also increase tax revenues, allowing communities to pursue additional mitigation projects. Hayes Center's population accounted for 26.2% of Hayes County's population in 2020.[37]

Figure HSC.1: Population 1930 - 2020



37 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.

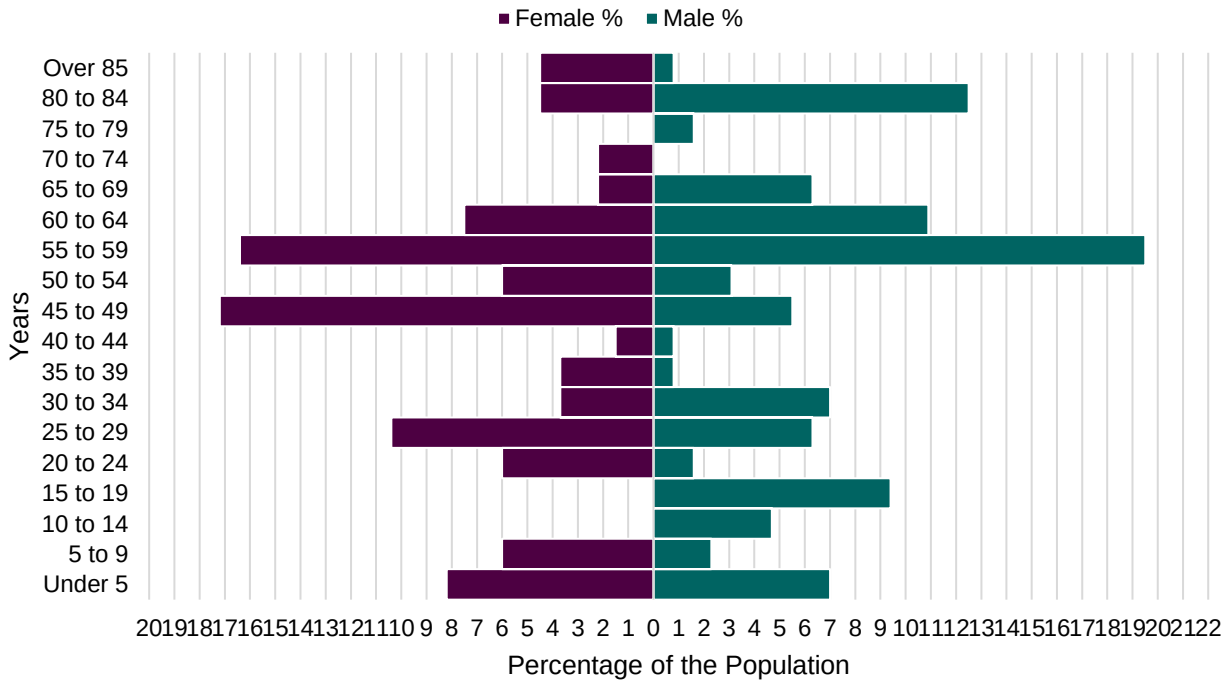
Figure HSC.2: Village of Hayes Center



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

- **24.6% is non-white.** Since 2010, Hayes Center became more ethnically diverse. In 2010, 4.7% of the Hayes Center's population was non-white. By 2020, 24.6% was non-white.[38]
- **Median age of 48.8.** The median age of Hayes Center was 48.8 years old in 2020. The population became younger since 2010, when the median age was 56.3.[39]

Figure HSC.3: Hayes Center's Population Pyramid



The figure above shows Hayes Center's population percentage broken down by sex and five-year age groups. Hayes Center's population is top heavy. This suggests future 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. Hayes Center's population has:

- **13.7% of people living below the poverty line.** The poverty rate (13.7%) in the Village of Hayes Center was higher than the state's poverty rate (10.4%) in 2020.[40]
- **$45,000 median household income.** Hayes Center's median household income in 2020 ($45,000) was $18,015 lower than the state ($63,015).[40]

38 United States Census Bureau. "2020 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." https://data.census.gov/.
39 United States Census Bureau. "2020 Census Bureau American Community Survey: S0101: Age and Sex." https://data.census.gov/.
40 United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." https://data.census.gov/.

- **1.3% unemployment rate.** In 2020 Hayes Center has a lower unemployment rate (1.3%) when compared to the state (3.4%).[40]
- **14.7% of workers commuted 30 minutes or more to work.** Fewer workers in Hayes Center commuted 30 minutes or more to work than compared to workers commuting less than 15 minutes (14.7% compared to 47.9%).[41]

Major Employers

Major employers in Hayes Center include Hayes County Co-op, Hayes Center Schools, Farm Service Agency, and Hayes County. In addition, some individuals travel to McCook or Southwest Feeders and Hog Confinement operation 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. Hayes Center's housing stock has:

- **63.0% of housing built prior to 1970.** Hayes Center has a larger share of housing built prior to 1970 than the state (63.0% compared to 45.5%).[42]
- **37.6% of housing units vacant.** Hayes Center has a higher vacancy rate 37.6% compared to the rest of the state (9.2%).[42]
- **8.8% mobile and manufacture housing.** The Village of Hayes Center has a larger share of mobile and manufactured housing (8.8%) compared to the state (3.3%).[42] Mobile homes are located throughout the community but are primarily located in the northern section of the village.
- **19.8% renter-occupied.** The rental rate of Hayes Center was 19.8% in 2020. This is lower than the state's rate of 33.8%.[42]

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.

- **77.4% of households have a broadband internet subscription**. Hayes Center has a smaller share of households with broadband (77.4%) compared to the state (85.6%).[43]

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

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

43 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 Hayes Center 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 / Floodplain Administrator
- Attorney
- Fire Department
- Water Operator
- Street/Water Commissioner
- Economic Development Coordinator
- Emergency Manager

Capability Assessment

The planning team assessed the Village of Hayes Center'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 any future capability changes due to limited funds and staffing.

Municipal funds are very limited with a large portion already dedicated to the replacement of water mains and a new water storage facility. Funds have stayed the same over recent years.

Table HSC.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
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	No

Capability/Planning Mechanism		Yes/No
	Civil Engineering	Yes
	Local staff who can assess community's vulnerability to hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to levy taxes for specific purposes such as mitigation projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. 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 HSC.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 Hayes County, which includes Hayes Center, is Very Low (3.61). The average for the State of Nebraska is 9.43.[44]

- **Social Vulnerability:** Social groups in Hayes County have a Very Low (24.91) susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S.
- **Community Resilience:** Communities in Hayes County have a Relatively Low (50.50) 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 Hayes Center compared to the county.

Table HSC.4: Rural Capacity Index

Components of Index	Village of Hayes Center	Hayes County
County is Metropolitan?	No	No
Has a Head of Planning?	Yes	Yes
Has a College or University?	No	No
Adults with Higher Education:	14%	18%
Families Below Poverty Level:	4%	6%
Households with Broadband:	80%	80%
People without Health Insurance:	14%	8%
Voter Turnout:	77%	77%
Income Stability Score (0 to 100):	16	16
Population Change (2000 to 2019):	48	-146
Overall Rural Capacity Index Score	**53**	**63**

Source: Headwaters Economics[45]

National Flood Insurance Program (NFIP)

Hayes Center is a member of the NFIP having joined on 4/10/2009, and the village's Floodplain Administrator (Jan Singleton) oversees the commitments and requirements of the NFIP including enforcement of the local floodplain management regulations. The initial FIRM for the village was delineated in 2/6/2008 and the current effective map date is 2/6/2008, which has been adopted and incorporated into the local floodplain management regulations on 2/2/2009. As of August 31, 2021, there are no NFIP policies in-force for the village. Hayes Center does not currently have any repetitive loss or severe repetitive loss structures. The village would not approve a zoning permit for any structure to be built in the floodplain.

44 Federal Emergency Management Agency. "National Risk Index". Accessed July 2022. https://hazards.fema.gov/nri/map.
45 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 the Village of Hayes Center will remain in good standing and will continue involvement with the NFIP in the future.

Plans and Studies

Hayes Center has several plans and studies that discuss or relate to hazard mitigation. Each document 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 (2000)

The building code sets standards for constructed buildings and structures. The village code does not name a date, but it is understood that the village used the most recent International Building Codes. Due to the age of the document, the hazard mitigation plan has not been integrated into it. The building code is enforced through a zoning permit application process and only using licensed contractors that are approved.

Comprehensive Plan (2016)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated; however, it contains goals aimed a Safe Growth, directs development away from the floodplain, directs housing away from chemical storage sites, directs housing and vulnerable populations away from major transportation routes, and encourages infill. There is currently no timeline to update the comprehensive plan. The future land use maps were used to inform the future development section of this profile.

Floodplain Regulations (2009), Zoning Ordinance (2016), Subdivision Regulations (2017)

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. However, the documents prohibit development in the floodplain, include well setback requirements, and include the ability to implement water restrictions. There is currently no timeline to update these documents.

Hayes County Local Emergency Operations Plan (2016)

Hayes Center is an annex in the Hayes 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 (2021)

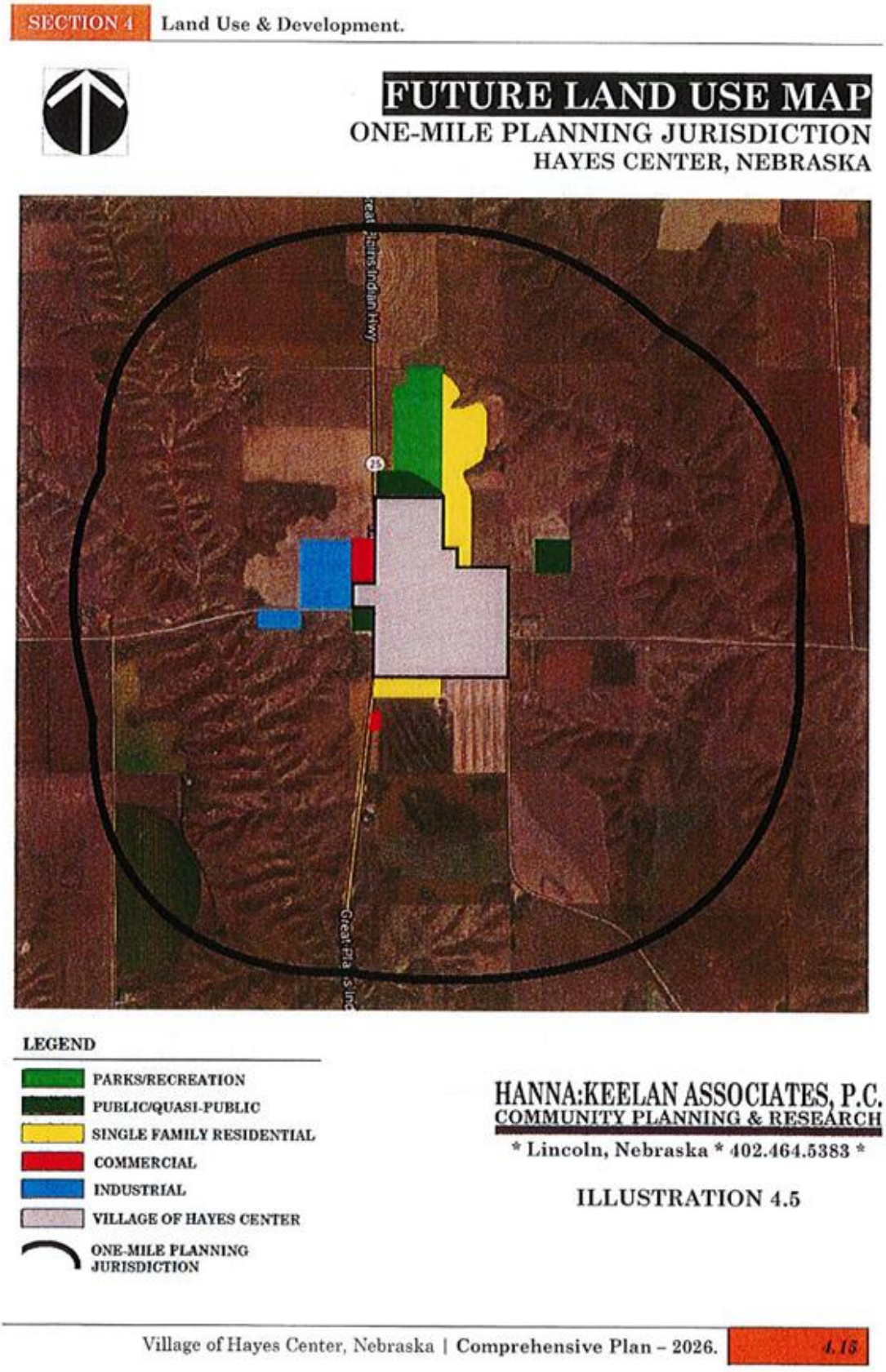
A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and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

Future Development Trends

Over the past five years, several new businesses have moved into the community. Those businesses include Bella Petroleum, HTA Insurance, Wezos Body Shop, and T&M Storage. The new businesses likely increased vulnerability to hazards as there is now more property that could be damaged during an event. However, the vulnerability was minimized as none of the new structures were constructed in the floodplain or other known hazardous areas. During that time an old grain elevator was also removed. This likely made the village more resilient to future hazards as the grain elevator would have likely deteriorated and been susceptible to damage from hazards like severe thunderstorms, tornadoes, and high winds. Over the next five years, no housing or commercial development is anticipated due to projected population decline. The figures below show the future land use map for the community and the one-mile jurisdiction. Single family housing, commercial, and industrial uses are located near major the major transportation routes.

Figure HSC.4: Future Land Use Map – Corporate Limits

Figure HSC.5: Future Land Use Map - One Mile Jurisdiction



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 Hayes Center.

Table HSC.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	County Courthouse/Jail	-	N
2	Fire Station	-	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 Hayes Center are included in the table below.

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

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
4	Baptist Church	S	N
5	Hayes Center Elementary School	S	N
6	Hayes Center High School	S	N
7	Scott's Grocery	-	N
8	Union Congregational Church	S	N
9	Water Tower / Alert Siren	-	N
10	Well #1	G	N
11	Well #2	-	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. No health or medical facilities are located in the community.[46,47,48,49]

Energy

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

46 Department of Health and Human Services. 2022. "State of Nebraska: Assisted Living Facilities." https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf.
47 Department of Health and Human Services. 2022. "State of Nebraska Roster: Hospitals." https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf.
48 Department of Health and Human Services. 2022. "State of Nebraska Roster: Long Term Care Facilities." https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf.
49 Department of Health and Human Services. 2022. "State of Nebraska Roster: Rural Health Clinic." https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf.

Table HSC.7: Energy Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
12	Electrical Sub Station	-	N

Communications

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

Table HSC.8: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
13	Alert Siren	-	N
14	Cell Tower	-	N
15	Cell Tower	-	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Hayes Center's major transportation corridor includes State Highway 25. It is traveled by an average of 480 vehicles daily, 95 of which are trucks.[50] In addition County Road 737 is a major transportation corridor as it is the primary road connecting Hayes Center to eastern Hayes County. This road has been washed out in the past causing traffic to use alternate routes. Hayes Center does not have a rail line. 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. Fertilizers are transported on all local roadways.

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

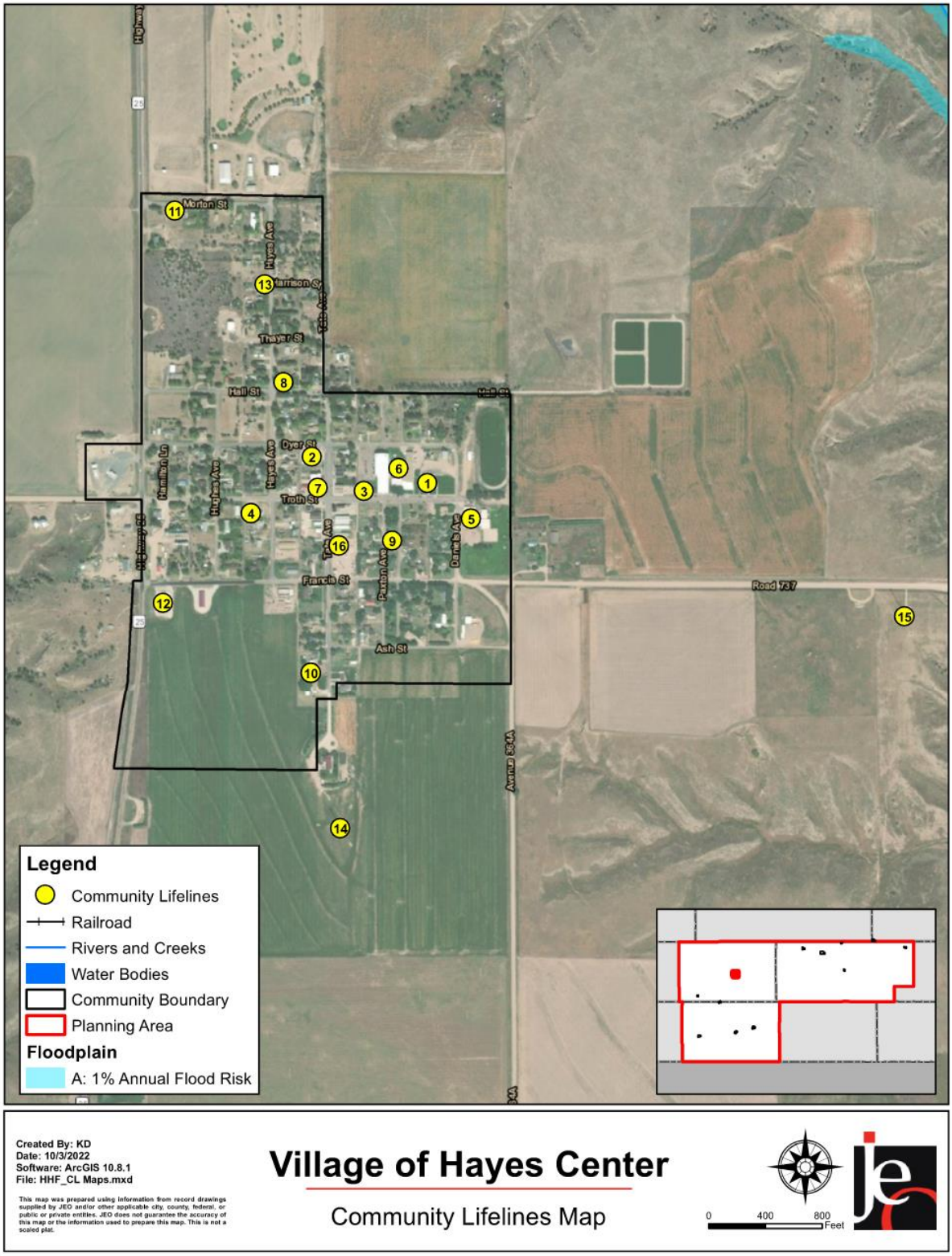
Table HSC.9: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
16	Hayes County Co-op	-	N

Source: Nebraska Department of Environment and Energy[51]

50 Nebraska Department of Transportation. 2021. "Annual Average Daily Traffic Flow." Accessed July 2022. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34.
51 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

Figure HSC.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 HSC.10: 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
189	$11,094,549	0	$0	0%

Source: County Assessor, 2021

Historical Occurrences

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

Hazard Prioritization

The Hayes, Hitchcock, and Frontier Counties 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 Hayes Center 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 Hayes Center. 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 has occurred numerous times in recent years with an ongoing drought currently being felt in 2022. Impacts from these drought events include landscape and tree damage along with agricultural impacts which hurt the local economy. The local planning team is also concerned about drought impacting the municipal water supply. During past droughts the water level in the municipal wells has lowered and could drop below the well level if drought gets bad enough. During a drought the water superintendent monitors water levels through routine well draw downs. If needed the village can restrict outdoor watering including the football fields, parks, and pools. Currently the village is finishing up a project for a new water tower and water mains. The village does not have an alternate source of water and could need to find one but not anytime soon.

Grass/Wildfire

In 2022 a wildfire was within three miles of the community before it was contained. No property damage occurred from the event. Wildfires become a concern in years of drought due to dry vegetation. The Village of Hayes Center is surrounded by grasslands which increases vulnerability during times of drought and high winds. In addition, the community is in a rural location and is a long distance away from other fire departments. The village has never had to evacuate due to a wildfire and any evacuations would be handled through county emergency management. According to the Nebraska Forest Service's *Wildfire Risk Explorer*, the area surrounding the village primarily has moderate risk to wildfires.[52] To reduce their vulnerability to wildfires, the fire department updates equipment for fighting grass fires when funding is available

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

and regularly attends training sessions. In the future the village would like more firefighting equipment, increased training, and a safe place for residents to go in the event of an evacuation.

Severe Thunderstorms

The village has experienced numerous severe thunderstorm events with large hail that has caused damage to roofs, siding, windows, vehicles, and trees. The most damaging even occurred in June 2008 when 4-inch hail caused $1,000,000 in property damages. A motel and the newspaper building had holes in the roof and many homes sustained damage to roofs and siding. Power loss is also a concern for the local planning team because these is no place for residents to go if power is lost. When power is lost, it is typically out between 2-5 hours. The village would like more backup generators in public buildings or to build a large storm shelter that has a backup generator. Currently only one of the wells has a backup generator. To reduce the damage from hail, some village owned structures now have steel roofs installed. There are some trees in the community that need to be trimmed or removed but they are primarily on private property and the owners cannot afford the cost to remove them.

Severe Winter Storms

Past blizzard and ice storms have caused power outages, tree damage, and closed streets. The local planning team indicated that these types of storms and the associated damages occur frequently in the community. The village has an increased vulnerability due to a lack of backup generators for homes and businesses. In addition, the village does not have a place where residents can go for warmth during winter power outages. Snow removal in Hayes Center is handled by village maintenance and local farmers. Equipment used includes a truck with a plow, a backhoe, and a small tractor. This is typically sufficient to keep streets clear.

Tornadoes and High Winds

No recent tornadoes have occurred causing damage to the community, however seven reported tornadoes have occurred near the village since 1996. High wind events are a regular occurrence for Hayes Center. These high wind events have caused power loss, property damage, and tree damage. The safety of residents is also a concern because there is no safe room or shelter location in the village. Recently Hayes Center replaced one of the aging warning sirens, however other sirens also need to be updated. In the event of a tornado, many homes have basements and residents can also use the basements in the school, courthouse, UCC Church, or grocery store.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Backup Source of Water
Description	Determine if a backup source water is needed and hook-up or construct as needed.
Hazard(s) Addressed	Drought
Estimated Cost	$100,000+
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 due to funding.

Kept Mitigation Actions

Mitigation Action	Alert and Warning Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking and remote activation.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$25,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, County Emergency Management
Status	Not Started. Current sirens are adequate but may need to be updated in the future.

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other community lifelines.
Hazard(s) Addressed	Extreme Heat, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$20,000 -$35,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, County Emergency Management
Status	Not Started. Th village does not have the capability to implement this project due to funding.

Mitigation Action	Evacuation Plan and Location
Description	Prepare and implement an emergency evacuation plan for when the immediate and urgent movement of people away from the threat or actual occurrence of a hazard is necessary. Identify an evacuation location for residents to go during an evacuation event.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Hazardous Materials Release Terrorism and Cyber Security
Estimated Cost	$40,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, County Emergency Management
Status	Not Started. The village would assist other agencies but does not have primary authority.

Mitigation Action	New Water Well, Tower, and Standpipe
Description	Evaluate the need to expand water storage capacity through a new water tower, standpipe, etc. to provide a safe water supply for the community and additional water for fire protection. Communities can evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	$150,000 - $450,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	In Progress. Final completion date for new water tower and water mains is June 2023.

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. In addition, educate citizens on erosion control and water conservation methods.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Public Health Emergency, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department, Middle Republican NRD, County Emergency Management
Status	Ongoing. The village currently has the capability to implement this project with help from other entities.

Mitigation Action	Storm Shelter and Safe Rooms
Description	Assess, design and construct fully supplied safe rooms in the community. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$350 - $500 per square foot
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, County Emergency Management
Status	Not Started. The village does not have the capability to implement this project due to funding and no available locations.

Removed Mitigation Actions

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire equipment, ATVs, water tanks/truck, snow removal equipment, pumps, etc. This would also include developing backup systems for emergency vehicles, identifying and training additional personnel for emergency response, or continuing educational opportunities for current personnel.
Hazard(s) Addressed	All Hazards
Status	Removed as this action would be better handled by the fire department or county emergency management.

Mitigation Action	Dam Engineering Analysis, Repairs, and Reinforcements
Description	Conduct a preliminary engineering analysis for dam repairs and reinforcement. Dams serve to provide flood protection to businesses and residents during large storm events. Improvements to existing dams will increase flood protection. The Emergency Action Plan, Dam Breech Analysis, and/or inspection/safety equipment training may need to be updated along with improvements.
Hazard(s) Addressed	Dam Failure
Status	Removed as the village does not own any dams.

Mitigation Action	Drainage Assessment for Bridge and Culvert Improvements
Description	Preliminary drainage studies and assessment can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas and potential drainage improvements.
Hazard(s) Addressed	Flooding
Status	Removed as there are no bridges in the village limits and there are no issues with culverts.

Mitigation Action	Electrical System Generation, Looped Distribution, and 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	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as the village has no authority over this project.

Mitigation Action	Emergency Communications
Description	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications.
Hazard(s) Addressed	Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Status	Removed as this action would be bettered handled by the fire department or county emergency management.

Mitigation Action	Flood-Prone Property Acquisition
Description	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Repetitive loss structures are typically highest priority.
Hazard(s) Addressed	Flooding
Status	Removed as there are no flood-prone properties in the village.

Mitigation Action	Participate or Maintain Good Standing in the NFIP
Description	Participate in the NFIP or maintain good standing with the NFIP including floodplain management practices/requirements and regulation enforcement and updates. Hitchcock County will be the main manager of Trenton's participation in the NFIP. Hitchcock County will monitor and fully enforce floodplain management regulations as part of NFIP participation.
Hazard(s) Addressed	Flooding
Status	Removed as this is a maintenance action. The village will continue to maintain good standing with the NFIP.

Mitigation Action	Stream Bank Stabilization
Description	Stream bank/bed degradation can occur along many rivers and creeks. Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented and improved to maintain the channel bed. Channel stabilization can protect structures, increase conveyance and provide flooding benefits. Flood protection for critical and/or highly vulnerable facilities, areas, populations, and infrastructure is key.
Hazard(s) Addressed	Flooding
Status	Removed as there are no streams or rivers in the village limits.

Mitigation Action	Tree City USA
Description	Work to become a Tree City U.S.A. through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation.
Hazard(s) Addressed	Animal and Plant Disease, Drought, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as there is no interest in the community.

Mitigation Action	Underground or identify and Retrofit Power and Service Lines
Description	Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as the village has no authority over this project.

Mitigation Action	Warning Systems
Description	Improve city cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911
Hazard(s) Addressed	All Hazards
Status	Removed. County Emergency Management utilizes the RAVE alert system.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
Hazard(s) Addressed	Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed as this would not be utilized by the village.

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 Board Chair will be responsible for reviewing and updating this community profile outside of the five-year update. Hayes Center will review the plan bi-annually and the public will be notified through letters, posters, and at public board meetings.

School District Profile

Hayes Center Public Schools

Hayes, Hitchcock, and Frontier Counties
Hazard Mitigation Plan

2023

Local Planning Team

Hayes Center 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 members of the local planning team.

Table HCS.1: Hayes Center Public Schools Local Planning Team

Name	Title	Jurisdiction	R1 Meeting	R2 Meeting
Tony Primavera	Superintendent	Hayes Center Public Schools	Recording	-
Megan Soundy	Principal	Hayes Center Public Schools	-	Hayes Center

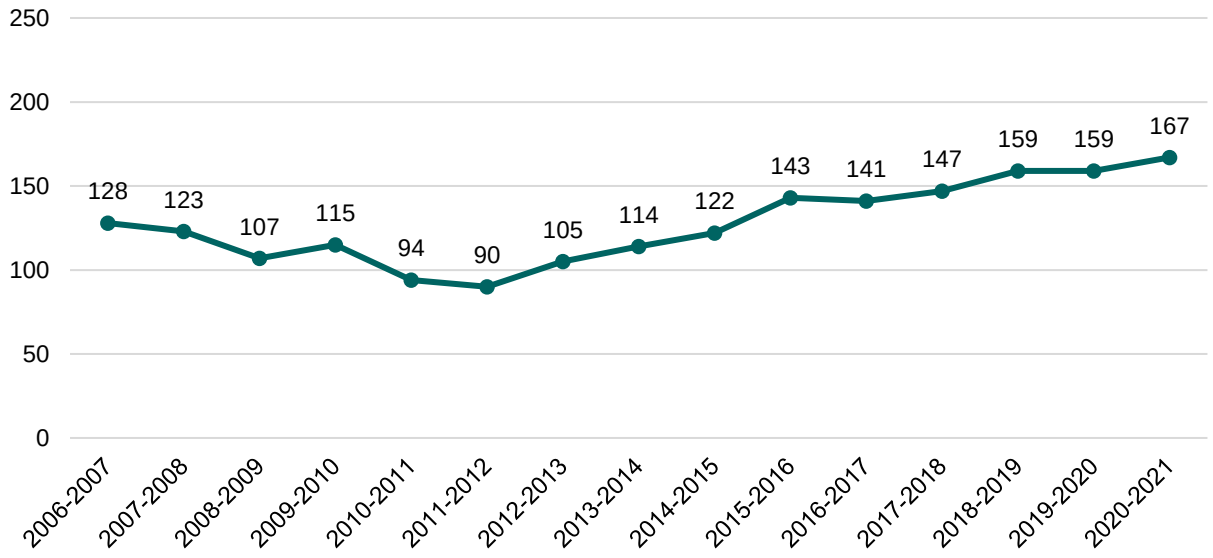
Location

Hayes Center Public Schools covers most of Hayes County and serves two schools: Hayes Center Elementary School and Hayes Center Secondary School. Other buildings owned by the district include the old high school/gym, a bus barn, fieldhouse, greenhouse, and four school owned houses. The school district provides services to students in the community of Hayes Center 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 2017. There are 167 students enrolled in the district.[53] An increasing student population can mean 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 district anticipates little change in the student population in the years to come.

Figure HCS.1: Student Population 2007-2021



Source: Nebraska Department of Education

53 Nebraska Department of Education. October 2022. "Nebraska Education Profile." https://nep.education.ne.gov/.

Figure HCS.2: Hayes Center Public Schools

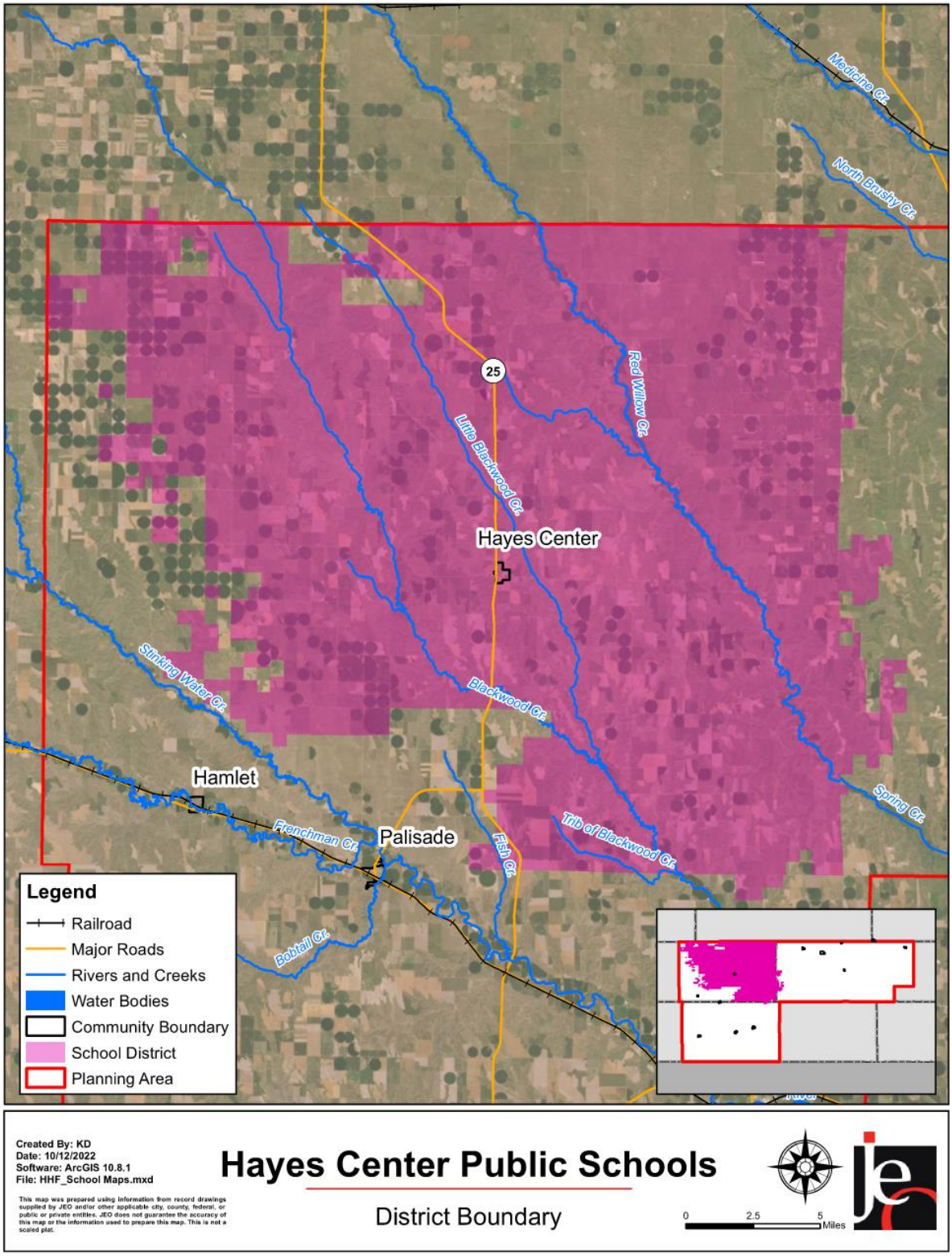
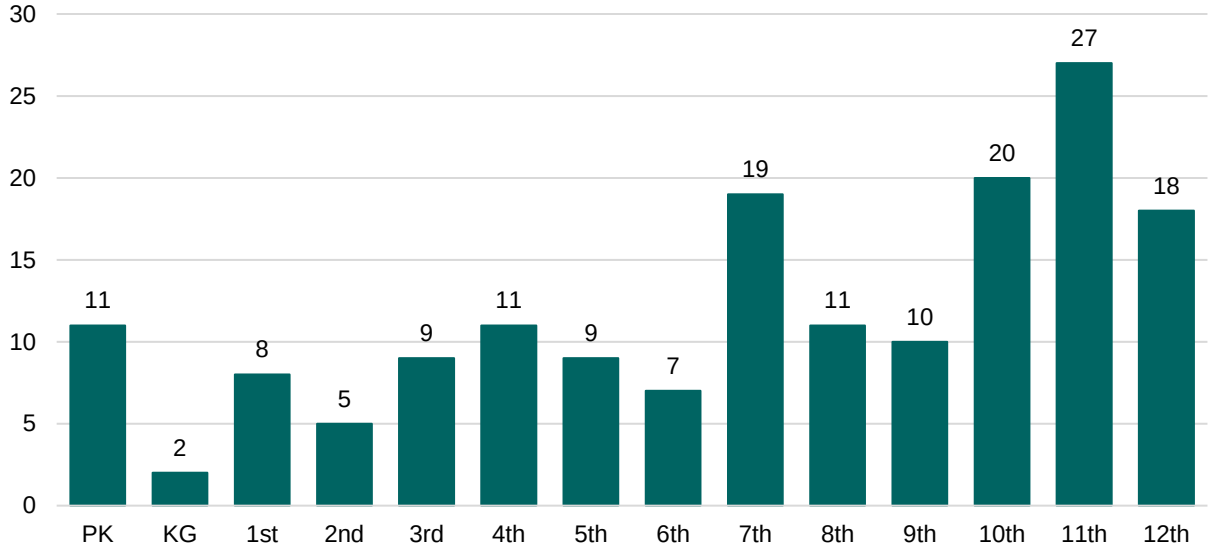


Figure HCS.3: Number of Students by Grade, 2020-2021



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the 10th and 11th grades. The lowest population of students are in kindergarten and 2nd grades. According to the Nebraska Department of Education (NDE), 57.8% of students receive either free or reduced priced meals at school. This is higher than the state average of 46.3%. Other than English, some students in the district speak Spanish as their primary language. These particular students may be more vulnerable during a hazardous event than the rest of the student population.

Table HCS.2: Student Statistics, 2020-2021

	School District	State of Nebraska
Free/Reduced Priced Meals	57.8%	46.3%
School Mobility Rate	N/A*	9.1%
English Language Learners	N/A*	7.3%
Special Education Students	N/A*	15.7%

**Fewer than 10 students*
Source: Nebraska Department of Education[1]

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 45 staff. Staff are trained on emergency procedures through online trainings, in-service trainings, and various outreach programs.

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 handbooks and drills. The district also partners with the local fire department for fire safety awareness and field trips to the fire hall.

District funds are limited to maintaining current facilities and systems with the district currently still paying on a bond for the newest building. Funds have stayed fairly stable over recent years.

Table HCS.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)	-
Administration & Technical Capability	Grant Manager	No
	Mutual Aid Agreement	No
	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	No
	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	11 / year
	Tornado	2 / year
	Intruder	2 / year
	Bus evacuation	1 / year
	Evacuation	2 / year
	Other (if any)	-

Table HCS.4: 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

Plans and Studies

Hayes Center Public Schools has one planning document that discusses or relates to hazard mitigation. The 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. It assigns specific responsibilities to individuals, addresses shelter in place protocols, identifies scenarios that require evacuation, and identifies crucial evacuation routes. Tornado is a hazard specifically address in the plan. Since this is the first time the school has participated in the hazard mitigation plan it has to integrated with the crisis response plan. The crisis response plan is re-evaluated every year.

Future Development Trends

Over the past five years, no new buildings were added or removed. Upgrades were performed on the school buildings as necessary. This likely kept the district's vulnerability to hazards the same. There are no planned new construction or renovations in the next five years.

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 Hayes Center Public Schools.

Table HCS.5: Safety and Security Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Department / EMT / Ambulance	-	N
2	Sheriff / Courthouse	-	N

Food, Water, Shelter

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

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

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
3	Ag Building	-	N
4	Baptist Church	S	N
5	Hayes Center Elementary School	S	N
6	Hayes Center High School	S	N
7	Scott's Grocery	-	N

Health and Medical

Health and Medical Lifeline components can include medical care, patient transport, public health, fatality management, and the medical supply chain. All identified health and medical lifelines are already identified in other lifelines.

Energy

Energy Lifeline components include power, the power grid, and fuel. The table below lists Energy Lifelines for the district. The district gets its energy from Southwest Public Power District.

Table HCS.7: Energy Lifelines

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

Communications

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

Table HCS.8: Communications Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
9	Tornado Siren	-	N
10	Verizon Tower	-	N
11	Viaro Tower	-	N

Transportation

Transportation Lifeline components include interstates, highways, major roadways, mass transit, railway, and aviation. Nebraska Highway 25 is the only major roadway that travels through the district. It is traveled by an average of 480 vehicles daily, 95 of which are trucks.[54] The local planning team identified all bus routes on non-paved roads as a concern due to variable and poor road conditions. No rail lines 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. No transportation accidents have impacted the school district. Hayes Center Public Schools owns six busses and eight Suburbans. Approximately 80 students are bused to and from school.

Hazardous Materials

The Hazardous Materials Lifeline includes chemical storage facilities, pipelines, and transported chemical tanks. There are no gas transmission or hazardous liquid pipelines that travel through the district.[55]

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical site within or near school buildings which house hazardous materials (listed below). No chemical spills have caused the school to lock down or evacuate.

Table HCS.9: Chemical Storage Lifelines

CL Number	Name	Generator (G)	Floodplain (Y/N)
12	Hayes County Co-op	-	N

Source: Nebraska Department of Environment and Energy[56]

54 Nebraska Department of Transportation. 2021. "Interactive Statewide Traffic Counts Map." https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34.
55 National Pipeline Mapping System. 2022. "Public Viewer." Accessed October 2022. https://pvnpms.phmsa.dot.gov/PublicViewer/.
56 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed May 2022.

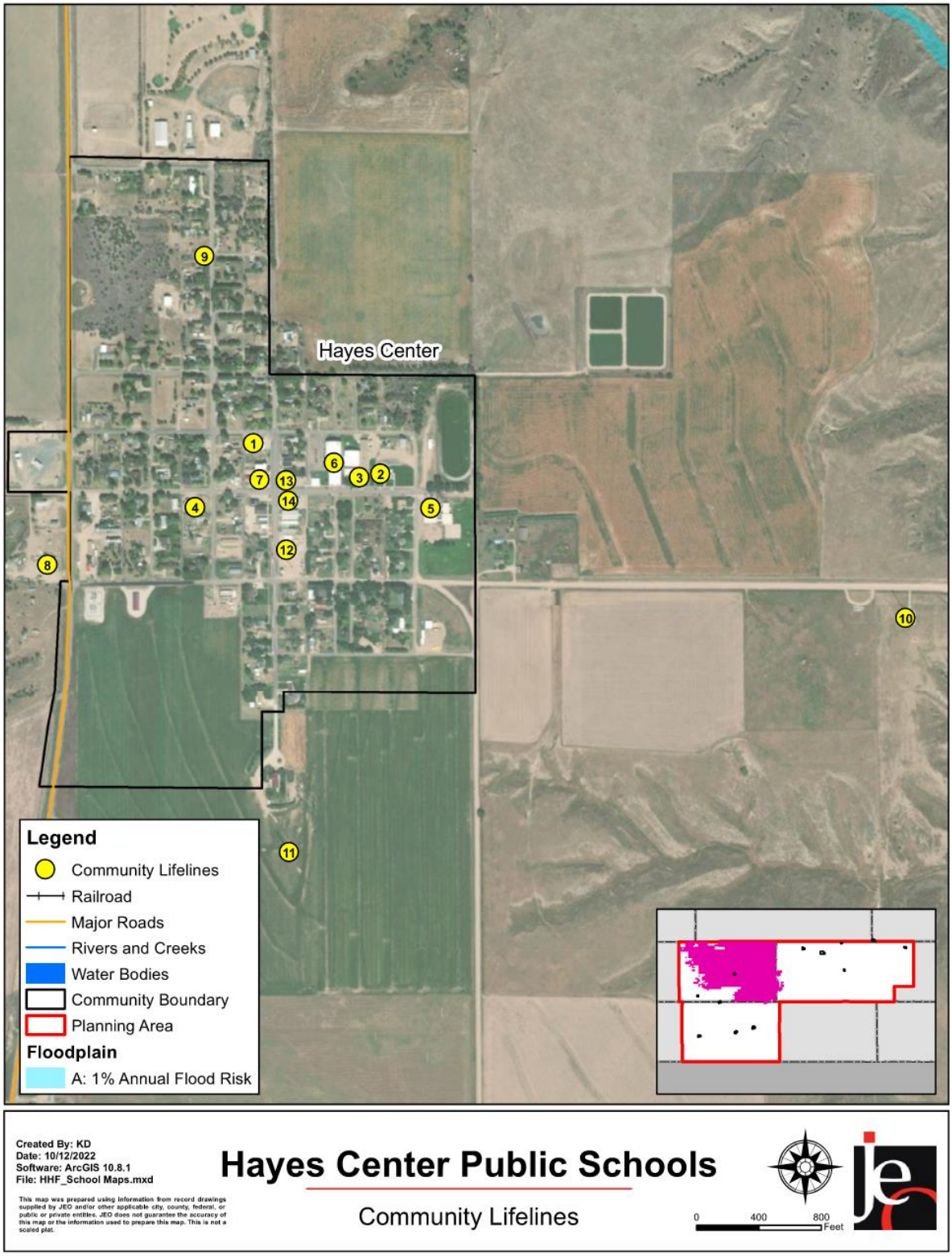
Other Community Lifelines

Hayes Center 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 HCS.10: Other Community Lifelines

CL Number	Name	Generator (G) Shelter (S)	Floodplain (Y/N)
13	Pinnacle Bank	-	N
14	Post Office	-	N

Figure HCS.4: Community Lifelines



Historical Occurrences

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

Hazard Prioritization

The Hayes, Hitchcock, and Frontier Counties 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 Hayes Center 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.*

Grass/Wildfires

Wildfires have not impacted schools in the past but recent fires in nearby communities have raised awareness for school administration. The primary concern related to wildfires is the potential loss of a building if a fire moves through the community. Both school buildings are located near the edge of the village which increases the risk to wildfires. According to the Nebraska Forest Service's *Wildfire Risk Explorer*, the area around Hayes Center has moderate risk to wildfires.[57] If a wildfire is threatening the school buildings, the district would work with the local fire department to help protect the buildings. Students would be evacuated and would go to the Baptist Church or the County Fairgrounds.

Severe Thunderstorms

In recent years large hail events have caused considerable damage to district owned buildings and property. Fortunately, most of the severe thunderstorms have occurred while school is not in session. While the district does have insurance, it is still an unexpected cost and affects the budget. To reduce the damage from hail, the school owns a bus barn that protects vehicles from damage. If power was lost during school hours, the district would continue normal operations for as long as possible. Dismissal would only occur during a prolonged power outage.

Tornadoes and High Winds

Tornadoes have not impacted the school district in the past, but high wind events have caused roof damage to district owned buildings. Hayes Center is in an isolated rural area which makes getting repairs done in a timely manner difficult. The primary concern for the district is the safety of students and staff. During a tornado warning elementary students go to the basement and high school students go to the locker rooms.

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

Mitigation Strategy

Kept Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to district owned buildings.
Hazard(s) Addressed	Extreme Heat, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$20,000 - $35,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Superintendent
Status	Not Started. The school district does not 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	Animal and Plant Disease, Dam Failure, Drought, Extreme Heat, Flooding, Grass/Wildfires, Hazardous Materials Release, Public Health Emergency, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Superintendent
Status	Not Started. The school district has the capability to implement this project.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other district owned buildings and provide new radios as needed.
Hazard(s) Addressed	Drought, Extreme Heat, Flooding, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$75 per radio
Local Funding	General Budget
Timeline	1 Year
Priority	Medium
Lead Agency	Superintendent
Status	Not Started. The school district has 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 and Principal will be responsible for reviewing and updating this school profile outside of the five-year update. Hayes Center Public Schools will review the plan bi-annually and the district will notify the public through notices on the school's website, school board meetings, and social media.