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COUNTY PROFILE

NUCKOLLS COUNTY

**Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table NUC.1: Nuckolls County Local Planning Team

Name	Title	Jurisdiction
Nick Elledge	Emergency Manager	Nuckolls County

Location, Geography, & Climate

Nuckolls County is located in southwest Nebraska and is bordered by Clay County, Fillmore County, Thayer County, and Webster County. Nuckolls also shares a border with Republic County and Jewell County in Kansas.

The total area of Nuckolls County is 575 square miles. Major waterways within the county include the Little Blue River, the Republican River, Beaver Creek, Big Sandy Creek, Blakely Creek, Cottonwood Creek, Elk Creek, Lost Creek, Oak Creek, Old Mill Race Creek, Oxbow Creek, Big Sandy Creek, Spring Creek, and Walnut Creek. The county is not heavily forested, nor is located in a geographic area of the state prone to landslides. Most of Nuckolls County lies in the plains topographic region, with the vast majority of the county's land characterized by agricultural fields.

Climate

The average high temperature in Nuckolls County for the month of July is 89.9 degrees and the average low temperature for the month of January is 13.2 degrees. On average, Nuckolls County gets 28 inches of rain and 23 inches of snowfall per year. The following table compares these climate indicators with those of the entire nine-county planning area. Climate data is 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 may be more likely which could impact vulnerable populations.

Table NUC.2: Nuckolls County Climate Normals

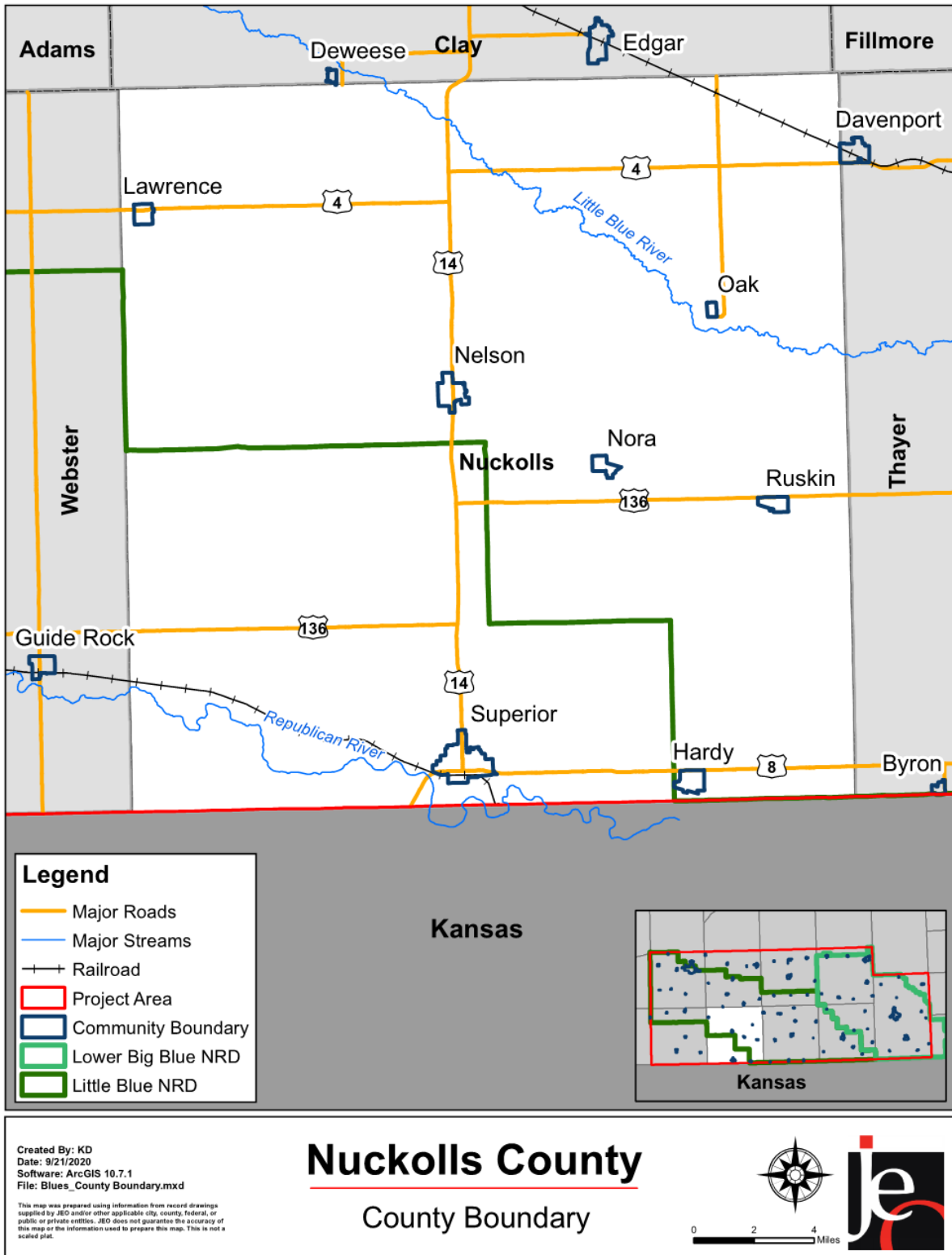
	Nuckolls County	Planning Area Average
July Normal High Temp	89.9°F	88.5°F
January Normal Low Temp	13.2°F	14.2°F
Annual Normal Precipitation	27.85"	29.37"
Annual Normal Snowfall	23.2"	21.63"

Source: NCEI 1981-2010 Climate Normals¹, High Plains Regional Climate Center, 1981-2010²
Precipitation includes all rain and melted snow and ice.

¹ NOAA National Centers for Environmental Information. August 2020. "Data Tools: 1981-2010 Normals." [datafile]. <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

² High Plains Regional Climate Center. 2020. "CLIMOD." <http://climod.unl.edu/>.

Figure NUC.1: Nuckolls County Jurisdictional Boundary

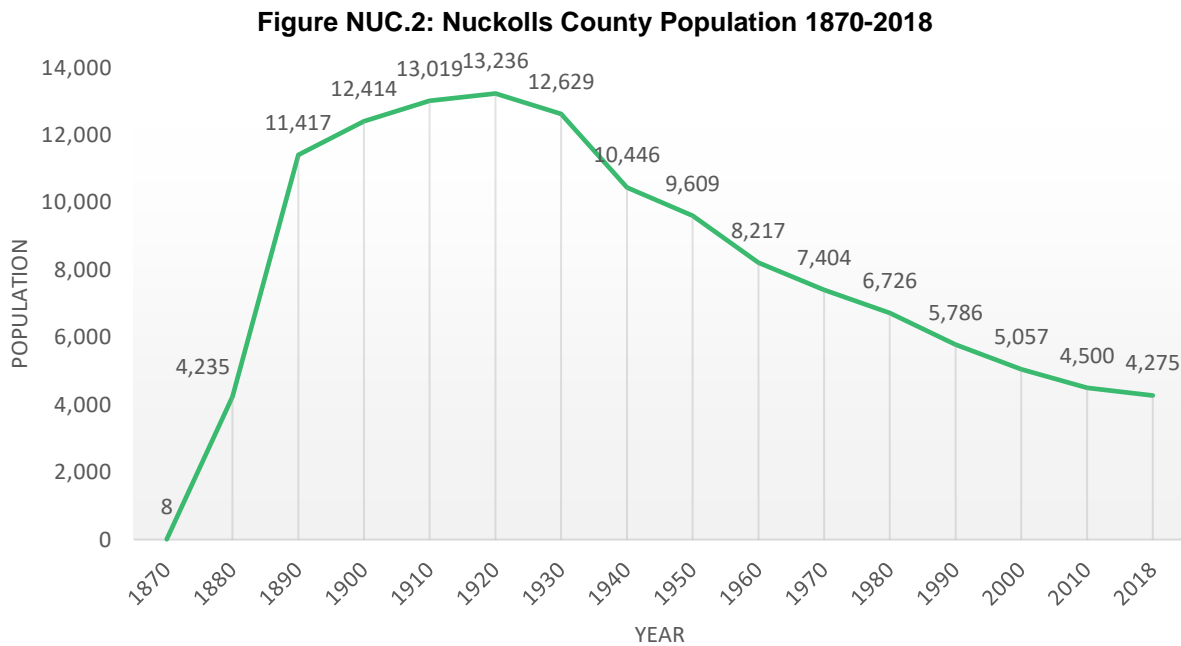


Transportation

Nuckolls County’s major transportation corridors include U.S. Highway 136, which runs east-west through the center of the county, and State Highway 14, which runs north-south through Superior and Nelson. State Highway 4 passes through the upper half of the county, running east-west, and State Highway 8 passes through the lower half of the county, running east-west. There are also federal aid routes in the county which the county noted is of concern. Nuckolls County only has one small portion of a UPRR railroad which passes through the extreme northeastern section of the County. The county also has a number of air landing strips dispersed throughout the county. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Demographics

The following figure displays the historical population trends from 1870 to 2018 (estimated). This figure indicates that the population of Nuckolls County has declined since the 1920s. This is notable for hazard mitigation as communities with declining population have a higher probability of unoccupied housing that is not being maintained and may be less prone to pursuing residential/commercial development, which may reduce the number of structures vulnerable to hazards in the future.



Source: U.S. Census Bureau³

The following table indicates the State of Nebraska has a higher percentage of people under the age of 5 and between the ages of 5 and 64 than Nuckolls County. Nuckolls County has a higher median age and percentage of people over the age of 65. This is relevant to hazard mitigation insofar as the very young and elderly populations may be at greater risk from certain hazards than

³ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

others. For a more elaborate discussion of this vulnerability, please see *Section Four: Risk Assessment*.

Table NUC.3: Population by Age

Age	Nuckolls County	State of Nebraska
<5	5.3%	6.9%
5-64	68.0%	78.1%
<64	26.8%	15%
Median Age	49.3	36.2

Source: U.S. Census Bureau⁴

The following table indicates that the county's median household income and per capita income are lower than those of the state. Median home values and median rent are both notably lower. These economic indicators are relevant to hazard mitigation because they show the relative economic strength compared to the state as a whole. Areas with economic indicators which are relatively low may influence a community's level of resiliency during hazardous events.

Table NUC.4: Housing and Income

Age	Nuckolls County	State of Nebraska
Median Household Income	\$42,049	\$59,116
Per Capita Income	\$26,735	\$31,101
Median Home Value	\$70,800	\$147,800
Median Rent	\$506	\$805

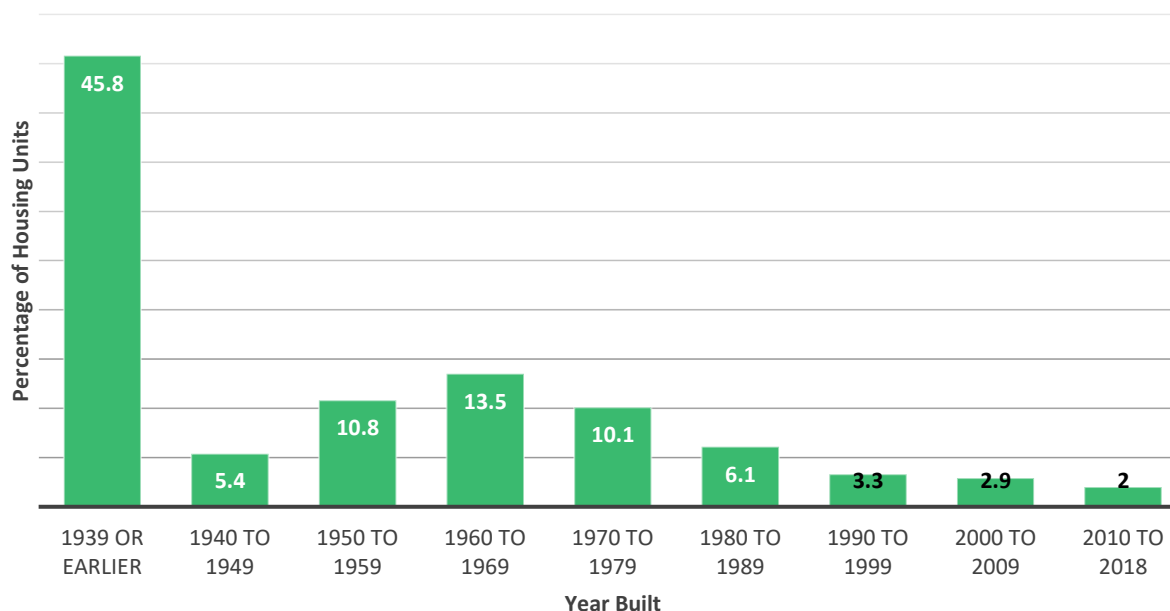
Source: U.S. Census Bureau^{5,6}

The following figure indicates that the majority of the housing in Nuckolls County was built prior to 1940. According to Census Bureau, the county has 2,456 housing units; with 77.9% percent of those units occupied. Approximately 2.4 percent of the county's housing is classified as mobile homes and 91.7 percent of the county's housing was built before 1980. There are no mobile homes located in unincorporated Nuckolls County, but one is located in the City of Superior. Housing age can serve as an indicator or risk as structures built prior to state building codes being developed may be at greater risk. The State of Nebraska first adopted building codes in 1987, the state currently has adopted the 2018 International Building Code. Finally, communities with a substantial number of mobile homes may have a higher number of residents vulnerable to the impacts of high winds, tornados, and severe winter storms.

⁴ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

⁵ United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

⁶ United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Figure NUC.3: Housing Units by Age

Source: U.S. Census Bureau⁷

Table NUC.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Nuckolls County	1,914	77.9%	542	22.1%	1,449	75.7%	465	24.3%
Nebraska	754,063	90.8%	76,686	9.2%	498,567	66.1%	255,496	33.9%

Source: U.S. Census Bureau⁸

Employment Factors

The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars. Communities which have a diverse economic makeup may be more resilient following a hazardous event, especially if certain industries are more impacted than others.

Table NUC.6: Businesses in Nuckolls County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors (2012)	178	1,122	\$30,411
Total for All Sectors (2016)	180	1,130	\$32,422
Total for All Sectors (2018)	171	1,130	\$36,180

Source: U.S. Census Bureau⁹

7 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

8 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

9 United States Census Bureau. 2020. "2018 County Business Patterns and Nonemployer Statistics Combined Report."

Agriculture is also important to the economic fabric of Nuckolls County, and the state of Nebraska as a whole. Nuckolls County's 372 farms cover 245,106 acres of land. Both the number of farms and acres of harvested cropland have decreased since 2012. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute as well by producing, processing and marketing farm and food products. These businesses generate income, employment and economic activity throughout the region.

Table NUC.7: Nuckolls County Agricultural Inventory

	2012 Census	2017 Census	Percent Change
Number of Farms with Harvested Cropland	435	372	-16.9%
Acres of Harvested Cropland	349,710 acres	245,106 acres	-42.7%

Source: USDA Census of Agriculture^{10,11}

Future Development Trends

While no major developments have occurred in the county, the local planning team noted the flooding in March 2019 damaged and changed several road structures across the county, but there was no major loss or gain of business. The county has since worked to repair these areas. One new business has opened in Superior, but no major development has occurred or is currently planned in unincorporated parts of the county. The population in Nuckolls County has declined over the past several decades which the local planning team attributed to lack of industry across the county.

Parcel Improvements and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table. One structure in unincorporated Nuckolls County has been removed from the floodplain via LOMA. A summary of LOMAs can be found in the table below.

Table NUC.8: Nuckolls County Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
6,673	2,148	\$109,711,650	362	17%	\$21,456,345

Source: County Assessor, GIS Workshop

Table NUC.9: Nuckolls County Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	12-07-0884A-310461	2/7/2012	One structure (shop) removed from SFHA

Source: County Assessor, GIS Workshop

10 United States Department of Agriculture, National Agricultural Statistics Server. 2014. "2012 Census of Agriculture – County Data."

11 United States Department of Agriculture, National Agricultural Statistics Server. 2019. "2017 Census of Agriculture – County Data."

Community Lifelines

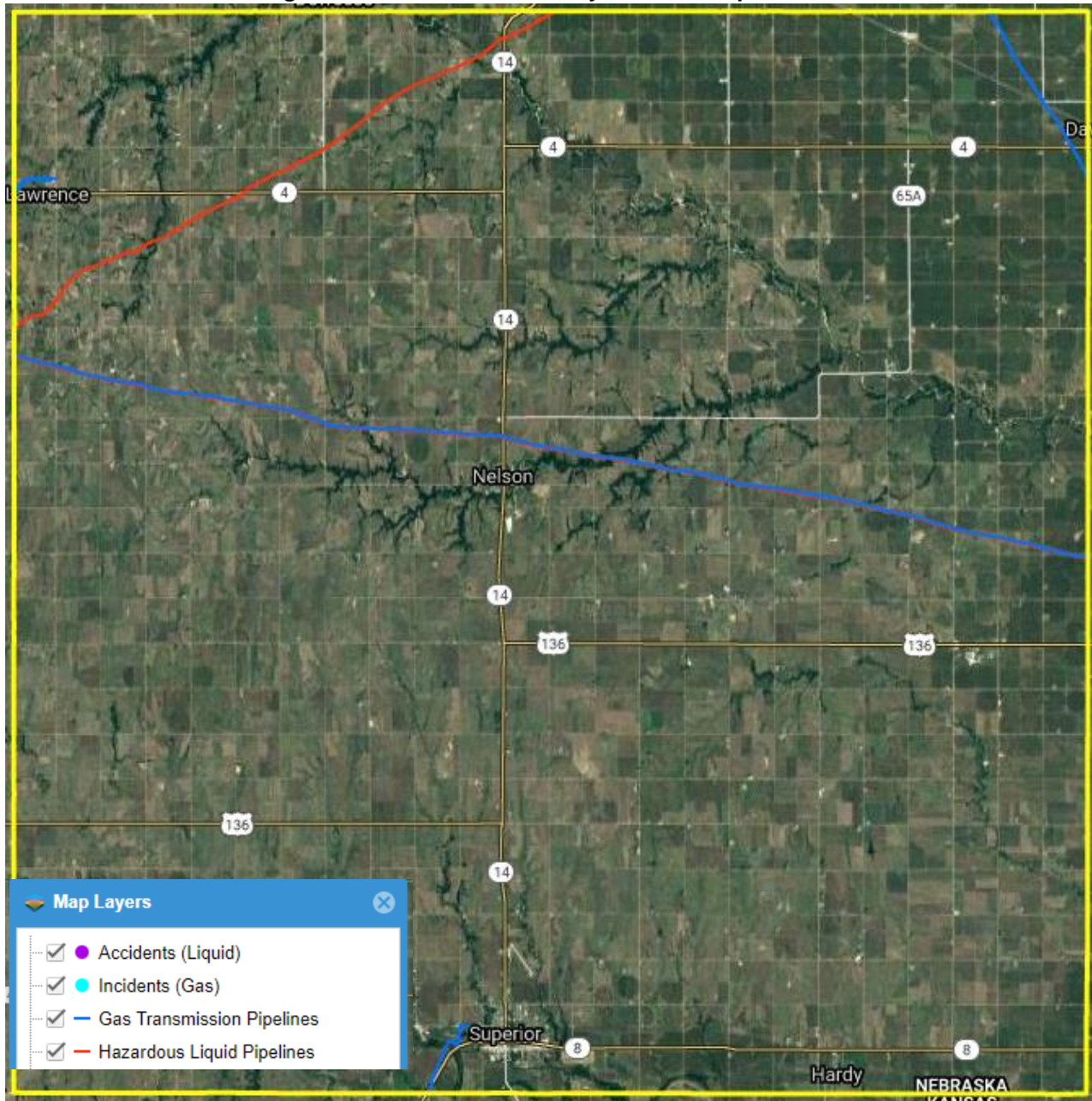
Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy in 2019, there 16 chemical storage sites throughout Nuckolls County which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. Transportation routes including Highway 14, and Highway 8 have agricultural chemical retailers located along them. These facilities and highways would be at risk during major spills. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Chemical Transportation

Hazardous chemicals are transported through the county, primarily via highways as only a small portion of railroad passes through the county. The local planning team indicated the type and quantities of chemicals transported through the county is unknown. While incident proximity will always occur near or on transportation methods, it is not possible to predict precise locations of possible future events. Proximity of pipelines, rail lines, and highways near critical facilities or vulnerable population centers, including schools, daycares, nursing homes, and/or hospitals, increases overall vulnerability to chemical transportation spills. There are no reported chemical transportation spills in the county; however, that does not indicate events have not taken place. Private entities, local emergency response units, and state resources have strict regulatory oversight and emergency action plans in place to respond to significant chemical spills.

Figure NUC.4: Nuckolls County Chemical Pipelines



Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

Critical facilities for Nuckolls County are located primarily in the county's incorporated communities. There are three historic properties in Nuckolls County; two in Superior and one in Lawrence. All critical facilities for Nuckolls County are located outside of the established floodplain.

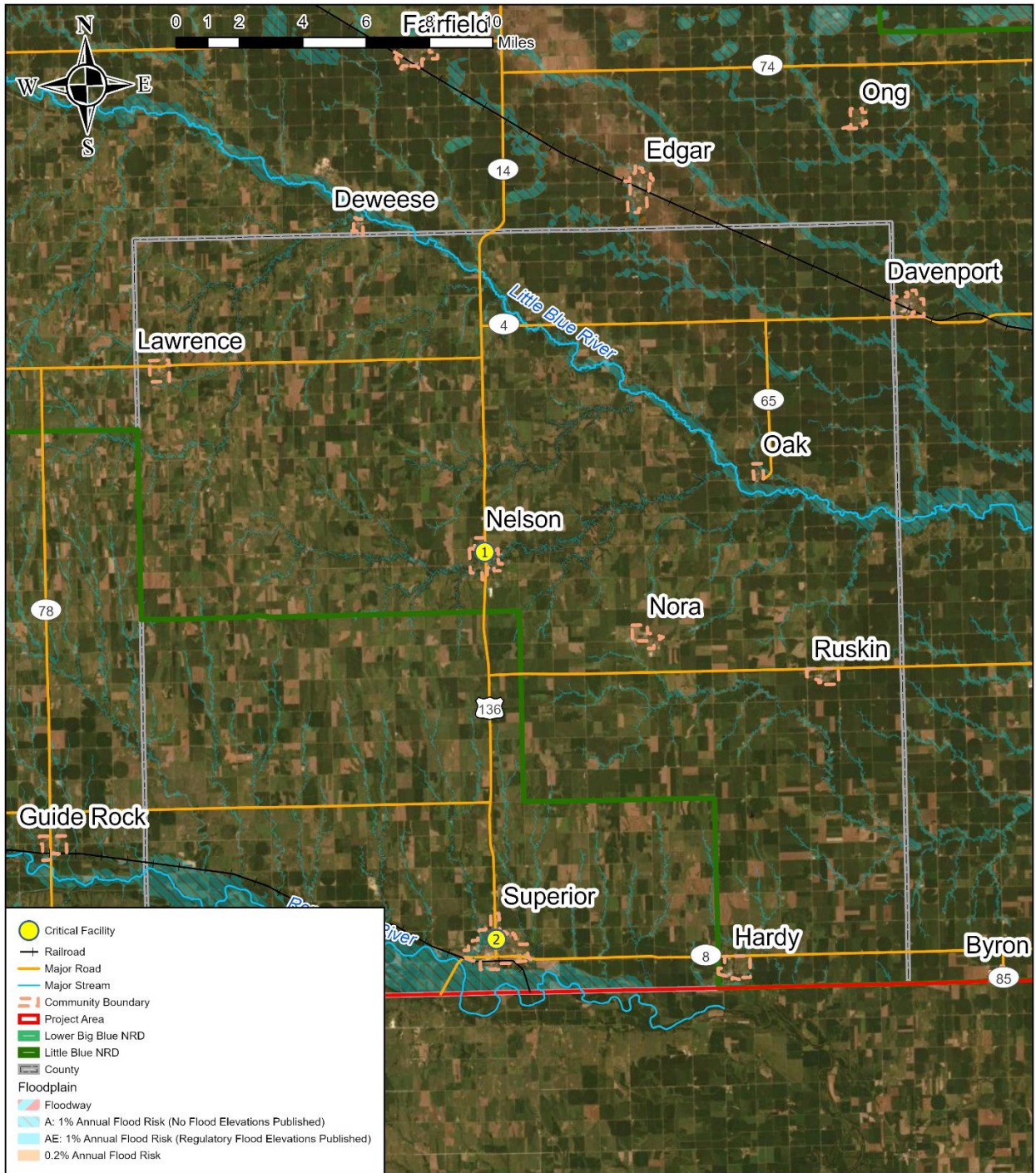
The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table NUC.10: Nuckolls County Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Nelson Courthouse	Y	N	N
2	Safety and Security	Brodstone Hospital	Y	Y	N
3	Transportation	Six (6) County Road Sheds*	N	N	N

**unmapped facilities*

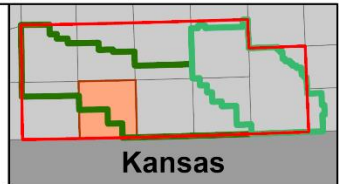
Figure NUC.5: Nuckolls County Critical Facilities



Created By: NL
 Date: 5/21/2021
 Software: ArcGIS Pro 2.8.0
 File: Blues Critical Facilities.aprx
 This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Nuckolls County

Little Blue NRD and Lower Big Blue NRD
 Hazard Mitigation Plan 2021



Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the planning area. The property damages from the NCEI Storm Events Database (January 1996 – April 2020) should be considered only as broad estimates. Sources include but are not limited to: emergency management; local law enforcement; Skywarn spotters; NWS damage surveys; newspaper clipping services; insurance industry; and the general public. Crop damages reports come from the USDA Risk Management Agency between 2000 and June 2020. For the complete discussion on historical occurrences, please refer to *Section 4: Risk Assessment*.

Table NUC.11: Hazard Risk Assessment – Nuckolls County

Hazard		Count	Property Damage	Crop Damage ³
Agricultural Disease	Animal Disease ²	5	5 animals	N/A
	Plant Disease ³	33	N/A	\$776,191
Dam Failure ⁷		3	\$0	N/A
Drought ⁸		493 out of 1,504 months	\$35,000,000	\$26,250,865
Earthquakes ¹¹		0	\$0	\$0
Extreme Heat ⁹		Avg 6 days/yr	\$0	\$1,346,132
Flooding ¹	Flash Flood	5	\$715,000	\$172,154
	Flood	4	\$240,000	
Grass/Wildfire ⁴ 2 injuries		210	1,212 acres	\$71,257
Hazardous Materials	Chemical Fixed Site Spills ⁵	5	\$0	N/A
	Chemical Transportation Spills ⁶	0	\$0	N/A
Levee Failure ¹²		0	\$0	N/A
Public Health Emergency ¹³		~430 cases; 11 deaths	N/A	N/A
Severe Thunderstorms ¹	Hail	103	\$1,800,000	\$4,865,420
	Heavy Rain	41	\$35,000	\$3,500,768
	Lightning	3	\$215,000	N/A
	Thunderstorm Wind	58	\$7,492,500	N/A
Severe Winter Storms ¹	Blizzard	11	\$10,000	\$3,040,227
	Extreme Cold/Wind Chill	2	\$0	
	Heavy Snow	4	\$0	
	Ice Storm	5	\$1,045,000	
	Winter Storm	47	\$165,000	
	Winter Weather	28	\$5,000	
Terrorism ¹⁰		0	\$0	N/A
Tornadoes and High Winds ¹	High Winds	19	\$17,080	\$467,546
	Tornadoes	19	\$2,068,000	\$13,489
Totals		605	\$48,807,580	\$40,504,049

1 – NCEI, Jan 1996-April 2020

2 – USDA, 2014-June 2020

3 – USDA RMA, 2000-Aug 2020

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- 4 – NFS, 2000-2020
- 5 – NRC, 1990-2019
- 6 – PHSMA, 1971-2020
- 7 – NeDNR Dam Safety Division, 2020
- 8 – NOAA, 1985-2020
- 9 – NOAA Regional Climate Center, 1983-2020
- 10 – Global Terrorism Database, 1970-2017
- 11 – USGS, 1960-2020
- 12 – USACE, 2020
- 13 – CDC, April 28 2021 (COVID only)

SECTION SEVEN: NUCKOLLS COUNTY COMMUNITY PROFILE

The following table provides a summary of hazards that have or have the potential to affect each jurisdiction in the county. Each jurisdiction was evaluated for previous hazard occurrence and the probability of future hazard events on each of the hazards profiled in this plan. The evaluation process was based on data collected and summarized in the previous table; previous impacts or the potential for impacts to infrastructure, critical facilities, people, and the economy; and the proximity to certain hazards such as dams and levees. For example, while there may not been instances of dam failure in the planning area, there exists a possibility for a dam to fail in the future due to the presence of dams.

Table NUC.12: Nuckolls County and Communities Hazard Matrix

Jurisdiction	Agricultural Animal and Plant Disease	Dam Failure	Drought & Ex Heat	Earthquakes	Flooding	Grass/ Wildfire	Hazardous Materials	Levee Failure	Public Health Emergency	Severe Thunderstorms	Severe Winter Storms	Terrorism	Tornadoes and High Winds
Nuckolls County					X					X	X		X
Hardy							X			X	X		X
Lawrence							X			X	X		X
Nelson					X					X	X		X
Ruskin										X			
Superior		X	X		X	X	X				X		X

Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the county's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Flooding

The county identified both flash and riverine flooding as a top concern, mainly due to crops damages, washed out roads, and litter following flooding events. That Republican and Little Blue rivers was a major concern for flooding, especially along Highway 14. The county is currently working on improving flood prone areas in the county. The March 2019 flood event caused over \$200,000 in property damages, primarily to roads, bridges, and culverts. Major impacts from the flood included blocked transportation routes. The local planning team noted numerous culverts throughout the county need to be improved and upgraded to accommodate high flow events.

Severe Thunderstorms

Severe thunderstorms include impacts from lightning, heavy rain, hail, and strong winds. The county expressed its largest concern for downed trees and power lines. Homes have been damaged from these events in the past. All cities and towns currently have sirens. All county offices also have weather radios. The only storm shelter in the county is located in Superior. The county has been working on several grants with FEMA to improve shelters and backup generators across the county. The county is also helping as needed with communities doing culvert upgrades to improve stormwater drainage.

Severe Winter Storms

Severe winter storms can include impacts from heavy snow, extreme cold, ice accumulation, blizzards, and winter storms. The county is most concerned about downed power lines, county snow removal capabilities, and the quality of their snow removal equipment. The county is responsible for clearing all county roads while NDOT clears the major highways. Blocked transportation routes are a concern due to the rural nature of its communities. A major ice storm in 2018 caused power outages across over half of the county for several days.

Tornadoes and High Winds

Tornadoes and high winds are common across the planning area. There have been 19 tornado events reported in the county since 1996 which reported over \$2 million in property damages. An EF2 tornado in 2015 caused significant damage between Bostwick and Hardy. While no injuries were reported, the only storm shelter in the county is located in Superior. The county expressed its largest concern for downed trees and power lines. Homes have been damaged from these events in the past. A major high wind event in summer 2020 caused power outages throughout the county up to 18 hours. All cities and towns currently have sirens and all county offices also have weather radios. Backup systems have been installed at the courthouse for records.

Governance

A community's governance structure impacts its capability to implement mitigation actions. The county is governed by a three-member board of supervisors. The county also has the following offices or departments: assessor, attorney, clerk, clerk of district court, election commissioner, emergency manager, highway superintendent, register of deeds, sheriff, southern plains extension, surveyor, treasurer, veterans services officer, and a weed superintendent. The county's road department, emergency management department, and sheriff's office will also help with mitigation efforts.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table NUC.13: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Local Emergency Operational Plan	Yes
	Floodplain Ordinance	Yes
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Building Codes	No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	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	No
	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	No
	Gas/Electric Service Fees	No

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

Table NUC.14: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate

Plan Integration

The local planning team noted the annual municipal budget is limited to maintaining current facilities and systems and that funds have decreased in the past few years. At this time, there is little room in the budget for additional projects.

The County’s Local Emergency Operations Plan was written in September of 2020 and contains an all-hazard approach to how the County would respond to an emergency. The plan contains little hazard specific information, instead focusing on the roles and responsibilities of different actors during an emergency event. The plan discusses mitigation, but only insofar as it relates to community specific hazard mitigation projects. Each community has a community-tailored emergency operation plan that is an annex to the county plan. Based on the available documentation, the planning team did not identify other mechanisms for plan integration. The county is not zoned.

The South Central Economic Development District has developed a Comprehensive Economic Development Strategy (CEDS) which includes Adams, Clay, Nuckolls, and Webster counties and

their communities. The plan was originally developed in 2013 and was updated in 2018. The 2018 CEDS identified several key findings of economic development in the area including:

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.
- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

The plan identified and outlined objectives related to three main priority areas: Industry Growth & Innovation, Workforce Development, and Housing. Currently identified objectives do not address natural hazards. Future updates and project implementation should consider integrating hazard mitigation goals and objective.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Emergency Manager and the Board of Supervisors. The local planning team will review the plan no less than annually and will include the public in the review and revision process by: sharing information at board and council meetings and posting information via social media.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	BACKUP MUNICIPAL RECORDS
DESCRIPTION	Develop protocol for backup of critical courthouse records
HAZARD(S)	All hazards
STATUS	Backup system installed in 2019 for courthouse records.

Continued Mitigation Actions

MITIGATION ACTION	EMERGENCY COMMUNICATION
DESCRIPTION	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies; and establish interoperable communications.
HAZARD(S)	All hazards
ESTIMATED COST	\$1,000+, plus staff time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Nuckolls County EMA
STATUS	The county is working on building an interoperable communications with new 911 console.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education, increase public awareness of natural hazards to public and private property owners, rents, business, and local officials.
HAZARD(S)	All hazards
ESTIMATED COST	\$3,000+
FUNDING	County General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Emergency Management
STATUS	Additional outreach will be done with the help of LEPC.

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MITIGATION ACTION	SAFE ROOMS/STORM SHELTERS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas, in cities in Nuckolls County.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$200-\$250 per square foot
FUNDING	General Funds, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Nuckolls County EMA
STATUS	This project has not yet been started.

MITIGATION ACTION	STORM SHELTER IDENTIFICATION
DESCRIPTION	Identify any existing public or private storm shelters in the county
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$1,000+, staff time
FUNDING	General Funds
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Nuckolls County EMA
STATUS	This project has not yet been started.

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Purchase backup power generators for shelter locations – schools in Superior, Lawrence, and Nelson.
HAZARD(S)	All hazards
ESTIMATED COST	\$25,000+ per location
FUNDING	General Funds – jointly between city, schools, and county
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Nuckolls County EMA
STATUS	This is a new mitigation action.

MITIGATION ACTION	INTERIOR DITCHES AND CULVERT IMPROVEMENTS
DESCRIPTION	Upsize and improve drainage ditches and culverts throughout the county to improve stormwater drainage. New culverts have been purchased for the Road T project.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	\$20,000
FUNDING	Road Budget
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Road Department
STATUS	This is a new mitigation action.

Removed Mitigation Actions

MITIGATION ACTION	NFIP CONTINUATION AND ENFORCEMENT
DESCRIPTION	Enforcement of floodplain management requirements, including regulating new construction in Special Flood Hazard Areas (SFHAs).
REASON FOR REMOVAL	While the county will continue to participate in the NFIP, this is no longer considered a mitigation action by FEMA. Enforcement of floodplain policies is required as part of ongoing codes.

COMMUNITY PROFILE

VILLAGE OF HARDY

**Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table HAR.1: Village of Hardy Local Planning Team

Name	Title	Jurisdiction
Sam Clark	Village Clerk	Village of Hardy
Mary Renz	Chairperson	Village of Hardy
Mary Roberts	Trustee, Water Superintendent	Village of Hardy

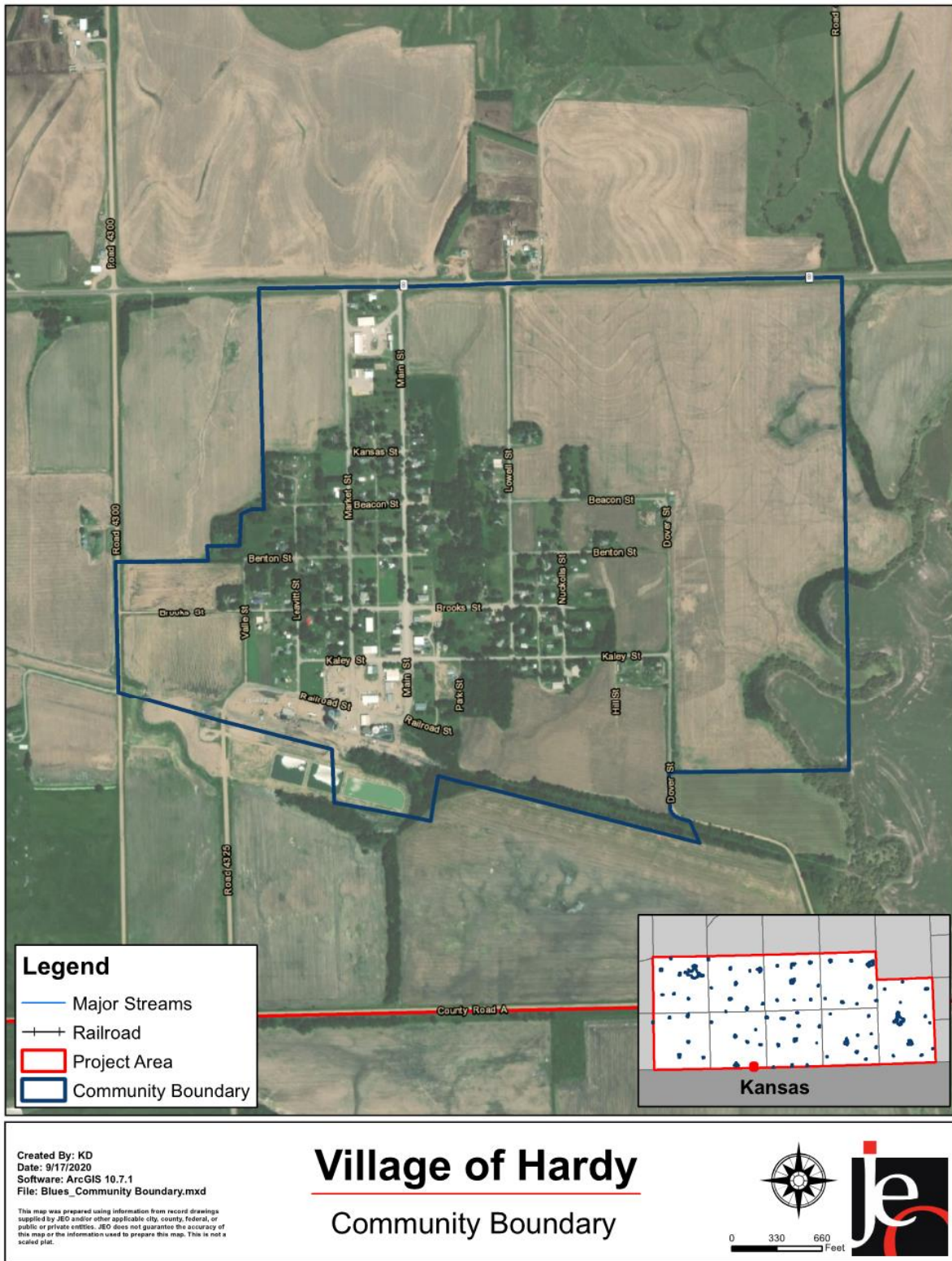
Location and Geography

The Village of Hardy is located in the south eastern portion of Nuckolls County and covers an area of 0.61 square miles. Major waterways within the area include the Republican River, which is located approximately 5000 ft south of the community. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. Most of Hardy lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Hardy's major transportation corridors include State Highway 8, which runs east-west to the north of Hardy. Highway 8 accommodates on average 1,215 vehicles per day, 155 of which are heavy commercial vehicles. Additionally, the local planning team noted numerous county gravel roads connect the village to Kansas to the south. Hardy does not have any rail lines in town; however hazardous chemicals are commonly transported through town due to the presence of the Aurora CO-OP and the surrounding agricultural lands. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

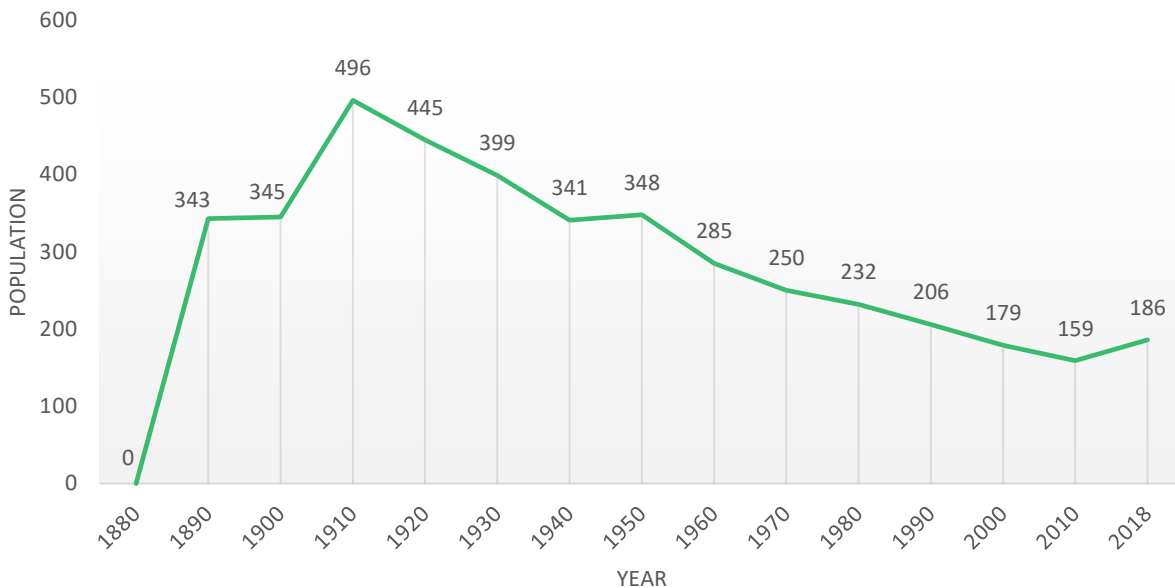
Figure HAR.1: Village of Hardy Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that despite on decade of slight growth in the 1940s, the population of Hardy has generally been declining since the 1910s. This is notable for hazard mitigation because communities with declining populations may also have a higher level of unoccupied housing that is not being kept up. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. The village's estimated population accounted for 4.4% of Nuckolls County's total population in 2018.

Figure HAR.2: Hardy Population 1880-2018



Source: U.S. Census Bureau¹²

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the county, Hardy's population was:

- **Younger.** The median age of Hardy was 35.8 years old in 2018, compared with the county average of 49.3 years. Hardy's population has grown younger since 2010, when the median age was 36.2 years old. Hardy had a larger proportion of people under 20 years old (39.3%) than the county (22.9%).¹³
- **Less ethnically diverse.** Between 2010 and 2018, Hardy saw no change in demographics (100% White, non-Hispanic). During that time, Nuckolls County grew 1% (Asian) and decreased from 1% to 0% in (some other race alone) and (two or more races).¹⁴

¹² United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

¹³ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

¹⁴ United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

- **More likely to be at the federal poverty line.** The estimated poverty rate of all persons in Hardy was 42.3% in 2018. The poverty rate in the county was 12.2%.¹⁵

Employment and Economics

The community's economic base is a mixture of industries. In comparison to Nuckolls County, Hardy's economy had:

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Hardy included Agriculture, Education, Manufacturing, Arts & Entertainment, Construction, and Transportation. In comparison, Nuckolls County included Education, Agriculture, and Retail Trade.¹⁶
- **Lower household income.** Hardy's median household income in 2018 (\$37,750) was about \$4,300 lower than the county (\$42,049).¹⁷
- **More long-distance commuters.** About 32.1% percent of workers in Hardy commuted for fewer than 15 minutes, compared with about 56.2% of workers in Nuckolls County. About 23.7% of workers in Hardy commute 30 minutes or more to work, compared to about 20.5% of the county workers.¹⁸

Major Employers

The major employers in Hardy include the Aurora Co-Op and Zoltenko Farms. A large portion of residents commute to the neighboring communities of Superior and Deshler for employment.

Housing

In comparison to the county, Hardy's housing stock was:¹⁹

- **More owner occupied.** About 88.4% of occupied housing units in Hardy are owner occupied compared with 75.7% of occupied housing in Nuckolls County in 2018.
- **Larger share of aged housing stock.** Hardy has more houses built prior to 1970 than the county (84.8% compared to 75.5%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Hardy contains less multifamily housing with five or more units per structure than the county (0% compared to 5.4%). About 100% of housing in Hardy was single-family detached, compared with 89.7% of the county's housing. Hardy has a smaller share of mobile and manufactured housing (less than 1%) compared to the county (2.4%). The local planning team noted there are approximately 11 mobile homes scattered throughout the community.

This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further, unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

15 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

16 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

17 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

18 United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

19 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

Future Development Trends

In the past five years the village has refurbished its sewer lagoon and lost two homes due to fire. No new structures have been built and there are currently no future residential or industrial developments planned. The Village's population has declined in recent years which the local planning team attributes to an aging population and lack of available, good quality housing.

Parcel Improvements and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table. No LOMAs were identified for the Village of Hardy.

Table HAR.2: Hardy Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
179	70	\$845,045	1	1%	\$15,480

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical storage sites throughout Hardy which house hazardous materials. Additionally, Tall Pine Ag Supply at the corner of Highway 8 and Market Street houses hazardous chemicals. The local planning team noted specific concerns for the underground fuel tanks located at the Co-Op, blocked transportation routes during spills, and the health and safety of residents. The community hall and fire hall are within one block of the Co-Op and at greater risk if a spill were to occur. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table HAR.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Jensby Livestock Trucking Inc	4230 Hwy 8	No
Aurora Co-op Elevator Company	410 Railroad St	No

Source: Nebraska Department of Environment and Energy²⁰

²⁰ Nebraska Department of Environment and Energy. "Search Tier II Data." August 2020.

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table HAR.4: Hardy Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Station	Y	N	N
2	Food, Water, and Shelter	Restaurant (local shelter location)	Y	N	N
3	Health and Medical	Sewer Lagoon	N	N	N
4	Food, Water, and Shelter	Community Hall	Y	N	N
5	Food, Water, and Shelter	Water Plant	N	N	N

Figure HAR.3: Hardy Critical Facilities



<p>Created By: NL Date: 5/21/2021 Software: ArcGIS Pro 2.8.0 File: Blues Critical Facilities.aprx</p> <p><small>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</small></p>	<h2>Village of Hardy</h2> <p>Little Blue NRD and Lower Big Blue NRD Hazard Mitigation Plan 2021</p>	<p>Kansas</p>
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Historical Occurrences

See the Nuckolls County community profile for historical hazard events.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Hazardous Materials (Fixed Sites)

Hardy is most concerned about this hazard for residential safety and because of the potential for an anhydrous leak at the CO-OP elevator. Minor chemical spills have occurred in the past in which local traffic will absorb fumes through automobile vents and air conditioning, although no major spills have occurred in Hardy. The fire station is located within two blocks on the COOP elevator and is well equipped and trained to respond. Hardy did not identify any vulnerable populations near these fixed sites. Residents near these areas may not be aware of how to respond to anhydrous leaks if one should occur.

To mitigate this hazard, this village plans to obtain ten additional fire hydrants, to provide firefighters with additional fire suppression resources.

Severe Thunderstorms

Severe thunderstorms are common across the planning area and include impacts from strong winds, heavy rain, lightning and hail. Significant storms occurred and impacted the village in in May of 2015 when over 10 inches of rain, severe lightning, and a tornado occurred in the county. In July 2020 the village had severe hail damage with insurance claims estimated at more than \$80,000 to village office buildings. Significant hail damage has also occurred and damaged residential and the main concern regarding this hazard is with public safety. The village uses surge protection for critical municipal records on electronic devices. The village has no generators but has indicated a need for a generator at the fire station. Approximately 2% of the village power lines are buried. The village indicated the hazardous trees near the community hall and select residence should be removed. The only weather radios in the community are at the local fire station.

Severe Winter Storms

Severe winter storms can include heavy snow, blizzards, ice accumulation, extreme cold conditions, and winter storms. Severe winter storms are likely to occur annually. The local planning team noted the most severe storms had occurred in the early 1990s. Hardy's main concern regarding severe winter storms involved electrical outages and traffic disruption. There are no backup generators in town for community buildings. The village has designated snow routes along main and Market Street and along Lowell Street near the fire station, which are cleared by village employees. The village has an army excess truck with a snow blade but has indicated a desire for a small movable vehicle to clear driveway entrances. The county also owns

a snow grader in town for rural road clearance. The village does not use snow fences. To mitigate this hazard, this village plans to obtain a backup generator.

Tornadoes and High Winds

Hardy is most concerned about tornadoes and high winds for residential safety and due to the potential for damage from downed trees. In 1998, a major tornado travelled through the middle of the village and destroyed three homes, damaged the fire hall roof, and destroyed a grain elevator. In 2012 an EF0 tornado travelled through the north part of the village and destroyed two seed bins and two neighboring pivots. In 2015, an EF2 tornado travelled through the east part of the village and destroyed one occupied home, one vacant home, and one irrigation pivot.

The village does not have data backups for municipal records. It does back up recent board meeting minutes, resolutions, and ordinances, although older records are hard copies only. The community does not have safe rooms or generators. The only options for community members seeking safe shelter are in the basement of a local restaurant and under old coal bins under the main street sidewalk. The county issues emergency text alerts. The community has an active volunteer fire department, and mutual aid agreements with all local communities. To mitigate this hazard, this village plans to obtain a backup generator.

Flooding

While Hardy did not identify flooding as a hazard of top concern, floodplain areas are located south and east of town. No village parcels are located within the floodplain. The village does not participate in the NFIP.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Hardy has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member board and the following offices: clerk/treasurer, fire chief, and street commissioner. The village also utilizes the county Emergency Management and County Sheriff's department for emergency response, preparedness, and mitigation activities.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table HAR.5: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	& Comprehensive Plan	No
	& Capital Improvements Plan	No
	& Economic Development Plan	Yes
	& Local Emergency Operational Plan	Yes
	& Floodplain Ordinance	No

SECTION SEVEN: VILLAGE OF HARDY COMMUNITY PROFILE

Survey Components		Yes/No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Building Codes	No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	Yes
	Mutual Aid Agreement	No
	Other (if any)	
Fiscal Capability	1 & 6 Year Plan	No
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	Yes
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education Outreach and	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table HAR.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The village has applied for and received grants in the past, such as to upgrade the wastewater lagoons. The local planning team indicated the annual municipal budget is generally limited to maintaining current infrastructure and funds have increased in recent years. At this time there are no major projects earmarked for funding indicating the Village has the ability to pursue additional mitigation projects.

The LEOP, which was last updated in 2020 is an annex of Nuckolls County's LEOP. The plan addresses several hazards, with tornados and high winds ranked as the top hazards of concern. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard.

The South Central Economic Development District has developed a Comprehensive Economic Development Strategy (CEDS) which includes Adams, Clay, Nuckolls, and Webster counties and their communities. The plan was originally developed in 2013 and was updated in 2018. The 2018 CEDS identified several key findings of economic development in the area including:

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.
- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is

the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

The plan identified and outlined objectives related to three main priority areas: Industry Growth & Innovation, Workforce Development, and Housing. Currently identified objectives do not address natural hazards. Future updates and project implementation should consider integrating hazard mitigation goals and objective.

The village follows the county’s zoning and building codes. No other planning mechanisms were identified for the village.

Plan Maintenance

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

The Village of Hardy last reviewed their section of the HMP in 2016 with the local planning team which includes the Board Chairman and Village Clerk. The local planning team will review the Community Profile annually at a minimum. The village will engage the public in the plan update process by sharing information at board/council meetings and by sending letters to utility customers.

Mitigation Strategy

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
HAZARD(S)	All hazards
ESTIMATED COST	\$5,500 - \$10,000
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started. Generators are needed specifically at the community hall and fire station.

MITIGATION ACTION	EMERGENCY EQUIPMENT PURCHASE AND/OR UPGRADES
DESCRIPTION	Obtain ten additional fire hydrants to provide firefighters with additional fire suppression resources
HAZARD(S)	Grass/Wildfire, Drought and Extreme Heat, Hazardous Materials
ESTIMATED COST	\$15,000
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	This project has not yet been started. This project will be started once water main updates are completed.

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	HAZARDOUS TREE REMOVAL
DESCRIPTION	Remove dead/dying or hazardous trees and limbs.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$10,000
FUNDING	General Funds
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

MITIGATION ACTION	IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM OR RESOURCES
DESCRIPTION	Replace and improve snow removal resources.
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	\$28,000
FUNDING	General Funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

MITIGATION ACTION	WATER SYSTEM IMPROVEMENTS
DESCRIPTION	Upgrade water mains from 3 and 4 inch mains to 6 inch mains to increase pressures and supply.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	\$400,000
FUNDING	Water and Sewer Fund, Loans
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

COMMUNITY PROFILE

VILLAGE OF LAWRENCE

**Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table LAW.1: Village of Lawrence Local Planning Team

Name	Title	Jurisdiction
Kyle Faimon	Board Chairman	Village of Lawrence
Sara Griffis	Board Member	Village of Lawrence
Barb Janda	Village Clerk	Village of Lawrence

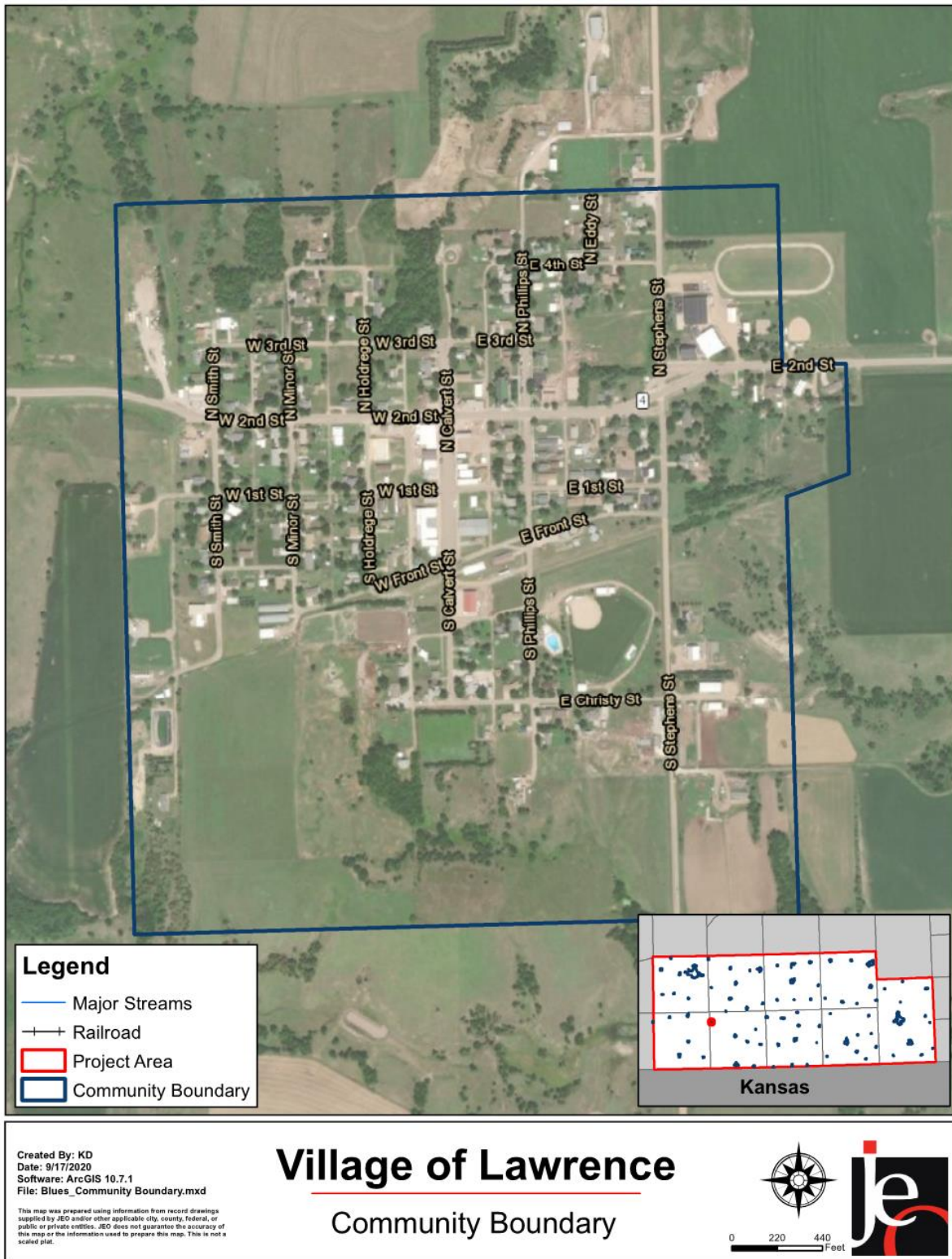
Location and Geography

The Village of Lawrence is located in the north western portion of Nuckolls County and covers an area of 0.42 square miles. Dry creek runs north to south and is located approximate 1.5 miles east of the village. There are also a few small lakes and ponds scattered beyond the boundaries of Lawrence, the most principal being located approximately 1,000 ft southeast of the village. The area is not heavily forested, however there is tree cover on the north and eastern edges of the village. Lawrence is not located in a geographic area of the state prone to landslides. Most of Lawrence lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Lawrence's major transportation corridors include State Highway 4, which runs east-west through Lawrence. Highway 4 accommodates on average 670 vehicles per day, 125 of which are heavy commercial vehicles. Additionally, St. Stephens Street which runs north-south through the village is a primary route for the community. St. Stephens Street also serves as a federal aid route. Lawrence does not have any rail lines; however, hazardous chemicals are commonly transported via highway including fertilizer, diesel, gasoline, or other agricultural chemicals. No major spill events have occurred in or around the village. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

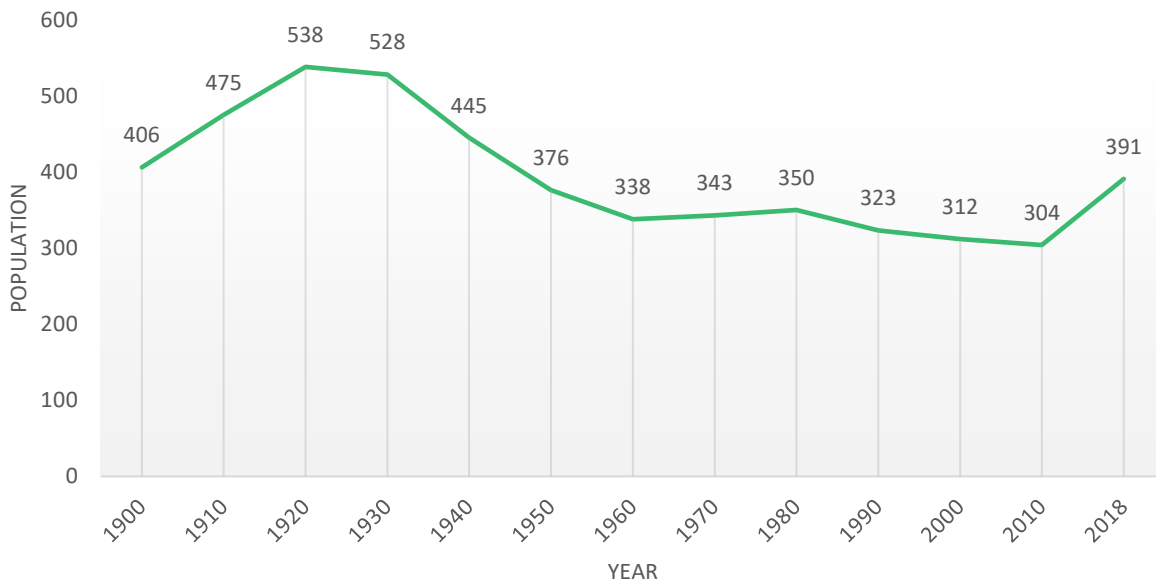
Figure LAW.1: Village of Lawrence Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1900 to 2018 (estimated). This figure indicates that the population of Lawrence experience its sharpest growth at the beginning of the last century, followed by a continued decline through the 1950s. The population has stabilized considerably since then, with only minor, but continued, population decline since 1980. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. The village's estimated population accounted for 9.1% of Nuckolls County's total population in 2018.

Figure LAW.2: Lawrence Population 1900-2018



Source: U.S. Census Bureau²¹

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the county, Lawrence's population was:

- Younger.** The median age of Lawrence was 45.5 years old in 2018, compared with the county average of 49.3 years. Lawrence's population has grown younger since 2010, when the median age was 35.2 years old. Lawrence had a larger proportion of people under 20 years old (24%) than the county (22.9%).²²
- More ethnically diverse.** In 2010, 99% of Lawrence's population was White, non-Hispanic and 1% was two or more races. By 2018, 97% was White, non-Hispanic, 1% was American Indian, and 1% was two or more races. During that time, Nuckolls County grew

²¹ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

²² United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

1% (Asian) and decreased from 1% to 0% in (some other race alone) and (two or more races).²³

- **More likely to be at the federal poverty line.** The estimated poverty rate of all persons in Lawrence was 16.4% in 2018. The poverty rate in the county was 12.2%.²⁴

Employment and Economics

The community's economic base is a mixture of industries. In comparison to Nuckolls County, Lawrence's economy had:

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Lawrence included Agriculture, Education, Construction, Manufacturing, and Retail Trade. In comparison, Nuckolls County included Education, Agriculture, and Retail Trade.²⁵
- **Greater household income.** Lawrence's median household income in 2018 (\$45,313) was about \$3,265 higher than the county (\$42,049).²⁶
- **More long-distance commuters.** About 30.4% percent of workers in Lawrence commuted for fewer than 15 minutes, compared with about 56.2% of workers in Nuckolls County. About 69.5% of workers in Lawrence commute 30 minutes or more to work, compared to about 20.5% of the county workers.²⁷

Major Employers

Major employers in Lawrence include CPI, Farmers & Merchants Bank, R&K Service, Dick's Place Bar and Grocery, and South Central United School District #5. Approximately 30% of residents commute to the surrounding communities of Hastings, Clay Center, Nelson, Blue Hill, and Superior for employment.

Housing

In comparison to the county, Lawrence's housing stock was:²⁸

- **More owner occupied.** About 88.2% of occupied housing units in Lawrence are owner occupied compared with 75.7% of occupied housing in Nuckolls County in 2018.
- **Smaller share of aged housing stock.** Lawrence has fewer houses built prior to 1970 than the county (60.2% compared to 75.5%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Lawrence contains less multifamily housing with five or more units per structure than the county (0% compared to 5.4%). About 97.4% of housing in Lawrence was single-family detached, compared with 89.7% of the county's housing. Lawrence has a larger share of mobile and manufactured housing (2.6%) compared to the county (2.4%), although the local planning team noted mobile home numbers have declined from 8 in 2016 to 2 in 2020. .

This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further,

23 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

24 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

25 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

26 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

27 United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

28 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

Future Development Trends

The Village of Lawrence has seen little change in the past five years. The local planning team noted the village averages approximately one demolition and one construction of a home annually. The population in the village is declining which was attributed to an aging population and overall smaller family sizes. There are currently no new housing or commercial developments in the next five years.

Parcel Improvements and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table. No LOMAs have been identified in Lawrence.

Table LAW.2: Lawrence Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
257	150	\$6,342,115	1	1%	\$110,500

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are three chemical storage sites throughout Lawrence which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. Local concerns for chemical spills include potential groundwater pollution, safety concerns, and blocked transportation routes for emergency vehicles and evacuation.

Table LAW.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Cooperative Producers Inc	411 W 2nd St	No
R & K Service Bulk Plant	W 1st St	No
Pohlmeier Ag Chem Inc	2702 Highway 4	No

Source: Nebraska Department of Environment and Energy²⁹

²⁹ Nebraska Department of Environment and Energy. "Search Tier II Data." August 2020.

Critical Facilities

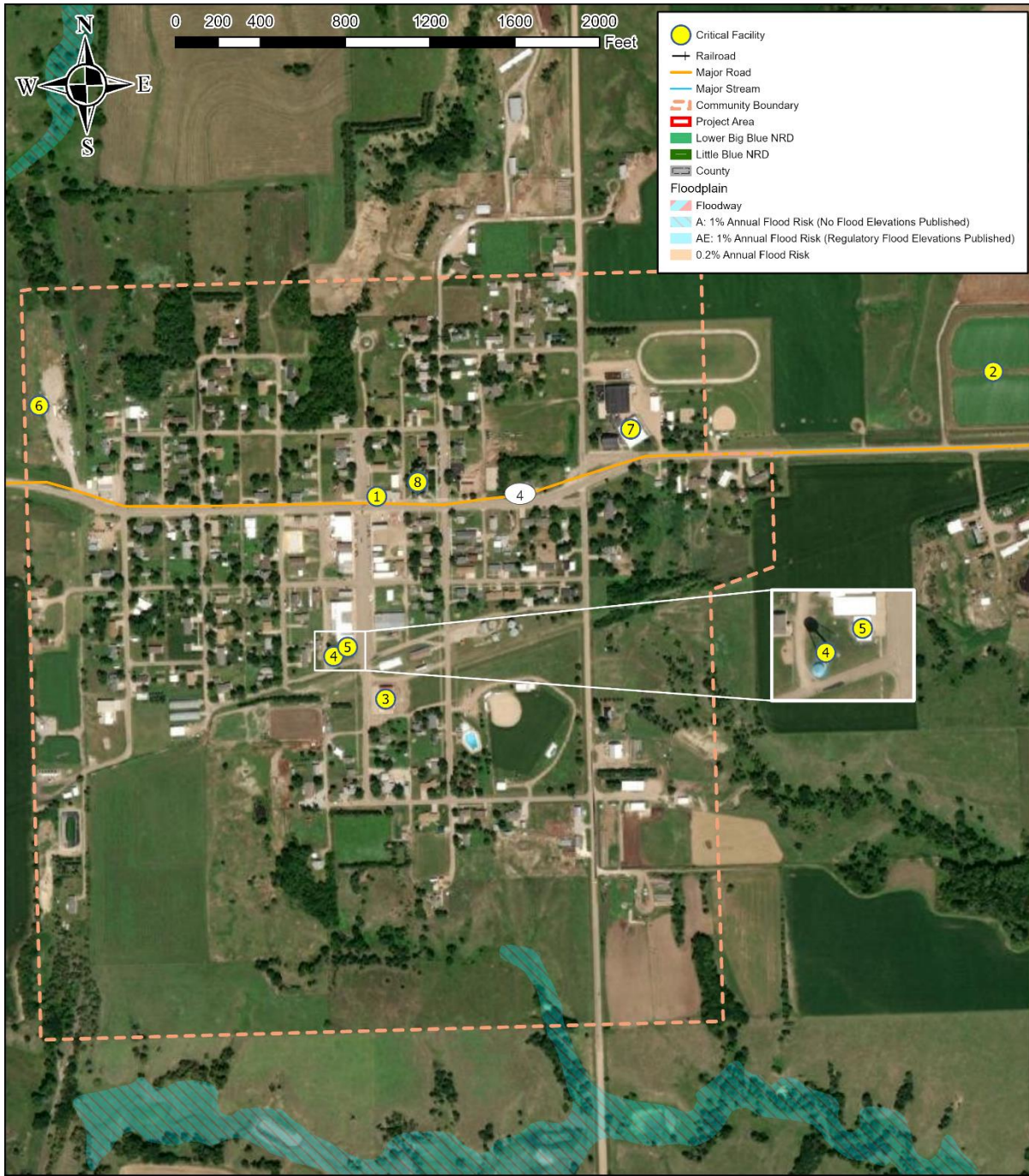
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The local planning team noted the village office and KD's Salon and Floral would be used as short term shelters in case of hazard events. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table LAW.4: Lawrence Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Transportation	R & K Service (Pumping Station)	N	N	N
2	Food, Water, Shelter	Village Sewage Lagoons	N	Y	N
3	Safety and Security	Fire Hall/Village Office/American Legion	Y	Y	N
4	Food, Water, Shelter	Water Tower	N	Y	N
5	Food, Water, Shelter	Water Control Station	N	Y	N
6	Hazardous Materials	CPI Co-Op	N	N	N
7	Food, Water, Shelter	Lawrence-Nelson Public Schools	N	N	N
8	Food, Water, Shelter	Sacred Heart Church (basement)	Y	N	N

Figure LAW.3: Lawrence Critical Facilities



 <p>Created By: NL Date: 5/21/2021 Software: ArcGIS Pro 2.8.0 File: Blues Critical Facilities.aprx This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</p>	<h2>Village of Lawrence</h2> <p>Little Blue NRD and Lower Big Blue NRD Hazard Mitigation Plan 2021</p>	 <p style="text-align: center;">Kansas</p>
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Historical Occurrences

See the Nuckolls County community profile for historical hazard events.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Hazardous Materials (Transportation)

The transportation of hazardous chemicals is of concern for the village in particular. Highway 4 runs through the Village of Lawrence, passing by a school, church, two gas stations, and Main Street. While no major spills have occurred, the village is concerned about the risk of chemicals being spilled from the vehicles transporting them along this route and plans to contact the City of Hastings' hazmat team to jointly handle any such incident.

Severe Thunderstorms

Severe thunderstorms include impacts from heavy rain, lightning, strong winds, and hail. Significant hail storms have impacted Lawrence in the past with reported damage estimates of \$95,000. A storm event with winds reported at 80mph caused over \$1,400,000 in property damages in 2001. The most common damages have been to roofs, siding, and vehicles. There has also been damage to wells and communication towers. There is no local tree board in Lawrence. The only hail resistant materials are located on the well houses. All municipal facilities are insured for hail damages.

Severe Winter Storms

The county and village experience damaging severe winter storms annually. A severe storm in 2009 caused power outages lasting over six hours in the village on New Year's Day. Communication towers and building gutters have also been damaged in the past. The village has no buried power lines. The village has designated snow routes including Main St, the area near the church, schools, and all routed into the county north/south. The village has also noted that ice will build up on well antennas, causing them to function poorly. Lawrence has reported snow fall events ranging from two to eight inches of snow. Several locations in town including the village office and a local business have been identified as short term shelters in case of future power outage events.

Tornadoes and High Winds

The most significant event occurred in March of 1990 when a F4 tornado touched down, spanning one mile, and hit the eastern third of the town. The Lawrence tornadic complex tracked for 124 miles and set a record for the longest tornado track in Nebraska. There were no deaths but two injuries and damages to the ball field, concession stands, and trees were substantial. Other major

damages occurred in 2010 when high winds damaged well houses and 1997 when high winds destroyed a communication tower and caused roof damage.

The village does use surge protectors but has no backup of municipal records. The village identified the need for a possible windbreak on the north side of the baseball field. The local siren is controlled by County Emergency Management and has been recently updated with redundant power. The community has multiple mutual aid agreements with neighboring governments and emergency services. The community has a small safe room in the fire hall, which is 12 feet by 10 feet in size. The village has indicated a desire to build a new community hall with a safe room.

Flooding

While flooding was not identified as a hazard of top concern, floodplain areas are located to the north and south of the village along local creeks. Lawrence participates in the NFIP but has no policies in-force as of November 2020. According to NeDNR as of February 2020, there are no reported repetitive flood loss properties in the village.

Governance

A community's governance structure impacts its ability to implement hazard mitigation actions. Lawrence has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member village board, a clerk/treasurer, attorney, utility superintendent, chief of police, fire chief, sewage plant operator, water commissioner and parks & recreation department.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table LAW.5: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operational Plan	County
	Floodplain Ordinance	Yes
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Building Codes	No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
Other (if any)		
	Planning Commission	No

SECTION SEVEN: VILLAGE OF LAWRENCE COMMUNITY PROFILE

Survey Components		Yes/No
Administrative & Technical Capability	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	Yes
	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	Yes
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education and Outreach	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table LAW.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The local planning team indicated the annual municipal budget has some flexibility to pursue additional mitigation activities, but funds have remained relatively the same in recent years.

The LEOP, which was last updated in 2020 is an annex of Nuckolls County's LEOP. The plan addresses several hazards, with tornados and high winds ranked as the top hazards of concern. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard. The village hall and Lawrence Fire and Rescue are familiar with the LEOP.

The South Central Economic Development District has developed a Comprehensive Economic Development Strategy (CEDS) which includes Adams, Clay, Nuckolls, and Webster counties and their communities. The plan was originally developed in 2013 and was updated in 2018. The 2018 CEDS identified several key findings of economic development in the area including:

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.
- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

The plan identified and outlined objectives related to three main priority areas: Industry Growth & Innovation, Workforce Development, and Housing. Currently identified objectives do not address natural hazards. Future updates and project implementation should consider integrating hazard mitigation goals and objective.

The village follows the county's zoning and building codes. No other planning mechanisms were identified for the village.

Plan Maintenance

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

The Village of Lawrence's local planning team including the Village Board Members and the County Emergency Manager will review the HMP bi-annually at a minimum.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	ALERT SIREN
DESCRIPTION	Perform an evaluation of existing alert sirens to determine if any should be replaced, or if new ones should be obtained.
HAZARD(S)	All hazards
STATUS	Alert sirens were evaluated and updated in 2015.

MITIGATION ACTION	BACKUP GENERATOR
DESCRIPTION	Provide a portable or stationary source of backup power for the fire department's siren, and for emergency communications
HAZARD(S)	All hazards
STATUS	New generators were purchased and installed as part of the alert siren updates.

Continued Mitigation Actions

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education, increase public awareness of natural hazards to public and private property owners, renters, businesses, and local officials; and how to protect people and property from these hazards. Also, educate citizens on water conservation methods and evacuation plans.
HAZARD(S)	All hazards
ESTIMATED COST	\$1,000 per year
FUNDING	Village general funds, HMA
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Fire Department and Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	SAFE ROOM/STORM SHELTERS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as campgrounds, schools, and other areas, for 200 people in the town hall
HAZARD(S)	Severe Thunderstorms, Tornadoes and High Winds
ESTIMATED COST	\$100,000
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	INTERIOR DITCHES AND CULVERT IMPROVEMENTS
DESCRIPTION	Evaluate drainage in town to identify areas with poor stormwater drainage. Deepen ditches and clean out culverts to improve drainage.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	Varies by need
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

MITIGATION ACTION	WASTEWATER SYSTEM IMPROVEMENTS
DESCRIPTION	The village plans to open a third unused wastewater lagoon to relieve stress on the two existing lagoons from overflowing or damaging the exterior walls.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	\$50,000
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

Removed Mitigation Actions

MITIGATION ACTION	FIRST AID TRAINING
DESCRIPTION	Promote and provide first aid training for all students
HAZARD(S)	All hazards
REASON FOR REMOVAL	This project was identified to be the responsibility of the local fire department rather than the village.

SECTION SEVEN: VILLAGE OF LAWRENCE COMMUNITY PROFILE

MITIGATION ACTION		EMERGENCY EXERCISE: HAZARDOUS SPILL	
DESCRIPTION	Conduct an exercise to prepare for potential explosions or hazardous spills. Ensure that nearby businesses and residents have appropriate plans in place.		
HAZARD(S)	Hazardous Materials (Transportation)		
REASON FOR REMOVAL	This project was identified to be the responsibility of the local fire department and county emergency management rather than the village. The village will contact the City of Hastings for assistance in spill events.		

MITIGATION ACTION		MAINTAIN GOOD STANDING WITH NFIP	
DESCRIPTION	Maintain good standing with National Flood Insurance Program (NFIP) including floodplain management practices/ requirements and regulation enforcements and updates.		
HAZARD(S)	Flooding		
REASON FOR REMOVAL	While the village will continue to participate in the NFIP, this is no longer considered a mitigation action by FEMA.		

MITIGATION ACTION		RELOCATE AUTOMATED CONTROLS FOR THE VILLAGE WATER SUPPLY	
DESCRIPTION	Relocate water controls to provide better maintenance and control over the village water supply.		
HAZARD(S)	Flooding		
REASON FOR REMOVAL	This project is no longer needed and was removed by the local planning team.		

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)	All hazards		
REASON FOR REMOVAL	This project was identified to be the responsibility of the local fire department rather than the village.		

COMMUNITY PROFILE

CITY OF NELSON

Little Blue NRD and Lower Big Blue NRD Hazard Mitigation Plan 2021

Local Planning Team

Table NEL.1: City of Nelson Local Planning Team

Name	Title	Jurisdiction
Sandra Schendt	City Clerk	City of Nelson

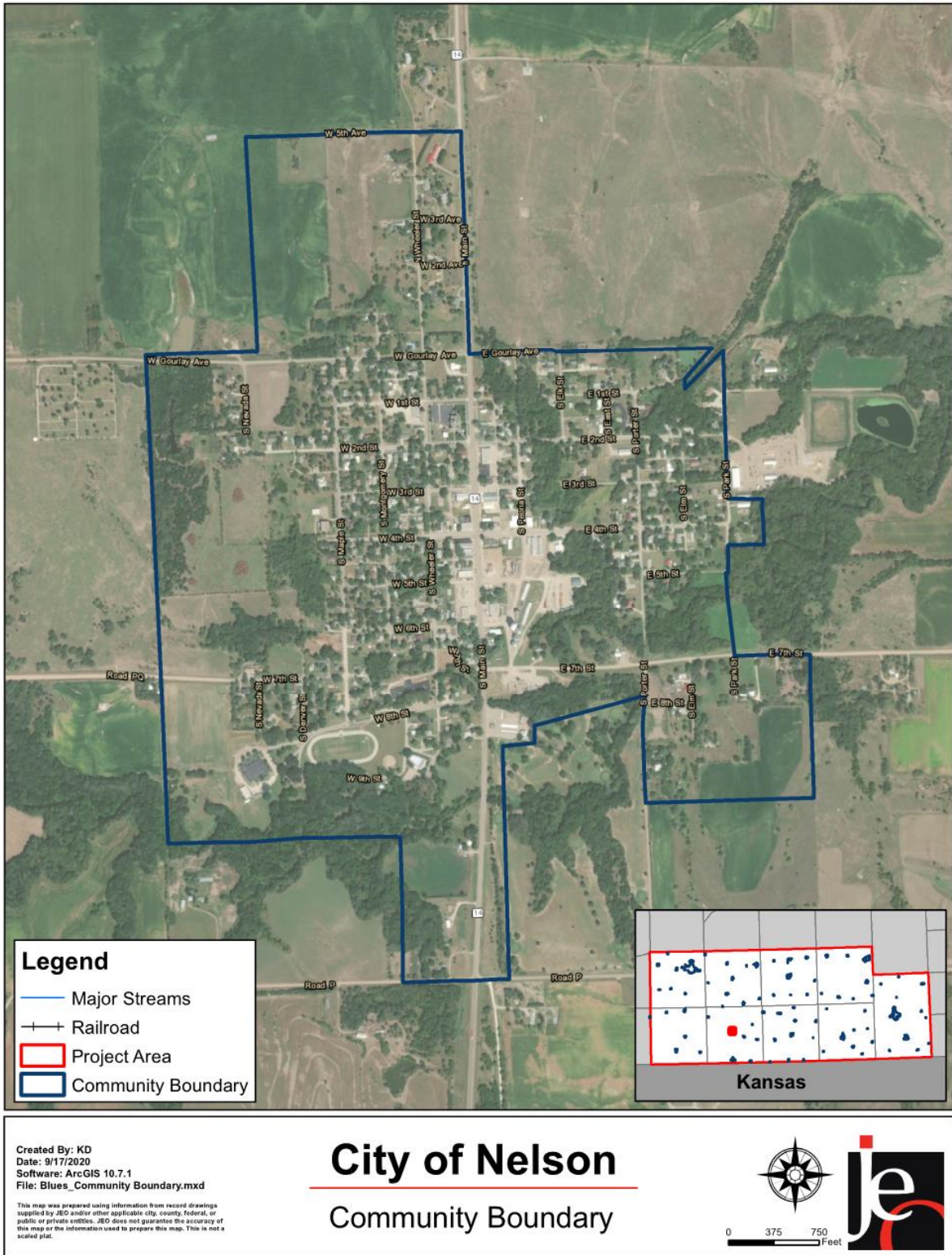
Location and Geography

The City of Nelson is located in the central portion of Nuckolls County and covers an area of 0.82 square miles. Major waterways within the area include Elk Creek, which runs through the southern and eastern portions of the community. The area has a considerable tree cover, especially along the river. Nelson is not located in a geographic area of the state prone to landslides. The city lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Nelson's major transportation corridors include State Highway 14, which runs north-south through Nelson. Highway 14 accommodates on average 1,575 per day, 235 of which are heavy commercial vehicles. Nelson does not have any rail lines, but hazardous chemicals including anhydrous ammonia, fuel, and fertilizer are commonly transported via highway. A company out of Oklahoma, Accord Transportation, commonly uses a transportation route through Nelson to transport materials. One semi-truck accident has been reported in Nelson which spilled hazardous materials; however damages were minimal and no injuries occurred. The state and county respond to major transportation or chemical spills in the city. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

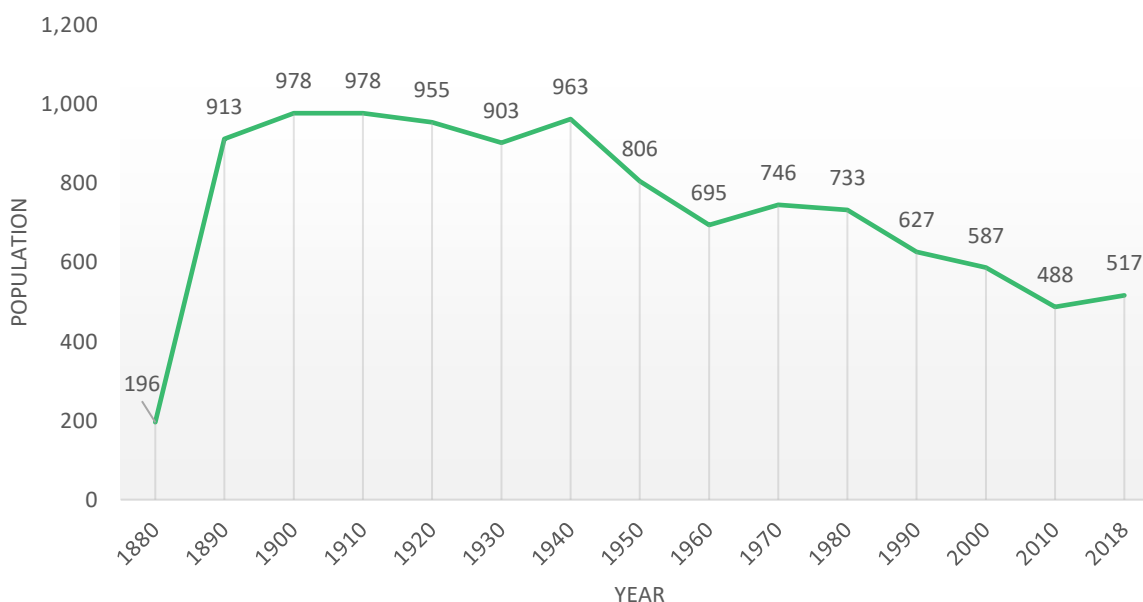
Figure NEL.1: City of Nelson Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that despite two decades of slight growth in 1930s and 1960s, the population of Nelson has generally been declining. Since 1970, the population has decreased by approximately 40% and has been in considerable decline. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. The city's estimated population accounted for 12.1% of Nuckolls County's total population in 2018.

Figure NEL.2: Nelson Population 1880-2018



Source: U.S. Census Bureau³⁰

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the county, Nelson's population was:

- **Older.** The median age of Nelson was 52.5 years old in 2018, compared with the county average of 49.3 years. Nelson's population has grown older since 2010, when the median age was 47.8 years old. Nelson had a smaller proportion of people under 20 years old (18.9%) than the county (22.9%).³¹
- **Less ethnically diverse.** In 2010, 98% of Nelson's population was White, non-Hispanic and 2% was two or more races. By 2018, 99% was White, non-Hispanic and 1% was Black. During that time, Nuckolls County grew 1% (Asian) and decreased from 1% to 0% in (some other race alone) and (two or more races).³²

30 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

31 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

32 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

- **Less likely to be at the federal poverty line.** The estimated poverty rate of all persons in Nelson was 8.8% in 2018. The poverty rate in the county was 12.2%.³³

Employment and Economics

The community's economic base is a mixture of industries. In comparison to Nuckolls County, Nelson's economy had:

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Nelson included Education and Retail Trade. In comparison, Nuckolls County included Education, Agriculture, and Retail Trade.³⁴
- **Less household income.** Nelson's median household income in 2018 (\$41,071) was about \$978 lower than the county (\$42,049).³⁵
- **More long-distance commuters.** About 50% percent of workers in Nelson commuted for fewer than 15 minutes, compared with about 56.2% of workers in Nuckolls County. About 50% of workers in Nelson commute 30 minutes or more to work, compared to about 20.5% of the county workers.³⁶

Major Employers

Major employers in Nelson include South Central Public Power District and C&M Supply. The local planning team noted about 50% of residents commute to other communities for work including Superior, Hastings, Deshler, and Ruskin.

Housing

In comparison to the county, Nelson's housing stock was:³⁷

- **More owner occupied.** About 83.3% of occupied housing units in Nelson are owner occupied compared with 75.7% of occupied housing in Nuckolls County in 2018.
- **Greater share of aged housing stock.** Nelson has fewer houses built prior to 1970 than the county (80.8% compared to 75.5%).
- **Fewer multi-family homes.** The predominant housing type in the city is single family detached and Nelson contains less multifamily housing with five or more units per structure than the county (4.1% compared to 5.4%). About 91% of housing in Nelson was single-family detached, compared with 89.7% of the county's housing. Nelson has a smaller share of mobile and manufactured housing (2.2%) compared to the county (2.4%). The local planning team noted there are two uninhabitable mobile homes and one occupied mobile home in town.

This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further, unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

33 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

34 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

35 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

36 United States Census Bureau. "2018 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]

37 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

Future Development Trends

Over the past five years the city has received a CDBG grant to improve local streets and sidewalks. No new businesses or residential development has occurred in the past years or is planned in the next five years. Nelson's population has declined in recent years which the local planning team attributed to loss of economic opportunities and businesses in the surrounding communities which residents commute to. These include a cement plant in Superior and the nursing home in Nelson.

Parcel Improvements and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table. No LOMAs have been reported in the City of Nelson.

Table NEL.2: Nelson Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
606	258	\$8,545,270	11	4%	\$476,520

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical storage sites throughout Nelson which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table NEL.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Cooperative Producers Inc	1593 Highway 14	No
Cooperative Producers Inc	115 E 4th St	No

Source: Nebraska Department of Environment and Energy³⁸

³⁸ Nebraska Department of Environment and Energy. "Search Tier II Data." August 2020.

Critical Facilities

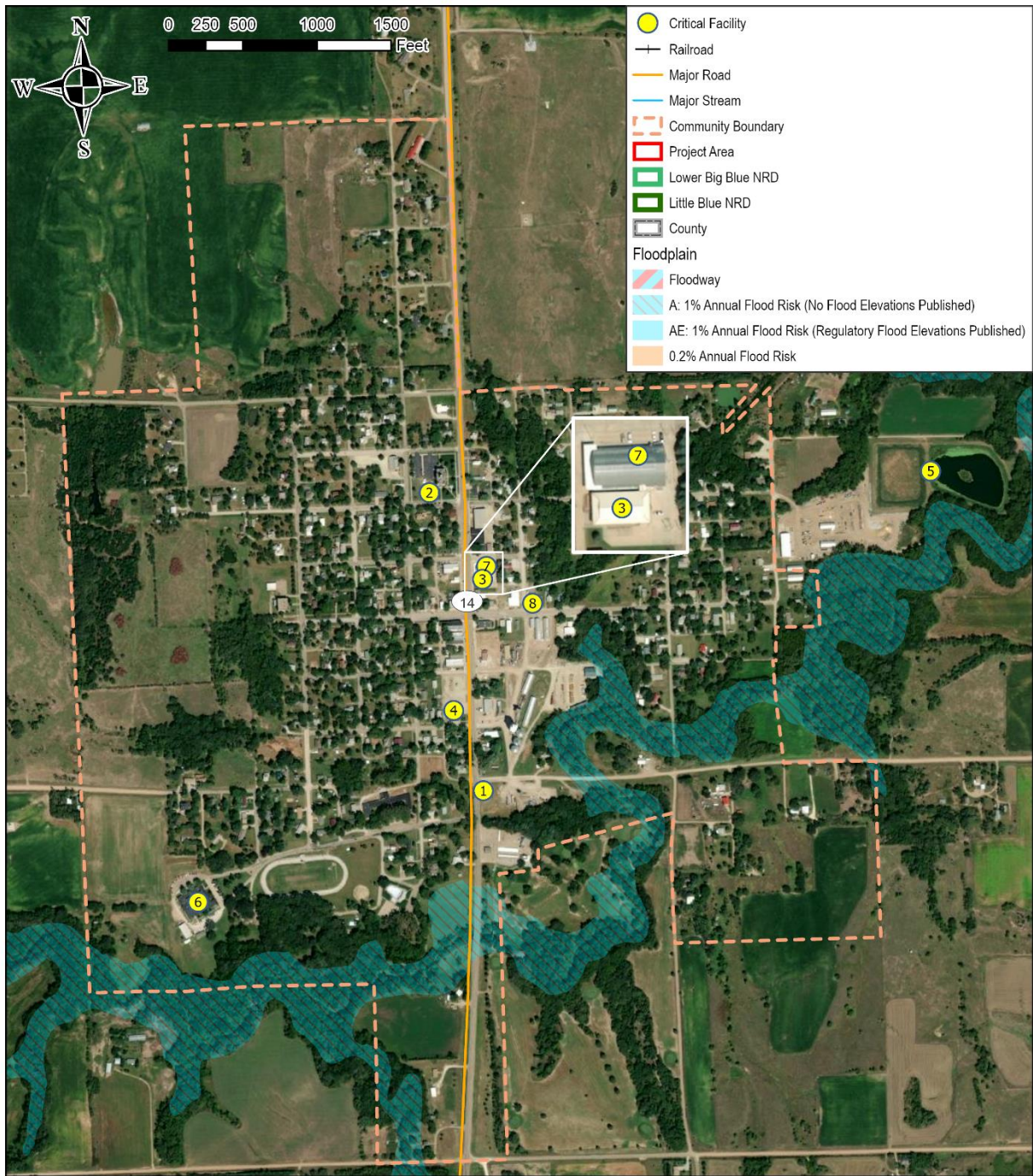
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.


The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table NEL.4: Nelson Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Transportation	Street Shop	N	N	N
2	Safety & Security	Sheriff's Office	Y	Y	N
3	Food, Water, Shelter	Community Center	Y – 80	N	N
4	Safety & Security	City Office/Fire Hall	Y	Y	N
5	Health and Medical	Sewage Lagoon	N	N	N
6	Food, Water, Shelter	Lawrence-Nelson High School	Y	N	N
7	Shelter, Food, Water	City Auditorium	Y - 300	N	N
8	Transportation	Maintenance Shed	N	N	N

Figure NEL.3: Nelson Critical Facilities



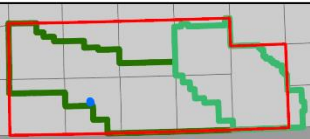


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Date: 5/28/2021
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City of Nelson

Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021



Kansas

Historical Occurrences

See the Nuckolls County community profile for historical hazard events.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Flooding

While flooding has not produced significant damages in the past for the City, the city noted that the original floodplain maps were mapped to the 50-year level. The city is currently working with Nebraska Department of Natural Resources to remap the floodplain with new maps anticipated to be completed in 2023. The city noted a floodplain mapping error in past maps showed a significant portion of eastern Nelson located within the 100- or 500-year floodplain; however, new maps should more accurately show eastern Nelson as out of the floodplain.

The city has also conducted projects in the past to reduce flood impacts including channel maintenance on the creek and removing a bridge on Porter Street to help improve drainage and remove flow restrictions. The city experiences poor stormwater drainage issues specifically along the highway and between 6th and 8th Streets. The city noted the stormwater system in town is aging and experiencing degradation. Numerous areas have collapsed or deteriorating culverts and stormwater grates, such as on 4th Street near the post office and 7th Street. While these areas are typically dry creek beds, heavy rains contribute to flash flooding and poor drainage.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the planning area and include impacts from hail, thunderstorm winds, heavy rain, and lightning. The city suffered considerable tree damages during a severe thunderstorm in 2014 and had to open up an additional area to pile trees instead of the traditional city landfill. The city has employees' trim trees above powerlines on a regular and as-needed basis. The city also has a contractor available to trim additional trees as needed. The city's main concerns for this hazard include downed power lines and trees blocking roads, making it difficult to dispatch EMS and fire response services. The city does use surge protection to protect municipal records. There is also concern about hail damage to infrastructure such as roofs. The city has been a Tree City USA for over 20 years.

To mitigate this hazard, the city plans to purchase weather radios, obtain backup generators, build safe rooms and storm shelters and improve emergency rescue and response equipment and facilities.

Severe Winter Storms

Severe winter storms include impacts from heavy snow, blizzards, extreme cold, ice storms, and winter storms. The city was notably impacted by a winter storm in 1997 in which over 35 inches

of snow accumulated in the city. Power lines and trees were downed. Farmers around the area assisted in the snow removal during this event. Another notable storm occurred in 2007, in which multiple power lines impacted the area. The South Central Public Power District is located in Nelson, which facilitates the rapid response of power restoration in the community. Approximately 1% of the city's power lines are buried. The community is most concerned about being able to dispatch EMS and fire response service during this event, especially if roads are impassable due to snow accumulation.

Tornadoes and High Winds

The city is at risk for tornadoes and high winds. For tornadoes, the city is most concerned about its response capabilities, specifically for local capabilities to assist residents. The Sheriff's Office and Fire Hall have backup generators and multiple buildings in town have been identified as sheltering locations in case of major storm events. The city currently backs up municipal records on a remote location.

Governance

A community's governance structure impacts its ability to implement hazard mitigation actions. Nelson has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a mayor, a four-member city council, a clerk/treasurer, attorney, utility superintendent, chief of police, fire chief, and street superintendent.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table NEL.5: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Local Emergency Operational Plan	County
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Building Codes	No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	No

Survey Components		Yes/No
	Chief Building Official	No
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	1 & 6 Year Plan	No
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes (Electric)
	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 and	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

Table NEL.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The city currently has a Comprehensive Plan, Hazard Mitigation Plan, Local Emergency Operations Plan (LEOP), and Zoning Ordinance. The City of Nelson received a CDBG grant in 2017 to update several plans including the Comprehensive Plan and zoning ordinance. This 2017

update incorporated several smart growth principals, primarily for transportation routes and areas in town in need of drainage improvements. The city has language in local ordinances to follow the most recent edition of the International Building Codes (2018 edition as of this plan update).

The LEOP, which was last updated in 2020 is an annex of Nuckolls County's LEOP. The plan addresses several hazards, with tornados and high winds ranked as the top hazards of concern. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard. In addition, the city is part of a mutual aid agreement for flooding via the Water/Wastewater Agency Response Network (WARN) Program.

In the past the city has applied for grants including CDBG grants to help with three specific areas. East 7th from Highway 14 to the bridge; corner of West 8th St and Maple Street was armored, and the sidewalk between East 7th and 6th Street was repaired. The local planning team noted the annual municipal budget's funds are relatively limited to maintaining current facilities and systems, and some additional major street improvement projects are currently earmarked for future eventual funds. The local property values have increased in recent years, but due to the declining population tax supported funds have declined.

The South Central Economic Development District has developed a Comprehensive Economic Development Strategy (CEDS) which includes Adams, Clay, Nuckolls, and Webster counties and their communities. The plan was originally developed in 2013 and was updated in 2018. The 2018 CEDS identified several key findings of economic development in the area including:

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.
- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

The plan identified and outlined objectives related to three main priority areas: Industry Growth & Innovation, Workforce Development, and Housing. Currently identified objectives do not address natural hazards. Future updates and project implementation should consider integrating hazard mitigation goals and objective.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the City Clerk, Mayor, President of the Council, and the Utilities Superintendent. The local planning team will review the plan no less than annually and will include the public in the review and revision process by sharing information at board meetings, notices in the paper, and social media posts on the city's Facebook.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	RELOCATE MUNICIPAL INFRASTRUCTURE
DESCRIPTION	Acquire Geographic Information System (GIS) for use in relocating municipal infrastructure (water and sewer lines)
HAZARD(S)	All hazards
STATUS	A mapping effort was completed in 2017 through a grant and contractor.

MITIGATION ACTION	UPDATE COMPREHENSIVE PLAN
Description	Update Comprehensive Plan and integrate it with the Hazard Mitigation Plan
Hazard(s)	All hazards
Status	Comprehensive Plan was last updated in 2017.

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power for critical facilities. Locations previously identified are the auditorium and municipal wells.
HAZARD(S)	All hazards
ESTIMATED COST	\$40,000 per generator
FUNDING	City general funds, Sales tax, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Water Department, Utility Superintendent
STATUS	The city has purchased on generator for the well. Additional generators are needed for the auditorium and community hall.

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Improve emergency rescue and response equipment and facilities by providing additional, or updating existing emergency response equipment (equipment vehicle).
HAZARD(S)	All hazards
ESTIMATED COST	\$100,000
FUNDING	City/Rural Fire Department, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Fire Department
STATUS	Handheld digital pagers for firemen and EMTs need to be updated.

MITIGATION ACTION	CREATE/UPDATE COMMUNITY WIDE MASTER PLAN TO PRIORITIZE ALL FLOOD RELATED PROJECTS
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.
HAZARD(S)	Flooding
ESTIMATED COST	Unknown
FUNDING	City general funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	City Council
STATUS	There are 4 areas with drainage problems. 1) Hwy 14 and 6 th St . 2) Stormwater drain on the corner of Hwy 14 and 4 th St is collapsing 3) Intersection of Hwy 14 and E 7 th St now has water standing after the highway was resurfaced. 4) the stormwater drain that goes under HWY 14 east of the 8 th St intersection is deteriorating Many of these areas should be evaluated for responsibility – local, county, or state.

SECTION SEVEN: CITY OF NELSON COMMUNITY PROFILE

MITIGATION ACTION	FIRE STATION IMPROVEMENTS
DESCRIPTION	Construct an addition to the fire hall
HAZARD(S)	Fire
ESTIMATED COST	\$450,000+
FUNDING	Fire Department, HMA
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Fire Department
STATUS	This project has not yet been started. Currently this project is fiscally prohibitive.

MITIGATION ACTION	REMOVE FLOW CONSTRICTIONS
DESCRIPTION	Conduct a preliminary drainage assessment and/or design bridge improvements to reduce and/or alleviate flooding. Remove trees and other obstructions to Elk Creek flow.
HAZARD(S)	Flooding
ESTIMATED COST	Unknown
FUNDING	City general funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	City Council
STATUS	Need to remove flow restrictions from trees in Elk Creek.

MITIGATION ACTION	SAFE ROOMS/STORM SHELTERS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas. Build one in either the city's community center or auditorium.
HAZARD(S)	Tornadoes and high winds
ESTIMATED COST	\$100,000
FUNDING	City general funds, HMA
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	City Council
STATUS	Several locations have been designated as storm shelters in the city, but none have established safe rooms. Additional reinforced safe rooms are still needed.

SECTION SEVEN: CITY OF NELSON COMMUNITY PROFILE

MITIGATION ACTION	STORM SHELTER IDENTIFICATION
Description	Identify any existing private or public storm shelters for public awareness and safety
Hazard(s)	Tornadoes and High Winds
Estimated Cost	\$5,000
Funding	City general funds, HMA
Timeline	2-5 years
Priority	Medium
Lead Agency	City Council
Status	Numerous places have been identified as storm shelters. Additional information should be shared with the public.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities, and purchase new radios/pagers as needed.
HAZARD(S)	All hazards
ESTIMATED COST	\$5,000
FUNDING	City general funds, Fire Department, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	City Council, Fire Department
STATUS	New radios and pagers are needed for city vehicles and at the city office.

New Mitigation Actions

MITIGATION ACTION	ALERT SIRENS
DESCRIPTION	Update and/or replace alert sirens
HAZARD(S)	All hazards
ESTIMATED COST	\$15,000
FUNDING	General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Clerk, Utilities Superintendent
STATUS	This is a new mitigation action. There are two sirens in town and one has experienced significant maintenance issues.

Removed Mitigation Actions

MITIGATION ACTION	INSTALL VEHICULAR BARRIERS
DESCRIPTION	Install vehicular barriers to protect critical facilities and key infrastructure where possible.
HAZARD(S)	Hazardous Chemicals (transportation)
REASON FOR REMOVAL	This action was identified as no longer a priority for the city.

SECTION SEVEN: CITY OF NELSON COMMUNITY PROFILE

MITIGATION ACTION	MAINTAIN GOOD STANDING WITH NFIP
DESCRIPTION	Maintain good standing with National Flood Insurance Program (NFIP) including floodplain management practices/ requirements and regulation enforcements and updates.
HAZARD(S)	Flooding
REASON FOR REMOVAL	While the city will continue to participate in the NFIP, this is no longer considered a mitigation action by FEMA.

COMMUNITY PROFILE

VILLAGE OF RUSKIN

**Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table RUS.1: Village of Ruskin Local Planning Team

Name	Title	Jurisdiction
Nathan Brandt	Chairman	Village of Ruskin
Rebecca Kleen	Village Clerk	Village of Ruskin
Nikki Drohman	Board Trustee	Village of Ruskin

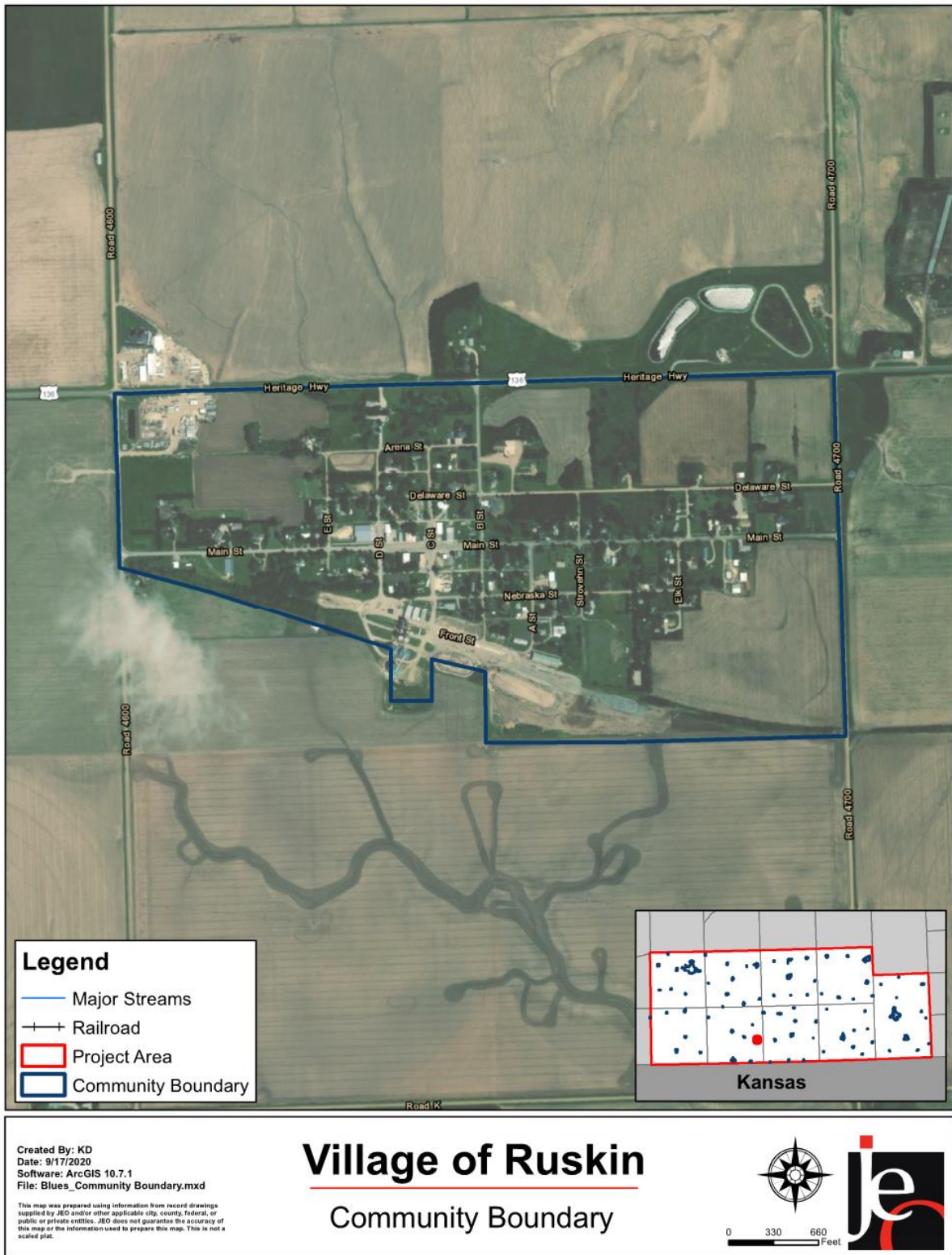
Location and Geography

The Village of Ruskin is located in the east central portion of Nuckolls County and covers an area of 0.42 square miles. Spring Creek is located approximately 1.5 miles southwest of the village. There are also small retention ponds located just northeast and west of the village boundaries. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. Most of Ruskin lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Ruskin's major transportation corridors include State Highway 136 which runs east-west, just north of Ruskin. NE-136 accommodates on average 770 vehicles per day, 105 of which are heavy commercial vehicles. Chemicals such as ammonia, diesel fuel, propane gas, and fertilizer are regularly transported along this route. No chemical transportation spills have occurred locally. Ruskin does not have any rail lines. No critical facilities are located on NE-136. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

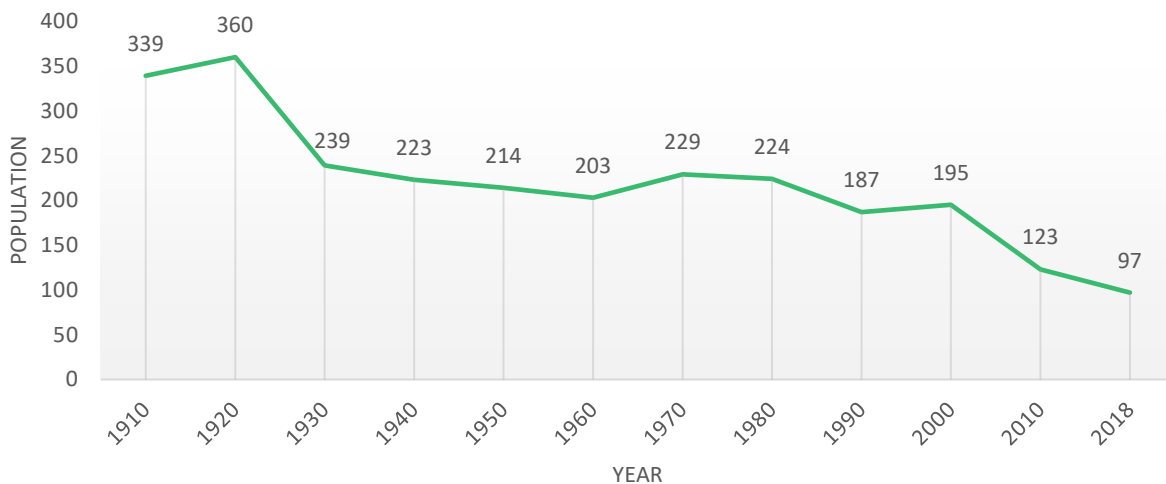
Figure RUS.1: Village of Ruskin Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1910 to 2018 (estimated). This figure indicates that the population of Ruskin was relatively stable since 1930 but experienced a decline over the past decades. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. The village's estimated population accounted for 2.3% of Nuckolls County's total population in 2018.

Figure RUS.2: Ruskin Population 1910-2018



Source: U.S. Census Bureau³⁹

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the county, Ruskin's population was:

- **Older.** The median age of Ruskin was 53.3 years old in 2018, compared with the county average of 49.3 years. Ruskin's population has grown older since 2010, when the median age was 45.4 years old. Ruskin had a smaller proportion of people under 20 years old (14.5%) than the county (22.9%).⁴⁰
- **Less ethnically diverse.** In 2010, 94% of Ruskin's population was White, non-Hispanic and 6% was some other race alone. By 2018, 100% was White, non-Hispanic. During that time, Nuckolls County grew 1% (Asian) and decreased from 1% to 0% in (some other race alone) and (two or more races).⁴¹
- **Less likely to be at the federal poverty line.** The estimated poverty rate of all persons in Ruskin was 9.3% in 2018. The poverty rate in the county was 12.2%.⁴²

³⁹ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

⁴⁰ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

⁴¹ United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

⁴² United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

The community's economic base is a mixture of industries. In comparison to Nuckolls County, Ruskin's economy had:

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Ruskin included Manufacturing, Wholesale Trade, Agriculture, and Retail Trade. In comparison, Nuckolls County included Education, Agriculture, and Retail Trade.⁴³
- **Greater household income.** Ruskin's median household income in 2018 (\$54,583) was about \$12,534 higher than the county (\$42,049).⁴⁴
- **More long-distance commuters.** About 28.6% percent of workers in Ruskin commuted for fewer than 15 minutes, compared with about 56.2% of workers in Nuckolls County. About 56.2% of workers in Ruskin commute 30 minutes or more to work, compared to about 20.5% of the county workers.⁴⁵

Major Employers

Major employers in the community are C and M Supply and CPI Elevator. According to the planning team, about one third of Ruskin's residents commute to other communities such as Deshler, Hebron, Superior, and Nelson.

Housing

In comparison to the county, Ruskin's housing stock was:⁴⁶

- **More owner occupied.** About 83.7% of occupied housing units in Ruskin are owner occupied compared with 75.7% of occupied housing in Nuckolls County in 2018.
- **Smaller share of aged housing stock.** Ruskin has fewer houses built prior to 1970 than the county (62.8% compared to 75.5%). According to the planning team, approximately 50 percent of the community's housing was built before 1960.
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Ruskin contains less multifamily housing with five or more units per structure than the county (0% compared to 5.4%). About 100% of housing in Ruskin was single-family detached, compared with 89.7% of the county's housing. According to the Census Bureau, Ruskin had a smaller share of mobile and manufactured housing (0%) compared to the county (2.4%). However, the local planning team noted there are two mobile homes in the community.

This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further, unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

43 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

44 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

45 United States Census Bureau. "2018 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]

46 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

Future Development Trends

Since the 2016 HMP, there has been no new building development in the Village of Ruskin. No new structures were developed in the floodplain or other hazardous areas; however, two hazardous buildings in town were demolished. There are currently no other buildings planned to be demolished as of 2021. As noted in the demographics section, Ruskin's population has declined. There are no new housing, businesses or industry developments planned for the next five years.

Parcel Improvements and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table. No LOMAs were identified for the Village of Ruskin.

Table RUS.2: Ruskin Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
186	69	\$3,467,050	0	0%	\$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical storage sites throughout Ruskin which house hazardous materials. If spills were to occur on Highway 136 no critical facilities or vulnerable populations are directly at risk. The most recent spill occurred in 1996 as a result of a broken hose on a storage tank. It is unknown what chemical was spilled. In the event of a spill, the local fire department and emergency response may be the first to respond to the incident.

Table RUS.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
C & M Supply Inc	4609 Highway 136	No
Cooperative Producers Inc	991 Nebraska St	No

Source: Nebraska Department of Environment and Energy⁴⁷

⁴⁷ Nebraska Department of Environment and Energy. "Search Tier II Data." August 2020.

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table RUS.4: Ruskin Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Hall	Y	Y	N
2	Food, Water, Shelter	Community Center	Y	N	N
3	Food, Water, Shelter	Church	Y	N	N
4	Food, Water, Shelter	Church	Y	N	N
5	Food, Water, Shelter	Water Tower	N	N	N
6	Food, Water, Shelter	Wells	N	Y	N

Figure RUS.3: Ruskin Critical Facilities





Created By: NL
Date: 5/24/2021
Software: ArcGIS Pro 2.8.0
File: Blues Critical Facilities.aprx

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

Village of Ruskin

Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021



Kansas

Historical Occurrences

See the Nuckolls County community profile for historical hazard events.

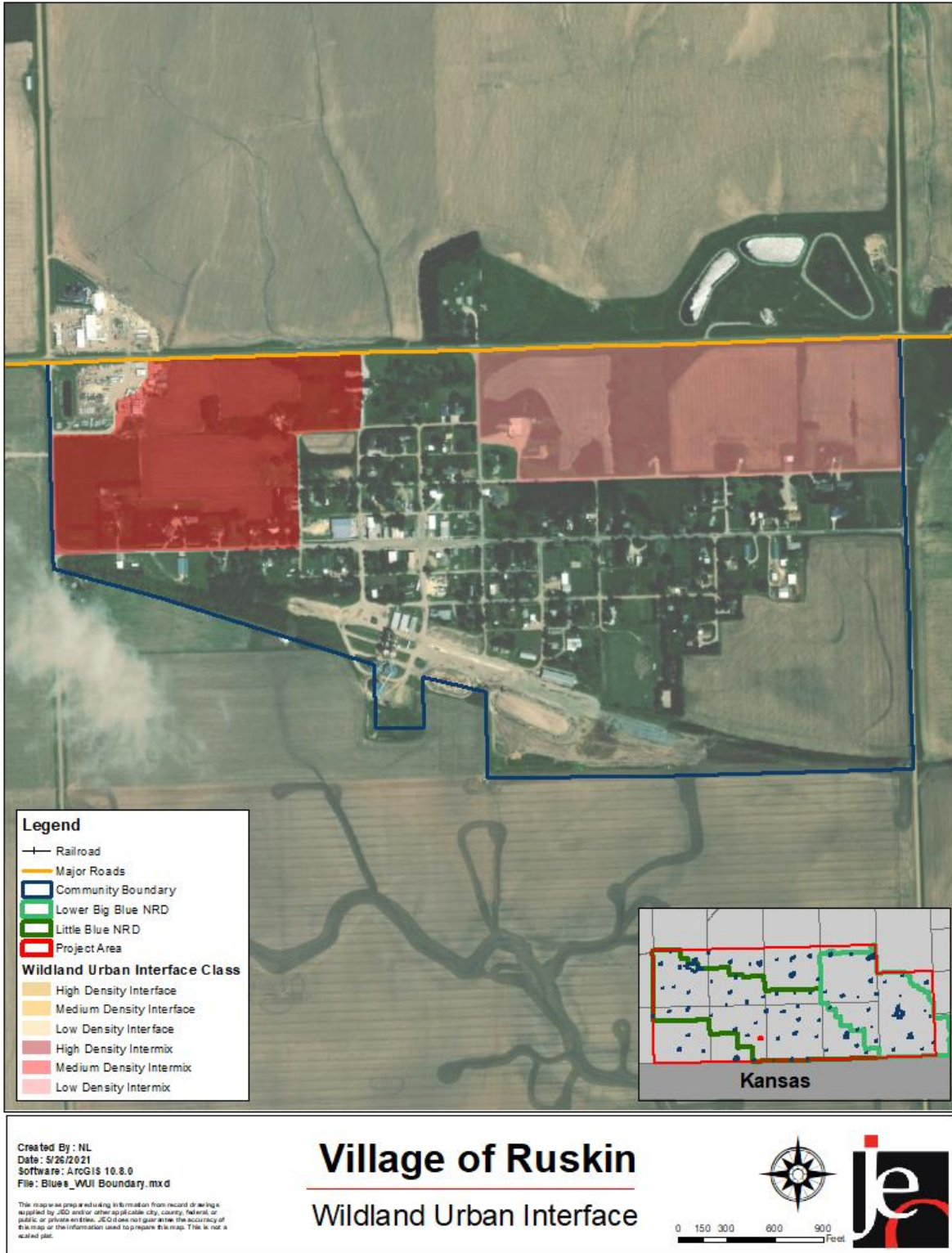
Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Grass Fires and Wildfires

Grass fires and wildfires are a concern due to the risk of spread to the community, which poses risks to residents, property, and agriculture in the surrounding area. Ruskin indicated that field fires are relatively common. These fires often start due to lightning strikes, farm equipment malfunction, or cigarette butt flames. The village fire department maintains two pumpers and two new Nebraska Forest Service tankers. The village recently obtained a generator for the municipal well, which may prove useful during grass and wildfire events. Currently residents are not required or actively encouraged to maintain defensible space around their properties.

Figure RUS.4: Ruskin WUI



Hazardous Materials (Fixed Sites)

Although there is no history of chemical spills in Ruskin, the community does have a very large fertilizer producer in the village. This facility is owned by C&M Supply and contains anhydrous ammonia. The village does not have an evacuation plan in place. The 20-member volunteer fire department would respond if a spill were to occur. Most of these firefighters are not currently trained in hazardous materials response, but all have training in responding to propane incidents.

The village would like to have or engage in an emergency exercise in case of chemical spill events. Other actions identified include developing an evacuation plan and improving emergency response equipment.

Severe Winter Storms

Winter weather is a common occurrence in Nebraska, including the Village of Ruskin. Past major events included during the holiday season of 2009 and the winter of 2018-19. Heavy snowfall ranged from five to nine inches, closed roads, and decreased visibility for travelers. Gusting winds up to 60mph drifted snow throughout the village and caused white-out conditions. Primary concerns for this hazard include loss of power, tree damage, and safety of residents. Since the last update, the village has bought a front wheel drive tractor with a loader and grapple to move both snow and trees. The community hall and two local churches have been identified as local shelter locations in case of major storm events. To mitigate this hazard, the village plans to purchase a backup generator for the community center and trim trees prior to winter storm events.

Tornadoes and High Winds

The Village of Ruskin has experienced damaging tornadoes and high winds in the past. In May 2004, a tornado destroyed five grain bins and broke several power poles totaling \$100,000 in damages. The damages were primarily isolated to just south of Ruskin and damaged material was strewn over two miles. High winds are a regular occurrence and have caused tree and power line damages.

There are no reinforced shelters or safe rooms in the village. The community hall and two local churches have been identified as local shelters or supply depots as needed. A siren is located at the fire hall and is activated through Nuckolls County Emergency Management. Ruskin has indicated a desire to purchase equipment to clean up storm damage. The village has a backup generator at the village well and a new generator at the fire hall. Ruskin has also indicated a project to purchase a backup generator for the community center.

Flooding

Flooding was not identified as a hazard of top concern and only a small portion of land to the northeast of town includes identified flood hazard areas. The village does not participate in the NFIP.

Governance

A community's governance structure impacts its ability to implement hazard mitigation actions. Ruskin has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member village board, a clerk/treasurer, fire chief,

sewer/street commissioner, water commissioner, a county emergency manager, and a water superintendent.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table RUS.5: Capability Assessment

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

Survey Components		Yes/No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No

Table RUS.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Community Support to Implement Projects	High
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The LEOP, which was last updated in 2020 is an annex of Nuckolls County's LEOP. The plan addresses several hazards, with tornados and high winds ranked as the top hazards of concern. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard. The village offices are familiar with the LEOP.

The village has applied for and received grants in the past to assist with project implementation. These grants were used to purchase additional community equipment and to make repairs to the Ruskin Community Building. Currently the municipal budget is limited to maintaining current facilities and systems. A significant portion of the budget is already allocated to maintaining the water system, sewer system, and streets maintenance. Additional funding would be required to implement additional projects.

The South Central Economic Development District has developed a Comprehensive Economic Development Strategy (CEDS) which includes Adams, Clay, Nuckolls, and Webster counties and their communities. The plan was originally developed in 2013 and was updated in 2018. The 2018 CEDS identified several key findings of economic development in the area including:

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more

educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.

- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.
- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

The plan identified and outlined objectives related to three main priority areas: Industry Growth & Innovation, Workforce Development, and Housing. Currently identified objectives do not address natural hazards. Future updates and project implementation should consider integrating hazard mitigation goals and objective.

While the village has not adopted village zoning ordinances or building codes, they follow all county and state requirements. No other planning mechanisms were identified for the Village of Ruskin which integrate hazard mitigation goals and objectives.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the village clerk and village board. The local planning team will review the plan no less than annually and will include the public in the review and revision process by sharing information at board meetings, posting in the public newspaper, social media posts, and the community website.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION		CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment.	
HAZARD(S)	All hazards	
STATUS	Additional fire fighting equipment was purchased through grant funding since 2018.	

MITIGATION ACTION		DAMAGED TREE REMOVAL
DESCRIPTION	Purchase better equipment to remove trees and debris from the streets and yards. This action can reduce the risk of property damage and injury to persons from falling trees during periods of high winds	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes & High Winds	
STATUS	Hazardous trees have been removed and a contractor has been hired to remove other trees on an as needed basis.	

MITIGATION ACTION		REROUTE WATER SUPPLY
DESCRIPTION	Reroute some of the water supply, so that if the water tower is destroyed, the village can route the water from the well into the water mains.	
HAZARD(S)	Tornadoes & High Winds	
STATUS	The system has been updated to allow the village well to automatically pump water to the water supply system. The water tower valve has been closed.	

MITIGATION ACTION		WATER SYSTEM IMPROVEMENTS
DESCRIPTION	Make water system improvements to include additional fire hydrants, increased supply, and pressure.	
HAZARD(S)	Grass/Wildfires, Urban Fires	
STATUS	Four hydrants in town have been upgraded to accommodate a higher capacity.	

Continued Mitigation Actions

MITIGATION ACTION	ALERT SIREN
DESCRIPTION	Perform an evaluation of existing alert sirens to determine if any should be replaced, or if new ones should be obtained.
HAZARD(S)	All hazards
ESTIMATED COST	\$30,000
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Fire Department
STATUS	This action has not yet been started.

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power at the fire department for the siren/emergency communications and at the community center.
HAZARD(S)	All hazards
ESTIMATED COST	\$30,000 per generator
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board, Fire Department
STATUS	A backup generator has been purchased for a city well, however the community center is still in need of a generator.

MITIGATION ACTION	EMERGENCY EXERCISE: HAZARDOUS SPILL
DESCRIPTION	Conduct an exercise to prepare for potential explosions or hazardous spills. Ensure that nearby businesses and residents have appropriate plans in place.
HAZARD(S)	Hazardous Materials (Fixed Sites)
ESTIMATED COST	\$10,000
FUNDING	Village general funds, HMA
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Fire Department
STATUS	Local drills and training have been conducted. A full scale exercise with the county is still needed.

MITIGATION ACTION	EVACUATION PLANNING
DESCRIPTION	Develop an evacuation plan for the village for chemical spills
HAZARD(S)	Hazardous Materials (Fixed Sites)
ESTIMATED COST	\$10,000
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	Plan is currently under development.

SECTION SEVEN: VILLAGE OF RUSKIN COMMUNITY PROFILE

MITIGATION ACTION	FACILITIES FOR VULNERABLE POPULATIONS
DESCRIPTION	Ensure that facilities that will house vulnerable populations are placed in the least vulnerable areas of the community. Harden existing facilities if applicable. (Location of interest is the village community center.)
HAZARD(S)	All hazards
ESTIMATED COST	\$75,000
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	MAP/RELOCATE CRITICAL INFRASTRUCTURE
DESCRIPTION	Conduct an update of town maps to CAD format
HAZARD(S)	All hazards
ESTIMATED COST	\$10,000
FUNDING	Village general funds, HMA
TIMELINE	1 year
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	This project is currently in progress.

MITIGATION ACTION	SAFE ROOMS/STORM SHELTERS
DESCRIPTION	Design and construct storm shelters and safe rooms in City Park, in the central part of the village.
HAZARD(S)	Severe Thunderstorms, Tornadoes & High Winds
ESTIMATED COST	\$200-\$250 per square foot
FUNDING	Village general funds, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	WELL SYSTEM IMPROVEMENTS
DESCRIPTION	Improve community well system
HAZARD(S)	Grass/Wildfires, Urban Fires
ESTIMATED COST	\$50,000
FUNDING	Village general funds, HMA
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Improvements and maintenance are currently in the works for the system.

Removed Mitigation Actions

MITIGATION ACTION	FIRST AID TRAINING
DESCRIPTION	Promote and provide first aid training for all students
HAZARD(S)	All hazards
REASON FOR REMOVAL	This action is not a priority or applicable as there is no school in Ruskin.

COMMUNITY PROFILE

CITY OF SUPERIOR

Little Blue NRD and Lower Big Blue NRD Hazard Mitigation Plan 2021

Local Planning Team

Table SUP.1: City of Superior Local Planning Team

Name	Title	Jurisdiction
Andrew Brittenham	Utility Manager	City of Superior
Chris Petersen	Mayor	City of Superior
Derek Clark	Planning and Zoning	City of Superior
Jon Diehl	City Clerk	City of Superior

Location and Geography

The City of Superior is located in the south central portion of Nuckolls County and covers an area of 1.89 square miles. Major waterways within the area include the Republican River, which runs east to west just south of the city. Lost Creek runs north to south through the western part of the city. Oak Creek runs north to south just outside the city's eastern edge. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The city lies in the plains topographic region and is surrounded by agricultural fields.

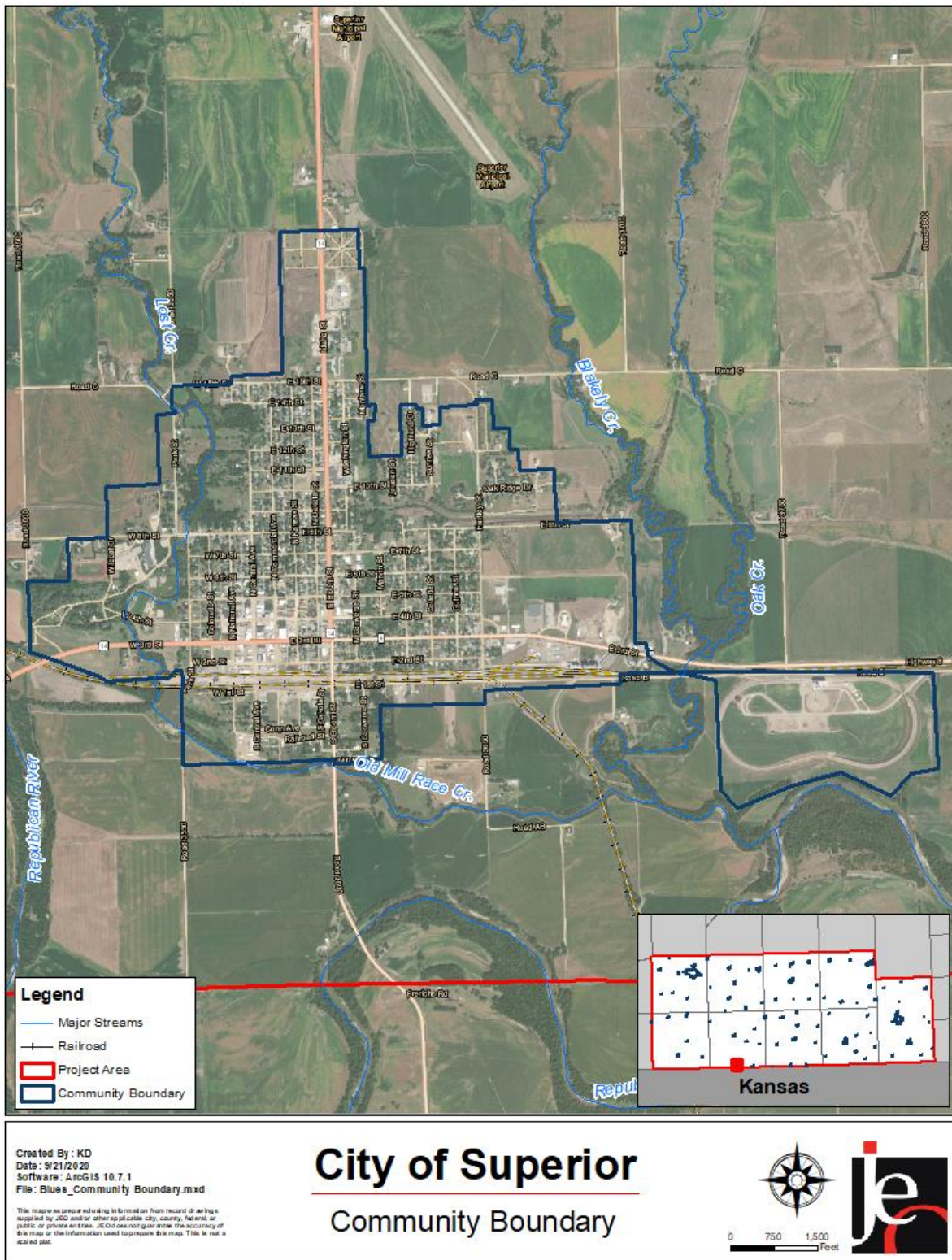
Transportation

Superior's major transportation corridors include State Highway 8 and Highway 14. Highway 8 runs east-west, starts in downtown on the east side of Superior, and accommodates on average 1,330 vehicles per day, 150 of which are heavy commercial vehicles. State Highway 14 runs north-south through the center of the city and accommodates on average 2,325 vehicles per day, 310 of which are heavy commercial vehicles. Critical facilities are located along major transportation routes, including the hospital. Transportation information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Superior has one railroad, the Burlington Northern Santa Fe line. The BNSF runs east-west from Kansas, and passes through Ayr before reaching Hastings. At Hastings, the rail runs east-west and ultimately connects Hastings to Lincoln and Omaha. The greatest amount of rail traffic occurs around the grain storage facilities. Large quantities of hazardous chemicals are commonly transported through the city via both rail and highway. These include fertilizer, propane, diesel, and gasoline.

SECTION SEVEN: CITY OF SUPERIOR COMMUNITY PROFILE

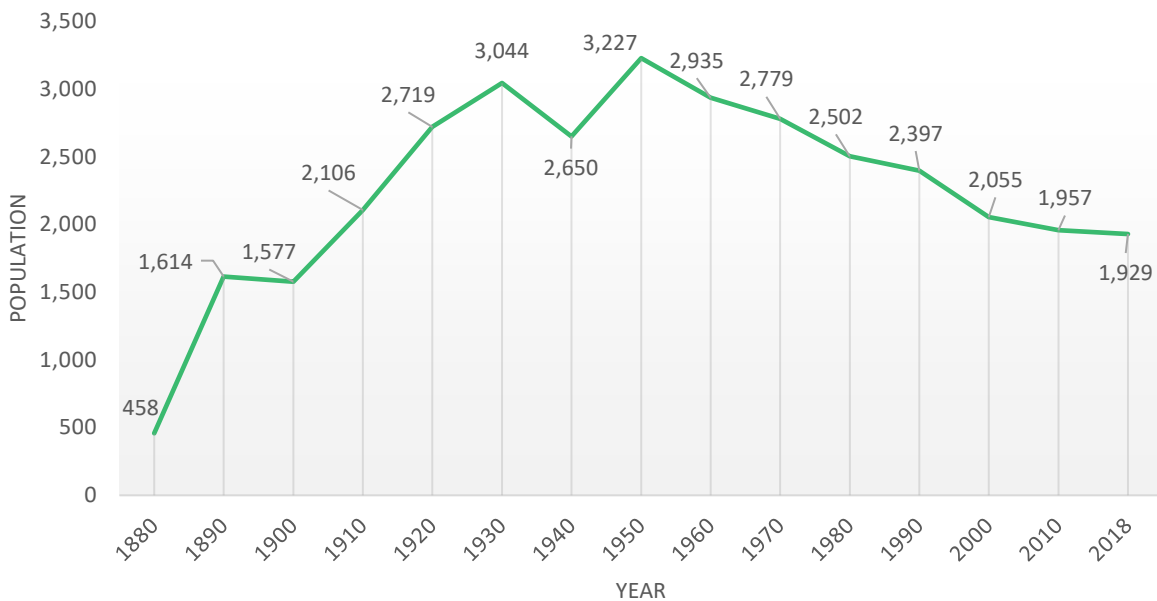
Figure SUP.1: City of Superior Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that the population of Superior has been declining since the 1950s. This is notable for hazard mitigation because communities with a declining population may also have a higher level of unoccupied housing not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. The city's estimated population accounted for 45.1% of Nuckolls County's total population in 2018.

Figure SUP.2: Superior Population 1880-2018



Source: U.S. Census Bureau⁴⁸

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the county, Superior's population was:

- **Younger.** The median age of Superior was 46.7 years old in 2018, compared with the county average of 49.3 years. Superior's population has grown younger since 2010, when the median age was 52 years old. Superior had a larger proportion of people under 20 years old (23.2%) than the county (22.9%).⁴⁹
- **More ethnically diverse.** In 2010, 97% of Superior's population was White, non-Hispanic and 2% was two or more races. By 2018, 96% was White, non-Hispanic, 3% was Asian, and 1% was two or more races. During that time, Nuckolls County grew 1% (Asian) and decreased from 1% to 0% in (some other race alone) and (two or more races).⁵⁰
- **More likely to be at the federal poverty line.** The estimated poverty rate of all persons in Superior was 12.7% in 2018. The poverty rate in the county was 12.2%.⁵¹

48 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

49 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

50 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

51 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

The community's economic base is a mixture of industries. In comparison to Nuckolls County, Superior's economy had:

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Superior included Education, Retail Trade, and Arts/Entertainment. In comparison, Nuckolls County included Education, Agriculture, and Retail Trade.⁵²
- **Less household income.** Superior's median household income in 2018 (\$36,422) was about \$5,627 lower than the county (\$42,049).⁵³
- **More long-distance commuters.** About 49.8% percent of workers in Superior commuted for fewer than 15 minutes, compared with about 56.2% of workers in Nuckolls County. About 34.1% of workers in Superior commute 30 minutes or more to work, compared to about 20.5% of the county workers.⁵⁴

Major Employers

Major employers in Superior include Broadstone Hospital, Aurora Cooperative, Superior Public Schools, and the City of Superior. While the majority of residents work within the city, some residents commute to the surrounding areas for employment.

Housing

In comparison to the county, Superior's housing stock was:⁵⁵

- **Less owner occupied.** About 66.3% of occupied housing units in Superior are owner occupied compared with 75.7% of occupied housing in Nuckolls County in 2018.
- **Greater share of aged housing stock.** Superior has fewer houses built prior to 1970 than the county (79.5% compared to 75.5%).
- **More multi-family homes.** The predominant housing type in the city is single family detached and Superior contains less multifamily housing with five or more units per structure than the county (11% compared to 5.4%). About 82.1% of housing in Superior was single-family detached, compared with 89.7% of the county's housing. Superior has a smaller share of mobile and manufactured housing (2.3%) compared to the county (2.4%). There are approximately 20 mobile homes in the community and 69.3 percent of the community's housing was built before 1960.

This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further, unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

Future Development Trends

Over the past five years the city has demolished several older homes and new homes are currently being built to replace them. Additionally, new roads have been developed and paved in

⁵² United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

⁵³ United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

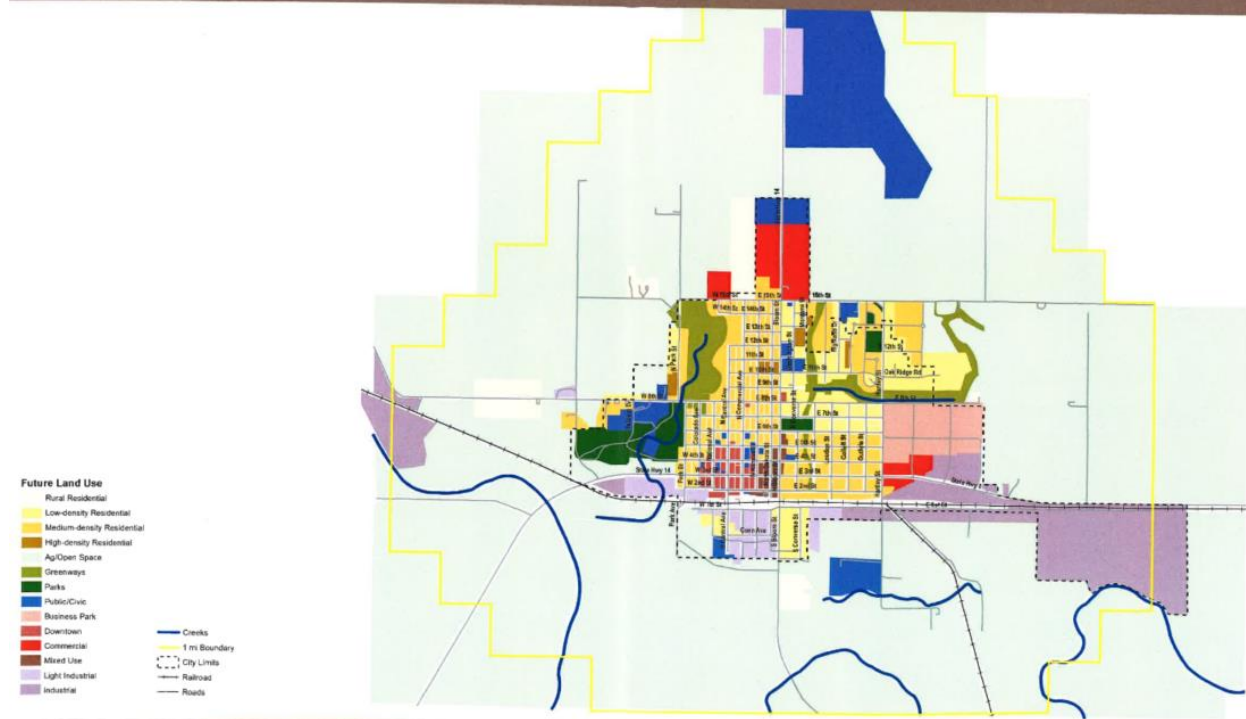
⁵⁴ United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

⁵⁵ United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

the community. Overall, the population of Superior has declined with the local planning team attributing this decline to a reduction in available jobs.

In the next five years the city has new housing planned through a NIHA and rural workforce development funding. Additionally, three private homes are planned for construction and additional industry will be developed in Industry Park.

Figure SUP.3: Future Land Use Map



Parcel Improvements and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table. Several structures in Superior have been removed from the floodplain via LOMA. A summary of LOMAs identified for Superior can be found in the table below.

Table SUP.2: Superior Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
1,460	927	\$44,390,030	82	9%	\$3,227,320

Source: County Assessor, GIS Workshop

Table HAS.3: Hastings Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	06-07-B613A-310160	7/12/2006	Property removed from SFHA
LOMA	11-07-2118A-310160	10/06/2011	Property removed from SFHA
LOMA	12-07-0310A-310160	1/17/2016	Property removed from SFHA
LOMA	12-07-0317A-310160	1/12/2012	Property removed from SFHA
LOMA	12-07-1322A-310160	2/7/2012	Property removed from SFHA
LOMA	12-07-1709A-310160	3/22/2012	Property removed from SFHA
LOMA	19-07-1749A-310160	9/11/2019	Portion of property removed from SFHA
LOMA	19-07-1784A-310160	11/1/2019	Portion of property removed from SFHA
LOMA	20-07-0616A-310160	2/26/2020	Portion of property removed from SFHA
LOMA	20-07-0762A-310160	4/21/2020	Property removed from SFHA
LOMA	20-07-0908A-310160	5/13/2020	Portion of property removed from SFHA

Source: FEMA Flood Map Service Center

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are six chemical storage sites throughout Superior which house hazardous materials. In addition to the facilities listed by NDEE, the local planning team noted the City of Superior Chlorination Plant also houses hazardous chemicals but is not located in the floodplain.

In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. Primary concerns exist for highways and neighboring businesses which would be impacted in case of chemical spill. Past events have impacted the community by closing Highway 14 southwest of town.

Table SUP.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Holcim US Inc	W 8th St	No
Nutrien Ag Solutions	1221 E 3rd St	No
C & M Supply Inc	922 Road 3300	No
Blackstone Aerial Spraying LLC	422 Highway 14	No
NDOT Superior Yard	1330 E 3rd St	No
Aurora Co-op Elevator Company	161 W 2nd St	No

Source: Nebraska Department of Environment and Energy⁵⁶

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

⁵⁶ Nebraska Department of Environment and Energy. "Search Tier II Data." August 2020.

The following table and figure provide a summary of the critical facilities for the jurisdiction.

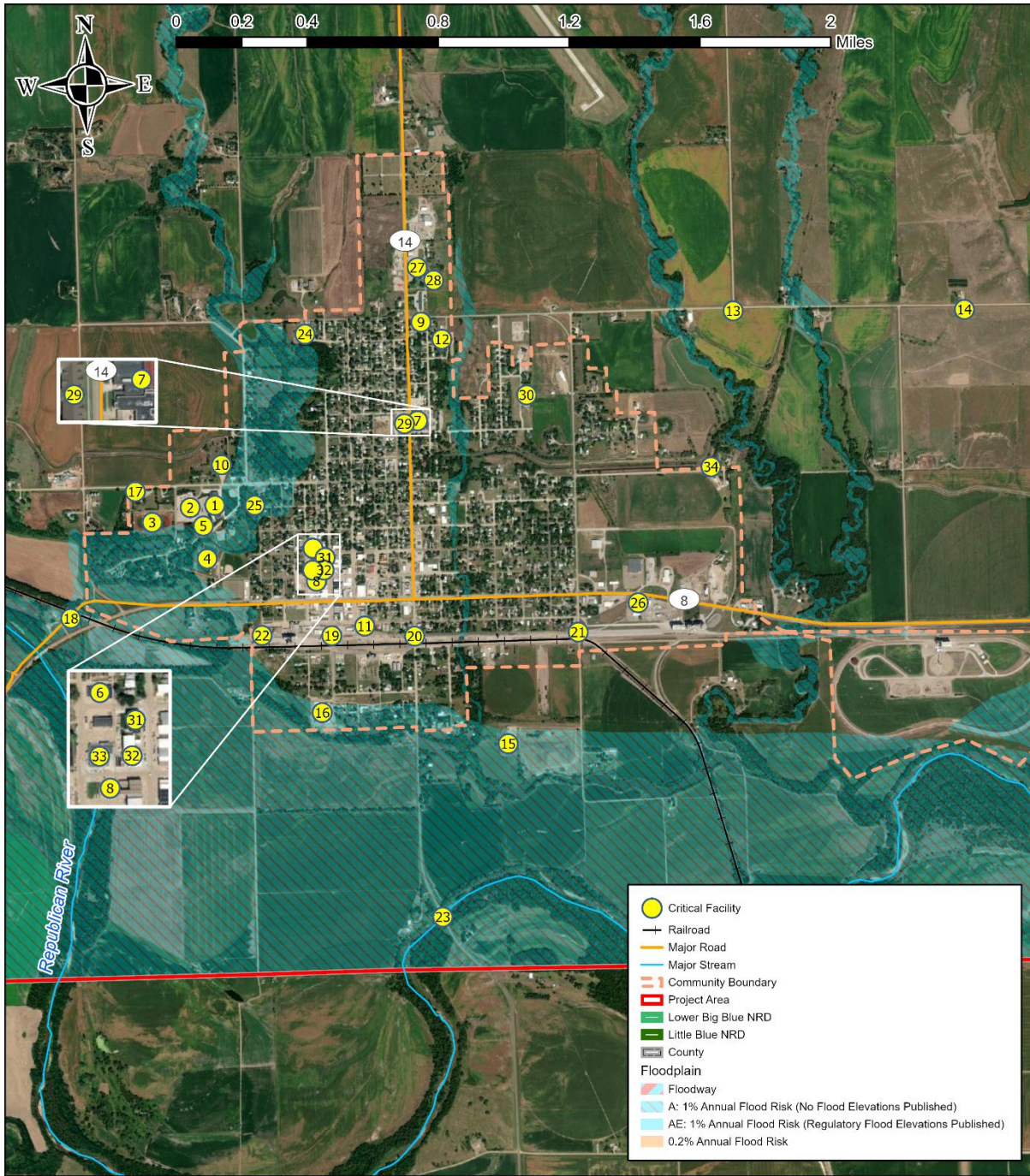
Table SUP.4: Superior Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Food, Water, Shelter	Elementary School	Y	N	N
2	Food, Water, Shelter	Junior/Senior High School	Y	N	N
3	Other	Track	N	N	N
4	Other	Football Field	N	N	Y
5	Transportation	Bus Barn	Y	N	N
6	Safety & Security	Public Safety Building (police, fire)	Y	Y	N
7	Health & Medical	Hospital	Y	Y	N
8	Safety & Security	City Office	N	N	N
9	Food, Water, Shelter	Water Tower	N	Y	N
10	Communications	Radio Station	N	N	N
11	Energy	South Sub Station	N	N	
12	Energy	North Sub Station	N	Y	N
13	Food, Water, Shelter	Well #2	N	N	N
14	Food, Water, Shelter	Well #3	N	Y	N
15	Health and Medical	Wastewater Treatment	Y	Y	Y
16	Safety & Security	City Yard	Y	Y	Y
17	Energy	Town Border Station (Natural Gas)	N	N	N
18	Energy	Southern Star Pipeline Border Station	N	N	Y
19	Transportation	Critical Access Point (RR Crossings)	N	N	N
20	Transportation	Critical Access Point (RR Crossings)	N	N	N
21	Transportation	Critical Access Point (RR Crossings)	N	N	N
22	Transportation	Critical Access Point (RR Crossings)	N	N	N
23	Transportation	Critical Bridge	N	N	Y
24	Health and Medical	North Lift Station	N	N	N
25	Health and Medical	West Lift Station	N	N	Y
26	Health and Medical	East Lift Station	N	N	N
27	Health and Medical	Good Samaritan-Nursing Home	Y	Y	N

SECTION SEVEN: CITY OF SUPERIOR COMMUNITY PROFILE

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
28	Health and Medical	Wilde Ridge Assisted Living	Y	Y	N
29	Health and Medical	Kingswood Court-Assisted Living	Y	N	N
30	Health and Medical	Victorian Legacy-Assisted Living	Y	Y	N
31	Health and Medical	Vestey Center-Senior Living	Y	N	N
32	Health and Medical	Superior Manor-Congregate Living	Y	N	N
33	Food, Water, Shelter	Ideal Market Grocery	Y	N	N
34	Hazardous Materials	Municipal Treatment Plant	Y	Y	N

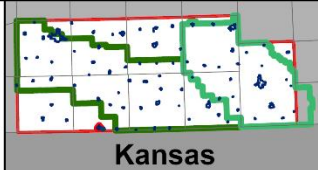
Figure SUP.4: Superior Critical Facilities




 Created By: NL
 Date: 6/23/2021
 Software: ArcGIS Pro 2.8.1
 File: Blues Critical Facilities.aprx
 This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

City of Superior

Little Blue NRD and Lower Big Blue NRD
Hazard Mitigation Plan 2021



Historical Occurrences

See the Nuckolls County community profile for historical hazard events.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Dam Failure

The Harlan Reservoir Dam is a high-hazard dam located in Harlan County. If this dam were to fail, water from the Republic River could inundate approximately 30% of the City of Superior, specifically areas south of the railroad tracks, city shops, and the wastewater treatment plant would experience flooding impacts. This dam was constructed in 1939, following a devastating flood during 1935. The dam was renovated and modernized in 2018 by the USACE.

If a dam failure were to occur, the fire stations would go door to door to notify residents. The city also expressed concerns about agricultural contamination in Harlan Lake and the impacts that dam failure could have in this regard. If a dam failure were to occur, local farmers would assist in the cleanup efforts.

To mitigate this hazard, the city plans to work with stakeholders to develop a database of vulnerable populations, and the organizations that support them; establish an action plan to improve communication between agencies, to better assist residents and businesses during and following emergencies; and establish interoperable communications; and hold a mock disaster exercise for the city.

Drought and Extreme Heat

The main concerns for drought revolve around interrupting the city's water supply. The city has adopted ordinances to use should it be necessary to curb water use in the future. Significant drought impacts in the 2012 and 2013 seasons caused local water shortages from well drawn down and irrigation.

The city has already completed a drought management plan, and has assessed its vulnerability to drought, how it will monitor drought conditions and the water supply and has protocols for handling drought on standby. Superior has also completed a wellhead protection plan, which serves as a source water contingency plan as well. This city has identified projects to implement water system improvements by encourage efficient use of sprinkler systems, residential rain gardens, and incorporating native species into landscaping. Additionally the city has identified the need to drill additional test wells in 2021.

Flooding

The southern portion of the City is in the floodplain, as well as several creeks which bisect the city north to south. A large area of the city is in the floodplain, with many residential structures. The city maintains two separate sewer systems. Base flood elevations have recently been calculated for the city. The city would like to increase permeable space and has removed several homes from the floodplain in recent years. During 2018 and 2019, major flooding occurred which damaged local parks, streets, the golf course, and the wastewater treatment plant. The city currently has a NEMA project proposed for 2021 to clean and clear out Lost Creek.

To further mitigate this hazard, the city plans to work with stakeholders to develop a database of vulnerable populations, and the organizations that support them; establish an action plan to improve communication between agencies, to better assist residents and businesses during and following emergencies; finish cleaning culverts; continue to acquire properties in the floodplain; and continue floodplain management activities.

Grass Fires/Wildfire

This hazard is mainly a concern for wildland urban interface areas near parks and the school. The city expressed concerns with the difficulty of containing these fires. The city has one ladder truck, five pumper trunks/tankers, and two grass rigs. The newest pumper truck was purchased in 2017. Additionally, the city removed dead or dying trees around the city to reduce potential fuel loads. The local fire department has undergone training to respond to grass/wildfire events. Local concerns for grassfires include impacts to local infrastructure and demands on the local water supply.

To mitigate this hazard, the city plans remove trees and shrubs; work with stakeholders to develop a database of vulnerable populations, and the organizations that support them; establish an action plan to improve communication between agencies, to better assist residents and businesses during and following emergencies; and establish interoperable communications; implement water system improvements; and conduct an emergency exercise

Hazardous Materials (Transportation)

There is a BN rail line that travels east to west through the southern portion of the city. Two chemical mixing plants are within the city limits (Aurora COOP and Nutrien). Nutrien is a mixing point along the rail spur. Materials are brought in via rail, mixed, and then leave Superior via truck. While the City of Hastings would help with larger spills if they were to occur, the local fire departments would use their hazardous materials trailer to cleanup smaller spills. If an accident were to occur in which all the railway crossings were blocked, the area of the community south of the rail line may have difficulty evacuating or getting assistance from the northern areas of the community. Superior identified projects such as improving emergency communications and conducting emergency exercises to mitigate this hazard.

Severe Winter Storms

A severe winter storm in 2006 caused significant damage to the community. Transmission lines were knocked down throughout the city and loss of power is the primary concern for the city. The city presently has electric system looped distribution/redundancies, designated snow routed, and strong snow removal program, and strong capabilities for rescue/ snow removal. The city currently has five dump trucks, a grader, a loader, and a new snowplow to assist in snow removal. The city

has a current snow plan to prioritize locations for snow removal, such as police, fire, and hospital roads.

To mitigate this hazard, the city plans to obtain backup power generators for the electric department; remove trees and shrubs; work with stakeholders to develop a database of vulnerable populations, and the organizations that support them; establish an action plan to improve communication between agencies, to better assist residents and businesses during and following emergencies; establish interoperable communications; and conduct wind break studies.

Tornadoes and High Winds

On June 20, 2010, a tornado came through the city but did not cause substantial damages. The tornado started in northwest Superior and touched down near 8th and Kansas St. Few structures were damaged, but one structure was completely destroyed, and many trees were damaged. The east side of town lost power.

The city has three rotating sirens, with one stationary siren near the fire hall on north 13th Street. The sirens are run through the county but are city owned. The city has many weather radios but may need to purchase more. The city does have an informal shelter under the fire hall, but it is not handicap accessible. Approximately 200 people could fit in this shelter, but if fire evacuation standards are abided this number would be reduced to approximately 25 people. The informal storm shelter rooms at the grade school are handicap accessible and have plenty of room for the children. The city has two jail cells that would be used in case of emergency, with a capacity of 15-20 people per cell. The city has 31 volunteer fire fighters and nine EMTs.

Governance

A community's governance structure impacts its ability to implement hazard mitigation actions. Superior has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a mayor, a six-member city council, clerk, treasurer, attorney, utility manager, chief of police, fire chief, sewage plant operator, electric department, streets department, gas department, water department, parks & recreation department, and EMTs.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table SUP.5: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Local Emergency Operational Plan	Yes
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Building Codes	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
Administrative Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	1 & 6 Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education Outreach	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes (gas)
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No

Survey Components		Yes/No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table SUP.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The city has applied for and received numerous grants including those for downtown revitalization, housing rehabilitation, storm sewer upgrades and planning, and hazard mitigation assistance projects. The local planning team that the annual municipal budget is generally limited to maintaining current infrastructure, but funds have increased in recent years and new projects are allocated through the Capital Improvements Plan process. A large gas (energy supply) project is planned for 2021 and a water system improvement project is planned for 2021-2023.

The City of Superior last updated their comprehensive plan in 2021. This plan does contain current and future land use maps. The future land use maps do not promote development inside the floodplain or other hazard prone areas. The plan calls for growth away from hazardous areas. The plan outlines strategies for the city's physical and natural environment, parks and public facilities, transportation and infrastructure, and energy and sustainability. The plan outlines the following priority infrastructure projects:

Water System

- Explore the possibility of a new well field immediately south and east of the existing city wells. This project has been identified for within the 2021 budget. Although the wells may not be needed for several years, by identifying a location for future wells the site can be protected and available when the need arises.
- Complete recommended water distribution and supply improvements identified in the 2005 Utility System Master Plan study.
- Consider implementing a valve replacement program.

Sanitary System

- Complete the improvements recommended in the 2005 Utility System Master Plan Study.
- Consider completing a detailed manhole defect investigation on the existing manholes within the system.
- Disconnect the sanitary system from the existing area inlet north of the implement dealership to prevent storm water inflow from entering the sanitary collection system.

Storm Sewer

- Proceed with the primary improvement identified in the 2005 Utility System Master Plan Study. This will help eliminate the drainage problem at 5th Street and Central Avenue and reduce the storm water that runs along Central Avenue in the downtown.
- The balance of identified recommendations from the USMP can be implemented with a phased approach.

Natural Gas System

- The existing system should be replaced with a new system over the next five years. Work has recently been completed on some gas lines and mains, and this process should continue. In 2021 the system will be switched to a standard pressure of 35 psrg.
- The existing 18-ounce pressure system is the element of the system in the worst condition and should take priority in the replacement time line.
- The balance of recommendations should be completed in a timely manner as outlined in the USMP.

Electrical System

- Implement specific upgrades as outlined in the 2005 Utility System Master Plan study as they relate to updates and reliability improvements.
- Work to establish a phased improvement program, so that future rebuild projects are of a manageable size and cost.
- Ensure that substations are retrofitted to prevent unintentional pollution during failures and catastrophic events and conform to the EPA's Oil Spill Prevention, Control, and Countermeasure (SPCC) plan.

The LEOP, which was last updated in 2020 is an annex of Nuckolls County's LEOP. The plan addresses several hazards, with tornados and high winds ranked as the top hazards of concern. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard. The city hall and utilities office are familiar with this plan.

The city's zoning ordinances were last updated in 2020. The zoning ordinance discourages development in hazard prone areas, such as the floodplain, but does not prohibit it. The ordinance does not contain natural hazard or WUI layers. The zoning ordinances do not account for population changes when considering future land use and does not limit the density of development in the floodplain. There are no requirements that floodplains be kept as open space. The city has adopted the 2018 International Building Code. There are elevation requirements in the floodplain and also wind resistant construction requirements.

The city's floodplain regulations/ordinance was last updated in 2018. The ordinance does meet minimum state and federal requirements. This ordinance does prohibit development within floodplains. The city's subdivision regulations were last updated in 2020. These regulations do not seek to conserve environmental resources, nor do they place density restrictions in hazard prone areas. The regulations no not allow for density transfers to avoid building in hazard prone areas.

The South Central Economic Development District has developed a Comprehensive Economic Development Strategy (CEDS) which includes Adams, Clay, Nuckolls, and Webster counties and

their communities. The plan was originally developed in 2013 and was updated in 2018. The 2018 CEDS identified several key findings of economic development in the area including:

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.
- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

The plan identified and outlined objectives related to three main priority areas: Industry Growth & Innovation, Workforce Development, and Housing. Currently identified objectives do not address natural hazards. Future updates and project implementation should consider integrating hazard mitigation goals and objective.

Plan Maintenance

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

The City of Superior last reviewed their section of the HMP in January 2020 with the local planning team which includes the Mayor, Utility Manager, Planning and Zoning, and City Clerk. Revisions noted for the HMP and incorporated included changes to streets improvement projects, recreation and quality of life priorities, and solid waste improvement projects. The local planning team will review the Community Profile annually at a minimum. The public will be notified and involved in

the update review process through newspaper publications, social media outreach, and resources available on the City's website.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	DATABASE OF VULNERABLE POPULATIONS
DESCRIPTION	Work with stakeholders to develop a database of vulnerable populations, and the organizations that support them
HAZARD(S)	All hazards
STATUS	This project was completed by Planning and Zoning Commission.

MITIGATION ACTION	DRAINAGE STUDY/STORM WATER MASTER PLAN
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.
HAZARD(S)	Flooding
STATUS	This plan was developed in 2018 with the assistance of a storm water grant.
FUNDING	City General Fund, HMA

MITIGATION ACTION	EMERGENCY COMMUNICATIONS
DESCRIPTION	Establish an action plan to improve communication between agencies, to better assist residents and businesses during and following emergencies; and establish interoperable communications. Develop a Facebook page for city utility information
STATUS	The city has developed a Facebook page and created a business disaster assistance list.

MITIGATION ACTION	EMERGENCY OPERATIONS
DESCRIPTION	Identify and establish an Emergency Operations Center
HAZARD(S)	All hazards
STATUS	The Public Safety Building has been established as an EOC.

MITIGATION ACTION	PURCHASE A PUMPER TRUCK (FIRE DEPARTMENT)
DESCRIPTION	Purchase a pumper truck for the fire department
HAZARD(S)	Urban and Grass Fire
STATUS	A pumper truck was purchased in 2017 (\$180,000).

MITIGATION ACTION	SNOWPLOW
DESCRIPTION	Purchase a new snowplow
HAZARD(S)	Severe Winter Storms
STATUS	A new snowplow was purchased in the spring of 2020 for the City.

Continued Mitigation Actions

MITIGATION ACTION	ALERT SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens (on the south end of town) to determine if any should be replaced, or where any new ones should be placed
HAZARD(S)	All hazards
ESTIMATED COST	\$15,000+
FUNDING	City General Fund, Sales tax, Lottery funds, HMA
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	City Clerk
STATUS	This project is currently in progress to evaluate siren needs.

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power for critical facilities. Locations previously identified are the schools and maintenance shops.
HAZARD(S)	All hazards
ESTIMATED COST	\$22,000
FUNDING	City utility fund, School funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Utility Department
STATUS	One generator purchased for the utilities with a second generator budgeted in 2022. Additional generators are needed for city departments (3 total) and one for shelters.

MITIGATION ACTION	EMERGENCY EXERCISE: HAZARDOUS SPILL
DESCRIPTION	Conduct exercise to prepare for potential explosions or hazardous spills, and ensure that nearby businesses and residents have appropriate plans in place
HAZARD(S)	Hazardous Materials (Transportation)
ESTIMATED COST	\$1,000+
FUNDING	City General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	City Council, Local Schools
STATUS	This project has not yet been started.

SECTION SEVEN: CITY OF SUPERIOR COMMUNITY PROFILE

MITIGATION ACTION	FLOODPLAIN MANAGEMENT
DESCRIPTION	Preserve natural and beneficial functions of floodplain land through measures such as: retaining natural vegetation, restoring streambeds, and preserving open space in the floodplain.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000
FUNDING	City General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Planning Department
STATUS	The City is currently working to acquire funding.

MITIGATION ACTION	HAZARDOUS TREE REMOVAL
DESCRIPTION	Removal hazardous trees and shrubs to reduce debris damage
HAZARD(S)	All hazards
ESTIMATED COST	\$100,000
FUNDING	City General Fund, Private Donations, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Utility Manager, Parks Department
STATUS	The city has removed 89 cottonwood trees for the development of a new baseball field, 25 for a new bridge, and trees north of the football field. The city also removes trees which pose the greatest risk to the city and is currently exploring options for the remaining (~55) trees.

MITIGATION ACTION	IMPROVE OR ACQUIRE PROPERTY AT HIGH RISK TO FLOODING
DESCRIPTION	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
HAZARD(S)	Flooding
ESTIMATED COST	\$200,000
FUNDING	Keno funds, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Planning/Zoning Department
STATUS	Flood prone properties are demolished each year as funds are available. Five homes were demolished in 2019 and six were demolished in 2020.

SECTION SEVEN: CITY OF SUPERIOR COMMUNITY PROFILE

MITIGATION ACTION	NATIVE SPECIES INTEGRATION
DESCRIPTION	Incorporate native species into municipal and residential landscapes
HAZARD(S)	Drought and Extreme Heat
ESTIMATED COST	Staff Time
FUNDING	City General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Water Committee
STATUS	A committee and plan still need to be created to accomplish this.

MITIGATION ACTION	SAFE ROOM / STORM SHELTER
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas. This could be the new park building or some other undetermined location.
HAZARD(S)	Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sf stand-alone; \$150-\$200/sf addition/retrofit
FUNDING	City General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	City Council/EMS
STATUS	A storm shelter has been established at the school. Additional storm shelters are needed for mobile homes and campgrounds.

MITIGATION ACTION	WATER SYSTEM IMPROVEMENTS
DESCRIPTION	Encourage individual homeowners to use rain gardens and efficient sprinkler systems.
HAZARD(S)	Drought and Extreme Heat
ESTIMATED COST	Staff time
FUNDING	City General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Water Committee
STATUS	A committee and plan still need to be created.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities. Provide new radios if needed
HAZARD(S)	All hazards
ESTIMATED COST	\$50 per radio
FUNDING	City General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	City Clerk
STATUS	Radios were purchased in 2015 for most facilities; however, a new inventory is needed to determine local needs.

MITIGATION ACTION	WIND BREAK STUDY
DESCRIPTION	Conduct a study to identify areas in need of “shelter belts” or wind breaks.
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	\$5,000
FUNDING	City General Fund, NRD, HMA
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	City Clerk/ Park Board
STATUS	This project is currently in progress through the Park Board.

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	BANK STABILIZATION
DESCRIPTION	Clean out and stabilize the banks along the Lost Creek Drain
HAZARD(S)	Flooding
ESTIMATED COST	\$100,000
FUNDING	General Fund, NRD cost share, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Utilities Manager
STATUS	This is a new mitigation action.

Removed Mitigation Actions

MITIGATION ACTION	PURCHASE A NEW WARNING SYSTEM
DESCRIPTION	Replace old warning system units
HAZARD(S)	All hazards
REASON FOR REMOVAL	The current system is sufficient for municipal needs and is tested monthly by the county.