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# COUNTY PROFILE

## NANCE COUNTY

### Lower Loup Natural Resources District Hazard Mitigation Plan 2022

## Local Planning Team

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**Table NAN.1: Nance County Local Planning Team**

NAME	TITLE	JURISDICTION
JENNA CLARK	Region 44 Emergency Manager	Boone, Nance, and Merrick Counties
BEN BAKEWELL	Nance County Sheriff	Nance County
SUANN ENGEL	HR/Budget	Nance County

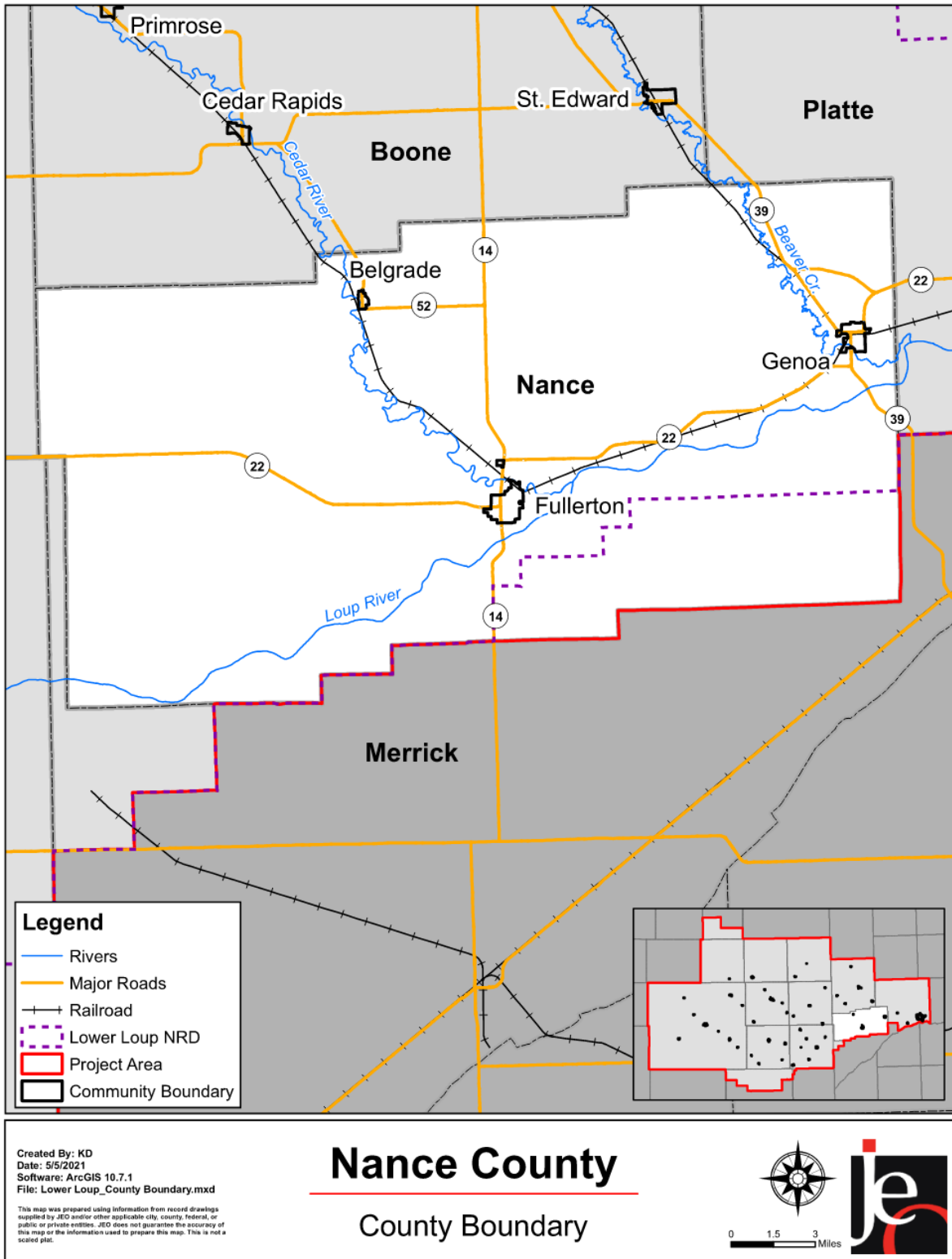
## Location, Geography, & Climate

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Nance County is in eastern central Nebraska and is bordered by Merrick County, Platte County, Howard County, Greeley County, and Boone County.

The total area of Nance County is 448 square miles. Major waterways within the county include the Loup River and the Cedar River. The county is not heavily forested, nor is it located in a geographic area of the state prone to landslides. Most of Nance County lies in the dissected plains topographic region, with much of the county’s land characterized by agricultural fields.

Figure NAN.1: Nance County Jurisdictional Boundary



## Climate

The average high temperature in Nance County for the month of July is 85.4 degrees and the average low temperature for the month of January is 13.4 degrees. On average, Nance County receives over 27 inches of rain and 28 inches of snowfall per year. The following table compares these climate indicators with those of the entire 11-county planning area and the state. 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 NAN.2: Nance County Climate Normals**

	NANCE COUNTY	PLANNING AREA	STATE OF NEBRASKA
<b>JULY NORMAL HIGH TEMP</b>	85.4°F	62.7°F	87.4°F
<b>JANUARY NORMAL LOW TEMP</b>	13.4°F	12.1°F	13.9°F
<b>ANNUAL NORMAL PRECIPITATION</b>	27.7 inches	26.36 inches	24.0 inches
<b>ANNUAL NORMAL SNOWFALL</b>	28.9 inches	28.6 inches	28.2 inches

Source: NCEI 1991-2020 Climate Normals<sup>1</sup>

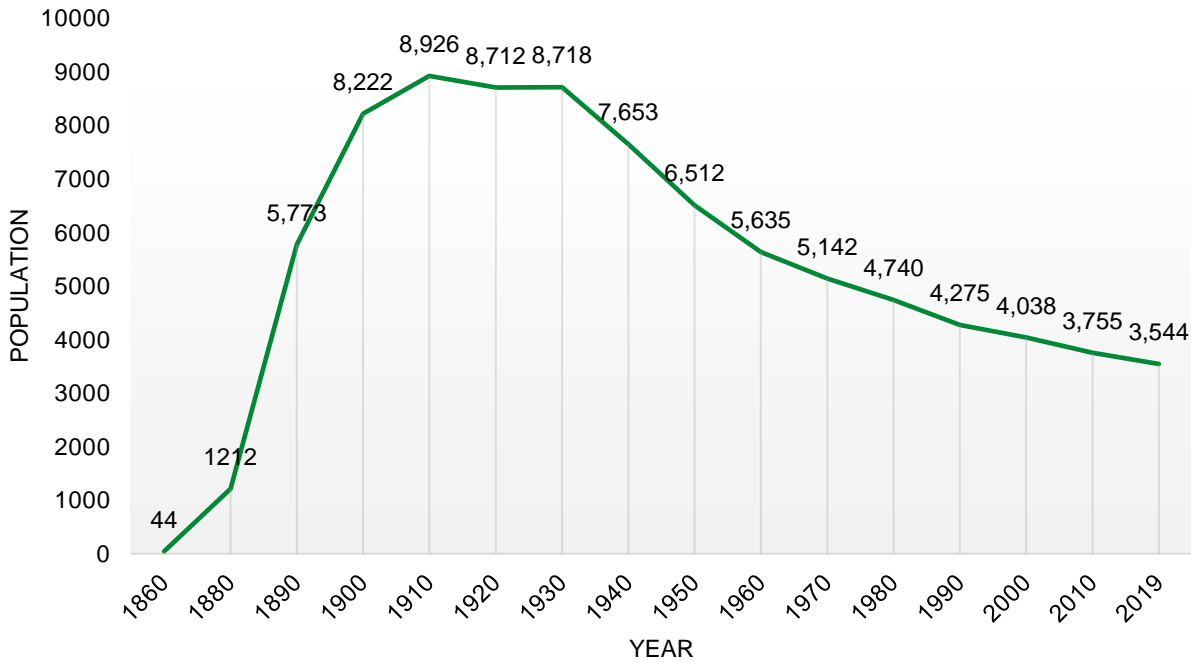
Precipitation includes all rain and melted snow and ice.

## Demographics

The following figure displays the historical population trend from 1860 to 2019. This figure indicates that the population of Nance County has been declining since 1910. 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 will 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 county which could make implementation of mitigation actions more fiscally challenging.

<sup>1</sup> NOAA National Centers for Environmental Information. May 2021. "Data Tools: 1991-2020 Normals." [datafile]. <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

**Figure NAN.2: Nance County Population 1860-2019**



Source: U.S. Census Bureau<sup>2</sup>

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

**Table NAN.3: Population by Age**

AGE	NANCE COUNTY	STATE OF NEBRASKA
<5	5.6%	6.9%
5-64	74.0%	78.1%
>64	20.4%	15.0%
<b>MEDIAN AGE</b>	44.8	36.4

Source: U.S. Census Bureau<sup>3</sup>

The following table indicates that the county’s median household income is significantly lower than the state while per capita income is slightly lower. Median home values and rent are significantly lower compared to the state. 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.

<sup>2</sup> United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]  
<sup>3</sup> United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]

SECTION SEVEN: NANCE COUNTY PROFILE

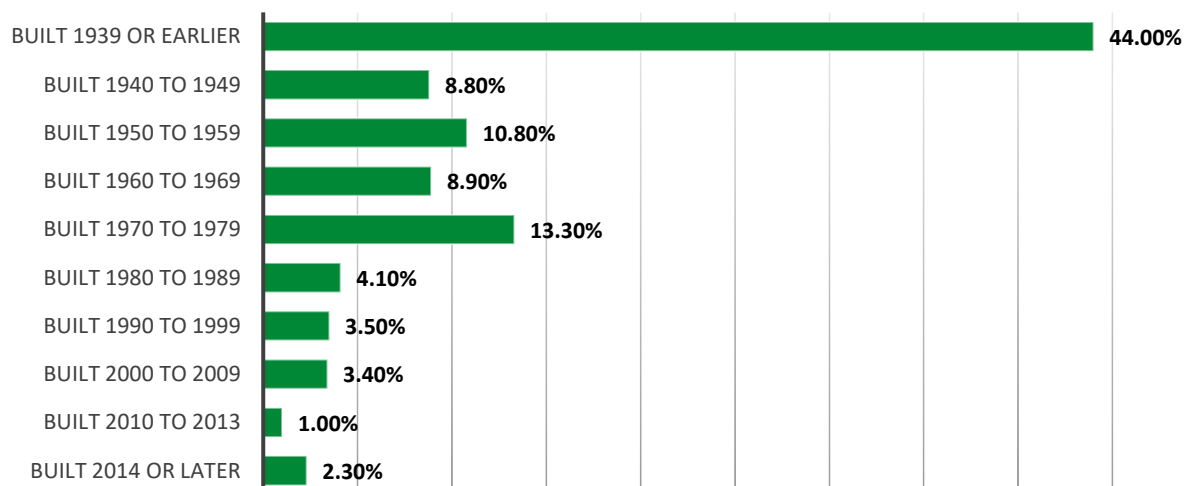
**Table NAN.4: Housing and Income**

AGE	NANCE COUNTY	STATE OF NEBRASKA
<b>MEDIAN HOUSEHOLD INCOME</b>	\$49,032	\$59,116
<b>PER CAPITA INCOME</b>	\$29,454	\$31,101
<b>MEDIAN HOME VALUE</b>	\$78,300	\$147,800
<b>MEDIAN RENT</b>	\$586	\$805

Source: U.S. Census Bureau<sup>4,5</sup>

The following figure indicates that the majority of the housing in Nance County was built prior to 1940. According to the United States Census Bureau 2019 ACS 5-year estimates, the county has 1,856 housing units; with 83.3 percent of those units occupied. Approximately 2.8 percent of the county’s housing is classified as mobile homes. 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, with the International Building Code adopted in 2010. The current edition of the IBC was updated in 2018. Finally, communities with a substantial number of mobile homes may have a higher number of residents vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

**Figure NAN.3: Housing Units by Age**



Source: U.S. Census Bureau<sup>6</sup>

**Table NAN.5: Housing Units**

JURISDICTION	TOTAL HOUSING UNITS				OCCUPIED HOUSING UNITS			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>NANCE COUNTY</b>	1,546	83.3%	310	16.7%	1,244	80.5%	302	19.5%
<b>NEBRASKA</b>	754,063	90.8%	76,686	9.2%	498,567	67.1%	255,496	33.9%

Source: U.S. Census Bureau<sup>7</sup>

4 United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

5 United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

6 United States Census Bureau. "2019 American Fact Finder: SP04: Selected Housing Characteristics." [database file]

7 United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." [database file]



## Employment Factors

According to 2018 Business Patterns Census Data, Nance County had 89 business establishments. 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 NAN.6: Businesses in Nance County**

	TOTAL BUSINESSES	NUMBER OF PAID EMPLOYEES	ANNUAL PAYROLL (IN THOUSANDS)
<b>TOTAL FOR ALL SECTORS (2014)</b>	104	485	\$11,729
<b>TOTAL FOR ALL SECTORS (2016)</b>	101	496	\$13,202
<b>TOTAL FOR ALL SECTORS (2018)</b>	89	450	\$12,557

Source: U.S. Census Bureau<sup>8,9</sup>

Agriculture is also important to the economic fabric of Nance County, and the state of Nebraska as a whole. Nance County's 375 farms cover 220,091 acres of land. 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 NAN.7: Nance County Agricultural Inventory**

	2012 CENSUS	2017 CENSUS	PERCENT CHANGE
<b>NUMBER OF FARMS WITH HARVESTED CROPLAND</b>	355	375	5.63%
<b>ACRES OF HARVESTED CROPLAND</b>	208,146	220,091	5.74%

Source: USDA Census of Agriculture<sup>10,11</sup>

## Governance

A community's governance structure impacts its capability to implement mitigation actions. The county is governed by a seven-member board of supervisors. The county also has the following offices or departments: assessor, attorney, clerk, county court, district court, emergency management, planning and zoning, register of deeds, roads, sheriff, treasurer, veterans office, and weed control. Other agencies which may assist with hazard mitigation planning or project implementation include Nance County Agricultural Society, East Central Nebraska COAD, Nance County Safety Committee, and the County UNL Extension Office.

8 2016 County Business Patterns and 2016 Nonemployer Statistics. <https://www.census.gov/programs-surveys/cbp/technical-documentation/methodology.html> and <https://www.census.gov/programs-surveys/nonemployer-statistics/technical-documentation/methodology.html>.

9 2018 County Business Patterns and 2018 Nonemployer Statistics. <https://www.census.gov/programs-surveys/cbp/technical-documentation/methodology.html> and <https://www.census.gov/programs-surveys/nonemployer-statistics/technical-documentation/methodology.html>.

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."

## 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 NAN.13: Capability Assessment**

	<b>SURVEY COMPONENTS</b>	<b>YES/NO</b>
<b>PLANNING &amp; REGULATORY CAPABILITY</b>	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Local Emergency Operational Plan	Yes
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Building Codes	No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
<b>ADMINISTRATIVE &amp; TECHNICAL CAPABILITY</b>	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
<b>FISCAL CAPABILITY</b>	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	<b>Yes</b>
	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
	Other (if any)	
<b>EDUCATION AND OUTREACH</b>	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes

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
	Other (if any)	

Table NAN.14: Overall Capability

OVERALL CAPABILITY	2017 PLAN	2022 PLAN LIMITED/MODERATE/HIGH
FINANCIAL RESOURCES NEEDED TO IMPLEMENT MITIGATION PROJECTS	Limited	Limited
STAFF/EXPERTISE TO IMPLEMENT PROJECTS	Moderate	Moderate
COMMUNITY SUPPORT TO IMPLEMENT PROJECTS	Moderate	Moderate
TIME TO DEVOTE TO HAZARD MITIGATION	Limited	Moderate

## Plan Integration

The County has several planning documents that discuss or relate to hazard mitigation. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

### Annual Budget

County funds are generally limited to maintaining current facilities and systems. Funds have remained relatively the same over the past decade and there are currently no large-scale projects with earmarked funds.

### Comprehensive Plan and Zoning and Subdivision Regulations

Nance County updated their combined Comprehensive Plan and Zoning and Subdivision Regulations in 2022. These documents address the natural hazards of flooding, winter storms, and tornadoes. The plan directs development away from the floodplain and encourages the elevation of structures located within the floodplain. A specific goal for the county states: “Work cooperatively with Federal, State, and adjoining County governments to develop compatible flood control measures.” The plan identifies Agricultural Conservation Areas on the zoning map which also include floodplain and flood prone areas which limit future development.

The county’s floodplain ordinance and zoning ordinance outline where and how development should occur in the future. The ordinance: identifies floodplain areas as parks or open space, prohibits development within the floodway, restricts development in the floodplain for specific

types of use (animal operations), includes well setback requirements, limits size of agricultural operations, and limits hazardous material operations development in at risk locations. All development within flood hazard areas must meet state requirements of minimum one foot above base flood elevation.

### **Nance County Local Emergency Operations Plan**

The Nance County LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

### **Central Platte Community Wildfire Protection Plan**

The Nebraska Forest Service updated the Central Platte Community Wildfire Protection Plan (CWPP), which includes Nance County in October 2019. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years.

## **Future Development Trends**

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Nance County has experienced modest development of new homes and businesses over the past five years. According to census data, the County's population is declining. According to the local planning team, factors contributing to the decline include a lack of jobs and housing, as well as youth seeking opportunity elsewhere. Any development in the next five years will likely be spot development in Fullerton or Genoa. No new commercial or housing developments are planned in the county; however, the county does anticipate roads to be repaved or updated.

## **Community Lifelines**

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### **Transportation**

Nance County's major transportation corridors include State Highways 22, 39 and Highway 14. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the county, as well as areas more at risk to transportation incidents.

### **Hazardous Materials – Chemical Storage Fixed Sites**

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 11 chemical storage sites throughout Nance County which house hazardous materials. Another facility of local concern is the Sapp Bros. fuel storage facility located ½ mile south of Fullerton on Highway 14. Local concerns focus on the potential for chemical release due to transportation in and around these facilities and the participation of these Tier II facilities in the Local Emergency Planning Committee (LEPC). Critical facilities and vulnerable populations located near chemical fixed sites are in the LEOP and not shared publicly. There is

also a Tallgrass pipeline that runs through Nance County. The location of the pipeline is not shared publicly.

In the case of a hazardous material spill, local fire departments and Nance County Sheriff would be first to respond. There are no Hazardous Material (Hazmat) teams located in Nance County. Grand Island or Columbus are the nearest Hazmat Teams; 45 mins to 1 ½ hours to respond to area. LEPC is working to develop partnerships in equipment and resources. Residents near chemical storage fixed sites are not currently educated about the threat and appropriate response but may soon be by the LEPC. For a description of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

## 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 NAN.9: Nance County Critical Facilities**

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Transportation	CAMP Airport	N	N	N
2	Transportation	Genoa Airport	N	N	N
3	Health and Medical	Golden Living Center	Y	Y	N
4	Safety and Security	Nance County Courthouse and Sheriff's Department	N	N	N
5	Transportation	Nebraska Dept of Roads Facility	N	Y	N

Although not listed in the table above, critical infrastructure also include power substations, cell towers, and alert sirens in the county. These assets are typically owned and maintained by other agencies and are not the responsibility of the jurisdiction.

## Health and Medical Facilities

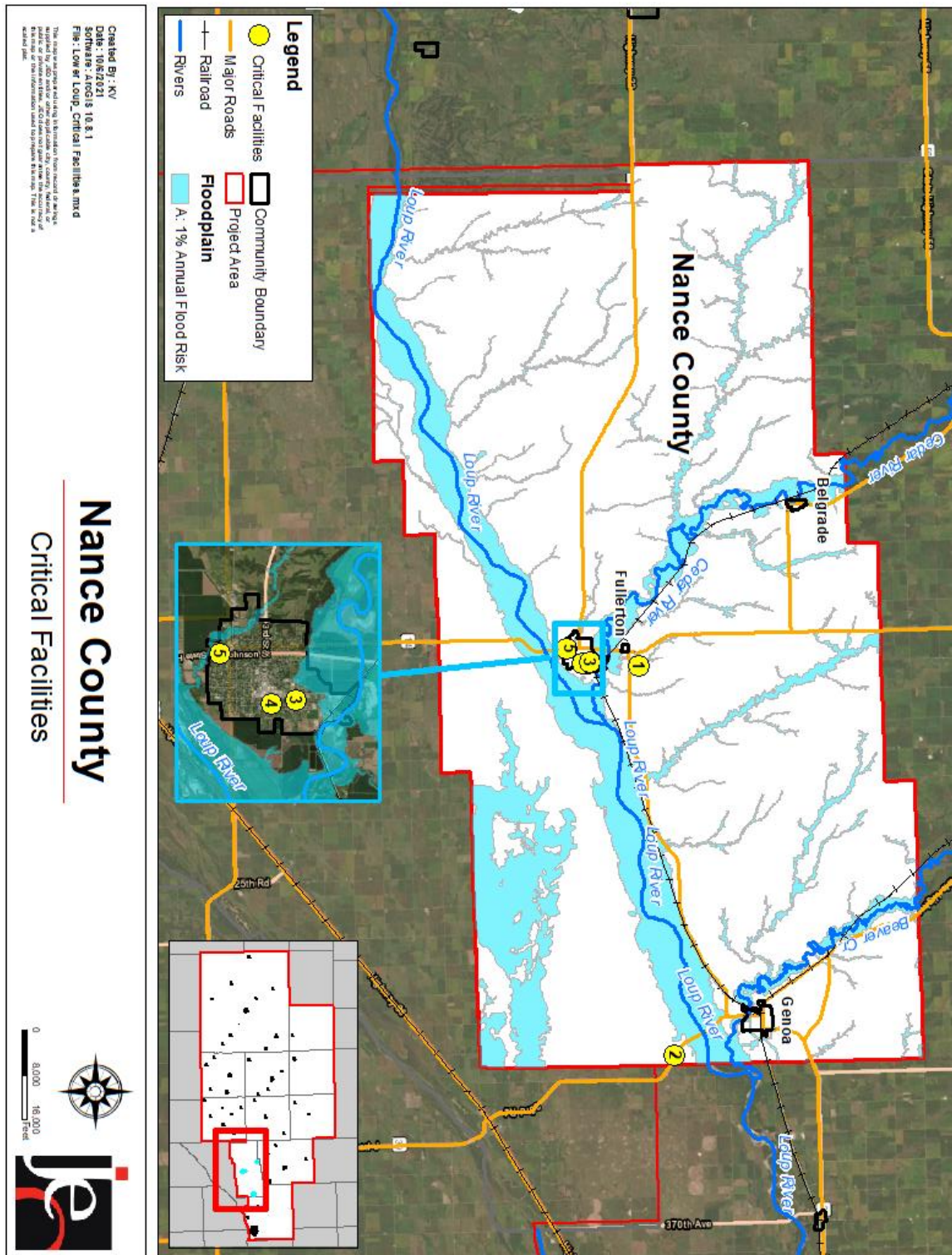
The following medical and health facilities are located within the county.

**Table NAN.4: Nance County Critical Facilities**

TYPE OF FACILITY	FACILITY NAME	COMMUNITY	NUMBER OF LICENSED BEDS
Hospital	Genoa Community Hospital	Genoa	19
Long Term Care	Arbor Care Centers - Fullerton	Fullerton	75

Source: DHHS Care Rosters, 2021

Figure NAN.4: Nance County Critical Facilities



## Parcel Improvements and Valuation

GIS parcel data as of December 2020 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.

**Table NAN.12: Nance County Parcel Valuation**

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	PERCENT OF IMPROVEMENTS IN FLOODPLAIN
4,915	1696	135,609,805	1,885	300	28,012,310

Source: County Assessor, GIS Workshop

**Table NAN.13: Nance County Flood Map Products**

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	09-07-0373A-310459	1/29/2009	Portion of property removed from SFHA
LOMA	09-07-1340A-310459	7/10/2009	Structure removed from SFHA
LOMA	09-07-1715A-310459	1/21/2010	Portion of property removed from SFHA
LOMA	09-07-1891A-310459	2/16/2010	Portion of property removed from SFHA
LOMA	10-07-0816X-310459	2/11/2010	Portion of property removed from SFHA
LOMA	10-07-0961A-310459	3/18/2010	Portion of property removed from SFHA
LOMA	11-07-0256A-310459	12/21/2010	Structure (steel flat) removed from SFHA
LOMA	11-07-1835A-310459	7/7/2011	Structure removed from SFHA
LOMA	11-07-2171A-310459	7/14/2011	Portion of property removed from SFHA
LOMA	12-07-1184A-310459	2/28/2012	Property removed from SFHA
LOMA	12-07-1758A-310459	4/17/2012	Portion of property (gov't Lot 5) removed from SFHA
LOMA	12-07-2015A-310459	4/19/2012	Structure (residence) removed from SFHA
LOMA	12-07-2981A-310459	8/16/2012	Portion of property removed from SFHA
LOMA	13-07-1525A-310459	6/6/2013	Structure (house) removed from SFHA
LOMA	13-07-2139A-310459	8/8/2013	Structure (residence) removed from SFHA
LOMA	15-07-1329A-310459	5/28/2015	Property removed from SFHA

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	15-07-1490A-310459	7/1/2015	Property removed from SFHA
LOMA	17-07-0841A-310459	2/27/2017	Portion of property removed from SFHA
LOMA	20-07-0250A-310459	2/26/2020	Structure removed from SFHA
LOMA	21-07-0815A-310459	4/28/2021	Portion of property removed from SFHA

Source: FEMA Flood Map Service Center

## 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 – December 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 2020.

For the complete discussion on historical occurrences, please refer to *Section 4: Risk Assessment*.

**Table NAN.10: Hazard Risk Assessment – Nance County**

Hazard Type		Nance County		
		Count	Property	Crop
Agricultural Disease	Animal Disease <sup>2</sup>	16	264 Animals	N/A
	Plant Disease <sup>3</sup>	10	N/A	\$49,558
Dam Failure <sup>7</sup>		1	\$0	N/A
Drought <sup>8</sup>		444 out of 1,512 Months	\$0	\$35,856,738
Earthquakes <sup>11</sup>		0	\$0	\$0
Extreme Heat <sup>9</sup>		Avg 4 Days per Year	\$0	\$4,169,829
Flooding <sup>1</sup>	Flash Flood	7	\$13,080,000	\$424,771
	Flood	3	\$12,000,000	
Grass/Wildfires <sup>4</sup>		130	1,860 Acres	\$100
Hazardous Materials	Chemical Spills (Fixed Site) <sup>5</sup>	8	\$0	N/A
	Chemical Spills (Transportation) <sup>6</sup>	0	\$0	N/A
Levee Failure <sup>12</sup>		N/A	N/A	N/A
Public Health Emergency <sup>13</sup>		~413 cases, 10 deaths	N/A	N/A
Severe Thunderstorms <sup>1</sup>	Hail Average: 1.09" Range: 0.75"-2.75"	96	\$1,079,000	\$4,469,851



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Hazard Type		Nance County		
		Count	Property	Crop
	Heavy Rain	11	\$0	\$9,317,541
	Lightning	0	\$0	N/A
	Thunderstorm Wind <i>Average: 55.4mph Range: 50-78mph</i>	34	\$1,200,000	N/A
Severe Winter Storms <sup>1</sup>	Blizzard	8	\$30,000	\$656,341
	Extreme Cold/Wind Chill	2	\$0	
	Heavy Snow	4	\$0	
	Ice Storm	6	\$2,045,000	
	Winter Storm	35	\$160,000	
	Winter Weather	31	\$5,000	
Terrorism <sup>10</sup>		0	\$0	N/A
Tornadoes & High Winds <sup>1</sup>	High Winds <i>Average: 49.3mph Range: 35-63mph</i>	19	\$1,214,080	\$989,156
	Tornadoes <i>Average: F0 Range: F0/F0-F1</i>	11	\$277,000	\$0
<b>Totals</b>		<b>432</b>	<b>\$31,090,080</b>	<b>\$55,933,885</b>

- 1 - NCEI, Jan 1996-Dec 2020
- 2 - USDA, 2014-2020
- 3 - USDA RMA, 2000-2020
- 4 - NFS, 2000- April 2020
- 5 - NRC, 1990-2020
- 6 - PHSMA, 1971- Jan 2021
- 7 - NeDNR Dam Safety Division, 2021
- 8 - NOAA, 1895-2020
- 9 - HPRCC & NOAA Regional Climate Center, 1983-2021
- 10 - Global Terrorism Database, 1970-2017
- 11 - USGS, 1900-2021
- 12 - USACE, 2021
- 13 - NE DHHS, May 12, 2021(COVID only)

SECTION SEVEN: NANCE COUNTY 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 NAN.11: Nance County and Communities Hazard Matrix**

JURISDICTION	AG DISEASE	DAM FAILURE	DROUGHT & EXTREME HEAT	EARTHQUAKES	FLOODING	GRASS/WILDFIRE	HAZARDOUS MATERIALS	LEVEE FAILURE	PUBLIC HEALTH EMERGENCY	SEVERE THUNDERSTORMS	SEVERE WINTER STORMS	TERRORISM	TORNADOES & HIGH WINDS
<b>NANCE COUNTY</b>		X	X		X					X	X		
<b>BELGRADE</b>					X		X		X	X	X		X
<b>FULLERTON</b>			X		X					X	X		X
<b>GENOA</b>										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.

### Dam Failure

There are 13 dams in Nance County. None of these dams have been identified as a high hazard dam. If a dam were to fail, significant flooding could occur with either property damage or crop damage is the likely impacts. However, there are three upstream dams that could affect Nance County. These dams are Sherman Dam, Virginia Smith Dam, and Davis Creek Dam. It is estimated that ten percent of the population of Nance County could be affected by the failure of one or another of these dams.

**Table NNC.13: Dams in Nance County**

	NUMBER OF DAMS	MINIMAL	LOW	SIGNIFICANT	HIGH
NANCE COUNTY	13	1	12	0	0
PLANNING AREA	146	12	124	5	5

Source: NDNR

According to NeDNR, one dam failure event has occurred in Nance County. The Fullerton Plant Dam in Fullerton failed in 1966 due to significant flooding. No damages were reported from this event.

### Drought

Drought was identified as a top concern to the county due to the influence of agriculture on the local economy. Drought is defined locally as the lack of adequate rain in the county and surrounding areas. Drought has caused more than \$35M in crop damages in the county since 2000. Some areas of the county have high nitrate levels in the groundwater. Nitrate issues and other groundwater quality concerns can be exacerbated during drought events. Some agricultural producers are experimenting with non-commercial fertilizers as a result of these concerns. Additional concerns exist for fire suppression resources during grass or wildfire events.

### Extreme Heat

Extreme heat events can be harmful to vulnerable populations within the county as well as impact the local economy due to its effect on agriculture. Local concerns regarding extreme heat events include the death of livestock, risk to vulnerable residents, and impact on wildfires starting in rural areas. If a meeting or event cancellation were to happen due to extreme heat, notices would be posted at the post office, county website/social media, and meeting locations. Board members would also be notified by telephone. The county is currently working with the American Red Cross to identify potential shelter locations which may also be used as cooling centers during extreme heat outbreaks.

## Flooding

Unincorporated areas of Nance County have 18 NFIP policies in-force for \$2,758,700 in total coverage as of August 2021. There are no repetitive flood loss properties in unincorporated areas of Nance County. However, the local planning team indicated that areas south of the Loup River are susceptible to ponding instead of draining into road ditches. Major concerns for flooding pertain to the destruction of land, crops, homes, and community buildings.

During the March 2019 flood event, significant flooding damaged roads, powerlines, crops, and property. Much of the area surrounding the Loup River saw heavy flooding and damage. The Genoa Headgates in particular were damaged during the flood. This flood event reported over \$12M in property damage. The NCEI reported the 2019 flood event with the following narrative for Nance County:

*Excessive rainfall, blizzard conditions, and high winds occurred on this Tuesday night, Wednesday and Thursday, and they were followed by extensive and significant flooding that lasted for days afterward. Repeated snowfall events resulted in several inches of snow cover across all of southcentral Nebraska from the middle of February through the first 12 days of March. The deepest snow was over Valley, Greeley, Nance, and Polk counties with 10 to 17 inches on the ground... The flooding was most widespread and damaging north of the Platte River. The flooding began Wednesday morning. Rivers and creeks and all their tributaries overflowed. This included the Wood River, the entire Loup River system, and the Cedar River. All low-lying areas were covered in water. Numerous Flood Warnings were issued and, by Wednesday night, the flooding was so widespread, that warnings covered all of south central Nebraska. The Loup Power Canal intake was overtopped by flood waters in Nance County. The Loup Power District enacted their emergency action plan necessitating the evacuation of the south side of Genoa. The hospital and nursing home were also evacuated. Highways were already closed in the area which complicated the evacuation. The Highway 22 bridge over the Loup canal was washed out at both ends, and a large break occurred on one side of the canal itself. A home was also swept away in the North Loup River just north of St. Paul.*

*Some of the most extensive damage to paved roads occurred to state Highways 14, 22, and 39 in Nance county. State Highway 14 was severely damaged with large chunks of pavement caved-in after the ground underneath was eroded away by swiftly moving water. The bridge on state Highway 39, across the Loup River south of Genoa, was also washed out. As increasing flows on area rivers broke up the ice, ice jams occurred on the Middle Loup River near Arcadia and southeast of Rockville, on the Cedar River near Belgrade, on the upstream side of the Highway 14 bridge in Nance county, north of Fullerton. An ice jam on the upstream side of the bridge over Mud Creek, near Ravenna, was broken up by an excavator. Large slabs of ice were also deposited and jaggedly piled-up by flood waters onto bridges and adjacent road leading up to the bridges. Just south of Fullerton, ice covered the Highway 14 bridge over the Loup River, keeping it impassable even after flood waters receded. Flood waters on the Middle Loup River deposited slabs of ice the size of pickup trucks onto the Highway 68 bridge at Rockville.*

*Impacts to agriculture were tremendous. As flood waters receded, pasture land and fields next to rivers and creeks were covered in sand and silt inches to feet deep, which ruined many acres for grazing. Truckloads of hay were brought to Grand Island and staged at*

*Fonner Park, from within the state, and from as far away as Ohio. One convoy of nine trucks delivered 200 tons of hay from Dickenson, ND to Fullerton.*

An upstream dam that could affect the county, is the Spalding Dam. If this upstream dam were to fail, it would affect the Cedar River in all of Boone and Nance County until it drains into the Loup River. The affected area would be slightly greater than the 100-year flood plain with the greatest effect on Belgrade and Fullerton.

### Severe Thunderstorms

Severe thunderstorms include impacts from hail, lightning, heavy rain, and thunderstorm wind. Local concerns focus on the potential for severe thunderstorms to cause widespread property damages, damages to trees, and power outages from downed trees. According to the NCEI, past thunderstorm events have caused over \$2M in property damages. Weather radios are located in some of the critical facilities, including the County Courthouse. The courthouse does not have a backup generator. Powerlines throughout unincorporated Nance County are above ground and at risk during severe storm.

### Severe Winter Storms

Local concerns regarding severe winter storms include the potential for damages to infrastructure, resident safety, closure of transportation routes, and power outages. According to the NCEI, past severe winter storms have caused over \$2.4 million in damages in the county since 1996. The most significant event was an ice storm in 2006, which covered central Nebraska with ice. This storm caused widespread damages to property, power lines, as well as caused power outages. The county removes snow on all county highways through the Nance County Roads Department. According to the local planning team local snow removal resources are currently sufficient to meet local needs.

## Mitigation Strategy

### Completed Mitigation Actions

OBJECTIVE	WEATHER RADIOS
DESCRIPTION	1. Conduct inventory of weather radios 2. Provide new/upgraded radios as needed
HAZARD(S) ADDRESSED	All Hazards
STATUS	All county offices received a weather radio in 2018.

OBJECTIVE	BACKUP MUNICIPAL RECORDS
DESCRIPTION	Develop protocol for backing up critical municipal records
HAZARD(S) ADDRESSED	All Hazards
STATUS	Backup system is in place for courthouse records.

SECTION SEVEN: NANCE COUNTY PROFILE

OBJECTIVE	INTERGOVERNMENTAL SUPPORT
DESCRIPTION	Support other local governmental entities (fire departments, schools, townships, etc.) in the identification and pursuit of mitigation actions
HAZARD(S) ADDRESSED	All Hazards
STATUS	This is an ongoing and continuous effort by the Local Emergency Planning Committee.

OBJECTIVE	UPDATE COMPREHENSIVE PLAN
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Update comprehensive plan</li> <li>2. Integrate plan with Hazard Mitigation Plan components</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
STATUS	Plan was updated for 2022 and available on the county website.

OBJECTIVE	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Improve emergency rescue and response equipment and facilities by providing additional, or updating existing, emergency response equipment.</li> <li>2. Includes developing backup system for emergency vehicles and identifying and training additional personnel for emergency response</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
STATUS	New fire halls have been built to accommodate emergency response needs in Genoa and Fullerton.

**Continued Mitigation Actions**

OBJECTIVE	COMMUNITY EDUCATION AND AWARENESS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Establish a community education program to increase awareness related to household level mitigation actions</li> <li>2. Utilize outreach projects and the distribution of maps</li> <li>3. Purchasing equipment such as projectors and laptops to facilitate presentation of information</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$3,000+
POTENTIAL FUNDING	Region 44 Emergency Management Budget, East Central Nebraska COAD (Community Organizations Active in Disasters)
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Region 44 EMA
STATUS	After the 2019 flood, Region 44 EM and the East Central COAD are working to get households more prepared, rebuild stronger, and give them more information about flooding and evacuations.

<b>OBJECTIVE</b>	<b>FIRST AID TRAINING</b>
<b>DESCRIPTION</b>	Promote first aid training for all residents
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>ESTIMATED COST</b>	\$100 per person
<b>POTENTIAL FUNDING</b>	Nance County General Fund
<b>TIMELINE</b>	2-5 years
<b>PRIORITY</b>	Low
<b>LEAD AGENCY</b>	Region 44 EMA
<b>STATUS</b>	This project has not yet been started.

<b>OBJECTIVE</b>	<b>IMPROVE WARNING SYSTEMS</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Evaluate current warning systems</li> <li>2. Improve warning systems/develop new warning system</li> <li>3. Obtain/Upgrade warning system equipment and methods</li> <li>4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens</li> <li>5. Identify location of weather warning radios</li> <li>6. Improve weather radio system</li> <li>7. Obtain/Upgrade weather radios</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>ESTIMATED COST</b>	\$15,000+
<b>POTENTIAL FUNDING</b>	Nance County General Fund, Region 44 Emergency Management Budget
<b>TIMELINE</b>	2-5 years
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Region 44 EMA
<b>STATUS</b>	A few places were identified as needing an alert siren, including: Headworks Bridge, Baptist Camp, and campground. The county is still working on getting sirens to several cities/villages.

SECTION SEVEN: NANCE COUNTY PROFILE

<b>OBJECTIVE</b>	<b>BACKUP AND EMERGENCY GENERATORS</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Identify and evaluate current backup and emergency generators</li> <li>2. Obtain additional generators based on identification and evaluation</li> <li>3. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>ESTIMATED COST</b>	\$20,000 to \$75,000+ per generator
<b>POTENTIAL FUNDING</b>	Nance County General Fund
<b>TIMELINE</b>	5+ Years
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Nance County Safety- Security Committee, Region 44 EMA
<b>STATUS</b>	Determining adequate locations for a backup generator, including the courthouse.

<b>OBJECTIVE</b>	<b>DATABASE OF VULNERABLE POPULATION</b>
<b>DESCRIPTION</b>	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>ESTIMATED COST</b>	\$2,000+ Staff Time
<b>POTENTIAL FUNDING</b>	Region 44 Emergency Management Budget
<b>TIMELINE</b>	5+ Years
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Region 44 EMA
<b>STATUS</b>	County Emergency Manager attended an Access and Functional Needs training November 2021 to learn about how to plan for vulnerable populations. Working with stakeholders and organizations to ensure those populations are safe and well served.



OBJECTIVE	IMPROVE EMERGENCY COMMUNICATION
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Develop/Improve Emergency Communication Action plan</li> <li>2. Implement Emergency Communication Action Plan</li> <li>3. Establish inner-operable communications</li> <li>4. Obtain/Upgrade Emergency Communication Facilities/Equipment</li> <li>5. Obtain/Upgrade/Distribute Weather Warning Radios</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$1,000+ Staff Time
POTENTIAL FUNDING	Region 44 Emergency Management Budget
TIMELINE	2-5 Years
PRIORITY	High
LEAD AGENCY	Region 44 EMA
STATUS	This project has not yet been started.

OBJECTIVE	INFRASTRUCTURE ASSESSMENT STUDY
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Conduct an assessment of bridges in the county and assess other potential areas of concern</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$2,500+ per bridge estimate
POTENTIAL FUNDING	Nance County Roads Budget, Nance County General Fund
TIMELINE	5+ Years
PRIORITY	Medium
LEAD AGENCY	Nance County Roads Department
STATUS	This project has not yet been started.

OBJECTIVE	PROVIDE SHORT TERM RESIDENCY SHELTERS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Identify and designate short term shelters for rural residents (These structures does not serve as FEMA approved safe rooms and is not intended for long-term recovery, such as displacement from floods, fires, etc. The buildings could be used for short term sheltering during high heat events for those without A/C.)</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$0
POTENTIAL FUNDING	Region 44 Emergency Management Budget
TIMELINE	1 Year
PRIORITY	High
LEAD AGENCY	Region 44 EMA, COAD
STATUS	Some shelters are currently identified in the Nance County LEOP. Additional shelters are currently being identified for rural residents. The county is working with Red Cross to determine alternate shelter locations, obtain cots and sleeping materials, and put plans into place.

OBJECTIVE	IMPROVE CONSTRUCTION STANDARDS AND BUILDING SURVIVABILITY
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Evaluate building standards/codes/requirements</li> <li>2. Implement new or improved building standards/codes/requirements</li> <li>3. Promote use of higher codes and standards, such as fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$0
POTENTIAL FUNDING	Nance County General Fund
TIMELINE	5+ Years
PRIORITY	Low
LEAD AGENCY	Nance County Planning and Zoning
STATUS	This project has not yet been started.

OBJECTIVE	CONTINUITY PLANNING
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Develop continuity plans for critical community services</li> <li>2. Encourage businesses to develop continuity plans</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$5,000+ Staff Time
POTENTIAL FUNDING	Nance County General Fund
TIMELINE	2-5 Years
PRIORITY	High
LEAD AGENCY	County Safety/Security Committee, Region 44 EMA
STATUS	This project has not yet been started.

## 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 profile as changes occur or after a major event. The local planning team will include the County Board of Commissioners, County Clerk, and County Emergency Manager. The plan will be reviewed no less than annually and will include the public in the review and revision process by sharing information at local council meetings and on the county website.

# **COMMUNITY PROFILE**

## **VILLAGE OF BELGRADE**

### **Lower Loup Natural Resources District Hazard Mitigation Plan 2022**

# Local Planning Team

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Table BEL.1: Village of Belgrade Local Planning Team

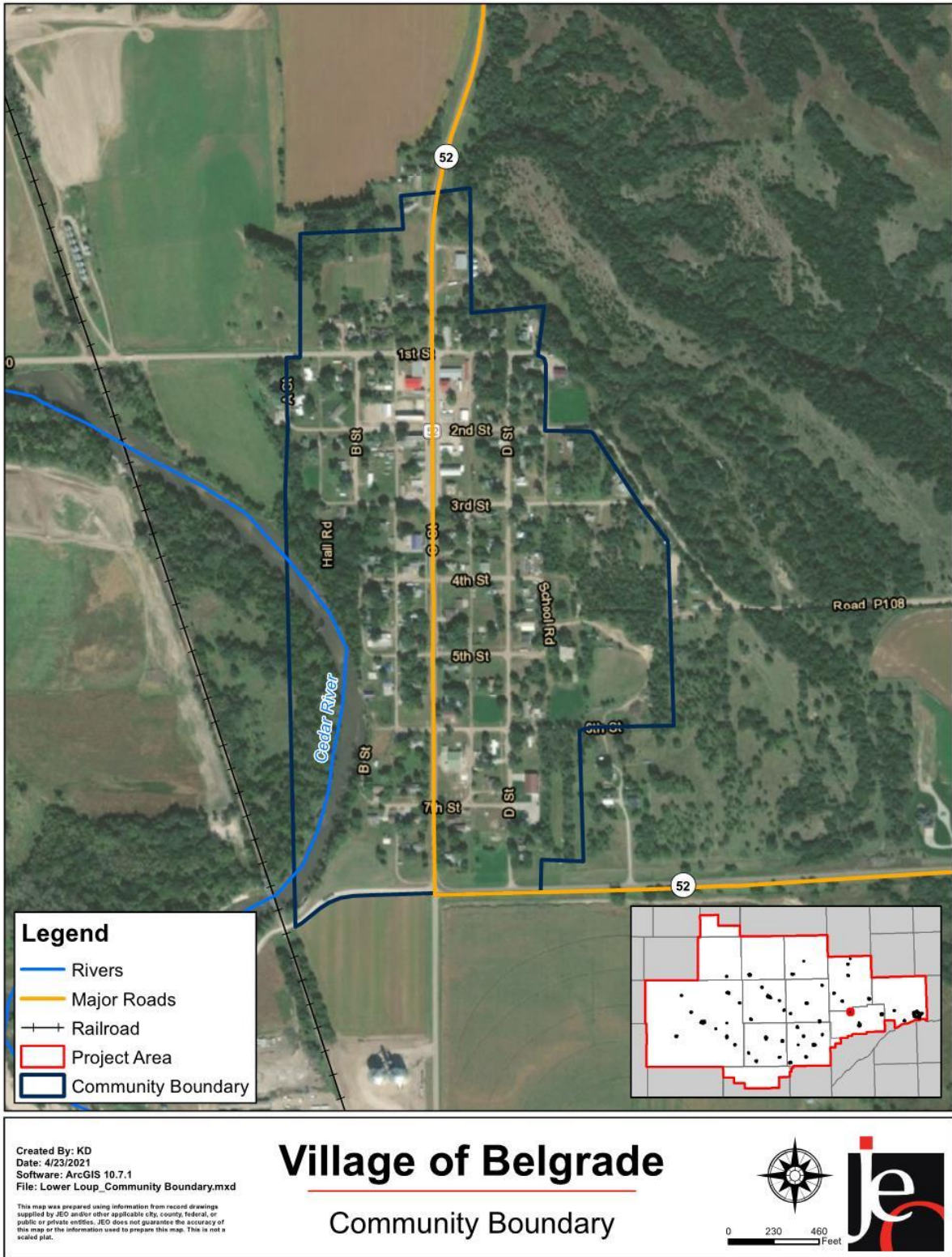
NAME	TITLE	JURISDICTION
KAREN PENNE	Village Clerk	Village of Belgrade
JACK NELSON	Village Chairperson	Village of Belgrade
DAN CORNWELL	Village Trustee	Village of Belgrade

# Location and Geography

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The Village of Belgrade is located in the northern portion of Nance County. The Village of Belgrade covers an area of 0.19 square miles. The Cedar River runs through the western portion of the village. Most of Belgrade lies in the dissected plains and valleys topographic regions, and is surrounded by agricultural fields.

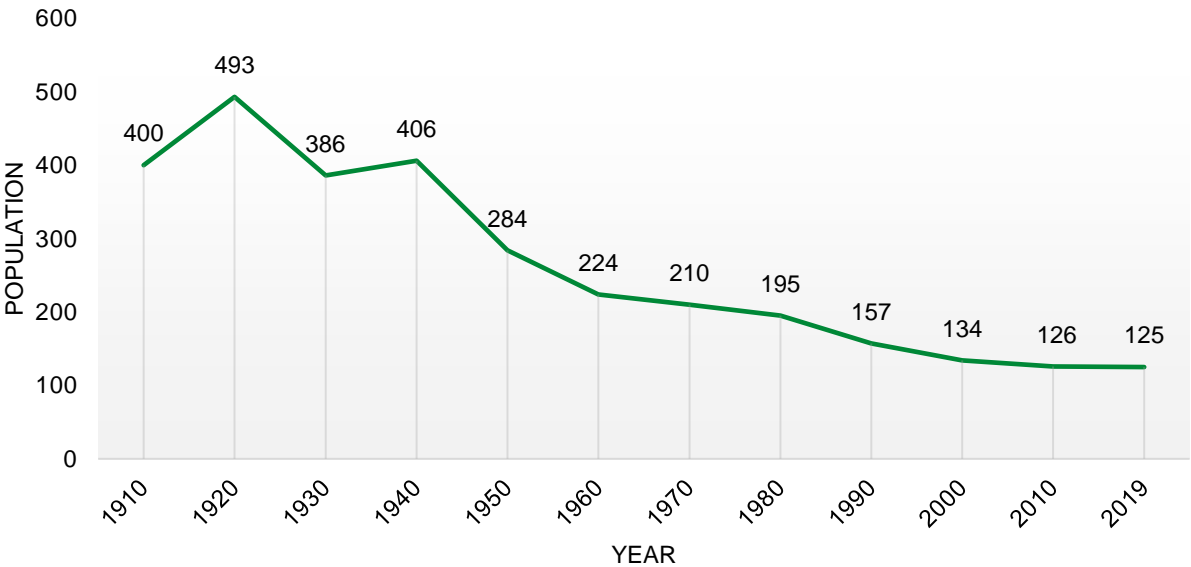
Figure BEL.1: Village of Belgrade Jurisdictional Boundary



# Demographics

The following figure displays the historical population trend from 1910 to 2019 (estimated). This figure indicates that the population of Belgrade experienced a decline from 1900 through 1930. During the 1940s the population grew, however, since 1940 the population has been in a steady 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 Village’s population accounted for 4% of Nance County’s Population in 2019.

**Figure BEL.2: Belgrade Population 1910-2019**



Source: U.S. Census Bureau<sup>12</sup>

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

- Older.** The median age of Belgrade was 53.8 years old in 2019, compared with the County average of 44.8 years. Belgrade’s population has grown older since 2010, when the median age was 25.9 years old. Belgrade had a smaller proportion of people under 20 years old (16.6%) than the County (24.5%).<sup>13</sup>
- Less ethnically diverse.** In 2010, 0% of Belgrade’s population was Black or African American, 0% was other races, and 0% were two or more races. By 2019, 0% of Belgrade’s population was two or more races. During that time, Nance County had 0.1% to 0.5% American Indian, 0.7% to 0.1% other races and 0.5% to 0.1% two or more races from 2010 to 2019 respectively.<sup>14</sup>

<sup>12</sup> United States Census Bureau. “2019 American Fact Finder: S0101: Age and Sex.” [database file]  
<sup>13</sup> United States Census Bureau. “2019 American Fact Finder: S0101: Age and Sex.” [database file]  
<sup>14</sup> United States Census Bureau. “2019 American Fact Finder: DP05: ACS Demographic and Housing Estimates.” [database file]

- **More likely to be at the federal poverty line.** The poverty rate of all persons in Belgrade (14.0%) was higher than the County (6.0%) in 2019.<sup>15</sup>

## Employment and Economics

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

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Belgrade included Agriculture, Construction, Education, and Entertainment. In comparison Nance County's included Agriculture, Retail, and Education.<sup>16</sup>
- **Lower household income.** Belgrade's median household income in 2019 (\$46,250) was about \$3,000 lower than the County (\$49,032).<sup>17</sup>
- **Fewer long-distance commuters.** About 41.5% percent of workers in Belgrade commuted for fewer than 15 minutes, compared with about 48.4% of workers in Nance County. About 35.3% of workers in Belgrade commute 30 minutes or more to work, compared to about 31.1% of the County workers.<sup>18</sup>

### Major Employers

Major employers in the Village of Belgrade include Frontier Co-op, New Frontier Bar and Grill, Penne Well Drilling, Twisted Metal Welding, Choyeski Concrete, and Malander Family Farms. The local planning team noted that approximately 80 percent of residents commute to the surrounding communities of Cedar Rapids, Fullerton, Albion, Genoa, Lindsey, Columbus, and Grand Island.

## Housing

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In comparison to the Nance County, Belgrade's housing stock was:<sup>19</sup>

- **More owner occupied.** About 95.3% of occupied housing units in Belgrade are owner occupied compared with 80.5% of occupied housing in Nance County in 2019.
- **Larger share of aged housing stock.** Belgrade has more houses built prior to 1970 than the county (87.9% compared to 72.5%).
- **Fewer multi-family homes.** The predominant housing type in the Village is single family detached and Belgrade contains more multifamily housing with five or more units per structure than the County (0.0% compared to 0.5%). About 98.9% of housing in Belgrade was single-family detached, compared with 92.7% of the County's housing. Belgrade has a smaller share of mobile and manufactured housing (1.1%) compared to the County (2.8%)

The local planning team noted that there are nine mobile homes located 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

<sup>15</sup> United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

<sup>16</sup> United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

<sup>17</sup> United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

<sup>18</sup> United States Census Bureau. "2019 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]

<sup>19</sup> United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

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.

## Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Belgrade has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five-member village board and the following offices: clerk/treasurer, utility superintendent, water/sewer and street committees, and volunteer fire 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 BEL.2: Capability Assessment**

		<b>SURVEY COMPONENTS</b>	<b>YES/NO</b>
<b>PLANNING &amp; REGULATORY CAPABILITY</b>		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
		Chief Building Official	No
		Floodplain Management Plan	No
		Storm Water Management Plan	No
		National Flood Insurance Program	No
		Community Rating System	No
		Other (if any)	
<b>ADMINISTRATIVE &amp; TECHNICAL CAPABILITY</b>		Planning Commission	No
		Floodplain Administration	Yes (pending)
		GIS Capabilities	No
		Civil Engineering	Yes
		Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
		Grant Manager	Yes (pending)
		Mutual Aid Agreement	Yes
		Other (if any)	
<b>FISCAL CAPABILITY</b>		1 & 6 Year Plan	Yes
		Applied for grants in the past	Yes
		Awarded a grant in the past	Yes



SURVEY COMPONENTS		YES/NO
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
<b>EDUCATION AND OUTREACH</b>	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	No
	Other (if any)	

Table BEL.3: Overall Capability

OVERALL CAPABILITY	2017 PLAN	2022 PLAN LIMITED/MODERATE/HIGH
FINANCIAL RESOURCES NEEDED TO IMPLEMENT MITIGATION PROJECTS	Limited	Limited
STAFF/EXPERTISE TO IMPLEMENT PROJECTS	Limited	Limited
COMMUNITY SUPPORT TO IMPLEMENT PROJECTS	Limited	Limited
TIME TO DEVOTE TO HAZARD MITIGATION	Limited	Limited

## Plan Integration

Communities have several planning documents that discuss or relate to hazard mitigation. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

### Grants and Funding

The Village of Belgrade's funds are limited to maintaining current facilities and systems. There are no major projects planned for the next five years. Funds for the village have remained relatively stable over recent years.

## **Ordinances and Regulations**

While the village does not have zoning regulations or building codes, the village follows requirements as set by the State of Nebraska.

### **Nance County Local Emergency Operations Plan (2021)**

The Village of Belgrade is an annex in the Nance County Local Emergency Operations Plan (LEOP). The LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

### **Central Platte Community Wildfire Protection Plan (2019)**

The Nebraska Forest Service updated the Central Platte Community Wildfire Protection Plan (CWPP), which includes Nance County in October 2021. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years.

## **Future Development Trends**

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In the past five years, three new homes have been built, several homes have been remodeled, and several rental properties were established. The village has a new county equipment facility and a new fire department facility. One new home and a private building were constructed and are located near the floodplain. The census data indicates that Belgrade's population is declining, which the local planning team attributes to limited housing and employment opportunities. In the next five years, remodels are tentatively planned for the Abandon Bar and Belgrade School. Expansions are also planned for a few local businesses. There are also plans to establish a campground and outfitter called Ironhorse Campground.

## **Community Lifelines**

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### **Transportation**

Belgrade's major transportation corridors include Highway 52, which runs north-south, through the center of Belgrade. N-52 accommodates on average 505 vehicles per day, 55 of which are heavy commercial vehicles. The Nebraska Central Railroad Company has a rail line along the western side of the city, but the local planning team stated that it is no longer active. 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.

### **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 Belgrade 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. In addition to the facilities listed below, the local planning team noted that Penne Well Drilling, Twisted Metals, and Malander Farms are also facilities of concern.

**Table BEL.4: Chemical Storage Fixed Sites**

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
FRONTIER COOPERATIVE	47271 N 216th Ave	Yes
COUNTRY PARTNERS COOPERATIVE	Jct 3rd & C Sts	

Source: Nebraska Department of Environment and Energy<sup>20</sup>

## 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 previous 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 BEL.5: Belgrade Critical Facilities**

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Safety and Security	Alert Siren*	N	N	
2	Safety and Security	Community Room/Fire Hall	Y	N	N
3	Safety and Security	Fire Station	Y	N	N
4	Food, Water, and Shelter	Sewage Lagoon	N	N	N
5	Food, Water, and Shelter	Water Tower	N	N	N
6	Food, Water, and Shelter	Water Tower Pumping Station*	N	N	

*\*indicates facilities are not mapped*

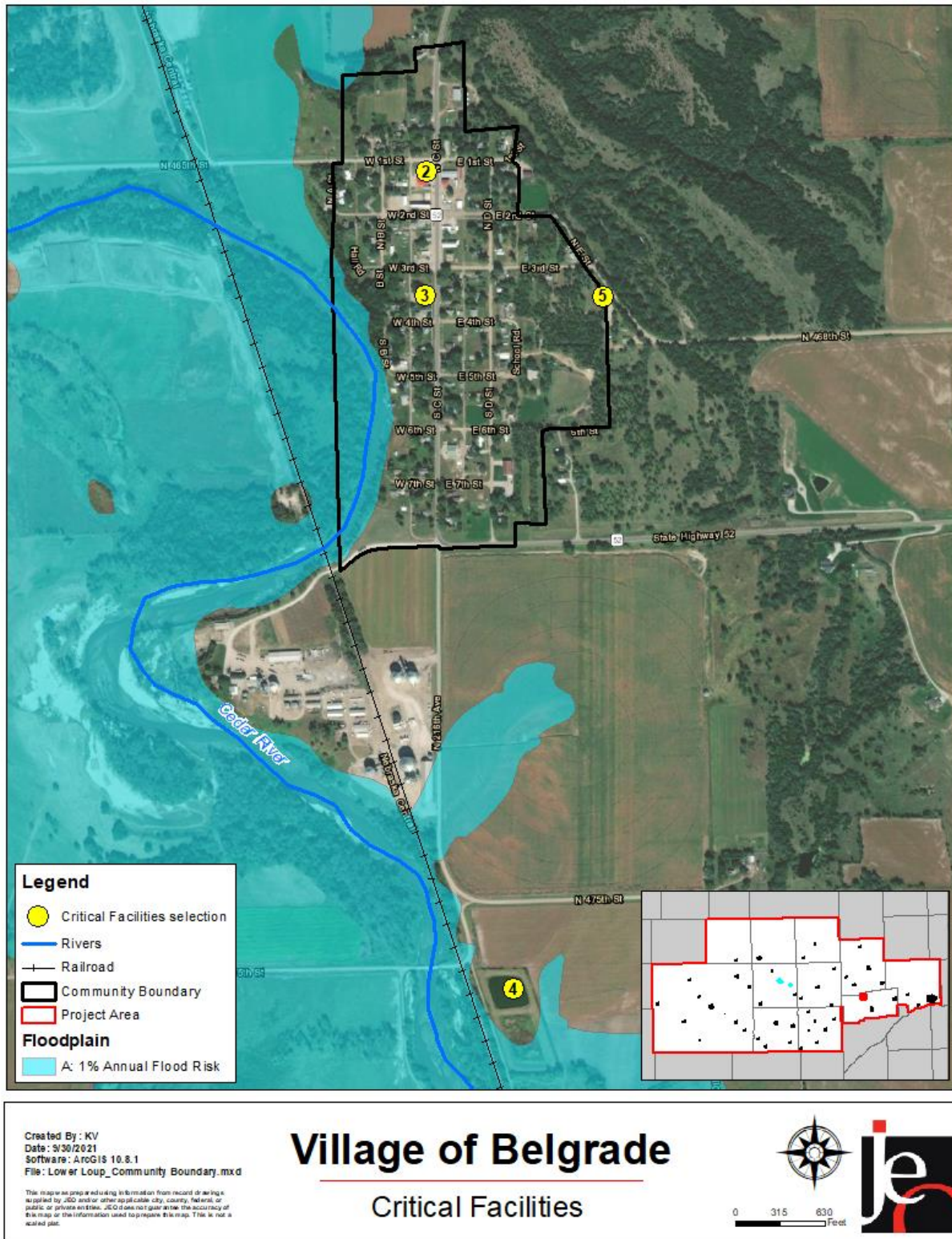
Although not listed in the table above, critical infrastructure also include power substations, cell towers, and alert sirens in the community. These assets are typically owned and maintained by other agencies and are not the responsibility of the jurisdiction.

## Health and Medical Facilities

There are no medical and health facilities located within the community.

<sup>20</sup> Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2020.

Figure BEL.3: Belgrade Critical Facilities



## Parcel Improvements and Valuation

GIS parcel data as of December 2020 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.

**Table BEL.7: Belgrade Parcel Valuation**

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	PERCENT OF IMPROVEMENTS IN FLOODPLAIN
170	77	1,728,650	5	102,995	6.49%

Source: County Assessor, GIS Workshop

## Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Nance County jurisdictional profile. 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.

### Flooding

The Cedar River borders the village to the west. Major flooding impacted the community in 2019. Belgrade was not a member of the NFIP previously but joined after the 2019 events. There is one flood loss property in the village. Erosion, landslides, and fast-moving water are ongoing concerns. During the 2019 flood event, there was significant damage to public and private properties. A village road and drainage system were damaged and there was considerable riverbank erosion which is all estimated at \$580,000 in damages. Approximately a block and a half of the eroded riverbank and damaged drainage system have yet to be repaired; however, as of January 2022 repairs to the remaining damaged property and riverbank have been completed through FEMA Public Assistance funding. Total cost of these repairs including construction and design totaled \$550,000. The local planning team is concerned that parts of the village are at a higher risk for flash flooding impacts due to the erosion. The village constructed two temporary jetties immediately after the flood event to redirect river flows away from the eroded riverbank. Private residences have taken measures to temporarily protect from future flooding impacts through the use of cement pilings, soil retaining walls, and backfill.

The village plans to assign a position for a stormwater/floodplain management coordinator and is working with civil engineers to assist with repairs to the riverbank and recommend future projects. Several topography, property line, soil content/integrity and water flow studies have been conducted for the village through a contractor. The village participates in conferences and trainings for the State Stormwater and Floodplain Management Association, conducts annual stormwater drainage assessment and mitigation actions of all roads, culverts, and drainage systems, and assists the volunteer fire department with ascertaining future grant funding for vehicles, equipment and training for flooding, land slide and river rescue response. The village

also maintains two certified water class IV water testing operators for weekly and monthly testing and management. The village plans to assess riverfront properties to determine where adding stone riprap would be beneficial.

The volunteer fire department is looking to expand staff from 27 active firefighters to 30, undergo additional training and update equipment where necessary. The village is in need of portable generators for the fire department and water tower pump and on-site generators for the community room/fire hall and new fire station. New sheltering equipment such as cots, blankets/pillows, portable heaters/air conditioners, and food and water supplies are needed. The village also needs updated vehicle, handheld, and weather radios.

### **Hazardous Materials (Transportation)**

Highway 52 that runs through Belgrade is the transportation route of most concern. The local planning team indicated that chemicals are regularly transported along local routes. Due to the size of the village, any chemical spill would have the potential to affect the entire village. There are various agricultural chemicals at Frontier Cooperative, with several of the employees also being volunteer firefighters who have training to respond to agricultural chemical spills. The fire department has some new trucks and has built a new facility to store the trucks and equipment. The facility also serves as a space to conduct meetings and events and be used as a shelter if necessary. The fire department is pursuing additional training, including hazmat response, for volunteer firefighters.

### **Public Health Epidemic**

The local planning team identified public health epidemic as a hazard of concern due to the ongoing issues with Covid 19. The village noted that additional training and equipment are needed for the fire department and the community. Additionally emergency response equipment such as first responder equipped trucks, medical oxygen tanks, gloves, face masks, and other medical supplies are needed.

### **Severe Thunderstorms**

The local concerns regarding this hazard include the potential for a power outage. According to NCEI data, there have been 19 severe thunderstorm events from 1996 to 2020 that have caused \$90,000 in property damages. Critical municipal records are protected with surge protectors on electric devices. Volunteer firefighters are trained in storm spotting. No major events have impacted the community, but debris removal is occasionally necessary after storms.

### **Severe Winter Storms**

The local concerns regarding this hazard include wind, snow, ice, and sleet potentially causing power outages, collapsed roofs, damages to homes/buildings and motor vehicle accidents. The village does not have a generator for the well. The village has identified a generator owned by a local business that could be used for pumping water to the water tower in the event of a power outage. Approximately five percent of power lines are buried. A private company is in charge of removing snow for the community, and snow removal resources have been deemed sufficient for local needs.

## Tornadoes and High Winds

Local concerns are focused on the availability of shelter for residents. According to NCEI data, there have been two tornado events near the community that resulted in \$10,000 in property damages. There are no safe rooms in the village. The large percentage of mobile homes in the community adds to the vulnerability of the village to this hazard. The village has data backup systems for municipal records. The warning siren is electronically activated and has a battery backup. In the event of a disaster, Belgrade has a mutual aid agreement with neighboring communities. The volunteer fire department plans to continue storm spotter training and the village plans to become Storm Ready certified.

## Mitigation Strategy

### Continued Mitigation Actions

OBJECTIVE	BACKUP AND EMERGENCY GENERATORS
<b>Description</b>	<ol style="list-style-type: none"> <li>1. Identify and evaluate current backup and emergency generators</li> <li>2. Obtain additional generators based on identification and evaluation</li> <li>1. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters</li> </ol>
<b>Hazard(s) Addressed</b>	All Hazards
<b>Estimated Cost</b>	\$20,000 to \$75,000+ per generator
<b>Potential Funding</b>	HMA, General Fund
<b>Timeline</b>	2-5 years
<b>Priority</b>	Medium
<b>Lead Agency</b>	Village Board
<b>Status</b>	Village is currently assessing need for back-up generators. The generator(s) will be located at the water wells.

OBJECTIVE	IMPROVE WARNING SYSTEMS
<b>Description</b>	<ol style="list-style-type: none"> <li>1. Evaluate current warning systems</li> <li>2. Improve warning systems/develop new warning system</li> <li>3. Obtain/Upgrade warning system equipment and methods</li> <li>4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens</li> <li>5. Identify location of weather warning radios</li> <li>6. Improve weather radio system</li> <li>7. Obtain/Upgrade weather radios</li> </ol>
<b>Hazard(s) Addressed</b>	All Hazards
<b>Estimated Cost</b>	Varies by project
<b>Potential Funding</b>	Rural Fire District, HMA
<b>Timeline</b>	2-5 Years
<b>Priority</b>	High
<b>Lead Agency</b>	Fire Department
<b>Status</b>	Rural Fire Department is currently exploring options to improve warning system. The project will be located at the old school house lot.

OBJECTIVE	IMPROVE EMERGENCY COMMUNICATIONS
<b>Description</b>	<ol style="list-style-type: none"> <li>1. Develop/Improve Emergency Communication Action plan</li> <li>2. Implement Emergency Communication Action Plan</li> <li>3. Establish inner-operable communications</li> <li>4. Obtain/Upgrade Emergency Communication Facilities/Equipment</li> <li>5. Obtain/Upgrade/Distribute Weather Warning Radios</li> </ol>
<b>Hazard(s) Addressed</b>	All Hazards
<b>Estimated Cost</b>	\$5,000+
<b>Potential Funding</b>	Village General Funds
<b>Timeline</b>	2-5 Years
<b>Priority</b>	Low
<b>Lead Agency</b>	Village Board
<b>Status</b>	This project has not yet been started.

OBJECTIVE	REDUCE TREE DAMAGE & DAMAGE FROM TREES
<b>Description</b>	<ol style="list-style-type: none"> <li>1. Conduct tree inventory</li> <li>2. Develop tree maintenance/trimming program</li> <li>3. Implement tree maintenance/trimming program</li> <li>4. Remove hazardous limbs and/or trees</li> </ol>
<b>Hazard(s) Addressed</b>	Tornado, Severe Winter Storm, Severe Thunderstorms, Grass/Wildfires
<b>Estimated Cost</b>	\$0 to \$5,000 to develop program
<b>Potential Funding</b>	General Fund
<b>Timeline</b>	2-5 Years
<b>Priority</b>	Low
<b>Lead Agency</b>	Village Board
<b>Status</b>	This project has not yet been started.

## 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, Village Board, and County Emergency Manager. The plan will be reviewed no less than annually and will include the public in the review and revision process by sharing information via at local board meetings.



# **COMMUNITY PROFILE**

## **CITY OF FULLERTON**

### **Lower Loup Natural Resources District Hazard Mitigation Plan 2022**

## Local Planning Team

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**Table FUL.1: City of Fullerton Local Planning Team**

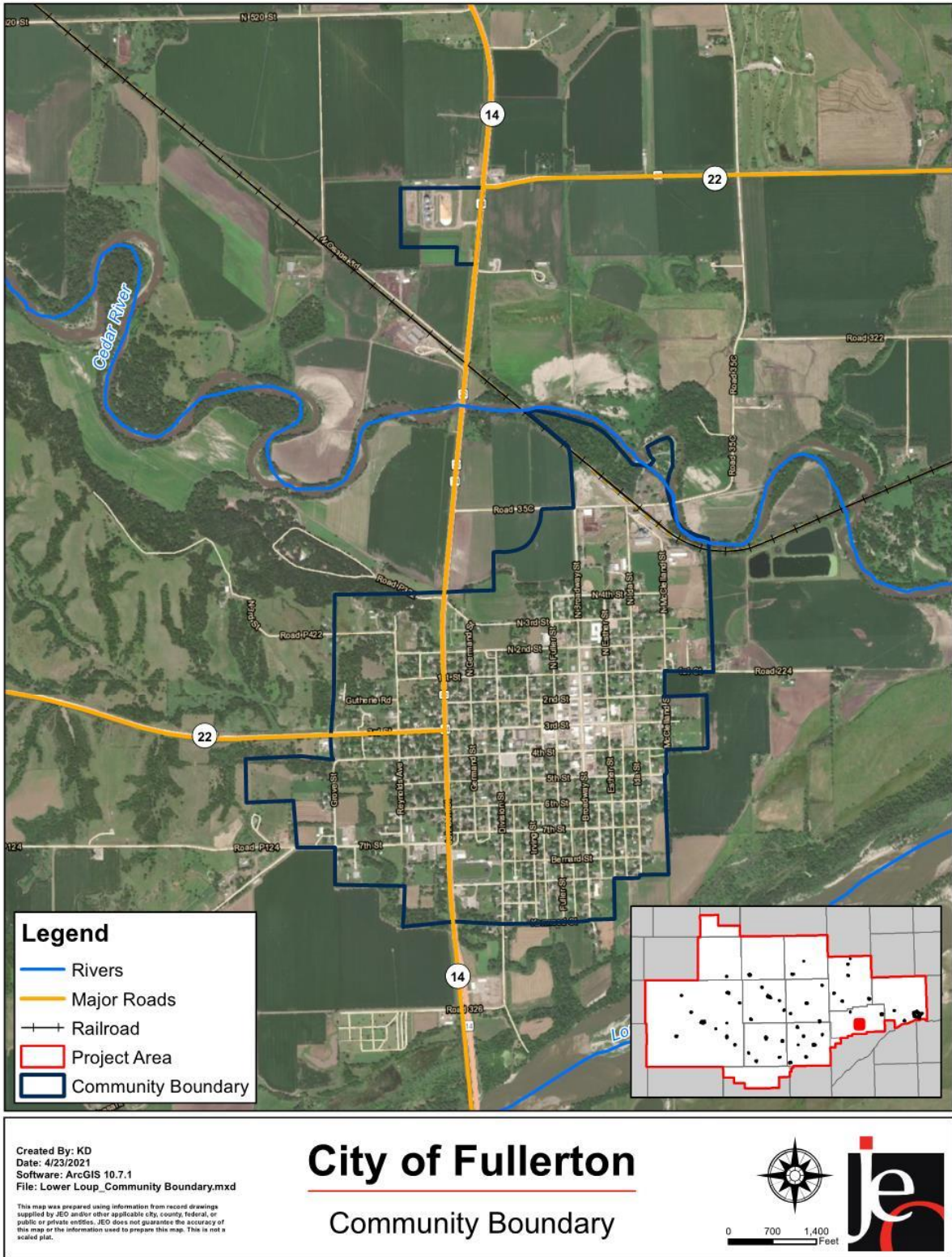
<b>NAME</b>	<b>TITLE</b>	<b>JURISDICTION</b>
<b>JAMES F KRAMER</b>	City Administrator (former)	City of Fullerton
<b>PATTY NOBLE</b>	City Clerk	City of Fullerton

## Location and Geography

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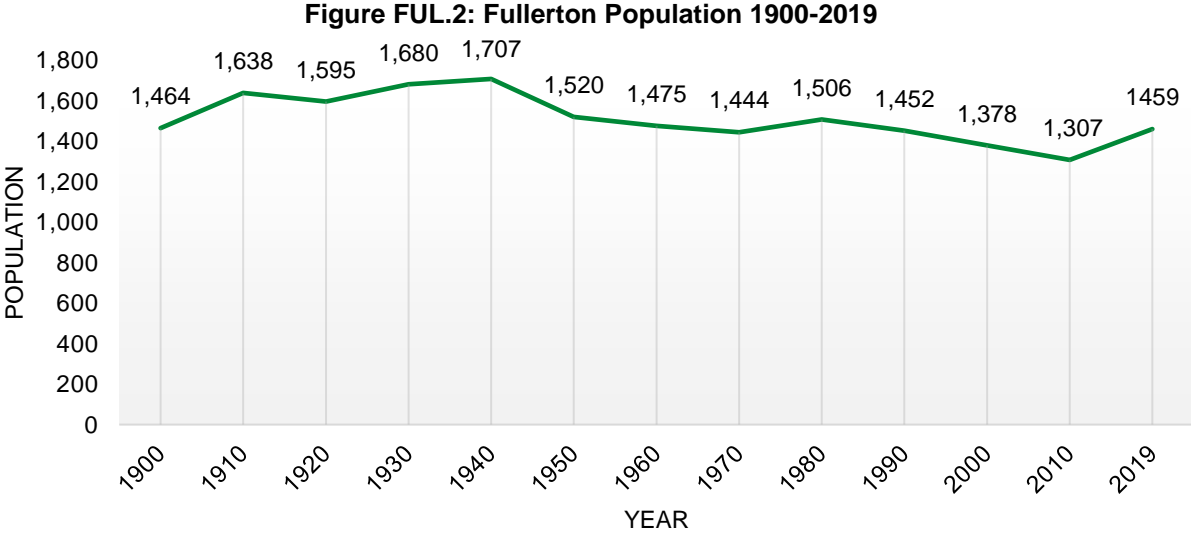
The City of Fullerton is located in central Nance County. The City of Fullerton covers an area of 1.26 square miles. The Loup River flows south of the city, and the Cedar River flows north of the city. The area is not heavily forested, nor is it in an area of the state prone to landslides. Most of Fullerton lies in the valleys topographic region and is surrounded by agricultural fields.

Figure FUL.1: City of Fullerton Jurisdictional Boundary



# Demographics

The following figure displays the historical population trend from 1900 to 2019 (estimated). This figure indicates that the population of Fullerton experienced a decline from 1980 through 2010. Since 2010, however, the population has been increasing. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. The city’s population accounted for 41% of Nance County’s Population in 2019.



Source: U.S. Census Bureau<sup>21</sup>

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the County, Fullerton’ population was:

- **Younger.** The median age of Fullerton was 37.7 years old in 2019, compared with the County average of 44.8 years. Fullerton’s population has grown younger since 2010, when the median age was 47.8 years old. Fullerton had a larger proportion of people under 20 years old (29.1%) than the County (24.5%).<sup>22</sup>
- **Less ethnically diverse.** In 2010, 1.4% of Fullerton’s population was Black or African American, 0.1% was other races, and 0.9% were two or more races. By 2019, only about 0.2% of Fullerton’s population was two or more races. During that time, Nance County had 0.1% to 0.5% American Indian, 0.7% to 0.1% other races and 0.5% to 0.1% two or more races from 2010 to 2019 respectively.<sup>23</sup>
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Fullerton (7.9%) was higher than the County (6.0%) in 2019.<sup>24</sup>

<sup>21</sup> United States Census Bureau. “2018 American Fact Finder: S0101: Age and Sex.” [database file]  
<sup>22</sup> United States Census Bureau. “2018 American Fact Finder: S0101: Age and Sex.” [database file]  
<sup>23</sup> United States Census Bureau. “2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates.” [database file]  
<sup>24</sup> 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 Nance County, Fullerton's economy had:

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Fullerton included Agriculture, Retail, Transportation, and Education. In comparison Nance County's included Agriculture, Retail, and Education.<sup>25</sup>
- **Lower household income.** Fullerton's median household income in 2019 (\$45,278) was about \$4,000 lower than the County (\$49,032).<sup>26</sup>
- **Fewer long-distance commuters.** About 60.8% percent of workers in Fullerton commuted for fewer than 15 minutes, compared with about 48.4% of workers in Nance County. About 19.4% of workers in Fullerton commute 30 minutes or more to work, compared to about 31.1% of the County workers.<sup>27</sup>

### Major Employers

Major employers in the City of Fullerton include Fullerton Public Schools, Fullerton Health Care Facility, Loup Power, CVA Co-op, Dollar General, Nancy County, and Smith & Son's LLC. The planning team noted that approximately fifty percent of residents commute to the surrounding communities of Genoa, Albion, and Central City with an average round trip of forty minutes. A small percentage of residents also commute to Grand Island or Columbus with a round trip of ninety minutes.

## Housing

In comparison to the Nance County, Fullerton's housing stock was:<sup>28</sup>

- **Less owner occupied.** About 73.3% of occupied housing units in Fullerton are owner occupied compared with 80.5% of occupied housing in Nance County in 2019.
- **Larger share of aged housing stock.** Fullerton has more houses built prior to 1970 than the county (77.8% compared to 72.5%).
- **More multi-family homes.** The predominant housing type in the city is single family detached and Fullerton contains more multifamily housing with five or more units per structure than the County (1.3% compared to 0.5%). About 92.0% of housing in Fullerton was single-family detached, compared with 92.7% of the County's housing. Fullerton has a smaller share of mobile and manufactured housing (0.7%) compared to the County (2.8%)

The local planning team indicated that there are no longer any 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.

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

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

<sup>27</sup> United States Census Bureau. "2018 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]

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

# Governance

A community’s governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Fullerton has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a six member city council and the following offices: clerk/treasurer, city administrator, street commissioner, water commissioner, and volunteer fire department. The Fullerton Volunteer Rescue Squad may also be able to help implement hazard mitigation related 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 FUL.2: Capability Assessment**

	<b>SURVEY COMPONENTS</b>	<b>YES/NO</b>
<b>PLANNING &amp; REGULATORY CAPABILITY</b>	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Local Emergency Operational Plan	County
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Building Codes	No
	Chief Building Official	No
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
Other (if any)		
<b>ADMINISTRATIVE &amp; TECHNICAL CAPABILITY</b>	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	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)	
<b>FISCAL CAPABILITY</b>	1 & 6 Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	Yes

SURVEY COMPONENTS		YES/NO
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
<b>EDUCATION AND OUTREACH</b>	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	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

Table FUL.3: Overall Capability

Overall Capability	2017 Plan	2022 Plan Limited/Moderate/High
<b>Financial Resources Needed to Implement Mitigation Projects</b>	Limited	Limited
<b>Staff/Expertise to Implement Projects</b>	Moderate	Limited
<b>Community Support to Implement Projects</b>	Moderate	Moderate
<b>Time to Devote to Hazard Mitigation</b>	Limited	Limited

## Plan Integration

Communities have several planning documents that discuss or relate to hazard mitigation. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

### Comprehensive Plan (2007)

The Fullerton Comprehensive Plan, last updated in 2007, contains goals/objectives aimed at Safe Growth, limits density in areas adjacent to hazardous areas, encourages the elevation of structures located in the floodplain, encourages the preservation of open space in hazard-prone areas, and encourages strengthening retrofits to historic structures.

### **Zoning Ordinance and Subdivision Regulations (2009) & City Municipal Code (2010)**

The Fullerton Zoning Ordinance, last updated in 2009, and Fullerton Municipal Code, last updated in 2010, both discourages development in the floodplain, requires more than one-foot of elevation above Base Flood Elevation in the floodplain, prohibits development in the floodway, prohibits filling of wetlands, and includes well setback requirements. The Fullerton Subdivision Regulations restrict the subdivision of land within or adjacent to the floodplain.

### **Capital Improvements Plan**

Fullerton reviews its Capital Improvements Program annually. The plan includes storm water projects, identifies opportunities to upgrade storm sewer systems, identifies the installation of new municipal wells and the upsizing of water lines, identifies the installation of residential water meters, and the construction of a new fire hall.

### **Annual Municipal Budget**

Fullerton's annual budget is currently limited to maintaining current facilities and systems. Funds in the city have increased in recent years due to increased property tax rates and bonds; however, this increase is being used to pay off the new swimming pool and city well projects. The city has applied for and received grants in the past to assist with improvement projects including through FRF and NGPC.

### **Nance County Local Emergency Operations Plan (2021)**

The City of Fullerton is an annex in the Nance County Local Emergency Operations Plan (LEOP). The LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

### **Central Platte Community Wildfire Protection Plan (2019)**

The Nebraska Forest Service updated the Central Platte Community Wildfire Protection Plan (CWPP), which includes Nance County in October 2021. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years.

## **Future Development Trends**

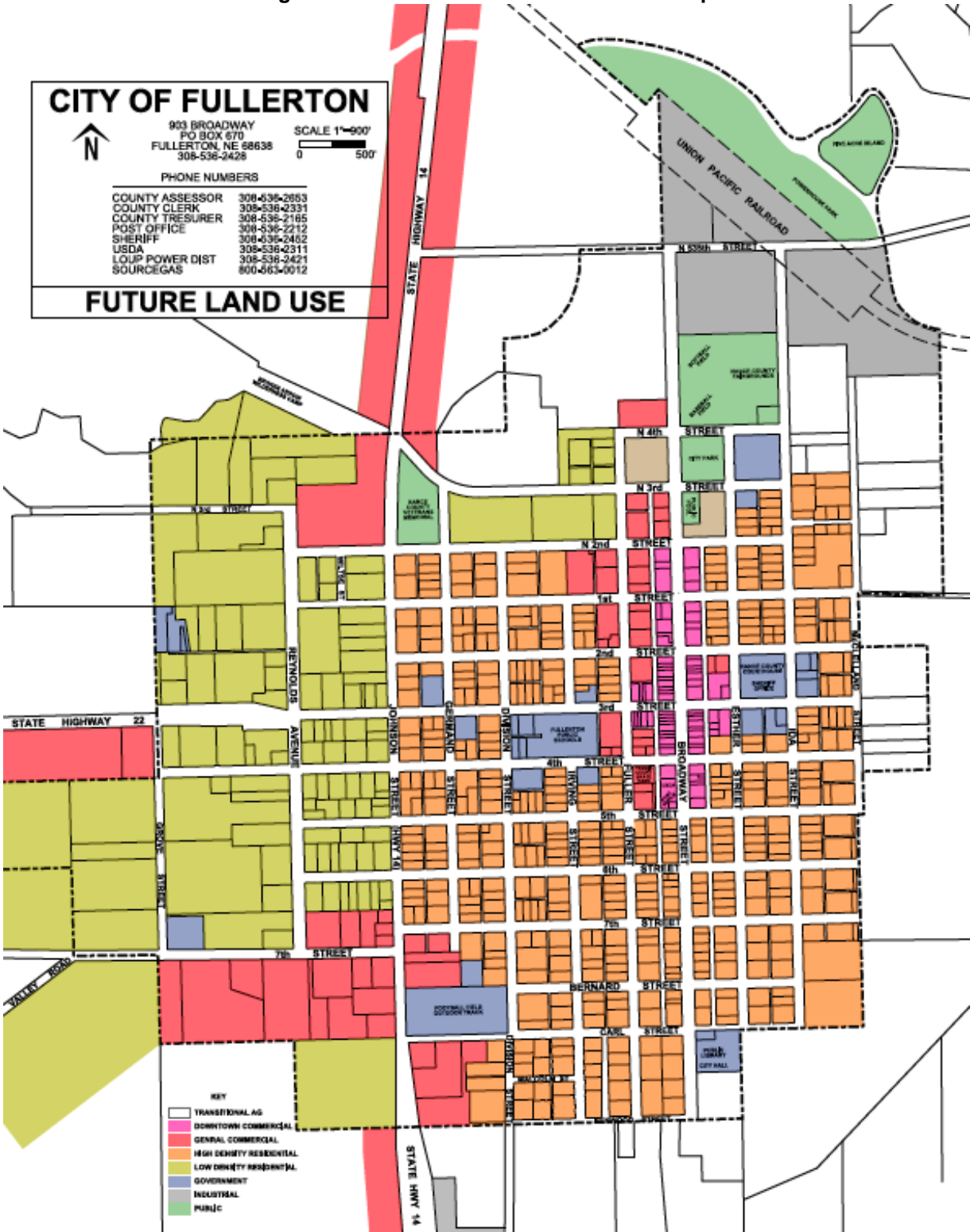
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In the last five years, the city has added 4700 linear feet of new water transmission mains. The city also annexed over 30 acres north of the city along Highway 14 to facilitate a new \$1.5 million truck repair and sales business. Two residences have been demolished with four more scheduled for demolition. Powerhouse Park along the Cedar River was upgraded to include 2000 linear feet of concrete walking trails and 4 full service RV pads. According to census data, Fullerton's population is increasing. The local planning team attributes this to younger families moving in,



remote work opportunities, high speed broadband internet, and additional housing becoming available. The annexation along Highway 14 has opened up the possibility of further development. Over the next five years, the city is looking into several commercial and residential options.

Figure FUL.3: Fullerton Future Land Use Map



## Community Lifelines

### Transportation

Fullerton's major transportation corridors include Highway 22, which runs west-east, to the western edge of Fullerton, and Highway 14, which runs north-south along the western portion of the city. N-22 accommodates on average 885 vehicles per day, 95 of which are heavy commercial vehicles, and N-14 accommodates on average 2,965 vehicles per day, 325 of which are heavy commercial vehicles. The Nebraska Central Railroad Company has a rail line along the northeastern side of the city. The planning team noted that during the major flooding in 2019, Fullerton roads were under water causing Fullerton to become isolated for over 36 hours. All routes in and out of town were under water and damaged beyond use. 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.

### Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are five chemical storage sites throughout Fullerton 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 FUL.4: Chemical Storage Fixed Sites**

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
NDOT FULLERTON YARD	54954 State Highway 14	No
CENTRAL VALLEY AG	716 N McClelland St	Yes
SAPP BROS PETROLEUM INC	S 550 St	No
CENTURYLINK	425 3rd St	No
ADM GRAIN COMPANY	52551 State Highway 14	No

Source: Nebraska Department of Environment and Energy<sup>29</sup>

### 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 previous planning process and updated by the local planning team as a part of this plan update.

The American Red Cross has agreements with First United Methodist Church, Fullerton Public School, and St. Peters Church to serve as mass care facilities during disaster events. The following table and figure provide a summary of the critical facilities for the jurisdiction.

**Table FUL.5: Fullerton Critical Facilities**

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Safety and Security	City Hall	N	N	N

<sup>29</sup> Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2020.

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
2	Food, Water, and Shelter	Fullerton Public School	Y	N	N
3	Safety and Security	Fire Hall	Y	Y	N
4	Food, Water, and Shelter	Wastewater Treatment Facility	N	Y	Y
5	Food, Water, and Shelter	Well 1	N	N	N
6	Food, Water, and Shelter	Well 2	N	Y	N
7	Safety and Security	City Maintenance Building	N	N	N
8	Health and Medical	Golden Living Center	Y	Y	N

Although not listed in the table above, critical infrastructure also include power substations, cell towers, and alert sirens in the community. These assets are typically owned and maintained by other agencies and are not the responsibility of the jurisdiction.

### Health and Medical Facilities

The following medical and health facilities are located within the community.

**Table FUL.6: Fullerton Critical Facilities**

NAME OF FACILITY	TYPE OF FACILITY	ADDRESS	NUMBER OF LICENSED BEDS
ARBOR CARE CENTERS	Assisted Living Facility	202 N Esther St, Fullerton, NE 68638	16
ARBOR CARE CENTERS	Long Term Care Facility	202 N Esther St, Fullerton, NE 68638	75
FULLERTON MEDICAL CLINIC	Rural Health Clinic	901 Broadway St, Fullerton, NE 68638	N/A
NANCE COUNTY MEDICAL CLINIC	Rural Health Clinic	405 Broadway St, Fullerton, NE 68638	N/A
VALLEY VIEW ASSISTED LIVING COMMUNITY	Assisted Living Facility	915 7th St, Fullerton, NE 68638	30

Source: Nebraska Department of Health and Human Services<sup>30, 31, 32, 33</sup>

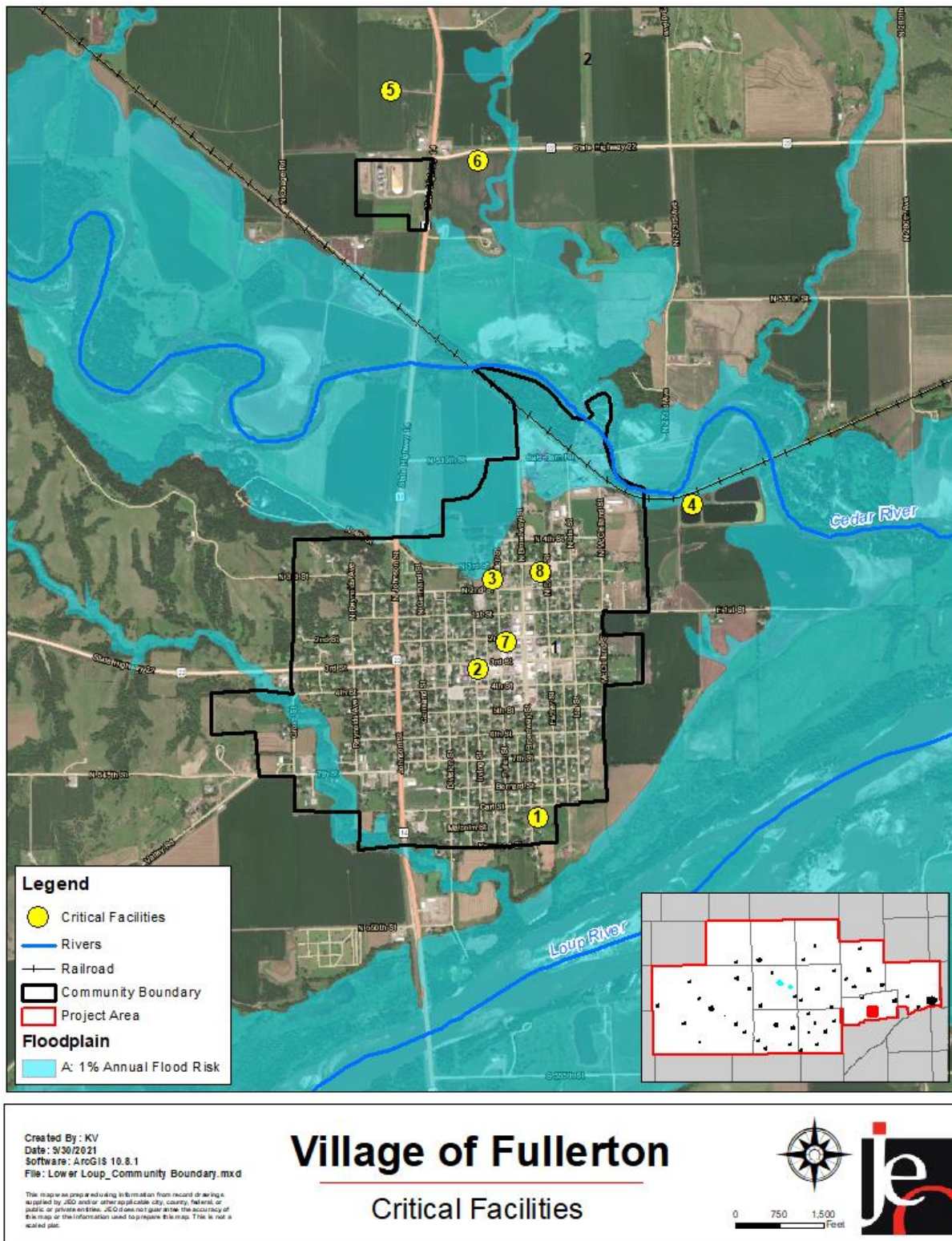
<sup>30</sup> Department of Health and Human Services. 2021. "State of Nebraska: Assisted Living Facilities." <https://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

<sup>31</sup> Department of Health and Human Services. 2021. "State of Nebraska Roster: Hospitals." <https://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf>.

<sup>32</sup> Department of Health and Human Services. 2021. "State of Nebraska Roster: Long Term Care Facilities." <https://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf>.

<sup>33</sup> Department of Health and Human Services. 2021. "State of Nebraska Roster: Rural Health Clinic." [https://dhhs.ne.gov/licensure/Documents/RHC\\_Roster.pdf](https://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf).

Figure FUL.3: Fullerton Critical Facilities



## Parcel Improvements and Valuation

GIS parcel data as of December 2020 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.

**Table FUL.7: Fullerton Parcel Valuation**

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	PERCENT OF IMPROVEMENTS IN FLOODPLAIN
833	634	45,809,620	16	1,877,600	2.52%

Source: County Assessor, GIS Workshop

**Table FUL.8: Fullerton Flood Map Products**

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	08-07-0847A-310152	4/22/2008	Structure removed from SFHA
LOMA	10-07-2209A-310152	10/12/2010	Structure (bins) removed from SFHA
LOMA	21-07-0059A-310152	10/20/2020	Property removed from SFHA

Source: FEMA Flood Map Service Center

## Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Nance County jurisdictional profile. 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.

### Drought

Concerns regarding drought in Fullerton include stress on local wells and the aquifer. During the drought in 2012, the city wells nearly pumped dry. A secondary effect of the drought was that selenium was introduced into the public water supply. The selenium issue still persists in some of the city wells. The city has three wells. One well is offline due to high selenium levels and the other two have intermittent issues with high selenium. Drought is defined locally as defined as an extended time of little or no precipitation and high temperatures. Lack of precipitation severely effects the recharge of the aquifer, and the high temperatures increases the demand of water by residents and producers. This leads to unacceptable levels of water usage where the aquifer static water level declines. When this occurs, the city will begin enforcing water restrictions mostly related to lawn irrigation. Residential water supply is metered and pumping is recorded daily at each well. Water supply is described as not sufficient during drought conditions by the local planning team. Water quality and quantity is an issue in Fullerton. The groundwater south and west of town is high in nitrates and arsenic. West of town water quantity is nearly nonexistent, which leaves the north portion of town as the main choice for available water, though some areas

are high in selenium. North of town also has numerous production wells that may be impacted by drought and thus also affecting our wells. Fullerton has a drought response plan. In the event of severe drought, water restrictions will be put in effect. The city plans to construct a new well in 2022.

### **Flooding**

Fullerton participates in the NFIP and has two policies in force for \$510,000 in coverage as of August 2021. There are no repetitive flood loss properties in the City of Fullerton. The local planning team identified the confluence of the Cedar and Loup rivers east of Fullerton and areas west and east of the Cedar River as areas most prone to flooding. Major flooding in 2019 caused numerous impacts to the community. The water transmission main from the wellhead north of the city was exposed and ruptured by debris. The city was on bottled water for a week while repairs were made. The highways west, north and south of the town were flooded and damaged making travel and possible evacuation dangerous. Due to the extreme magnitude of this flood event, not much could have been done to prevent the damage. According to the local planning team, the flooding event caused approximately \$500,000 in infrastructure damages. Damage estimates were well over one million dollars within the extra-territorial jurisdiction of Fullerton. It is unknown what the final cost was to real and personal property of residents/businesses in Fullerton. No evacuations were necessary. The city has made upgrades to the water/wastewater system to help mitigate potential problems.

### **Severe Thunderstorms (includes hail)**

Previous severe thunderstorms have caused the sewer lagoon and well houses to lose power. Municipal records are protected with surge protectors on electronic devices. Critical facilities have weather radios. Fullerton identified the need for backup power generators at the Fire Hall/City Hall. Approximately 10%-20% of power lines are buried within Fullerton. There are hazardous trees that need to be removed throughout the community. The city has added emergency generators to the wastewater treatment plant and the new fire hall. The city is looking to add an emergency generator to one of their municipal wells.

### **Severe Winter Storms**

Local concerns regarding this hazard include power outages, closure of transportation routes, ice jams along the Cedar and Loup rivers, and damage to infrastructure. The local planning team indicated that there is no place to house the infirm or elderly if power and/or heat is lost. In January 2009, an ice storm caused many residents to be without power for over one week. In January 2015, a blizzard caused damages to trees and power lines throughout the community. Past severe winter storms have caused structural damages to the sewer lagoon. Designated snow routes in the city include fourth and fifth streets west of Broadway and Broadway from fifth to N 535<sup>th</sup> Street, and N Second Street to Fuller Street. The city oversees removing snow. Snow removal resources include a street grader, two loaders, a spreader and two dump trucks. Snow removal resources are sufficient for moderate events. In the event of a significant snowfall event, contractors are available.

### **Tornadoes and High Winds**

Local concerns regarding high winds include damages to trees, power lines, and crops. In June 2015, a microburst of high winds or a failed tornado caused significant tree damage and temporary closure of roads. In July 2015, high winds from a severe thunderstorm caused significant tree and

powerline damage. Fullerton has data backup systems for municipal records. Although there are no safe rooms in Fullerton, the fire hall, school, and Golden Living Facility are available for community members seeking shelter. There are three warning sirens located in the community and can be activated by the Sheriff's Dispatch Office. Sirens reach about 80% of the community. To mitigate against this hazard in the future, the city could use storm shelters near the ball fields and fairgrounds.

## Mitigation Strategy

### Completed Mitigation Projects

OBJECTIVE	IMPROVE FLOOD/DAM FAILURE WARNING SYSTEM
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Evaluate current flood/water level alert and dam failure warning alert system</li> <li>2. Implement improved alert measures</li> <li>3. Increase/stricter inspection of dams</li> </ol>
HAZARD(S) ADDRESSED	Flooding, Dam Failure
STATUS	Have implemented a new Blackboard system for emergency text/auto-call/emails for emergency alerts which includes for flood risk events. Residents must sign up for alerts. The city shares its sign up information through the local newspaper.

OBJECTIVE	IMPROVE WARNING SYSTEMS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Evaluate current warning systems</li> <li>2. Improve warning systems/develop new warning system</li> <li>3. Obtain/Upgrade warning system equipment and methods</li> <li>4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens</li> <li>5. Identify location of weather warning radios</li> <li>6. Improve weather radio system</li> <li>7. Obtain/Upgrade weather radios</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
STATUS	Repaired and updated sirens in 2021 up to current codes. All are in good working order. Wired into the city shop. Emergency Management activates the sirens.

OBJECTIVE	PUBLIC SAFE ROOMS AND POST-DISASTER STORM SHELTERS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Identify and evaluate existing safe rooms and/or storm shelters</li> <li>2. Improve and/or construct safe rooms and/or storm shelters</li> <li>3. Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, etc.</li> </ol>
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Thunderstorms
STATUS	The new fire hall has been designated as a storm shelter. Have installed a backup generator. A new community hall in Fullerton has also been noted as a shelter location.

OBJECTIVE	STREAM BED/BANK STABILIZATION
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Evaluate current stream bed and bank stabilization needs</li> <li>2. Implement stream bed and bank stabilization improvements including grade control structures, rock rip rap, vegetative cover, etc.</li> </ol>
HAZARD(S) ADDRESSED	Flooding
STATUS	Nance County is currently working on stream bank improvements along Cedar River upstream of Fullerton due to damages from March 2019. No other specific areas have been identified as a problem for the city.

### Continued Mitigation Actions

OBJECTIVE	BACKUP AND EMERGENCY GENERATORS
DESCRIPTION	<ol style="list-style-type: none"> <li>2. Identify and evaluate current backup and emergency generators</li> <li>3. Obtain additional generators based on identification and evaluation</li> <li>4. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$32,000
POTENTIAL FUNDING	Property Taxes, HMGP, PDM
TIMELINE	2-5 Years
PRIORITY	High
LEAD AGENCY	City Administrator, City Council
STATUS	Have received a grant from the state for a generator and installed at the fire hall which serves as the community shelter. Additional generators are needed at the new north well.

### New Mitigation Actions – 2022 Plan

OBJECTIVE	IMPROVE WATER INFRASTRUCTURE
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Update flow and pipes for water supply to residential and commercial properties. Looking to improve infrastructure of sanitary water system. Need to improve PSI pressure for fire department usage.</li> <li>2. Includes sewer lagoon, meter, and manhole cover improvements.</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$1,000,000+
POTENTIAL FUNDING	Bond, Water Utility Rates
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	City Administrator, City Council
STATUS	This is a new mitigation action. Commencement on this project will begin after new well has been installed and paid for.



## Plan Maintenance

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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 Engineer, City Clerk, City Administrator, City Council, and Water and Sewer Maintenance Supervisor. The plan will be reviewed no less than annually and will include the public in the review and revision process by sharing information via social media, the local website, Blackboard text alerts, and the local newspaper.

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# COMMUNITY PROFILE

## CITY OF GENOA

### Lower Loup Natural Resources District Hazard Mitigation Plan 2022

## Local Planning Team

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Table GEN.1: City of Genoa Local Planning Team

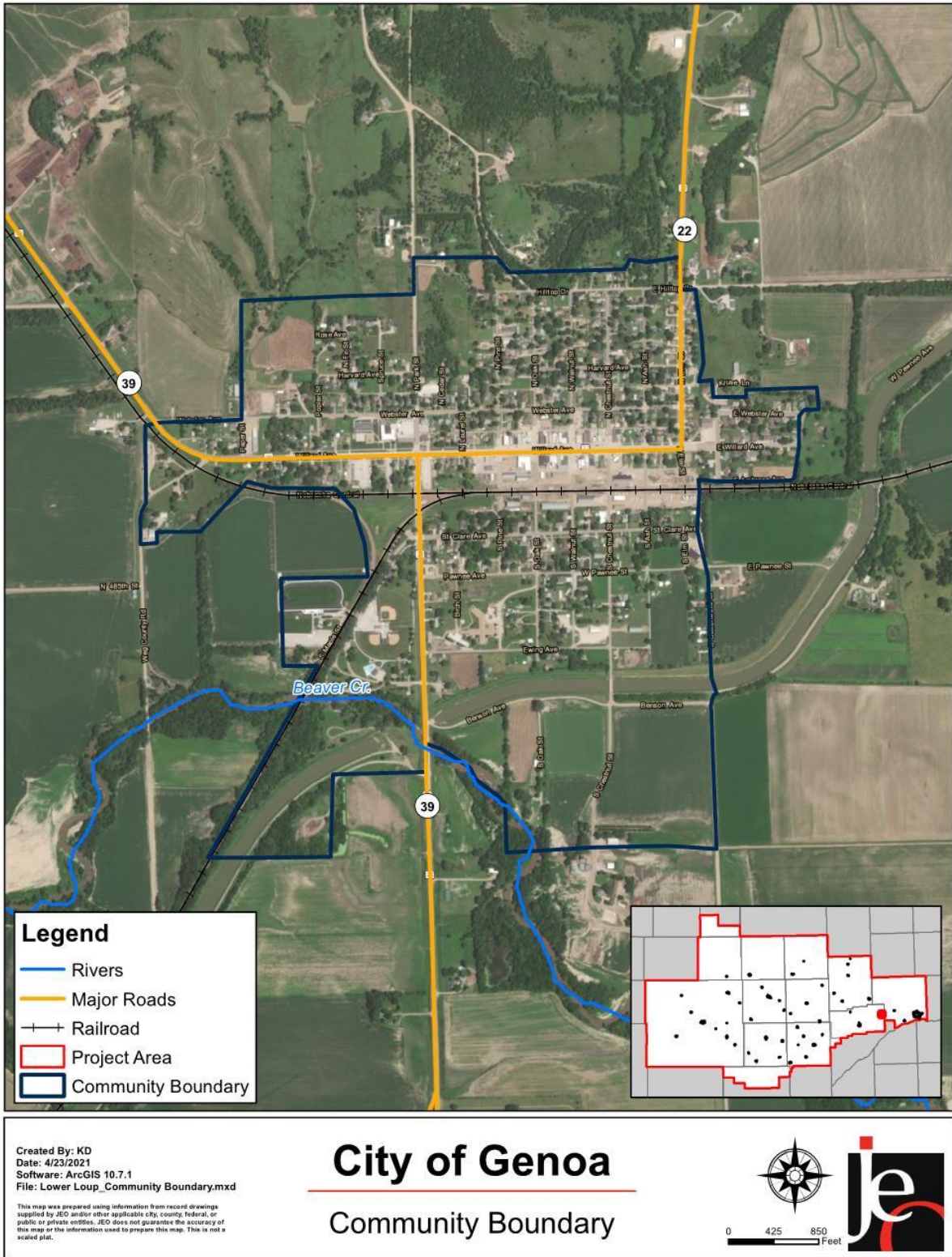
NAME	TITLE	JURISDICTION
KAYLA CONNELLY	City Administrator	City of Genoa
JOLENE ANDREASEN	Secretary	Genoa Volunteer Fire Department

## Location and Geography

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The City of Genoa is located in the eastern portion of Nance County. The City of Genoa covers an area of 0.80 square miles. Beaver Creek runs through the southwestern portion of the city. A canal of the Loup River runs along the southern portion of the city. The area is not heavily forested. Most of Genoa lies in the dissected plains topographic region, and is surrounded by agricultural fields.

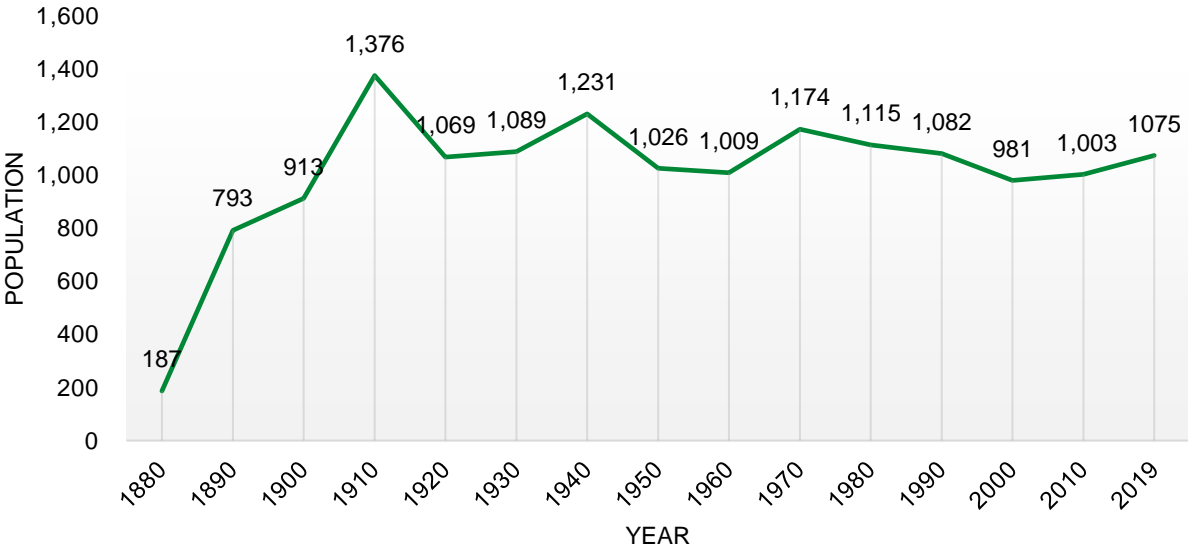
Figure GEN.1: City of Genoa Jurisdictional Boundary



# Demographics

The following figure displays the historical population trend from 1880 to 2019 (estimated). This figure indicates that the population of Genoa experienced a decline from 1970 through 2000. Since 2000, however, the population has been increasing. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. The city’s population accounted for 30% of Nance County’s Population in 2019.

**Figure GEN.2: Genoa Population 1880-2019**



Source: U.S. Census Bureau<sup>34</sup>

The young, elderly, minorities, and poor may be more vulnerable to certain hazards than other groups. In comparison to the County, Genoa’ population was:

- **Older.** The median age of Genoa was 40.8 years old in 2019, compared with the County average of 44.8 years. Genoa’s population has grown older since 2010, when the median age was 37.9 years old. Genoa had a larger proportion of people under 20 years old (25.8%) than the County (24.5%).<sup>35</sup>
- **Less ethnically diverse.** In 2010, 0.4% of Genoa’s population was Black or African American, 1.8% was other races, and 0.7% were two or more races. By 2019, 0% of Genoa’s population was two or more races. During that time, Nance County had 0.1% to 0.5% American Indian, 0.7% to 0.1% other races and 0.5% to 0.1% two or more races from 2010 to 2019 respectively.<sup>36</sup>
- **Slightly more likely to be at the federal poverty line.** The poverty rate of all persons in Genoa (6.5%) was slightly higher than the County (6.0%) in 2019.<sup>37</sup>

<sup>34</sup> United States Census Bureau. “2019 American Fact Finder: S0101: Age and Sex.” [database file]  
<sup>35</sup> United States Census Bureau. “2019 American Fact Finder: S0101: Age and Sex.” [database file]  
<sup>36</sup> United States Census Bureau. “2019 American Fact Finder: DP05: ACS Demographic and Housing Estimates.” [database file]  
<sup>37</sup> United States Census Bureau. “2019 American Fact Finder: DP03: Selected Economic Characteristics.” [database file]

## Employment and Economics

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

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Genoa included Agriculture, Manufacturing, Transportation, and Education. In comparison Nance County's included Agriculture, Retail, and Education.<sup>38</sup>
- **Lower household income.** Genoa's median household income in 2019 (\$46,750) was about \$2,500 lower than the County (\$49,032).<sup>39</sup>
- **More long-distance commuters.** About 28.6% percent of workers in Genoa commuted for fewer than 15 minutes, compared with about 48.4% of workers in Nance County. About 47.1% of workers in Genoa commute 30 minutes or more to work, compared to about 31.1% of the County workers.<sup>40</sup>

### Major Employers

Major employers in the City of Genoa include Twin River Public Schools, the City of Genoa, and the local medical clinics and facilities. A large proportion of the population (approximately 70%) commute to the surrounding communities of Columbus, Lindsay, Monroe, Norfolk, Fullerton, and Albion for work.

## Housing

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In comparison to the Nance County, Genoa's housing stock was:<sup>41</sup>

- **More owner occupied.** About 81.2% of occupied housing units in Genoa are owner occupied compared with 80.5% of occupied housing in Nance County in 2019.
- **Larger share of aged housing stock.** Genoa has more houses built prior to 1970 than the county (81.0% compared to 72.5%).
- **Fewer multi-family homes.** The predominant housing type in the city is single family detached and Genoa contains more multifamily housing with five or more units per structure than the County (0.0% compared to 0.5%). About 93.4% of housing in Genoa was single-family detached, compared with 92.7% of the County's housing. Genoa has a smaller share of mobile and manufactured housing (0.8%) compared to the County (2.8%). The local planning team noted there are approximately six mobile homes in the city.

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.

38 United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

39 United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

40 United States Census Bureau. "2019 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]

41 United States Census Bureau. "2019 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

## Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Genoa has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a four member city council and the following offices: clerk/administrator, sewer commissioner, street/water commissioner, zoning administrator, and volunteer fire department. In addition to these offices, the following may assist with mitigation project identification or implementation: Nance County Sheriff's Department and Nance County Emergency Management.

## 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 GEN.2: Capability Assessment**

		<b>SURVEY COMPONENTS</b>	<b>YES/NO</b>
<b>PLANNING &amp; REGULATORY CAPABILITY</b>		Comprehensive Plan	Yes
		Capital Improvements Plan	Yes
		Economic Development Plan	Yes
		Local Emergency Operational Plan	County
		Floodplain Ordinance	Yes
		Zoning Ordinance	Yes
		Subdivision Regulation/Ordinance	Yes
		Building Codes	Yes
		Chief Building Official	Yes
		Floodplain Management Plan	Yes
		Storm Water Management Plan	Yes
		National Flood Insurance Program	Yes
		Community Rating System	No
		Other (if any)	
<b>ADMINISTRATIVE &amp; TECHNICAL CAPABILITY</b>		Planning Commission	Yes
		Floodplain Administration	Yes
		GIS Capabilities	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)	
<b>FISCAL CAPABILITY</b>		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



SURVEY COMPONENTS		YES/NO
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
EDUCATION 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)	Yes
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table GEN.3: Overall Capability

OVERALL CAPABILITY	2017 PLAN	2022 PLAN
FINANCIAL RESOURCES NEEDED TO IMPLEMENT MITIGATION PROJECTS	Limited	Limited
STAFF/EXPERTISE TO IMPLEMENT PROJECTS	Limited	Limited
COMMUNITY SUPPORT TO IMPLEMENT PROJECTS	Moderate	Moderate
TIME TO DEVOTE TO HAZARD MITIGATION	Limited	Limited

## Plan Integration

Communities have several planning documents that discuss or relate to hazard mitigation. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. Participating jurisdictions will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

### Comprehensive Plan

Genoa has a comprehensive plan that was last updated in 2012. This plan directs development away from the floodplain and chemical storage facilities, and encourages the elevation of structures located in the floodplain. In future updates, the plan will: encourage infill development, limit density in areas adjacent to hazardous areas, identify areas in need of emergency shelters, encourage the use of drought tolerant plant materials, encourage strengthening retrofits to historic structures, and allow for emergency access to all areas of town.

### **Zoning Ordinance & City Municipal Code (2012)**

The Genoa Zoning Ordinance was last updated in 2012 and discourages development in the floodplain, requires more than one-foot of elevation above Base Flood Elevation in the floodplain, prohibits development in the floodway, limits types of development within the floodplain, prohibits filling of wetlands, and includes well setback requirements.

### **Annual Municipal Budget**

Genoa's annual budget is currently limited to maintaining current facilities and systems. Funds in the city have increased in recent years due to increased property tax rates and bonds; however, these increases are on par with raising costs of maintenance and staff.

### **Building Codes (2018)**

Genoa has adopted the 2018 International Building Codes. The code integrates hazard mitigation in the following ways: requires elevation of structures in the floodplain, requires mechanical systems to be elevated for structures in the floodplain, requires onsite storm water detention for commercial structures, encourages the use of permeable surfaces, and requires a safe room in multiple dwelling units.

### **Nance County Local Emergency Operations Plan (2021)**

The City of Genoa is an annex in the Nance County Local Emergency Operations Plan (LEOP). The LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

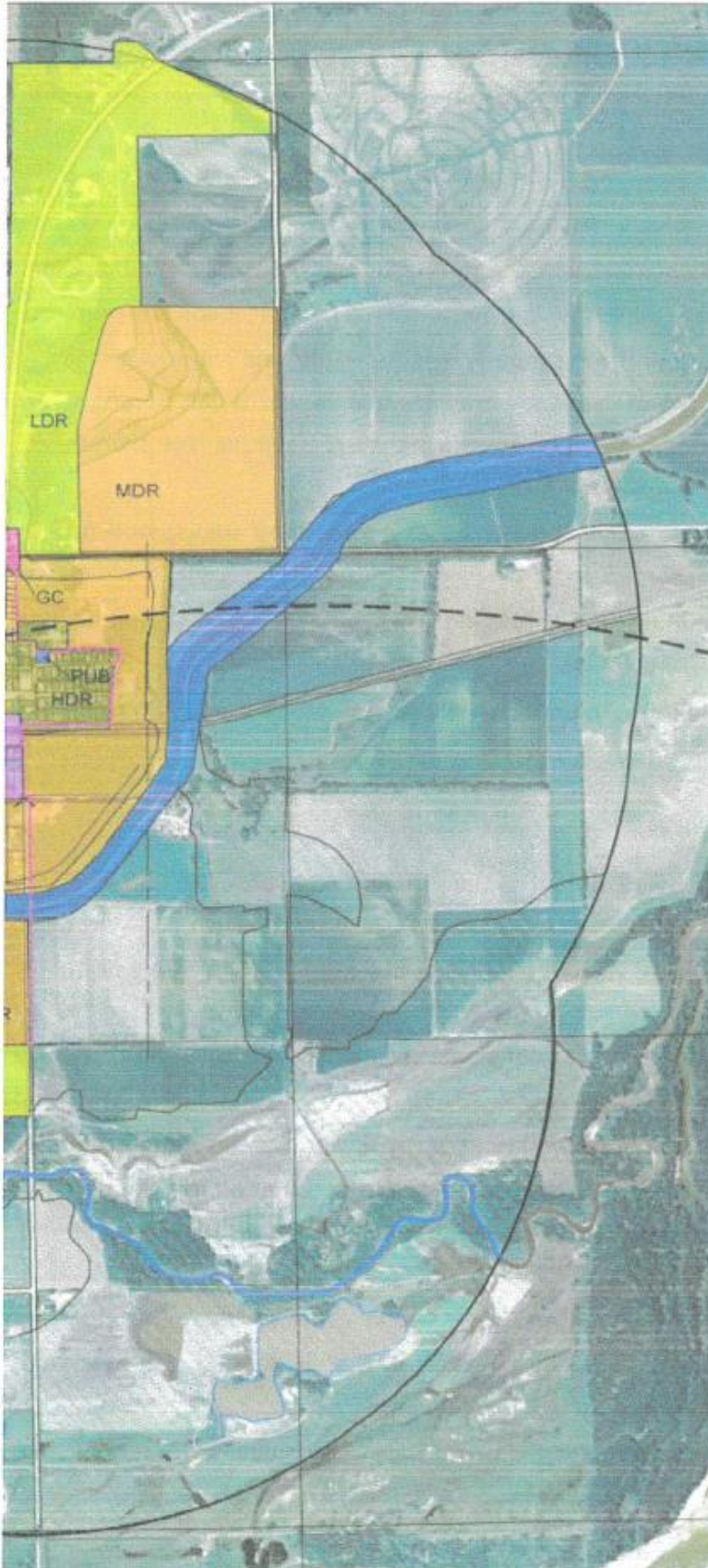
### **Central Platte Community Wildfire Protection Plan (2019)**

The Nebraska Forest Service updated the Central Platte Community Wildfire Protection Plan (CWPP), which includes Nance County in October 2021. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years.

## **Future Development Trends**

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According to the Census data, Genoa's population has increased slightly in the past few years. The local planning team attributed this to more jobs in the Columbus area and people moving to Genoa for a smaller community. There have been no major residential or commercial developments in Genoa over the past five years. Additionally there are no new residential or commercial developments planned for the next five years.



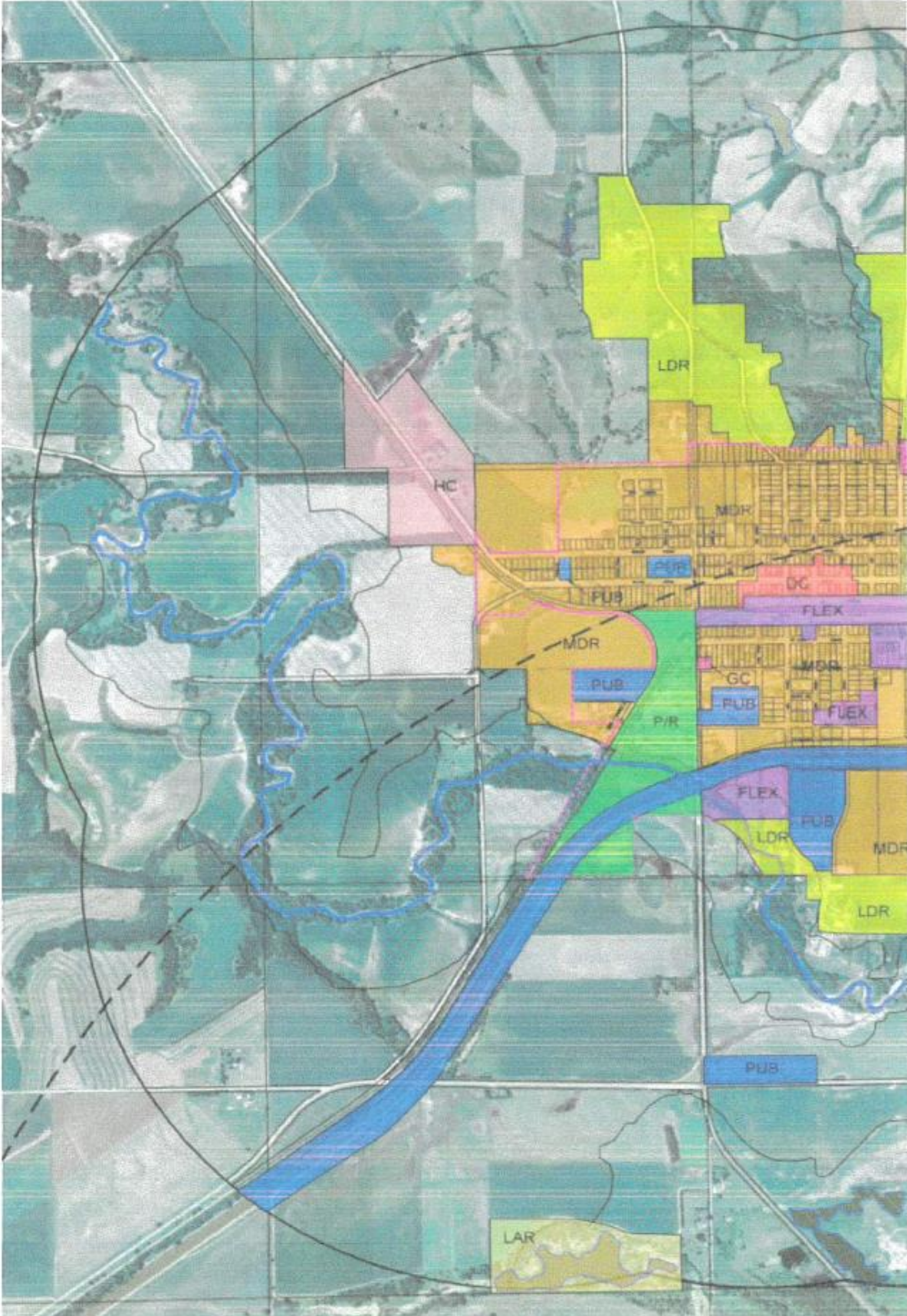
## FUTURE LAND USE

### LEGEND

-  GENOA CORPORATE LIMITS
-  GENOA UTI
-  AH OVERLAY
-  TRANSITIONAL / AGRICULTURAL
-  LOW DENSITY RESIDENTIAL
-  MEDIUM DENSITY RESIDENTIAL
-  HIGH DENSITY RESIDENTIAL
-  LAKE RESIDENTIAL
-  DOWNTOWN COMMERCIAL
-  GENERAL COMMERCIAL
-  HIGHWAY COMMERCIAL
-  FLX
-  INDUSTRIAL
-  PUBLIC
-  PARKS & REC.
-  100 YR FLOODPLAIN



SECTION SEVEN: CITY OF GENOA COMMUNITY PROFILE



# Community Lifelines

## Transportation

Genoa's major transportation corridors include Highway 39, which runs east-west, through the center of Genoa, and Highway 22, which runs north-south through the center of the city. N-39 accommodates on average 1,870 vehicles per day, 165 of which are heavy commercial vehicles. N-22 accommodates on average 3,090 vehicles per day, 330 of which are heavy commercial vehicles. The Nebraska Central Railroad Company has two rail lines that converge along the western side of the city. The local planning team noted the March 2019 flood events restricted travel through and around 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.

## Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites throughout Genoa which house hazardous materials. In the event of a chemical spill, the Genoa Volunteer Fire Department and/or HAZMAT from Columbus would be the first to respond to the incident. In addition to the facilities listed below the city noted an additional agricultural plan on 430<sup>th</sup> Ave is of concern for the city.

**Table GEN.4: Chemical Storage Fixed Sites**

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
FRONTIER COOPERATIVE	222 Willard Ave	N
PREFERRED SANDS OF GENOA LLC	34495 State Highway 22	Y
FARMERS PRIDE BULK FUEL	323 E Willard Ave	N
FARMERS PRIDE BULK FUEL	33194 445th Ave	N

Source: Nebraska Department of Environment and Energy<sup>42</sup>

## 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 previous planning process and updated by the local planning team as a part of this plan update.

The American Red Cross has agreements with Twin Rivers School District, Genoa Town Hall, and Augustana Lutheran Church to serve as mass care facilities during disaster events. The following table and figure provide a summary of the critical facilities for the jurisdiction.

<sup>42</sup> Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2020.

**Table GEN.5: Genoa Critical Facilities**

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Safety and Security	City Hall	Y	N	N
2	Safety and Security	City Offices	N	N	N
3	Safety and Security	Fire and Rescue Hall	N	N	N
4	Food, Water, and Shelter	Water Tower	N	N	N
5	Food, Water, and Shelter	Twin River School	Y	N	N
6	Food, Water, and Shelter	Wastewater Treatment Plant	N	N	N
7	Food, Water, and Shelter	Lutheran Church	Y	N	N

Although not listed in the table above, critical infrastructure also include power substations, cell towers, and alert sirens in the community. These assets are typically owned and maintained by other agencies and are not the responsibility of the jurisdiction.

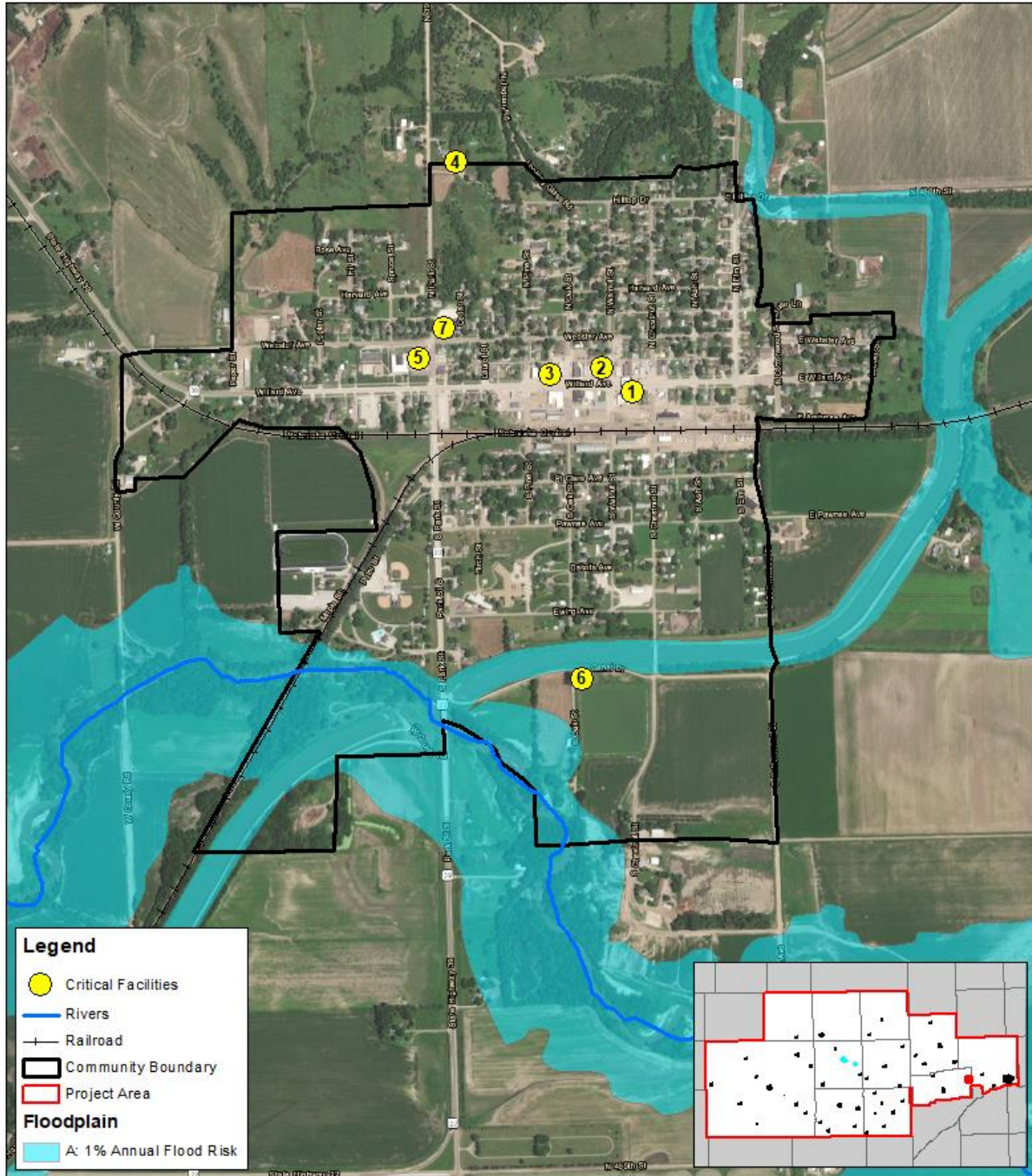
### Health and Medical Facilities

The following medical and health facilities are located within the community.

**Table GEN.6: Genoa Critical Facilities**

NAME OF THE FACILITY	TYPE OF FACILITY	ADDRESS	NUMBER OF LICENSED BEDS
<b>CITY OF GENOA/GENOA COMMUNITY HOSPITAL</b>	Hospital	706 Ewing Ave, Genoa, NE 68640	19
<b>GENOA COMMUNITY HOSPITAL</b>	Long Term Care Facility	706 Ewing Ave, Genoa, NE 68640	39
<b>HOFFMEISTER HOMES</b>	Assisted Living Facility	324 N Pine St, Genoa, NE 68640	25
<b>LOOKING GLASS ESTATES</b>	Assisted Living Facility	424 Looking Glass Lane Genoa, NE 68640	17
<b>PARK STREET MEDICAL CLINIC</b>	Rural Health Clinic	505 S Park St, Genoa, NE 68640	N/A

Figure GEN.3: Genoa Critical Facilities



Created By : KV  
 Date : 5/30/2021  
 Software : ArcGIS 10.8.1  
 File : Lower Loup\_Community Boundary.mxd

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

# City of Genoa

## Critical Facilities



## Parcel Improvements and Valuation

GIS parcel data as of December 2020 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.

**Table GEN.8: Genoa Parcel Valuation**

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	PERCENT OF IMPROVEMENTS IN FLOODPLAIN
619	414	32,544,170	3	257,710	0.72%

Source: County Assessor, GIS Workshop

**Table GEN.9: Genoa Flood Map Products**

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	16-07-0771A-310153	3/18/2016	Portion of property removed from SFHA

Source: FEMA Flood Map Service Center

## Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Nance County jurisdictional profile. 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.

### Flooding

Flooding is a concern to the city of Genoa. Specifically a drainage canal through the city is at risk during high water events. The local planning team noted that if the canal were to break, the south side of Genoa and the sewer plant would flood. The March 2019 flood overtopped Highways 22 and 39, blocking transportation access while the city conducted evacuations. Additionally several gravel roads were washed away during the flood event. These roads have since been repaired. Areas most prone to flooding include south of Willard Avenue due to its proximity to the canal and Beaver Creek.

Genoa participates in the NFIP but does not have any policies in-force. There are no repetitive flood loss properties in the City of Genoa.

### Severe Thunderstorms

Local concerns regarding severe thunderstorms include the destruction of homes, falling trees, and power outages. According to the local planning team, almost every spring there is a severe thunderstorm with large hail and high winds that leads to power outages. There are backup power generators at the fire department, sewer plant, and well house. Critical municipal records are



protected with surge protectors on electronic devices. The city has removed some hazardous trees at the park to reduce the risk of damages from future storms.

### Severe Winter Storms

Heavy wet snow from past severe winter storms has caused roads and schools to close and power outages in 2006 and 2015. Local concerns regarding this hazard include the closure of transportation routes, not being able to check wells, and downed power lines. Main Street, Willard Avenue, and S Park Street/Hwy 22 and 39 are all designated as snow routes in Genoa. Snow removal is the responsibility of the Street Superintendent who noted resources are not sufficient for current needs.

### Tornadoes and High Winds

Genoa has warning sirens and text alerts which are now activated through Boone County Emergency Management. The sirens can be activated manually at the fire hall and reach the entire community. Although the community does not have any safe rooms, the school and churches are available for community members seeking safe shelter. In the event of a disaster, Genoa has mutual aid agreements with neighboring communities within the county.

Local concerns regarding high winds include falling trees and power lines. One significant high wind event in 2014 downed trees and caused damage to homes. There are dead trees located throughout the city which are in the process of being removed (if on city property) or are encouraged to be removed (if on private property). The city has sent out letters to residents instructing them to remove damaged or dead trees to reduce potential future damages. Genoa has a data backup system for municipal records, and the backup tapes are taken out every day. City Hall has experienced roof damages from previous high wind events.

## Mitigation Strategy

### Completed Mitigation Actions

OBJECTIVE	IMPROVE WARNING SYSTEMS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Evaluate current warning systems</li> <li>2. Improve warning systems/develop new warning system</li> <li>3. Obtain/Upgrade warning system equipment and methods</li> <li>4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens</li> <li>5. Identify location of weather warning radios</li> <li>6. Improve weather radio system</li> <li>7. Obtain/Upgrade weather radios</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
STATUS	Alert sirens and text alerts are activated by Boone County Emergency Management and reach the entire community.

SECTION SEVEN: CITY OF GENOA COMMUNITY PROFILE

<b>OBJECTIVE</b>	<b>IMPROVE EMERGENCY COMMUNICATION</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Develop/Improve Emergency Communication Action plan</li> <li>2. Implement Emergency Communication Action Plan</li> <li>3. Establish inner-operable communications</li> <li>4. Obtain/Upgrade Emergency Communication Facilities/Equipment</li> <li>5. Obtain/Upgrade/Distribute Weather Warning Radios</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>STATUS</b>	Current warning sirens and text alerts are sufficient to meet all local needs.

<b>OBJECTIVE</b>	<b>DEVELOP EMERGENCY SNOW/EVACUATION ROUTES</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Develop/Improve snow/evacuation route and program to include parking, snow/ice and debris removal, etc.</li> <li>2. Obtain and install snow emergency route/evacuation signs</li> <li>3. Provide information on emergency routes to public</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	Tornadoes, Severe Winter Storms, Severe Thunderstorms, Grass/Wildfire, Flooding
<b>STATUS</b>	Main Street, Willard Avenue, and S Park Street/Hwy 22 and 39 are all designated as snow routes in Genoa.

<b>OBJECTIVE</b>	<b>IMPROVE CONSTRUCTION STANDARDS AND BUILDING SURVIVABILITY</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Evaluate building standards/codes/requirements</li> <li>2. Implement new or improved building standards/codes/requirements</li> <li>3. Promote use of higher codes and standards, such as fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>STATUS</b>	The City has adopted the 2018 International Building Code which addresses construction survivability requirements.

<b>OBJECTIVE</b>	<b>IMPACT RESISTANT ROOF COVERINGS</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Use roofing materials that are resistant to hail impacts for new buildings</li> <li>2. Retrofit existing buildings with hail resistant roofing</li> <li>3. Encourage the use of hail resistant roofing for any new constructions</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	Severe Thunderstorms, Hail
<b>STATUS</b>	The City has adopted the 2018 International Building Code which addresses hardened roof requirements.

**Continued Mitigation Actions**

<b>OBJECTIVE</b>	<b>PROVIDE ADEQUATE PUBLIC SAFE ROOMS &amp; POST DISASTER STORM SHELTERS</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>3. Identify and evaluate existing safe rooms and/or storm shelters</li> <li>4. Improve and/or construct safe rooms and/or storm shelters</li> <li>5. Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, etc.</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	Tornadoes, High Winds, Severe Thunderstorms
<b>ESTIMATED COST</b>	\$150/sf for retrofit; \$300/sf for new construction
<b>POTENTIAL FUNDING</b>	Property Taxes, HMGP, PDM
<b>TIMELINE</b>	2-5 Years
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Region 44 EMA, City Council
<b>STATUS</b>	This project has not yet been started.

<b>OBJECTIVE</b>	<b>BACKUP AND EMERGENCY GENERATORS</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Identify and evaluate current backup and emergency generators</li> <li>2. Obtain additional generators based on identification and evaluation</li> <li>3. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	All Hazards
<b>ESTIMATED COST</b>	\$20,000 to \$75,000+ per generator
<b>POTENTIAL FUNDING</b>	Property Taxes, HMGP, PDM
<b>TIMELINE</b>	2-5 Years
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Region 44 EMA, City Council
<b>STATUS</b>	This project has not yet been started.

SECTION SEVEN: CITY OF GENOA COMMUNITY PROFILE

<b>OBJECTIVE</b>	<b>IMPROVE ELECTRICAL SERVICE</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Evaluate hardening, retrofitting, looping and/or burying of power lines and related infrastructure and/or comparable protection measures</li> <li>2. Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails</li> <li>3. Implement measures to improve electrical service</li> <li>4. Bury power lines for future construction</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	Tornadoes, Severe Thunderstorms, Severe Winter Storms
<b>ESTIMATED COST</b>	\$50,000+
<b>POTENTIAL FUNDING</b>	Property Taxes, HMGP, PDM, Electric Rates
<b>TIMELINE</b>	5+ Years
<b>PRIORITY</b>	High
<b>LEAD AGENCY</b>	City Council
<b>STATUS</b>	This project has not yet been started.

<b>OBJECTIVE</b>	<b>REDUCE WATER DEMAND/IMPROVE DROUGHT EDUCATION</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Conduct water use study to evaluate/implement methods to conserve water/reduce consumption</li> <li>2. Evaluate/implement water use restriction ordinance</li> <li>3. Identify/evaluate current/additional potable water sources</li> <li>1. Develop or obtain drought education materials to conduct multi-faceted public education and awareness program</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	Drought
<b>ESTIMATED COST</b>	Study \$5,000+; Education \$1,000+
<b>POTENTIAL FUNDING</b>	Property Taxes, HMGP, PDM
<b>TIMELINE</b>	2-5 Years
<b>PRIORITY</b>	Low
<b>LEAD AGENCY</b>	City Council
<b>STATUS</b>	This project has not yet been started.
<b>STATUS</b>	This project has not yet been started.

<b>OBJECTIVE</b>	<b>REDUCE DAMAGES IN FLOODPLAIN</b>
<b>DESCRIPTION</b>	<ol style="list-style-type: none"> <li>1. Evaluate repetitive loss or potential loss structures located in floodplain</li> <li>2. Acquire and relocate or demolish flood prone property or elevate flood prone property</li> <li>3. Elevate equipment vulnerable to flooding</li> </ol>
<b>HAZARD(S) ADDRESSED</b>	Flooding
<b>ESTIMATED COST</b>	Varies by number and size of structure(s)
<b>POTENTIAL FUNDING</b>	Property Taxes, HMGP, PDM, FMA
<b>TIMELINE</b>	5+ Years
<b>PRIORITY</b>	Low
<b>LEAD AGENCY</b>	City Council

SECTION SEVEN: CITY OF GENOA COMMUNITY PROFILE

<b>OBJECTIVE</b>	<b>IMPROVE STREAM BED/BANK STABILIZATION</b>
<b>DESCRIPTION</b>	1. Evaluate current stream bed and bank stabilization needs 2. Implement stream bed and bank stabilization improvements including grade control structures, rock rip rap, vegetative cover, etc.
<b>HAZARD(S) ADDRESSED</b>	Flooding
<b>ESTIMATED COST</b>	\$25,000 to \$500,000+
<b>POTENTIAL FUNDING</b>	Property Taxes, HMGP, PDM
<b>TIMELINE</b>	2-5 Years
<b>PRIORITY</b>	Low
<b>LEAD AGENCY</b>	City Council, Clerk
<b>STATUS</b>	This project has not yet been started.

<b>OBJECTIVE</b>	<b>TREE PLANTING</b>
<b>DESCRIPTION</b>	1. Develop city tree planting and maintenance guidelines
<b>HAZARD(S) ADDRESSED</b>	Severe Thunderstorms, Severe Winter Storms, High Winds
<b>ESTIMATED COST</b>	\$500; Staff Time
<b>POTENTIAL FUNDING</b>	Genoa General Fund
<b>TIMELINE</b>	1 Year
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Clerk, Zoning Administrator
<b>STATUS</b>	This project has not yet been started.

<b>OBJECTIVE</b>	<b>SNOW FENCES</b>
<b>DESCRIPTION</b>	1. Construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closure
<b>HAZARD(S) ADDRESSED</b>	Severe Winter Storms
<b>ESTIMATED COST</b>	\$50 per 100 linear feet
<b>POTENTIAL FUNDING</b>	Genoa General Fund
<b>TIMELINE</b>	1 Year
<b>PRIORITY</b>	Medium
<b>LEAD AGENCY</b>	Street Commissioner
<b>STATUS</b>	This project has not yet been started.

SECTION SEVEN: CITY OF GENOA COMMUNITY PROFILE

OBJECTIVE	COMMUNITY EDUCATION AND AWARENESS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Establish a community education program to increase awareness related to household level mitigation actions</li> <li>2. Utilize outreach projects and the distribution of maps</li> <li>3. Purchasing equipment such as projectors and laptops to facilitate presentation of information</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$3,000+; Staff Time
POTENTIAL FUNDING	Genoa General Fund
TIMELINE	1 Year
PRIORITY	High
LEAD AGENCY	Clerk, Region 44 EMA
STATUS	The city has sent out letters to residents instructing them to remove damaged or dead trees to reduce potential future damages. Future education materials can center on household flood mitigation and debris.

OBJECTIVE	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Improve emergency rescue and response equipment and facilities by providing additional, or updating existing, emergency response equipment.</li> <li>2. Includes developing backup system for emergency vehicles and identifying and training additional personnel for emergency response</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	Varies by need
POTENTIAL FUNDING	Genoa General Fund, HMGP, Bond
TIMELINE	2-5 Years
PRIORITY	High
LEAD AGENCY	Clerk, Region 44 EMA
STATUS	This project has not yet been started. Snow removal resources are currently not sufficient for local needs.

OBJECTIVE	EMERGENCY FUEL SUPPLY PLAN
DESCRIPTION	<ol style="list-style-type: none"> <li>1. Plan to ensure adequate fuel supply is available during an emergency</li> <li>2. Prioritization and rationing plans for gasoline and diesel uses in extended loss of fuel supply or electric power supply; plans to purchase local fuel supply; etc.</li> </ol>
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	Varies by need
POTENTIAL FUNDING	Genoa General Fund, HMGP, Bond
TIMELINE	2-5 Years
PRIORITY	High
LEAD AGENCY	Clerk, Region 44 EMA
STATUS	This project has not yet been started.

## Plan Maintenance

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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 Administrator, City Engineer, City Council, and Utilities Superintendent. The plan will be reviewed no less than annually and will include the public in the review and revision process by sharing information via social media, the local website, and at local council meetings.