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COUNTY PROFILE

VALLEY COUNTY

Lower Loup Natural Resources District Hazard Mitigation Plan 2022

Local Planning Team

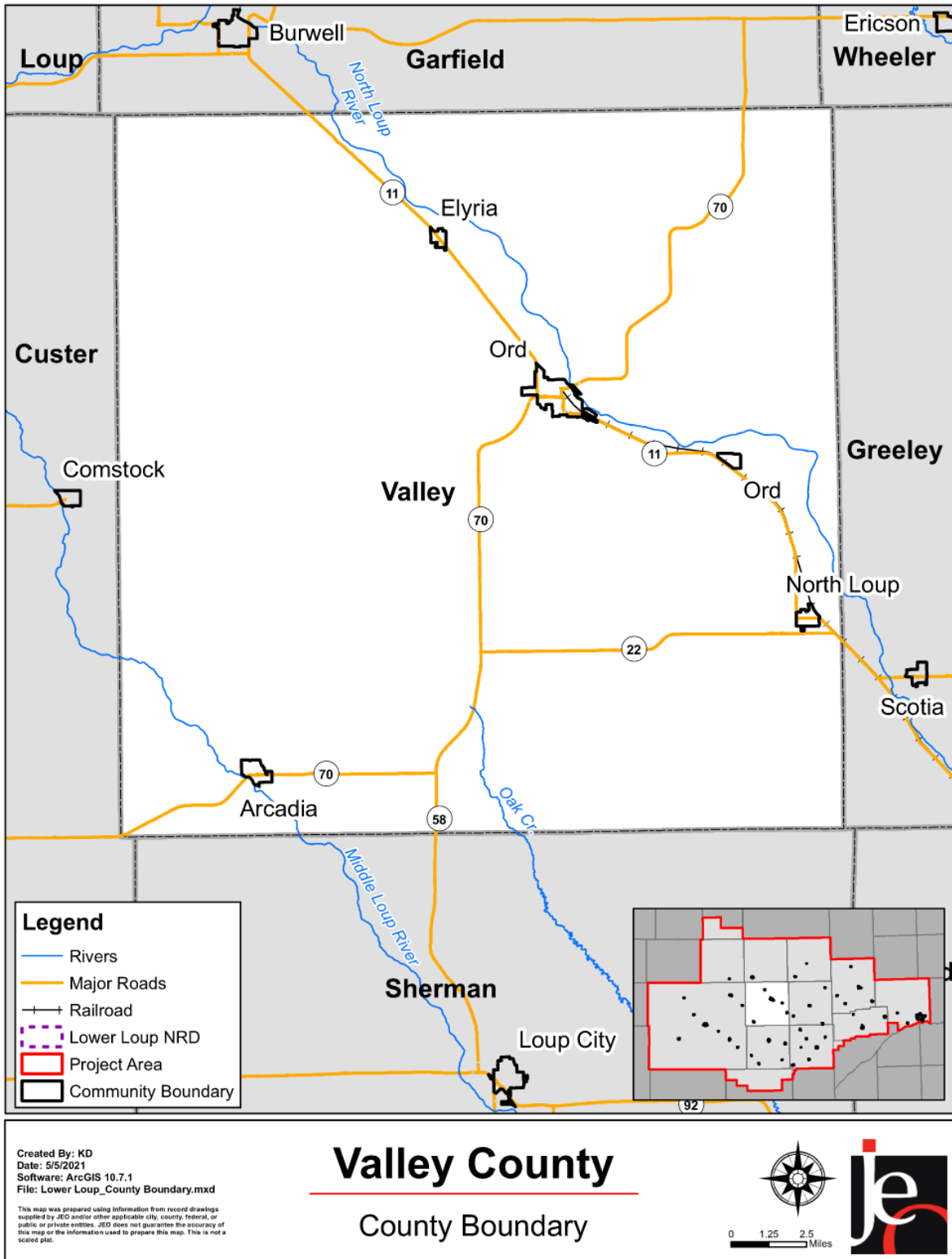
Table VAL.1: Valley County Local Planning Team

NAME	TITLE	JURISDICTION
ALMA BELAND	Director	Region 26 Emergency Management
RYAN SIMPSON	Emergency Manager	Valley County

Location, Geography, & Climate

Valley County is located in central Nebraska and is bordered by Custer County, Sherman County, and Greeley County. The total area of Valley County is 570 square miles. Major waterways within the county include the Middle Loup River and the North Loup River. The county is not heavily forested, nor is it located in a geographic area of the state prone to landslides. Most of Valley County lies in the dissected plains topographic region, with the vast majority of the county's land characterized by agricultural fields.

Figure VAL.1: Valley County Jurisdictional Boundary



Climate

The average high temperature in Valley County for the month of July is 87.1 degrees and the average low temperature for the month of January is 12.2 degrees. On average, Valley County receives over 23 inches of rain and 26 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 VAL.2: Valley County Climate Normals

	VALLEY COUNTY	PLANNING AREA	STATE OF NEBRASKA
JULY NORMAL HIGH TEMP	87.1°F	62.7°F	87.4°F
JANUARY NORMAL LOW TEMP	12.2°F	12.1°F	13.9°F
ANNUAL NORMAL PRECIPITATION	23.8 inches	26.36 inches	24.0 inches
ANNUAL NORMAL SNOWFALL	26.9 inches	28.6 inches	28.2 inches

Source: NCEI 1991-2020 Climate Normals¹

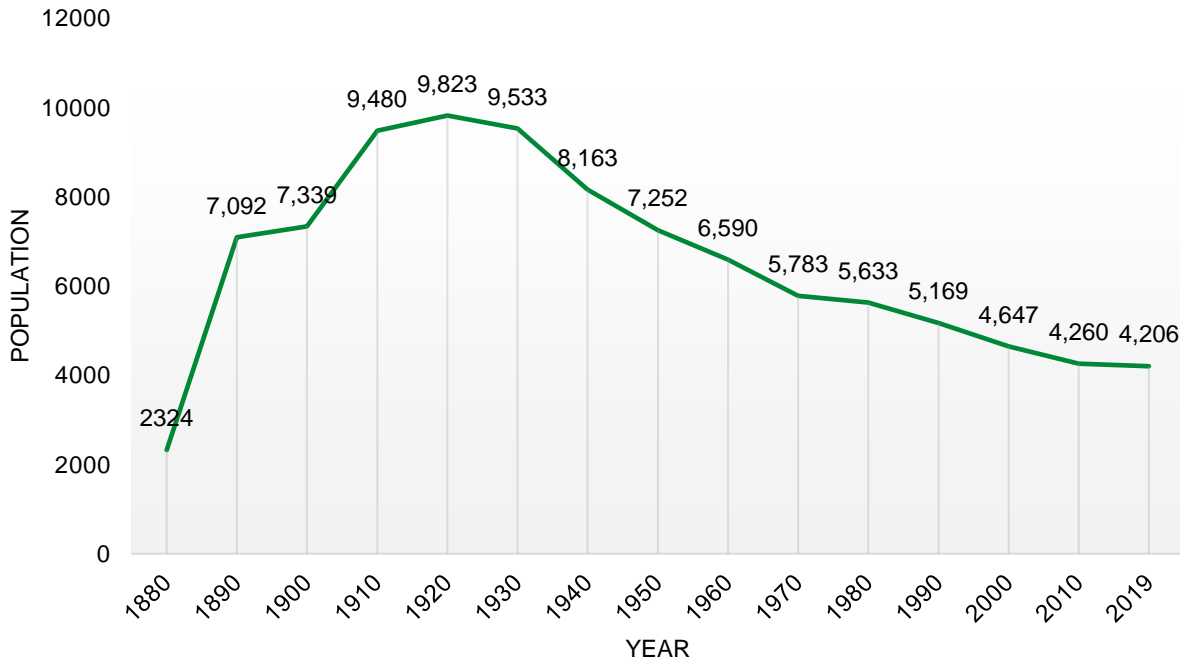
Precipitation includes all rain and melted snow and ice.

Demographics

The following figure displays the historical population trend from 1880 to 2019. This figure indicates that the population of Valley County has been declining since 1920. 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.

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

Figure VAL.2: Valley County Population 1880-2019



Source: U.S. Census Bureau²

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 Valley County. Valley County has a significantly 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 VAL.3: Population by Age

AGE	VALLEY COUNTY	STATE OF NEBRASKA
<5	5.9%	6.9%
5-64	68.7%	78.1%
>64	25.4%	15.0%
MEDIAN AGE	47.0	36.4

Source: U.S. Census Bureau³

The following table indicates that the county’s median household income and per capita income are slightly lower than those of the state. Median home values are rent are also notably 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.

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

SECTION SEVEN: VALLEY COUNTY COMMUNITY PROFILE

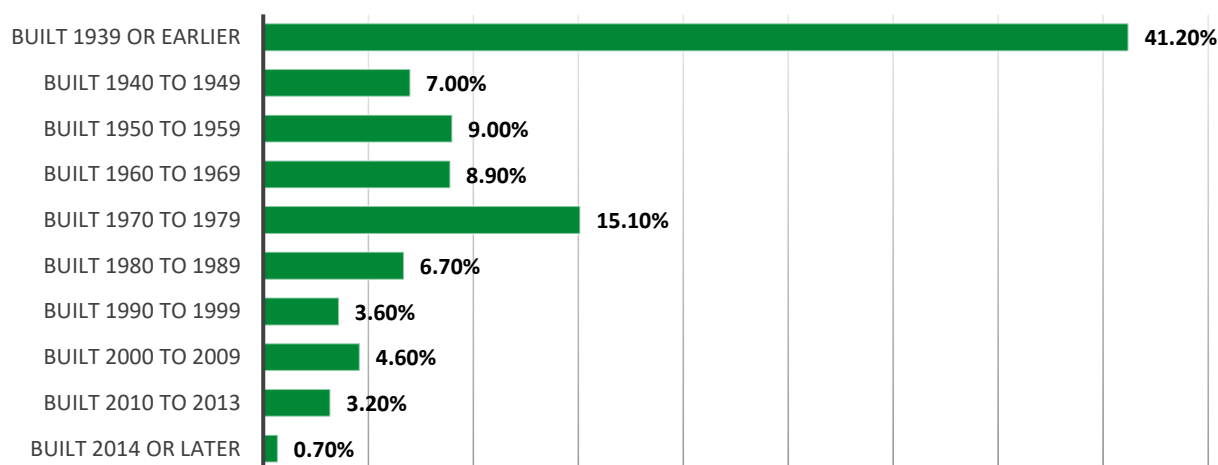
Table VAL.4: Housing and Income

AGE	VALLEY COUNTY	STATE OF NEBRASKA
MEDIAN HOUSEHOLD INCOME	\$55,324	\$59,116
PER CAPITA INCOME	\$29,378	\$31,101
MEDIAN HOME VALUE	\$88,700	\$147,800
MEDIAN RENT	\$579	\$805

Source: U.S. Census Bureau^{4,5}

The following figure indicates that the majority of the housing in Valley County was built prior to 1940. According to the United States Census Bureau 2019 ACS 5-year estimates, the county has 2,303 housing units; with 81 percent of those units occupied. Approximately 3.4 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 VAL.3: Housing Units by Age



Source: U.S. Census Bureau⁶

Table VAL.5: Housing Units

JURISDICTION	TOTAL HOUSING UNITS				OCCUPIED HOUSING UNITS			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
VALLEY COUNTY	1,865	81.0%	438	19.0%	1,385	74.3%	312	22.8%
NEBRASKA	754,063	90.8%	76,686	9.2%	498,567	67.1%	255,496	33.9%

Source: U.S. Census Bureau⁷

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, Valley County had 180 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 VAL.6: Businesses in Valley County

	TOTAL BUSINESSES	NUMBER OF PAID EMPLOYEES	ANNUAL PAYROLL (IN THOUSANDS)
TOTAL FOR ALL SECTORS (2014)	182	1,349	\$38,835
TOTAL FOR ALL SECTORS (2016)	182	1,306	\$41,267
TOTAL FOR ALL SECTORS (2018)	180	1,294	\$44,964

Source: U.S. Census Bureau^{8,9}

Agriculture is also important to the economic fabric of Valley County, and the state of Nebraska as a whole. Valley County's 362 farms cover 350,834 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 VAL.7: Valley County Agricultural Inventory

	2012 CENSUS	2017 CENSUS	PERCENT CHANGE
NUMBER OF FARMS WITH HARVESTED CROPLAND	402	362	-9.95%
ACRES OF HARVESTED CROPLAND	349,404	350,834	0.41%

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

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.

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

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."

planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table VAL.13: Capability Assessment

		SURVEY COMPONENTS	Yes/No
PLANNING & REGULATORY CAPABILITY		Comprehensive Plan	Yes
		Capital Improvements Plan	Yes
		Economic Development Plan	Yes
		Local Emergency Operational Plan	Yes
		Floodplain Ordinance	Yes
		Zoning Ordinance	Yes
		Subdivision Regulation/Ordinance	Yes
		Building Codes	No
		Floodplain Management Plan	No
		Storm Water Management Plan	No
		National Flood Insurance Program	Yes
ADMINISTRATIVE & TECHNICAL CAPABILITY		Community Rating System	No
		Other (if any)	
		Planning Commission	Yes
		Floodplain Administration	Yes
		GIS Capabilities	No
		Chief Building Official	No
		Civil Engineering	No
		Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
		Grant Manager	No
	Mutual Aid Agreement	Yes	
	Other (if any)		
FISCAL CAPABILITY		1 & 6 Year Plan	Yes
		Applied for grants in the past	Yes
		Awarded a grant in the past	Yes
		Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
		Gas/Electric Service Fees	No
		Storm Water Service Fees	No
		Water/Sewer Service Fees	No
		Development Impact Fees	No
		General Obligation Revenue or Special Tax Bonds	Yes
		Other (if any)	
EDUCATION 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.	Yes
		Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes

SURVEY COMPONENTS		YES/NO
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table VAL.14: Overall Capability

OVERALL CAPABILITY	2017 PLAN	2022 PLAN LIMITED/MODERATE/HIGH
FINANCIAL RESOURCES NEEDED TO IMPLEMENT MITIGATION PROJECTS	Moderate	Moderate
STAFF/EXPERTISE TO IMPLEMENT PROJECTS	Moderate	Moderate
COMMUNITY SUPPORT TO IMPLEMENT PROJECTS	Moderate	Moderate
TIME TO DEVOTE TO HAZARD MITIGATION	Moderate	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 very limited and are used solely for maintaining current facilities and systems. While funds have increased over the past several years the cost of maintenance has also risen. There are currently no large-scale projects with earmarked funds.

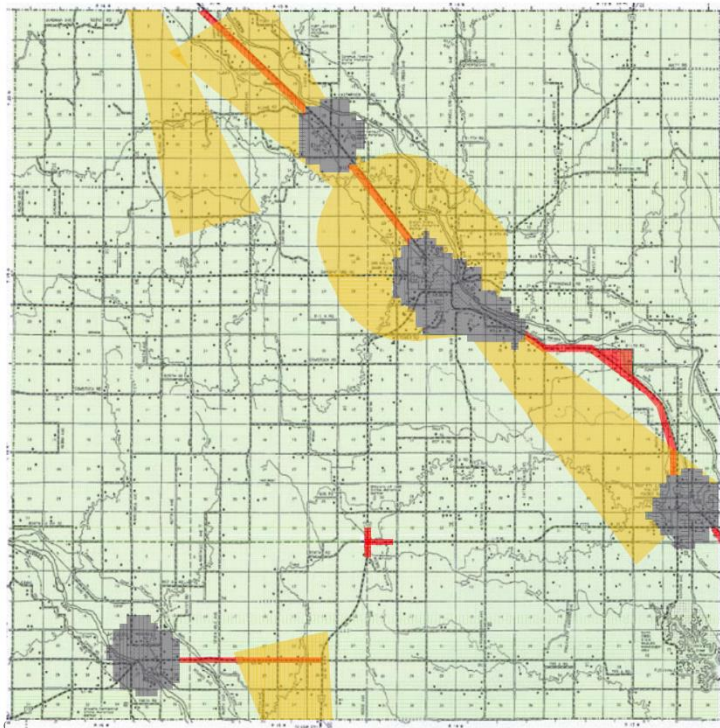
Comprehensive Plan

Valley County's Comprehensive Plan was last updated in 2016 and addresses both wildfire and flooding concerns.

Zoning Ordinance and Floodplain Ordinance

The Valley County Zoning Ordinance was last updated in 2016. 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.

SECTION SEVEN: VALLEY COUNTY COMMUNITY PROFILE



ZONING DISTRICT LEGEND

- AG - General Agricultural District
- RCI - Rural Commercial / Industrial District
(Measured 660 feet on each side of highway right-of-way)
- WPO - Wellhead Protection Overlay District
- AHO - Airport Hazard Overlay District
(Refer to Official Airport Hazard Zoning Map)
- FHO - Flood Hazard Overlay District
(Refer to Official FIRM maps for Valley County)
- Municipal Zoning Jurisdiction Boundaries

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OFFICIAL ZONING MAP Valley County, Nebraska

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Valley County Local Emergency Operations Plan

The Valley 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 Sandhills Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Valley County in June 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

According to the census data, the population of Valley County has been slowly declining since 1930. This is indicative of the trend of rural counties losing population to larger urban areas within Nebraska. Most of the future development will be located in incorporated areas of the county.

Community Lifelines

Transportation

Valley County's major transportation corridors include Highways 11, 70, and 22. The Nebraska Central Railroad Company has a rail line that runs to Ord. The Evelyn Sharp Field Airport is located in the county. 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 Valley County which house hazardous materials. For a description of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Critical Facilities

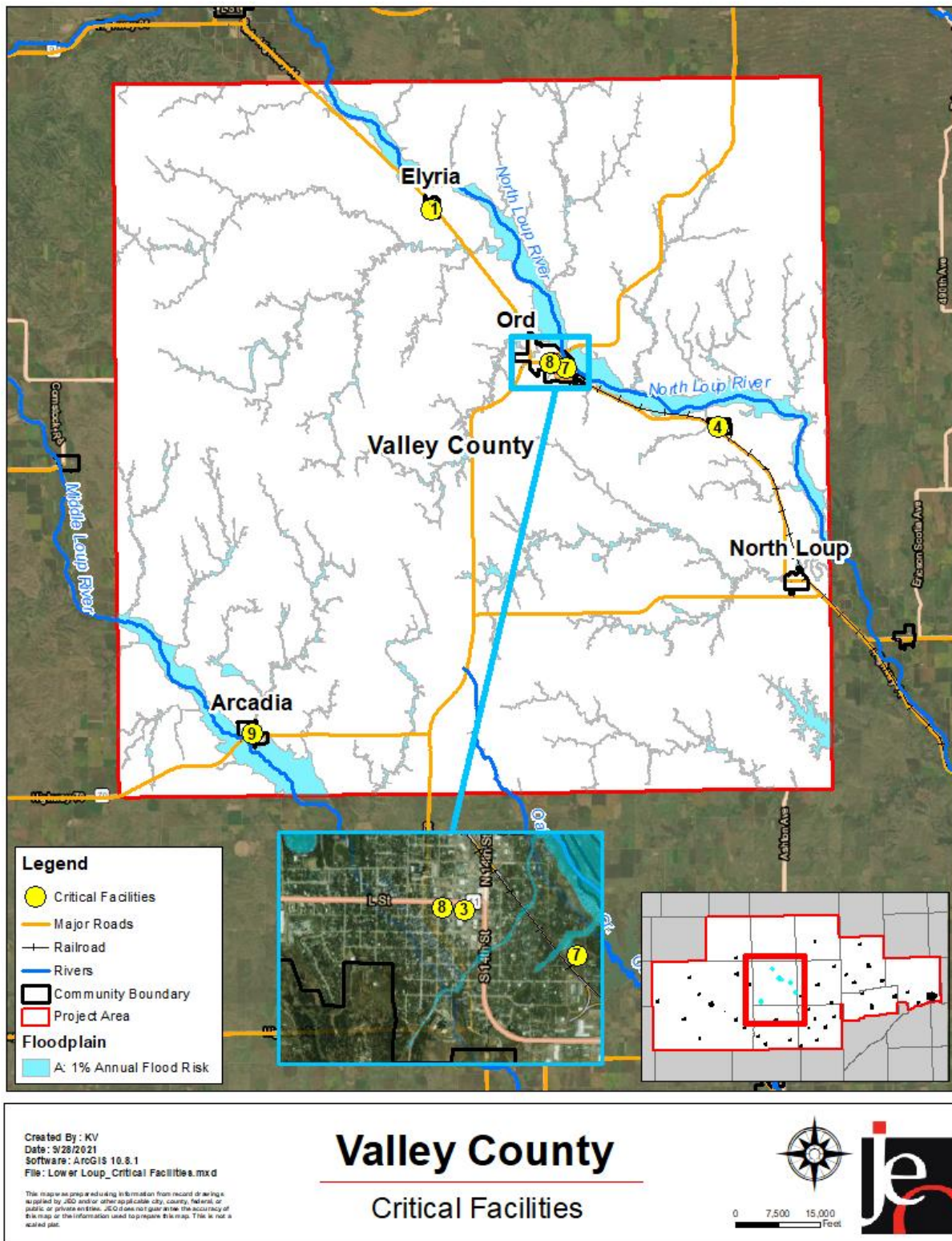
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during 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 VAL.9: Valley County Critical Facilities

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Communications	Region 26 Tower	N	N	N
2	Health and Medical	Valley County Nursing Home	N	N	N
3	Safety and security	Valley County Courthouse	N	Y	N
4	Hazardous Materials	Ethanol Plant	N	N	N
5	Food, Water, and Shelter	Ord Elementary School	Y	N	N
6	Food, Water, and Shelter	Ord High School	Y	N	N
7	Safety and Security	County Roads Department	N	N	N
8	Safety and Security	Ord Fire Department	Y	N	N
9	Safety and Security	Arcadia Fire Hall	Y	N	N

Figure VAL.4: Valley County Critical Facilities



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 VAL.4: Valley County Critical Facilities

TYPE OF FACILITY	FACILITY NAME	COMMUNITY	NUMBER OF LICENSED BEDS
ASSISTED LIVING	Grandview Assisted Living Facility	Ord	50
HOSPITAL	Valley County Hospital	Ord	16
LONG TERM CARE	Arbor Care Centers - Ord	Ord	60

Source: DHHS Care Rosters, 2021

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 VAL.12: Valley County Parcel Valuation

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	PERCENT OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN
5,170	2017	174,789,735	368	39,851,170	18.24%

Source: County Assessor, GIS Workshop

Table VAL.13: Valley County Flood Map Products

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	09-07-0391A-310482	2/3/2009	Structure (residence) removed from SFHA
LOMA	15-07-0512A-310482	1/22/2015	Portion of property removed from SFHA
LOMA	08-07-0450A-310482	12/20/2017	Structure (cabin) 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.

SECTION SEVEN: VALLEY COUNTY COMMUNITY PROFILE

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

Table VAL.10: Hazard Risk Assessment – Valley County

Hazard Type		Valley County		
		Count	Property	Crop
Agricultural Disease	Animal Disease ²	20	3,061 Animals	N/A
	Plant Disease ³	9	N/A	\$92,967
Dam Failure ⁷		1	Unknown	N/A
Drought ⁸		444 out of 1,512 Months	\$0	\$10,740,786
Earthquakes ¹¹		1	\$0	\$0
Extreme Heat ⁹		Avg 5 Days per Year	\$0	\$4,223,158
Flooding ¹	Flash Flood	7	\$3,240,000	\$36,259
	Flood	2	\$2,000,000	
Grass/Wildfires ⁴ <i>1 injury</i>		119	6,953 Acres	\$24,475
Hazardous Materials	Chemical Spills (Fixed Site) ⁵	3	\$0	N/A
	Chemical Spills (Transportation) ⁶	0	\$0	N/A
Levee Failure ¹²		N/A	N/A	N/A
Public Health Emergency ¹³		~330 cases, 2 deaths	N/A	N/A
Severe Thunderstorms ¹	Hail <i>Average: 1.2"</i> <i>Range: 0.75"-2.75"</i>	166	\$5,440,000	\$20,269,901
	Heavy Rain	13	\$50,000	\$5,554,326
	Lightning	2	\$40,000	N/A
	Thunderstorm Wind <i>Average: 57.9mph</i> <i>Range: 50-87mph</i>	52	\$2,828,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$1,000,000	\$843,482
	Extreme Cold/Wind Chill	3	\$0	
	Heavy Snow	4	\$0	
	Ice Storm	5	\$220,000	
	Winter Storm	38	\$135,000	
	Winter Weather	35	\$5,000	
Terrorism ¹⁰		0	\$0	N/A
Tornadoes & High Winds ¹	High Winds <i>Average: 51.2mph</i> <i>Range: 35-61mph</i>	51	\$1,369,080	\$3,904,660
	Tornadoes <i>Average: F0</i> <i>Range: EF0/F0-F3</i>	14	\$1,890,000	\$0

SECTION SEVEN: VALLEY COUNTY COMMUNITY PROFILE

Hazard Type	Valley County		
	Count	Property	Crop
Totals	555	\$18,217,080	\$45,690,014

- 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)

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. There are no mapped levees in the county.

Table VAL.11: Valley 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
VALLEY COUNTY	X	X	X		X	X	X			X	X		X
ARCADIA	X		X		X	X	X			X	X		X
ELYRIA	X		X		X	X	X			X	X		X
NORTH LOUP	X	X	X		X	X	X			X	X		X
ORD	X		X		X	X	X			X	X		X

Hazard Prioritization

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

Dam Failure

There are nine dams in Valley County. One of these dams have been identified as a high hazard dam. The Bredthauer Dam failed in 2010 causing flooding throughout the village of North Loup. The dam was not rebuilt after the incident. According to the Valley County LEOP, an upstream dam that could affect the county is the Virginia Smith Dam. If the dam were to fail, approximately 3.7% of the population of the county would be affected. The local planning team indicated that other dams of concern are the Arcadia diversion dam and the Ord diversion dam.

Table VAL.16: Dams in Valley County

	NUMBER OF DAMS	MINIMAL	LOW	SIGNIFICANT	HIGH
VALLEY COUNTY	9	0	6	2	1
PLANNING AREA	135	5	119	6	5

Source: NeDNR, 2017

Table VAL.17: High Hazard Dams

NIDID	DAM NAME	LOCATION
NE00264	Bredthauer Dam	Bredthauer Reservoir

Source: NeDNR, 2017

Drought

Drought have the potential to threaten water supply and harm the county economy. Drawdown of the water table is a concern, although local water supply has been sufficient during past drought periods. According to RMA data, past drought periods have caused \$10,740,786 in crop damages. As the local economy is reliant on the agricultural sector, severe droughts can cause loss of income and employment.

Flooding

Local concerns regarding to flooding focus on flash flooding and the potential for riverine flooding along the Middle Loup River and North Loup River. According to the NCEI, there have been nine flooding events in Valley County that have caused \$5,240,000 in property damages from 1996 to 2019. Unincorporated areas of Valley County have one NFIP policy in-force for \$121,000. There are no repetitive flood loss properties in unincorporated areas of Valley County.

Severe Thunderstorms

Local concerns regarding severe thunderstorms focus on the availability of shelter, the potential for property damages and the potential for power outages. Past severe thunderstorms have knocked down trees and power lines throughout the county. According to NCEI data, there have been 233 severe thunderstorm events in the county from 1996 to 2019, that have caused approximately \$8,358,000 in property damages. The local planning team would like to install backup generators in critical facilities. Region 26 Emergency Management offers the CodeRED warning system to residents in Valley County.

Mitigation Strategy

Continued Mitigation Actions

OBJECTIVE	BACKUP AND EMERGENCY GENERATORS
DESCRIPTION	<ol style="list-style-type: none"> 1. Identify and evaluate current backup and emergency generators 2. Obtain additional generators based on identification and evaluation 3. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
ESTIMATED COST	\$20,000 to \$75,000+ per generator
POTENTIAL FUNDING	Valley County General Fund, HMGP, PDM
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Valley County Emergency Management
STATUS	This project has not yet been started.

OBJECTIVE	IMPROVE WARNING SYSTEMS
DESCRIPTION	<ol style="list-style-type: none"> 1. Evaluate current warning systems 2. Improve warning systems/develop new warning system 3. Obtain/Upgrade warning system equipment and methods 4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens 5. Identify location of weather warning radios 6. Improve weather radio system 7. Obtain/Upgrade weather radios
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	Varies by Project
POTENTIAL FUNDING	Valley County General Fund, HMGP, PDM
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Valley County Emergency Management
STATUS	This project has not yet been started.

OBJECTIVE	INCREASE SOIL AND WATER CONSERVATION
DESCRIPTION	<ol style="list-style-type: none"> 1. Develop/improve public awareness program 2. Develop or obtain materials and conduct multi-faceted public education
HAZARD(S) ADDRESSED	Drought, Severe Thunderstorms
ESTIMATED COST	\$1,000+
POTENTIAL FUNDING	Valley County General Fund
TIMELINE	5 years
PRIORITY	Low
LEAD AGENCY	Valley County Emergency Management
STATUS	This project has not yet been started.

OBJECTIVE	REDUCE WATER DEMAND/IMPROVE DROUGHT EDUCATION
DESCRIPTION	<ol style="list-style-type: none"> 1. Conduct water use study to evaluate/implement methods to conserve water/reduce consumption 2. Evaluate/implement water use restriction ordinance 3. Identify/evaluate current/additional potable water sources 4. Develop or obtain drought education materials to conduct multi-faceted public education and awareness program
HAZARD(S) ADDRESSED	Drought
ESTIMATED COST	\$5,000 for study Education \$1,000+
POTENTIAL FUNDING	Valley County General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Valley County Emergency Management
STATUS	This project has not yet been started.

OBJECTIVE	REDUCE WILDFIRE DAMAGE
DESCRIPTION	<ol style="list-style-type: none"> 1. Identify vulnerable areas and combustion sources 2. Evaluate fire resistant roofing 3. Develop plan to reduce wildfire impact and reduce combustion materials 4. Reduce combustible material by removal or other methods 5. Enact building codes/ordinances for fire resistant roofing
HAZARD(S) ADDRESSED	Grass/Wildfire
ESTIMATED COST	\$5,00 to \$5,000+
POTENTIAL FUNDING	Valley County General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Valley County Emergency Management
STATUS	This project has not yet been started.

OBJECTIVE	PUBLIC SAFE ROOMS & POST-DISASTER STORM SHELTERS
DESCRIPTION	<ol style="list-style-type: none"> 1. Identify and evaluate existing safe rooms and/or storm shelters 2. Improve and/or construct safe rooms and/or storm shelters 3. Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, etc.
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms, Flooding
ESTIMATED COST	\$150/sf for retrofit; \$300/sf for new construction
POTENTIAL FUNDING	HMGP, PDM, Valley County General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Valley County Emergency Management
STATUS	This project has not yet been started.

Removed Mitigation Actions

OBJECTIVE	STUDY/IMPROVE DRINKING WATER SUPPLY
DESCRIPTION	<ol style="list-style-type: none"> 1. Study water supply deficiencies, identify alternative solutions, locate new sources 2. Implement cost effective measures to increase/improve supply and/or fire protection
HAZARD(S) ADDRESSED	Drought, Grass/Wildfire
REASON FOR REMOVAL	This project was identified as no longer a priority for the local planning team.

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 Emergency Management, the County Board, and Road Supervisor. 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 ARCADIA

Lower Loup Natural Resources District Hazard Mitigation Plan 2022

Local Planning Team

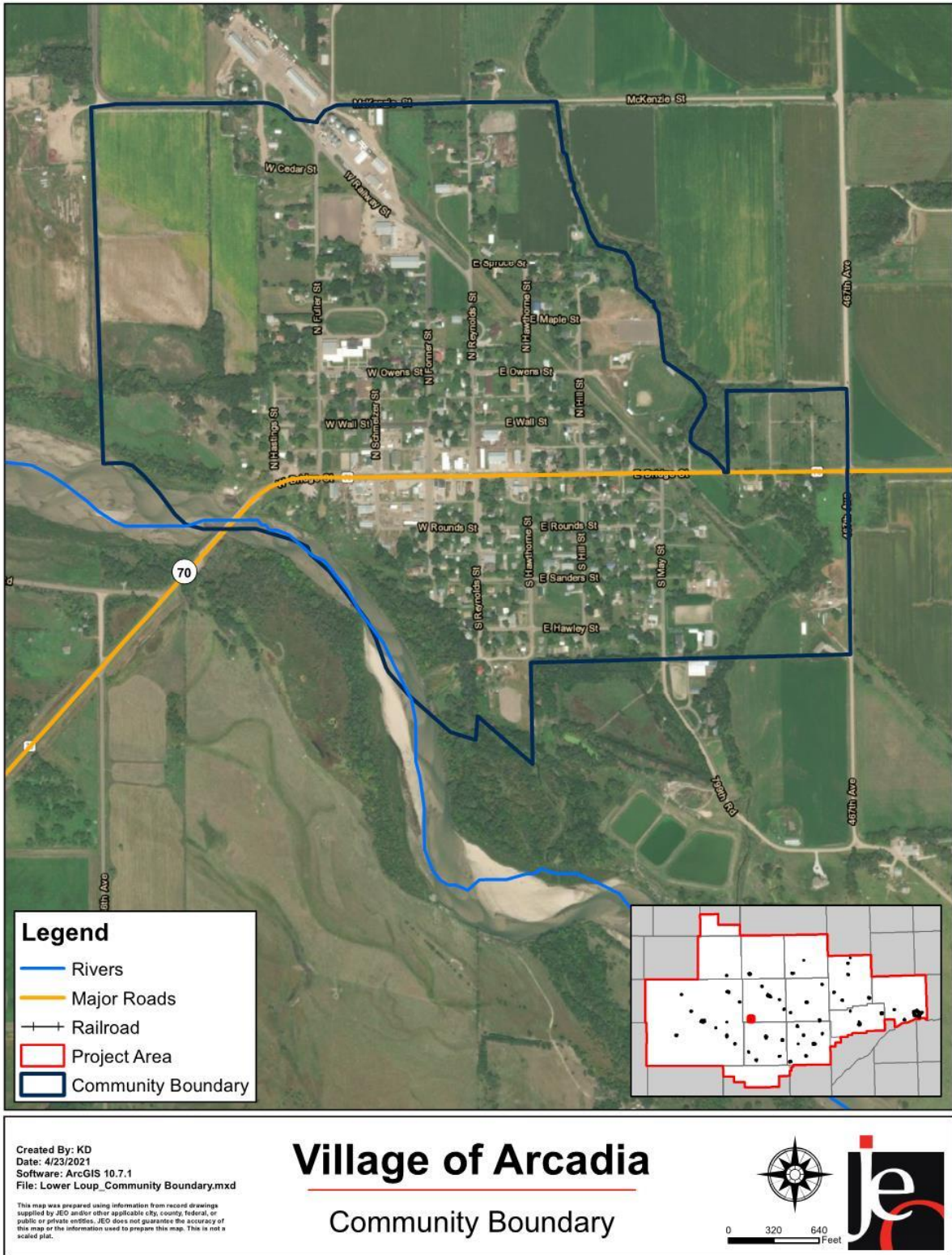
Table ARC.1: Village of Arcadia Local Planning Team

NAME	TITLE	JURISDICTION
DALE PAIDER	Board Chairman	Village of Arcadia
HEATH KURSAVE	Water Systems Operator	Village of Arcadia
ROSMARIE RITZ	Village Clerk	Village of Arcadia
WAYNE HUNT	Utilities Superintendent	Village of Arcadia

Location and Geography

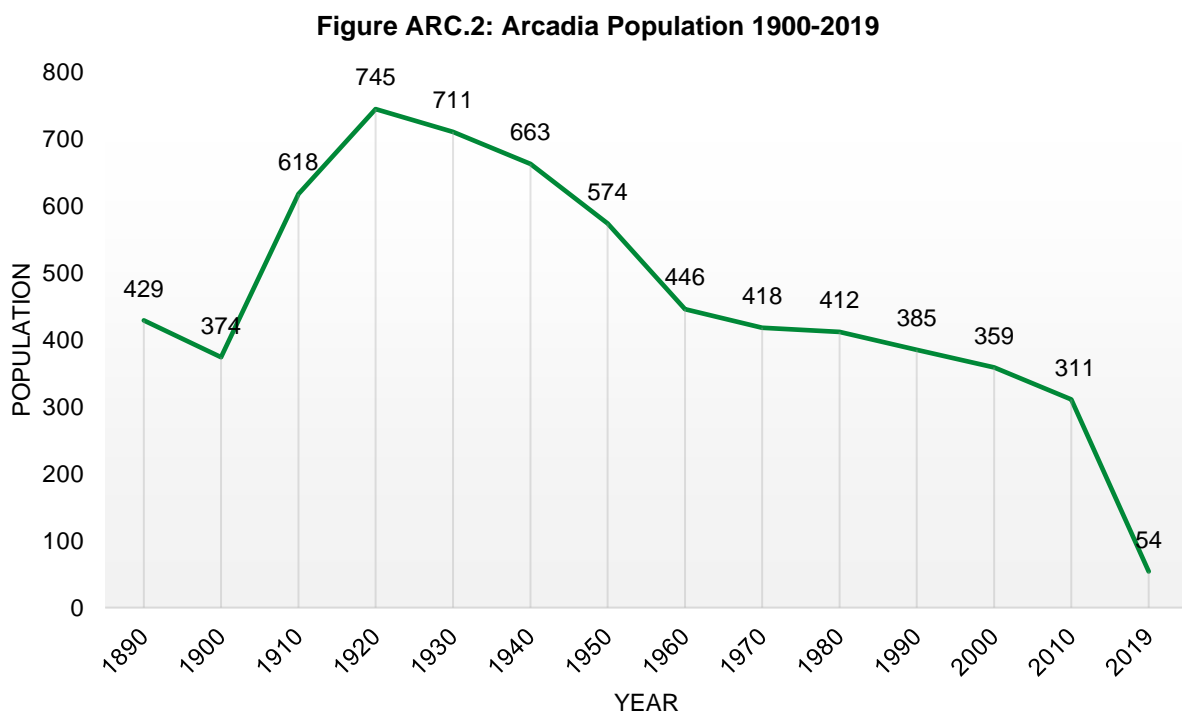
The Village of Arcadia is located in the southwestern portion of Valley County. The Village of Arcadia covers an area of 0.57 square miles. The Middle Loup River runs along the southwestern portion of the Village. Most of Arcadia lies in the plains topographic region, and is surrounded by agricultural fields.

Figure ARC.1: Village of Arcadia Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1910 to 2019 (estimated). This figure indicates that the population of Arcadia experienced a decline from 1920 through today. 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 1% of Valley County's Population in 2019. The local planning team noted that the population estimates are not accurate as there have been many new residents moving to town.



Source: U.S. Census Bureau¹²

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

- **Younger.** The median age of Arcadia was 33.5 years old in 2019, compared with the County average of 46.2 years. Arcadia's population has grown younger since 2010, when the median age was 47.3 years old. Arcadia had a slightly larger proportion of people under 20 years old (24.3%) than the County (24%).¹³
- **Less ethnically diverse.** In 2010, 0.5% of Arcadia's population was American Indian and 2.0% were two or more races. By 2019, 2.6% of Arcadia's population was Black or African American and 3.3% was two or more races. During that time, Valley County grew from

¹² United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]

¹³ United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]

0.0% to 1.0% Black or African American, 0.2% to 0.3% Asian, 0.0% to 0.6% American Indian, and 0.4% to 0.3% some other race from 2010 to 2019 respectively.¹⁴

- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Arcadia (2.5%) was higher than the County (7.8%) in 2019.¹⁵

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Arcadia included Agriculture, Retail, and Education. In comparison Valley County's included Agriculture, Retail, and Education.¹⁶
- **Lower household income.** Arcadia's median household income in 2019 (\$39,635) was about \$15,600 lower than the County (\$55,324).¹⁷
- **More long-distance commuters.** About 48.5% percent of workers in Arcadia commuted for fewer than 15 minutes, compared with about 64.5% of workers in Valley County. About 31.4% of workers in Arcadia commute 30 minutes or more to work, compared to about 12.6% of the County workers.¹⁸

Major Employers

The major employers in the Village of Arcadia are Trotter Grain and Fertilizer, Trotter Service, Arcadia Public Schools, and First Nebraska Bank. Bossen Feeding Company is a major employer outside of the corporate limits. The local planning team noted that approximately thirty percent of residents commute to Ansley, Broken Bow, Loup City, Kearney and Ord for employment.

Housing

In comparison to the Valley County, Arcadia's housing stock was:¹⁹

- **Less owner occupied.** About 58.4% of occupied housing units in Arcadia are owner occupied compared with 74.3% of occupied housing in Valley County in 2019.
- **Similar share of aged housing stock.** Arcadia has fewer houses built prior to 1970 than the county (66.3% compared to 66.1%).
- **More multi-family homes.** The predominant housing type in the Village is single family detached and Arcadia contains more multifamily housing with five or more units per structure than the County (4.0% compared to 1.8%). About 88.6% of housing in Arcadia was single-family detached, compared with 84% of the County's housing. Arcadia has a smaller share of mobile and manufactured housing (4.6%) compared to the County (3.4%).

The local planning team indicated that there are approximately five mobile homes in the community. This housing information is relevant to hazard mitigation insofar as the age of housing

14 United States Census Bureau. "2019 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

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

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

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

18 United States Census Bureau. "2019 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

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

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.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Arcadia has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member council and the following offices: clerk/treasurer, fire chief, sewer/water commissioner, street commissioner, volunteer fire department, Valley County Emergency Management, Region 26 EMA, and Valley County Sheriff.

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 ARC.2: Capability Assessment

SURVEY COMPONENTS		YES/NO
PLANNING & REGULATORY CAPABILITY	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operational Plan	County
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Building Codes	No
	Chief Building Official	No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
ADMINISTRATIVE & TECHNICAL CAPABILITY	Planning Commission	Yes
	Floodplain Administration	County
	GIS Capabilities	County
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
FISCAL CAPABILITY	1 & 6 Year Plan	Yes
	Applied for grants in the past	Yes

SURVEY COMPONENTS		YES/NO
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
EDUCATION AND OUTREACH	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree Village USA	No
	Other (if any)	

Table ARC.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	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.

Grants and Funding

Arcadia's municipal funds are generally limited to maintaining current facilities and systems. Funds have increased slightly over recent years alongside increased water/sewer/solid waste

rates in order to keep up with local expenses.. Currently the budget has funds earmarked to improve the water tower and upgrade some safety equipment.

Comprehensive Plan

The Village of Arcadia's Comprehensive Plan was not available for review during this planning process. Future updates of the Comprehensive Plan should integrate hazard mitigation planning components and principles.

Ordinances and Regulations

The zoning ordinance was last updated in 2015 and does not currently integrate hazard mitigation principles. However, the local planning team indicated that in the future update, the ordinance will discourage development near hazardous areas.

The village does have a Drought Emergency Contingency Plan which addresses short-term water shortage problems.

Valley County Local Emergency Operations Plan

The Village of Arcadia is an annex in the Valley 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 Sandhills Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Valley County in June 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

In the past five years, Arcadia has added one new business. The village board built a new duplex with a housing grant from the state. There have been many houses remodeled in the village and one house demolished. In the next five years Greenland Construction is expanding, and a new truck wash is planned by Trotter's Grain.

Community Lifelines

Transportation

Arcadia's major transportation corridor is Highway 70, with an average of 980 vehicles per day. Arcadia does not have rail lines. This information is important to hazard mitigation plans insofar

as is 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 Arcadia which house hazardous materials. In the event of a chemical spill, the Arcadia Fire and Rescue Department would be first to respond. Additional response resources include the Valley County Emergency Management Agency.

Table ARC.4: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
TROTTER GRAIN & FERTILIZER CO	300 W Railroad	
TROTTER OIL CO	135 E Bridge St	
TROTTER OIL CO CARDTROL & BULK	225 W Bridge St	
NEBRASKA CENTRAL TELEPHONE CO	110 W Bridge St	

Source: Nebraska Department of Environment and Energy²⁰

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.

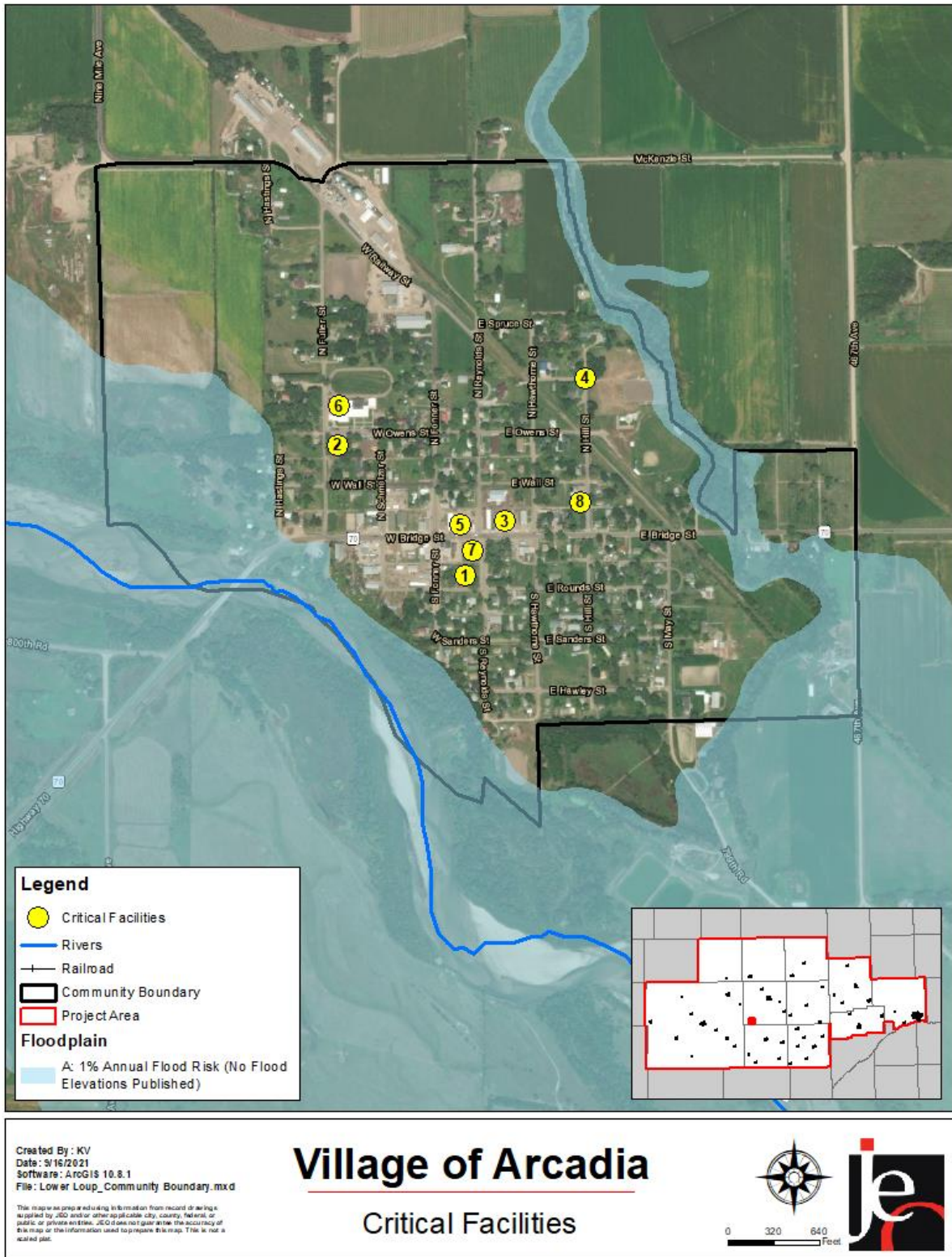
The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table ARC.5: Arcadia Critical Facilities

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Food, Water, and Shelter	Bubble's Daycare	N	N	N
2	Food, Water, and Shelter	Faith Bible Church	Y	N	N
3	Safety and Security	Fire Hall/Village Office	Y	Y	N
4	Food, Water, and Shelter	Granny's Daycare	Y	N	N
5	Safety and Security	Hawthorne Manor	Y	N	N
6	Food, Water, and Shelter	Public School	Y	N	N
7	Food, Water, and Shelter	United Methodist Church	Y	N	N
8	Food, Water, and Shelter	Water Tower	N	N	N

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

Figure ARC.3: Arcadia Critical Facilities



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

No medical and health facilities are located within the community.

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 ARC.7: Arcadia 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
340	183	9,843,480	12	758,905	6.56%

Source: County Assessor, GIS Workshop

Table ARC.8: Arcadia Flood Map Products

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	09-07-0871A-310225	8/20/2009	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 Valley 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

Arcadia participates in the NFIP but does not have any policies in-force. There are no repetitive flood loss properties in the Village of Arcadia. The community is more concerned about flash flooding than riverine flooding. The north part of Arcadia was identified as having poor stormwater drainage. The east side of Arcadia, along Hawthorne Creek, was identified as being most prone to flooding. During the major flooding in 2019, the community experienced flooded streets, businesses, and basements. No evacuations were necessary. According to NCEI data, the event caused approximately \$100,000 in property damages. The village has worked to remove dead trees in Hawthorne Creek and continues to clean up the creek to mitigate against future flooding.

Severe Thunderstorms (includes Hail)

The local concern regarding hail is the potential for widespread damage to property and crops. In 2009, a hailstorm caused major damage to roofs throughout the village. The same storm caused significant damages to crops, which harmed the local economy. In 2015, another hailstorm caused widespread damage to the village, as well as damaged the antenna that receives signals for the ambulance and fire whistle and emergency alerts. Arcadia's critical facilities are insured for hail and both the fire hall and village well have metal roofs. Only two of the villages critical facilities have backup generators. Approximately five percent of the village's power lines are buried. The Village has a local tree board that can identify damages from hail. The village plans to install a variable frequency drive and obtain a backup generator for the community well.

Severe Winter Storms

In the winter of 1994, an ice storm caused a prolonged power outage within Arcadia. The Village used a tractor to run the well and plugged into a telephone generator for the repeater. Only approximately five percent of the village's power lines are buried, leaving the community more vulnerable to power outages. The village is also concerned with their ability to access emergency equipment during a severe winter storm to and clear the streets. There are no designated snow routes in town. The village utilities department is in charge of removing snow. Snow removal resources include a snowplow and bobcat. Snow removal resources have been deemed sufficient by the local planning team.

Tornadoes and High Winds

The most significant tornadic event occurred in 1974. In April 1974, a tornado crossed the Middle Loup River, downing several power lines. The warning siren alerted residents of the impending tornado before the power went out. The tornado entered the southwest corner of Arcadia, stayed on the ground throughout its progression, and exited the community at the northeast corner, leaving behind a path of destruction. Valley County and state highway resources were employed to clear debris from the streets. The National Guard, Red Cross, and Salvation Army were also called to assist. As power was out in the village office, the command center was set up in private residences. Although only private storm shelters were available, there were no casualties associated with the storm.

According to the NCEI, there have been six tornadic events in or near Arcadia since 1996. These storms caused a total of \$290,000 in property damages. The warning siren that reaches the entire village can be activated remotely by Region 26 Emergency Management, manually by local firemen, or remotely by the fire chief. Shelter options for the Village include the safe room in the new fire hall, private shelters, or the storage area in the basement of the school. In the event of a disaster, the village has mutual aid agreements with surrounding communities. Village records are backed up using a flash drive. Region 26 offers text alerts. Region 26 and Valley County Emergency Management use regular weather awareness presentations to educate residents about the risk of severe weather. The village plans to remove hazardous and dead trees in the community.

Mitigation Strategy

Completed Mitigation Actions

OBJECTIVE	IMPROVE SNOW/ICE REMOVAL & RESCUE PROGRAM
DESCRIPTION	<ol style="list-style-type: none"> 1. Revise and improve snow and ice removal program for streets 2. Address situations such as plowing snow, ice removal, parking during snow, ice removal and removal of associated storm debris 3. Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event
HAZARD(S) ADDRESSED	Severe Winter Storms
STATUS	Snow removal resources have been deemed sufficient for the local planning team. Purchased a bobcat skid steer in 2019.

OBJECTIVE	DRAINAGE STUDY/STORMWATER MASTER PLAN
DESCRIPTION	<ol style="list-style-type: none"> 1. Identify and prioritize design improvements with preliminary drainage studies and assessments 2. Address site specific localized flooding/drainage issues 3. Identify stormwater problem areas and potential drainage improvements with Stormwater Master Plans
HAZARD(S) ADDRESSED	Flooding
STATUS	The village and state have installed a stormwater culvert between Hawthorne and Reynolds Street and the village has cleared debris in Hawthorn Creek.

OBJECTIVE	IMPROVE WARNING SYSTEMS
DESCRIPTION	<ol style="list-style-type: none"> 1. Evaluate current warning systems 2. Improve warning systems/develop new warning system 3. Obtain/Upgrade warning system equipment and methods 4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens 5. Identify location of weather warning radios 6. Improve weather radio system 7. Obtain/Upgrade weather radios
HAZARD(S) ADDRESSED	All Hazards
STATUS	Region 26 EMA has added emergency text alerts for disasters to residents and manages sirens in the area.

Continued Mitigation Actions

OBJECTIVE	BACKUP AND EMERGENCY GENERATORS
DESCRIPTION	<ol style="list-style-type: none"> 4. Identify and evaluate current backup and emergency generators 5. Obtain additional generators based on identification and evaluation 6. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters
HAZARD(S) ADDRESSED	All Hazards
STATUS	\$20,000 to \$75,000+ per generator
POTENTIAL FUNDING	HMGP, PDM, Village General Fund
TIMELINE	1 Year
PRIORITY	High
LEAD AGENCY	Village Board, Arcadia Rural Fire Protection District
STATUS	The village hall/fire hall has a backup generator. An additional generator is needed for the community well.

OBJECTIVE	DEVELOP EMERGENCY SNOW & EVACUATION ROUTES
DESCRIPTION	<ol style="list-style-type: none"> 1. Develop/Improve snow/evacuation route and program to include parking, snow/ice and debris removal, etc. 2. Obtain and install snow emergency route/evacuation signs 3. Provide information on emergency routes to public
HAZARD(S) ADDRESSED	Severe Winter Storms
ESTIMATED COST	\$1,000, staff time
POTENTIAL FUNDING	Village General Fund
TIMELINE	5+ Years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	This project has not yet been started. There are no designated snow routes in town.

SECTION SEVEN: VILLAGE OF ARCADIA COMMUNITY PROFILE

OBJECTIVE	IMPROVE STREAM BED/BANK STABILIZATION
DESCRIPTION	<ol style="list-style-type: none"> 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.
HAZARD(S) ADDRESSED	Flooding
ESTIMATED COST	\$25,000 to \$500,000+
POTENTIAL FUNDING	Village General Fund
TIMELINE	5+ Years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started. The village has worked to remove dead trees in Hawthorne Creek and continues to clean up the creek to mitigate against future flooding.

OBJECTIVE	SNOW FENCES
DESCRIPTION	<ol style="list-style-type: none"> 1. Construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closure
HAZARD(S) ADDRESSED	Severe Winter Storms
ESTIMATED COST	\$50 per 100 linear feet
POTENTIAL FUNDING	Village General Fund
TIMELINE	5+ Years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

OBJECTIVE	TREE PLANTING
DESCRIPTION	<ol style="list-style-type: none"> 1. Develop city tree planting and maintenance guidelines
HAZARD(S) ADDRESSED	High Winds
ESTIMATED COST	\$500, staff time
POTENTIAL FUNDING	Village General Fund
TIMELINE	5+ Years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	The village has planted trees around the cemetery to protect against high winds. Other areas in need are being determined.

OBJECTIVE	UPDATE COMPREHENSIVE PLAN
DESCRIPTION	1. Update comprehensive plan 2. Integrate plan with Hazard Mitigation Plan components
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$10,000+, staff time
POTENTIAL FUNDING	Village General Fund, Nebraska Department of Economic Development Grant, CDBG
TIMELINE	5+ Years
PRIORITY	Low
LEAD AGENCY	Village Board
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 Village Clerk, Village Board, Utilities Superintendent, and Water Systems Operator will annually review the community's profile and notify and involve the public via at local board meetings.

COMMUNITY PROFILE

VILLAGE OF NORTH LOUP

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

Local Planning Team

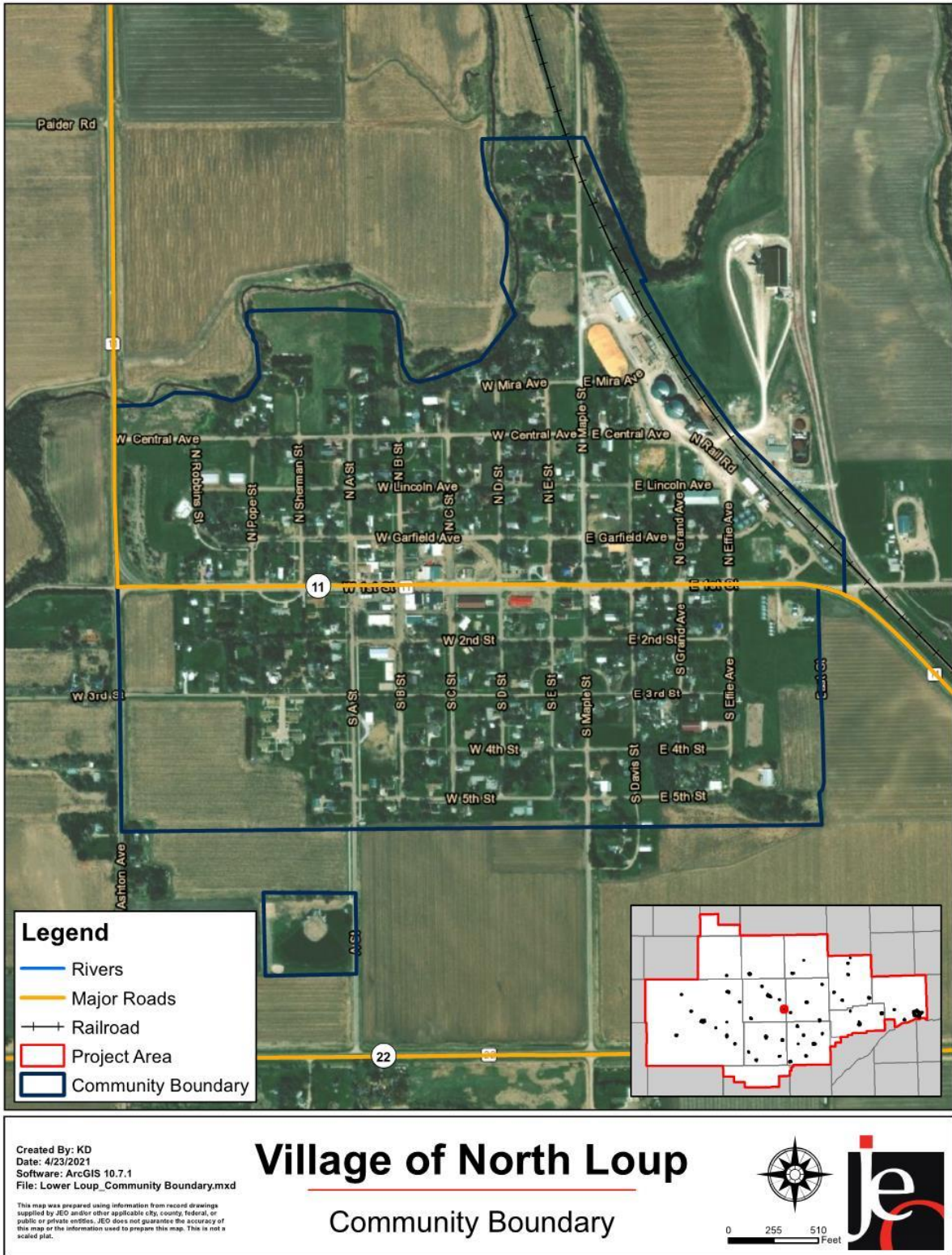
Table NOR.1: Village of North Loup Local Planning Team

NAME	TITLE	JURISDICTION
CARRIE HANSEN	Clerk	Village of North Loup

Location and Geography

The Village of North Loup is located in the southeastern portion of Valley County and covers an area of 0.41 square miles. Mira Creek runs along the north side of the village. North Loup River is located east of the village. The area is not heavily forested. Most of North Loup lies in the plains topographic region, and is surrounded by agricultural fields.

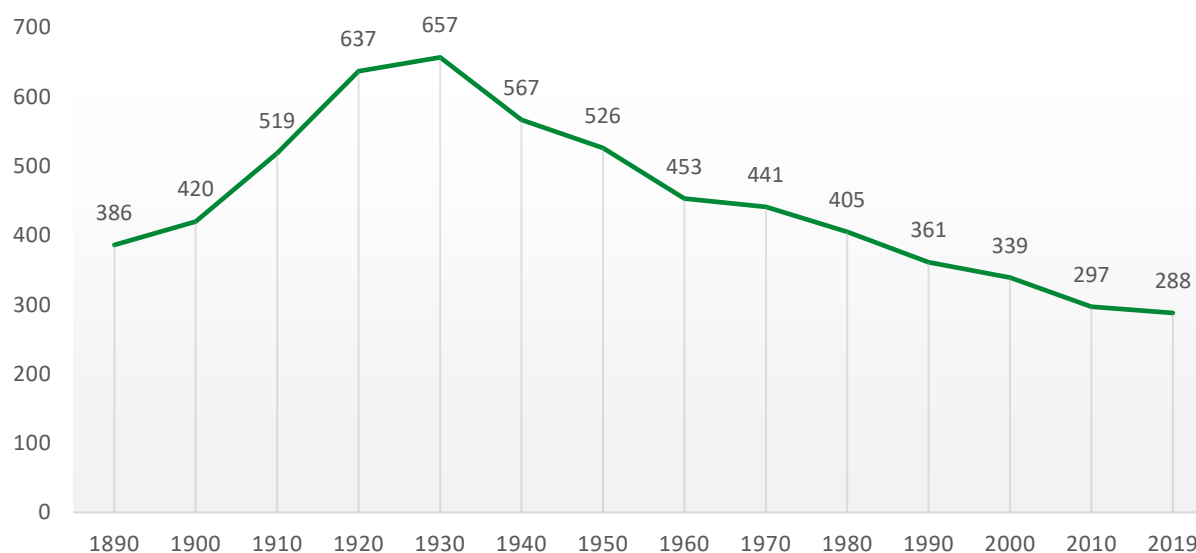
Figure NOR.1: Village of North Loup Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2019 (estimated). This figure indicates that the population of North Loup has been decreasing since 1940. 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 7% of Valley County's Population in 2019.

Figure NOR.2: North Loup Population 1890-2019



Source: U.S. Census Bureau²¹

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

- **Older.** The median age of North Loup was 58.4 years old in 2019, compared with the County average of 46.2 years. North Loup's population has grown older since 2010, when the median age was 49.6 years old. North Loup had a smaller proportion of people under 20 years old (14.9%) than the County (24%).²²
- **Less ethnically diverse.** In 2010, 0.6% of North Loup's population was some other race; however by 2019 100% of North Loup's population was White. During that time, Valley County grew from 0.0% to 1.0% Black or African American, 0.2% to 0.3% Asian, 0.0% to 0.6% American Indian, and 0.4% to 0.3% some other race from 2010 to 2019 respectively.²³
- **More likely to be at the federal poverty line.** The poverty rate of all persons in North Loup (31.7%) was higher than the County (7.8%) in 2019.²⁴

²¹ United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]

²² United States Census Bureau. "2019 American Fact Finder: S0101: Age and Sex." [database file]

²³ United States Census Bureau. "2019 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

²⁴ United States Census Bureau. "2019 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 Valley County, North Loup's economy had:

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in North Loup included Agriculture, Retail Trade, Transportation, and Education. In comparison Valley County's included Agriculture, Retail, and Education.²⁵
- **Lower household income.** North Loup's median household income in 2019 (\$31,667) was about \$23,600 lower than the County (\$55,324).²⁶
- **More long-distance commuters.** About 30.1% percent of workers in North Loup commuted for fewer than 15 minutes, compared with about 64.5% of workers in Valley County. About 19.4% of workers in North Loup commute 30 minutes or more to work, compared to about 12.6% of the County workers.²⁷

Major Employers

Major employers in the Village of North Loup include Country Partners Co-op, Popcorn County USA, and the Village of North Loup. The local planning team noted that approximately 25% of residents commute to the surrounding communities of Ord, Burwell, Greeley, and Grand Island.

Housing

In comparison to the Valley County, North Loup's housing stock was:²⁸

- **Less owner occupied.** About 73.2% of occupied housing units in North Loup are owner occupied compared with 74.3% of occupied housing in Valley County in 2019.
- **Larger share of aged housing stock.** North Loup has more houses built prior to 1970 than the county (76.8% compared to 66.1%).
- **Fewer multi-family homes.** The predominant housing type in the Village is single family detached and North Loup contains fewer multifamily housing with five or more units per structure than the County (1.5% compared to 1.8%). About 78.7% of housing in North Loup was single-family detached, compared with 84% of the County's housing. North Loup has a larger share of mobile and manufactured housing (10.4%) compared to the County (3.4%).

The local planning team noted that there are no 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 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.

²⁵ United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

²⁶ United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

²⁷ United States Census Bureau. "2019 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

²⁸ 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. North Loup has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The Village has a five member council and the following offices: clerk/treasurer, utilities superintendent, sewer/water/street commissioner, and volunteer fire department. Additional offices that could assist the village with hazard mitigation related activities includes the Valley County Emergency Response.

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 NOR.2: Capability Assessment

	SURVEY COMPONENTS	YES/NO
PLANNING & REGULATORY CAPABILITY	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	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	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
ADMINISTRATIVE & TECHNICAL CAPABILITY	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	No
	Civil Engineering	No
	Local Staff Who Can Assess Community’s Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
FISCAL CAPABILITY	1 & 6 Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No

SURVEY COMPONENTS		YES/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)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree Village USA	No
	Other (if any)	

Table NOR.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

North Loups municipal funds have are limited to maintaining current facilities and systems. There are currently no major projects planned with earmarked funds.

Building Codes (2018)

North Loup 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.

Valley County Local Emergency Operations Plan

The Village of North Loup is an annex in the Valley 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.

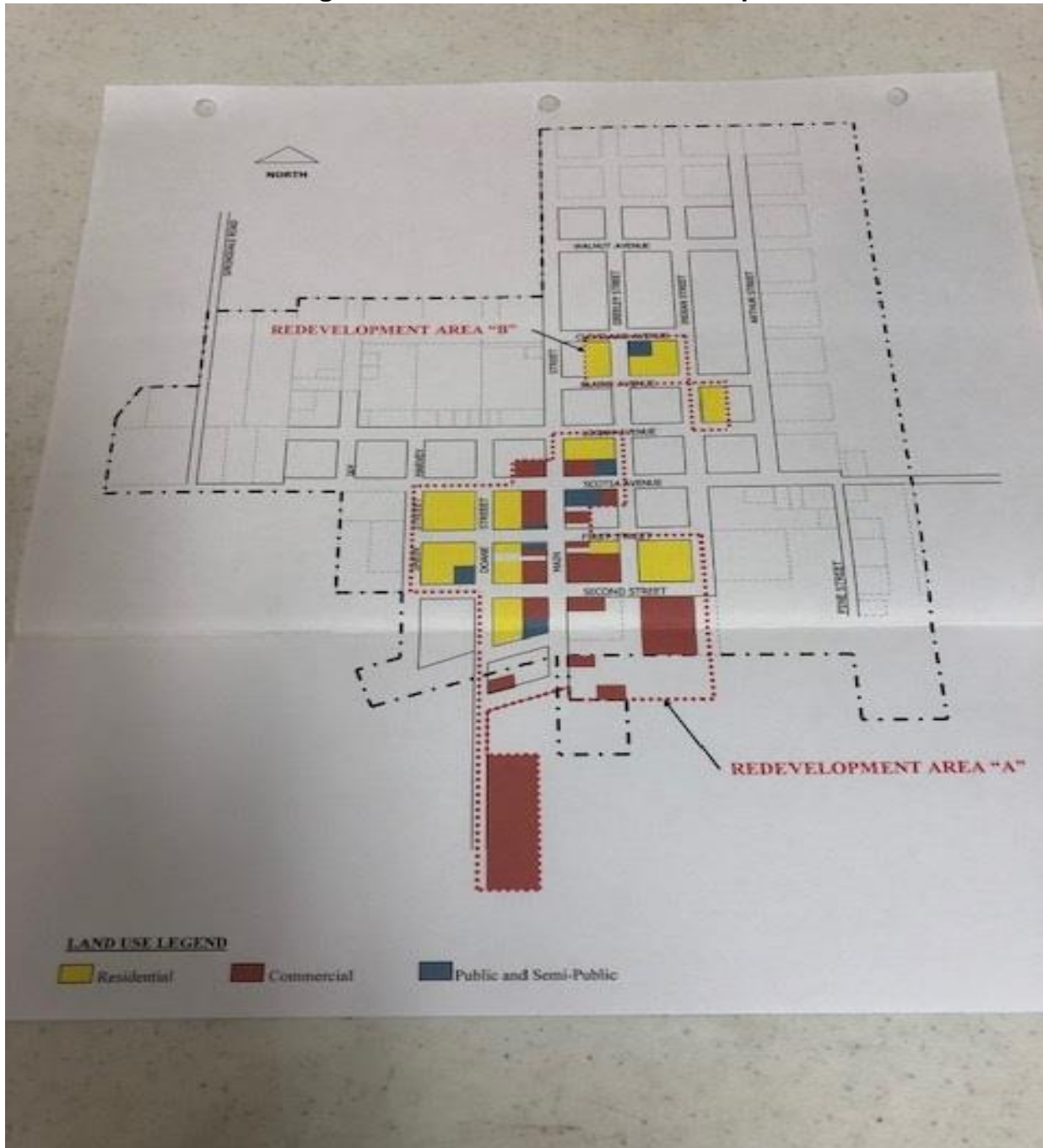
Central Sandhills Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Valley County in June 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

In the past five years there have been no new developments in the community. In the next five years, street improvements are planned to take place in North Loup in 2022. According to the census data, North Loup's population is declining, which the local planning team attributed to a lack of housing and employment in the community. No new housing or business developments are planned for the next five years.

Figure NOR.3: Future Land Use Map



Community Lifelines

Transportation

North Loup's major transportation corridors include Highway 11 with 1,245 vehicles per day, and Highway 22 with 490 vehicles per day. The Nebraska Central Railroad Company has a rail line located on the east side of the village. This information is important to hazard mitigation plans

insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

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 North Loup which house hazardous materials. In the event of a chemical spill, the North Loup Volunteer Fire Department would be the first to respond.

Table NOR.4: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
Nebraska Central Telephone Co	110 N B St	N
Country Partners Cooperative	608 N Rail Rd	N

Source: Nebraska Department of Environment and Energy²⁹

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 NOR.5: North Loup Critical Facilities

CF #	COMMUNITY LIFELINE	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Safety and Security	Fire Hall	Y	N	N
2	Safety and Security	City Office	N	N	N
3	Food, Water, and Shelter	Water Tower	N	N	N
4	Food, Water, and Shelter	Lagoons	N	N	Y
5	Food, Water, and Shelter	Community Building	Y	N	N

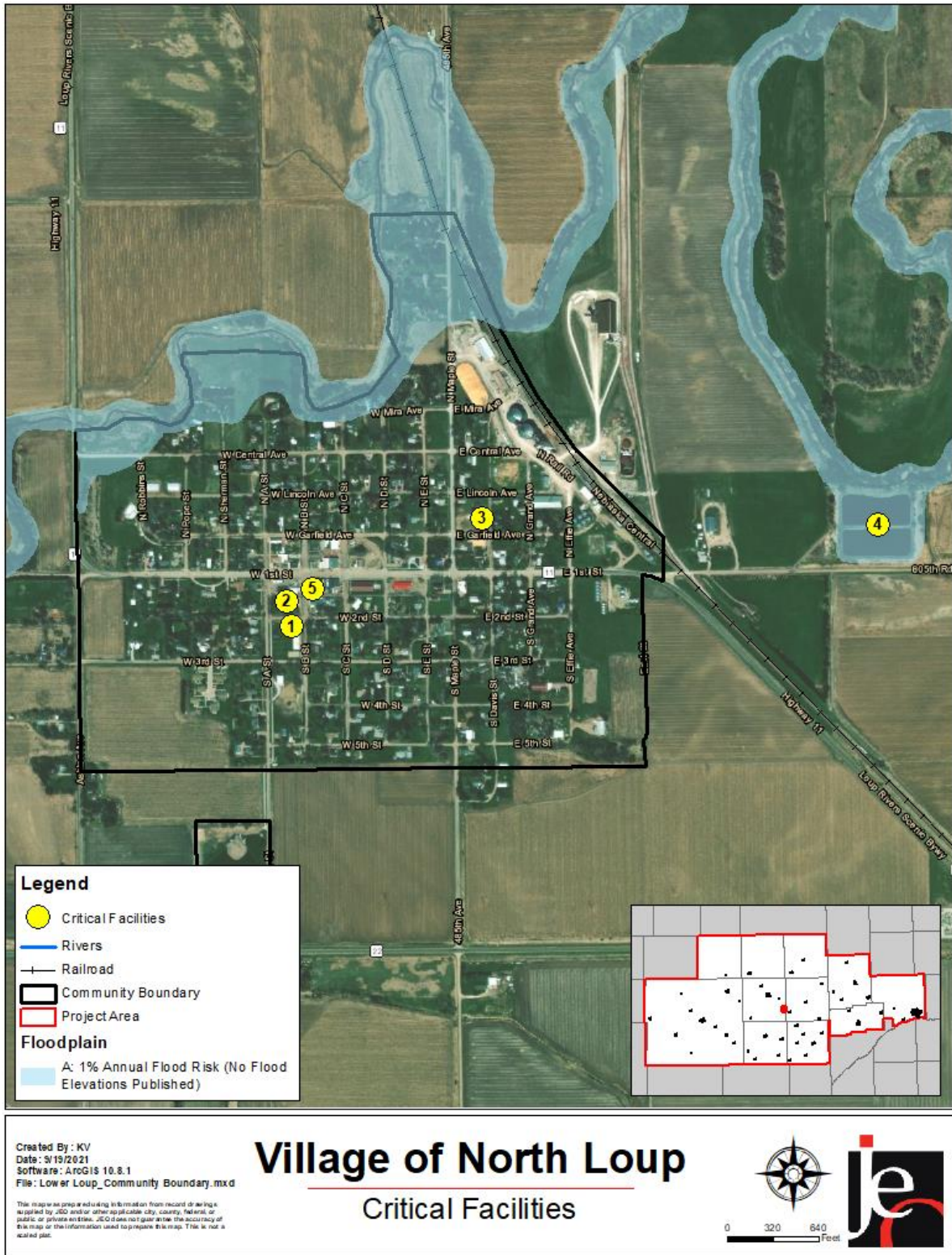
Although not listed in the table above, critical infrastructure also include power substations, cell towers, and alert sirens in the community. These assets are typically owned and maintained by other agencies and are not the responsibility of the jurisdiction.

Health and Medical Facilities

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

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

Figure NOR.3: North Loup 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 NOR.7: North Loup 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
293	151	6,178,160	11	500,375	7.28%

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 Valley 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.

Dam Failure

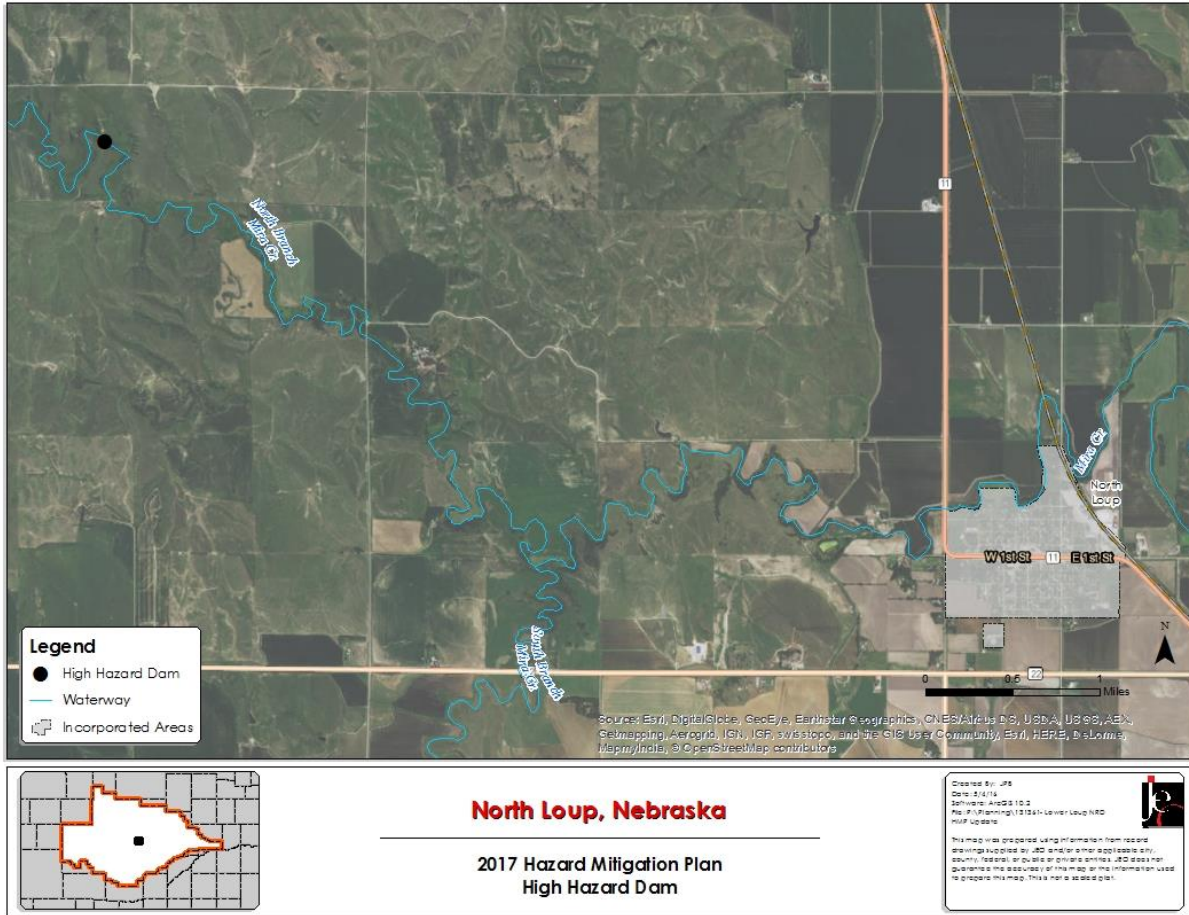
In June of 2010, heavy rain caused the failure of six dams across the planning area including Bredthauer Dam. The dam failure caused extensive flooding in North Loup. NCEI estimated property damages totaling one million dollars from this event. The village does not have a dam failure evacuation plan. The village is working with the Lower Loup NRD and JEO Consulting Group to minimize flooding along Mira Creek. In 2019, flooding and heavy rain flooded the village.

Table NOR.8: High Hazard Dams near North Loup

NIDID	DAM NAME	LOCATION
NE00264	Bredthauer Dam	Mira Creek, North Loup

Source: County Assessor, GIS Workshop

Figure NOR.4: High Hazard Dam near North Loup



Aerial photo of North Loup after dam failure

Drought

Local concerns regarding drought include the potential for water shortages and economic losses. In 2012, drought caused excessive low water levels in spring/summer. North Loup has a water conservation program. The village purchases water from Ord and all water consumption is metered. Water supplies are identified as sufficient for current needs. Drought is defined in the district as a lack of rain. The village has a drought ordinance that can be implemented as needed.

Flooding

Flooding concerns focus on the potential for riverine flooding from Mira Creek and flooding after dam failure. During heavy rain events, the north branch of Mira Creek flows into the village and the waterway receives runoff for several miles west and north of the community. North Loup has one NFIP policy in-force for \$14,900. There are no repetitive flood loss properties in the Village of North Loup.

In 2019, heavy rain, flooding, and ice jams caused flooding in the community. During the event, several homes were inundated with flood water, with three homes becoming uninhabitable afterwards. Many streets in the community were washed out by the flood water. Evacuations were needed on the north side of town along Mira Creek. The local planning team identified everything on the north side of Highway 11 to Mira Creek as the most vulnerable area to flooding. Additionally, the south side of the village receives a lot of groundwater, making it susceptible to flooding.

As of January 2022, the village was working with the Lower Loup NRD and JEO Consulting Group to improve drainage in the village and conduct a study on Mira Creek as part of a WFPO project. The “Technical Memorandum Alternatives Identification and Analysis – Mira Creek WFPO” identified several potential flood risk reduction strategies the community may pursue. While no formal decision has been made, potential alternatives identified for further analysis included:

- Channel Widening
- Diversion Channel
- Levees/Berms construction
- Single Large Reservoir

Mitigation Strategy

Completed Mitigation Actions

Objective	REDUCE TREE DAMAGES
Description	<ol style="list-style-type: none"> 1. Conduct tree inventory 2. Develop tree maintenance/trimming program 3. Implement tree maintenance/trimming program
Hazard(s) Addressed	Tornadoes, Severe Winter Storms, Severe Thunderstorms, Grass/Wildfires
Status	Village removes trees as funding becomes available.

Continued Mitigation Actions

Objective	PROVIDE ADEQUATE PUBLIC SAFE ROOMS & POST DISASTER STORM SHELTERS
Description	<ol style="list-style-type: none"> 1. Identify and evaluate existing safe rooms and/or storm shelters 2. Improve and/or construct safe rooms and/or storm shelters 3. Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, etc.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$150/sf for retrofit; \$300/sf for new construction
Potential Funding	Village taxes, fundraising, HMA
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	This project has not yet been started.

Objective	REDUCE STREAM & DRAINAGE BOTTLENECKS/FLOW RESTRICTIONS
Description	<ol style="list-style-type: none"> 1. Evaluate restrictions and measures to prevent or reduce flood damage 2. Implement appropriate nonstructural or structural methods on an emergency or permanent basis (monitoring or warning systems, ice jam dusting, excavation or blasting, reshaping channel, tree and debris removal, acquire property and/or construct additional channels or other flow improvements)
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000 to \$50,000 for studies; \$10,000+ or more to enlarge ditches, culverts, pipes; unknown for stream channel, crossing structures or bridge improvements.
Potential Funding	Village taxes, HMA
Timeline	2-5 Years
Priority	High
Lead Agency	Village Maintenance, Village Board
Status	Currently digging out ditches and installing culverts.

SECTION SEVEN: VILLAGE OF NORTH LOUP COMMUNITY PROFILE

Objective	BACKUP AND EMERGENCY GENERATORS
Description	<ol style="list-style-type: none"> 1. Identify and evaluate current backup and emergency generators 2. Obtain additional generators based on identification and evaluation 3. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters
Hazard(s) Addressed	All Hazards
Estimated Cost	\$20,000 to \$75,000+ per generator
Potential Funding	Village taxes, fundraising, HMA
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Maintenance
Status	Village has found company that has generators for lease. No generators have been purchased for critical facilities yet.

Objective	IMPROVE WARNING SYSTEMS
Description	<ol style="list-style-type: none"> 1. Evaluate current warning systems 2. Improve warning systems/develop new warning system 3. Obtain/Upgrade warning system equipment and methods 4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens 5. Identify location of weather warning radios 6. Improve weather radio system 7. Obtain/Upgrade weather radios
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies by project
Potential Funding	Village taxes, HMA
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Volunteer Fire Department
Status	Currently coordinating with Region 26 Emergency Management to ensure all residents have access to Code Red.

New Mitigation Actions – 2022 Plan

Objective	PROJECT SCOPING AS A RESULT OF THE WFPO PROGRAM
Description	1. Evaluate potential flood risk reduction alternatives as identified through the Watershed and Flood Prevention Operations Program including project scoping and implementation
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by project
Potential Funding	General Fund, WFPO, HMA
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, LLNRD, JEO Consulting Group
Status	Mira Creek WFPO is currently under development. No formal alternatives have yet been determined however several alternatives are under further review.

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 Chairman of the Board, the village clerk, village maintenance, and other board members. The plan will be reviewed no less than annually and will notify and involve the public via at local board meetings.

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COMMUNITY PROFILE

CITY OF ORD

Lower Loup Natural Resources District Hazard Mitigation Plan 2022

Local Planning Team

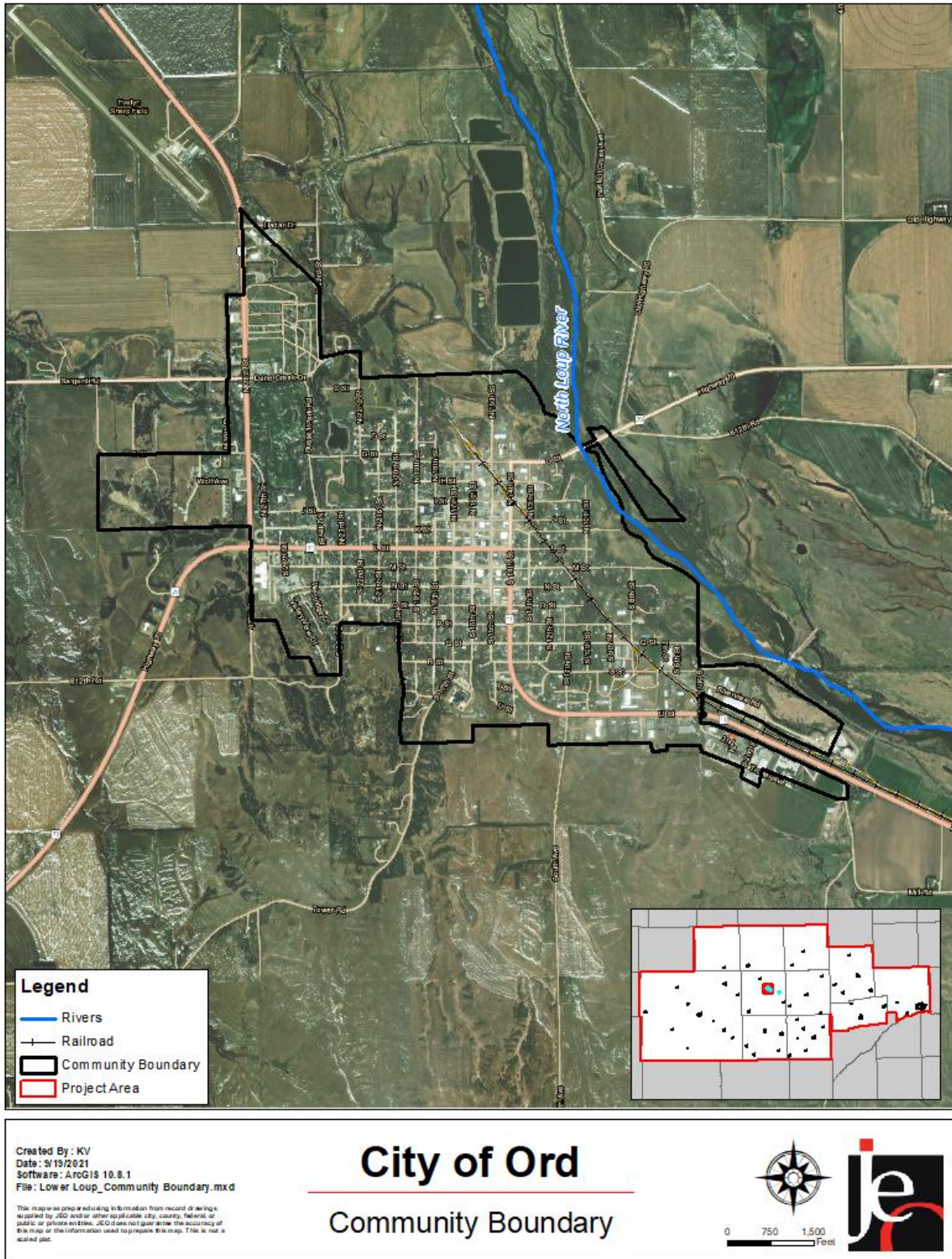
Table ORD.1: City of Ord Local Planning Team

NAME	TITLE	JURISDICTION
JERAMIE VAN LEER	Floodplain Administrator	City of Ord
ALMA BELAND	Director	Region 26 Emergency Management

Location and Geography

The City of Ord is located in the central portion of Valley County. The City of Ord covers an area of 1.94 square miles. The North Loup River runs along the east side of the city. Valley County has experienced at least one landslide historically, however, it is unknown if this landslide occurred in or in the vicinity of Ord. Ord lies in the valleys and bluffs and escarpments topographic region, and is surrounded by agricultural fields.

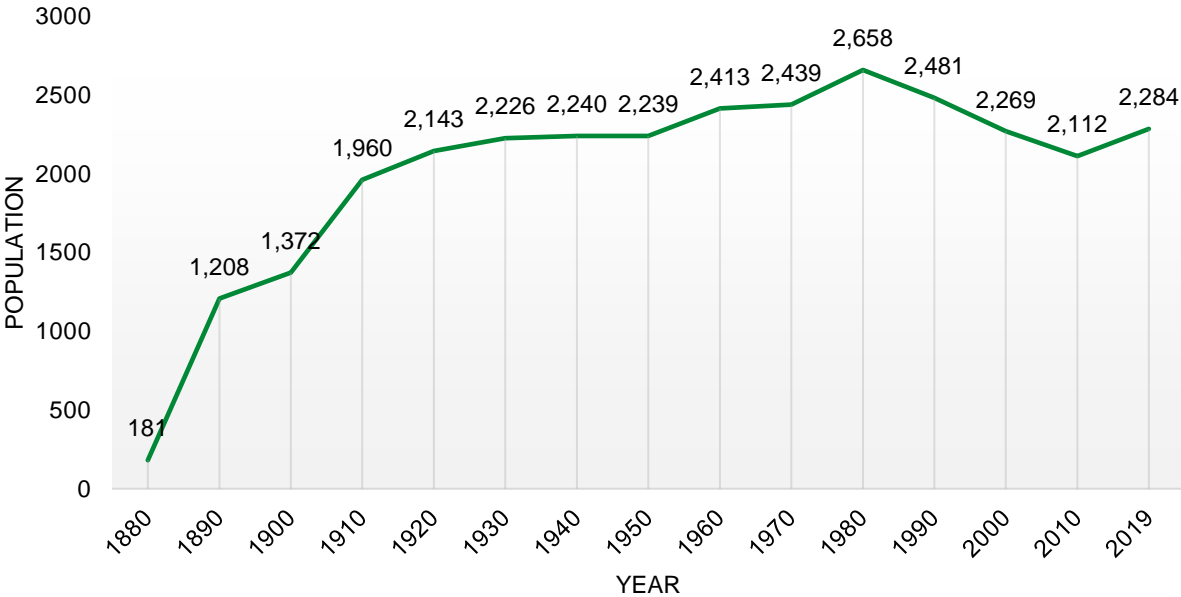
Figure ORD.1: City of Ord Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2019 (estimated). This figure indicates that the population of Ord experienced a steady increase from 1880 through 1980. From 1980 to 2010 the population declined, however, since 2010 the population has increased. 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 54% of Valley County’s Population in 2019.

Figure ORD.2: Ord Population 1880-2019



Source: U.S. Census Bureau³⁰

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

- **Older.** The median age of Ord was 48.3 years old in 2019, compared with the County average of 46.2 years. Ord’s population has grown older since 2010, when the median age was 47.3 years old. Ord had a smaller proportion of people under 20 years old (20.3%) than the County (24.0%).³¹
- **More ethnically diverse.** In 2010, 0% of Ord’s population was Black or African American, 0.8% was other races, and 0.2% were two or more races. By 2019, about 1.3% of Ord’s population was two or more races. During that time, Valley County went from 0% to 0% American Indian, 0.4% to 0.4% other races and 0.4% to 0.4% two or more races from 2010 to 2019 respectively.³²
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Ord (10.0%) was higher than the County (7.8%) in 2019.³³

³⁰ United States Census Bureau. “2019 American Fact Finder: S0101: Age and Sex.” [database file]
³¹ United States Census Bureau. “2019 American Fact Finder: S0101: Age and Sex.” [database file]
³² United States Census Bureau. “2019 American Fact Finder: DP05: ACS Demographic and Housing Estimates.” [database file]
³³ United States Census Bureau. “2019 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 Valley County, Ord's economy had:

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Ord included Retail and Education. In comparison Valley County's included Agriculture, Retail, and Education.³⁴
- **Lower household income.** Ord's median household income in 2019 (\$46,890) was about \$8,000 lower than the County (\$55,324).³⁵
- **Fewer long-distance commuters.** About 72.3% percent of workers in Ord commuted for fewer than 15 minutes, compared with about 64.5% of workers in Valley County. About 13.4% of workers in Ord commute 30 minutes or more to work, compared to about 12.6% of the County workers.³⁶

Major Employers

Major employers in the City of Ord include Ord Public Schools, Valley County Health System, Green Plains, Cargill, City of Ord, Valley County, and Subconn. A small percentage of residents commute for work to either Grand Island or Kearney.

Housing

In comparison to the Valley County, Ord's housing stock was:³⁷

- **Less owner occupied.** About 73.5% of occupied housing units in Ord are owner occupied compared with 74.3% of occupied housing in Valley County in 2019.
- **Smaller share of aged housing stock.** Ord has fewer houses built prior to 1970 than the county (64.2% compared to 66.1%).
- **Fewer multi-family homes.** The predominant housing type in the city is single family detached and Ord contains more multifamily housing with five or more units per structure than the County (2.5% compared to 1.8%). About 78.5% of housing in Ord was single-family detached, compared with 84.0% of the County's housing. Ord has a smaller share of mobile and manufactured housing (1.8%) compared to the County (3.4%)

The local planning team noted there are two mobile home parks in town – one larger park in the southern part of the city by Highway 11 and one smaller one on the west side of the river by Highway 70. 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.

³⁴ United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

³⁵ United States Census Bureau. "2019 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

³⁶ United States Census Bureau. "2019 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]

³⁷ 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. Ord has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The City has a mayor and a six member city council and the following offices: clerk/treasurer, utility superintendent, sewage plant operator, power board, volunteer fire department, and police 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 ORD.2: Capability Assessment

	SURVEY COMPONENTS	YES/NO
PLANNING & REGULATORY CAPABILITY	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	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
ADMINISTRATIVE & TECHNICAL CAPABILITY	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	
FISCAL CAPABILITY	1 & 6 Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes

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

Table ORD.3: Overall Capability

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

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

Ord’s municipal funds have decreased slightly over recent years and are generally limited to maintaining current facilities and systems. The city noted ARPA funds can be used for new capital projects but the city must issue bonds to pay for most projects. The city has applied for and received numerous grants to assist with project implementation including: Civic & Community Center grant for the pool, DHHS grants for a new generator at Well #2, state highway safety grants for equipment upgrades, CDBG for street paving, and NRCS bank stabilization grant.

Comprehensive Plan

Ord's comprehensive plan was last updated in 2018. The plan addresses flooding in the plan by directing development away from the floodplain and encourages this area to be used for parks and recreational purposes. The plan also encourages infill development, encourages clustering of development in sensitive areas, and encourages preservation of open space in hazard prone areas. The next plan update is scheduled for 2028.

Capital Improvement Plan

The city has a capital improvement plan updated annually. This plan is updated annually and as of 2020 includes a number of mitigation projects: replace lift station pumps; replace aerator motors at wastewater treatment plant; improve sewer main line; enclose storm water drainage in Bussell Park; and recondition wells.

Ordinances and Regulations

Ord last updated their ordinances in 2018. This ordinance discourages development in the floodplain, identifies floodplain areas as parks or open space, requires more than one-foot of elevation above Base Flood Elevation in the floodplain, prohibits filling of wetlands, and limits development in the ETJ.

Ord has a 1 & 6 Year Plan for the Streets Department and Utilities Department. These plans are updated annually. These plans include: regular maintenance for drainage structures, maintenance for storm sewer systems, installation of street aprons to facilitate drainage, bridge improvements, installation of new wells, upsizing water distribution pipes, updating electrical distribution system, burying powerlines, looping electrical distribution, installing emergency generators, and improving public works facility.

Valley County Local Emergency Operations Plan

The City of Ord is an annex in the Valley 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 Sandhills Community Wildfire Protection Plan

The Nebraska Forest Service updated the Central Sandhills Community Wildfire Protection Plan (CWPP), which includes Valley County in June 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.

Other Plans

The city has a Wellhead Protection Plan that was completed in 2013. As a result of the plan signs were installed to alert community members of wellhead protection areas, and ordinances include well setback requirements. No other examples of plan integration were identified, nor are there plans to further integrate planning mechanisms.

Future Development Trends

In the past five years, there has been new development throughout Ord. The local Shopko closed but was replaced by another business. Census data indicates that Ord's population is increasing. The local planning team noted that while population is growing in Ord and some housing is available, there is a lack of affordable housing and high-paying jobs to afford available homes. The city has annexed additional land north of the city by the airport. This area has been zoned as industrial/commercial. The airport is currently using a small part of the area. Valley County Economic Development has worked, and will continue to work, to attract people to the area. There are new housing developments planned in Ord, including Rolling Hills and Cedar Ridge in west Ord.

Community Lifelines

Transportation

Ord's major transportation corridors include Highway 11, which runs east-west, through the center of Ord. N-11 accommodates on average 5,915 vehicles per day, 300 of which are heavy commercial vehicles. The Nebraska Central Railroad Company has a rail line along the northeastern side of 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 five chemical storage sites throughout Ord which house hazardous materials. In the event of a chemical spill, the local fire department may be the first to respond to the incident. The local planning team noted there are approximately 50 members of the local fire department and the roster is consistently full. Additional response resources are located in Greeley and Ansley and the state response resources are located in North Platte. The local hospital in Ord has a decontamination room in the case of major exposure.

Table ORD.4: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
NDOT ORD YARD	620 U St	No
RIVERSIDE FERTILIZER & PROPANE	Jct 15th & G Sts	No
TROTTER TERMINAL	81216 Highway 11	No – adjacent
COUNTRY PARTNERS COOPERATIVE	524 N 14th St	No
GREEN PLAINS ORD LLC	48267 Val-e Rd	No

Source: Nebraska Department of Environment and Energy³⁸

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.

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

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

Table ORD.5: Ord Critical Facilities

CF #	COMMUNITY LIFELINES	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Safety and Security	Ord City Office and Police Department	N	N	N
2	Safety and Security	Fire Hall	Y	N	N
3	Food, Water, and Shelter	Ord Water Tower	N	N	N
4	Safety and Security	Ord City Utilities	N	N	N
5	Food, Water, and Shelter	Ord High School	Y	N	N
6	Food, Water, and Shelter	Catholic School	Y	N	N
7	Communications	Region 26 911 Tower*	N	N	N
8	Energy	Power Generating Station	N	N	N
9	Food, Water, and Shelter	Lagoons	N	N	Y
10	Energy	Sewer Plant	N	Y	Y
11	Safety and Security	City Storage Location	N	N	N
12	Food, Water, and Shelter	Six Sewer Lift Stations*	N	Hook up capabilities	N
13	Food, Water, and Shelter	City Wells*	N	Y	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.

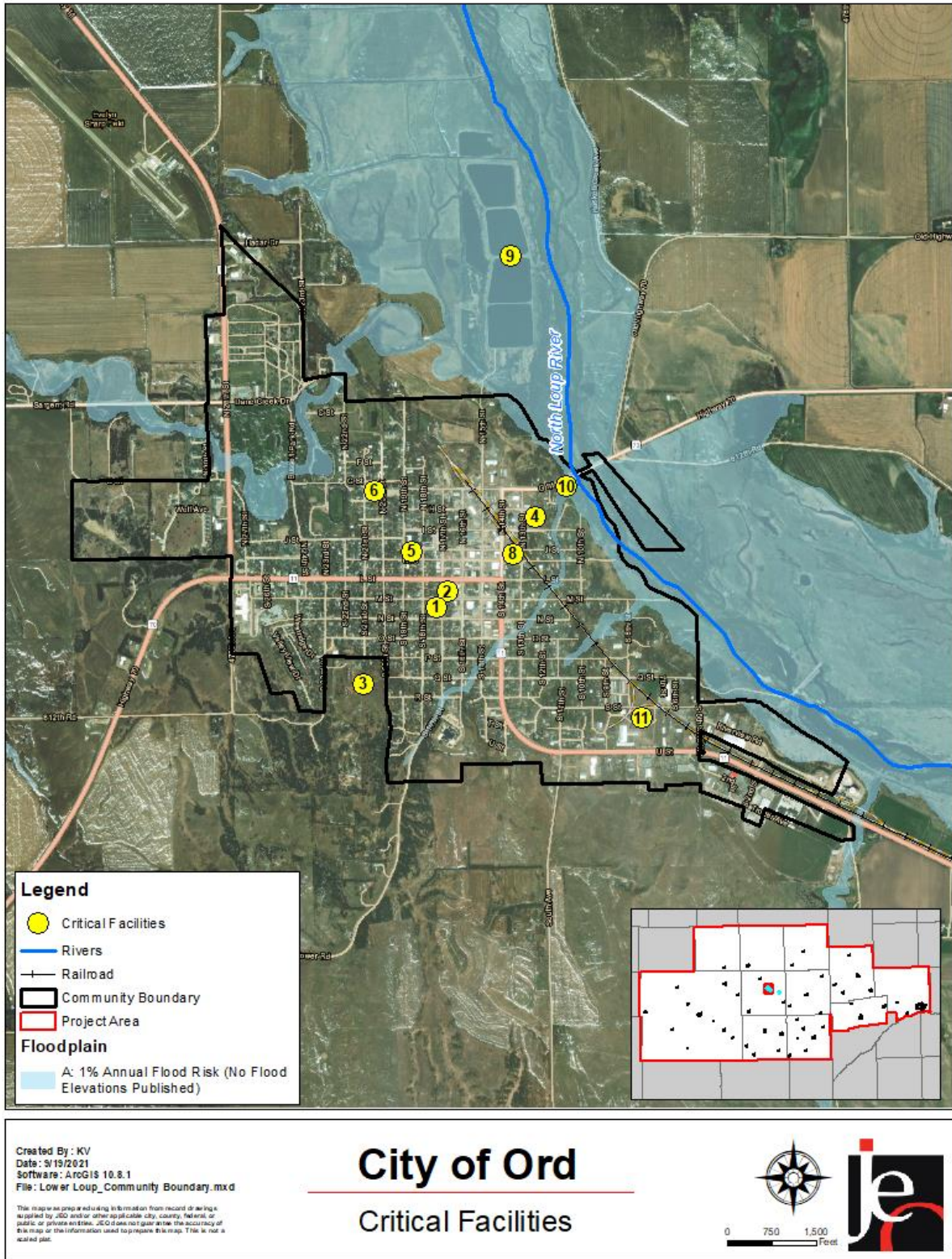
Health and Medical Facilities

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

Table ORD.6: Ord Critical Facilities

NAME OF FACILITY	TYPE OF FACILITY	NUMBER OF LICENSED BEDS
VALLEY COUNTY HOSPITAL	Hospital	16
GRANDVIEW ASSISTED LIVING FACILITY	Assisted Living Facility	50
VALLEY VIEW SENIOR VILLAGE	Long Term Care Facility	60
VCHS MEDICAL CLINIC	Rural Health Clinic	-

Figure ORD.3: Ord 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 ORD.7: Ord 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
1,531	999	93,870,260	70	12,358,355	7.01%

Source: County Assessor, GIS Workshop

Table ORD.8: Ord Flood Map Products

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	14-07-0884A-310226	2/25/2014	Structure removed from SFHA)
LOMA	19-07-1525A-310226	7/29/2019	Structure (residence) 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 Valley 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 limited concern for the City of Ord. While the North Loup River flows adjacent to the city to the north/northeast, there is adequate low-lying area north of the river which floods prior to the city. Additionally, there are no major areas in town which experience poor stormwater drainage during heavy rains or flash flooding concerns. The most significant flood on record is the March 2019 flood event. The NCEI reported \$100,000 in damages from this flood event. Bussell Park had flood damages to the tennis court which cost approximately \$160,000 to repair. A drainage canal runs adjacent to the park. There was minimal personal property damage from the flood event. While the lagoons are located in the floodplain and all roads around them were overtopped for several hours, the lagoons themselves did not overtop during the flood event. Floodwaters did attempt to backflow into the sewer plant; however, the city's preventative measures were successful and blocked access through the primary culvert to the plant. Several roads throughout the city experienced bank erosion from floodwaters. The Hardenbrook Diversion Dam is also located on the east side of town and experienced high flood waters during the 2019 flood event. The flood did not breach the dam; however, flows were diverted to the spillway and traveled into the low-lying areas north and east of the city. According to NeDNR's Dam Safety Division, if the

Hardenbrook dam were to fail it would not significantly impact the city or other property, residents, or communities downstream.

The local planning team noted the largest challenge the city faced during the flood event was debris management and removal. The city cleaned out debris in the creek along the golf course with NRCS funding assistance and stabilized banks by the golf course with FEMA assistance. Ord has one NFIP policy in-force for \$350,000. There are no repetitive flood loss properties in Ord.

Drought

Drought has the potential to threaten water supply and harm the local economy. Local concerns focus on the potential for increased water use during drought period, extreme demands on the local electric system, and major impacts to the surrounding agricultural farmland. The local water supply was described as sufficient during past droughts. The city has five wells which are located outside of town. The local planning team noted that one well has a generator and the others have hook up capabilities. Municipal water supply is monitored by a SCADA system on all wells and tower. All water use is metered in Ord. The city of Ord has an ordinance that allows the City to place restrictions if water supply is short. The NCEI did not report any property damages from drought in Valley County.

Severe Thunderstorms

Severe thunderstorms are common across the county and include impacts from heavy rain, lightning, hail, and strong winds. Past severe thunderstorms have knocked down trees and power lines. Lightning strikes have destroyed a siren pole in the past near the city's wells. The city has integrated tree management into the city budget and all hazardous limbs are removed as needed. The city has also worked to bury power lines throughout the city as needed and new development and repaired powerlines are buried. The hospital, wells, and sewer plant have backup generators. The schools, fire station, and city office still need backup generators. There are several portable generators stored at the electric city shop that can be relocated to places as needed. Shelter locations are located at the school, library, fire hall, and courthouse. Weather radios are located in critical facilities. Critical municipal records are protected with surge protectors on electronic devices. There is adequate stormwater drainage throughout town as the city sits on a hill. According to the NCEI, hail stones up to 2.75" have caused damage throughout the city, specifically to vehicles, rooftop utilities, and siding. Three major events in 2000, 2004, and 2005 caused a total of \$525,000 in property damages. The most damaging events included a wind storm in 2011 and a hail storm in 2014 with \$1,000,000 in damages each. The 2011 storm event included winds up to 80mph which peeled off the roof at the Ord airport and destroyed one side of a building.

Severe Winter Storms

Severe winter storms have the potential to damage infrastructure, hinder transportation, and cause power outages. The local planning team indicated that past winter storms have damaged power lines. Approximately 35% of power lines are buried within Ord and the city is making an effort to bury additional lines as new development occurs or repairs are made. There are designated snow and emergency routes throughout town. The city removes its own snow and the local planning team determined that snow removal resources are sufficient for most storms. The city has several trucks with blades, two maintainers, and a salt truck. The city stores 10-20 cubic yards of salt each year for road maintenance. The city has the ability to rent loader and/or trucks

if needed to aid in snow removal. The NCEI reports severe winter storm events at the county level. Valley County reported over \$1,360,000 in damages from severe winter storms since 1996.

Tornadoes and High Winds

Due to the location of the City on a hill, high winds are a common experience. Five tornado events have been reported in Ord. The most significant event, an F3 tornado in 1999, caused \$1,500,000 in property damages. According to the NCEI, *“Late in the evening of June 3rd, a severe thunderstorm produced a large tornado across northwest Valley county. The thunderstorm entered the western part of the county around 11 pm. Shortly thereafter, the tornado touched down 12 miles west of Ord and snaked its way northeast before lifting after midnight about 7 miles north of Ord. This F3 tornado had a damage path almost one-half mile wide at one point. It completely destroyed two farmsteads and damaged two others along its path. At the two destroyed farmsteads, residents took shelter in the basement upon warning. The tornado tossed cars and farm equipment up to 300 feet, strewn irrigation pipe across the countryside and killed livestock. The two destroyed homes were completely wiped from the foundation. However, given sufficient warning, no one in the storms path was injured or killed.”*

There are several sirens located throughout town which cover all residents. Each siren is wired into the electric system except for one siren at the courthouse which has its own generator. There are two trailer parks in town which are at higher risk during tornado and high wind events. While there are no FEMA certified safe rooms in town, the courthouse and schools have been identified as shelter locations.

Mitigation Strategy

Completed Mitigation Actions

OBJECTIVE	IMPROVE ELECTRICAL SERVICE
DESCRIPTION	<ol style="list-style-type: none"> 1. Evaluate hardening, retrofitting, looping and/or burying of power lines and related infrastructure and/or comparable protection measures 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 3. Implement measures to improve electrical service 4. Bury power lines for future construction
HAZARD(S) ADDRESSED	All Hazards
STATUS	A new substation was constructed in 2017 which looped the system together and provided redundancy.

Continued Mitigation Actions

OBJECTIVE	PROVIDE ADEQUATE PUBLIC SAFE ROOMS & POST DISASTER STORM SHELTERS
DESCRIPTION	<ol style="list-style-type: none"> 1. Identify and evaluate existing safe rooms and/or storm shelters 2. Improve and/or construct safe rooms and/or storm shelters 3. Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, etc.
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Thunderstorms
ESTIMATED COST	\$150/sf for retrofit; \$300/sf for new construction
POTENTIAL FUNDING	HMGP, PDM, Ord General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Valley County Emergency Management, City Council
STATUS	This project has not yet been started. Baseball fields and parks determined to be potential locations for safe rooms.

OBJECTIVE	BACKUP AND EMERGENCY GENERATORS
DESCRIPTION	<ol style="list-style-type: none"> 1. Identify and evaluate current backup and emergency generators 2. Obtain additional generators based on identification and evaluation 3. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters
HAZARD(S) ADDRESSED	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
ESTIMATED COST	\$20,000 to \$75,000+ per generator
POTENTIAL FUNDING	Ord Utility Funds, HMGP, PDM
TIMELINE	1 years
PRIORITY	High
LEAD AGENCY	Utility Superintendent
STATUS	A backup generator has been installed on Well #2 in 2017 through a grant. Additional generators are needed at remaining wells and sewer lift station pumps.

SECTION SEVEN: CITY OF ORD COMMUNITY PROFILE

OBJECTIVE	IMPROVE WARNING SYSTEMS
DESCRIPTION	<ol style="list-style-type: none"> 1. Evaluate current warning systems 2. Improve warning systems/develop new warning system 3. Obtain/Upgrade warning system equipment and methods 4. Conduct evaluation of existing alert sirens for replacement or placement of new sirens 5. Identify location of weather warning radios 6. Improve weather radio system 7. Obtain/Upgrade weather radios
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	Varies by Project
POTENTIAL FUNDING	Ord General Fund, Ord Utility Funds, HMGP, PDM
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Utility Superintendent, Valley County Emergency Management
STATUS	A new siren was added in east Ord by the Orscheln's store and installed downtown. An existing siren was moved to the water tower hill in south Ord. Additional sirens are needed on the north and west sides of town.

OBJECTIVE	IMPROVE EMERGENCY COMMUNICATIONS
DESCRIPTION	<ol style="list-style-type: none"> 1. Develop/Improve Emergency Communication Action plan 2. Implement Emergency Communication Action Plan 3. Establish inner-operable communications 4. Obtain/Upgrade Emergency Communication Facilities/Equipment 5. Obtain/Upgrade/Distribute Weather Warning Radios
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$5,000+
POTENTIAL FUNDING	Ord General Fund, HMGP, PDM
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Utility Superintendent, Valley County Emergency Management
STATUS	New in-care systems have been purchased and installed in emergency response vehicles. Additional equipment upgrades are still needed.

OBJECTIVE	REDUCE DAMAGES IN FLOODPLAIN
DESCRIPTION	<ol style="list-style-type: none"> 1. Evaluate repetitive loss or potential loss structures located in floodplain 2. Acquire and relocate or demolish flood prone property or elevate flood prone property 3. Elevate equipment vulnerable to flooding
HAZARD(S) ADDRESSED	Flooding
ESTIMATED COST	Varies by number and size of structure(s)
POTENTIAL FUNDING	Ord Utility Funds, HMGP, PDM, FMA, LLNRD Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Floodplain Administrator, Utility Superintendent, Valley County Emergency Management
STATUS	This project has not yet been started.

OBJECTIVE	REDUCE TREE DAMAGE & DAMAGE FROM TREES
DESCRIPTION	<ol style="list-style-type: none"> 1. Conduct tree inventory 2. Develop tree maintenance/trimming program 3. Implement tree maintenance/trimming program 4. Remove hazardous limbs and/or trees
HAZARD(S) ADDRESSED	Tornadoes, Severe Winter Storms, Severe Thunderstorms, Grass/Wildfire
ESTIMATED COST	\$0 to \$5,000 to develop program
POTENTIAL FUNDING	Ord Utility Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Utility Superintendent
STATUS	The city has removed many hazardous trees and limbs throughout the city. The city still needs to perform a tree inventory and formal written tree maintenance/trimming program.

OBJECTIVE	IMPROVE STREAM BED/BANK STABILIZATION
DESCRIPTION	<ol style="list-style-type: none"> 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.
HAZARD(S) ADDRESSED	Flooding
ESTIMATED COST	\$25,000 to \$500,000
POTENTIAL FUNDING	Ord Utility Funds, HMGP, PDM, FMA, LLNRD Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Utility Superintendent, Floodplain Administrator
STATUS	Several creek banks were stabilized in 2020 through a NRCS grant. Additional sites along Dane Creek are still in need of stabilization.

OBJECTIVE	PROVIDE INFORMATION TO CITIZENS ABOUT HAZARD EVENTS AND PREPAREDNESS
DESCRIPTION	<ol style="list-style-type: none"> 1. Obtain or develop materials about hazards 2. Conduct multifaceted public education 3. Distribute fact sheet at community events, schools, other venues 4. Conduct scheduled siren/warning system tests 5. Prepare/distribute educational materials listing safe room and shelters
HAZARD(S) ADDRESSED	All Hazards
ESTIMATED COST	\$5,000+
POTENTIAL FUNDING	Ord General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Utility Superintendent, Valley County Emergency Management
STATUS	The city conducts an annual test of the siren/warning system and publishes a notice in the newspaper regarding tornado safety. Additional educational materials can pertain to hazardous tree care for private landowners.

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 city's Mayor, Utility Superintendent, and City Clerk will review the city's profile no less than bi-annually. They will notify the public via public notices and at City Council public hearings.