

Table of Contents

Harlan County.....	2
City of Alma.....	19
Village of Huntley.....	33
Village of Orleans.....	43
Village of Ragan.....	56
Village of Republican City.....	69
Village of Stamford.....	82
Alma Fire District.....	93
Alma Public Schools.....	101
Orleans Fire District.....	110
Republican City Rural Fire District.....	117
Stamford Rural Fire Department.....	124

County Profile

Harlan County

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table HCO.1: Harlan County Local Planning Team

Name	Title	Jurisdiction
Chris Becker	County Sheriff/Emergency Manager	Harlan County

Location, Geography, and Climate

Harlan County is located in south-central Nebraska and is bordered by the State of Kansas and Furnas, Gosper, Phelps, Kearney, and Franklin Counties. The total area of Harlan County is 574 square miles. The Republican River traverses through the county and the Harlan County Reservoir is in the southeast corner. This lake is Nebraska’s second largest with 13,250 acres of water surface and 75 miles of shoreline. Other water bodies include Deep Creek, Spring Creek, Foster Creek, School Creek, Milrose Creek, Flag Creek, Rope Creek, Prairie Dog Creek, and Turkey Creek.

Climate

The table below compares climate indicators with those of the entire 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 HCO.2: Harlan County Climate

	Harlan County	State of Nebraska
July Normal High Temp¹	89.4°F	87.4°F
January Normal Low Temp¹	13.4°F	13.8°F
Annual Normal Precipitation²	24.5"	23.8"
Annual Normal Snowfall²	16.4"	25.9"

Source: NCEI 1981-2010 Climate Normals¹, High Plains Regional Climate Center, 1994-2020²
 Precipitation includes all rain and melted snow and ice.

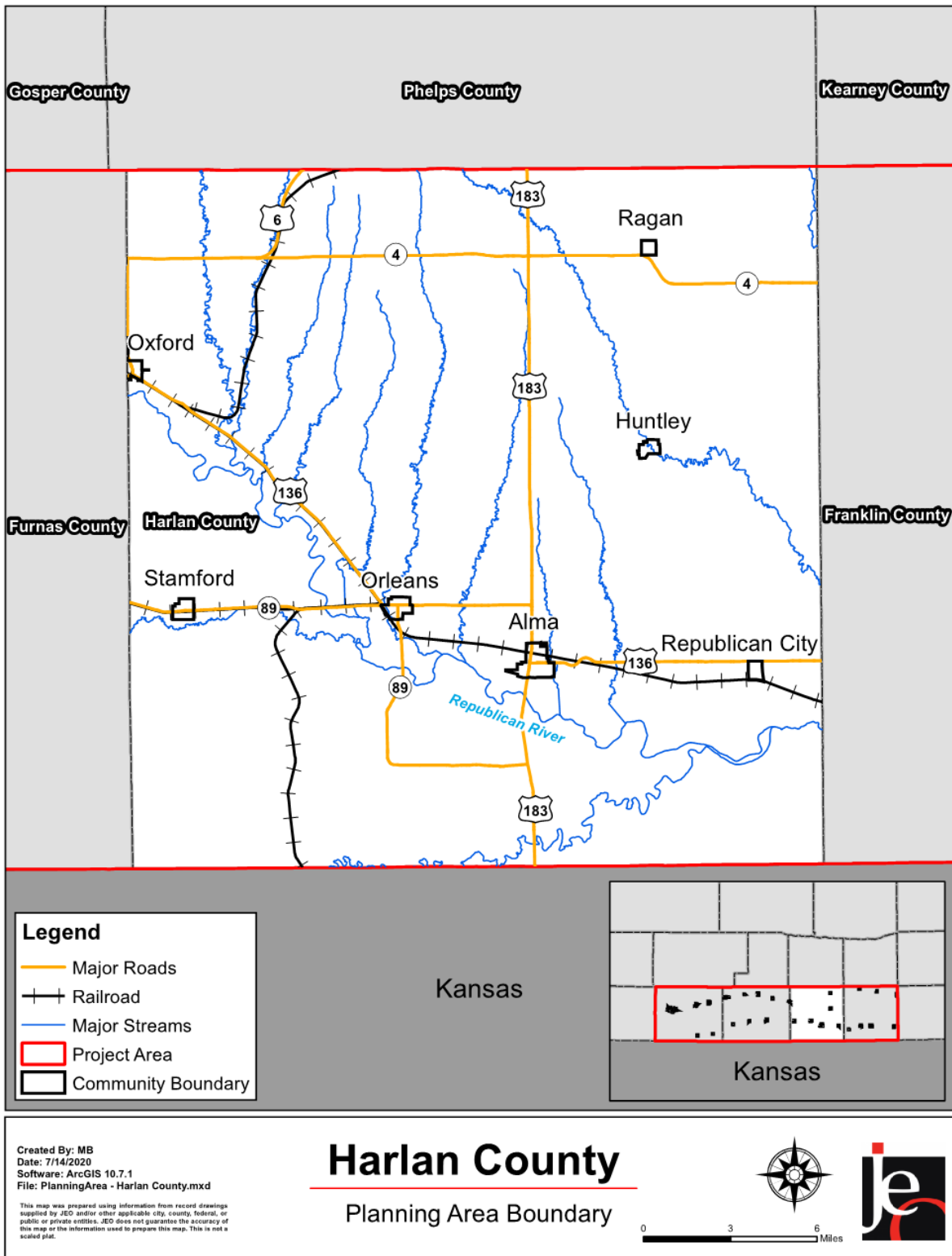
Transportation

Harlan County’s major transportation corridors include US Highway 6, 136, and 183 and Nebraska State Highways 4 and 89. Chemicals are regularly transported on all highways. Spills have occurred but have been limited to farm chemicals with little damage. Two Nebraska Kansas Colorado Railway lines, an Amtrak line, and a Burlington Northern Santa Fe line all travel through the county. The county also has two airports both located near Alma. Highways 136 and 183 are the transportation routes of most concern due to the heavy traffic and chemicals transported. If a spill occurred on those routes, traffic would likely have to be shut down. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors, as well as areas more at risk of transportation incidents.

1 National Centers for Environmental Information. “1981-2010 U.S. Climate Normals.” Accessed August 2020.
<https://www.ncdc.noaa.gov/cdo-web/datatools>.

2 High Plains Regional Climate Center. “Monthly Climate Normals 1894-2020 – Republican City NE.” Accessed August 2020.
<http://climod.unl.edu/>.

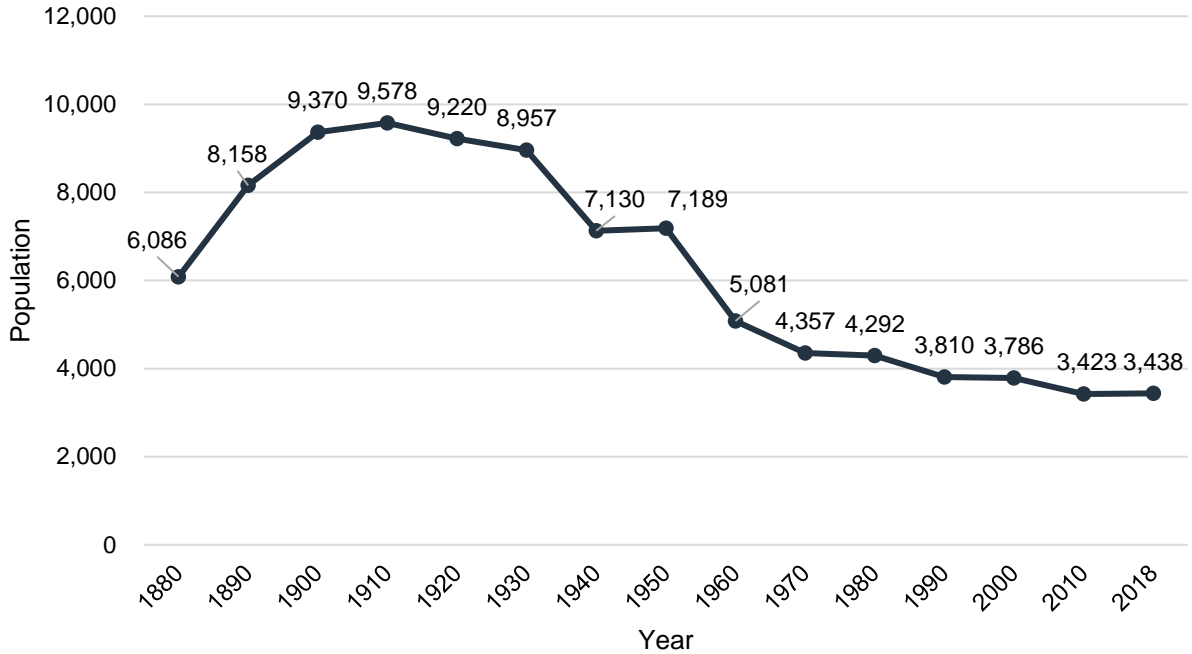
Figure HCO.1: Harlan County



Demographics, Economics, and Housing

The following figure displays the historical population trend from 1880 to 2018.³ This figure indicates that the population of Harlan County has been decreasing overall but has increased slightly since 2010. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Growing populations also contribute to tax revenues, allowing counties to pursue additional mitigation projects.

Figure HCO.2: Population 1880 - 2018



Source: U.S. Census Bureau

The following table indicates Harlan County has a slightly lower percentage of people under the age of five but has a higher percentage over the age of 64 compared to the state. This is relevant to hazard mitigation because 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 HCO.3: Population by Age

Age	Harlan County	State of Nebraska
<5	6.3%	6.9%
5-64	68.7%	78%
>64	25%	15.1%
Median	47.9	36.4

Source: U.S. Census Bureau³

The following table indicates that median household income and per capita income for the county are both lower than the State of Nebraska. Median home value and rent are also lower than the rest of the state. Areas with relatively low economic indicators may be less resilient during hazardous events.

³ United States Census Bureau. 2018. "S0101: Age and Sex." [database file]. <https://data.census.gov/cedsci/>.

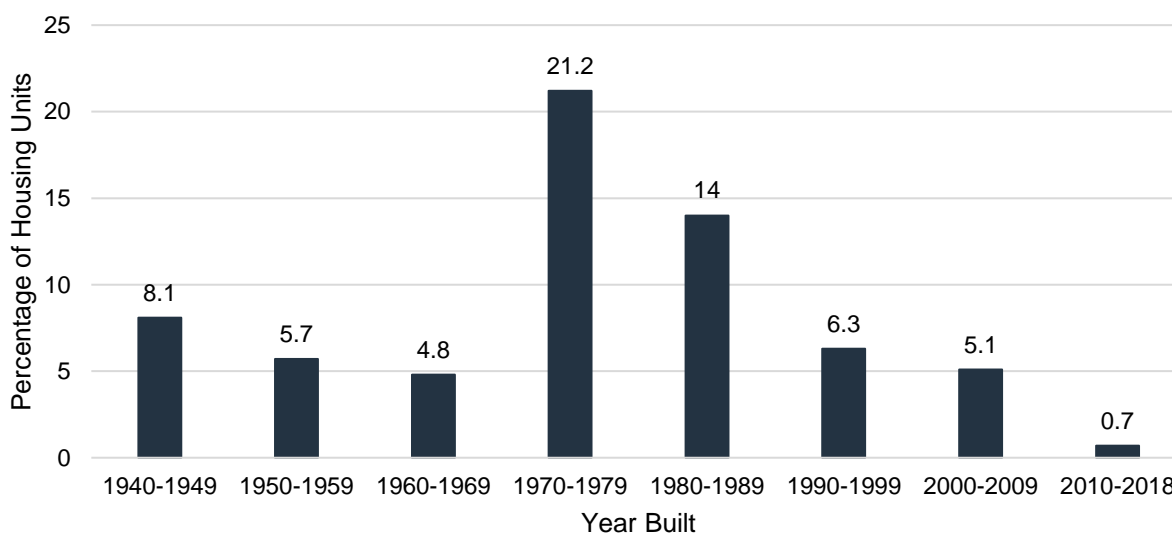
Table HCO.4: Housing and Income

	Harlan County	State of Nebraska
Median Household Income	\$50,344	\$59,116
Per Capita Income	\$27,421	\$31,101
Median Home Value	\$88,200	\$147,800
Median Rent	\$600	\$805

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

The following figure indicates that the majority of housing in Harlan County was built between 1970 and 1979 (21.2%). According to 2018 ACS 5-year estimates, the county has 2,384 housing units with 63.8% of those units occupied. There are approximately 545 mobile homes in the county. The county also sees a large number of RVs in Alma and at the Harlan Reservoir during the summer. Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes may be at greater risk. Finally, residents in mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly.

Figure HCO.3: Housing Units by Year Built



Source: U.S. Census Bureau⁴

Table HCO.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Harlan County	1,521	63.8%	863	36.2%	1,218	80.1%	303	19.9%
Nebraska	754,063	90.8%	76,686	9.2%	498,567	66.1%	255,496	33.9%

Source: U.S. Census Bureau⁴

Major Employers

According to 2016 Business Patterns Census Data, Harlan County had 105 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

4 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov/cedsci/>.

5 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov/cedsci/>.

Table HCO.6: Business in Harlan County

	Total Businesses	Number of Paid Employees	Annual Payroll (In Thousands)
Total for All Sectors	105	609	\$18,920

Source: U.S Census Bureau⁶

Agriculture is important to the economic fabric of the State of Nebraska. Harlan County's 281 farms cover 333,710 acres of land, about 90.8% of the county's total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute to agriculture by producing, processing and marketing farm products. These businesses generate income, employment and economic activity throughout the region.

Table HCO.7: Agricultural Inventory

	Agricultural Inventory
Number of Farms with Harvested Cropland	281
Acres of Harvested Cropland	333,710

Source: USDA Census of Agriculture, 2017⁷

Future Development Trends

Over the past five years, rural development has occurred both east and west of Alma. No new structures were developed in the floodplain. According to the 2018 American Community Survey estimates, Harlan County's population is growing. The local planning team attributes this to affordable housing options and the ability to commute to work. In the next five years, additional housing is planned to the east and west of Alma.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table HCO.8: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2,207	\$176,040,125	198	\$17,143,310	9.0%

Source: County Assessor, 2018

Community Lifelines

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are a total of 13 chemical storage sites throughout Harlan County. The following table lists the names, locations, and floodplain status. The local planning team also indicated that Cargill and CPI store chemicals at their facilities. Both the hospital and senior living center in Alma are located near fixed chemical sites. About 50% of residents near chemical storage sites are

6 United States Census Bureau. "2016 County Business Patterns and 2016 Nonemployer Statistics" [database file]. <https://factfinder.census.gov>.

7 U.S. Department of Agriculture. "2017 Census of Agriculture." <https://www.nass.usda.gov/Publications/AgCensus/2017/>.

aware of the threat and appropriate response to a spill. Many local first responders do not have enough personal protective equipment to adequately respond to a spill.

Table HCO.9: Chemical Storage Fixed Sites

Facility Name	Location	In Floodplain (Y/N)
Nutrien Ag Solutions	71853 A Rd, Oxford, NE	N
Nebraskaland Aviation Inc	904 Brown Ave, Alma, NE	N
Cooperative Producers Inc	1228 Cross Ave, Ragan, NE	N
Harlan County Reservoir	70788 Corp Road A, Republican City, NE	N
CHS Inc	603 W 10th St, Alma, NE	N
Nutrien Ag Solutions	11398 719 Rd, Alma, NE	N
NDOT Alma Yard	1004 10th St, Alma, NE	N
Valley Flying Service Inc	Highway 89, Orleans, NE	N
CHS Inc	1001 N Highway 183, Alma, NE	N
Frontier Communications	709 1st St, Alma, NE	N
CHS Inc	Jct Highway 6/34 & F Rd, Oxford, NE	N
CHS Inc	805 Highway 183, Alma, NE	N
Roger Muckel Crop Dusting LLC	70932 O Rd, Alma, NE	N

Source: Nebraska Department of Environment and Energy, 2020⁸

Critical Facilities

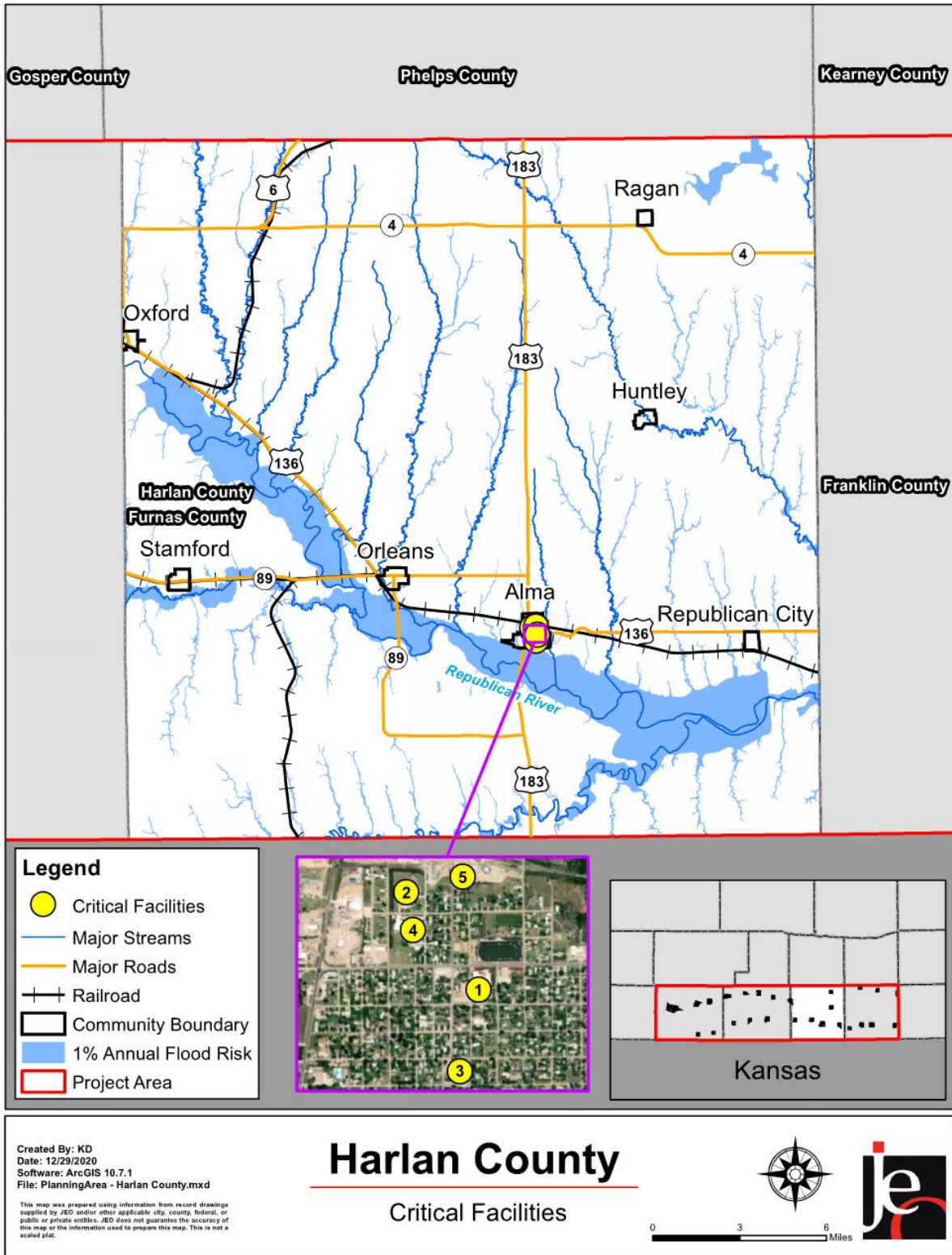
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

Table HCO.10: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Alma Public School	Y	N	N
2	Good Samaritan Nursing Home	N	Y	N
3	Harlan County Courthouse	Y	N	N
4	Harlan County Health Hospital	N	Y	N
5	Water Tower	N	N	N

⁸ Nebraska Department of Environment and Energy. “Search Tier II Data.” Accessed August 2020. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

Figure HCO.4: Critical Facilities



Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the county. The property damages from the NCEI Storm Events Database (January 1996 – December 2019) should be considered only as broad estimates. Crop damages reports come from the USDA Risk Management Agency for Harlan County between 2000 and 2019.

Table HCO.11: County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage ²
Animal and Plant Disease	Animal Disease ¹	4	4 Animals	N/A
	Plant Disease ²	23	N/A	\$220,412
Chemical Spills	Fixed Site ³	5	\$0	N/A
	Transportation ⁴	1	\$0	N/A
Dam Failure⁵		5	\$0	N/A
Drought⁶		483 months out of 1,501	\$0	\$45,982,215
Earthquake¹²		0	N/A	N/A
Extreme Heat⁹		Avg. 6 days/year	N/A	\$5,886,434
Flooding⁸	Flash Flood	7	\$180,000	\$95,065
	Flood	2	\$150,000	
Grass/Wildfires⁹ <i>1 Injury</i>		212	1,015 Acres	\$28,485
Levee Failure¹¹		0	\$0	N/A
Severe Thunderstorms⁸	Thunderstorm Wind Average: 67 mph Range: 58-104 mph <i>1 Injury</i>	47	\$4,258,000	
	Hail Average: 1.19 in Range: 0.75-2.75 in	133	\$1,903,000	\$18,825,462
	Heavy Rain	9	\$0	
	Lightning	0	\$0	
Severe Winter Storms⁸	Blizzard	9	\$250,000	
	Extreme Cold/Wind chill	2	\$0	
	Heavy Snow	5	\$0	\$3,411,280
	Ice Storm	5	\$6,480,000	
	Winter Storm	38	\$160,000	
	Winter Weather	27	\$5,000	
Terrorism¹⁰		0	\$0	N/A
Tornadoes and High Winds⁸	High Winds Average: 56 mph Range: 40-68 mph	17	\$1,052,080	\$746,071
	Tornadoes Average: EF0 Range: EF0-EF1	9	\$475,000	
Total		560	\$14,913,080	\$75,195,424

N/A: Data not available
1 - NDA, 2014 – 2019
2 - USDA RMA, 2000 – 2019

3 - NRC, 1990 - February 2019
4 - PHSMA, 1971 - July 2020
5 - DNR Dam Inventory December 2020

6 - NOAA, 1893 - July 2020
 7 - NOAA Regional Climate Center, 1893 - July 2020
 8 - NCEI, 1996 - December 2019
 9 - NFS, 2000 - 2018

10 - University of Maryland, 1970 - 2018
 11 - USACE NLN, 1900 - July 2020
 12 - USGS, 1900 - July 2020

The following table provides a summary of hazards that have affected or have the potential to affect each participating jurisdiction in Harlan County. Each jurisdiction was evaluated for previous hazard occurrence and the probability of future hazard events on each of the 13 hazards profiled in this plan. The evaluation process was based on data collected and summarized in Table HCO.11; 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.

Table HCO.12: Harlan County and Community Hazard Matrix

Hazard	Harlan County	City of Alma	Village of Huntlev	Village of Orleans	Village of Ragan	Village of Republican City	Village of Stamford	Alma Fire District	Alma Public Schools	Orleans Fire District	Republican City Fire District	Stamford Rural Fire Department
Animal and Plant Disease	X	X	X	X	X	X	X	X	X	X	X	X
Chemical Spills	X	X	X	X	X	X	X	X	X	X	X	X
Dam Failure	X	X	X	X		X	X	X	X	X	X	X
Drought	X	X	X	X	X	X	X	X	X	X	X	X
Earthquake	X	X	X	X	X	X	X	X	X	X	X	X
Extreme Heat	X	X	X	X	X	X	X	X	X	X	X	X
Flooding	X	X	X	X	X	X	X	X	X	X	X	X
Grass/Wildfires	X	X	X	X	X	X	X	X	X	X	X	X
Levee Failure												
Severe Thunderstorms	X	X	X	X	X	X	X	X	X	X	X	X
Severe Winter Storms	X	X	X	X	X	X	X	X	X	X	X	X
Terrorism	X	X	X	X	X	X	X	X	X	X	X	X
Tornadoes and High Winds	X	X	X	X	X	X	X	X	X	X	X	X

County Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the county. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the county’s capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Animal and Plant Disease

Any widespread animal disease outbreak in the county could have devastating economic impacts since the county is reliant on agriculture as a major economic contributor. No large disease outbreaks have occurred recently, but blizzards and drought have affected both crops and livestock locally. The cattle population is of most concern for Harlan County. Almost half of the farms in the county have cattle—more than any other livestock types located in the county. There

are disease outbreak protocols in development that will reduce this vulnerability. Harlan County is not concerned with an avian flu outbreak due to the low number of farms with poultry.

Dam Failure

There are 55 dams in Harlan County. Of these, Harlan County Dam has been identified as a high hazard dam. According to NeDNR, the failure of a dam with a high hazard classification would likely lead to loss of life. The Harlan County LEOP states that if the Harlan County Dam were to fail, it would affect the Republican River as far east as Kansas City. The area affected would be slightly greater than the 100-year floodplain. The most significant impacts would be in Naponee and Franklin, which would approach 100% inundation. If the dam were to fail, emergency housing would be available for displaced residents. Dam monitoring is done throughout the year. Figure HCO.5 shows the location of the dams in the county.

Drought

The NCEI reported that Harlan County experienced 483 months in drought from 1895 to 2019. RMA reported that the county experienced \$45,982,215 in crop loss between 2000 and 2019. Drought is defined in the county based on dryland crops and the amount of fallen rain compared to normal rainfall. The county does not have a drought monitoring board or a drought plan in place. The water supply for the county is sufficient to meet demand and the county meters irrigation wells as a way to monitor water needs and conserve water if needed. Irrigation limits are not established through the county although the NeDNR can shut off irrigation during drought based on the water rights in Nebraska and the Republican River Compact.

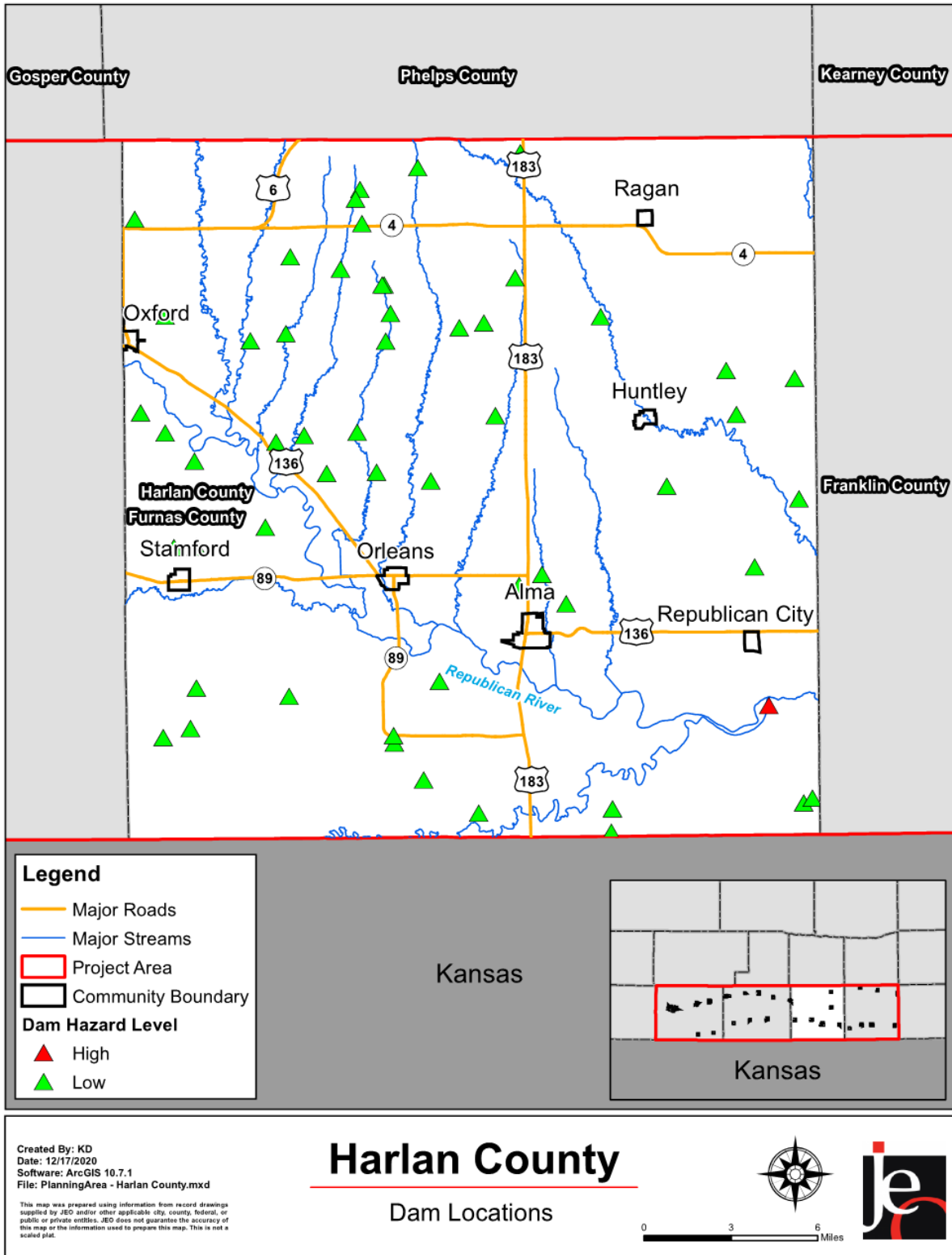
Flooding

Although not identified as a top hazard of concern by the local planning team, there is a floodplain located in the county. It is primarily located along the Republican River and its tributaries. NCEI data show that the county has experienced nine flooding events since 1996, resulting in \$330,000 in damages. Harlan County was severely impacted by the flooding in March 2019. Numerous county roads, bridges, and drainage culverts were damaged and required months of rehabilitation to make them safe and functional again. Roads and bridges were barricaded for month affecting travel routes throughout the county. Debris increased the flooding issues, and the county is still trying to clear and reestablish clear waterways. Some farmland and recreational areas were also damaged as a result of flood waters and debris. It is estimated that the event caused more than \$300,000 in damages. The county is part of and continues to maintain good standing in the NFIP.

Severe Thunderstorms

NCEI reported 358 severe thunderstorm (wind, lightning, hail, and rain) events between January 1996 and December 2019 that resulted in \$10,429,000 in property damage. Heavy rains mixed with snow melt in March 2019 and caused severe flooding in the county. The local planning team estimated that 98% of bridges and county roads required repairs. Very few, if any, powerlines have been buried across the county, but there is a backup generator for the courthouse in the event of power loss. There are surge protectors on electronic devices for county records. The county has not provided weather radios to critical facilities, but it does offer CodeRed to its residents.

Figure HCO.5: Dam Locations



Severe Winter Storms

NCEI reported 93 severe winter storm events for Harlan County. These storms resulted in \$1,530,000 in property losses. RMA reported \$7,679,403 in crop losses due to extreme cold. No critical facilities in the county have been damaged by winter storms. Primary concerns related to severe winter storms include power outages, road closures, and a lack of shelters. Improved shelter access is currently planned, but more shelters are needed. The county uses snow fences along U.S. Highway 136 and snow removal equipment and crews are sufficient for most events.

Tornadoes and High Winds

The NCEI reported eight tornadoes for the county between January 1996 and December 2019. An EF1 tornado in June 2011 caused \$250,000 in property damage. The other seven storms were all rated as F/EF0s. One F0 caused \$150,000 in May 2004 and an EF0 in April 2012 caused \$75,000. RMA reported minimal losses from tornadoes. No county critical facilities have been hit by a tornado. The county does not have any safe rooms available for residents to seek shelter. The county has systems to back up county records and provides education on tornadoes on local television stations. Possible siren replacements in several villages are likely over the next several years.

Governance

The county’s governmental structure impacts its capability to implement mitigation actions. Harlan County is governed by a board of supervisors. The county also has the following offices and departments:

- Assessor’s Office
- Sheriff’s Office
- County Attorney
- County Treasurer
- County Clerk
- Election Commissioner
- Register of Deeds
- Health and Human Services
- District Court Clerk
- County Roads Department
- Highway Superintendent
- Veterans Services
- Weed Superintendent
- Zoning

Capability Assessment

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

Table HCO.13: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning &	Comprehensive Plan	No
	Capital Improvements Plan	No

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

Survey Components/Subcomponents	Yes/No
Natural disaster or safety related school programs	No
StormReady Certification	No
Firewise Communities Certification	No
Tree City USA	No
Other (if any)	-

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

Plan Integration

Harlan County has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. No other planning documents were identified during this process. The county will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Floodplain Ordinance, Zoning Ordinance, and Subdivision Regulations

The county’s floodplain ordinance, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, prohibit development in the floodway, discourage development in the floodplain, limit population density in the floodplain, identify floodplain areas as parks and open space, discourage development near chemical storage sites, discourage development along major transportation routes, include well setback requirements, consider the wildland urban interface, and include the ability to implement water restrictions.

Harlan County Local Emergency Operations Plan (2018)

The local emergency operations plan 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.

South Central West Community Wildfire Protection Plan (2021)

The purpose of the South Central West Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years and has been integrated with the current hazard mitigation plan.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources.

Mitigation Strategy

Harlan County's funds are limited to maintaining current facilities and systems and have stayed the same over recent years. The county will likely need grant assistance to help pay for many of the projects listed below. Grants have been applied for and awarded in the past.

Completed Mitigation Actions

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

New Mitigation Actions

Mitigation Action	Bridge/Road Repairs and Replacements
Description	Repair and replace roads and bridges that were damaged during past flood events.
Hazard(s) Addressed	Flooding
Estimated Cost	\$500,000
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	County Roads Department
Status	In Progress. Currently waiting on funds.

Mitigation Action	Debris Removal
Description	Clean up and remove debris from recreation areas, farmland, roadways, and culverts.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	County Roads Department
Status	In Progress. Currently waiting on funds.

Continued Mitigation Actions

Mitigation Action	Public Awareness/Education
Description	Activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+

Section Seven | Harlan County Profile

Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Board, County Sheriff/Emergency Manager
Status	In Progress. Public education is done regularly but additional education is still needed.

Mitigation Action	Storm Shelters/Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms
Estimated Cost	\$4,500+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Board, Emergency Manager
Status	Planning Stage. An application for grant funding was not approved. Still looking for funding options.

Mitigation Action	Stormwater and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Repair and replace any damaged culverts from past flooding events.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	County Roads Department
Status	In Progress. Currently waiting on funds.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$50 per radio
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	City Council, County Sheriff/Emergency Manager
Status	In Progress. Some weather radios have been replaced.

Removed Mitigation Actions

Mitigation Action	Maintain Good Standing in the NFIP
Hazard(s) Addressed	Flooding
Reason for Removal	While the county will continue to enforce floodplain regulations and maintain good standing in the NFIP, this project is considered an ongoing action.

Community Profile

City of Alma

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table ALM.1: Alma Local Planning Team

Name	Title	Jurisdiction
Lorri Bantam	City Administrator/Floodplain Administrator	City of Alma
Tom Moulton	City Councilman	City of Alma

Location and Geography

The City of Alma is in southern Harlan County and covers an area of 1.15 square miles. The Harlan Reservoir is located directly south of the city, fed by the Republican River.

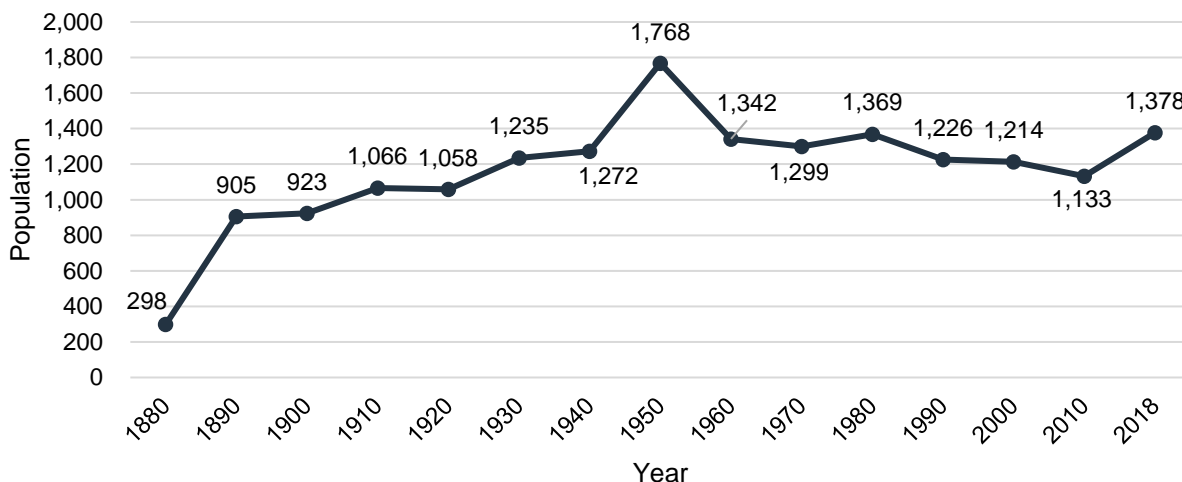
Transportation

Alma’s major transportation corridors include US Highway 136 and 183. The most traveled route is Highway 183 with an average of 4,840 vehicles daily, 545 of which are trucks.⁹ The city has one Nebraska Kansas Colorado Railway line traveling east to west on the northern edge of the community. One airport is located northeast of the city. Highway 183 is the transportation route of most concern as various chemicals and materials are carried on it. No large chemical spills or accidents have occurred locally. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The City of Alma’s population has increased since 2010, and sat at 1,378 people in 2018, accounting for 40.1% of Harlan County’s population.¹⁰ Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Growing populations can also boost tax revenue, allowing communities to pursue additional mitigation projects.

Figure ALM.1: Population 1880 - 2018

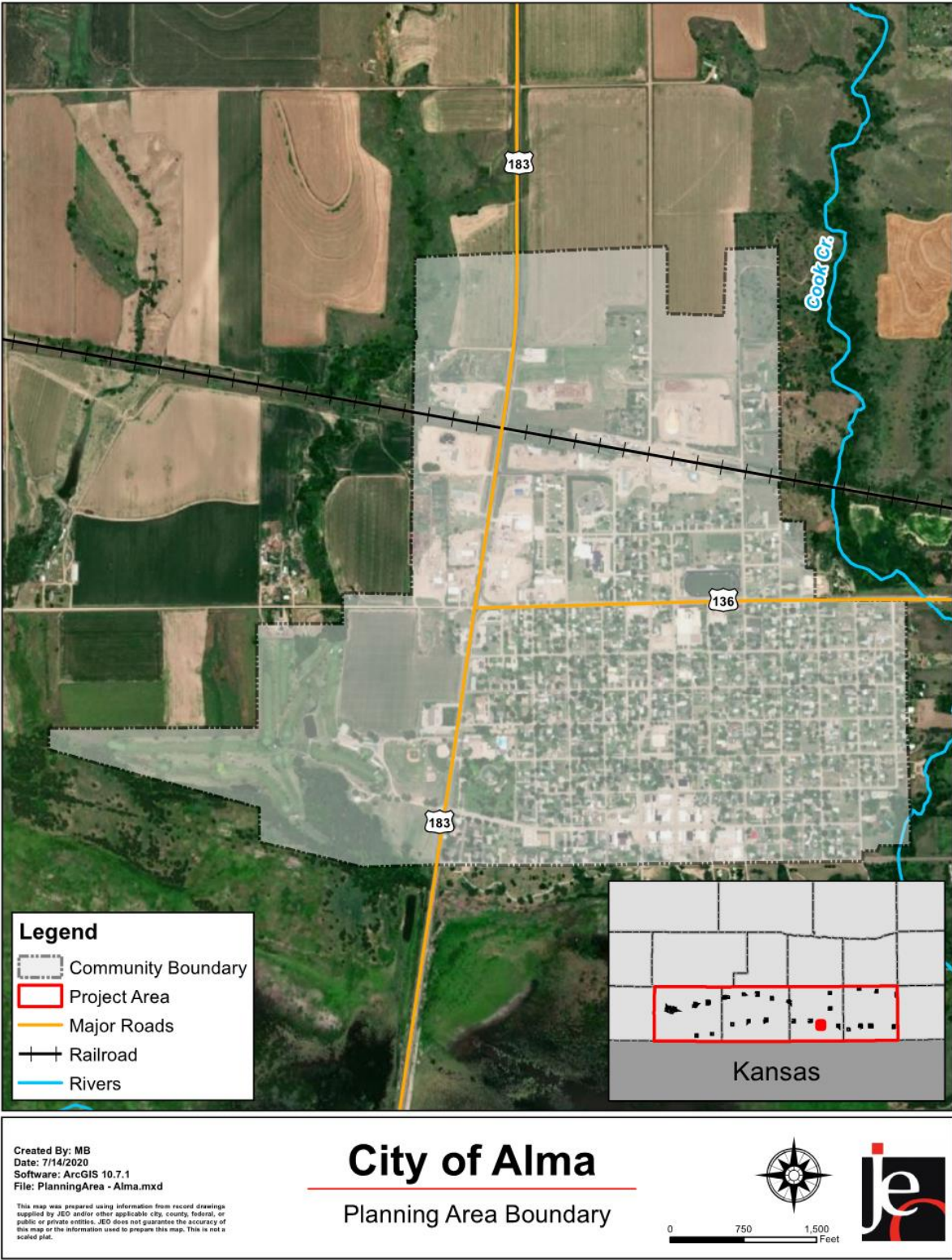


Source: U.S. Census Bureau

9 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

10 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. <https://data.census.gov/cedsci/>.

Figure ALM.2: City of Alma



The young, elderly, minority, and low-income populations may be more vulnerable to certain hazards than other groups. In comparison to the county, Alma's population was:

- **Older.** The median age of Alma was 51.7 years old in 2018, compared with Harlan County's median of 47.9 years. Alma's population grew older since 2010, when the median age was 49.6 years old.¹⁰
- **Less ethnically diverse.** Since 2010, Alma grew more ethnically diverse. In 2010, 0.9% of Alma's population was non-white. By 2018, about 1.2% was non-white. During that time, the non-white population in the county grew from 1.6% in 2010 to 4.5% in 2018.¹⁰
- **About as likely to be below the federal poverty line.** The poverty rate in the City of Alma (10.9% of people living below the federal poverty line) was similar the county's poverty rate (11.2%) in 2018.¹¹

Employment and Economics

In comparison to Harlan County, Alma's economy had:

- **Similar mix of industries.** Alma's major employment sectors, accounting for 10% or more of employment each, were agriculture and education.¹¹
- **Similar median household income.** Alma's median household income in 2018 (\$50,057) was about \$300 lower than the county (\$50,344).¹¹
- **Fewer long-distance commuters.** About 72.7% of workers in Alma commuted for fewer than 15 minutes, compared with about 58.8% of workers in Harlan County. About 14.4% of workers in Alma commuted 30 minutes or more to work, compared to about 21.4% of county workers.¹²

Major Employers

Major employers in the community include Harlan County Health System, Alma Public Schools, and the Good Samaritan Society. The local planning team estimated that 10% of residents commute to Holdrege for employment.

Housing

In comparison to Harlan County, Alma's housing stock was:

- **Older.** Alma had a larger share of housing built prior to 1970 than the county (66.6% compared to 52.7%).¹³
- **Less mobile and manufactured housing.** The City of Alma had a smaller share of mobile and manufactured housing (2.5%) compared to the county (22.9%).¹³
- **More renter-occupied.** About 22.5% of occupied housing units in Alma were renter-occupied compared with 19.9% of occupied housing in Harlan County.¹³
- **More occupied.** Approximately 16.7% of Alma's housing units were vacant compared to 36.2% of units in Harlan County.¹³

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly maintained. Unoccupied housing may also suggest that future development may be less likely to

11 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov/cedsci/>.

12 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov/cedsci/>.

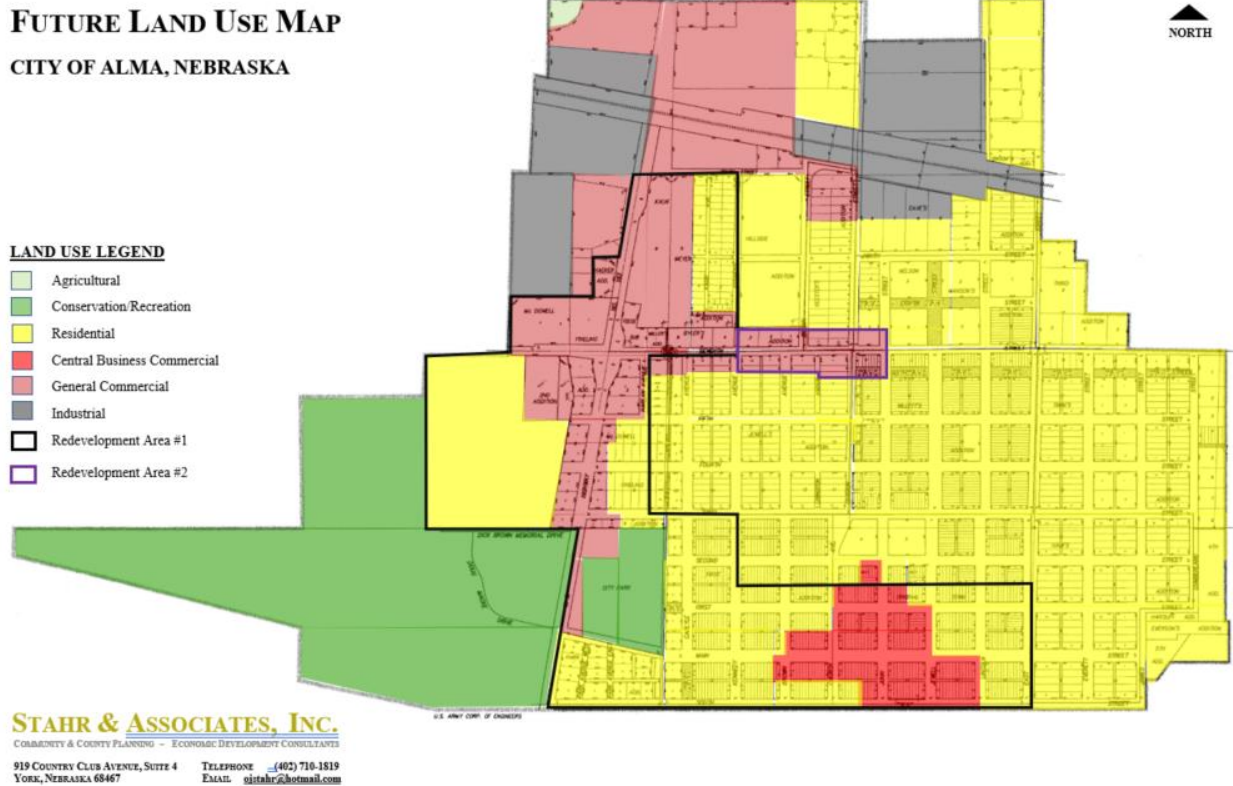
13 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov/cedsci/>.

occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. The city does not have a large number of mobile homes. However, during the summer months two RV parks in Alma contain approximately 60 RVs. The Alma RV Park is located at 501 South Street and the Hooks and Arrow RV Park is located at 8th and Kennedy Street. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

Future Development Trends

Alma has a new subdivision west of US Highway 183 by the golf course. The first phase is designed for 18 new homes and phase two will be designed for another 18 homes. As of November 2020, two homes have been built and five other lots have been sold with plans to begin construction in the spring of 2021. The new subdivision is located outside the one percent annual flood risk area. According to the 2018 American Community Survey estimates, Alma’s population is growing. The local planning team attributes the growth to low cost of living, the Harlan Reservoir, low crime rate, and easy access to medical facilities. The future land use map for the city shows residential use primarily on the eastern half of the community with commercial and industrial uses in the northwestern portion.

Figure ALM.3: Future Land Use Map



Source: City of Alma

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table ALM.2: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
672	\$75,471,180	0	\$0	0%

Source: County Assessor, 2018

Community Lifelines

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table ALM.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Alma Public Schools	Y	N	N
2	City Auditorium	Y	N	N
3	City Hall	N	N	N
4	City Well #1	N	N	N
5	City Well #2	N	N	N
6	City Well #3	N	N	N
7	City Well #4	N	N	N
8	City Well #5	N	Y	N
9	City Well #6	N	N	N
10	City Well #7	N	Y	N
11	Farm Service Agency	N	N	N
12	Fire Hall	N	N	N
13	Harlan County Courthouse	Y	Y	N
14	Harlan County Health System	N	N	N
15	Heartland Medical Clinic	N	N	N
16	Johnson Center	Y	N	N
17	Lift Station	N	Y	N
18	Nebraska Public Power	N	N	N

Figure ALM.4: Critical Facilities 1 of 2

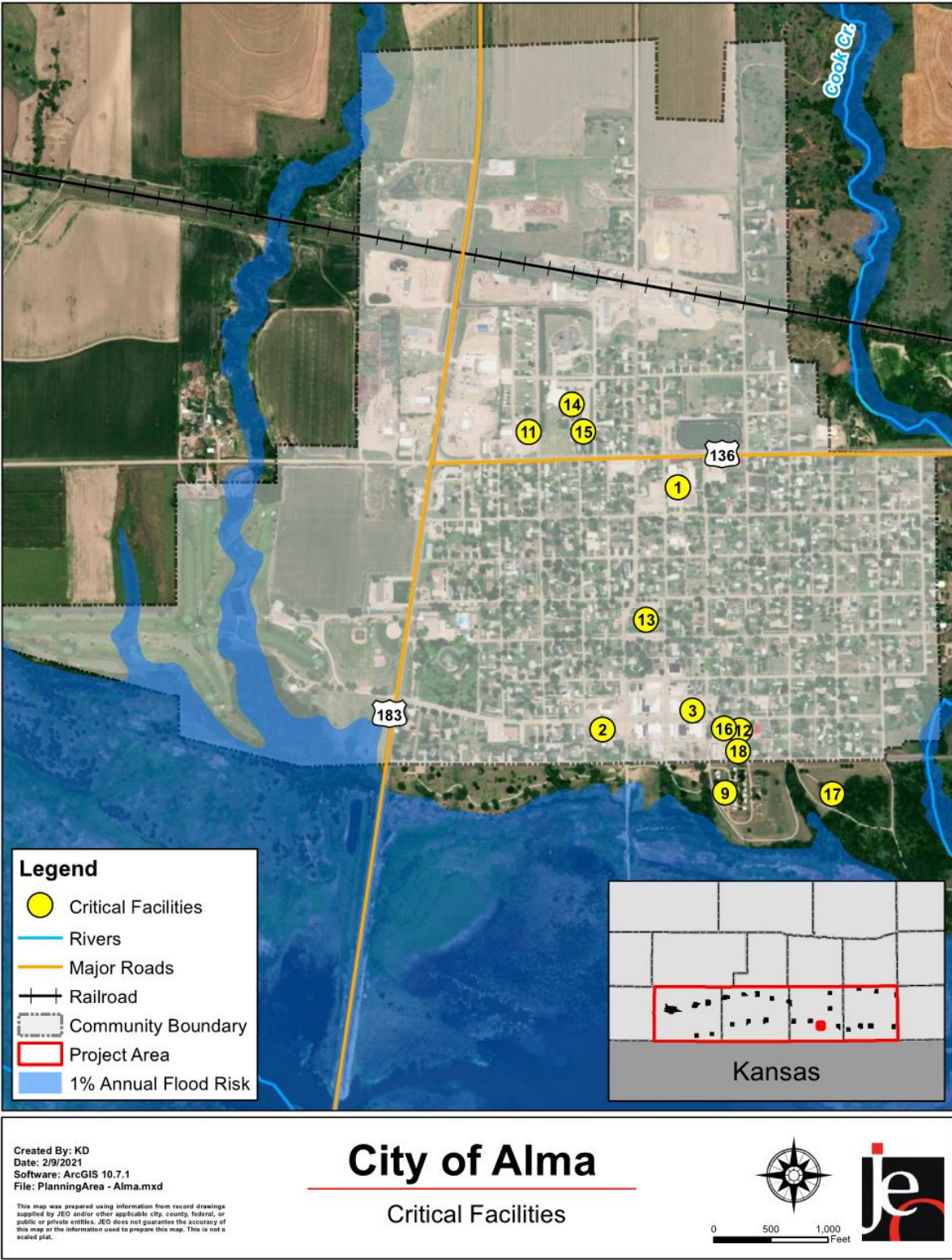
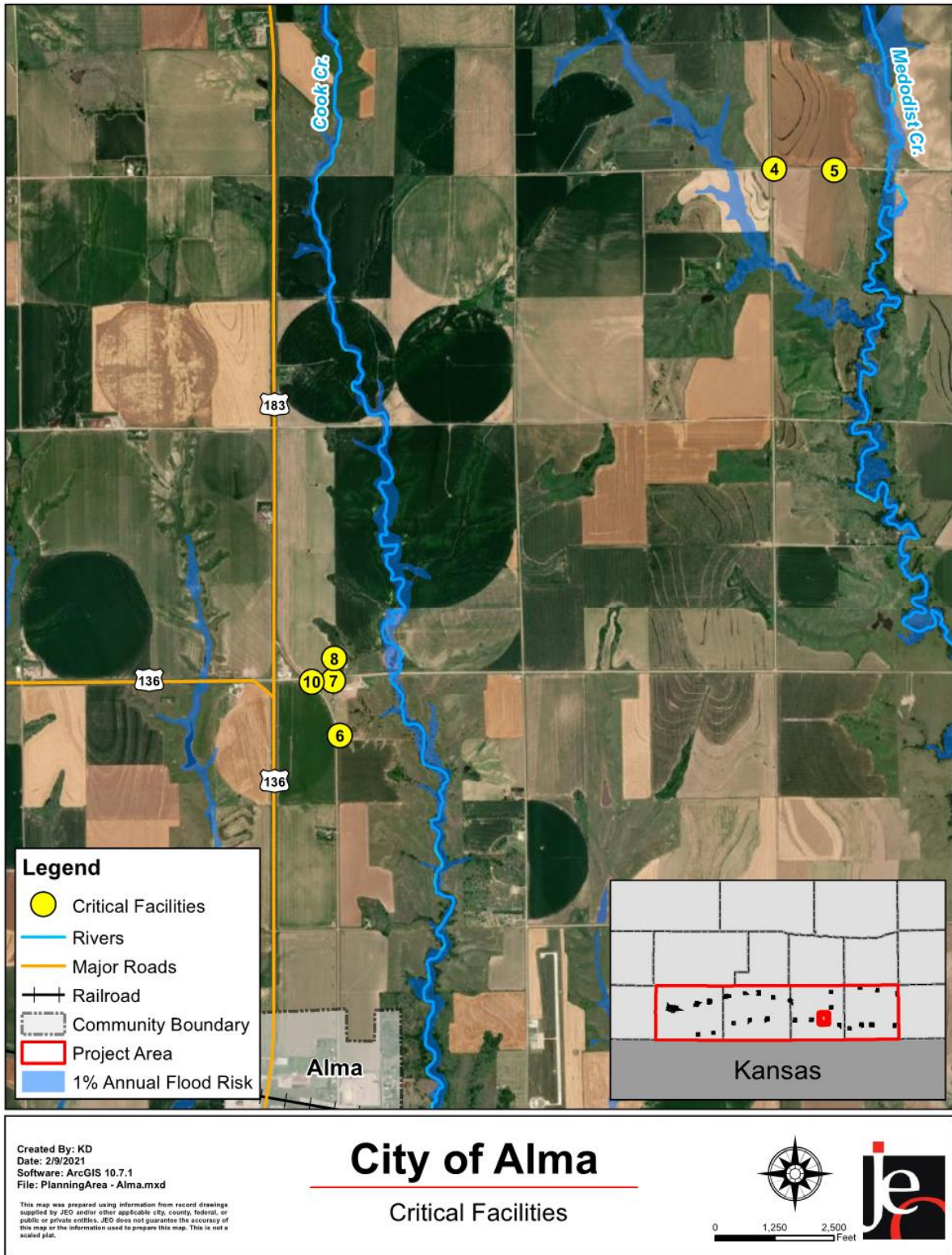


Figure ALM.5: Critical Facilities 2 of 2



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The local planning team selected hazards based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Animal and Plant Disease

The Nebraska Department of Agriculture reported one animal disease case in Harlan County in 2019. Even though Alma is considered a city, there is still a large agriculture area nearby that is susceptible to animal disease. The city did not report any animal diseases affecting any nearby farms but is concerned about the impact if any animal diseases were to occur. Most concerning is a large cattle population located near the community. The city does not have a plan in place to address an outbreak if one were to occur. However, information on how to address animal disease is available from the Harlan County Extension office. The city expects the Emerald Ash Borer to have a large impact on trees located in the city park and along streets. Costs for tree removal may increase and storage for removed trees may also become an issue.

Chemical Spills

Two reported chemicals spills occurred in the community, with one resulting in a fatality and two people injured. The city sees a large number of heavy trucks drive through the city each day and some of those trucks are transporting hazardous materials. A new business was built on the north edge of Alma on US Highway 30. As many people visit this business, the city has seen near-miss accidents and vehicles speeding into and out of Alma. The city is concerned that an accident will occur between a truck hauling chemicals and a car turning in or out of this business. A speed buggy has been purchased and was placed at the entrance of Alma to help reduce the speed of vehicles entering the community. Alma has asked the Nebraska Department of Transportation (NDOT) to post lower speed limits, however NDOT will not. Alma is also concerned with the possibility that trains transporting chemicals might experience leaks. The railroad passes just to the north of the hospital. The city has six critical facilities located along the major highway transportation routes within the city and two critical facilities located along the railroad. If a spill were to occur the fire department and county emergency manager would respond. The city does not provide any shelter-in-place instructions to residents or those in critical facilities along major transportation routes. The city would like turn lanes installed along US Highway 183 but falls under NDOT responsibility and jurisdiction.

Flooding

Although not identified as a top hazard of concern by the local planning team, there is floodplain located in the city. The floodplain is located in the western portion of the community, primarily in the golf course. The heavy rains of 2019 did not have a negative effect on Alma. Lake level rose and flooded parks and the hiking/biking trail. Alma is a member of, and continues to maintain good standing in, the NFIP.

Severe Thunderstorms

NCEI reported 29 severe thunderstorm (wind, rain, and lightning) and hail events between 1996 and 2019 that resulted in \$2,405,000 in property damages. Hail and winds from a June 2014 storm damaged roofs in the city. The city does protect municipal records with surge protectors on electronic devices and has insured municipal buildings. None of the power lines in the city are buried, but the city does have a local tree board. A new early warning siren was purchased with city funds. The siren is designed to cover the whole city as there are areas that could not hear the current siren. As of November 2020, the city is still awaiting the delivery and installation of the new siren. A new backup power generator has also been ordered for well #5 in case of power outage.

Severe Winter Storms

Roughly since 2016, Alma has not experienced a normal winter, receiving very little snowfall. No damage to critical facilities from winter weather events has occurred. The city has three snow routes designated: Main Street, Division Street, and Brown Street (the main north-south road to the hospital). City crews are responsible for clearing the snow from the streets, and snow removal is sufficient. Two small snow removal vehicles were recently purchased to help with congested areas and light snowfall. The city also implemented the CodeRed warning system and another warning system for their website to alert community members during emergencies.

Governance

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

- Airport Authority
- Board of Health
- Housing Rehabilitation
- Board of Zoning Adjustment
- Community Redevelopment
- Housing Authority
- Zoning/Planning Commission
- Tree Board
- Hiking/Biking Trail Committee
- City Administrator
- Utilities Department
- City Treasurer
- City Clerk

Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Alma's municipal funds are sufficient to pursue new capital projects and have stayed level over recent years.

Table ALM.4: Capability Assessment

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

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

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

Plan Integration

The City of Alma has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. Note that the city has a 2019 comprehensive plan, but it has not been integrated with the hazard mitigation plan. Alma also has a water well ordinance which includes the ability to implement water restrictions. No other planning documents were identified during this process. The city will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Floodplain Regulations (2009), Zoning Ordinance (2019), and Subdivision Regulations (2019)

The city’s floodplain regulations, zoning ordinance and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, limit population density in the floodplain, identify floodplain areas as parks and open space, and require more than one-foot elevation above Base Flood Elevation in the floodplain.

Harlan County Local Emergency Operations Plan (2018)

The City of Alma is an annex in the Harlan 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.

Natural Gas Emergency Response Plan (2020)

The natural gas emergency response plan identifies hazards that could affect the natural gas system. It also discusses what response actions will take place to reduce impacts and speed up recovery.

Water System Emergency Response Plan (2020)

A water system emergency response plan serves as a guideline for water operators and city administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and manmade events and discusses the water system's response during those events.

Mitigation Strategy

The City of Alma has the administrative staff and technical and fiscal capabilities to implement some mitigation projects without assistance. Larger projects such as safe rooms or drainage improvements may require that the city to partner with the county emergency management, Harlan County, LRNRD, and other regional and state agencies. The city has applied for and been awarded several grants in the past.

Completed Mitigation Actions

Mitigation Action	Tree City USA
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) establishing a tree board; 2) enacting a tree care ordinance; 3) establishing a forestry care program; 4) enacting an Arbor Day observance and proclamation.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms
Status	Completed. The city is now part of Tree City USA.

Mitigation Action	Warning Systems
Description	The city would like to install a Reverse 911 system.
Hazard(s) Addressed	All Hazards
Status	Completed. The city partnered with CodeRed for a notification system and upgrade of the city's website, which also has a notification system.

Continued Mitigation Actions

Mitigation Action	Alert/Warning Sirens
Description	Perform an evaluation of existing alert sirens to determine sirens which should be replaced or upgraded. Install new sirens and remote activation where lacking. Most of the city's sirens need replacement.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$15,000+
Funding	City Taxes, CDBG
Timeline	2-5 Years
Priority	Low
Lead Agency	City Council, City Utilities, County Sheriff/Emergency Manager
Status	In Progress. A new siren has been ordered to replace the one that has had multiple issues.

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies
Funding	City Budget, CDBG
Timeline	5+ Years
Priority	Medium
Lead Agency	Street Department
Status	In Progress. The city has purchased two smaller trucks to help in snow removal.

Mitigation Action	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$2,000
Funding	City Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Park Department, Street Department
Status	In Progress. Old and damaged trees are removed when funding is available.

Mitigation Action	Storm Shelters/Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$4,500+
Funding	RV Campground Rates
Timeline	1 Year
Priority	High
Lead Agency	City Council, RV Park Manager, County Sheriff/Emergency Manager
Status	In Progress. A tornado shelter has been installed at the RV Park.

Removed Mitigation Actions

Mitigation Action	Maintain Good Standing in the NFIP
Hazard(s) Addressed	Flooding
Reason for Removal	While the city will continue to maintain good standing in the NFIP by enforcing floodplain regulations, this is considered an ongoing action.

Community Profile

Village of Huntley

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table HNT.1: Huntley Local Planning Team

Name	Title	Jurisdiction
Dale Sprague	Board Member	Village of Huntley
Lisa Howsden	Village Treasurer	Village of Huntley
Steve Platt	Village Clerk	Village of Huntley
Mike Dunse	Board Chairman	Village of Huntley

Location and Geography

The Village of Huntley is in northeastern Harlan County and covers 225 acres. The topographic region Huntley lies in is the dissected plains. This hilly land has moderate to steep slopes and sharp ridge crests. They are remnants of the old plain eroded by water and wind. Turkey Creek flows through the eastern portion of the community.

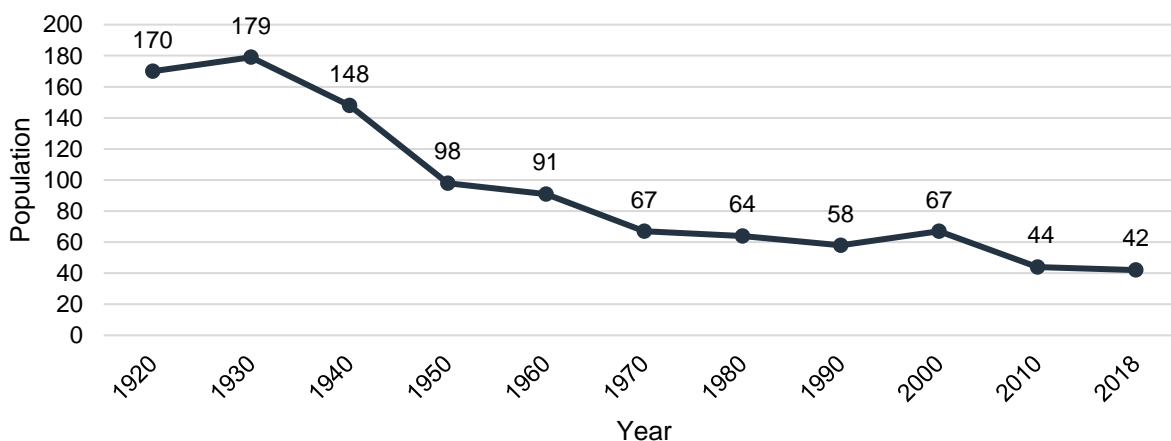
Transportation

Huntley’s major transportation corridor is State Highway S42A. It is traveled by an average of 160 vehicles daily, 10 of which are trucks.¹⁴ Highway 42A is the only paved road in the community. In March 2019, flooding closed the north and east routes out of the community. The village does not have any rail lines traveling near the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Huntley’s population has been declining since 2000 to around 42 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Huntley’s population accounted for 1.2% of Harlan County’s population in 2018.¹⁵

Figure HNT.1: Population 1920 - 2018

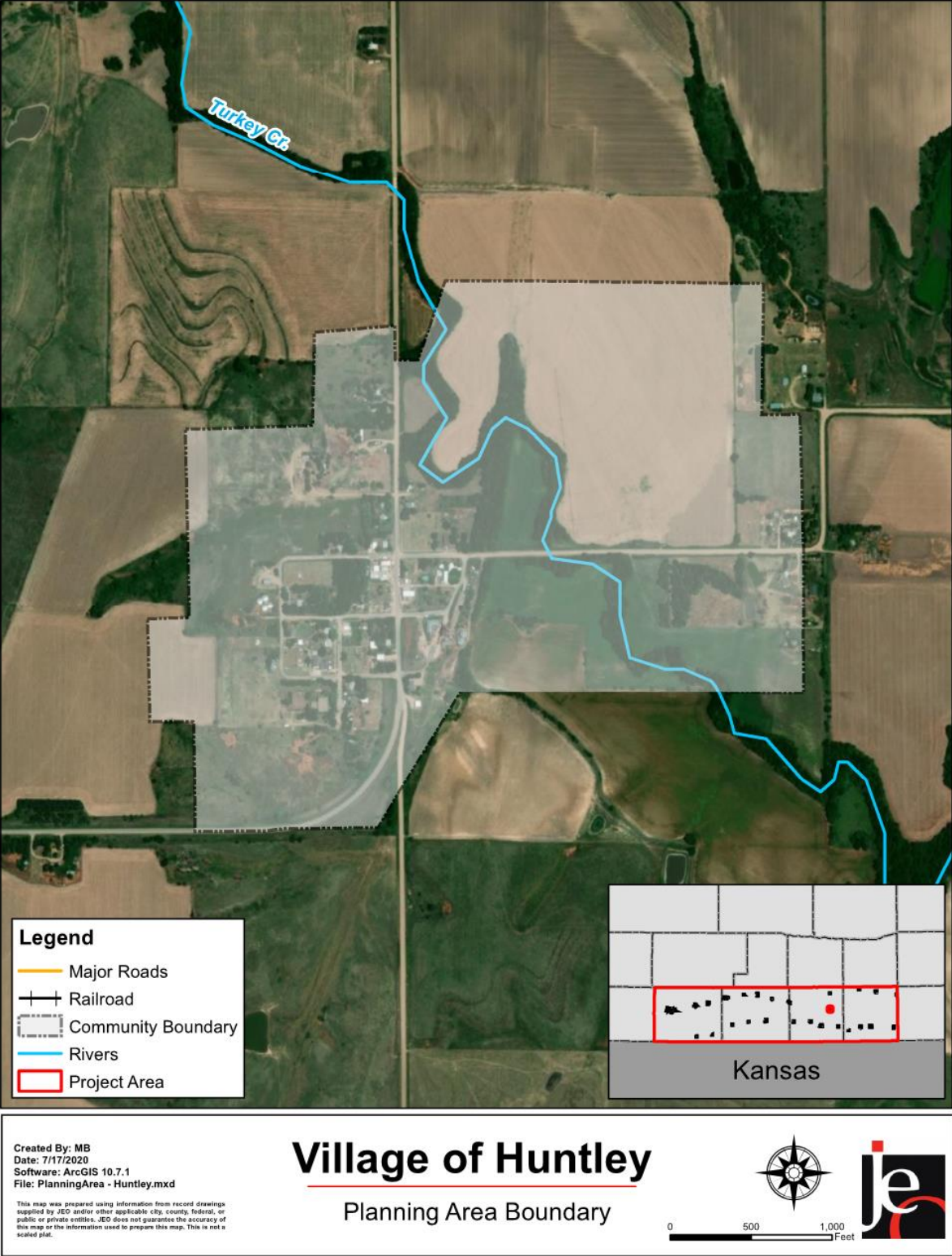


Source: U.S. Census Bureau, 1920-2010; Local Planning Team, 2018

14 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

15 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. <https://data.census.gov/cedsci/>.

Figure HNT.2: Village of Huntley



The young, elderly, minority, and low-income populations may be more vulnerable to certain hazards than other groups. In comparison to the county, Huntley's population was:

- **Older.** The median age of Huntley was 56.3 years old in 2018, compared with Harlan County's median of 47.9 years. Huntley's population grew older since 2010, when the median age was 47 years old.¹⁵
- **More ethnically diverse.** Since 2010, Huntley grew more ethnically diverse. In 2010, 0% of Huntley's population was non-white. By 2018, about 12% was non-white. During that time, the non-white population in the county grew from 1.6% in 2010 to 4.5% in 2018.¹⁵
- **Equally likely to be below the federal poverty line.** The poverty rate in the Village of Huntley (12% of people living below the federal poverty line) was slightly higher than the county's poverty rate (11.2%) in 2018.¹⁶

Employment and Economics

In comparison to Harlan County, Huntley's economy had:

- **Different mix of industries.** Huntley's major employment sectors, accounting for 10% or more of employment each, were: construction, retail trade, education, entertainment, and other services.¹⁶
- **Lower median household income.** Huntley's median household income in 2018 (\$32,500) was about \$17,800 lower than the county (\$50,344).¹⁶
- **Fewer long-distance commuters.** About 7.7% of workers in Huntley commuted for fewer than 15 minutes, compared with about 58.8% of workers in Harlan County. 0% workers in Huntley commuted 30 minutes or more to work, compared to about 21.4% of county workers.¹⁷ However, the local planning team indicated that some residents commute to Kearney, which is approximately an hour away.

Major Employers

Huntley Service is the only business in Huntley. Most people either farm or work in another community. The local planning team estimates 80% of residents commute to Holdrege, Alma, Elm Creek, or Kearney for employment.

Housing

In comparison to Harlan County, Huntley's housing stock was:

- **Older.** Huntley had a larger share of housing built prior to 1970 than the county (71.4% compared to 52.7%).¹⁸
- **No mobile and manufactured housing.** The Village of Huntley had a smaller share of mobile and manufactured housing (0%) compared to the county (22.9%).¹⁸
- **Not renter-occupied.** No occupied housing units in Huntley were renter-occupied compared with 19.9% of occupied housing in Harlan County.¹⁸
- **Totally occupied.** Approximately 0% of Huntley's housing units were vacant compared to 36.2% of units in Harlan County.¹⁸

16 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov/cedsci/>.

17 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov/cedsci/>.

18 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov/cedsci/>.

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly maintained. Unoccupied housing may also suggest that future development may be less likely to occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards. As the Village of Huntley has no renter-occupied units, and no vacant housing units, the village is less vulnerable to these concerns.

Future Development Trends

Over the past five years, no development has occurred in the community. No homes or businesses were added. According to the 2018 American Community Survey estimates, Huntley’s population is declining. The local planning team attributes this to a lack of young families and relocation. In the next five years, the village does not plan on any new homes or businesses.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table HNT.2: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
41	\$1,265,300	1	\$139,745	2.4%

Source: County Assessor, 2018

Community Lifelines

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table HNT.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	United Methodist Church	N	N	N

Figure HNT.3: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Flooding

Although not identified as a top hazard of concern by the local planning team, there is a floodplain located in the community. It is located along Turkey Creek in the center of Huntley. NCEI did not report any flooding events, however, the local planning team indicated that the village applied to FEMA to help pay for the damage to the north and east roads from the 2019 flooding. Huntley is not a member of the NFIP.

Severe Thunderstorms

Severe thunderstorms occur regularly in Huntley and the rest of the planning area. Severe thunderstorms can lead to secondary hazards such as hail, lightning, and flooding. The local planning team indicated that a significant event occurred on Father's Day 2014, which resulted in power outages. Other than that event, power has not been lost for a significant amount of time. The main powerlines in the community are not buried, however, many local people have their own generators in the event of power loss. If there was a large severe thunderstorm, the fire department would check on the vulnerable population within Huntley. The village's critical facility is a brick structure with low risk of damage from hail. It is also insured against any damages. The village would like to trim trees away from roads and powerlines as hazardous trees are located throughout the community.

Severe Winter Storms

Severe winter weather occurs every year in Huntley. Especially significant winter storms have occurred in 1986 and 2006. After the ice storm in 2006, a group of community members came together, talked about the event, and determined there was a need for a generator in the community. Since then most residents have obtained generators or changed their heating systems. Snow in the community is removed by private residents and the county road department.

Governance

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

- Clerk/Treasurer
- Planning Commission

Capability Assessment

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

educational and outreach capability; and overall capability to implement mitigation projects. Huntley’s municipal funds are limited to maintaining current facilities and systems and have stayed the same over recent years.

Table HNT.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	No
	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	Capital Improvement Plan/ 1- & 6-Year Plan	No
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness,	No

Survey Components/Subcomponents		Yes/No
Capability	access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural disaster or safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

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

Plan Integration

The Village of Huntley has a few planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions of the village. It contains discussions regarding severe thunderstorms and severe winter storms. There are currently no plans to update this document.

Harlan County Local Emergency Operations Plan (2018)

The Village of Huntley is an annex in the Harlan 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.

Mitigation Strategy

The Village of Huntley has limited fiscal capabilities and administrative support available to implement mitigation projects. The village will continue to benefit from strong partnerships, such as with the county and LRNRD, and will need to explore outside funding assistance for project implementation. The village has not applied for any grants in the past.

New Mitigation Actions

Mitigation Action Name	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$500+ per tree
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started.

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Provide a safe backup power supply.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$15,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started.

Community Profile

Village of Orleans

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table ORL.1: Orleans Local Planning Team

Name	Title	Jurisdiction
Casey Bantam	Floodplain Administrator	Village of Orleans

Location and Geography

The Village of Orleans is in central Harlan County and covers 383 acres. Flag Creek flows through the west portion of the village.

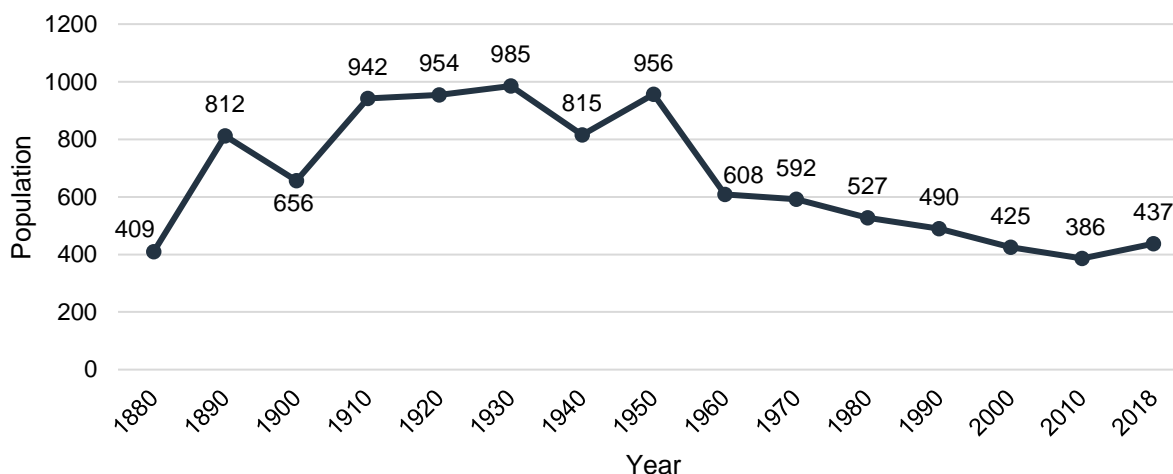
Transportation

Orleans’s major transportation corridors include US Highway 136 and Nebraska Highway 89. The most traveled route is Highway 136 with an average of 1,220 vehicles daily, 95 of which are trucks.¹⁹ Farm chemicals are mainly transported on Highway 136. No large spills have occurred on local routes. Highway 89 is a concern because it would be used as a bypass if Highway 136 was closed due to high water levels at Harlan County Lake. In 2019 this almost came to pass as water was within a foot of the highway. The village has two Nebraska Kansas Colorado Railway lines traveling north to south on the western edge of the community. These railway lines are very slow, and many are used for storage but do not carry anything. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Orleans’s population has been increasing since 2010 to around 437 people in 2018. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Growing populations also contribute to tax revenue, allowing communities to pursue additional mitigation projects. Orleans’s population accounted for 12.7% of Harlan County’s population in 2018.²⁰

Figure ORL.1: Population 1880 - 2018

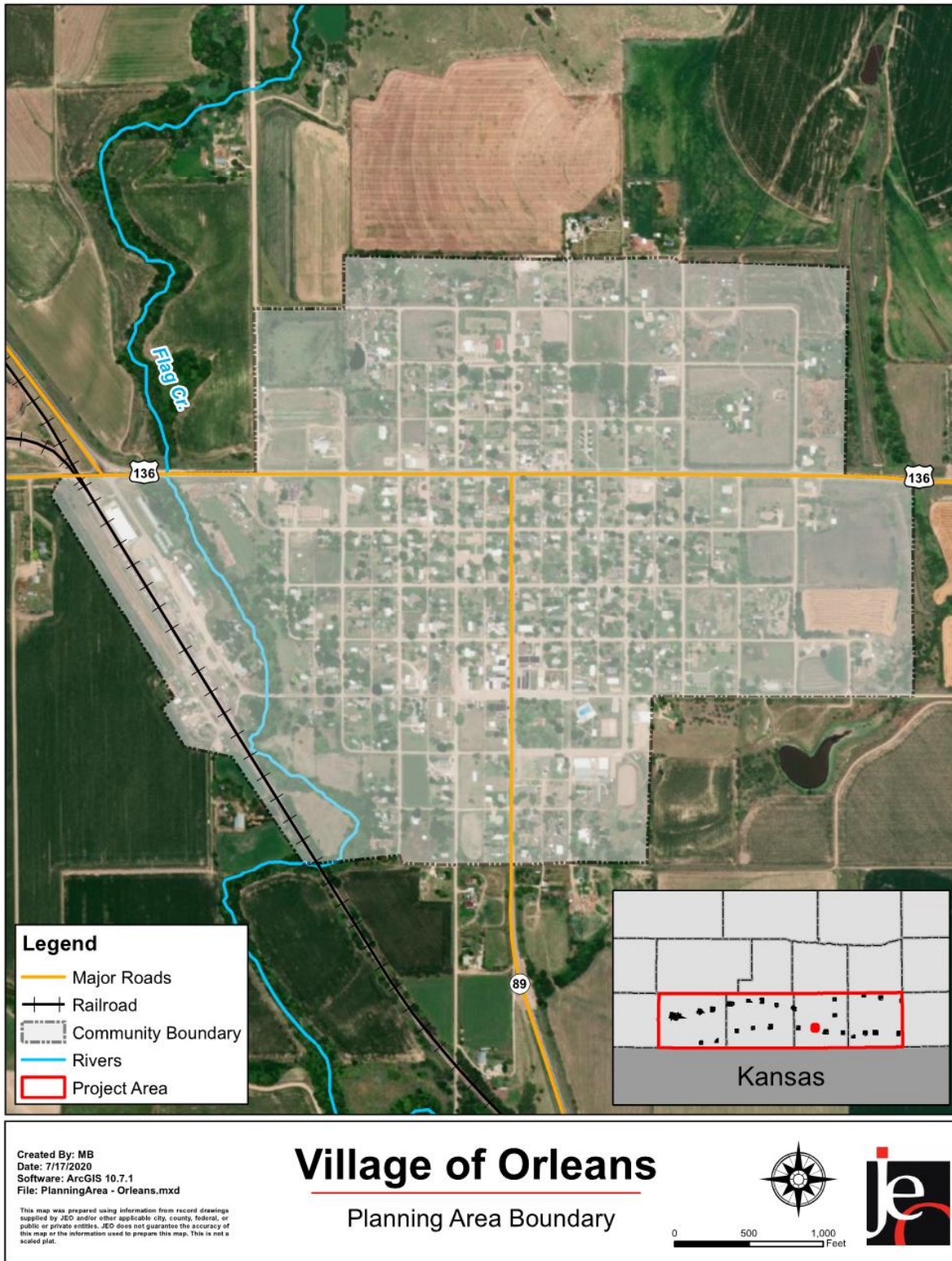


Source: U.S. Census Bureau

19 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

20 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. <https://data.census.gov/cedsci/>.

Figure ORL.2: Village of Orleans



The young, elderly, minority, and low-income populations may be more vulnerable to certain hazards than other groups. In comparison to the county, Orleans's population was:

- **Similarly aged.** The median age of Orleans was 47.6 years old in 2018, compared with Harlan County's median of 47.9 years. Orleans's population grew younger since 2010, when the median age was 50 years old.²⁰
- **Less ethnically diverse.** Since 2010, Orleans grew more ethnically diverse. In 2010, 1.3% of Orleans's population was non-white. By 2018, about 3.2% was non-white. During that time, the non-white population in the county grew from 1.6% in 2010 to 4.5% in 2018.²⁰
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Orleans (9.4% of people living below the federal poverty line) was lower than the county's poverty rate (11.2%) in 2018.²¹

Employment and Economics

In comparison to Harlan County, Orleans's economy had:

- **Similar mix of industries.** Orleans's major employment sectors, accounting for 10% or more of employment each, were agriculture, manufacturing, and education.²¹
- **Lower median household income.** Orleans's median household income in 2018 (\$42,083) was about \$8,261 lower than the county (\$50,344).²¹
- **More long-distance commuters.** About 50.5% of workers in Orleans commuted for fewer than 15 minutes, compared with about 58.8% of workers in Harlan County. About 26.8% of workers in Orleans commuted 30 minutes or more to work, compared to about 21.4% of county workers.²²

Major Employers

Major employers in Orleans include White's Auto Glass, Paddington's Gas Station, a local construction company, and a local electrician company. The local planning team estimates that about 25% of residents commute to Holdrege for employment.

Housing

In comparison to Harlan County, Orleans's housing stock was:

- **Older.** Orleans had a larger share of housing built prior to 1970 than the county (80.1% compared to 52.7%).²³
- **Less mobile and manufactured housing.** The Village of Orleans had a smaller share of mobile and manufactured housing (5.6%) compared to the county (22.9%).²³
- **More renter-occupied.** About 27.6% of occupied housing units in Orleans were renter-occupied compared with 19.9% of occupied housing in Harlan County.²³
- **More occupied.** Approximately 18.6% of Orleans's housing units were vacant compared to 36.2% of units in Harlan County.²³

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly maintained. Unoccupied housing may also suggest that future development may be less likely to

21 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov/cedsci/>.

22 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov/cedsci/>.

23 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov/cedsci/>.

occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. Mobile homes are spread out across the community. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

Future Development Trends

Over the past five years, the sheep barn at the fairgrounds was taken out and a couple of houses were demolished. No new houses were built but several accessory buildings were constructed. None of the new structures were built in the floodplain. According to the 2018 American Community Survey estimates, Orleans' population is growing. The local planning team indicated that the population is likely to hold steady at around 380 when the 2020 census results are released. In the next five years, no housing developments or businesses are planned at this time. Improvements are planned for the wastewater lagoons, after a recent study found that if nothing is done, they will eventually dump out into the creek.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table ORL.2: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
296	\$9,636,120	15	\$269,625	5.1%

Source: County Assessor, 2018

Community Lifelines

Critical Facilities

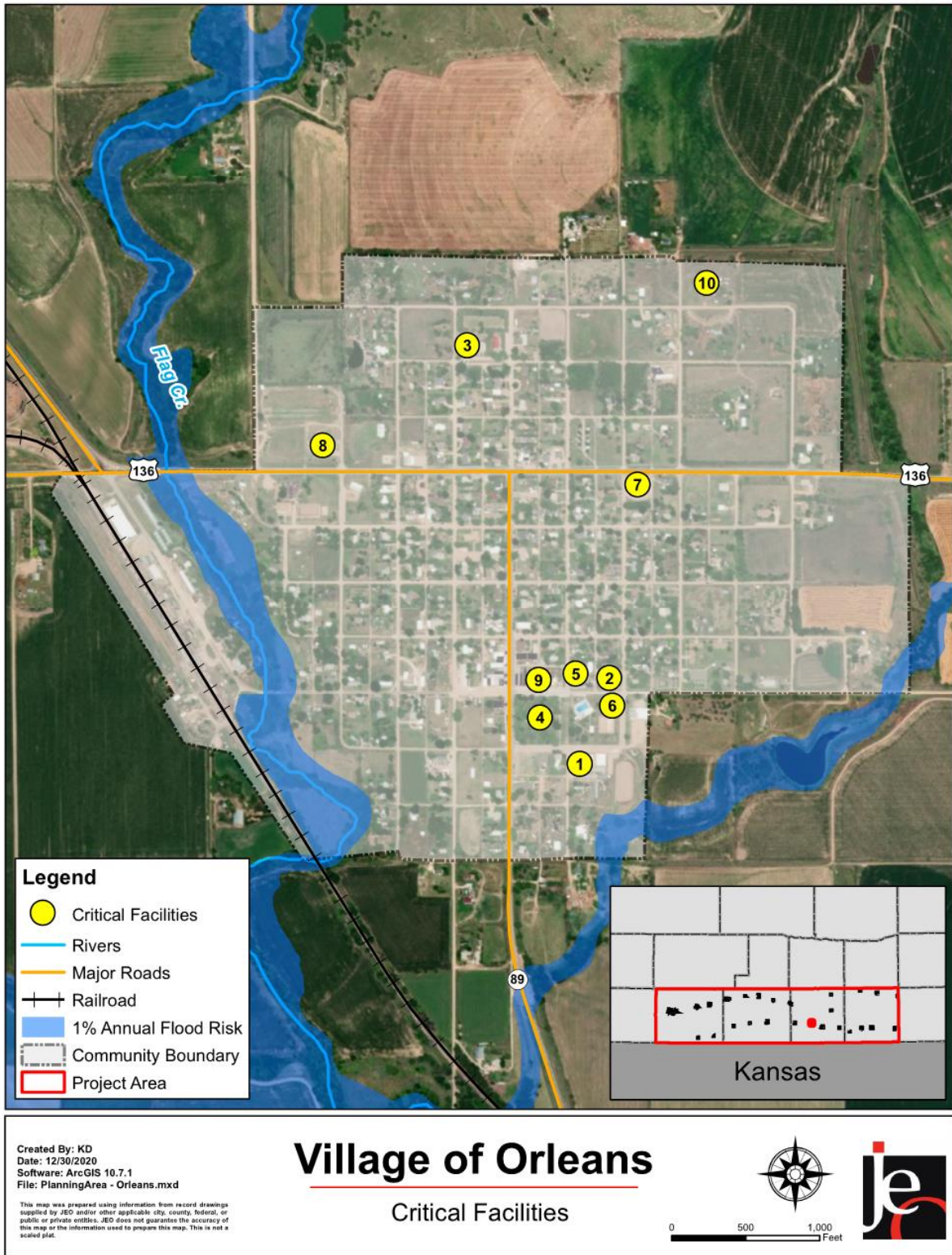
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

Table ORL.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Ag Center/Fairgrounds	Y	N	N
2	American Legion	N	N	N
3	Catholic School	N	N	N
4	County Library and Park	N	N	N
5	Equipment Storage	N	Y*	N
6	Fire House	N	N	N
7	Gas Station	N	N	N
8	Machine Shop	N	N	N
9	Post Office	N	N	N
10	Village Well	N	Y	N

*Portable Generator

Figure ORL.3: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Drought

Drought can have a significant economic impact on the Village of Orleans. The village economy is heavily influenced by the agricultural sector. The Soil Conservation Office monitors drought for the local area. In addition to pumping water for the community, Orleans also provides water to the Village of Stamford and Public Valley Schools. In 2019, the well was realigned in order to reduce the pump size and a backup generator was added. The water supply has been determined to be sufficient for all needs. In the event of a drought, the village would implement watering restrictions.

Flooding

Although not identified as a top hazard of concern by the local planning team, there is floodplain located in the community. It is primarily located along Flag Creek on the western border of the village. NCEI data since 1996 show only one flood event in Orleans. In addition, the local planning team identified one street that has flooding issues and is starting to damage the historic bridge in the community. The village is a member of, and continues to maintain good standing with, the NFIP.

Grass/Wildfire

According to the Nebraska Forest Service, from 2000 through 2018, there were 37 wildfires to which the local fire department responded. These fires were relatively small, resulting in the burning of 166 acres. Orleans has a volunteer fire department with a staff of 19 people. The water supply is currently sufficient for firefighting. The fire department's suits will soon need to be replaced. Fire prevention education in Orleans is done through a partnership with the fire department, schools, and library.

Severe Thunderstorms

Severe thunderstorms occur several times a year in Orleans and the rest of the planning area. NCEI reported 40 severe thunderstorm events that caused a total of \$1,092,000 in property damages. The most damaging event occurred in June 2018 when a thunderstorm wind event caused \$350,000 in damages to windows, vehicles, center pivots, roofs, and power poles. Critical municipal records are protected with surge protectors on electronic devices. None of the powerlines within the village are buried but the well does have a backup power generator. Sites still in need of a backup generator include the library and hotel. Trees around the library need to be trimmed and removed. Some of this the village can do but some projects will need to be hired out.

Severe Winter Storms

Severe winter weather occurs annually within Orleans and the rest of the planning area. The local planning team indicated that there has not been a major winter storm since 1958. The primary concern related to severe winter storms is trees blowing over causing power loss. This has

occurred in the past but Twin Valley PPD is quick to restore power. Nebraska Avenue and Republican Avenue are designated snow routes. Streets are cleared by a grader and loader. The snow removal resources are sufficient for local events.

Tornadoes and High Winds

Tornadoes have the potential to cause significant property damage and loss of life. NCEI reported one tornado that touched down north of Orleans in 2004. The tornado was briefly on the ground and did not cause any recorded property damage. The local planning team reported that in 1989 the New Wine Church was damaged by a tornado. There are no community safe rooms for residents. However, residents seeking shelter can go to the library, Hotel Orleans, Presbyterian Church, or the Catholic Church. There is a RV park in the community that may need a tornado shelter or safe room. In the event of a tornado, Harlan County Emergency Management offers text alerts and Orleans has mutual aid agreements with neighboring communities. The village does not currently have a warning siren as the old one stopped working.

Governance

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

- Clerk
- Utility Superintendent
- Police Department
- Street Superintendent
- Tree Board

Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the community’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Orleans’s municipal funds are limited to maintaining current facilities and systems and have stayed the same over recent years. A large portion of funds is currently dedicated to wastewater lagoon improvements.

Table ORL.4: Capability Assessment

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

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

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

Plan Integration

The Village of Orleans has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. In addition, the city has a floodplain ordinance that has not been integrated with the hazard mitigation plan. No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Harlan County Local Emergency Operations Plan (2018)

The Village of Orleans is an annex in the Harlan 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.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources.

Mitigation Strategy

Orleans has limited fiscal capabilities and administrative support available for implementing mitigation projects. The village will continue to benefit from relationships with the county and the LRNDRD. Orleans will need to explore outside funding assistance for project implementation.

New Mitigation Actions

Mitigation Action	Alert/Warning Sirens
Description	Looking for a new warning siren as the current one stopped working.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$15,000+
Funding	Donations, General Fund
Timeline	1 Year
Priority	High
Lead Agency	Utilities Superintendent
Status	Planning Stage. Currently looking at used options to get by until a new one can be purchased.

Mitigation Action	Lagoon Improvements
Description	The current lagoon bank is starting to wash away. It needs to be relined and have rip rap around it so that it does not fail and contaminate the nearby creek.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Utilities Superintendent
Status	Planning Stage. Currently having a contractor doing a water flow study.

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Provide a portable or stationary source of backup power to critical facilities. Identified facilities such as the hotel, well house, and library.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$20,000-\$50,000 per generator
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	In Progress. A backup generator has been added to the wellhouse, but generators are still needed at the hotel and library.

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response. The village would like a new fire truck.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board, Fire Department
Status	In Progress. The community recent bought a new snow blade for the pickup.

Mitigation Action	Drainage Study/Stormwater Master Plan
Description	Drainage studies can be conducted to identify and prioritize improvements to address site specific localized flooding/drainage problems. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas, and potentially multiple drainage improvements for each. Down by a creek, a bridge is washing away.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000-\$100,000
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started.
Mitigation Action	New Municipal Well
Description	Provide a safe backup water supply for the community; replace existing wells affected by drought, increase of demand in water, and additional water for fire protection.
Hazard(s) Addressed	Drought, Extreme Heat
Estimated Cost	\$350,000-\$450,000
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Not Started.
Mitigation Action	Public Awareness/Education
Description	Activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Not Started.
Mitigation Action	Source Water Contingency Plan
Description	Evaluate and locate new sources of groundwater to ensure adequate supplies to support the existing community and any additional growth which may occur.
Hazard(s) Addressed	Drought, Extreme Heat
Estimated Cost	\$20,000-\$25,000
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started.

Mitigation Action	Storm Shelters/Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$4,500+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started.

Mitigation Action	Tree City USA
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) establishing a tree board; 2) enacting a tree care ordinance; 3) establishing a forestry care program; 4) enacting an Arbor Day observance and proclamation.
Hazard(s) Addressed	Severe Winter Storms, Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	\$2,000
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Clerk, Village Board
Status	In Progress. The village has a tree board but not a tree ordinance.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$50 per radio
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Not Started

Removed Mitigation Actions

Mitigation Action	Maintain Good Standing in the NFIP
Hazard(s) Addressed	Flooding
Reason for Removal	While the village will continue to maintain good standing in the NFIP by enforcing floodplain regulations, this project is considered an ongoing action.

Community Profile

Village of Ragan

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table RGN.1: Ragan Local Planning Team

Name	Title	Jurisdiction
Kelly Winz	Water Commissioner/Volunteer Fireman	Village of Ragan

Location and Geography

The Village of Ragan is in northeastern Harlan County and covers 163 acres. The topographic region Ragan lies in is the plains. These flat-lying lands above the valley are made from materials of sandstone or stream-deposited silt, clay sand and gravel overlain by wind deposited silt. No bodies of water are located near the community.

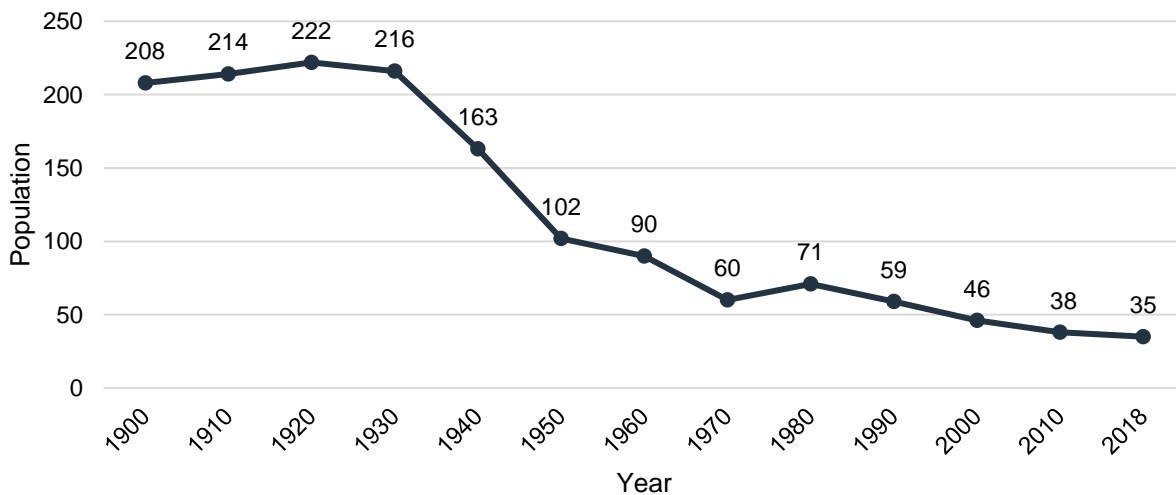
Transportation

Ragan’s major transportation corridor is State Highway 4. It is traveled by an average of 410 vehicles daily, 45 of which are trucks.²⁴ Fuel and agriculture chemicals are regularly transported along Highway 4. No spills have occurred in the past. There are no rail lines traveling near the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Ragan’s population has been decreasing since 1980 to around 35 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Ragan’s population accounted for 1.0% of Harlan County’s population in 2018.²⁵

Figure RGN.1: Population 1900 - 2018



Source: U.S. Census Bureau 1900-2010, Local Planning Team 2018

24 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

25 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. <https://data.census.gov/cedsci/>.

Figure RGN.2: Village of Ragan



The young, elderly, minority, and low-income populations may be more vulnerable to certain hazards than other groups. In comparison to the county, Ragan’s population was:

- **Older.** The median age of Ragan was 55.3 years old in 2018, compared with Harlan County’s median of 47.9 years. Ragan’s population grew older since 2010, when the median age was 50.5 years old.²⁵
- **Less ethnically diverse.** Since 2010, Ragan stayed as ethnically homogenous as 0% of the population is non-white. During that time, the non-white population in the county grew from 1.6% in 2010 to 4.5% in 2018.²⁵
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Ragan (7.3% of people living below the federal poverty line) was lower than the county’s poverty rate (11.2%) in 2018.²⁶

Employment and Economics

In comparison to Harlan County, Ragan’s economy had:

- **Different mix of industries.** Ragan’s major employment sectors, accounting for 10% or more of employment each, were: agriculture, wholesale trade, retail trade, and education.³
- **Higher median household income.** Ragan’s median household income in 2018 (\$63,333) was about \$13,000 higher than the county (\$50,344).²⁶
- **Slightly more long-distance commuters.** About 45.4% of workers in Ragan commuted for fewer than 15 minutes, compared with about 58.8% of workers in Harlan County. About 22.7% of workers in Ragan commuted 30 minutes or more to work, compared to about 21.4% of county workers.²⁷

Major Employers

The major employer in Ragan is the CPI Co-op. The local planning team indicated that over half the population commutes to Holdrege for employment. The rest are retired or semi-retired.

Housing

In comparison to Harlan County, Ragan’s housing stock was:

- **Newer.** Ragan had a smaller share of housing built prior to 1970 than the county (22.2% compared to 52.7%).²⁸
- **More mobile and manufactured housing.** The Village of Ragan had a larger share of mobile and manufactured housing (33.3%) compared to the county (22.9%).²⁸
- **Less renter-occupied.** About 5% of occupied housing units in Ragan were renter-occupied compared with 19.9% of occupied housing in Harlan County.²⁸
- **More occupied.** Approximately 25.9% of Ragan’s housing units were vacant compared to 36.2% of units in Harlan County.²⁸

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if poorly maintained. Unoccupied housing may also suggest that future development may be less likely to occur. Communities with a substantial number of mobile homes may be more vulnerable to the

26 United States Census Bureau. 2018. “DP03: Selected Economic Characteristics.” [database file]. <https://data.census.gov/cedsci/>.

27 United States Census Bureau. 2018. “S0802: Means of Transportation to Work by Selected Characteristics.” [database file]. <https://data.census.gov/cedsci/>.

28 United States Census Bureau. 2018. “DP04: Selected Housing Characteristics.” [database file]. <https://data.census.gov/cedsci/>.

impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

Future Development Trends

Over the past five years, things within the village have stayed the same other than general maintenance along Highway 4. According to the local planning team, Ragan’s population is declining. This is likely due to younger members of the population leaving for college or work, an aging population, and available housing not being in good enough quality to move in to. In the next five years, the grain elevator might expand and add grain storage capacity.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table RGN.2: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
36	\$765,640	0	\$0	0%

Source: County Assessor, 2018

Community Lifelines

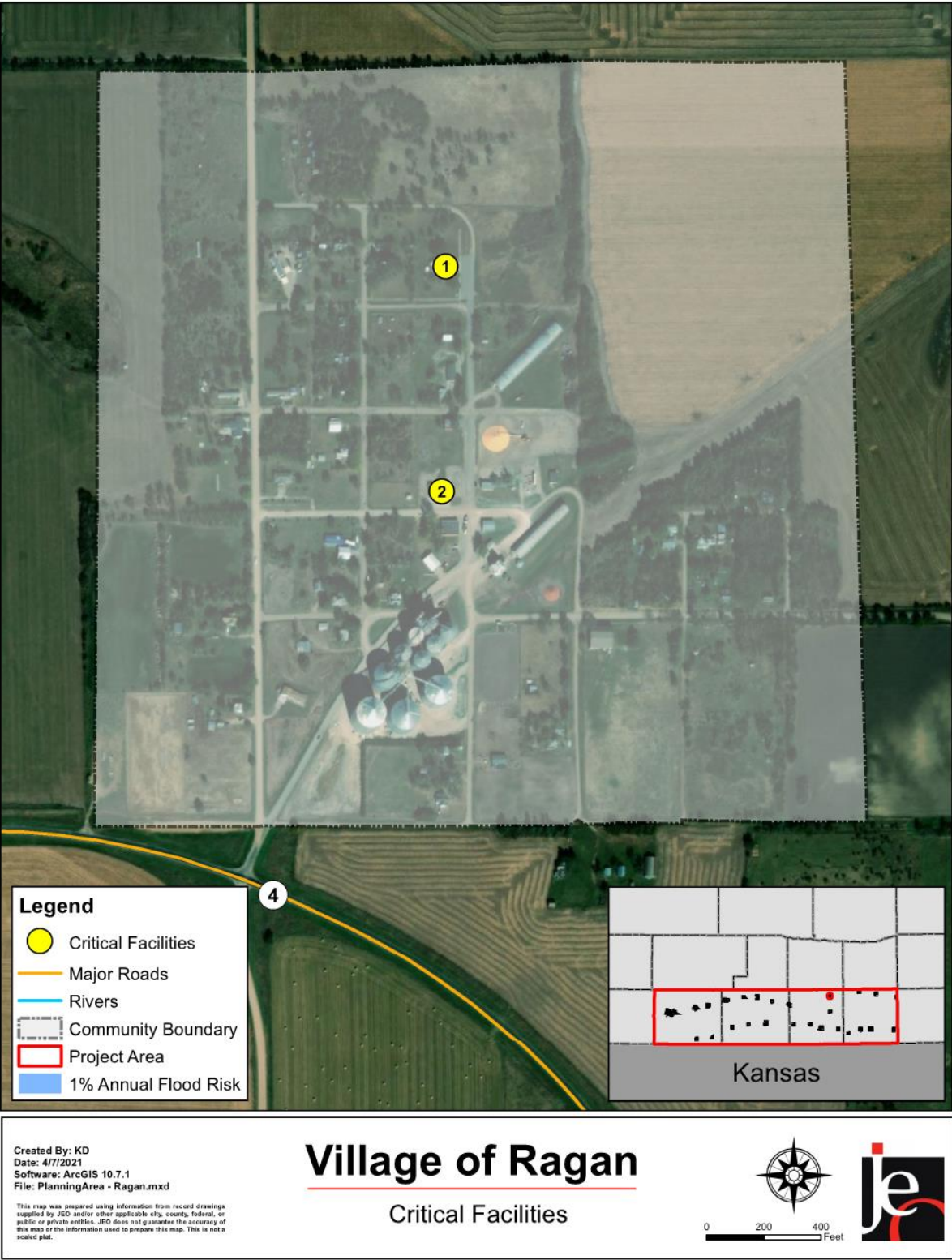
Critical Facilities

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table RGN.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Church	N	N	N
2	Community Center & Fire Hall	Y	Y	N

Figure RGN.3: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

NCEI reported 31 severe thunderstorms in Ragan that resulted in \$454,000 in property damages. The local planning team identified several past hail events that damaged roofs and siding. These events did not damage the community center, but it is insured for any type of storm damage. Twin Valley provides electricity to the community. Power comes in from two different routes, so it can be rerouted if one route is down. Twin Valley also regularly and trims trees around powerlines. This reduces the number of power outages for the village. In the event of power loss, the fire hall and community center building have a backup generator. The county provides severe weather alerts that residents can sign up for and the fire department performs storm spotting. In addition, many homeowners have weather radios.

Severe Winter Storms

Severe winter storms occur annually within Ragan and the rest of the planning area; however, no large snow events have occurred recently. The primary concern regarding severe winter storms is transportation. Ragan does not have snow removal equipment and contracts with the county for snow removal. The county shop is located in Alma, so it may take a day or two to remove snow in Ragan, especially if other areas of the county are hard hit. There is no grocery store in the community, so residents have to stock up before a large snow, as they may not be able to get out for several days. Snow fences are not used in the community. In the winter of 2006/2007, an ice storm caused a long-lasting power outage due to downed poles and lines. Since then, Twin Valley has upgraded all poles and lines so that they are less likely to be impacted from an ice storm.

Tornadoes and High Winds

NCEI reported one tornado near Ragan in May 1999. No damages were reported from this tornadic event. The local planning team identified three past high wind events. The most recent occurred on Father's Day in 2014. Eighty to 90 mph winds blew over a couple of grain bins at the elevator and damaged many of the trees in the community. The other two events caused crop damage and damage to the grain elevator. There are no safe rooms in the village and residents must use private basements for shelter. Ragan has one warning siren located at the fire hall. The dispatch center is able to activate the siren; however, it is currently stuck facing one direction. It also does not have a battery backup in the event of power loss.

Governance

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

- Clerk
- Treasurer
- Water Commissioner

Capability Assessment

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

Table RGN.4: Capability Assessment

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

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

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

Plan Integration

The Village of Ragan has two planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Floodplain Ordinance

The floodplain ordinance outlines where and how development in the floodplain should occur in the future. It requires a permit for any new construction in the floodplain. There are currently no plans to update this document.

Harlan County Local Emergency Operations Plan (2018)

The Village of Ragan is also an annex in the Harlan 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.

Mitigation Strategy

Ragan has limited fiscal capabilities and administrative support available for implementing mitigation projects. Funds have stayed the same over recent years. The village will continue to benefit from relationships with the county and the LRNDRD. Ragan will need to explore outside funding assistance for project implementation.

Completed Mitigation Actions

Mitigation Action	Electrical System Looped Distribution/Redundancies
Description	Provide looped distribution services and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds, Severe Winter Storms
Status	Completed. Twin Valley has added redundant lines into the community.

Mitigation Action	Groundwater/Irrigation/Water Conservation Management Plan and Practices
Description	Develop and implement a plan/best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought. Identify water saving irrigation projects or improvements such as sprinklers or soil moisture monitoring. Potential restrictions on water could include limitation on lawn watering, car washing, farm irrigation restrictions, or water conservation practices such as changes in irrigation management, education on no-till agriculture and use of xeriscaping in communities.
Hazard(s) Addressed	Drought
Status	Completed. A water ordinance has to be updated to include water restrictions.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at critical facilities.
Hazard(s) Addressed	All Hazards
Status	Completed. Weather radios have been purchased at all needed critical facilities.

New Mitigation Actions

Mitigation Action	Alert/Warning Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens and remote activation where lacking. Most of the city's sirens are in need of replacement.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$15,000+
Funding	Donations, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started.

Mitigation Action	Updating Chlorination Equipment
Description	Updated chlorination equipment and pump for the village water is needed. The current system is outdated.
Hazard(s) Addressed	Drought, Extreme Heat
Estimated Cost	\$2,000
Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Water Commissioner
Status	Not Started.

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Provide a safe backup power supply.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$20,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, County Emergency Manager
Status	Not Started.

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response. Snow removal equipment is needed.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started.

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	There are areas in the community where water lines need to be connected.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$50,000+ per mile
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, County Emergency Manager
Status	Not Started.

Mitigation Action	Public Awareness/Education
Description	Activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	In Progress. Education on cross connection is done regularly.

Mitigation Action	Storm Shelters/Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$4,500+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started.

Mitigation Action	Tree City USA
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) establishing a tree board; 2) enacting a tree care ordinance; 3) establishing a forestry care program; 4) enacting an Arbor Day observance and proclamation.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started.

Removed Mitigation Actions

Mitigation Action	Drought Monitoring Plan and Procedures
Hazard(s) Addressed	Drought
Status	Removed. A water ordinance has been put in place that allows the village to implement water restrictions.

Mitigation Action	Maintain Good Standing in the NFIP
Hazard(s) Addressed	Flooding
Reason for Removal	While the village will continue to maintain good standing in the NFIP by enforcing floodplain regulations, this project is no longer considered a mitigation action by FEMA.

Community Profile

Village of Republican City

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table RPL.1: Republican City Local Planning Team

Name	Title	Jurisdiction
Martha Orcutt	Board Member	Village of Republican City
Kristopher Eddy	Board Chairman	Village of Republican City

Location and Geography

The Village of Republican City is in east-central Harlan County and covers 211 acres. The topographic region Republican City lies in is the dissected plains. This hilly land has moderate to steep slopes and sharp ridge crests. They are remnants of the old plain eroded by water and wind. The Harlan County Reservoir is just south of the village.

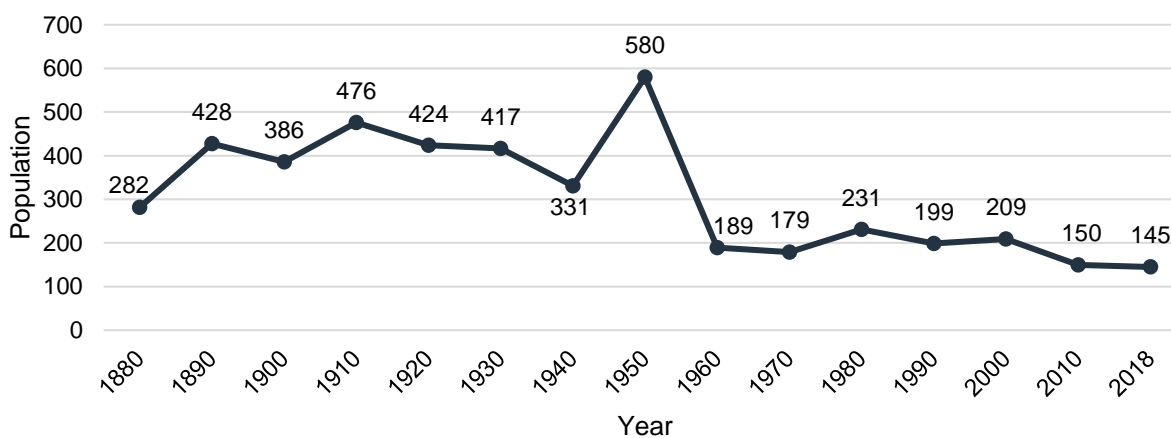
Transportation

Republican City’s major transportation corridor is US Highway 136. It is traveled by an average of 1,150 vehicles daily, 110 of which are trucks.²⁹ The village has one Nebraska Kansas Colorado Railway line traveling east to west on the southern edge of the community. Highway 136 is the transportation route of most concern as it regularly carries fertilizer and fuel. No chemical spills or transportation incidents have occurred locally. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Republican City’s population has been declining since 2000 to around 145 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Republican City’s population accounted for 4.2% of Harlan County’s population in 2018.³⁰

Figure RPL.1: Population 1880 - 2018



Source: U.S. Census Bureau

29 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

30 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. <https://data.census.gov/cedsci/>.

Figure RPL.2: Village of Republican City



The young, elderly, minority, and low-income populations may be more vulnerable to certain hazards than other groups. In comparison to the county, Republican City's population was:

- **Older.** The median age of Republican City was 64.3 years old in 2018, compared with Harlan County's median of 47.9 years. Republican City's population grew older since 2010, when the median age was 59.8 years old.³⁰
- **Less ethnically diverse.** Since 2010, Republican City grew more ethnically diverse. In 2010, 0% of Republican City's population was non-white. By 2018, about 2.1% was non-white. During that time, the non-white population in the county grew from 1.6% in 2010 to 4.5% in 2018.³⁰
- **About as likely to be below the federal poverty line.** The poverty rate in the Village of Republican City (10.3% of people living below the federal poverty line) was lower than the county's poverty rate (11.2%) in 2018.³¹

Employment and Economics

In comparison to Harlan County, Republican City's economy had:

- **Different mix of industries.** Republican City's major employment sectors, accounting for 10% or more of employment each, were: retail trade, transportation, education, and entertainment.³¹
- **Similar median household income.** Republican City's median household income in 2018 (\$50,417) was about \$100 higher than the county (\$50,344).³¹
- **Similar long-distance commuters.** About 62.5% of workers in Republican City commuted for fewer than 15 minutes, compared with about 58.8% of workers in Harlan County. About 21.5% of workers in Republican City commuted 30 minutes or more to work, compared to about 21.4% of county workers.³²

Major Employers

Major employers in Republican City include C.P.I, Harlan County Health System, and various agricultural farms and businesses. The local planning team estimates that 75 to 80 percent of residents commute to Alma, Franklin, Holdrege, and Phillipsburg for employment.

Housing

In comparison to Harlan County, Republican City's housing stock was:

- **Newer.** Republican City had a smaller share of housing built prior to 1970 than the county (43.5% compared to 52.7%).³³
- **More mobile and manufactured housing.** The Village of Republican City had a larger share of mobile and manufactured housing (33.8%) compared to the county (22.9%).³³
- **Less renter-occupied.** About 7.9% of occupied housing units in Republican City were renter-occupied compared with 19.9% of occupied housing in Harlan County.³³
- **Less occupied.** Approximately 67.5% of Republican City's housing units were vacant compared to 36.2% of units in Harlan County.³³

31 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov/cedsci/>.

32 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov/cedsci/>.

33 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov/cedsci/>.

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly maintained. Unoccupied housing may also suggest that future development may be less likely to occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. Mobile homes are scattered throughout the community. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

Future Development Trends

Over the past five years, new housing has been added to the community. According to the 2018 American Community Survey estimates, Republican City's population is declining. The local planning team attributes this to a lack of employment opportunities that would keep the younger generation in the community. In the next five years, no housing developments or businesses are planned at this time.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table RPL.2: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
237	\$12,712,560	0	\$0	0%

Source: County Assessor, 2018

Community Lifelines

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

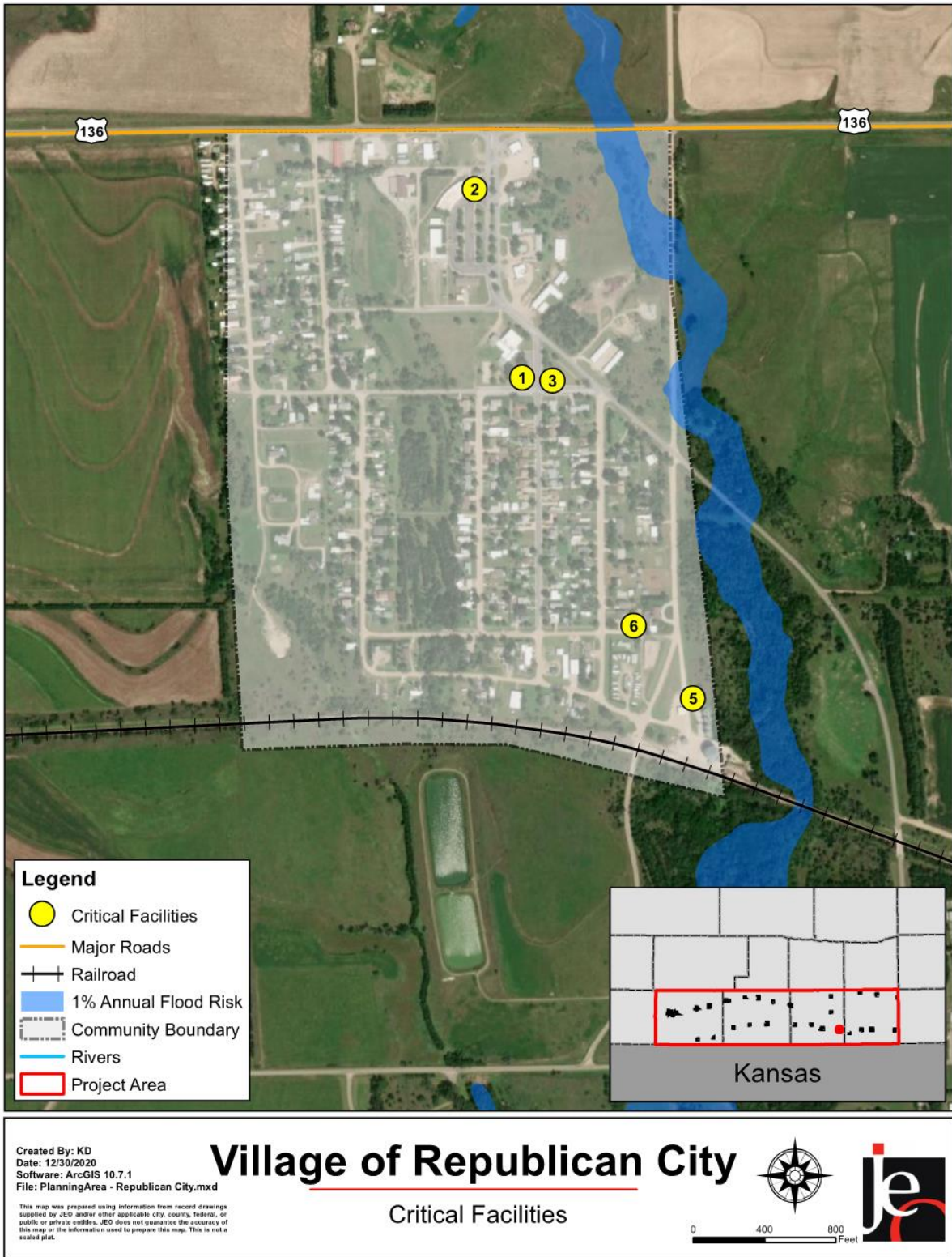
Table RPL.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Fire Hall	N	Y*	N
2	Post Office	N	N	N
3	Village Office	N	N	N
4**	Water Storage Tank	N	N	N
5	Well #1	N	Y*	N
6	Well #2	N	Y*	N

*Portable generators are available.

**Located two miles north of Republican City.

Figure RPL.3: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Drought

The economy of Republican City is significantly influenced by the proximity of the Harlan County Reservoir. Drought diminishes the reservoir's water level, reducing the number of visitors to the area, which can negatively impact businesses. Previous droughts have not had a significant effect on the community, as they have not had to issue mandatory water restrictions in the past. Republican City drilled a new well in 2010, and their water supply is sufficient for municipal needs.

Severe Thunderstorms

Severe thunderstorms are part of the regular climate in Republican City as well as the rest of the planning area. NCEI reports that 25 severe thunderstorms have caused \$681,000 in damages since 1996. Past heavy rain events have affected storm drainage in the community and caused localized flooding. The local planning team estimates that only five percent of powerlines are buried. There are also hazardous trees that need to be trimmed or removed scattered throughout the village. This leads to an increased vulnerability of power loss from downed powerlines and poles. In the event of a severe thunderstorm, critical municipal records have electronic backup systems. Harlan County uses the CodeRed warning system to alert residents of severe weather. A public storm shelter is needed for the community.

Severe Winter Storms

Severe winter storms are a part of the regular climate in Republican City as well the planning area. Winter storms are recorded as zonal events by NCEI, thus there are no recorded occurrences in local areas. However, severe winter storms occur multiple times a year in Republican City. These storms frequently cause power outages. An ice storm in 2006 knocked out power for nearly three days. Republican City does have a portable generator that can be used at the water wells or Fire Hall. The village has limited resources in terms of personnel and equipment to adequately respond to severe winter weather. This has caused the community to be unable to clear roads in a timely manner in the past. Snow removal equipment available includes a grader and a tractor with a blade.

Tornadoes and High Winds

Although there are no historical occurrences, tornadoes have the potential to cause catastrophic damages and loss of life. Republican City has a large number of trailer homes that are more vulnerable to tornadic and high wind events. In June 2014, there was a high wind event that caused significant damage across Republican City. The local planning team reported there were winds in excess of 100 mph, structural damages across the community, the roof was blown off the schoolhouse, power outages occurred, and trees were damaged. The community does not have a safe room; however, the church is able to house a number of people in the event of a tornado. If a tornado were heading toward Republican City, the village would be warned by warning sirens that were installed in 2011, and CodeRed from Harlan County Emergency

Management. A public safe room or storm shelter has been identified as a need by the local planning team.

Governance

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

- Clerk/Treasurer
- Utility Supervisor
- Floodplain Administrator

Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the community’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Republican City’s municipal funds are limited to maintaining current facilities and systems and stayed the same over recent years. A large portion of funds are already dedicated to a water project.

Table RPL.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	Water System Emergency Response Plan, Wellhead Protection Plan
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	No
	Local Staff Who Can Assess Community’s Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	Yes

Survey Components/Subcomponents		Yes/No
	Other (if any)	-
Fiscal Capability	Capital Improvement Plan/ 1- & 6-Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No
	Natural disaster or safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

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

Plan Integration

Republican City has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Building Code (2021)

The building code sets standards for constructed buildings and structures. The village has adopted the 2018 International Building Code with no amendments.

Floodplain Regulations and Zoning Ordinance (2021)

The village’s floodplain regulations and zoning ordinance outline where and how development should occur in the future. These documents contain floodplain maps, discourage development in the floodplain, and limit population density in the floodplain.

Harlan County Local Emergency Operations Plan (2018)

The Village of Republican City is an annex in the Harlan 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.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and manmade events and discusses the water system’s response during those events.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources.

Mitigation Strategy

Republican City has limited fiscal capabilities and administrative support available for implementing mitigation projects. The village will continue to benefit from relationships with the county and the LRNRD. Republican City will need to explore outside funding assistance for project implementation.

Completed Mitigation Actions

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at critical facilities.
Hazard(s) Addressed	All Hazards
Status	Completed.

Continued Mitigation Actions

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response. Identified a need for a new grader due to vandalism of the old one.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Fire Department
Status	In Progress. Currently upgrading PPE for fire department and ambulance.

Mitigation Action	Develop a Drought Management Plan
Description	Work with relevant stakeholders to develop a drought management plan. The drought management plan would identify water monitoring protocols, outline drought responses, identify opportunities to reduce water consumption, and establish the jurisdictional management procedures.
Hazard(s) Addressed	Drought
Estimated Cost	\$5,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started.

Mitigation Action	Hazardous Tree Removal
Description	Identify and remove limbs and/or trees.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds, Severe Winter Storms
Estimated Cost	\$50 per tree
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	In Progress. Trimming of trees and branches as funds allow.

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Work with local Public Power Districts or electric department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities should be required to use underground construction methods where possible for future installation of powerlines.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$2,000,000 per mile
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started. The project is on hold for right now.

Mitigation Action	Public Awareness/Education
Description	Activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchase equipment such as overhead projectors and laptops.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Clerk
Status	Not Started. This project is on hold for right now.

Mitigation Action	Storm Shelters/Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$5,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Clerk, Village Board
Status	Not Started. The project is on hold for right now.

Mitigation Action	Tree City USA
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) establishing a tree board; 2) enacting a tree care ordinance; 3) establishing a forestry care program; 4) enacting an Arbor Day observance and proclamation.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$500
Funding	General Fund
Timeline	1 Year
Priority	Low
Lead Agency	Clerk
Status	Not Started. The project is on hold for right now.

Removed Mitigation Actions

Mitigation Action	Maintain Good Standing in the NFIP
Hazard(s) Addressed	Flooding
Reason for Removal	While the village will continue to maintain good standing in the NFIP by enforcing floodplain regulations, this project is considered an ongoing action.

Community Profile

Village of Stamford

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table STF.1: Stamford Local Planning Team

Name	Title	Jurisdiction
Tresadi Preitauer	Village Clerk/Floodplain Administrator	Village of Stamford
Trevor Lambson	Maintenance Supervisor	Village of Stamford

Location and Geography

The Village of Stamford is in west-central Harlan County and covers 301 acres. The topographic region Stamford lies in is the dissected plains. This hilly land has moderate to steep slopes and sharp ridge crests. They are remnants of the old plain eroded by water and wind. Sappa Creek is located directly south of the community.

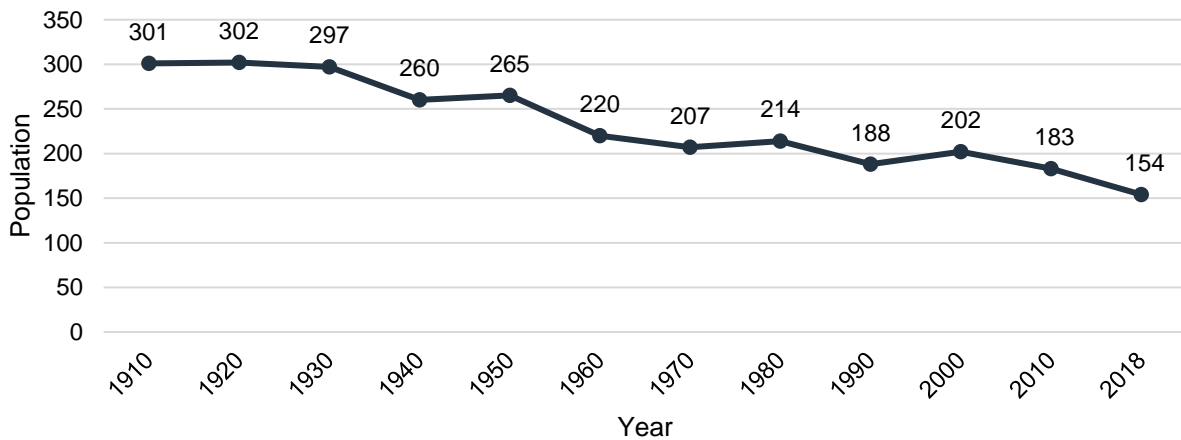
Transportation

Stamford’s major transportation corridor is State Highway 89. It is traveled by an average of 420 vehicles daily, 50 of which are trucks.³⁴ Chemicals transported include fertilizer and weed killers. No spills have occurred in the past. The village has one Nebraska Kansas Colorado Railway line traveling east to west through the center of the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. The village’s water and sewer lines run under and along Highway 89.

Demographics

The Village of Stamford’s population has been declining since 2000 to around 154 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Stamford’s population accounted for 4.5% of Harlan County’s population in 2018.³⁵

Figure STF.1: Population 1910 - 2018

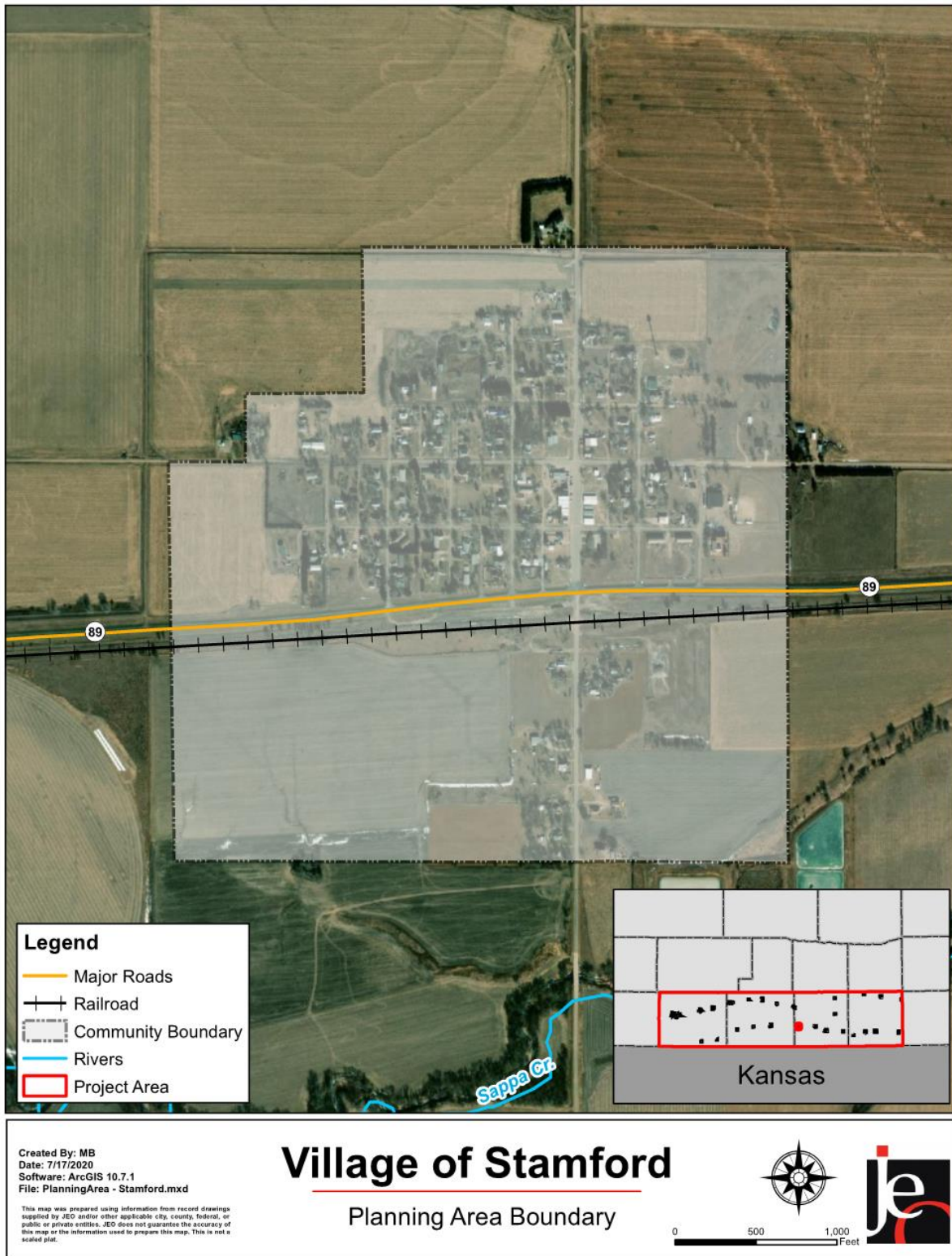


Source: U.S. Census Bureau

34 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

35 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. <https://data.census.gov/cedsci/>.

Figure STF.2: Village of Stamford



The young, elderly, minority, and low-income populations may be more vulnerable to certain hazards than other groups. In comparison to the county, Stamford's population was:

- **Much younger.** The median age of Stamford was 34.1 years old in 2018, compared with Harlan County's median of 47.9 years. Stamford's population grew younger since 2010, when the median age was 45.5 years old.³⁵
- **Much more ethnically diverse.** Since 2010, Stamford grew more ethnically diverse. In 2010, 2.7% of Stamford's population was non-white. By 2018, about 29.9% was non-white. During that time, the non-white population in the county grew from 1.6% in 2010 to 4.5% in 2018.³⁵
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Stamford (9.1% of people living below the federal poverty line) was lower than the county's poverty rate (11.2%) in 2018.³⁶

Employment and Economics

In comparison to Harlan County, Stamford's economy had:

- **Different mix of industries.** Stamford's major employment sectors, accounting for 10% or more of employment each, were transportation and education.³⁶
- **Higher median household income.** Stamford's median household income in 2018 (\$57,813) was about \$7,500 higher than the county (\$50,344).³⁶
- **More long-distance commuters.** About 22.1% of workers in Stamford commuted for fewer than 15 minutes, compared with about 58.8% of workers in Harlan County. About 45.6% of workers in Stamford commuted 30 minutes or more to work, compared to about 21.4% of county workers.³⁷

Major Employers

The major employer in the community is the Village of Stamford. The local planning team estimate that 70% of residents commute to Alma, Holdrege, Kearney, Beaver City, Kansas, or Cambridge for employment.

Housing

In comparison to Harlan County, Stamford's housing stock was:

- **Older.** Stamford had a larger share of housing built prior to 1970 than the county (81.4% compared to 52.7%).³⁸
- **Less mobile and manufactured housing.** The Village of Stamford had a smaller share of mobile and manufactured housing (0.9%) compared to the county (22.9%).³⁸
- **Less renter-occupied.** About 3.2% of occupied housing units in Stamford were renter-occupied compared with 19.9% of occupied housing in Harlan County.³⁸
- **Less occupied.** Approximately 41.7% of Stamford's housing units were vacant compared to 36.2% of units in Harlan County.³⁸

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly

³⁶ United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov/cedsci/>.

³⁷ United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov/cedsci/>.

³⁸ United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov/cedsci/>.

maintained. Unoccupied housing may also suggest that future development may be less likely to occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

Future Development Trends

Over the past five years one new business came to the community, Diesel Mechanic. No new housing was built. According to the 2018 American Community Survey estimates, Stamford’s population is declining. The local planning team attributes the decline to a lack of businesses in the area and the younger generation moving away. In the next five years, there are currently no planned housing or business developments. Population is likely to continue declining which may result in an increase in vacant housing.

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table STF.2: Parcel Improvements and Value in the Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
127	\$3,246,315	0	\$0	0%

Source: County Assessor, 2018

Community Lifelines

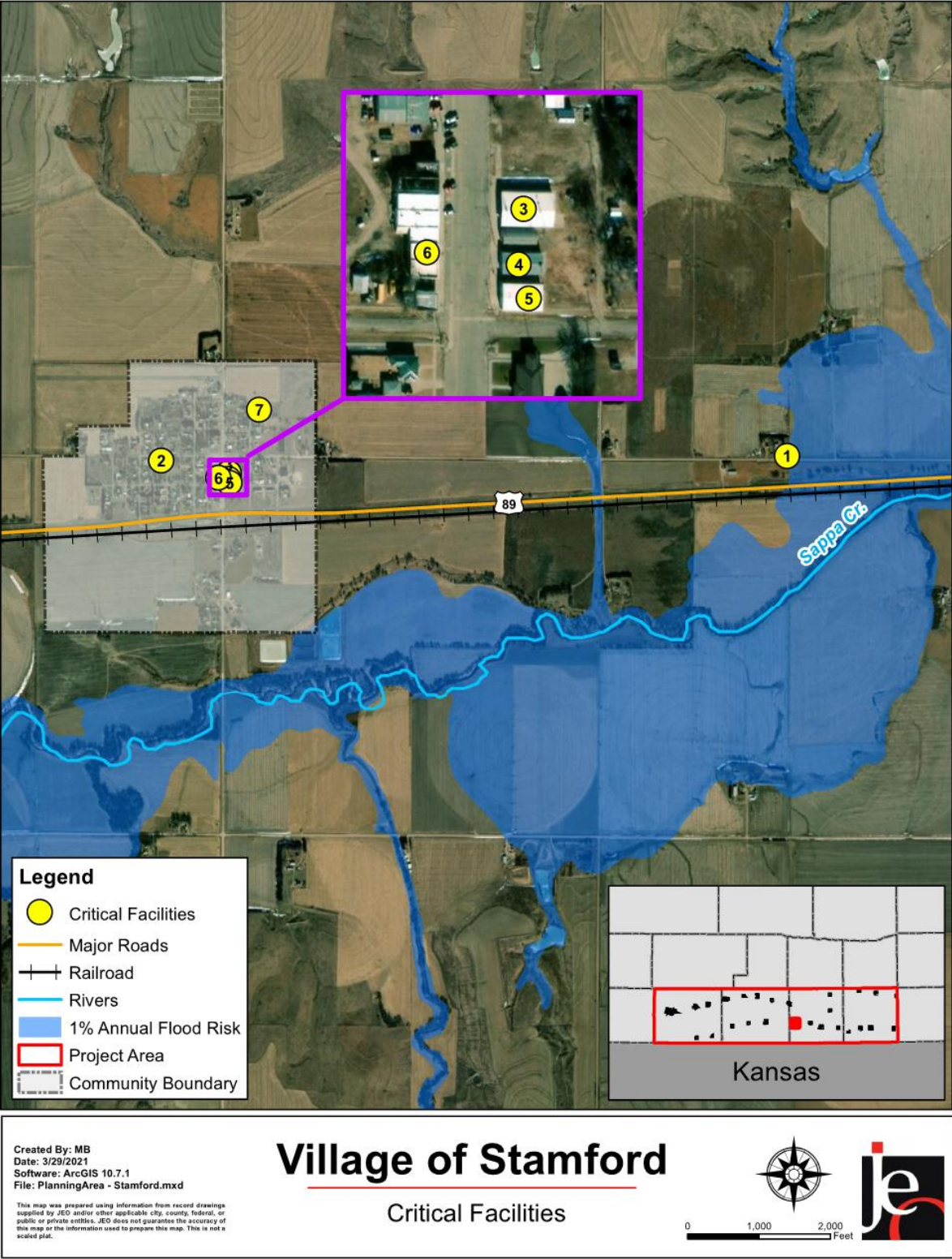
Critical Facilities

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table STF.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Booster Pump House	N	Y	N
2	Church	N	N	N
3	Church	N	N	N
4	Community Building	N	N	N
5	Fire House	N	N	N
6	Post Office	N	N	N
7	Water Tower	N	N	N

Figure STF.3: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the community's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Flooding

Only a small portion of the community is located in the floodplain. However, stormwater drainage has been an issue in the past. Drainage ditches are not large enough to handle severe storms and cause flooded ditches and streets. In May 2019, flooding caused \$100,000 in damages. Some drainage work has been done within the community, but more is needed. The village continues to maintain compliance with the National Flood Insurance Program.

Grass/Wildfire

According to the Nebraska Forest Service, there have been 40 wildfires reported near Stamford from 2000 to 2020 burning a total of 242 acres. None of the fires have affected structures in the community. The local water supply is sufficient for firefighting. In the event of a disaster, Stamford has mutual aid agreements with Orleans, Beaver City, and Oxford. One fire department member has an aerial applicator and uses his plane when available and needed.

Severe Thunderstorms

Severe thunderstorms occur several times annually within Stamford and the rest of the planning area. The NCEI reports there have been 19 severe thunderstorm events in Stamford from 1996 to December 2019 that have caused \$727,000 in property damages. The most damaging event occurred in July 2008 when 1.75-inch hail caused \$250,000 in damages. Primary concerns related to severe thunderstorms is damage to personal and public property. Stamford has data backup systems for municipal records.

Severe Winter Storms

Severe winter storms occur regularly in Stamford and the rest of the planning area. Although structural damage has not occurred to critical facilities due to severe winter weather in the past, winter weather has the potential to cause significant potential damages. Streets are cleared by municipal staff and resources are sufficient for local events. Power loss is not large concern as the village trims and removes hazardous trees.

Tornadoes and High Winds

According to the NCEI, there have been three reported tornadoes from 1994 to December 2019 that caused \$400,000 in property damages. All the tornadoes touched down in rural areas outside of the community and none of the damages occurred to structures in the village. The village does not have a safe room for residents. If a tornadic event were to occur, residents could reach out to neighbors or go to the church for shelter.

Governance

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

- Clerk
- Treasurer
- Water Commissioner
- Floodplain Administrator
- Maintenance Supervisor

Capability Assessment

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

Table STF.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
Community Rating System	No	
Other (if any)	-	
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
Other (if any)	-	
Fiscal Capability	Capital Improvement Plan/ 1- & 6-Year Plan	No
	Applied for grants in the past	No

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

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

Plan Integration

The Village of Stamford has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Floodplain Ordinance

The village’s floodplain ordinance outlines how development should occur within the floodplain. It contains floodplain maps and discourages development in the floodplain.

Harlan County Local Emergency Operations Plan (2018)

The Village of Stamford is an annex in the Harlan 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.

Water System Emergency Response Plan (2021)

A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and manmade events and discusses the water system’s response during those events.

Mitigation Strategy

Stamford has limited fiscal capabilities and administrative support available for implementing mitigation projects. The village will continue to benefit from relationships with the county and the LRNDRD. Stamford will need to explore outside funding assistance for project implementation.

Continued Mitigation Actions

Mitigation Action	Drainage Study/Stormwater Master Plan
Description	Drainage studies can be conducted to identify and prioritize improvements to address site specific localized flooding/drainage problems. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas, and potentially multiple drainage improvements for each.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000-\$100,000+
Funding	CDGB, Village Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Maintenance Supervisor
Status	Not Started.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	\$200,000+
Funding	CDBG, Village Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Maintenance Supervisor
Status	In Progress. Some drainage work has been done but additional is still needed.

Mitigation Action	Stream Bank Stabilization/Grade Control Structures/Channel Improvements
Description	Stream bed/grade stabilization improvements can serve to more effectively protect structures, increase conveyance, prevent down cutting, and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000-\$100,000
Funding	CDBG, Village Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Maintenance Supervisor
Status	Not Started.

Removed Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Hazard(s) Addressed	All Hazards
Reason for Removal	The village would like to focus on other actions.

Mitigation Action	Maintain Good Standing in the NFIP
Hazard(s) Addressed	Flooding
Reason for Removal	While the village will continue to maintain good standing in the NFIP by enforcing floodplain regulations, this project is no longer considered a mitigation action by FEMA.

Mitigation Action	Public Awareness/Education
Hazard(s) Addressed	All Hazards
Hazard(s) Addressed	The village would like to focus on other actions.

Mitigation Action	Weather Radios
Hazard(s) Addressed	All Hazards
Reason for Removal	The village would like to focus on other actions.

Fire District Profile

Alma Fire District

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table AFD.1: Alma Fire District Local Planning Team

Name	Title	Jurisdiction
Brian Seyler	Fire Chief	Alma Fire District

Location and Geography

The Alma Fire District covers 70,000 acres in the central portion of Harlan County, including the City of Alma. The fire district mainly addresses grass and wildfire in rural areas and structural fires in the city. Approximately 50,000 acres of the district is cropland/pasture that is susceptible to fire. The Harlan Reservoir is located in the district.

Transportation

US Highways 136 and 183 and Nebraska State Highway 89 all travel through the Alma Fire District. The most traveled route is US Highway 136 with a total annual average of 4,840 vehicles daily, 545 of which are trucks.³⁹ A Nebraska Kansas Colorado Railway line runs east to west through the central portion of the district. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors and areas more at risk of transportation incidents. The nursing homes and schools are always a concern for evacuation.

Demographics

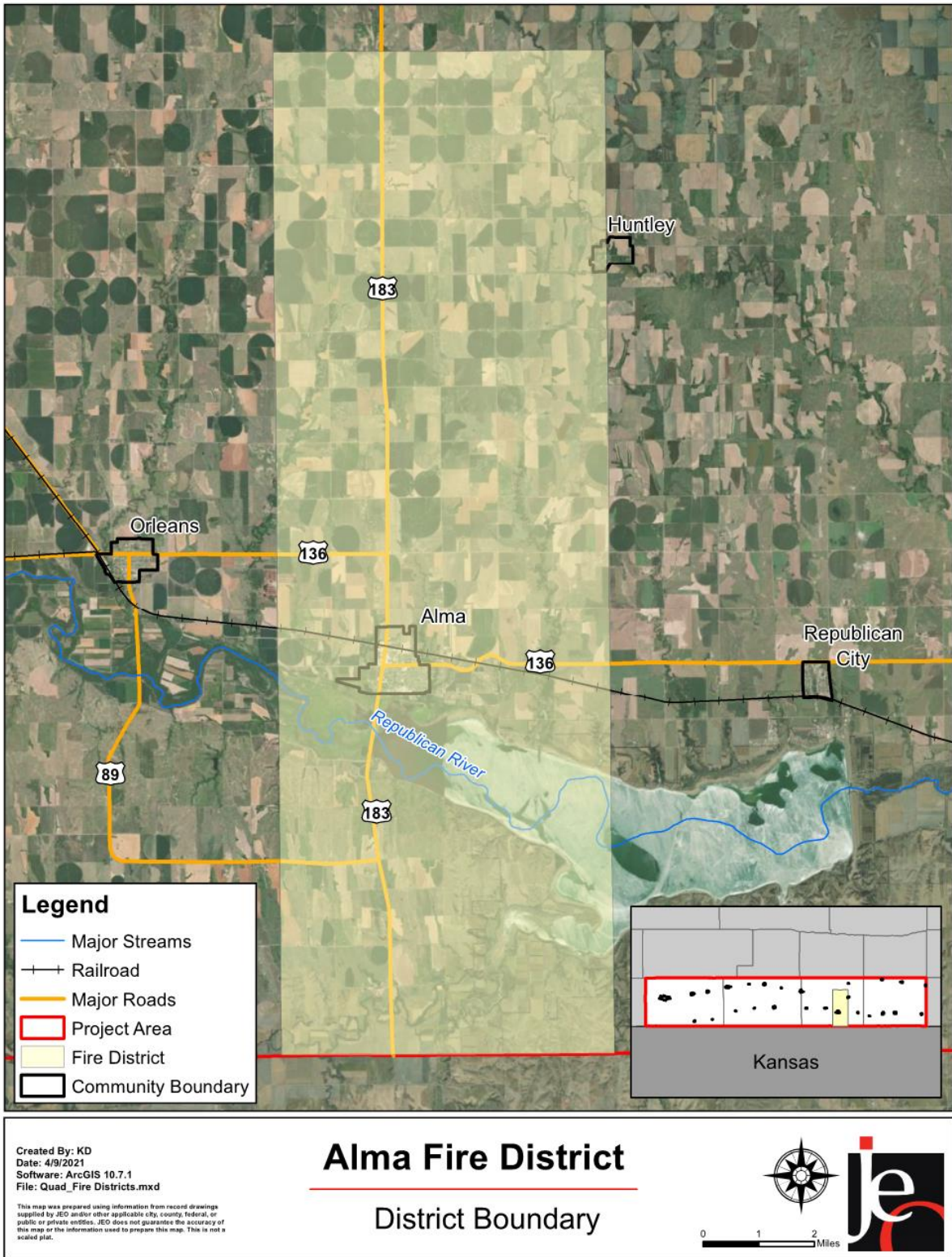
See the City of Alma and the Harlan County profiles for regional demographic information. The district serves approximately 1,600 people but in the summer that number may triple in size due to recreational lake activities.

Future Development Trends

Over the past five years the district has seen an influx of new residential construction in the rural areas outside of the city creating small subdivisions. Many of these areas are not supplied by fire hydrants which could cause a significant issue. In addition, tornado sirens do not reach these areas. A new pumper truck was purchased in the last five years. In the next five years the fire district and City of Alma would like to establish a safe room or storm shelter with access to a generator.

³⁹ Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Figure AFD.1: Alma Fire District



Community Lifelines

Chemical Storage Fixed Sites

Information on chemical storage sites can be found in the Harlan County profile. There are three large commercial chemical storages sites in the district. There is always a concern over spills, possible fires, and damage to the sites from severe storms and tornadoes.

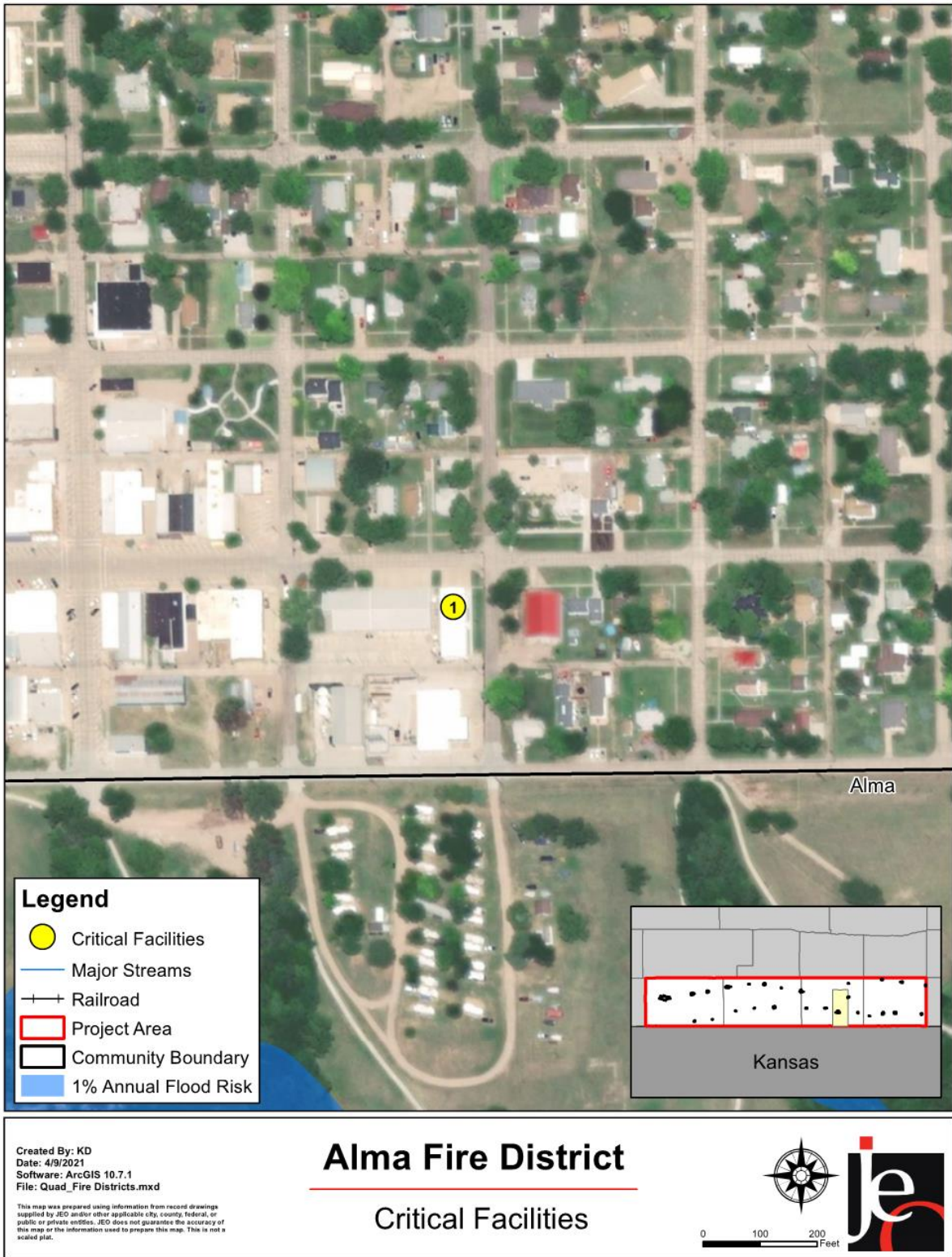
Critical Facilities

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table AFD.2: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Alma Fire Hall	N	N	N

Figure AFD.2: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the district. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the district's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Chemical Spills

Both US Highway 136 and US Highway 183 are largely traveled by commercial truck traffic transporting various chemicals. Transported chemicals include fuel, farm chemicals, radioactive materials, and commercial grade chemicals. No large chemical spills have occurred but minor spills from wrecks and equipment malfunction have occurred in the past. In addition to the transportation concerns, there are also three large commercial agriculture chemical supply facilities located in the district. Response resources are very limited as the district is not sufficiently trained in HazMat response. There are HazMat Teams in Hastings and McCook that would likely assist if needed.

Grass/Wildfire

Alma Fire sees four to nine grass/wildland fires a year either in the district or through mutual aid with other fire departments. The greatest concern for the district is rough terrain around the Harlan Reservoir, as it can be difficult to get equipment and responders into those areas. Response resources include two pumper trucks, three tanker trucks, one heavy rescue, and two EMS ambulances. Fire department members visit public schools and daycare to promote fire safety on an annual basis.

Severe Thunderstorms/Flooding/Severe Winter Storms/Tornadoes and High Winds

Flooding, severe thunderstorms, severe winter storms, and tornadoes are always a consistent threat to the district's businesses, community, and residents. In 2019, the Harlan Reservoir reached an all-time maximum level that flooded recreational areas around the lake and nearly went over the highway. Most of the flooding was due to heavy snow fall that saturated the ground causing the rains to run off. For most of 2019, constant heavy rains washed out numerous culverts, roadways, and bridges making travel in the rural areas very difficult. The Alma area has also suffered several heavy snowstorms in recent years that have created power outages and impassible roadways. The fire hall does not have a backup generator.

Staffing

The Alma Fire District is supervised by a fire chief and a five-member rural board of directors who will oversee the implementation of hazard mitigation projects. The district has 33 volunteer members. Other offices are listed below.

- Assistant Fire Chief
- President
- Treasurer
- Secretary

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Alma Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

Table AFD.3: Overall Capability

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

Plan Integration

Alma Fire District has one plan related to hazard mitigation and it is discussed below. In addition, the district has standard operating procedures that outline response to a variety of different calls that could be received. No other plans were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current HMP into other planning mechanisms and updates.

South Central West Community Wildfire Protection Plan (2021)

The purpose of the South Central West Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years and has been integrated with the current hazard mitigation plan.

Mitigation Strategy

Funding for Alma Fire District is very limited to tax dollars and is sufficient to maintain current building and equipment. Future projects would likely be subject to a tax rate increase. A large portion of funds is already dedicated to the new pumper truck that is being paid through a bonded debt for the next five years. The district will likely need grants to help pay for many of the projects listed below and has been awarded grants in the past.

New Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Provide a backup power generator at facilities where needed.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$100,000
Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Rural Fire Board, Fire Chief, City of Alma
Status	Planning Stage. Working with the City of Alma to select a location.

Section Seven | Alma Fire District Profile

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency response.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$100,000+
Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Chief, Rural Fire Board
Status	Not Started.

Mitigation Action	Storm Shelter/Safe Room
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas. The community center was identified as needing a safe room.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Estimated Cost	\$100,000+
Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Rural Fire Board, Fire Chief, City of Alma
Status	Planning Stage. Working with the City of Alma to select a location.

Mitigation Action	Train Staff
Description	Train staff on a variety of response calls that could be received.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$80,000
Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Fire Chief, Rural Fire Board
Status	In Progress. Staff regularly go through training, but additional HazMat training is needed.

School District Profile

Alma Public Schools

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table APS.1: Alma Public Schools Local Planning Team

Name	Title	Jurisdiction
Jon Davis	Superintendent	Alma Public Schools

Location

Alma Public Schools is located in southeastern Harlan County and serves two schools located in one building. The school district provides services to students in the communities of Alma, Republican City, and Stamford. District-owned buildings include the K-12 school building, agricultural shop and classroom, greenhouse, bus barn, and football/track buildings (maintenance shed, concession stand, bathrooms, press box, and bleachers).

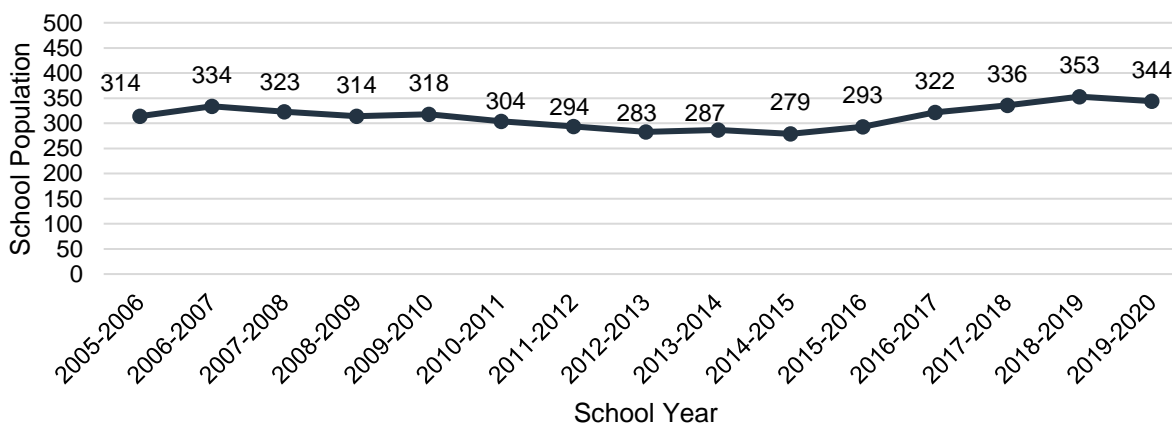
Transportation

Three major transportation corridors traverse the district: US Highways 136, 183, and Nebraska State Highway 89. The most traveled route is US Highway 136/183 and is traveled by a total annual average of 4,335 vehicles daily, 575 of which are trucks.⁴⁰ A Nebraska Kansas Colorado Railway rail line travels east to west through the district. The district has four major bus routes and all travel on gravel roads occasionally. During wet weather, these roads can be a problem. Alma Public Schools owns seven buses with approximately 100 students traveling to and from school. In 2018 a school bus rolled over due to muddy roads. Six students received minor injuries and the bus was totaled. Transportation information is important to hazard mitigation plans because it suggests areas more at risk of transportation incidents.

Demographics

The following figure displays the historical student population trend starting with the 2005-06 school year and ending with the 2019-20 year. It indicates that the student population has been growing since 2014 but has decreased recently. There are 344 students enrolled in the district.⁴¹ The local planning team anticipates little change in student enrollment in the coming years.

Figure APS.2: Student Population 2005-2020



Source: Nebraska Department of Education

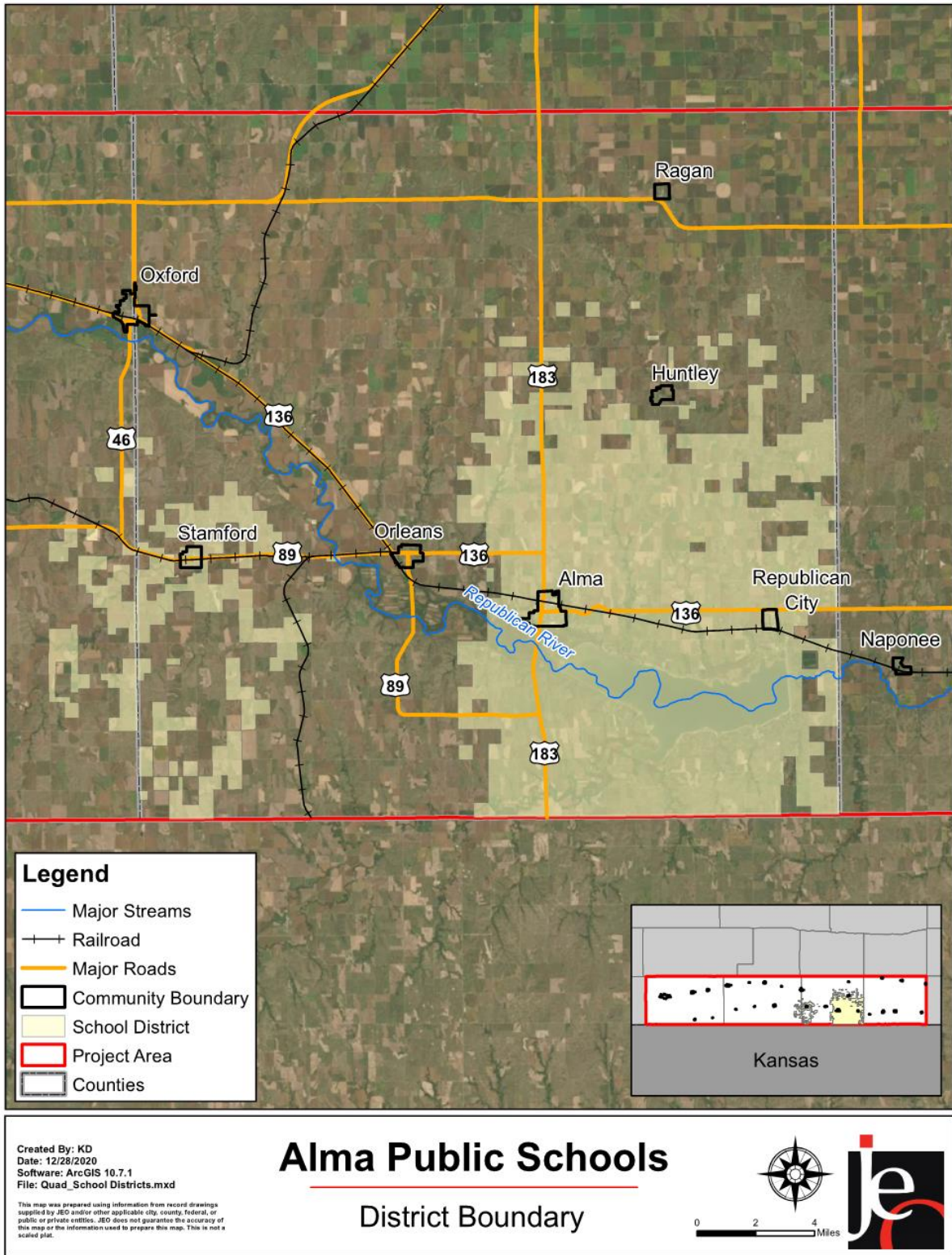
40 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map."

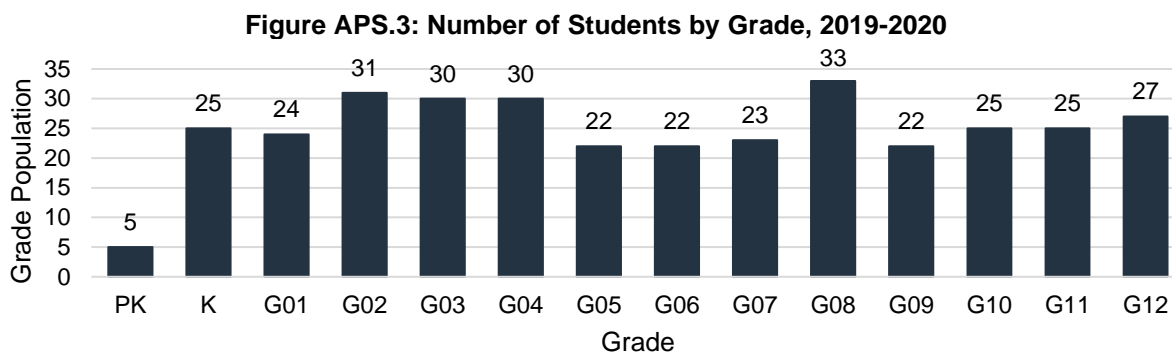
<https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

41 Nebraska Department of Education. December 2020. "2019-2020 Education Profile for District: Alma Public Schools."

<https://nep.education.ne.gov/snapshot.html#42-0002-000>.

Figure APS.1: Alma Public Schools





Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the 8th and 2nd grades. The lowest population of students are in pre-kindergarten, 5th, 6th, and 9th grades. According to the Nebraska Department of Education (NDE), 42% of students receive either free or reduced priced meals at school. This is lower than the state average of 46%. Additionally, nearly 21% of students are in the Special Education Program. According to the local planning team, the school district does not have any non-English speaking students. Younger students, low-income students, and students with disabilities may be more vulnerable during a hazardous event than the rest of the student population.

Table APS.2: Student Statistics, 2019-2020

	School District	State of Nebraska
Free/Reduced Priced Meals	42.15%	45.60%
School Mobility Rate	7.08%	8.36%
English Language Learners	N/A	7.43%
Special Education Students	20.94%	15.56%

Source: Nebraska Department of Education; N/A: Data is not available when less than 10 students.

Future Development Trends

Over the past five years, a new greenhouse and agriculture building were added to the school campus. There are currently no plans for new construction or renovation of buildings.

Community Lifelines

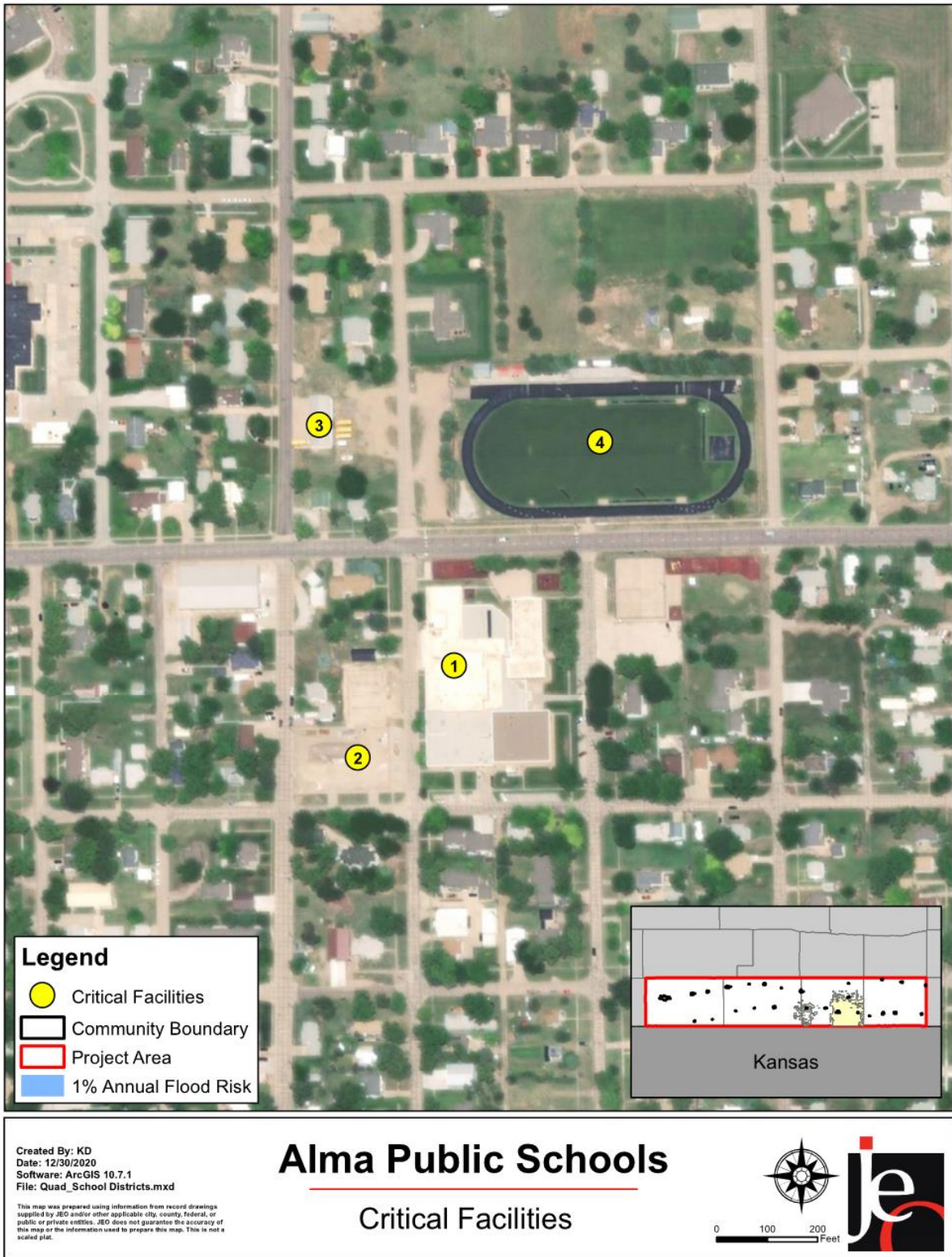
Critical Facilities

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the school. None of the facilities are located near fixed chemical sites.

Table APS.3: Critical Facilities

CF Number	Name	# of Students	# of Staff	Community Shelter (Y/N)	Safe Room (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	K-12 Building	350	50	Y	N	N	N
2	Ag Building/Greenhouse	0	0	N	N	N	N
3	Bus Barn	0	0	N	N	N	N
4	Football/Track	0	0	N	N	N	N

Figure APS.4: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the district. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the district's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Severe Thunderstorms

The district's primary concern related to severe thunderstorms is student safety while at school. Damages from severe thunderstorms have been minimal in the past. Power loss is not a large concern as powerlines to school buildings are buried and trees are regularly trimmed. In the event of power loss or a power surge, district records are backed up and kept at an offsite facility.

Severe Winter Storms

Severe winter storms can impact students' and staffs' ability to get to and from school safely. The district is able to close school due to dangerous road conditions or extreme temperatures. School is typically closed two to four times each school year because of severe winter storms. Families are notified of a school closure through SwiftReach Swift K-12 and a calling program. Snow removal on school property is done by a private company and district employees using a skid steer, snowblowers, and shovels.

Tornadoes and High Winds

The district's primary concern related to tornadoes and high winds is student and staff safety while at school. No tornado or high wind events have impacted the school district. The school does not have certified safe rooms. For shelter, students and staff go to the basement, lower bathrooms, storage room, and high school locker rooms. Education regarding tornadoes is done annually in the classrooms and through tornado drills.

Administration

The school district has a superintendent and one principal. The school board is made up of a six-member panel. Other departments and positions are listed below.

- Communications
- Curriculum/Assessment
- Facilities
- Finance Department
- Human Resources
- Learning Coaches
- Library/Media Services
- PARA Education
- Technology
- Transportation

Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the district's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Staff is trained on emergency procedures through professional development. Students and families are educated through drills, newsletter, and school policy. Local police and fire have been involved in drills and have talked to students about preparedness.

Table APS.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning Capability	Capital Improvements Plan/Long-Term Budget	Yes
	Continuity of Operations Plan	Yes
	Disaster Response Plan	Yes
	Other (if any)	-
Administration & Technical Capability	GIS Capabilities	No
	Civil Engineering	No
	Local staff who can assess community's vulnerability to hazards	Yes
	Grant Manager	No
Fiscal Capability	Mutual Aid Agreement	No
	Other (if any)	-
	Applied for grants in the past	No
	Awarded grants in the past	No
	Authority to levy taxes for specific purposes such as mitigation projects	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved bonds in the past	Yes
Flood Insurance	No	
Other (if any)	-	
Education & Outreach Capability	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, hazard mitigation boards, etc.)	No
	Ongoing public education or information program (Ex. Responsible water use, fire safety, household preparedness, environmental education, etc.)	Yes
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	Monthly
	Tornado	2 / year
	Intruder	3-5 / year
	Bus evacuation	2 / year
	Evacuation	2 / year
	Other (if any)	-

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

Plan Integration

Alma Public Schools has two planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. No other planning documents were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Crisis Response Plan (2020)

The Crisis Response Plan outlines the district’s response to a variety of natural and human-caused hazards. It assigns specific responsibilities to individuals, addresses shelter in-place protocols, identifies scenarios that would require evacuation, identifies evacuation routes, and identifies sheltering locations. This plan is reviewed and updated annually. In addition to administration and staff, the fire department and Harlan County Sheriff’s Office are familiar with the plan.

Strategic Plan (2020)

The Strategic Plan outlines the goals for the school district and is revised and updated annually. Potential hazards are discussed as part of the plan. In addition, strengths, weaknesses, opportunities, and threats are also included. Strengths include having the Harlan County Sheriff’s Office located three blocks from the school and the fire department being six blocks from the school. Threats include being located next to a major highway.

Mitigation Strategy

Funds for the Alma Public Schools District are limited to maintaining current facilities and systems and have stayed the same over recent years. A large portion of funds over the next four years is dedicated to paying off the agricultural building. The district will likely need grant assistance to help pay for many of the actions listed below. The district has not applied for grants in the past.

New Mitigation Actions

Mitigation Action	Access Control
Description	Add remote door open and close devices. Upgrade locks on doorways throughout the school.
Hazard(s) Addressed	Terrorism
Estimated Cost	\$5,000+
Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent, School Board
Status	Not Started.

Mitigation Action	Backup and Emergency Generators
Description	Provide a backup generator for district-owned buildings.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$30,000+ per generator
Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Superintendent, School Board
Status	Not Started.

Fire District Profile

Orleans Fire District

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table OFD.1: Orleans Fire District Local Planning Team

Name	Title	Jurisdiction
Matt Massey	Fire Chief	Orleans Fire District
Lance Dietz	Captain	Orleans Fire District

Location and Geography

The Orleans Fire District covers 76,800 acres in the south-central portion of Harlan County, including the Village of Orleans. The fire district mainly addresses grass and wildfire in the district's rural areas and structural fires in the community.

Transportation

US Highway 136 and Nebraska State Highway 89 both travel through the Orleans Fire District. The most traveled route is US Highway 136 with a total annual average of 1,220 vehicles daily, 95 of which are trucks.⁴² Two Nebraska Kansas Colorado Railway lines travel through the central part of the district. The area's highways, bridges, and county roads are of most concern as the district travels them to reach fires. Fence Post Road is routinely closed due to flooding. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors and areas more at risk of transportation incidents. The local planning team indicated that the Village of Orleans and the elderly would be the most difficult to evacuate.

Demographics

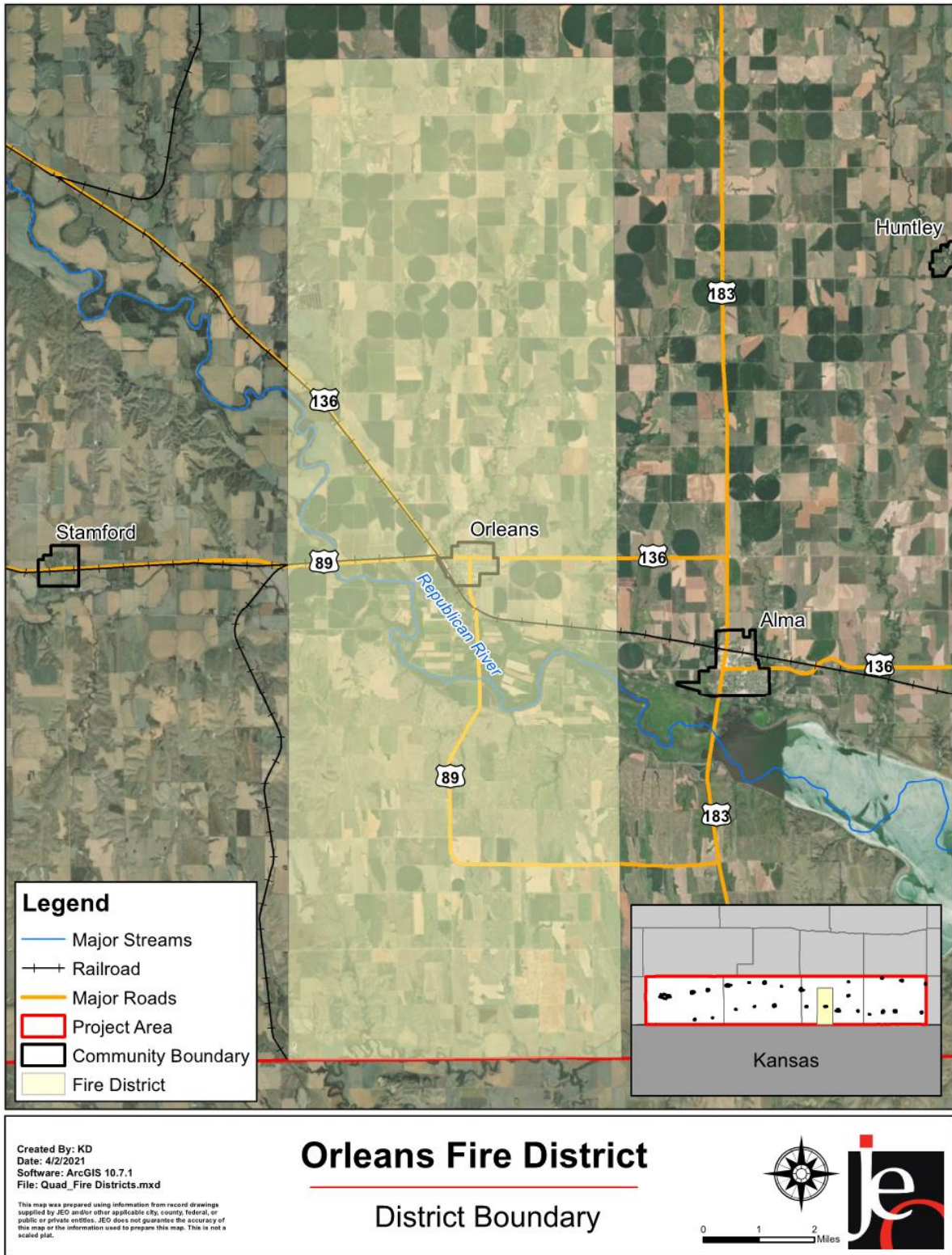
See the Village of Orleans and the Harlan County profiles for regional demographic information. The local planning team estimates that the district serves 600 people.

Future Development Trends

In the past five years, no changes or developments occurred in the fire district. Over the next five years, the fire district has not planned any developments or changes. A new fire hall is needed; however, the project is unlikely to be completed in the next five years.

42 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Figure OFD.1: Orleans Fire District



Community Lifelines

Chemical Storage Fixed Sites

Information on chemical storage sites can be found in the Harlan County profile. No chemical spills have occurred in the district. If a large spill were to occur, the district would likely need assistance from the county emergency management and nearby fire districts as the district does not have the appropriate equipment or training.

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table OFD.2: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Fire Hall	N	N	N

Figure OFD.2: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the district. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the district's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Grass/Wildfire

The Orleans Fire District has reported 21 fires to the Nebraska Forest Service from 2000 to 2020. The local planning team indicated that a majority of these fires were small grass fires with a few house fires. According to the district, no specific areas are more at risk to grass/wildfires. Vehicles for response include two pumpers, one tanker, two grass rigs, and one ambulance. Public education and outreach include fire safety presentations at the local school.

Staffing

The Orleans Fire District is governed by a five-member rural board and the five-member village board. The district is made up of volunteer staff. Other offices are listed below.

- Fire Chief
- Assistant Fire Chief
- Treasurer/Secretary
- Captain
- Lieutenant
- Rescue Chief
- Assistant Rescue Chief

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities. The Orleans Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

Table OFD.3: Overall Capability

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

Plan Integration

The Orleans District has one plan related to hazard mitigation and it is discussed below. In addition, the district has standard operating procedures that outline response to fire, flood, tornado, and EMS calls. No other plans were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current HMP into other planning mechanisms and updates.

South Central West Community Wildfire Protection Plan (2021)

The purpose of the South Central West Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years and has been integrated with the current hazard mitigation plan.

Mitigation Strategy

The Orleans Fire District funds are limited to maintaining current facilities and systems and have stayed the same over recent years. Although a large portion of funds are not already dedicated, the district will likely need grant assistance to help pay for the project listed below. The district has applied for and been awarded forestry grants in the past.

New Mitigation Actions

Mitigation Action	New Fire Hall
Description	A new fire hall is needed as space is running out at the current building.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$300,000+
Funding	Donations, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Board, Village Board
Status	Not Started.

Fire District Profile

Republican City Rural Fire District

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table RCD.1: Republican City Rural Fire District Local Planning Team

Name	Title	Jurisdiction
Brad Wolfe	Firefighter	Republican City Rural Fire District

Location and Geography

The Republican City Rural Fire District covers 65,000 acres in the eastern portion of Harlan County, including the Village of Republican City and Village of Huntley. The fire district mainly addresses structural fires in the communities and grass and wildfire in the region’s rural areas.

Transportation

US Highway 136 travels through the Republican City Rural Fire District. It is traveled by a total annual average of 1,150 vehicles daily, 110 of which are trucks.⁴³ A Nebraska Kansas Colorado Railway runs through the southern part of the district. Chemicals are not regularly transported along local routes. No transportation chemical spills have occurred in the past. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors and areas more at risk of transportation incidents.

Demographics

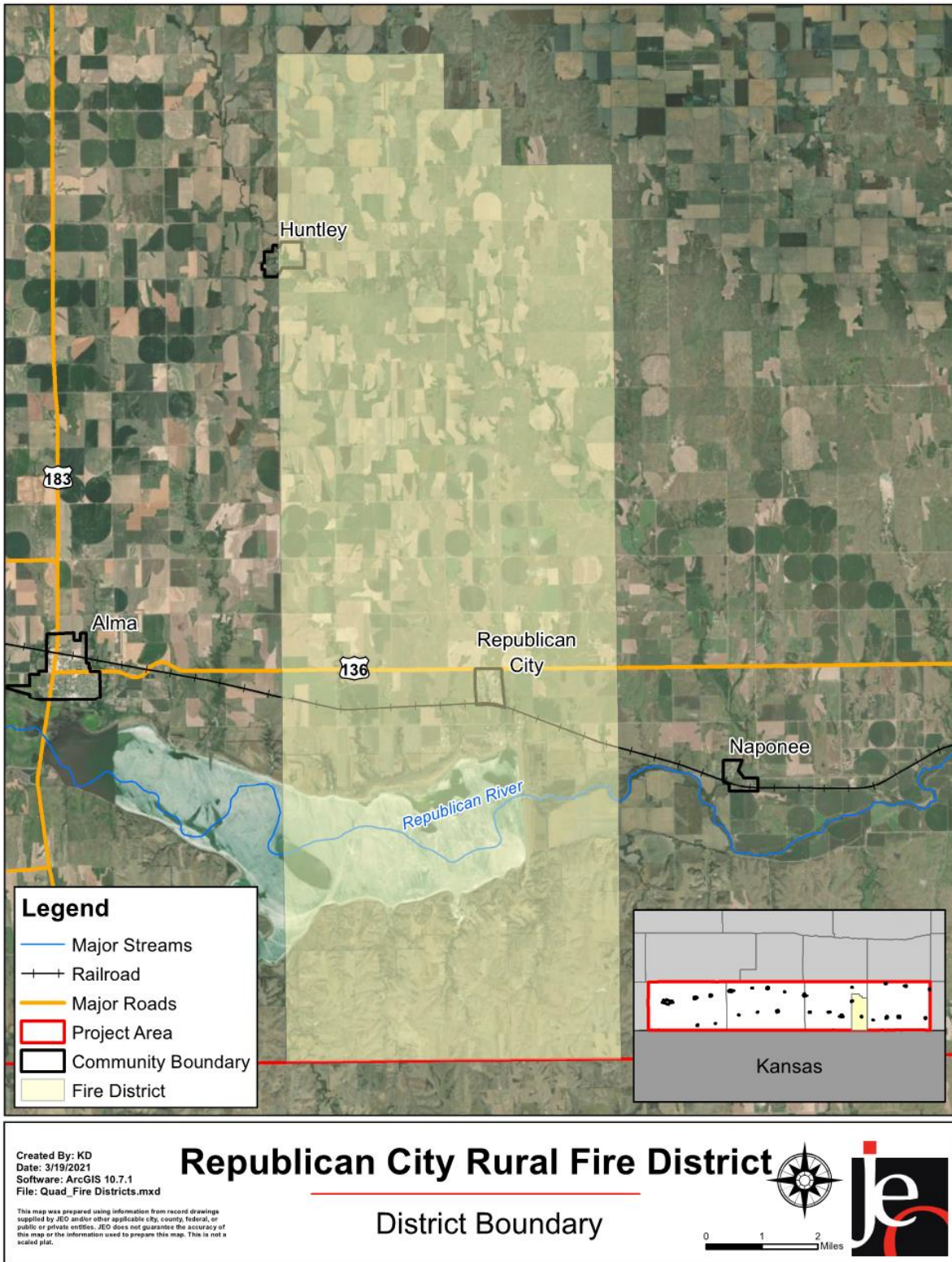
See the Village of Republican City, Village of Huntley, and the Harlan County profiles for regional demographic information. The district serves over 200 people.

Future Development Trends

Over the past five years there have been no changes for the fire district. In the next five years, no developments are planned.

⁴³ Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Figure RCD.1: Republican City Rural Fire District



Community Lifelines

Chemical Storage Fixed Sites

Information on chemical storage sites can be found in the Harlan County profile. The district does not have concerns regarding fixed chemical sites as most are limited to individual farmers. No spills have occurred in the past. Training on spill response is not sufficient at this time as only one firefighter has taken a HazMat course at fire school. Additional training has been discussed.

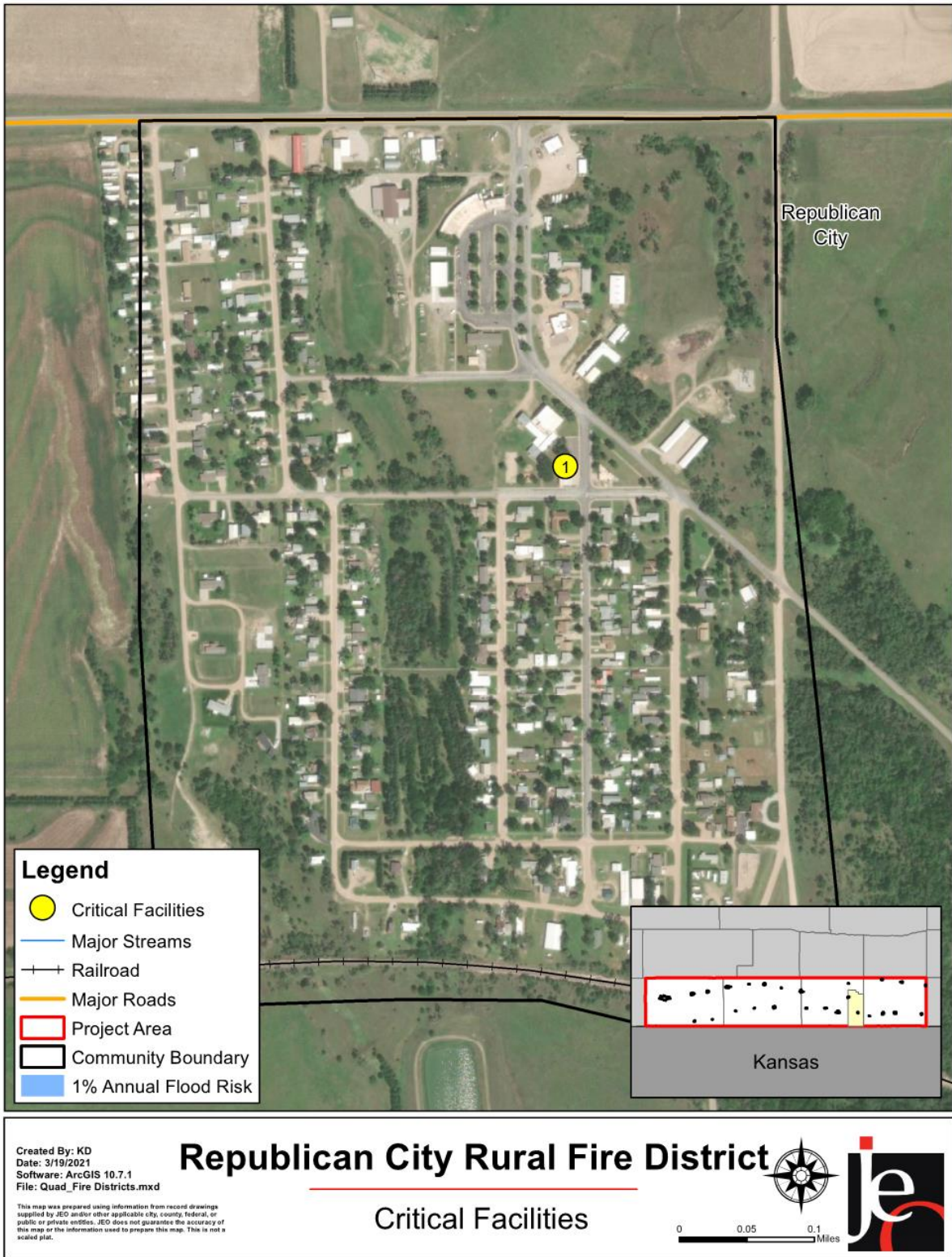
Critical Facilities

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table RCD.2: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Republican City Fire Hall	N	Y	N

Figure RCD.2: Critical Facilities



Historical Occurrences

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

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the district. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the district's capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Animal and Plant Disease

The fire district covers rural areas and communities whose local economies are agriculturally driven. A large animal or plant disease outbreak would severely impact many of the residents. Economic impacts could affect the district's funding as well as ability to recruit volunteer staff. No past disease outbreaks were discussed by the local planning team.

Dam Failure

One high hazard dam is located in the rural fire district. The Harlan County Dam is located on the east side of the Harlan County Reservoir. If that dam were to fail it would cause many damages in the district. The fire district would likely be called in to help with the response and recovery efforts. No dam failures have occurred in the past.

Drought

As with animal and plant disease, a prolonged drought would severely impact crops in the district and hurt the local economy. In addition, Republican City is significantly influenced by the proximity of the Harlan County Reservoir. Drought can reduce the water level in the reservoir, reducing the number of visitors and resulting income. Drought can also increase fire risk due to dry conditions.

Grass/Wildfires

The area in the district most at risk of fire is the Harlan County Reservoir area due to increased fire loads from trees. Equipment to respond to fires includes two pumpers, one tanker, three grass rigs, and one ambulance. Public outreach includes parades and fire prevention week. In the event of evacuations, Circle Drive would be difficult to evacuate as there is only one road in and one road out.

Staffing

The Republican City Rural Fire District is supervised by a fire chief and a five-member rural fire board who will oversee the implementation of hazard mitigation projects. Other offices are listed below.

- Assistant Fire Chief
- Rescue Chief
- President
- Treasurer
- Secretary

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Republican City Rural Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

Table RCD.3: Overall Capability

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

Plan Integration

The Republican City Rural Fire District has one plan related to hazard mitigation and it is discussed below. In addition, the district has standard operating procedures that outline response to a variety of different calls that could be received. No other plans were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current HMP into other planning mechanisms and updates.

South Central West Community Wildfire Protection Plan (2021)

The purpose of the South Central West Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years and has been integrated with the current hazard mitigation plan.

Mitigation Strategy

Funds for the Republican City Rural Fire District are limited to maintaining current facilities and systems and have stayed the same over recent years. The district will likely need grant assistance to help pay for the projects listed below. Partnerships with the county and state agencies would benefit the district as they have not applied for grants in the past.

New Mitigation Actions

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response. The district needs new fire trucks as the newest is 25 years old.
Hazard(s) Addressed	Grass/Wildfires
Estimated Cost	\$100,000+
Funding	Tax Dollars
Timeline	2-5 Years
Priority	High
Lead Agency	Rural Fire Board, Fire Chief
Status	Not Started.

Fire District Profile

Stamford Rural Fire Department

**Quad Counties
Multi-Jurisdictional Hazard Mitigation Plan Update**

2021

Local Planning Team

Table SFD.1: Stamford Rural Fire Department Local Planning Team

Name	Title	Jurisdiction
Tresadi Preitauer	Board Secretary/Treasurer	Stamford Rural Fire Department
Joe Cover	Firefighter	Stamford Rural Fire Department

Location and Geography

The Stamford Rural Fire Department covers 92,160 acres in the southwest portion of Harlan County and the southeast portion of Furnas County, including the Village of Stamford. The fire district mainly addresses grass and wildfire in the region's rural area and structural fires within the village.

Transportation

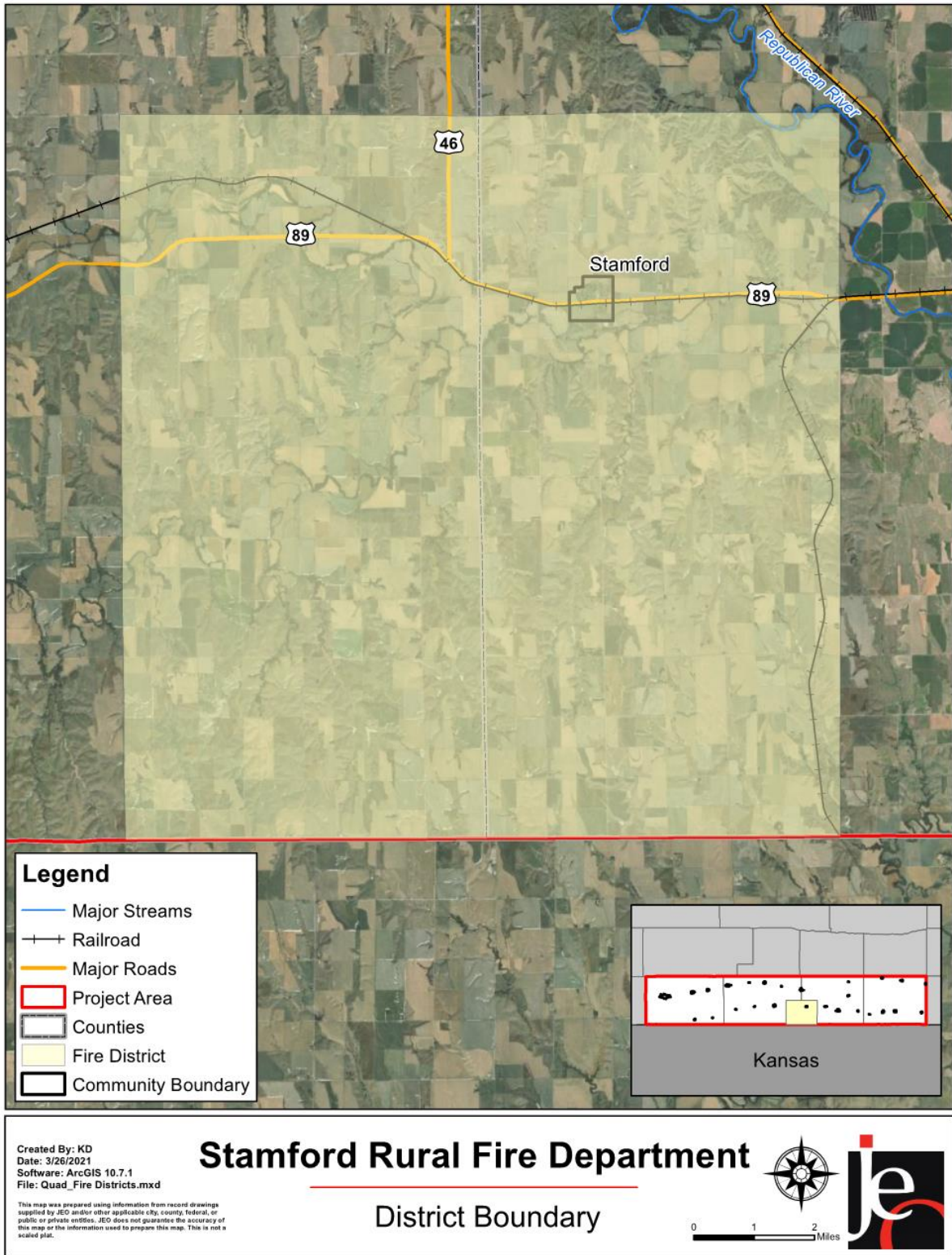
Nebraska State Highways 46 and 89 both travel through the Stamford Rural Fire Department. The most traveled route is Nebraska State Highway 46 with a total annual average of 720 vehicles daily, 70 of which are trucks.⁴⁴ Both routes are a concern due to high traffic levels and the risk of chemical spills. Chemicals transported include fuel, fertilizer, and weed killer. No spills have occurred locally. Two Nebraska Kansas Colorado Railway lines run through the district. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors and areas more at risk of transportation incidents. Rural areas would be difficult to evacuate due to poor road conditions and lack of information on where people are located.

Demographics

See the Village of Stamford, Harlan County, and Furnas County profiles for regional demographic information. The local planning team estimates that district serves around 300 people.

⁴⁴ Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Figure SFD.1: Stamford Rural Fire Department



Future Development Trends

In the past five years there has been no changes within the fire district. Over the next five years, there are no anticipated developments for either the department or the area that they serve.

Community Lifelines

Chemical Storage Fixed Sites

Information on chemical storage sites can be found in the Harlan and Furnas County profiles. The fire department has very few resources to respond to a chemical spill and would rely on surrounding mutual aid in the event of a large spill.

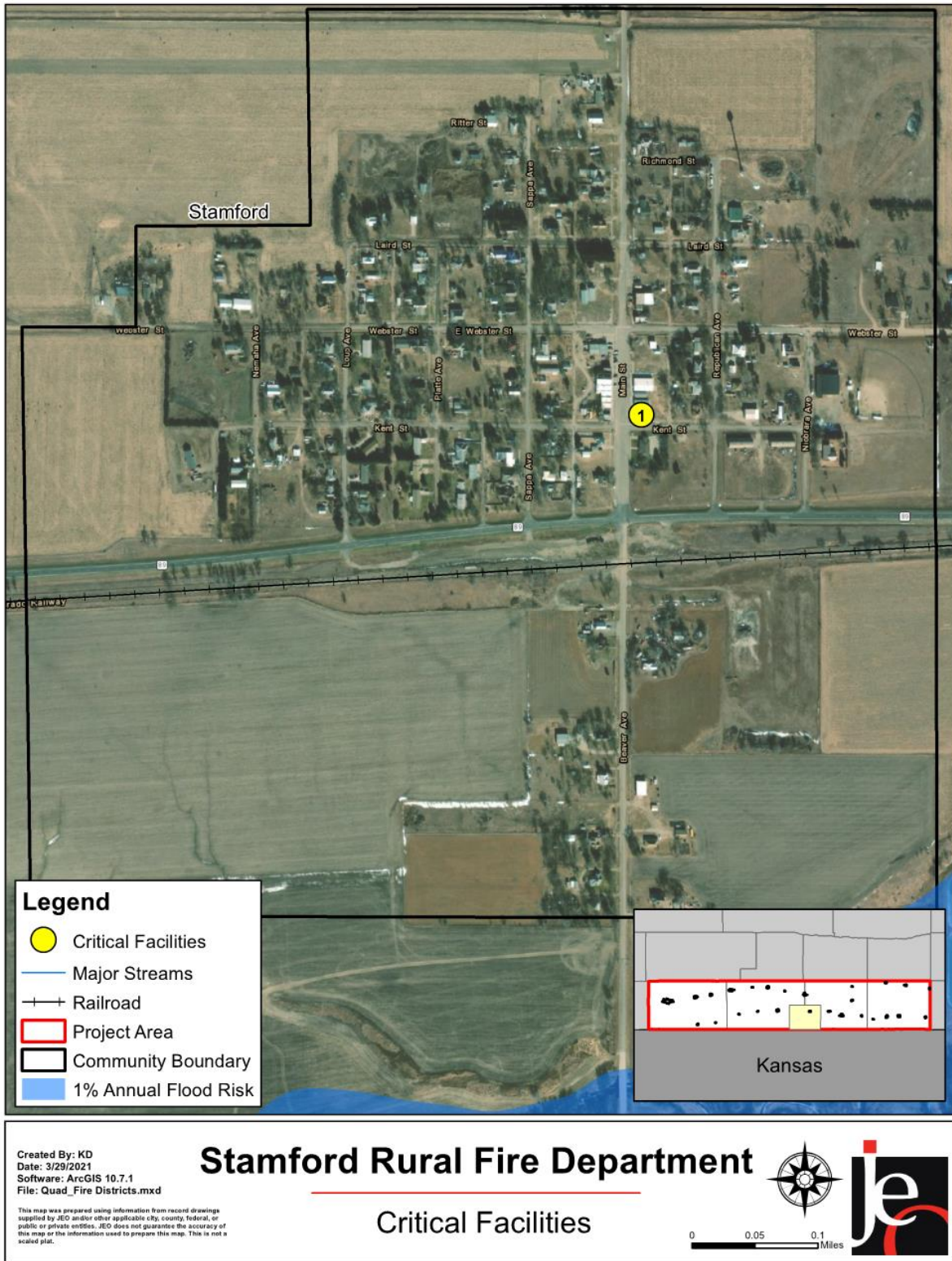
Critical Facilities

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 part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table SFD.2: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Fire Hall	N	N	N

Figure SFD.2: Critical Facilities



Historical Occurrences

See the Harlan and Furnas County profiles for historical hazard events, including the number of events, damage estimates, and any fatalities or injuries.

Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the district. The planning team prioritized the selected hazards based on historical hazard occurrences, potential impacts, and the district’s capabilities. For more information regarding regional hazards, please see *Section Four: Risk Assessment*.

Grass/Wildfire

Stamford Fire reported that it responded to 40 fires from 2000 to 2020. The largest was a 60-acre grass fire in 2008. Greatest concerns for the fire district include having a proper water supply in rural areas and the proper wildland gear and equipment. Fire response vehicles include a tanker, pumper, three grass rigs, and ambulance. The department also has an aerial applicator on the department and uses his plane when available and needed. No public outreach or education is done currently.

Staffing

The Stamford Rural Fire Department is supervised by a fire chief and a five-member board who will oversee the implementation of hazard mitigation projects. Other positions are listed below. All staff are volunteer members.

- Assistant Fire Chief
- Captain
- Lieutenant
- Rescue Chief
- Treasurer
- Secretary

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Stamford Rural Fire Department will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

Table SFD.3: Overall Capability

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

Plan Integration

Stamford Fire does not have any formal planning documents. However, they did participate in the 2021 South Central West Community Wildfire Protection Plan (CWPP). 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 and has been integrated with the current hazard mitigation plan.

Mitigation Strategy

Funds for the Stamford Rural Fire Department are limited to maintaining current facilities and systems and have stayed the same over recent years. Although a large portion of funds have not already been dedicated, the district will likely need grant assistance to help pay for any large capital project. The department has applied for grants in the past and the district was awarded a computer grant from Twin Valleys.

New Mitigation Actions

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency response. Additional firefighting equipment and trucks is needed.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies
Funding	General Budget, Donations
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Chief, Fire Board
Status	Not Started.