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COUNTY PROFILE

ADAMS COUNTY

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

Local Planning Team

Table ADC.1: Adams County Local Planning Team

Name	Title	Jurisdiction
Ron Pughes	EM Director	Adams County
Judy Mignery	Planning & Zoning Director	Adams County
Dawn Miller	Roads Superintendent	Adams County

Location, Geography, & Climate

Adams County is located in southwest Nebraska and is bordered by Hall County, Clay County, Webster County, Kearney County, and Buffalo County. The City of Hastings is the county seat. The total area of Adams County is 563 square miles. Major waterways within the county include the Little Blue River, Ash Creek, Big Sandy Creek, Cottonwood Creek, Oak Creek, Pawnee Creek, Sand Creek, Scott Creek, and Thirty Two Mile Creek. The county is not heavily forested, nor is located in a geographic area of the state prone to landslides. Most of Adams County lies in the plains topographic region, with the vast majority of the county's land characterized by agricultural fields.

Climate

The average high temperature in Adams County for the month of July is 87.3 degrees and the average low temperature for the month of January is 14.2 degrees. On average, Adams County gets 28 inches of rain and 29 inches of snowfall per year. The following table compares these climate indicators with those of the entire nine-county planning area. Climate data is helpful in determining if certain events are higher or lower than normal. For example, if the high temperatures in the month of July are running well into the 90s, high heat events may be more likely which could impact vulnerable populations.

Table ADC.2: Adams County Climate Normals

	Adams County	Planning Area Average
July Normal High Temp	87.3°F	88.5°F
January Normal Low Temp	14.2°F	14.2°F
Annual Normal Precipitation	27.99"	29.37"
Annual Normal Snowfall	28.8"	21.63"

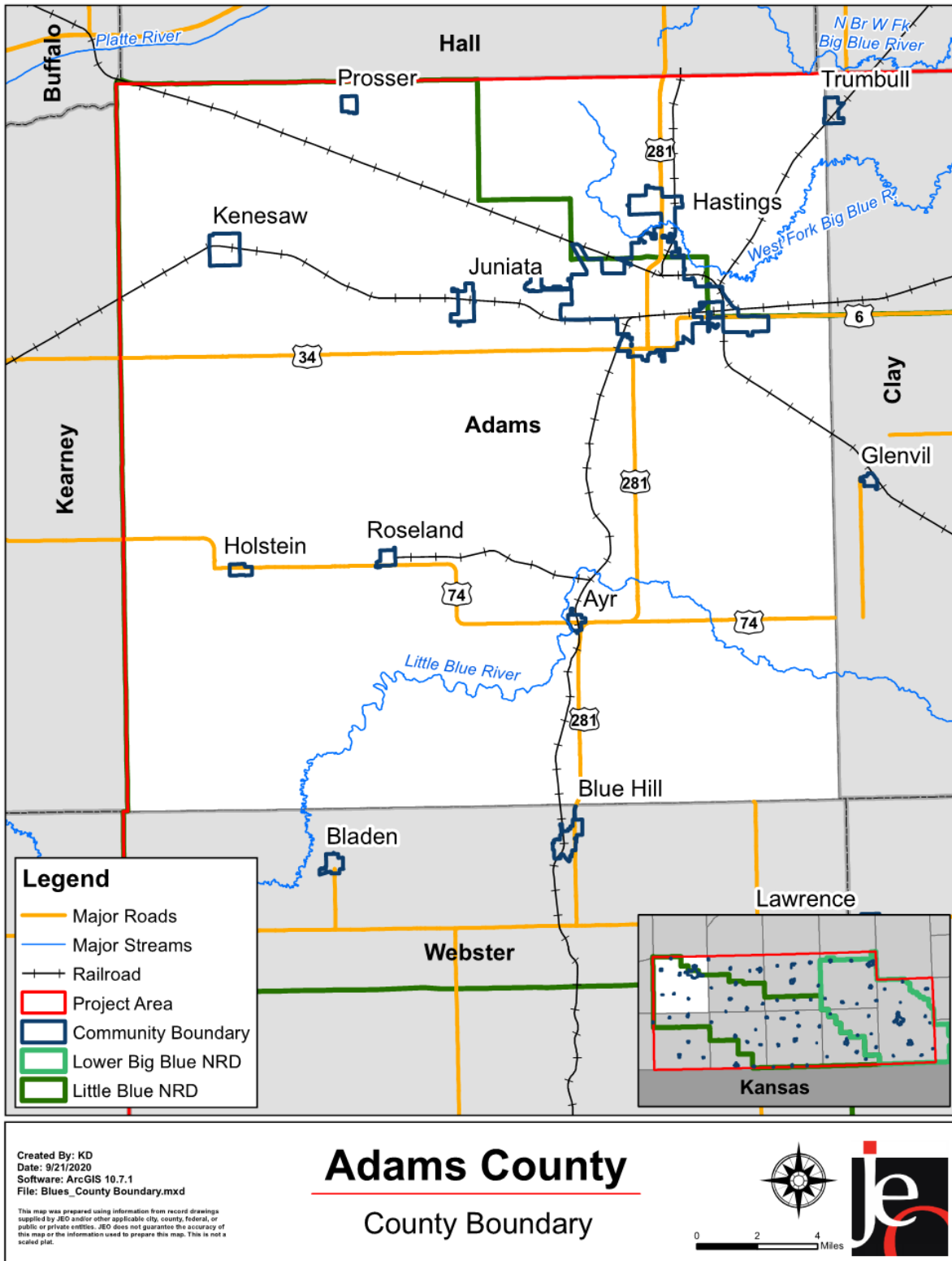
Source: NCEI 1981-2010 Climate Normals¹, High Plains Regional Climate Center, 1981-2010²

Precipitation includes all rain and melted snow and ice.

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

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

Figure ADC.1: Adams County Jurisdictional Boundary



Transportation

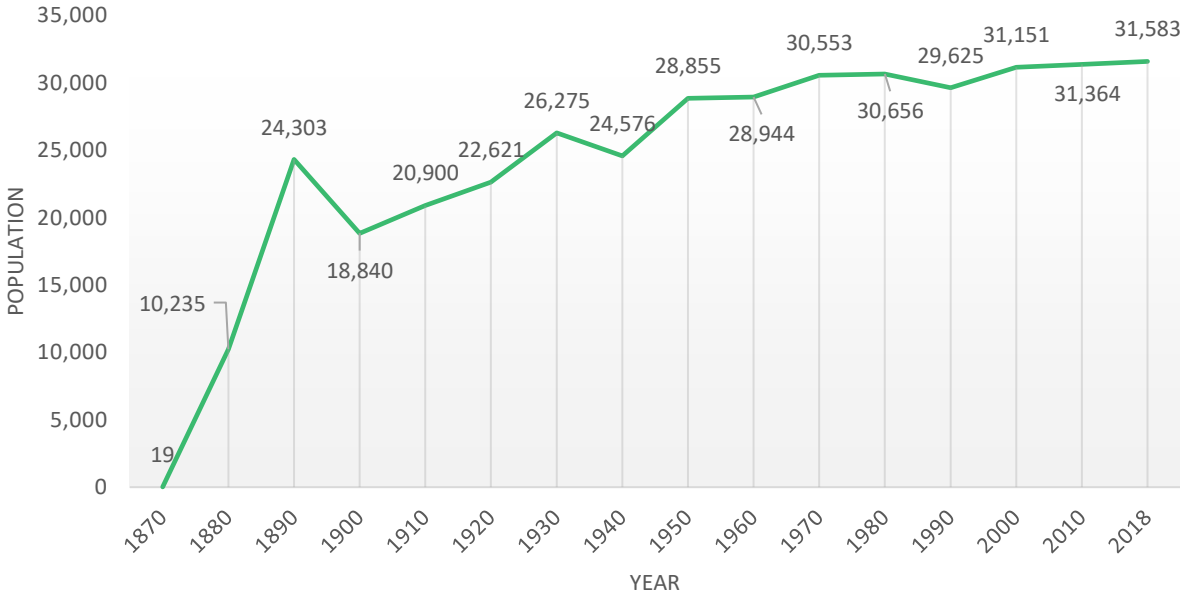
Adams County’s major transportation corridors include US Highway 6, which runs east-west through the center of the county, US Highway 281, which runs north-south to Hastings, and US Highway 34 which runs north from Hastings. Highways 6, 34, and 281 all pass through Hastings while Highway 74 passes through the lower half of the county, running east-west. The local planning team also identified Showboat Blvd South, 42nd Street which runs east-west between Hastings and Kenesaw due to the high traffic volume and transport vehicles which use this road. 42nd street is used as a corridor for truck bypass.

Additionally, numerous critical facilities are located along major transportation routes used for chemical transport. These include: Hastings Police Department, Mary Lanning Hospital, Hasting Fire Department stations (#1 and #2) and rural station, Adams County Fairgrounds, Hastings Sewer Treatment Facility, Whalen Energy Plant, and the county landfill. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Demographics

The following figure displays the historical population trends from 1870 to 2018 (estimated). This figure indicates that the population of Adams County has increased steadily since the 1940s. This is notable for hazard mitigation as communities increasing populations can represent tax revenue growth for the county which could make implementation of mitigation actions more fiscally available.

Figure ADC.2: Adams County Population 1870-2018



Source: U.S. Census Bureau³

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

The following table indicates the State of Nebraska has a slightly higher percentage of people under the age of 5 and between the ages of 5 and 64 than Adams County. Adams County has a slightly higher median age, and a slightly higher percentage of people over the age of 65. This is relevant to hazard mitigation insofar as the very young and elderly populations may be at greater risk from certain hazards than others. For a more elaborate discussion of this vulnerability, please see *Section Four: Risk Assessment*.

Table ADC.3: Population by Age

Age	Adams County	State of Nebraska
<5	6.5%	6.9%
5-64	76.2%	78.1%
<64	17.2%	15%
Median Age	37.4	36.2

Source: U.S. Census Bureau⁴

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

Table ADC.4: Housing and Income

Age	Adams County	State of Nebraska
Median Household Income	\$51,536	\$59,116
Per Capita Income	\$28,783	\$31,101
Median Home Value	\$118,300	\$147,800
Median Rent	\$676	\$805

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

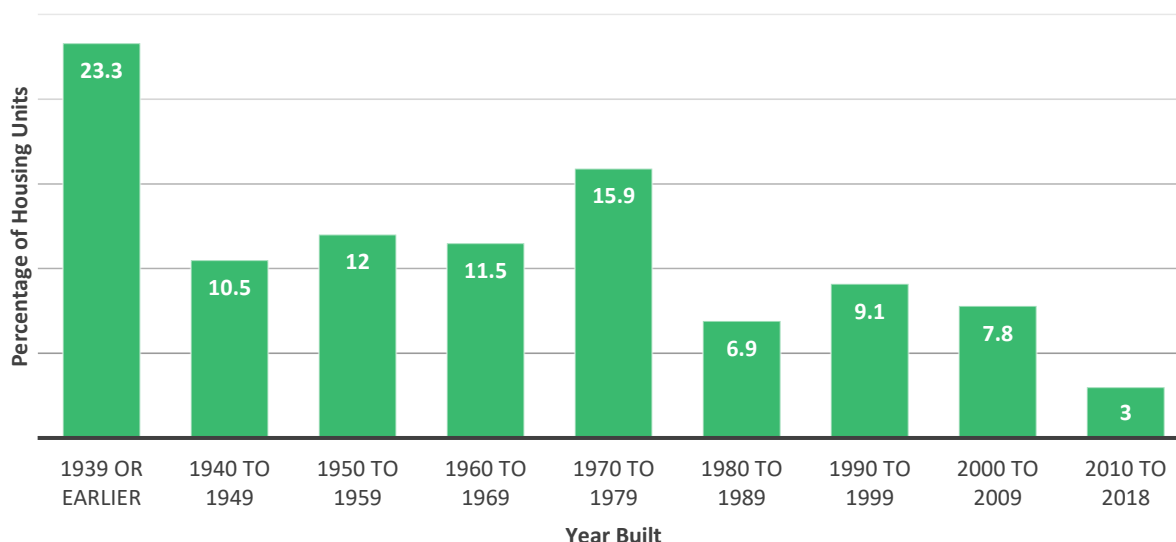
The following figure indicates that the majority of the housing in Adams County was built prior to 1970. According to Census Bureau, the county has 13,873 housing units; with 91.6 percent of those units occupied, which decreased from 2016. Approximately 3.9 percent of the county's housing is classified as mobile homes and 45.8 percent of the county's housing was built before 1960. Housing age can serve as an indicator or risk as structures built prior to state building codes being developed may be at greater risk. The State of Nebraska first adopted building codes in 1987, the state currently has adopted the 2018 International Building Code. Finally, communities with a substantial number of mobile homes may have a higher number of residents vulnerable to the impacts of high winds, tornados, and severe winter storms.

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

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

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

Figure ADC.3: Housing Units by Age



Source: U.S. Census Bureau⁷

Table ADC.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Adams County	12,710	91.6%	1,163	8.4%	8,674	68.2%	4,036	31.8%
Nebraska	754,063	90.8%	76,686	9.2%	498,567	66.1%	255,496	33.9%

Source: U.S. Census Bureau⁸

Employment Factors

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

Table ADC.6: Businesses in Adams County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors (2012)	973	11,637	\$390,997
Total for All Sectors (2016)	971	13,612	\$486,671
Total for All Sectors (2018)	972	13,455	\$510,143

Source: U.S. Census Bureau⁹

Agriculture is also important to the economic fabric of Adams County, and the state of Nebraska as a whole. Adams County’s 420 farms cover 294,550 acres of land. Both the number of farms and acres of harvested cropland have decreased since 2012. Crop and livestock production are

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

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

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

the visible parts of the agricultural economy, but many related businesses contribute as well by producing, processing and marketing farm and food products. These businesses generate income, employment and economic activity throughout the region.

Table ADC.7: Adams County Agricultural Inventory

	2012 Census	2017 Census	Percent Change
Number of Farms with Harvested Cropland	567	420	-35.0%
Acres of Harvested Cropland	340,538 acres	294,550 acres	-15.6%

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

Future Development Trends

Over the past five years the majority of development within Adams County has occurred in the City of Hastings' incorporated area, primarily along Highway 281 North of 33rd Avenue. Some new housing development has occurred on Highway 281 (Freeland Creek), the North Fork and West Fork subdivisions to the north of town, as well as anticipated growth along 42nd Street and along the North and South truck routes. Adams County also remapped the floodplain and adopted the new maps in July 2018.

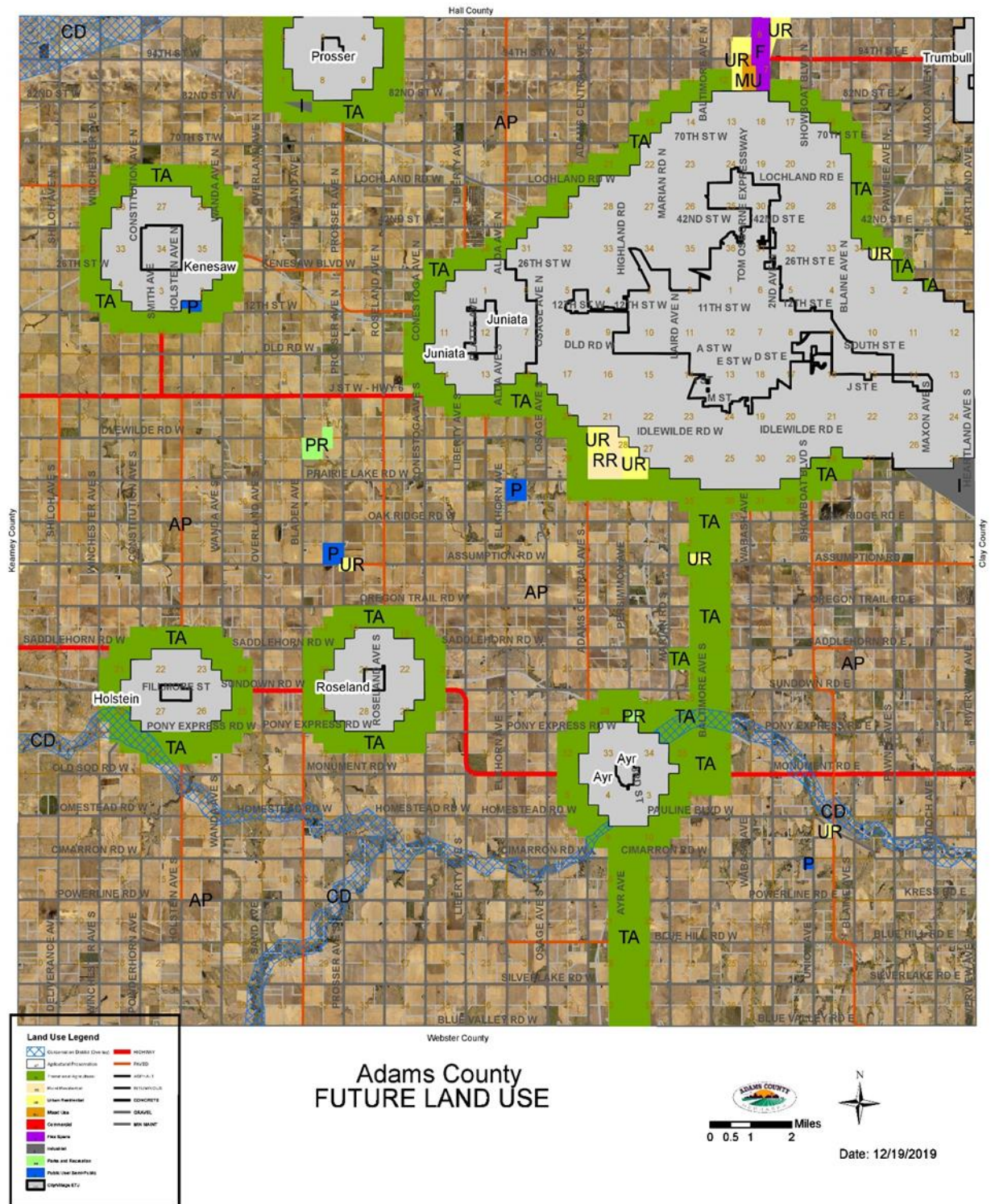
In the next five years new housing development is anticipated to be completed to the south and west sides of Hastings. The local planning team indicated many residents are moving outside of city limits to attend Adams Central Schools. A new Judicial Center was approved by vote in November 2020 and is currently in the planning stages to be constructed at Highway 6 and M Street. The Adams County/Hastings landfill will also be relocated but a new site has not yet been determined.

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

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

SECTION SEVEN: ADAMS COUNTY COMMUNITY PROFILE

Figure ADC.4: Future Land Use Map



Parcel Improvements and Valuation

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

Table ADC.8: Adams County Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
4,859	1,841	\$117,393,615	351	19%	\$26,636,405

Source: County Assessor, GIS Workshop

Table ADC.9: Adams County Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	18-07-2053A-310411	10/9/2018	Structure (storage bldg.) removed from SFHA
LOMA	18-07-2199A-310411	1/3/2019	Structure removed from SFHA
LOMA	19-07-0251A-310411	12/31/2018	Structure (residence) removed from SFHA
LOMA	19-07-0274A-310411	12/10/2018	Structure removed from SFHA

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy in 2019, there 65 chemical storage sites throughout Adams County which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

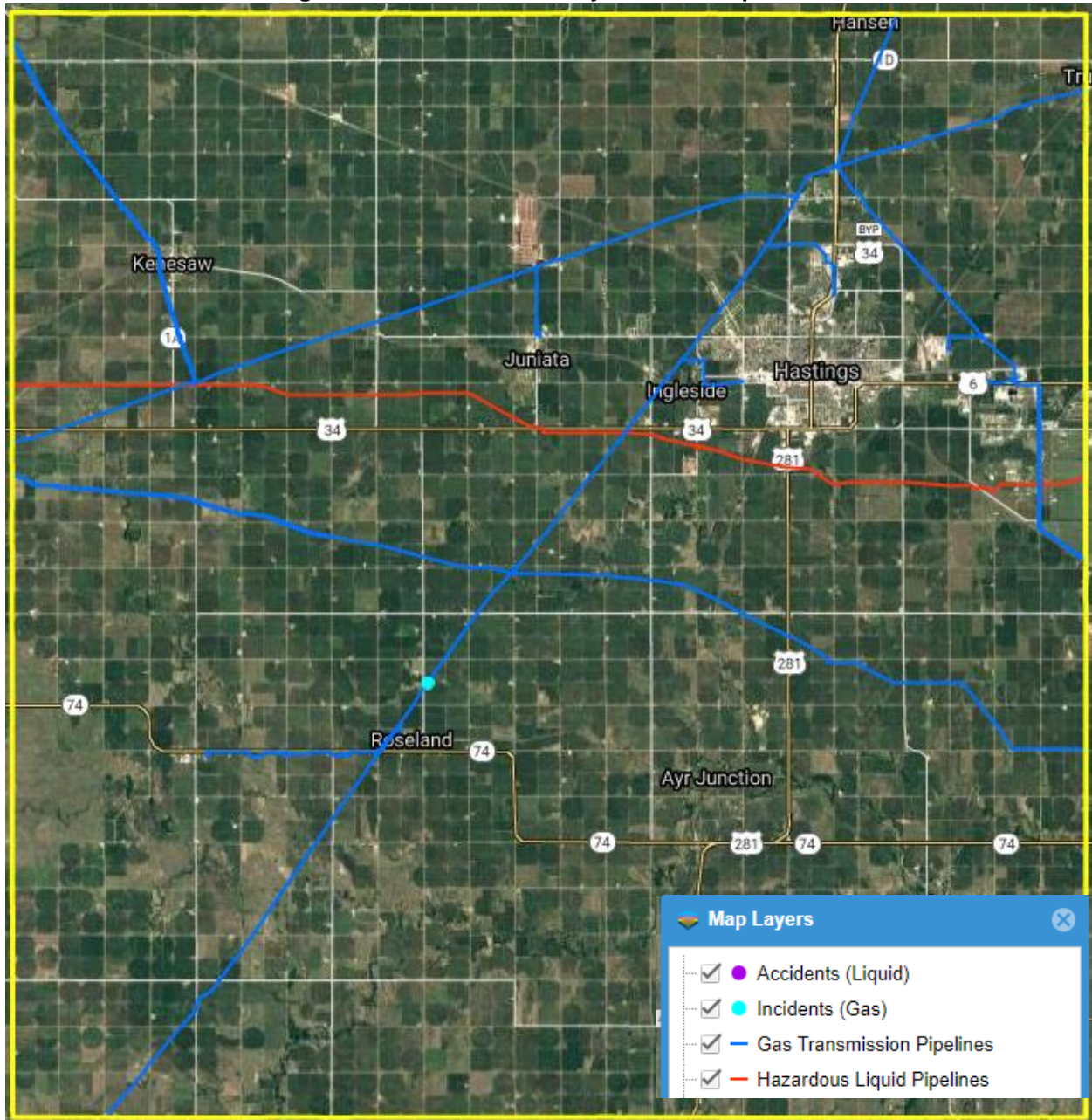
The local planning team noted specific concerns for fixed chemical spill events impacting long term care and nursing homes within Hastings or other critical facilities along 12th Street, 7th Street, and Showboat Blvd. Heritage Place long term care facility is located northwest of the CPI fertilizer plant and could be affected by chemical spill events. The CPI fertilizer plant had a fire event in 2019 but no significant impacts were reported from this event. Other vulnerable population centers at risk include Central Community College, Adams County Public Schools, Hastings Regional Center, Christ Lutheran and Zion school facilities.

Chemical Transportation

Hazardous chemicals, particularly agricultural based chemicals, are commonly transported through the county by a range of transportation methods, including highways, rail, air, and pipeline. The county also has two railroads, one owned by BNSF and the other by UPRR. The BNSF runs north-south, passing through Ayr and Roseland before reaching Hastings. At Hastings, the rail runs east-west, passing through Juniata and Kenesaw before proceeding into adjacent counties. The rail line also has a divergent which runs north-east from Hastings. The UPRR railroad runs north-west to south-east through the county, passing through Hayland and Hastings. The county also has a number of air landing strips dispersed throughout the county. Hazardous chemicals are commonly transported through the county via rail and roadways including anhydrous ammonia, ethanol, diesel, and gasoline. Minor chemical spills have occurred in the planning area including fertilizer and mash spills. In 2018 an anhydrous ammonia spill caused minor disruptions to transportation routes; however, no spills have required extensive cleanups, evacuations, or deep treatment remedy.

The type and quantities of chemicals transported through the county is unknown. While incidents will always occur near or on transportation methods, it is not possible to predict precise locations of possible future events. Proximity of pipelines, rail lines, and highways near critical facilities or vulnerable population centers, including schools, daycares, nursing homes, and/or hospitals, increases overall vulnerability to chemical transportation spills. Private entities, local emergency response units, and state resources have strict regulatory oversight and emergency action plans in place to respond to significant chemical spills.

Figure ADC.5: Adams County Chemical Pipelines



Critical Facilities

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

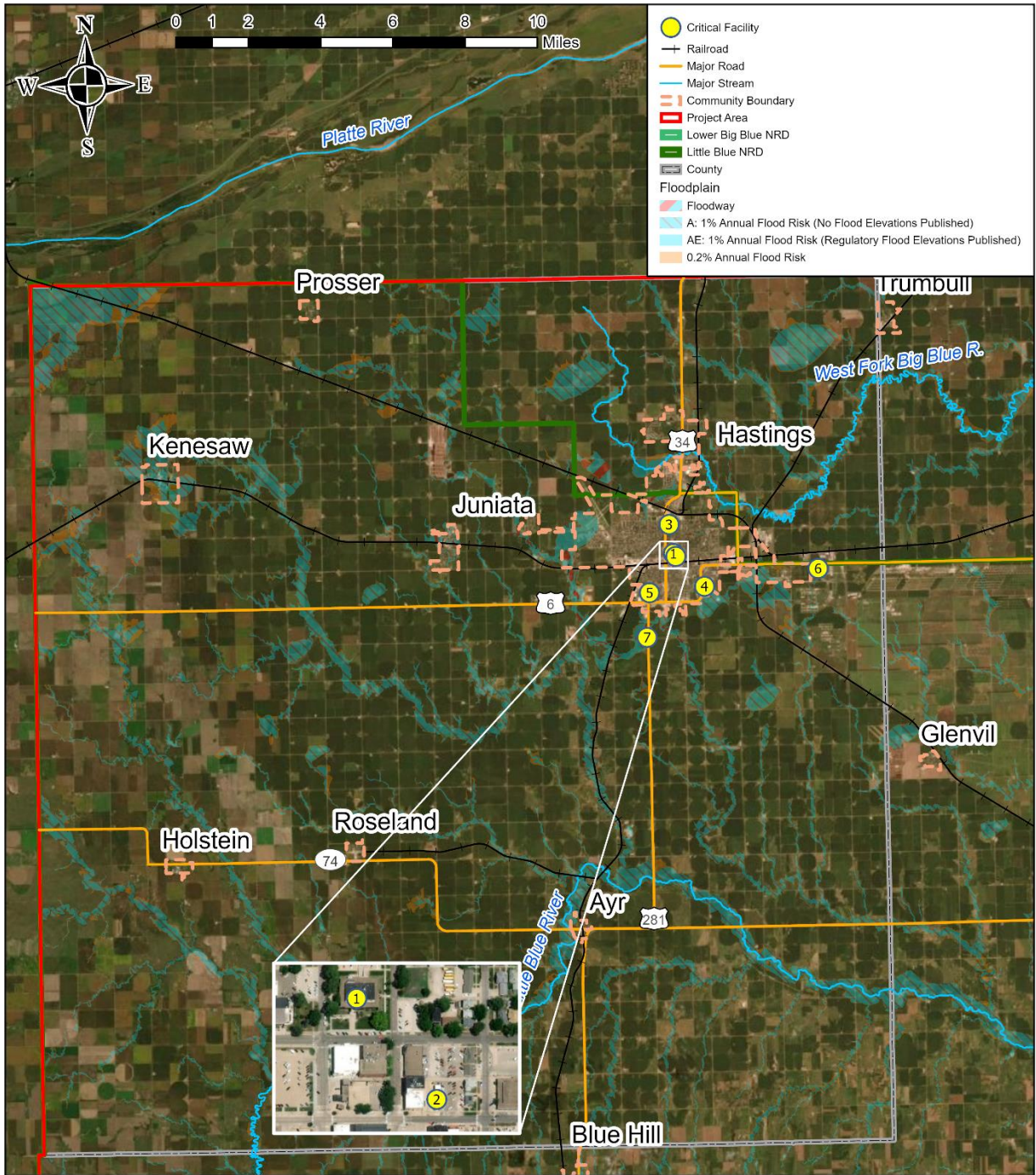
Critical facilities for Adams County are located primarily in the county's incorporated communities. Adams County owns historic property in the Adams County Courthouse. The Adams County Courthouse was constructed in 1887. All critical facilities for Adams County are located outside of the established floodplain. The Adams County Fairgrounds and North Shore Church in Hastings have been identified as Mass Care Facilities in the County LEOP.


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

Table ADC.10: Adams County Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Adams County Courthouse/Offices/ Jail	Y	N	N
2	Transportation	County Maintenance Building	N	N	N
3	Fire & Safety	Adams County EOC / Hastings Rural Fire Department	Y	Y	N
4	Communications	Prairie Lake Comm Tower	N	N	N
5	Shelter	Adams County Fairgrounds	Y	N	N
6	Energy	Whelan Energy Plant	Y	Y	N
7	Energy	NPPD Substation	N	N	N
8	Energy	Southern Power Stations (not mapped)	N	N	N

Figure ADC.6: Adams County Critical Facilities






Created By: NL
Date: 5/20/2021
Software: ArcGIS Pro 2.8.0
File: Blues Critical Facilities.aprx
This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Adams County

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



Kansas

Historical Occurrences

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

Table ADC.11: Hazard Risk Assessment – Adams County

Hazard		Count	Property Damage	Crop Damage ³
Agricultural Disease	Animal Disease ²	10	23 animals	N/A
	Plant Disease ³	18	N/A	\$50,064
Dam Failure ⁷		1	\$0	N/A
Drought ⁸		493 out of 1,504 months	\$0	\$12,798,57,
Earthquakes ¹¹		0	\$0	\$0
Extreme Heat ⁹		Avg 6 days/yr	\$0	\$3,278,107
Flooding ¹	Flash Flood	11	\$10,865,000	\$376,146
	Flood	10	\$1,615,000	
Grass/Wildfire ⁴ 2 deaths		121	1,033 acres	\$319,695
Hazardous Materials	Chemical Fixed Site Spills ⁵	35	\$0	N/A
	Chemical Transportation Spills ⁶	27	\$278,079	N/A
Levee Failure ¹²		0	\$0	N/A
Public Health Emergency ¹³		~2,898 cases; 43 deaths	N/A	N/A
Severe Thunderstorms ¹ 2 injuries	Hail	286	\$64,739,000	\$34,341,971
	Heavy Rain	38	\$400,000	\$4,216,235
	Lightning	2	\$19,008,000	N/A
	Thunderstorm Wind	140	\$6,660,000	N/A
Severe Winter Storms ¹	Blizzard	10	\$25,000	\$750,538
	Extreme Cold/Wind Chill	3	\$0	
	Heavy Snow	3	\$0	
	Ice Storm	7	\$6,120,000	
	Winter Storm	48	\$15,395,000	
	Winter Weather	28	\$30,000	
Terrorism ¹⁰		0	\$0	N/A
Tornadoes and High Winds ¹	High Winds	40	\$1,084,180	\$2,915,833
	Tornadoes	14	\$3,547,000	\$617
Totals		852	\$129,766,259	\$59,047,780

1 – NCEI, Jan 1996-April 2020

2 – USDA, 2014-June 2020

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

SECTION SEVEN: ADAMS COUNTY COMMUNITY PROFILE

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

Table ADC.12: Adams County and Communities Hazard Matrix

Jurisdiction	Agricultural Animal and Plant Disease	Dam Failure	Drought & Ex Heat	Earthquakes	Flooding	Grass/ Wildfire	Hazardous Materials	Levee Failure	Public Health Emergency	Severe Thunderstorms	Severe Winter Storms	Terrorism	Tornadoes and High Winds
Adams County			X		X					X	X		X
Ayr					X					X			X
Hastings		X			X					X	X		X
Juniata			X		X					X	X		X
Kenesaw					X			X			X		X
Prosser										X	X		X

Hazard Prioritization

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

Drought and Extreme Heat

Adams County has experienced periods of drought over the past several years. The largest impacts from drought have been water shortages for agriculture and wildfire suppression. Drought has caused a reported \$12,798,574 in crop damages since 2000. The county defines drought as water shortages sufficient to cause financial effects to agriculture; and in addition to those effects, the county is concerned about the availability of ground water for the public, damage to power lines and infrastructure, a greater risk of fire due to dry conditions, and grassland fire spread.

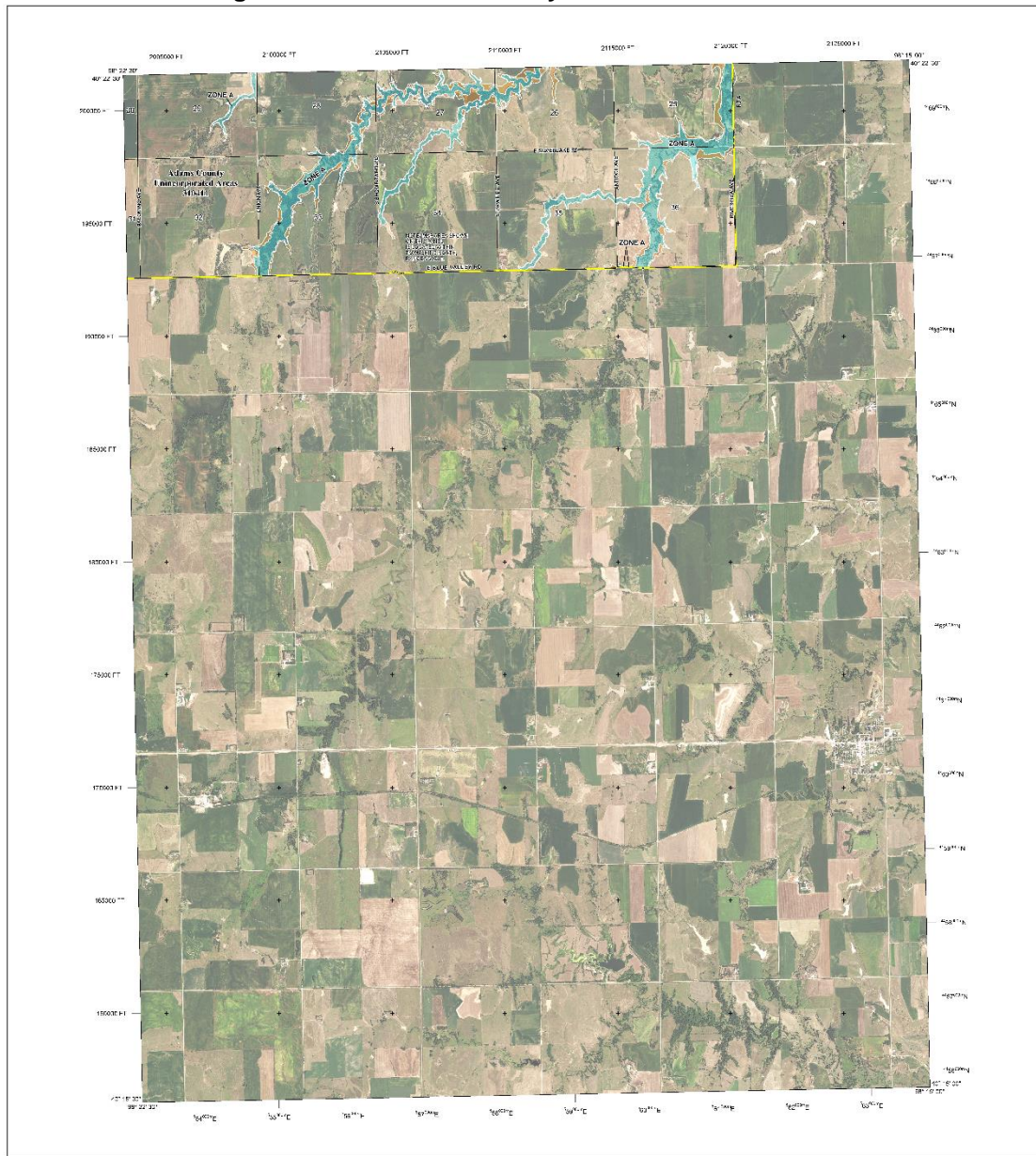
Adams County does not have a drought monitoring board or a drought response plan. Each city and village has its own water supply, and those supplies are currently believed to be sufficient. The county does not have a water conservation program. There are no landscaping ordinances requiring native plantings to preserve water supply. Alternative water sources are not currently needed. The county identified a need for flow meters on irrigation wells for pivot and drip systems.

Flooding

Flooding has occurred throughout Adams County, causing damage to roads and structures. The county is equally concerned about flash flooding and riverine flooding. Areas especially prone to flooding in the county include areas running along streams and rivers and drainage areas. Flood risk areas include along the Little Blue River, 32 Mile Creek, and North Constitution Avenue. The local planning team also noted the northwest portion of the county and around the Village of Ayr are at higher risk of flooding. Flood impacts can cause damage to structures, infrastructure, block transportation routes, and put residents in danger. The county underwent a floodplain map review and update which were completed and adopted in July 2018.

SECTION SEVEN: ADAMS COUNTY COMMUNITY PROFILE

Figure ADC.7: Adams County Flood Risk Hazard Area



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
- With BFE or Depth (Zone A, C, D, X, Y, VE, V2)
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard, Areas of 3% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone B)
- Future Conditions 1% Annual Chance Flood Hazard (Zone E)
- Areas with Reduced Flood Risk due to Love Sec Notices (Zone F)

OTHER AREAS OF FLOOD HAZARD

- Areas Determined to be Outside the 0.2% Annual Chance Floodplain (Zone G)
- Areas of Unassessable Flood Hazard (Zone H)

OTHER AREAS

- Channel, Culvert, or Sluice Structure
- Accretion or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall

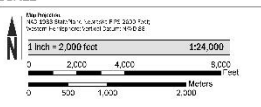
GENERAL STRUCTURES

- Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- Channel Trunkline
- Coastal Trunkline
- Profile Baseline
- Hydrographic Features
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

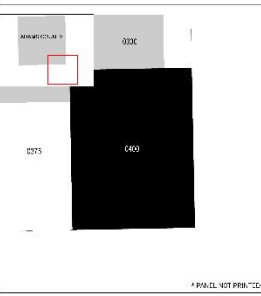
NOTES TO USERS

This information was prepared for the Flood Risk Assessment (FRA) project for Adams County, Nebraska. The information is for informational purposes only and does not constitute a warranty of any kind. The information is not to be used for any purpose other than that for which it was prepared. The information is not to be used for any purpose other than that for which it was prepared. The information is not to be used for any purpose other than that for which it was prepared.

SCALE



PANEL LOCATOR



FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP
ADAMS COUNTY, NEBRASKA
PANEL 400 of 400

Panel Coordinates:
COMMUNITY NUMBER 23333
ADAMS COUNTY 33041
PANEL SUFFIX 0400
VERSION NUMBER 23333
MAP NUMBER 31001C0400C
EFFECTIVE DATE JULY 05, 2018

Past flood events have caused over \$11 million in property and \$376,146 in crop damages. Events have flooded the Ayr campground and surrounding areas as well as flooded homes along the Little Blue River and 32 Mile Creek. The March 2019 flood event caused significant damages to roads and bridges throughout the county and many residents throughout the county experienced flooded basements from the high water table.

Adams County has helped Ayr campground raise their electrical panels to eliminate future flood damages, cleaned the river bank and creeks to improve flow. Additionally three locations along the Little Blue River have undergone bank stabilization projects. The County has identified the need to monitor water levels at Little Blue River at Ayr to allow for earlier warning and detections of rising water levels.

Severe Thunderstorms

Severe thunderstorms include impacts from heavy rain, lightning, hail, and strong winds and occur frequently across the county. Past events have caused over \$90 million in property damages and \$38 million in crop damages. In July, 2014 a storm with 80mph gusts and tennis ball to grapefruit sized hail caused \$100,000 in damages in Holstein while in August a severe storm in Hastings produced 83mph wind gusts and caused \$75,000 in damages.

However, the most damaging event occurred in Hastings in May 2019. This event caused \$19,000,000 in property damages and caused two injuries. The NCEI reported, *“Investigators with the Nebraska State Fire Marshal’s Office determined that lightning was the cause of a very large fire that completely destroyed the Cooperative Producers Inc. Dry Fertilizer Facility. This facility opened in July 2018, and was located just east of the intersection of Highway 6 and Showboat Road. Hastings Rural Fire District, along with firefighters from 4 other fire districts, helped contain the fire. The fire was contained by 3 AM CDT, but firefighters were on scene to address hotspots well into Friday. Two injuries were reported as a result of the fire, both injured parties were treated and released at a local hospital within hours of the fire. The injured parties were semi drivers on site at the time of the fire. Damage is estimated to be at least \$5 million worth of product at the plant with a facility cost of \$14 million.”*

The county’s main concerns about severe thunderstorms are the potential of these storms to cause damage to homes, vehicles, infrastructure, destroy crops, block roads with debris, and put residents in danger. Incorporated subdivisions within Adams County have been impacted repeatedly with roof, siding, and structural damages, particularly from hail events.

Critical electronic records in the county are protected with surge protectors. Critical facilities such as the courthouse do not have portable generators or weather radios. Fewer than 20 percent of the power lines in the county are buried. Currently, there are no identified hazardous trees that need to be removed in the county. The county has worked to improve local early notification systems and public information sharing. Siren testing and community training and education occurs between April and October throughout the county. The county has identified the need for additional education outreach and community shelter designation.

During this plan update, Adams County has decided to include a project to purchase backup generators and construct a storm shelter at the county road department.

Severe Winter Storms

Adams County has experienced many severe winter storms, including ice storms and heavy snowstorms that knock out power and make roads impassable. The main concerns for this hazard in the county are road and school closures, threats to livestock, and power outages. None of the county's critical facilities have been damaged by severe winter storms in the recent past.

The county owns dump trucks and loaders, and the county roads department oversees snow removal. The county believes these resources are sufficient for snow removal. The county has designated snow routes, and uses snow fences at major intersections, hillsides, and areas known to collect drifting snow. Fewer than 20 percent of the power lines in the county are buried.

During this plan update, Adams County has decided to include a project to purchase backup generator and conduct ongoing public education initiatives

Tornadoes and High Winds

The county is concerned that high winds can destroy crops and buildings. None of the county's critical facilities have been damaged by high winds in the recent past. The most significant tornado on record in the county was an F2 tornado in 1999 which caused \$300,000 in reported damages. However, an EF1 tornado in 2015 caused \$1,500,000 in damages near Roseland. The NCEI reported, *"This tornado touched down about 3 miles south of Roseland, clipping the east side of town before lifting just north-northeast of town. This tornado was rated an EF1, with an estimated peak wind speed of 110 MPH. The most widespread damage from this tornado was on the east side of town, and while several homes and outbuildings sustained damage, 2 sustained considerable damage. One of those homes slide from its foundation and another lost its entire roof structure. A large metal building with wood post frame construction was destroyed and tree damage was widespread throughout town. The tornado traveled just a few hundred feet east of Silver Lake School."*

The county has backup systems for its records. The county does not have a community safe room, so residents must rely on their own or a neighbor's basement or storm shelter for safety. Adams County emergency management does offer text alerts to warn of severe weather and has sirens throughout the county which are tested throughout the year. The village promotes emergency preparedness in the community by holding meetings to educate community members about severe weather threats.

Governance

A community's governance structure impacts its capability to implement mitigation actions. The county is governed by a seven-member board of supervisors. The county also has the following offices or departments: assessor, attorney, clerk, county court, district court, emergency management, planning and zoning, register of deeds, roads department, sheriff, treasurer, veterans office, and weed control.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's

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

Table ADC.13: Capability Assessment

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

Survey Components		Yes/No
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree City USA	N/A
	Other (if any)	

Table ADC.14: Overall Capability

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

Plan Integration

Adams County currently has a Comprehensive Plan, a Local Emergency Operations Plan (LEOP), subdivision regulations, and a Zoning Ordinance. The county has applied for and received numerous grants including Hazard Mitigation Assistance (HMGP and PDM/BRIC), EMPG, and assistance to firefighters grants (AFG). The local planning team that the annual municipal budget is generally limited to maintaining current infrastructure, but funds have increased in recent years and new projects can be implemented through funding assistance.

The county's comprehensive plan was last updated in 2010. This plan outlines future growth for the county, with considerations for development in the floodplain and in areas with sensitive soil. This plan does contain a flood hazard overlay later on development maps, which the county uses to limit development in the floodplain. A new floodplain map for the county was approved and adopted in July 2018. The county's subdivision regulations also have requirements for street grading, culverts, draining, sewage disposal, and water supply. The plan also contains a section of Flood and Topographic Hazard Risks.

The county follows state regulations for floodplains, and actively works to restrict development in the floodplain. Per the County Comprehensive / Land Use Plan, "The County should not encourage development within identified 100-year floodplains and in some instances any identified 500-year floodplain. In addition to development, locating major confinements within these areas should also be discouraged due to the potential of animal loss and contamination during high water periods."

The LEOP, which was last updated in March 2018, is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management, and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county.

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

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

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

Plan Maintenance

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

The county last reviewed their section of the HMP in 2016 with the local planning team which includes Adams County Emergency Management, Planning and Zoning, Board of Supervisors, and County Roads Departments. The local planning team will review the Community Profile annually at a minimum. The public will be notified and involved in the update review process

through social media outreach, updates to the county website, and various meetings including Board of Supervisors, Combined Services, and Local Emergency Planning Committee meetings.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	CHEMICAL SAFETY WITH FIRE DEPARTMENTS
DESCRIPTION	Provide local fire departments with a list of chemicals utilized by private industries
HAZARD(S)	Hazardous Materials
STATUS	The county has established a process to share this information and will continue to provide information regularly.

MITIGATION ACTION	ENHANCE FLOODPLAIN REGULATIONS
DESCRIPTION	Continue to enforce local floodplain regulations for structures located in the 100-year floodplain. Strict enforcement of the type of development and elevations of structures should be consistent through issuance of building permits by any community or county
HAZARD(S)	Flooding
STATUS	Floodplain requirements are enforced as appropriate on an ongoing basis. Additional updates or regulations have not been identified as a need at this time.

MITIGATION ACTION	FLOODPLAIN ZONING REGULATIONS
DESCRIPTION	Implement zoning regulations to limit development in the floodplain
HAZARD(S)	Flooding
STATUS	Floodplain requirements are enforced as appropriate on an ongoing basis. Additional updates or regulations have not been identified as a need at this time.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Emphasis should be put on severe winter storm preparedness.
HAZARD(S)	All hazards
STATUS	Public awareness and education events are sponsored/co-sponsored with ACEM throughout the year.

MITIGATION ACTION	TREE TRIMMING
DESCRIPTION	Identify and remove hazards limbs and/ or trees. Conduct tree trimming near power lines in the City of Hastings
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes
STATUS	This is an ongoing action for the County conducted by the roads department.

Continued Mitigation Actions

MITIGATION ACTION	BACK-UP GENERATOR
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters. A back up generator is needed at the courthouse.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$15,000 - \$30,000+ per generator
FUNDING	Tax funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	EMA, Maintenance Dept.
STATUS	Have submitted a NOI and currently awaiting HMA funding.

MITIGATION ACTION	COMPREHENSIVE DISASTER/EMERGENCY RESPONSE PLAN AND EXERCISE
DESCRIPTION	Ensure critical facilities have severe weather plans in place. Practice or implement training for plans as needed.
HAZARD(S)	All hazards
ESTIMATED COST	\$5,000
FUNDING	Tax funds, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	EMA
STATUS	Continued education and grant program designated projects are being identified.

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)	Drought and Extreme Heat
ESTIMATED COST	\$5,000+
FUNDING	General Fund, HMGP, BRIC
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	County Board
STATUS	This project has not yet been started.

SECTION SEVEN: ADAMS COUNTY COMMUNITY PROFILE

MITIGATION ACTION	HAZMAT TRAINING
DESCRIPTION	Ensure fire departments are trained and equipped to handle hazardous materials accidents in the City of Hastings
HAZARD(S)	Hazardous Materials
ESTIMATED COST	Varies
FUNDING	Tax funds, HMGP, BRIC, FMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Hastings Fire and Rescue, EMA
STATUS	Additional training and equipment is needed to fulfill SERC designation.

MITIGATION ACTION	PROTECT AND IMPROVE ROADS AND BRIDGES
DESCRIPTION	Conduct a protection of roads and bridges in three sites
HAZARD(S)	Flooding
ESTIMATED COST	Unknown
FUNDING	Tax funds, HMGP, BRIC, FMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	County Roads Department
STATUS	Showboat Blvd and Pawnee Creek/Antioch Creek bank stabilizations along the Little Blue River are needed.

MITIGATION ACTION	REMOVE FLOW CONSTRICTIONS
DESCRIPTION	Identify and remove hazardous limbs and/ or trees from Flat Creek Channel.
HAZARD(S)	Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$20,000
FUNDING	Tax funding, HMGP, BRIC, FMA
TIMELINE	3-5 years
PRIORITY	Medium
LEAD AGENCY	County Roads Dept
STATUS	This project has not yet been started.

MITIGATION ACTION	SAFE ROOMS/STORM SHELTER
DESCRIPTION	Build a storm shelter at the County Road Department Shop
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes
ESTIMATED COST	\$10,000+
FUNDING	Tax funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	County Roads Dept., EMA
STATUS	This project has not yet been started.

Removed Mitigation Actions

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

MITIGATION ACTION		PREVENT INTERSECTIONS FROM ICING	
DESCRIPTION	Provide protection of intersections from icing		
HAZARD(S)	Severe Winter Storms		
REASON FOR REMOVAL	This action is met by regular maintenance and is not a priority for this plan.		

MITIGATION ACTION		REMOVE TREES AND DEBRIS FROM WEST FORK BIG BLUE RIVER CHANNEL	
DESCRIPTION	Identify and remove hazardous limbs and/ or trees from West Fork Big Blue River Channel		
HAZARD(S)	Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds		
REASON FOR REMOVAL	This project was identified as no longer needed.		

COMMUNITY PROFILE

VILLAGE OF Ayr

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

Local Planning Team

Table AYR.1: Village of Ayr Local Planning Team

Name	Title	Jurisdiction
Randy Kort	Village Vice Chairman	Village of Ayr

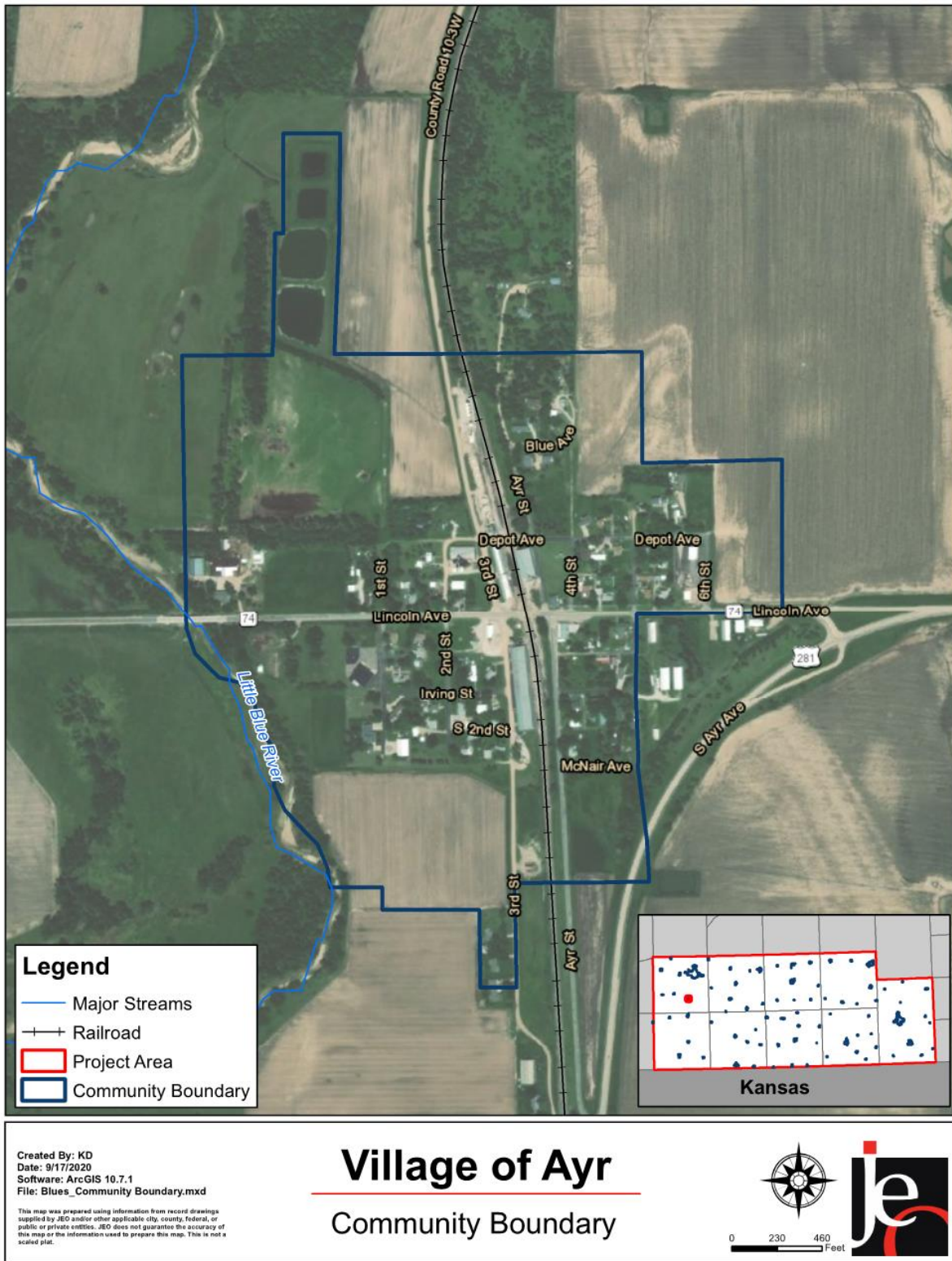
Location and Geography

The Village of Ayr is located in the south central portion of Adams County. The Village of Ayr covers an approximate area of one quarter of one square miles. Major waterways within the area include Little Blue River, which runs north to south just west of the community. The area is not heavily forested, nor is located in a geographic area of the state prone to landslides. Most of Ayr lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Ayr's major transportation corridors include State Highway 281, which runs north-south from south Ayr. Highway 281 accommodates on average 2,355 vehicles per day, 320 of which are heavy commercial vehicles. Highway 74 runs east-west through Ayr, which accommodates on average 420 vehicles per day, 45 of which are heavy commercial vehicles. Hazardous chemicals are transported through Ayr along Highway 74; however, no major spill events have occurred. Of additional concern is speed limit control for Highway 74 as it passes through the community. Both the fire station and Village Hall are located long this main transportation route, potentially at risk if a transportation chemical spill or crash should occur. Ayr has one railroad, the Burlington Northern Santa Fe line. The BNSF runs north-south through Ayr before reaching Hastings, Nebraska. At Hastings, the rail runs east-west and ultimately connects Hastings to Lincoln and Omaha. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

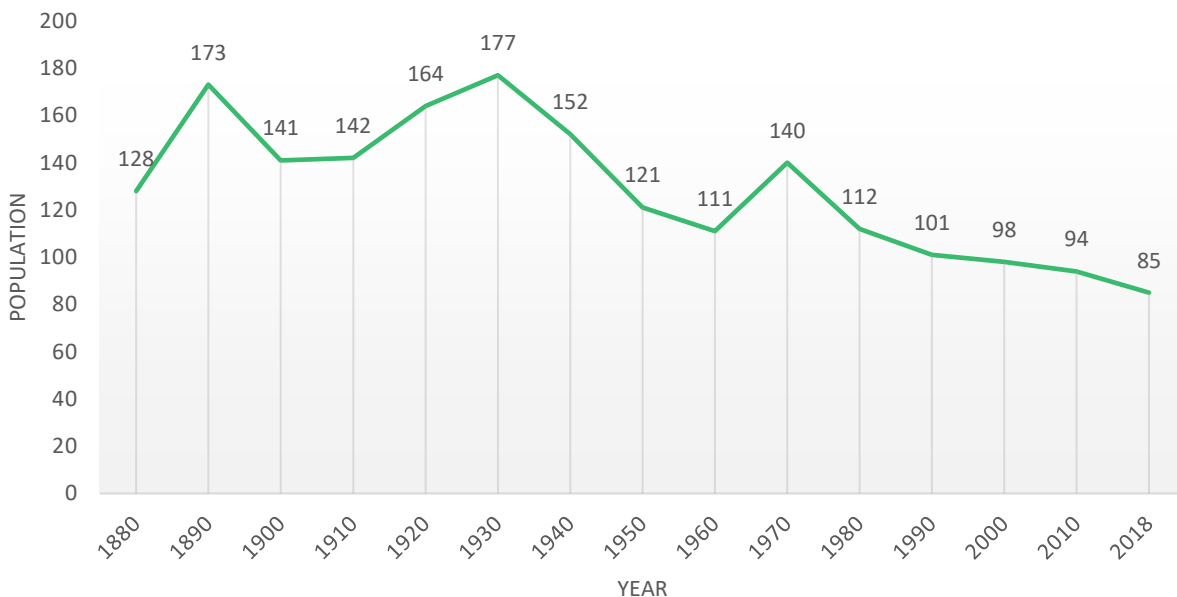
Figure AYR.1: Village of Ayr Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that the population of Ayr has declined since 1970. This is relevant to hazard mitigation because communities with declining populations may have a higher level of unoccupied housing that is not being maintained. Further, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. The village's population accounted for less than 1% of Adams County's Population in 2018.

Figure AYR.2: Ayr Population 1880-2018



Source: U.S. Census Bureau¹²

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

- Older.** The median age of Ayr was 45.1 years old in 2018, compared with the county average of 37.4 years. Ayr's population has grown older since 2010, when the median age was 33.5 years old. Ayr had a larger proportion of people under 20 years old (33.0%) than the county (27.9%).¹³ The largest cohort in Ayr is aged 40-44.
- More ethnically diverse.** In 2010, 100% of Ayr's population was White, non-Hispanic. By 2018, 5% of Ayr's population was Black or African American. During that time, Adams County had: 1% Black or African American, grew from 0% to 1% American Indian, 1% Asian, and declined from 4% to 2% other races from 2010 to 2018 respectively.¹⁴

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

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

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

- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Ayr was 9.4% while the county was 13% in 2018.¹⁵

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Ayr included Construction, Wholesale Trade, Professional services, and Education. In comparison Adams County's which included Manufacturing, Retail, and Education.¹⁶
- **Household income.** Ayr's median household income in 2018 is not available, however, the county's median household income is approximately \$51,536.¹⁷
- **More long-distance commuters.** About 12.5% percent of workers in Ayr commuted for fewer than 15 minutes, compared with about 61% of workers in Adams County. About 32.5% of workers in Ayr commute 30 minutes or more to work, compared to about 14.4% of the county workers.¹⁸

Major Employers

Almost all residents who work commute to Hastings, Nebraska. Two, however, are employed within Ayr. The local post office employs one person and Ayr Ag also employs one. Many people living in Ayr are retired.

Housing

In comparison to the Adams County, Ayr's housing stock was:¹⁹

- **More owner occupied.** About 78.9% of occupied housing units in Ayr are owner occupied compared with 68.2% of occupied housing in Adams County in 2018.
- **Similar share of aged housing stock.** Ayr and Adams County have a similar share of houses built prior to 1970 (57.9% compared to 57.3%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Ayr contains fewer multifamily housing with five or more units per structure than the county (0% compared to 7.1%). About 84.2% of housing in Ayr was single-family detached, compared with 75.5% of the county's housing. Ayr has a larger share of mobile and manufactured housing (15.8%) compared to the county (3.9%)

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

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

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

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

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

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

Future Development Trends

No new development, residential or commercial, has occurred in the past five years. The NH3 Refrigeration and Storage distribution center was removed in 2017, which reduced the risk of fixed site chemical spills to the village. There are currently no plans for development in the next five years. According to census data, Ayr's population is declining. The local planning team attributes this decline to young people moving away from the village.

Parcel Improvements and Valuation

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

Table AYR.2: Ayr Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
102	54	\$2,212,825	2	4%	\$73,340

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical storage site in Ayr which houses hazardous materials and it is located four miles south of the village. No chemical spills have occurred here, according to the local planning team. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. In 2017, the village removed the NH3 Refrigeration and Storage distribution center which housed chemicals. No critical facilities or vulnerable populations are located near chemical fixed sites.

Table AYR.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Fairfield Non-Stock Co-op Assn	4110 W Blue Hill Rd	No

Source: Nebraska Department of Environment and Energy²⁰

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

Critical Facilities

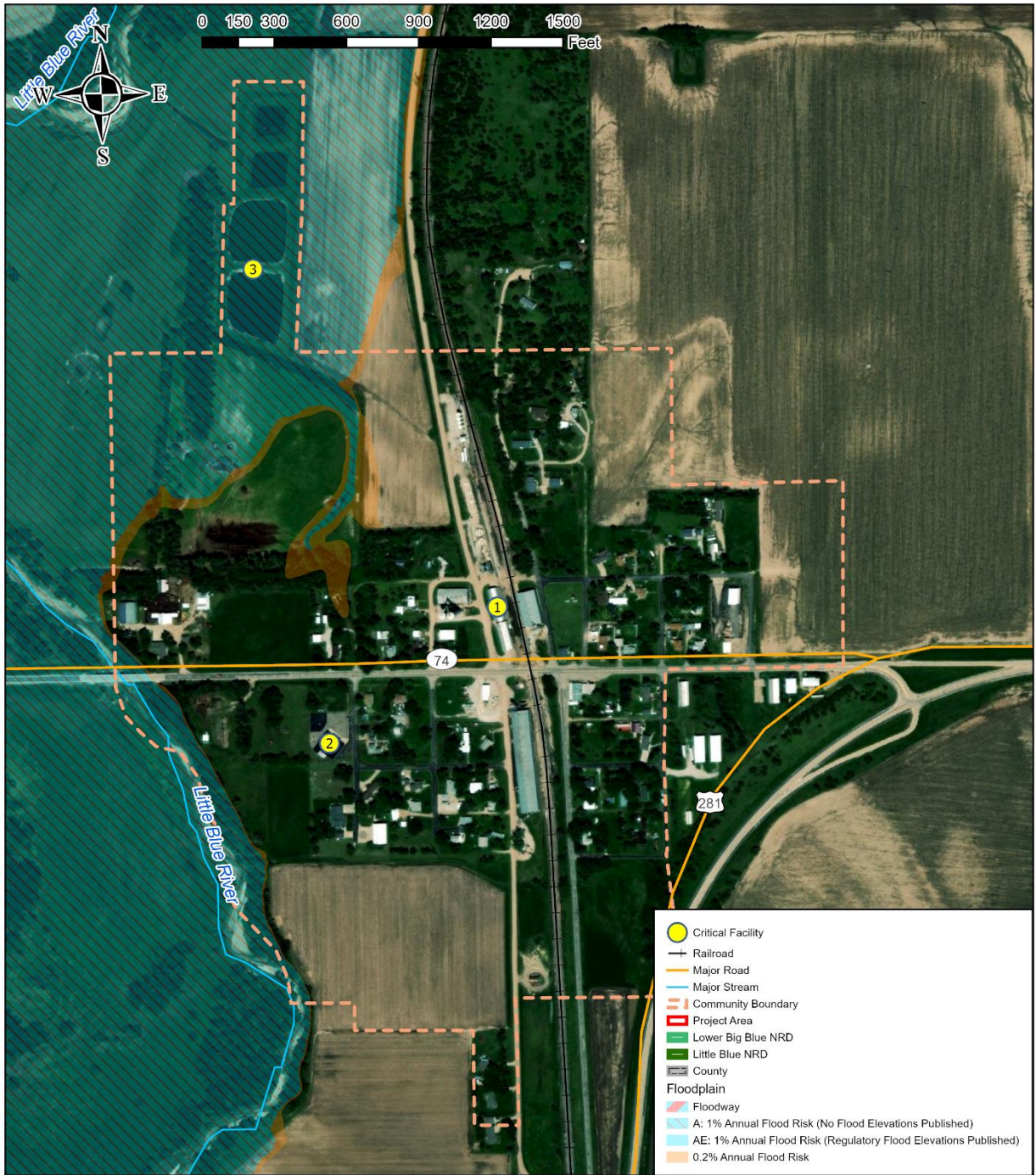
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

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

Table AYR.4: Ayr Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Hall	Y	Y	N
2	Safety and Security	Village Hall	Y	N	N
3	Health and Medical	Sewer Lagoons	N	N	Y

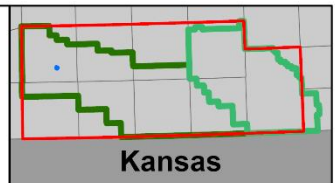
Figure AYR.3: Ayr Critical Facilities



Created By: NL
 Date: 5/20/2021
 Software: ArcGIS Pro 2.8.0
 File: Blues Critical Facilities.aprx
 This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Village of Ayr

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



Historical Occurrences

See the Adams County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

The Village of Ayr has suffered damages resulting from flooding, and flash flooding is its primary flooding concern. Ayr's primary flooding vulnerability is in the western side of the community. In July 1999, for instance, campers and RVs were damaged in the Crystal Lake Recreation Area. The Little Blue River, which runs north to south and is located just west of the municipal boundaries, poses the greatest flood risk to the community. This proved especially true during the spring flooding events of 2019, when the Little Blue River rose out of its banks and flooded nearby roads. The Little Blue River flooded again in 2020, requiring the evacuation of campers at the Crystal Lake Recreation Area. Frequent flooding since the last plan update resulted in the destruction of electrical service at the Crystal Lake Recreation Area. Since then, the village replaced and raised all electrical utilities in the area out of the floodplain. The camp sites provide a consistent revenue stream for the village and are a safety priority. In addition to installing a new all-hazards siren, the local fire department monitors the river levels and has an evacuation plan in place should significant flooding occur.

While Ayr does not have a designated FIRM map a floodplain mapping study is currently be conducted by NeDNR/FEMA which includes Ayr. At this time, they have opted to not participate in the NFIP. This decision will be revisited following the completion of the floodplain mapping study.

Severe Thunderstorms

Structural damage is the main concern from severe thunderstorms in the village. On June 13, 2017, thunderstorm winds in excess of 50 mph blew through Ayr, but did not cause any reported damages. Then on May 1, 2018, a strong storm system produced three small tornadoes, as well as 1-inch hail. No reported injuries or damages occurred from this event. Finally, on July 7, 2019, a severe thunderstorm event brought winds of 56 mph that damaged two livestock sheds, causing \$10,000 in damage. The village's main concerns from hailstorms include structural and personal property damage, especially within its public park and recreational area. Critical facilities within the village have not been damaged by hail. However, the surrounding region is very prone to thunderstorms that produce severe hail.

The village installed an outdoor all-hazard warning siren at the local fire department. Currently, village residents do not receive information regarding hail resistant building materials with permits, nor are critical facilities fitted with hail resistant building materials. Other current mitigation actions

include using surge protectors to avoid the loss of critical, electronic municipal records. While critical facilities do not have weather radios, the fire hall does have a generator. Very few power lines in the village are buried. Municipal facilities are insured against hail damage. The town does not have a tree board.

Tornadoes and High Winds

The village is at risk from tornadoes and high winds. A major tornado complex on May 22, 2004 included an EF-1 tornado which impacted the village. This tornado damaged center pivot systems on its seven-mile path. On May 1, 2018, severe storms created three small tornadoes that traveled through several counties, including Adams. No people or property was damaged during this storm. There is no community safe room in the village, but residents can shelter in both the fire hall and Village Hall, as well as their basements in their homes or neighbors' homes. It is not believed that critical facilities in the village have been struck by tornadoes in the past, but the surrounding region has experienced several tornadoes.

Adams County Emergency Management offers text alerts that service the village. In addition, the village installed an outdoor all-hazard warning siren at the local fire department. The community also has a mutual aid agreement with a neighboring fire department, should rescue services be needed following a tornado.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Ayr has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member board and the following offices: a clerk, water commissioner, and solid refuse commissioner. The Hastings Rural Fire Department and Adams County Emergency Management could also assist the Village of Ayr with hazard mitigation activities.

Capabilities

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

Table AYR.5: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operational Plan	County
	Floodplain Ordinance	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Building Codes	No
	Floodplain Management Plan	No

SECTION SEVEN: VILLAGE OF AYR COMMUNITY PROFILE

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

Table AYR.6: Overall Capability

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

Plan Integration

The Village of Ayr is included in the Adams County Local Emergency Operations Plan (LEOP), which was last updated in March 2018. The LEOP is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management, and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county.

The village utilizes county zoning and building code regulations for any future development. The county follows state regulations for floodplains, and actively works to restrict development in the floodplain. Per the County Comprehensive / Land Use Plan, “The County should not encourage development within identified 100-year floodplains and in some instances any identified 500-year floodplain. In addition to development, locating major confinements within these areas should also be discouraged due to the potential of animal loss and contamination during high water periods.” The Village of Ayr does not have any other identified planning mechanisms in which hazard mitigation goals are identified.

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

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.

- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Village Board. The profile was last updated in January 2019. The local planning team will review the plan bi-annually and will include the public in the review and revision process through social media posts and sharing information at village board meetings open to the public.

Mitigation Strategy

Completed Mitigation Actions

Mitigation Action	Outdoor All-Hazard Warning Siren
Description	Install an outdoor all-hazard warning siren at the fire station at 4th and Lincoln
Hazard(s)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	New siren has been installed.

Continued Mitigation Actions

Mitigation Action	Backup Generator
Description	Install a backup power generator for village hall
Hazard(s)	All hazards
Estimated Cost	\$60,000
Funding	Tax dollars, HMGP, BRIC
Timeline	2-5 years
Priority	Medium
Lead Agency	Village Board
Status	Generator has been installed at the fire hall, but one is still needed at the Village Hall.

Mitigation Action	Backup Municipal Records
Description	Develop protocol for backup of municipal records
Hazard(s)	All hazards
Estimated Cost	\$100+ for external hard drive, Staff time
Funding	Tax dollars
Timeline	2-5 years
Priority	Medium
Lead Agency	Village Clerk
Status	This project has not yet been started.

Mitigation Action	Floodplain Mapping/Remapping
Description	Conduct floodplain mapping and enroll in NFIP
Hazard(s)	Flooding
Estimated Cost	N/A
Funding	Tax dollars, General Fund
Timeline	2-5 years
Priority	Low
Lead Agency	Village Board
Status	While Ayr has not yet joined the NFIP, they will consider doing so based on the results of the floodplain mapping study.

Mitigation Action	Safe Rooms/Storm Shelters
Description	Build a community storm shelter at city hall
Hazard(s)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	\$30,000
Funding	Tax dollars, HGP, BRIC
Timeline	5+ years
Priority	Low
Lead Agency	Village Board
Status	The project is currently under discussion, and capacity for the shelter has not yet been determined.

COMMUNITY PROFILE

CITY OF HASTINGS

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

Local Planning Team

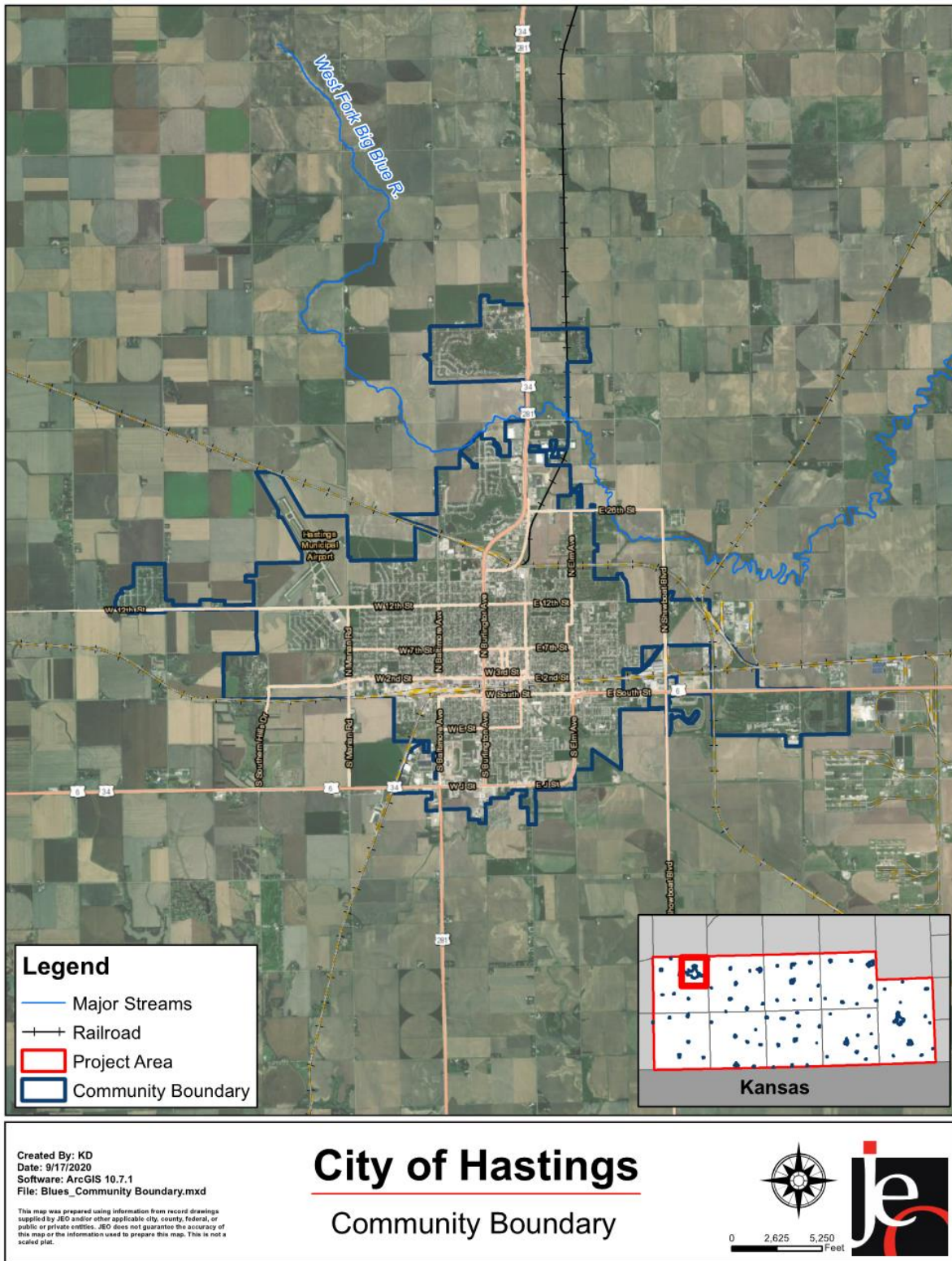
Table HAS.1: City of Hastings Local Planning Team

Name	Title	Jurisdiction
Tara Ogren	Civil Engineer / Floodplain Administrator	City of Hastings
Marty Stange	Environmental Director	City of Hastings
Lisa Parnell-Rowe	Director of Development Services	City of Hastings
Brad Starling	Fire Chief	Hastings Fire and Rescue
Ron Pughes	Emergency Manager	Adams County

Location and Geography

The City of Hastings is located in the northeastern portion of Adams County. The City of Hastings covers an approximate area of 13.6 square miles. Major waterways within the area include the West Fork Big Blue River, which enters the community in the northeast before depositing water in Lake Hastings, which is in the northern part of the city, and the South Branch of the West Fork Big Blue River which enters the community from the northwest before entering Hastings NW Reservoir northwest of the City. Two miles downstream of the Hastings NW Reservoir, the South Branch enters Lake Hastings at the north end of the city. The confluence of the South Branch with the West Fork Big Blue River is approximately 1 mile downstream from Lake Hastings. The North Branch of the West Fork Big Blue River confluence with the West Fork Big Blue River is approximately 1 mile downstream from this point. There are also two smaller lakes in the city. One in Heartwell Park, with a concrete channel running through the park before becoming a rock and boulder stabilized tributary running through Hastings College campus and depositing into the West Fork Big Blue River. The second lake is a small man-made lake on the western edge of the city used for irrigation. The area is not heavily forested, nor is in a geographic area of the state prone to landslides. The city lies in the plains topographic region and is surrounded by agricultural fields.

Figure HAS.1: City of Hastings Jurisdictional Boundary



Transportation

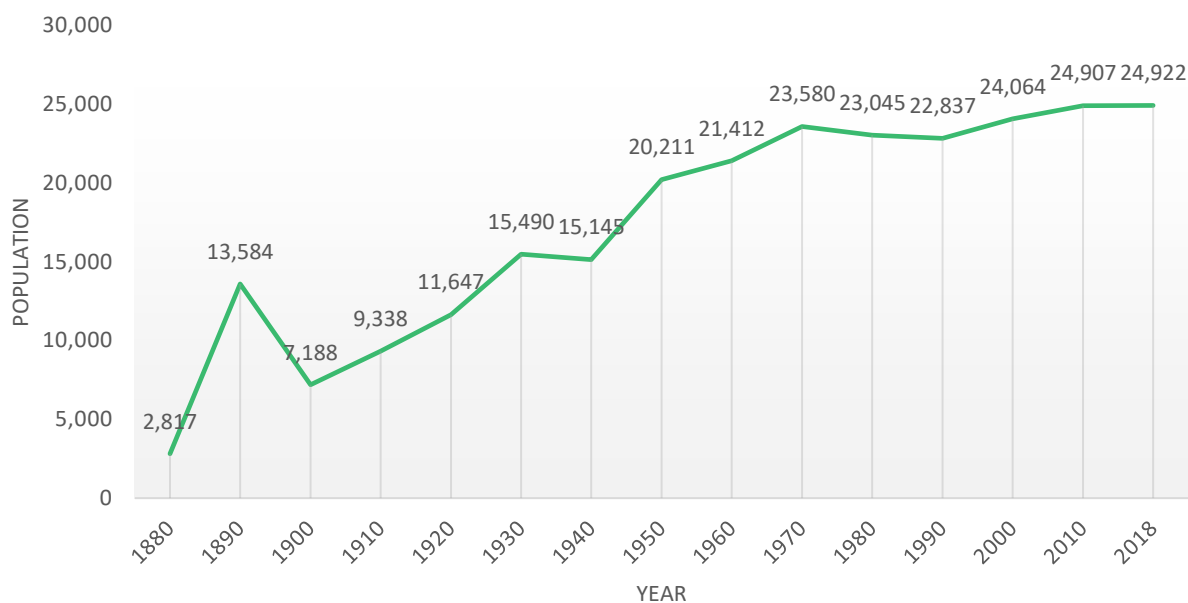
Hastings' major transportation corridors include State Highway 281, which runs north-south through the center of Hastings and State Highway 6. NE-281 accommodates on average 10,155 vehicles per day, 1,010 of which are heavy commercial vehicles. State Highway 6 runs east-west through the southern portion of Hastings and accommodates on average 3,250 vehicles per day, 415 of which are heavy commercial vehicles. These routes are the primary evacuation and commuter routes in town.

Hastings has three rail lines, Union Pacific and Burlington Northern line. At Hastings, the Union Pacific line travels from southeast to northwest. Hastings acts as a hub for the Burlington Northern line, rail lines lead east-west and northeast-south. The county maintains Showboat Boulevard two miles east of Burlington (NE-281) which is designated as a heavy truck bypass road. Currently, this route is underutilized by larger trucks. The city also has Baltimore Avenue, half a mile west of Burlington (NE-281) as a major corridor. Hazardous chemicals, specifically ammonia, are transported regularly along major corridors. Railroad transportation of chemicals includes many hazardous chemicals that are being transported through the center of the city, from the northwest to the southeast, and from the south to an interchange located at Baltimore Avenue and South Street. There are both liquid and solid chemicals transported via Burlington Northern and UP railroads during all times of the day and evenings. Even a non-caustic release would impose specific hazards to the community and disrupt services. According to the Pipeline and Hazardous Materials Safety Administration, thirty five chemical transportation spills have occurred in Hastings since 1990 which have caused a total of \$278,580 in property damages. No injuries or fatalities were associated with these events.

There are a few critical facilities located along transportation routes. The city maintains Don Henry Power Center, Minnesota Substation, and 6th Avenue Substation which are located along the BNSF route. There is a large store of ammonia near the BNSF railroad yard at Equalizer located just northeast of WEC. At other times, other agriculture facilities will have onsite storage for ammonia and manufacture of urea. If a train were to derail near this storage area, a major ammonia release may result. Additionally, there are above ground natural gas regulator sets at the North Town Border Station, propane tanks along BNSF, and west 2nd and Marian tallgrass natural gas regulator station which are all located close to the railroad tracks.

Demographics

The following figure displays the historical population trend from 1910 to 2018 (estimated). This figure indicates that the population of Hastings grown steadily since 1910. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures. Net population growth may increase the number of people and properties vulnerable to hazards. The city's population accounted for 79% of Adams County's population in 2018.

Figure HAS.2: Hastings Population 1880-2018

Source: U.S. Census Bureau²¹

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

- **Younger.** The median age of Hastings' was 36 years old in 2018, compared with the county average of 37.4 years. Hastings' population has grown older since 2010, when the median age was 35.8 years old. Hastings had a larger proportion of people under 20 years old (28.3%) than the county (27.9%).²²
- **More ethnically diverse.** Between 2010 and 2018, Hastings population was 1% black, grew 0% to 1% American Indian, declined 2% to 1% Asian, declined 5% to 3% other races, and 2% two or more races. During that time, Adams County had: 1% (Black or African American), grew from 0% to 1% American Indian, 1% Asian, and declined 4% to 2% other races from 2010 to 2018 respectively.²³
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Hastings was 14.7% while the county was 13% in 2018.²⁴

Employment and Economics

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

- **Same mix of industries.** Employment sectors accounting for 10% or more of employment in Hastings and Adams County included Manufacturing, Retail, and Education.²⁵
- **Household income.** Hastings' median household income in 2018 (\$47,528) is lower than the county's median household income (\$51,536).²⁶

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

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

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

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

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

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

- **Fewer long-distance commuters.** About 73.8% percent of workers in Hastings commuted for fewer than 15 minutes, compared with about 61% of workers in Adams County. About 9.4% of workers in Hastings commute 30 minutes or more to work, compared to about 14.4% of the county workers.²⁷

Major Employers

Major employers in Hastings include the City of Hastings, the local school district, the municipal airport, Hastings College, and the hospital. Approximately 5% of residents commute to Grand Island and less than 2% of residents commute to Kearney for employment.

Housing

In comparison to the Adams County, Hastings' housing stock was:²⁸

- **Less owner occupied.** About 64.1% of occupied housing units in Hastings are owner occupied compared with 68.2% of occupied housing in Adams County in 2018.
- **Greater share of aged housing stock.** Hastings has a greater share of houses built prior to 1970 than Adams County (60.3% compared to 57.3%).
- **More multi-family homes.** The predominant housing type in the city is single family detached and Hastings contains more multifamily housing with five or more units per structure than the county (8.8% compared to 7.1%). About 70.7% of housing in Hastings was single-family detached, compared with 75.5% of the county's housing. Hastings has a slightly greater share of mobile and manufactured housing (4.0%) compared to the county (3.9%).

There are currently approximately 546 mobile homes in the City of Hastings and within its 2-mile radius. Approximately 52.8 percent of the community's housing was built before 1960, but 239 new single-family homes have been built since 2015. This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further, unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

Future Development Trends

Hastings has experienced development over the past five years and all development is guided by the city's comprehensive plan, which contains detailed land use maps promoting smart and safe growth. In the past five years, new development did not occur in particularly hazardous areas.

Over the last five years approximately 239 new homes have been constructed in the city. New housing developments east of East Osborne Drive and north of 26th Street, which consists of approximately 52 new duplex and townhouse units have been built. A number of these units back onto the 1% and 0.2% probability flood hazard areas. Housing development of approximately four homes received FEMA Letter of Map Revision Based on Fill (LOMA-F) in May 2019 and were removed from the Special Flood Hazard Area (SFHA). These homes are slab-on grade. The city

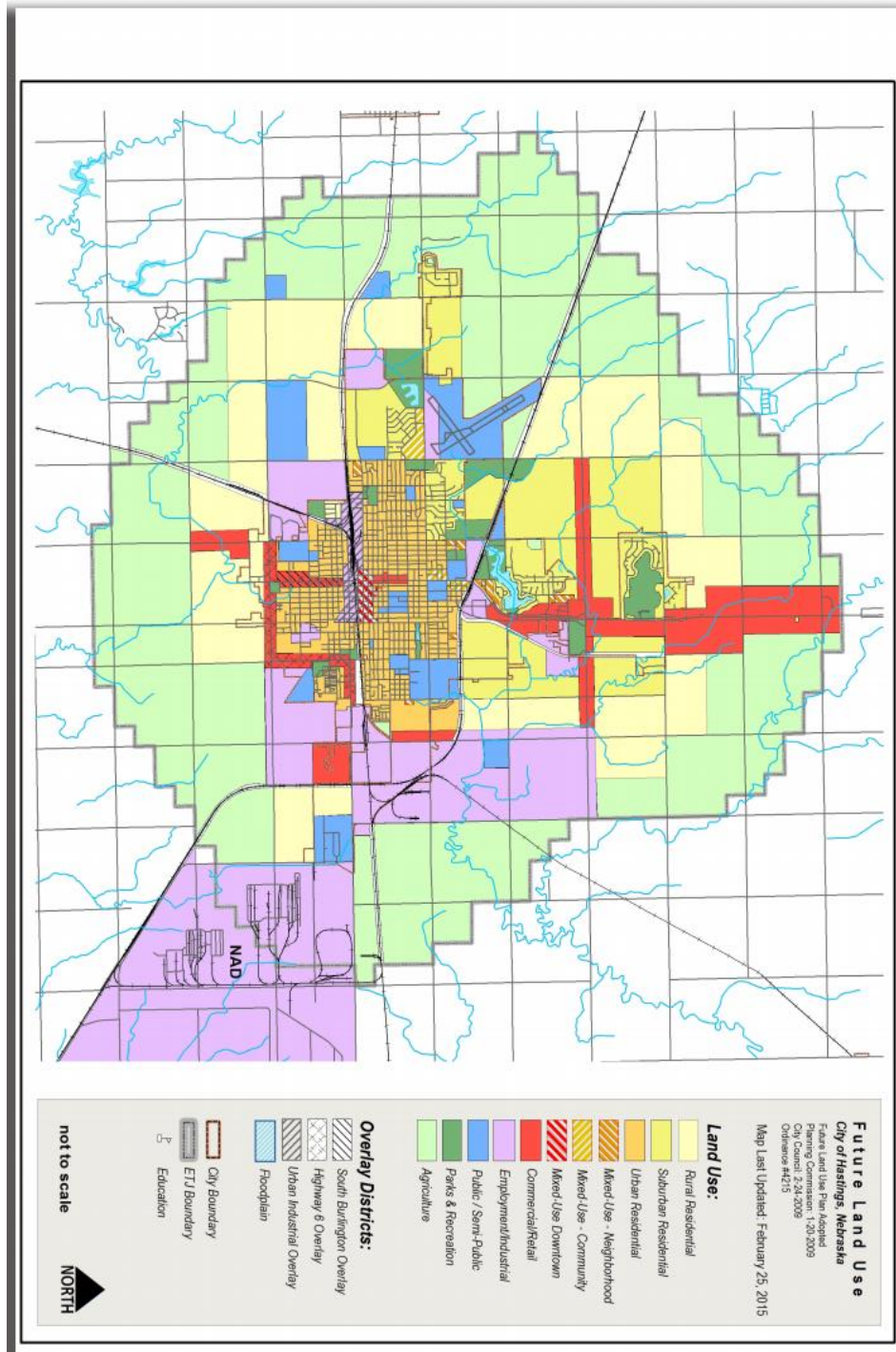
²⁷ United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

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

SECTION SEVEN: CITY OF HASTINGS COMMUNITY PROFILE

required that “no basements” language be included on the final plat. Approximately 22 new houses have been built in the Lake Hastings area. However, the majority of lake-front lots have already been built, and current construction is well above the lake and flood hazard area. Approximately 20 new houses have been built in the Skye Loch and Lochland Meadows subdivisions near Lochland Country Club.

Figure HAS.3: Hastings Future Land Use Map



As for business development, approximately 15 new businesses have been constructed in areas associated with new residential development, primarily in the area around 33rd St and NE-281. These businesses include Freddy's fast food, Coach's Corner gas station, Cimarron Plaza, Arby's, My Place Hotel, Hampton Inn Hotel, as well as three 28-plex apartments. One new road has been paved: 42nd Street from NE-281 to Baltimore Avenue. Since 2015, there have been 94 total structures demolished in the City of Hastings, typically due to age and dilapidation. These range from garages and dwellings to commercial buildings.

Population growth rate is <1 percent. Many elderly people from rural Nebraska move to Hastings to retire and stay in assisted living communities. The city also experiences the typical 'brain drain' of individuals not returning home after college and youth moving out of the community for education and work.

Over the next five years, the city will use its comprehensive plan to ensure development occurs in a safe and smart manner. Most of the growth in Hastings is expected to occur along the HWY-281 corridor. Growth undertaken along this transportation corridor will be guided by the comprehensive plan and done so in way to limit vulnerability to future transportation incidents.

Numerous additional housing developments are anticipated including:

- Pioneer Trail Flats – 16 residential lots; along and south of 33rd St. East of Burlington Ave/HWY 281; Southwest edge of subdivision abuts flood hazard area
- Trail Ridge Addition – 74 residential lots; along and south of 33rd St. East of Burlington Ave/HWY 281; South portion of subdivision abuts flood hazard area
- Cimarron Meadows subdivisions – anticipates 15 to 25 new residential lots; located north of 33rd St and just east of Baltimore Ave; no flood risk associated with this development
- Shadow Ridge – anticipates 15 to 30 new residential lots; located north of 33rd St and just east of Baltimore Ave; no flood risk associated with this development
- Lakeview Subdivisions – anticipates 15 to 30 new residential lots; located north of Lake Hastings and east of Baltimore Ave; no flood risk associated with this development
- Westbrook Village – anticipates 10 to 30 new residential lots; located on the far west side of Hastings along and north of 12th St.; the west edge of the subdivision abuts the 100-year flood hazard area.

New businesses or industries anticipated in the city in the coming five years include:

- New rendering plant (from meat slaughter houses in Central NE) for biodiesel production planned east of the Community College and west of the Coal Fired Power Plant along Hwy 6. As of winter 2020 this is in the planning phases.
- North Park Commons anticipates 3-5 new businesses in the next 5 years along 33rd St. East of Hwy 281
- Hastings Mall re-development anticipates 2-4 new multi-family residential buildings and 3-5 new commercial/mixed use buildings at the old Imperial Mall site, just south of the airport on West 12th St.
- New Retina Center along Hwy 281, north of Lochland Rd.
- CPI Dry & Liquid Fertilizer plants on east HWY 6 and Showboat Blvd. (under construction as of 2020)

The city noted they also anticipate additional growth along HWY 281 North of 33rd to the edge of the Hastings 2-mile extraterritorial jurisdictional line, primarily re-development. There is also some potential for re-development along the South Burlington Avenue corridor and further south along HWY 281 south of Hastings, as well as the HWY 6 corridor through Hastings. As the east Hwy 6

project is completed, re-development is anticipated. However, poor stormwater drainage is a concern in the area due to flat topography.

Parcel Improvements and Valuation

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

Table HAS.2: Hastings Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
10,500	9,014	\$1,101,530,865	117	1%	\$59,277,345

Source: County Assessor, GIS Workshop

Table HAS.3: Hastings Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	18-07-1687A-310001	7/6/2018	Structure (apartment) removed from SFHA
LOMA	18-07-1687A-310001	10/18/2018	Portion of property removed from SFHA
LOMA	18-07-2027A-310001	9/17/2018	Structure (residence) removed from SFHA
LOMA	18-07-2181A-310001	10/24/2018	Structure removed from SFHA
LOMA	18-07-2187A-310001	10/12/2018	Structure (residence) removed from SFHA
LOMA	18-07-2195A-310001	10/12/2018	Structure removed from SFHA
LOMA	18-07-2209A-310001	11/26/2018	Structure (residence) removed from SFHA
LOMA	19-07-0097A-310001	12/4/2018	Structure removed from SFHA
LOMA	19-07-0955A-310001	5/2/2019	Property removed from SFHA
LOMA	19-07-1099A-310001	4/25/2019	Structure (residence) removed from SFHA
LOMA	19-07-1274A-310001	5/2/2019	Property removed from SFHA
LOMA	19-07-1501A-310001	7/18/2019	Structure (residence) removed from SFHA
LOMA	20-07-0326A-310001	1/15/2020	Structure removed from SFHA
LOMA	20-07-1334A-310001	8/7/2020	Property removed from SFHA

Source: FEMA Flood Map Service Center 20-07-1334A-310001

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 49 chemical storage sites throughout Hastings which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. The local planning team noted ammonia spills are the largest concern for the city, especially with major corridors at risk.

Spills at Equalizer Midwest could potentially impact Highway 6 and other agricultural facilities in the east Highway 6 corridor. The local planning team also noted the Cold Storage location at the softball complex (Hwy 281 and 42nd Street) has ammonia on site for refrigeration. Flanders's

Provisions also stores ammonia in cold storage. The Noah's Ark meat processing plant is not currently listed on the Tier II records but likely also stores ammonia and/or other hazardous chemicals. Critical facilities or vulnerable populations including the power plant, Good Samaritan Village long term care facility, College View senior living facility, and community college are located near chemical storage fixed sites and are at risk during spills.

Table HAS.4: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?	Identified by City as Facility with Extremely Hazardous Chemicals
A-1 Fiberglass	4495 S Gunpowder Cir	N	-
AGP Grain Marketing LLC	2315 W Highway 6	N	-
AGP Soy Processing	2801 E 7th St	N	Yes
Airgas USA LLC	101 E J St	N	-
ARS Nebraska LLC	250 S Maxon Ave	N	-
Aurora Co-op Equalizer Whse	4965 E South St	N	Yes
Bruckman Rubber Co	101 S Saint Joseph Ave	N	-
Chief Ethanol Fuels Inc	4225 E South St	N	Yes
Consolidated Concrete Co	2000 N Baltimore Ave	Y	-
Cooperative Producers Inc	265 N Showboat Blvd	N	Yes
CPI Dry Fertilizer Storage	E South St	Y – 0.2%	-
CPI Hastings Hub Agronomy Ctr	1030 S Heartland Ave	N	-
Don Henry Power Center	110 N Marian Rd	N	-
Dutton-Lainson Company	1601 W 2nd St	N	Yes
Eaton Torque Control Products	300 E 39th St	N	-
Equalizer Midwest Inc Terminal	4955 E South St	N	Yes
Fast Stop	806 E South St	N	-
Flanders Provision Company LLC	2001 Summit Ave	N	-
Flowserve	1341 W 2nd St	N	Yes
G & G Warehouse & Distribution	4495 S Gunpowder Cir	N	-
Gavilon Fertilizer LLC	4935 E J St	N	Yes
Hastings Irrigation Pipe Co	1801 E South St	N	-
Hastings Natural Gas	Highway 6/34	N	-
Hastings Pollution Control Ctr	2120 E 26th St	Y	-
Hastings Potable Water	N/A	N/A	-
Hastings Regional Center	4200 W 2nd St	N	-
Hastings Sewer Collection Sys	Jct O St & S Burlington Ave	N	-
Hastings WWTF Maxon Avenue	1851 S Maxon Ave	Y	-
JM Eagle	146 N Maple Ave	N	Yes
Kansas Avenue Peak Shaver	Kansas Ave	U	-
Lawrence Industries Inc	2720 S Cornhusker Ave	N	Yes
Matheson Tri-Gas Inc	1120 S Burlington Ave	N	-
NE ARNG UTES-1	6698 E J St	N	-
Noah's Ark Processors LLC	1009 W M St	Y	-
North Denver Station	1228 N Denver Ave	N	Yes
Nutrien Ag Solutions	150 N Blaine Ave	Y	Yes
Paperworks Industries Inc	2000 Summit Ave	N	Yes
Pump & Pantry 24	1630 E South St	N	-
Rosen's Inc Hastings Warehouse	4965 E South St	N	-
Sunbelt Rentals 414	406 E J St	N	-
Thermo King Corporation	1800 Centennial Ave	N	Yes

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Facility Name	Address	Located in Floodplain?	Identified by City as Facility with Extremely Hazardous Chemicals
Titan Machinery Inc	1660 S Baltimore Ave	N	-
Van Diest Supply Co	1600 W G St	N	Yes
Verizon Wireless GP NE09 North	1700 N Kansas Ave	N	Yes
Werner Construction Shop	2430 E 7th St	N	-
West Avenue Peak Shaver	131 N West Ave	N	-
Whelan Energy Center	4520 E South St	N	Yes
Windstream Communications	321 N Saint Joseph Ave	N	Yes
Winfield United	5780 E J St	N	Yes

Source: Nebraska Department of Environment and Energy²⁹

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The local planning team noted all city parks have reinforced bathrooms which, during the summers specifically, can be used by residents to seek shelter during heavy storm events. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table HAS.5: Hastings Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Food, Water, Shelter	Adams Central Elementary	N	Y	N
2	Food, Water, Shelter	Adams Central High School	N	N	N
3	Food, Water, Shelter	Alcott Elementary	N	N	N
4	Other	Alexander Park	(Bathrooms)	N	N
5	Other	American Legion Park	(Bathrooms)	N	N
6	Other	Aqua Park	(Bathrooms)	N	N
7	Other	Brickyard Park	(Bathrooms)	N	N
8	Other	Carter Field	(Bathrooms)	N	N
9	Food, Water, Shelter	Catholic Schools	N	N	N
10	Other	Chautauqua Park	(Bathrooms)	N	N
11	Food, Water, Shelter	City Auditorium	N	Y	N
12	Food, Water, Shelter	City Hall	N	N	N
13	Hazardous Materials	City Landfill	N	Portable	N

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

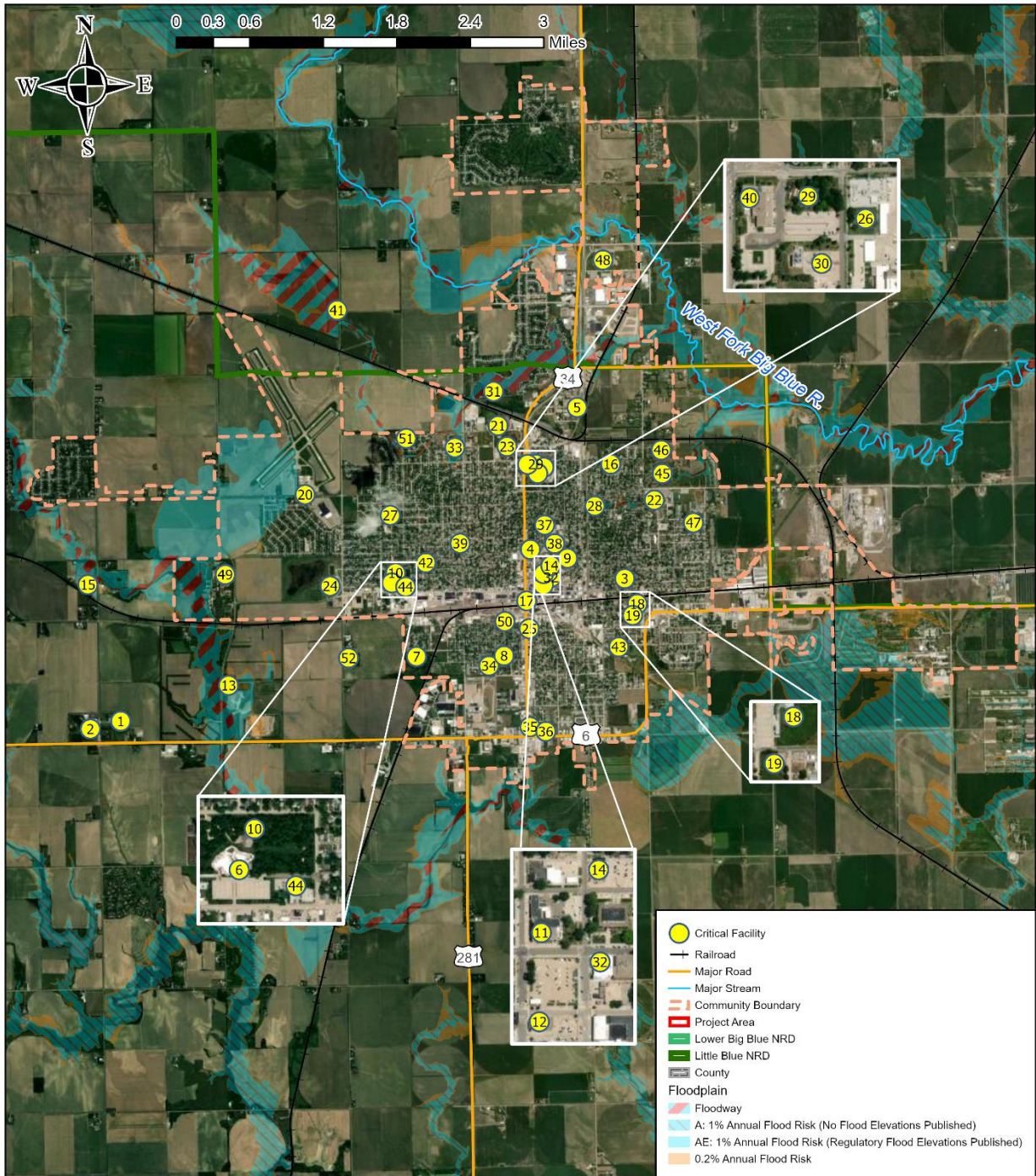
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CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
14	Other	County Annex	N	N	N
15	Transportation	County Roads	N	Portable	N
16	Other	Crossier Park	(Bathrooms)	N	N
17	Other	Downtown Park	(Bathrooms)	N	N
18	Other	Duncan Park	(Bathrooms)	N	N
19	Other	Harms Park	(Bathrooms)	N	N
20	Transportation	Hastings Airport	N	N	N
21	Transportation	Hastings Bus Barn	N	N	N
22	Food, Water, Shelter	Hastings College	N	N	Y
23	Food, Water, Shelter	Hastings High School	N	N	N
24	Food, Water, Shelter	Hastings Middle School	N	N	N
25	Safety and Security	Hastings Police Station	N	Y	N
26	Energy	Hastings Utilities Park	N	Y	N
27	Food, Water, Shelter	Hawthorne Elementary	N	N	N
28	Other	Heartwell Park	(Bathrooms)	N	Y
29	Other	Highland Park	(Bathrooms)	N	N
30	Safety and Security	Highland Park Fire Station / Adams County EOC	N	Y	N
31	Other	Lake Hastings Park	(Bathrooms)	N	N
32	Food, Water, Shelter	Library	N	N	N
33	Food, Water, Shelter	Libs Park	(Bathrooms)	N	Y
34	Food, Water, Shelter	Lincoln Elementary	N	N	N
35	Other	Lincoln Park	(Bathrooms)	N	N
36	Safety and Security	Lincoln Park Fire Station	N	Y	N
37	Food, Water, Shelter	Longfellow Elementary	N	N	N
38	Health and Medical	Mary Lanning Hospital	N	Y	N
39	Food, Water, Shelter	Morton Elementary	N	N	N
40	Other	Museum	N	N	N
41	Safety and Security	Northwest Hastings Dam	N	N	Y
42	Other	Oswego Field	(Bathrooms)	N	N
43	Safety and Security	Parks Dept.	N	Portable	N

SECTION SEVEN: CITY OF HASTINGS COMMUNITY PROFILE

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
44	Other	Parks Office	N	Portable	N
45	Other	Parkview Cemetery	(Bathrooms)	N	N
46	Other	Parkview Cemetery	(Bathrooms)	N	N
47	Other	Rader Park	(Bathrooms)	N	N
48	Food, Water, Shelter	Smith Softball Complex	N	N	N
49	Other	State-HRC	N	N	N
50	Transportation	Street Office	N	Portable	N
51	Food, Water, Shelter	Watson Elementary	N	N	N
52	Food, Water, Shelter	Zion Lutheran School	N	N	N

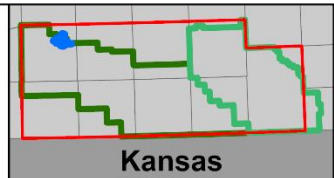
Figure HAS.4: Hastings Critical Facilities




 Created By: NL
 Date: 5/21/2021
 Software: ArcGIS Pro 2.8.0
 File: Blues Critical Facilities.aprx
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City of Hastings

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



Historical Occurrences

See the Adams County community profile for historical hazard events.

Hazard Prioritization

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

Dam Failure

Hastings is protected by the Hastings Northwest Dam (NE01726), a high-hazard dam located 1.9 miles northwest of Hastings. It is important to note that while the dam is classified as a high hazard, hazard level correlates to areas at risk if a failure were to occur rather than the likelihood of failure. The Adams County LEOP outlines roles and responsibilities related to dam failure response including notification requirements and evacuation. The 2015 Hastings Dam Emergency Action Plan identified 110 homes at risk if dam failure were to occur, including Watson Elementary School. Due to the sensitive nature of this information, dam inundation mapping is not included here.

If this dam were to fail, a large portion of the city would be inundated. The city has noted that the dam needs a remote reservoir sensor to provide early notification of hazardous conditions. During severe storms in August 2019, dam observers notified the Upper Big Blue NRD (the dam owner) of overtopping conditions. The emergency spillway also should be evaluated to ensure conditions can accommodate emergency flows. The April 2020 DNR dam inspection noted that this emergency spillway cannot be distinguished from the rest of the farm field. The local planning team also noted this reservoir experiences a lot of illegal dumping and rodent holes along the structure which compromises overall capacity.

The City of Hastings, Adams County, UBBNRD, and the NeDNR Dam Safety Division have been working together to address dam safety and maintenance schedules. A tabletop exercise is scheduled to be held in 2021.

Additionally, Hastings Dam (NE00165) is a significant hazard dam located on Lake Hastings in northern Hastings is of concern. This dam is owned by the city. A major concern for this dam is due to the car dealership parking lot within the regulatory spillway and downstream of the dam. A private car lot's parking lot was built in the floodway downstream of Lake Hastings Dam in the early 1990s. The parking lot continually experiences flooding issues and the city has performed clearing and channel maintenance downstream to help prevent backflow. The city has noted the property owner would benefit from working with a private engineer to better accommodate the car lot for flooding (i.e. reduce pavement footprint, install permeable pavement, engineer an above ground leveed floodway). Specific concerns for flood impacts here include swept cars during flood events. The 2020 NeDNR dam inspection report for the Hastings Dam noted the primary spillway capacity is insufficient for a 1% or greater annual flood event. This dam should be evaluated for

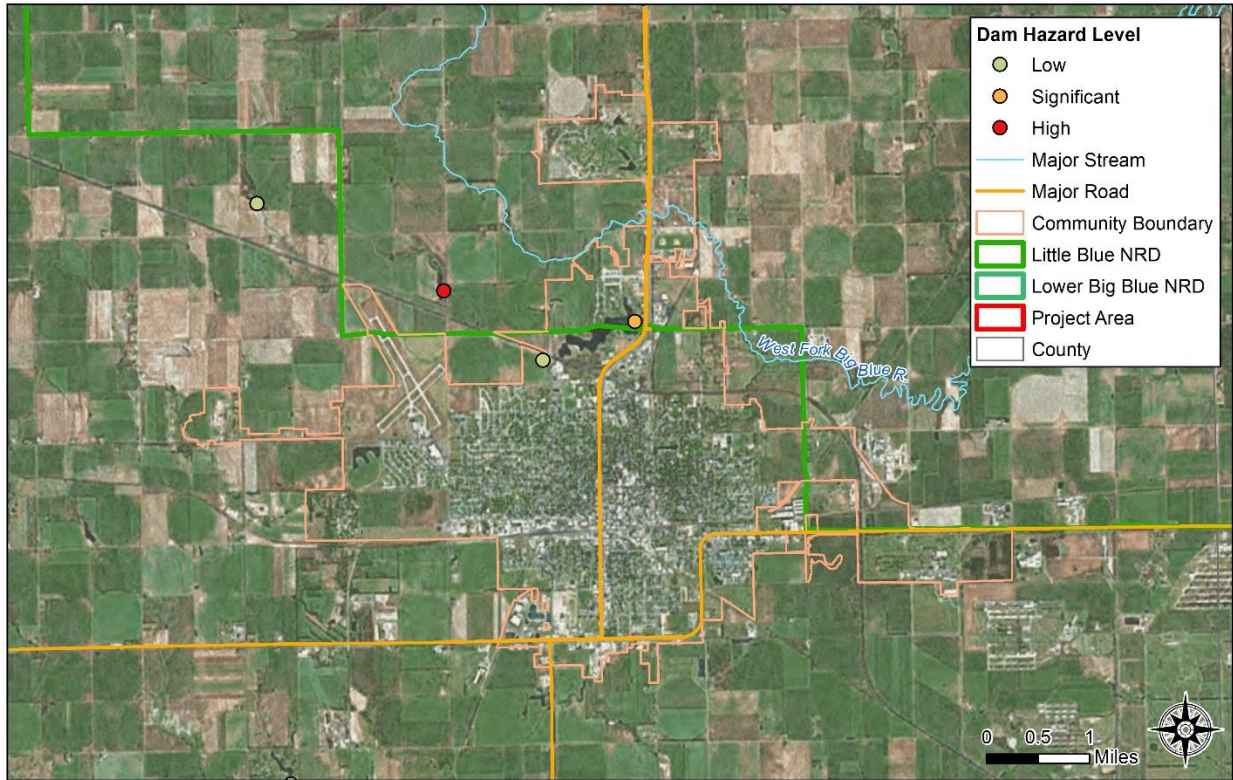
mitigation strategies which may include armoring the downstream slope or expanding spillway capacity. If the Hastings Dam were to fail, access into and out from Hastings to the north would be restricted.


Table HAS.6: Dams of Concern in Hastings

NIDID	Dam Name	NID Height	NID Storage	Owner
NE01726	Hastings Northwest Dam	28 ft	1,155 acre-ft	UBBNRD
NE00165	Hastings Dam	15 ft	455 acre-ft	City of Hastings

Source: USACE National Inventory of Dams³⁰

Figure HAS.5: Hastings Dams



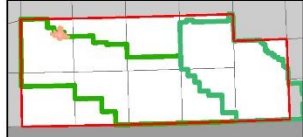


Created By: MW
Date: 5/28/2021
Software: ArcGIS 10.8.1
File: HastingsDams.mxd

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City of Hastings

Dam Inventory



The Utecht Dam is upstream of the Hastings NW Dam and is classified as low hazard potential. No other upstream dams would likely impact the City of Hastings in the case of a dam failure event.

30 U.S. Army Corps of Engineers. "National Inventory of Dams." Accessed August 2020. [https://nid.sec.usace.army.mil/ords/f?p=105:1:1:::~](https://nid.sec.usace.army.mil/ords/f?p=105:1:1:::)

Flooding

Flooding has impacted the city in the past both from floodplain areas and from poor stormwater drainage throughout the city. The outskirts and edges of Hastings have identified flood hazard risk areas. The city does participate in the NFIP and as of November 2020, the city had 24 policies in-force for \$7,128,900. According to NeDNR as of February 2020 there was one undefined repetitive loss property in the city. Several past flood events in Hastings caused damages. These included flood events in 2007, 2008, 2009, 2015, and 2019. Together these events caused \$645,000 in reported damages from the NCEI. During the 2007 flood event many streets in Hastings had one to two feet of standing water and the Burlington Street underpass was closed due to high water. During the June 3rd-5th 2015 flooding, Hastings airport totaled 5.39" of precipitation, of which 4.74 fell on the 4th. This total set a new Hastings daily record for June rainfall, and was the third-highest daily total for any day of the year. Widespread flooding of creeks, streams and primarily rural roadways was well-underway by daybreak on the 5th. Adams County Emergency Management issued a press release alerting citizens that some roads are impassable and dangerous due to standing water and possible unknown damage in the northeast part of the county.

While the March 2019 flood event did not significantly impact the city, heavy rainfall across the area resulted in the flooding of the West Fork of the Big Blue River in eastern Adams County. Portions of Showboat Road near the river, which runs along the east edge of Hastings, was covered in several inches of water.

The City has many areas in town that experience flooding and ponding. Some of these areas include:

- Properties along the railroad tracks
- Trailer park homes (southeast side of town)
- Pawnee Creek
- Municipal well #35
- Hastings Municipal Airport
- Heartwell Lake Dam area/East Side Blvd.

Additionally, the city noted several private businesses which commonly experience flooding issues. A private car lot downstream of Hastings Dam is located in the floodway and the Stuff-It Storage facility is built in a depression which collects additional drainage. However, the city noted the majority of runoff to this location comes from railroad property. A collaborative effort between the city, railroad, private landowner, and engineers is needed to determine feasible drainage improvements.

Severe Thunderstorms

Hastings frequently experiences damaging severe thunderstorms which can include impacts from heavy rain, lightning, strong winds, and hail. A storm on August 22, 2007 caused \$250,000 in property damage from its 66 mph winds. A series of storms in Hastings on May 2, 2012 generated near \$2.5 million in property damage, with hailstones ranging from quarter to softball size. Storms with thunderstorm winds of 79 mph caused another \$105,000 in damage in town and produced golf ball to softball size hail in Hastings, causing \$125,000 in property damage and extensive crop damage on June 14, 2014. On August 17, 2014 a storm generated 83 mph thunderstorm winds and caused \$150,000 in property damage at the Hastings Airport and elsewhere in the city.

City officials are concerned about disruption of utilities and public services, property damage and safety risks to residents from severe thunderstorms.

Critical electronic municipal records are protected with surge protectors. Critical facilities, such as City Hall, the public library, and the museum, do not have portable generators or hail resistant roofing. About 20 percent of the power lines in the city are buried. The City of Hastings does not have a local tree board or provide residents with information regarding hail-resistant building materials with their building permits. However, newly adopted building codes include provisions for roof coverings and shingle removal prior to roof replacement. These updates will help ensure roof damages are limited during high winds. There are hazardous trees that need to be removed or trimmed to prevent limb breakages throughout the city. Critical facilities in town have weather radios. Interior flooding does occur during heavy rainfall events which can overwhelm the aging stormwater drainage system. Areas with poor drainage include the Burlington Underpass, 12th Street, and the 33rd and Kansas area.

Severe Winter Storms

Adams County frequently experiences severe winter weather, with heavy snowfall, high winds, and sometimes crippling ice accumulations. Several of these systems have impacted Hastings in recent years. Extremely cold temperatures can accompany these systems, such as when a winter storm on February 1, 2011 was followed by wind chills approaching 35 degrees below zero in Hastings. The city's main concerns from severe winter storms are snow removal, property damage, and public safety.

The city owns dump trucks and loaders, and the Hastings Street Department is in charge of snow removal. The city believes these resources are sufficient for snow removal. The city uses a few snow fences and has some designated snow routes. There are hazardous trees that need to be removed or trimmed to prevent limb breakages throughout the city. About 20 percent of the power lines in the city are buried. A particular concern from severe winter storms are frequent ice dams on residential roofs due to poor insulation and roof construction. Newly adopted building codes require additional roofing requirements and inspections to mitigate potential future damages for residents.

Tornadoes and High Winds

Hastings is prone to damaging winds and tornado events. An F-1 tornado on June 7, 1994 just north of Hastings caused several million dollars' worth of crop damage. An EF-0 tornado on August 22, 2007, with winds of 75 mph caused \$25,000 in damage in town. This was part of the same storm system, on the same day that also caused \$250,000 in damage in Hastings from straight-line thunderstorm winds, and \$145,000 in additional damage from flash flooding. The city's main concerns from tornadoes and high winds are disruption of utilities, property damages, blocked transportation routes, loss of life and crop damage. High winds have been reported in excess of 70 mph and caused substantial damages to homes within the Parklane Community (west of Marian Road). The local planning team noted many critical facilities for city infrastructure are located along a north-south line in town. If a tornado event were to traverse the Burlington Avenue corridor it would devastate many critical facilities or infrastructure for the city.

The city backs-up its municipal records. The city does not have a community safe room, so residents must rely on their own or a neighbor's basement or storm shelter for safety. Adams County emergency management does offer text alerts to warn of severe weather and engages in outreach to educate the public about hazards at community events. The city has mutual aid agreements in place with the 15 counties that are part of the South Central Planning, Exercise, and Training Region in Nebraska, including Adams, Buffalo, Clay, Dawson, Franklin, Frontier, Gosper, Hall, Hamilton, Harlan, Kearney, Lincoln, Nuckolls, Phelps, and Webster Counties.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Hastings has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a mayor and an eight-member council and the following offices: city administrator, clerk, and treasurer.

The City of Hastings also has a number of departments that contribute to hazard mitigation planning and action implementation.

Development Services Department

Recommends adoption of building and construction codes to ensure buildings are built to the most current standards to best protect life, property and the public. Conducts permits and inspections to ensure that construction is done in accordance with the adopted building codes. DSD also helps educate builders, developers and owners on codes, best practices as well as new materials and building technology. Planning and zoning staff within DSD help ensure orderly growth and help avoid development in hazard prone areas and help mitigate impacts that development may have on natural hazards such as increased run-off and infill in floodplains.

Fire Department

The Fire Prevention Officer provides education to the public and aids mitigation through the enforcement of the International Fire Code (IFC). The IFC contains provisions for the operation and maintenance of businesses and facilities, to prevent fire and other hazards. Annual inspections ensure compliance with these requirements.

Parks & Recreation

The Parks staff provide maintenance of trees in parks and on the public right of way, including tree trimming and tree removal.

Utility Department

Utilities staff provide maintenance of trees that could affect power lines, including tree trimming and tree removal. The Utilities also maintain and update existing infrastructure, including water, sewer, power and gas distribution systems.

Street Department

The Street Department maintains the City streets and storm sewer and assists with tree maintenance from time to time.

Planning Commission

The Hastings Planning Commission is a recommending body that reviews subdivisions, developments and growth through public hearings and the Comprehensive Land Use Plan, which is a 10-year vision for the City. The Comprehensive Plan looks at a variety of land use impacts such as transportation, energy, environment, growth and so on. Thoughtful consideration of future development in Hastings helps ensure that hazards are considered and mitigated as best as possible.

LEPC

The Local Emergency Planning Committee is a group of government officials, volunteer organizations and local business and community agencies that considers the impacts of various hazards on the community. The LEPC meets quarterly to discuss various scenarios that could occur in Hastings and how each agency can contribute to assist the community.

Capabilities

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

Table HAS.7: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Local Emergency Operational Plan	Yes (<i>local and county</i>)
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Building Codes	Yes – <i>BCEGS 2019</i>
	Floodplain Management Plan	No
	Storm Water Management Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
Other (if any)		
Administrative Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes - <i>AWWARN</i>
	Other (if any)	
Fiscal Capability	1 & 6 Year Plan	Yes
	Applied for grants in the past	Yes

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

Table HAS.8: Overall Capability

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

Plan Integration

The City's Comprehensive Plan was written in 2009. As of 2021 the city was requesting proposals to update the Comprehensive Plan. The plan outlines long term goals for Hastings, including future growth recommendations. The plan includes a goal to "prevent flooding caused by overflow of our water bodies" and to promote general safety of all residents. The comprehensive plan also contains a series of action items, including many that could be coordinated with actions listed in the mitigation plan. The comprehensive plan does have actions to prohibit development in the floodplain and to promote smart growth throughout the city and host of their water initiatives related to sustainability. Examples of some of these include promote pervious areas, implementing low impact street design, promoting the use of rain gardens, promoting renewable energy, creating a stormwater master plan, and more. The anticipated update by 2023 will include low impact development language and hazard mitigation planning goals. The city last updated its zoning ordinance in 2009 and makes revisions on an as needed basis. The city's floodplain

ordinance was last updated in 2018 and discourages development in the floodplain, requires one foot base flood elevation, and includes the ability to implement water restrictions as needed.

The city has adopted the 2018 International Building Codes. The Development Services Department regularly updates the model building codes which are published every three years. All new construction must meet these codes and inspections are used to help ensure codes are being met and structures meet minimum life-safety requirements to protect against wind, storm, flood, fire, and other hazards. The International Residential Code (IRC) and IBC contain flood resistant construction provisions which apply to all new and altered existing structures located within flood risk hazard areas. They also include provisions for storm shelters. While schools are the only occupancy classification required to provide storm shelters, these provisions ensure that any storm shelter constructed meets a uniform prescribed minimum safety level. The 52 new duplex and townhomes constructed in Osborne View Estates have storm shelters (rest room) constructed to these standards. Likewise approximately 12 duplexes on Minnesota have the storm shelter in the restroom and no basement.

The city has applied for and won several grants in the past to assist with project implementation. These include NET grants for Wellhead Protection activities and stormwater system improvement grants from NDEE. Other capital improvements projects are currently paid through utility rates which are subject to change depending on needs.

The City of Hastings is included in the Adams County Local Emergency Operations Plan (LEOP), which was last updated in March 2018. The LEOP is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management, and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county. Additionally the City of Hastings has an Emergency Action Plan for the Hastings NW Flood Control Structure which is shared with Adams County Emergency Management.

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

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

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

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the City Engineer, Environmental Director, Director of Development Services, and Adams County Emergency Management. The local planning team will review the plan no less than annually and will include the public in the review and revision process by: updating the city website, social media posts, and sharing information at city council meetings open to the public.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	TREE MAINTENANCE PROGRAM
DESCRIPTION	Enroll in a tree maintenance program
HAZARD(S)	Severe Thunderstorms, Severe Winter Storm, Tornadoes and High Winds
STATUS	This action has been integrated into year round ongoing maintenance procedures.

Continued Mitigation Actions

MITIGATION ACTION	ALERT SIRENS
DESCRIPTION	Install Outdoor Warning Sirens; update and improve current sirens
HAZARD(S)	All hazards
ESTIMATED COST	\$200,000
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	EMA, City Administration
STATUS	The city is replacing one siren per year by grant or by tax dollars.

MITIGATION ACTION	BACKUP GENERATOR
DESCRIPTION	Provide a generator for City Hall
HAZARD(S)	All hazards
ESTIMATED COST	\$100,000
FUNDING	Tax revenue, HMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Hastings Economic Development Corporation
STATUS	The City is currently discussing the option to relocate the City Hall to the North Denver Station which will include a backup generator.

MITIGATION ACTION	BURY POWER AND SERVICE LINES
DESCRIPTION	Protect power lines from severe weather events
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$2,500,000
FUNDING	Tax revenue, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Roads/Engineering Department
STATUS	Approximately 25% of the city's power lines are buried. Lines are buried on an as needed basis.

MITIGATION ACTION	DAM/LEVEE/FLOODWALL CONSTRUCTION AND IMPROVEMENTS
DESCRIPTION	Repair or conduct replacement of Hastings Dam
HAZARD(S)	Flooding, Dam Failure
ESTIMATED COST	\$3,000,000
FUNDING	Tax revenue, General Fund, HMGP, FMA, BRIC
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Engineering Department
STATUS	The city is currently developing a request for proposals in conjunction with NeDNR rules and regulations for dam modification to armor the downstream slope, inspect integrity of concrete spillway, assist with depth profiles and dredging maintenance schedule, and to recommend best management practices with regard to water quality.

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	BACKUP GENERATOR
DESCRIPTION	Provide a generator for Highland Park (North) Fire Station
HAZARD(S)	All hazards
ESTIMATED COST	\$150,000
FUNDING	Tax revenue (25% match), HMA
TIMELINE	1-2 years
PRIORITY	High
LEAD AGENCY	Adams County Emergency Management, City Council
STATUS	This is a new mitigation action and a NOI has been submitted to NEMA.

MITIGATION ACTION	COMPREHENSIVE FLOOD MITIGATION PLAN
DESCRIPTION	Develop and conduct a city-wide comprehensive flood mitigation plan to evaluate problem areas and identify strategies to reduce flooding in Hastings.
HAZARD(S)	Flooding
ESTIMATED COST	\$500,000
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Engineering Department
STATUS	This is a new mitigation action.

MITIGATION ACTION	DAM/LEVEE/FLOODWALL CONSTRUCTION AND IMPROVEMENTS
DESCRIPTION	Improve stormwater drainage in existing developments around Heartwell Lake Dam as part of new maintenance strategy.
HAZARD(S)	Flooding
ESTIMATED COST	\$2,000,000
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	City Council
STATUS	This is a new mitigation action. Currently water backs up at the “river run” into the reservoir in the drainage ditch on East Side Blvd. The city is evaluating adding stop logs at the dam to move flow and help drainage upstream and improve flow within Heartwell Tributary.

SECTION SEVEN: CITY OF HASTINGS COMMUNITY PROFILE

MITIGATION ACTION	DEVELOP STREAM BUFFER ORDINANCE
DESCRIPTION	Develop and implement a stream buffer ordinance for construction activities and developments near streams in town. This ordinance would be developed in conjunction with a Comprehensive Watershed Study and Storm Sewer Master Plan.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	\$250,000
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	City Council
STATUS	This is a new mitigation action. This ordinance could be based on existing ordinances in place in Lincoln/Omaha.

MITIGATION ACTION	EMERGENCY EQUIPMENT PURCHASE AND/OR UPGRADES
DESCRIPTION	Purchase an adequate rescue boat that would provide life-saving rescues to victims of flooding, entrapment, ice breaks, or swift water. Purchase an airboat or similar quick deployment vessel that is capable of LOW and High-water level rescues similar to an airboat.
HAZARD(S)	Flooding
ESTIMATED COST	\$75,000
FUNDING	Tax revenue
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Hastings City Fire and Rescue
STATUS	This is a new mitigation action.

MITIGATION ACTION	FLOODPLAIN ORDINANCE UPDATE
DESCRIPTION	Update local floodplain ordinance to include language that floodplains remain as open space and prohibit fill in floodplain areas.
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	City Funds
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	City Council
STATUS	This is a new mitigation action.

SECTION SEVEN: CITY OF HASTINGS COMMUNITY PROFILE

MITIGATION ACTION	GREEN INFRASTRUCTURE
DESCRIPTION	Green Infrastructure in the form of filter strips, native plantings, with potential underdrains is needed in many areas of town to provide drainage and not overload the grey infrastructure system. Vegetated Buffer strips are needed around water bodies for water quality.
HAZARD(S)	All hazards
ESTIMATED COST	\$1,000,000
FUNDING	General funds
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	City Council
STATUS	This is a new mitigation action. The city is currently working on approving flood reduction activities and providing support as needed for properties along the railroad. Additional work is needed in trailer parks throughout the city.

MITIGATION ACTION	PROTECT AND IMPROVE ROADS AND BRIDGES
DESCRIPTION	Widen 12 th Street to improve emergency evacuation routes/emergency access.
HAZARD(S)	All hazards
ESTIMATED COST	\$2,000,000
FUNDING	Streets fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Streets Dept
STATUS	This is a new mitigation action

MITIGATION ACTION	RAILROAD TRANSPORTATION CORRIDOR IMPROVEMENTS
DESCRIPTION	Plan for and install an additional above-grade BNSF railroad crossing to improve emergency access. Potential locations include at Marion Road or Showboat.
HAZARD(S)	All hazards
ESTIMATED COST	\$5,000,000
FUNDING	General Fund, BNSF, NDOT
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Streets Department, BNSF
STATUS	This is a new mitigation action.

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS – PAWNEE CREEK
DESCRIPTION	Upgrade, repair and improve stormwater infrastructure including culverts, pipes, and networks throughout the city. Pawnee Creek Railroad – upgrade and upsize culverts to reduce flood impacts on residents, the airport, solar farm, and municipal water wells. With new floodplain mapping efforts, municipal well #35 has no freeboard and additional flood protection is needed.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	\$3,000,000
FUNDING	General funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	City Council, NRD, NeDNR, Adams County
STATUS	This is a new mitigation action.

Removed Mitigation Actions

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

MITIGATION ACTION	CAMERA SYSTEM OF HIGH PROFILE AND TRAFFIC
DESCRIPTION	Install a high profile and traffic camera
HAZARD(S)	Transportation, Terrorism
REASON FOR REMOVAL	This project is no longer a priority for the city and does not address hazards of concern as evaluated in this plan.

COMMUNITY PROFILE

VILLAGE OF HOLSTEIN

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

Local Planning Team

Table HOL.1: Village of Holstein Local Planning Team

Name	Title	Jurisdiction
Mark Gentert	Mayor	Village of Holstein
Becky Schernikau	Village Clerk	Village of Holstein

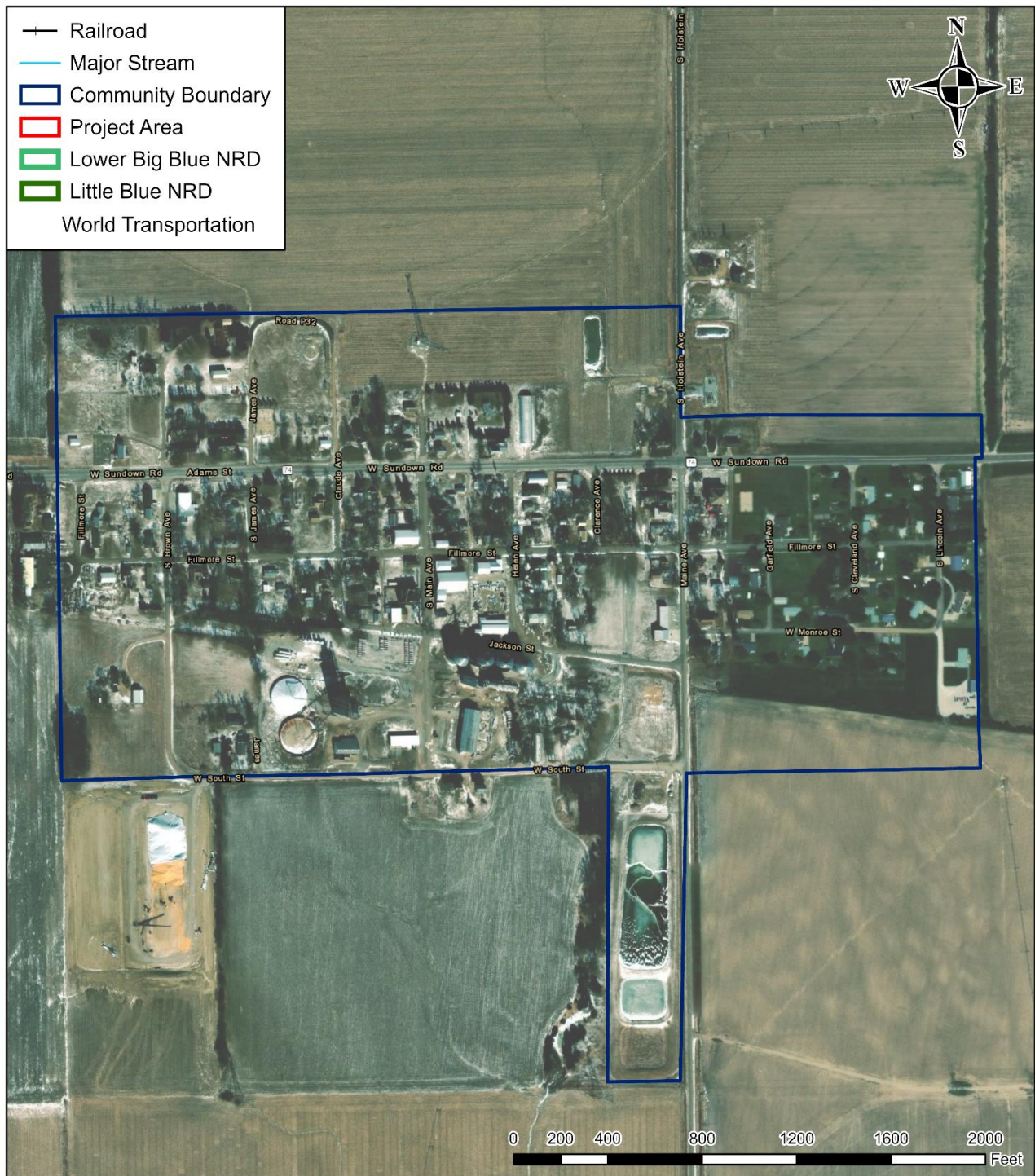
Location and Geography

The Village of Holstein is located in the west central portion of Adams County, and covers an approximate area of one quarter of one square mile. There are no major waterways within the area, although there are two small retention ponds located in the southern portion of the community. The area is not heavily forested, nor is located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Holstein's major transportation corridors include State Highway 74, which runs east-west through Holstein. CR-77 accommodates on average 595 vehicles per day, 55 of which are heavy commercial vehicles. Holstein does not have any rail lines. Hazardous chemicals are transported through down along the highway; however, no major spill events have occurred. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Figure HOL.1: Village of Holstein Jurisdictional Boundary

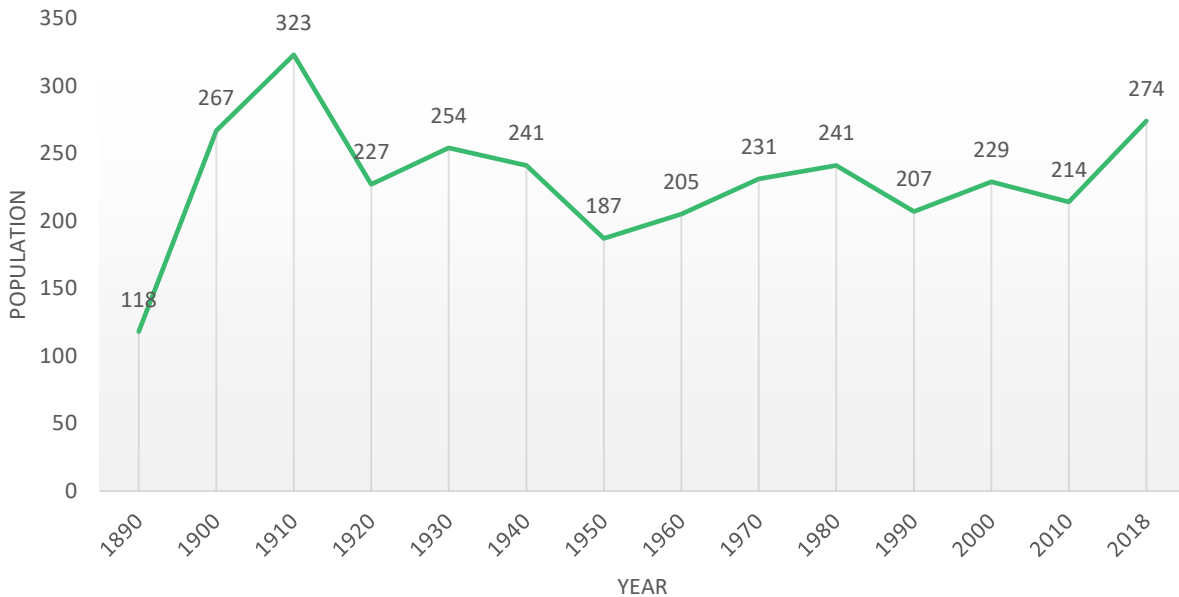


 <p>Created By: MW Date: 2/12/2021 Software: ArcGIS Pro 2.7.0 File: BluesJB.aprx <small>This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.</small></p>	<h2>Village of Holstein</h2> <p>Little Blue NRD and Lower Big Blue NRD Hazard Mitigation Plan 2021</p>	 <p style="text-align: center;">Kansas</p>
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Demographics

The following figure displays the historical population trend from 1890 to 2018 (estimated). This figure indicates that the population of Holstein has fluctuated regularly since the early 1900s. This is relevant to hazard mitigation because communities with declining populations may have a higher level of unoccupied housing that is not being up kept, while communities with growing populations may have additional funding opportunities to pursue mitigation projects. The village's population accounted for less than 1% of Adams County's population in 2018.

Figure HOL.2: Holstein Population 1890-2018



Source: U.S. Census Bureau³¹

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

- Older.** The median age of Holstein was 41.2 years old in 2018, compared with the County average of 37.4 years. Holstein's population has grown younger since 2010, when the median age was 54.3 years old. Holstein had a larger proportion of people under 20 years old (33.0%) than the County (27.9%).³² The largest cohort in Holstein is aged 40-44.
- More ethnically diverse.** In 2010, 100% of Holstein's population was White, non-Hispanic. By 2018, 3% of Holstein's population was Asian, 1% was other races, and 4% was two or more races. During that time, Adams County had: 1% (Black or African American), grew from 0% to 1% American Indian, 1% Asian, and declined 4% to 2% other races from 2010 to 2018 respectively.³³
- More likely to be at the federal poverty line.** The poverty rate of all persons in Holstein was 18.8% while the County was 13% in 2018.³⁴

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

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

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

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

Employment and Economics

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

- **Varying mix of industries.** Employment sectors accounting for 10% or more of employment in Holstein included Manufacturing, Transportation, Education, and Arts and Entertainment. In comparison Adams County's which included Manufacturing, Retail, and Education.³⁵
- **Household income.** Holstein's median household income in 2018 (\$40,469) is lower than the county's median household income (\$51,536).³⁶
- **More long-distance commuters.** About 16.0% percent of workers in Holstein commuted for fewer than 15 minutes, compared with about 61% of workers in Adams County. About 56.0% of workers in Holstein commute 30 minutes or more to work, compared to about 14.4% of the County workers.³⁷

Major Employers

The primary employers in the village include CPI, the meat processing plant, and the lumber yard. The majority of employers commute to Kearney or Hastings for employment.

Housing

In comparison to Adams County, Holstein's housing stock was:³⁸

- **More owner occupied.** About 74.3% of occupied housing units in Holstein are owner occupied compared with 68.2% of occupied housing in Adams County in 2018.
- **Greater share of aged housing stock.** Holstein has a greater share of houses built prior to 1970 than Adams County (69.5% compared to 57.3%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Holstein contains fewer multifamily housing with five or more units per structure than the County (0% compared to 7.1%). About 99.2% of housing in Holstein was single-family detached, compared with 75.5% of the County's housing. Holstein has a smaller share of mobile and manufactured housing (0.8%) compared to the County (3.9%).

The local planning team noted there are only modular homes in the community, however local building codes adopted through Adams County require all homes to be anchored. This housing information is relevant to hazard mitigation insofar as the age of housing may indicate which housing units were built prior to state building codes being developed. Further, unoccupied housing may suggest that future development may be less likely to occur. Finally, communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

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

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

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

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

Future Development Trends

In the past five years the village has demolished three dilapidated homes in town; however, no new homes have been built to replace them and there are currently no new homes anticipated to be built in the next five years. No new commercial or industrial developments are currently planned. The population in Holstein has held stable with a recent increase, which the local planning team attributed to its proximity to Kearney. Many residents live in Holstein but commute to Kearney and Holstein has the potential to grow as Kearney does.

Parcel Improvements and Valuation

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

Table HOL.2: Holstein Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
165	125	\$1,101,530,865	0	0%	\$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical storage site in Holstein which houses hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table HOL.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Cooperative Producers Inc	9870 S Main Ave	No

Source: Nebraska Department of Environment and Energy³⁹

³⁹ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2020.

Critical Facilities

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

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

Table HOL.4: Holstein Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Hall	N	Y	N
2	Safety and Security	Town Maintenance Building/City Office	Y	N	N
3	Food, Water, and Shelter	Well House	N	Y	N
4	Food, Water, and Shelter	Well House	N	Y – propane	N
5	Health and Medical	Lagoons	N	N	N
6	Health and Medical	Lift Station	N	Y – diesel	N

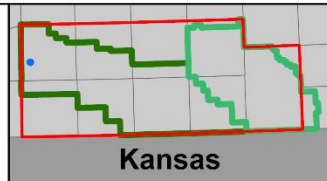
Figure HOL.3: Holstein Critical Facilities



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

Village of Holstein

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



Historical Occurrences

See the Adams County community profile for historical hazard events.

Hazard Prioritization

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

Severe Thunderstorms

Holstein's main concerns from hailstorms include structural and personal property damage, and damage to crops. Past major storms on May 3, 2012 dropped golf ball size hail on the village and July 9, 2014 damaged structures in the village. A major storm in June 2017 dropped hail ranging from quarter to tennis ball size. The local planning team reported impacts from a storm on June 25th, 2019 which caused significant damage. Approximately 16 cars in town were totaled from hail damage and all residents had roof replacements. The storm sat for twenty minutes over the village with up to baseball sized hail. Siding, windows, and utilities were damaged; however, power was not lost and no injuries occurred.

The village also experiences localized flooding impacts after heavy rain events. The local planning team noted the stormwater system is overwhelmed along the creek in town and along Fillmore Street when more than two inches of rain fall within two hours. As of 2019 the village has replaced six culverts throughout town to improve drainage. Past major rain events have washed agricultural byproducts (corn stalks) from the north into town and clogged culverts. In 2019 the village also elevated and upgraded one half of a bridge/box culvert on Fillmore Street to improve drainage. The remaining bridge improvement is scheduled to occur in 2021.

All powerlines in the village are above ground and both wells and the lift station have backup generators. The village uses surge protectors to avoid the loss of critical, electronic municipal records. New power poles have been erected outside of town thus it is unlikely that future power lines will be buried. Hazardous trees that might fall on them are removed annually on an as needed basis. The fire house currently has weather radios. Critical facilities have new steel roofs including the town building, well houses, and restrooms at the park (for local shelter needs if needed). All municipal facilities are insured against hail damage. The town does have a tree board. It is not known whether residents receive information regarding hail resistant building materials.

Severe Winter Storms

Severe winter storms can include heavy snow, blizzards, extreme cold, ice accumulation, and winter storms. Local concerns regarding winter storms include losing electricity or water service, residents being stranded and unable to obtain food (especially elderly residents), and rescue personnel being unable to respond to emergencies. A major winter storm in 2008 knocked many power poles down which were replaced by Southern Public Power. Power line upgrades were

done at the time and infrastructure is currently sufficient for local needs. At this time there are no plans to bury power lines in town. Snow removal equipment includes a tractor with a loader, blade, and skidsteer. Village board members and local farmers with equipment sometimes assist with snow removal. The village is responsible for clearing snow from local roads and the local planning team indicated local snow removal resources are sufficient and in good condition. Fillmore Street and Main Street have been designated as emergency snow routes.

Tornadoes and High Winds

Holstein is at risk from high winds and tornado events, and concerns include significant damage to homes, buildings, trees, and utilities, interruption of water supplies, and loss of life. Winds in excess of 70 mph caused tree and structural damage in Holstein on July 9, 2014. When the nearby Village of Roseland was hit by a tornado in May 2015, residents of Holstein assisted with recovery efforts. While Holstein itself has not been recently hit by a tornado, tornadoes are frequent occurrences in Adams County.

There are no community safe rooms in Holstein but the town maintenance building (which serves as the village office) and fire halls can be used as community shelter locations and most residents have basements. The local volunteer fire department is well staffed (20-25 members and six EMTs on staff) and EMTs and firefighters do regular community outreach on storm safety. Adams County emergency management offers text alerts servicing the village and there are two sirens in town (one at fire hall and one in the park) which are activated by the county. Both sirens were recently upgraded with hardline power services through a FEMA grant. Holstein has mutual aid agreements with Roseland, Kenesaw, Minden, and Ayr. The county clerk operates data backup systems for municipal records and the village clerk backs-up municipal records on compact disks.

Flooding

Flooding was not identified as a hazard of top concern and there are no major floodplains in or near the village. The village however does participate in the NFIP. According to NeDNR as of February 2020, there are no reported repetitive loss properties in the village.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Holstein has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five member board and the following offices: town man (maintenance and utilities), village board, and clerk/treasurer.

Capabilities

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

SECTION SEVEN: VILLAGE OF HOLSTEIN COMMUNITY PROFILE

Table HOL.5: Capability Assessment

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

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

Table HOL.6: Overall Capability

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

Plan Integration

The village does not have a Comprehensive Plan, but follows guidelines established by the Adams County Planning Commission for zoning and building codes. The Village of Holstein is included in the Adams County Local Emergency Operations Plan (LEOP), which was last updated in March 2018. The LEOP is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management, and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county.

In the past the village has applied for various grants including CDBG and HMA to assist with projects. The local planning team noted the annual municipal budget's funds are sufficient for project implementation, but are currently focused on paying loans from past major projects (office expansions, culvert improvements, and water meter replacements).

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

- The region is characterized by strong agricultural natural resources including ground and surface water supplies, a developed water management and distribution system, and fertile soils. This combination supports the strong agricultural sector within the region.
- The region generally offers strong transportation infrastructure that is well developed for agricultural and manufacturing exports. The technological resources are heterogeneously distributed throughout the region and while higher education institutions are present, enrollment remains flat over the last 10 years.
- Although there is population growth in the region and the educational attainment of those 25 years and older is increasing, like the statewide trend, there is evidence that the SCEDD region is experiencing an inflow of less educated people and an outflow of more educated people. As a result, workforce-related issues exist and are affecting the economic performance of the region.
- The labor composition of the region is generally toward lower wage industries (e.g., agriculture and manufacturing) when compared to the state. Lower farm incomes and

lower wage and employment growth are other trends for the SCEDD region. It appears that the region is moving toward a less dynamic, lower education, slower growth, and lower wage work force.

- The industry analysis shows how tightly linked the core industries are within the region. Specifically, Manufacturing, Agriculture, Transportation & Warehousing, and Wholesale Trade are tightly connected and play a critical role within the local economy. Weakening service industries within the area include Health Care & Social Assistance and Retail Trade.
- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Village Board, Chairman, and Maintenance staff. The local planning team will review the plan no less than annually and will include the public in the review and revision process by: posting flyers at the post office and village office, posts in the local paper, and sharing information at city council meetings open to the public.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	EXPANSION OF FIRE STATION
DESCRIPTION	Conduct an expansion of the fire station, as part of the storm shelter.
HAZARD(S)	All hazards
STATUS	Two new bays were added and trucks were purchased in 2017-18. This project cost \$200k and was paid through the rural fire board.

MITIGATION ACTION	PITCHED ROOF STRUCTURES FOR TOWN BUILDINGS
DESCRIPTION	Add pitched roof structures to city building and another local business
HAZARD(S)	Severe Winter Storms, Severe Thunderstorms, Tornadoes and High Winds
STATUS	Pitched roof structures were replaced on the wellhouses, restrooms at the park, and the town maintenance building after major hailstorm.

Continued Mitigation Actions

MITIGATION ACTION	CULVERT AND BRIDGE IMPROVEMENTS
DESCRIPTION	Elevate and upgrade remaining box culvert on Fillmore Street.
HAZARD(S)	Severe Thunderstorms, Flooding
ESTIMATED COST	\$60,000
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	Anticipated completion summer 2021.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Conduct public education and improve awareness of the public about hazard mitigation and preparedness
HAZARD(S)	All hazards
ESTIMATED COST	Staff time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board, Clerk
STATUS	The village plans to send out notifications via water bills about household mitigation measures, emergency contact information. Future information could also be shared via social media.

Removed Mitigation Actions

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

MITIGATION ACTION	STORM SHELTER/MASS CARE CONSTRUCTION
DESCRIPTION	Build a storm shelter/mass care facility as part of the fire station upgrade.
REASON FOR REMOVAL	Town Maintenance and Fire Hall can be used as shelter locations. Most residents have basements or can seek shelters with their neighbors as needed.

COMMUNITY PROFILE

VILLAGE OF JUNIATA

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

Local Planning Team

Table JUN.1: Village of Juniata Local Planning Team

Name	Title	Jurisdiction
John Uden	EM Coordinator	Village of Juniata

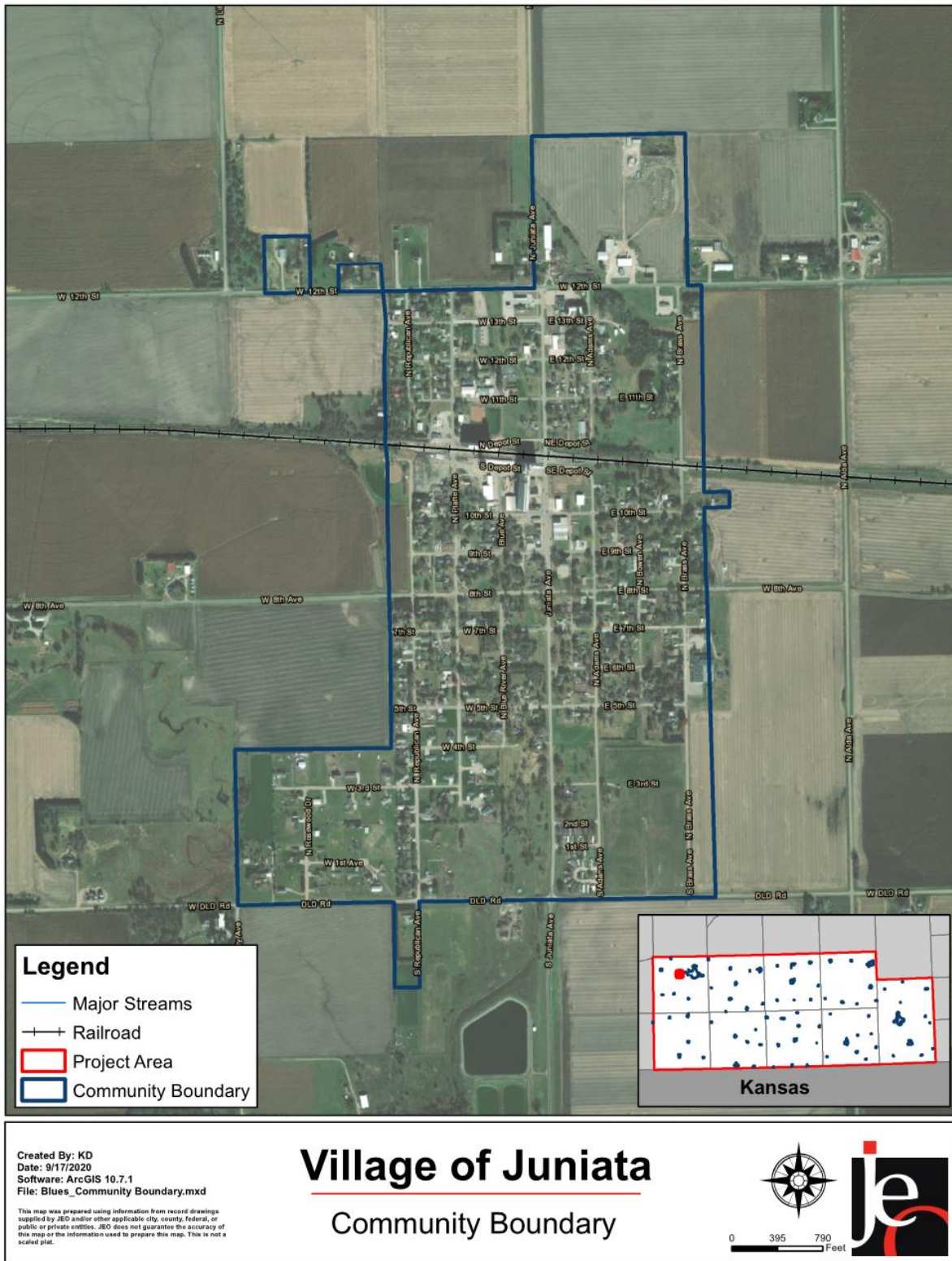
Location and Geography

The Village of Juniata is located in the north central portion of Adams County. The Village of Juniata covers an approximate area two thirds of one square mile. There are no major waterways within the area. The area is not heavily forested, nor is located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Juniata's major transportation corridors include County Road 6/ County Road 34 runs east-west just south of Juniata. CR-6/CR-34 accommodates on average 3,250 vehicles per day, 415 of which are heavy commercial vehicles. Juniata has two rail lines, Burlington Northern Santa Fe line, and Amtrak, which runs on the same line. At Juniata, the BNSF runs east-west headed into Lincoln and west to East. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

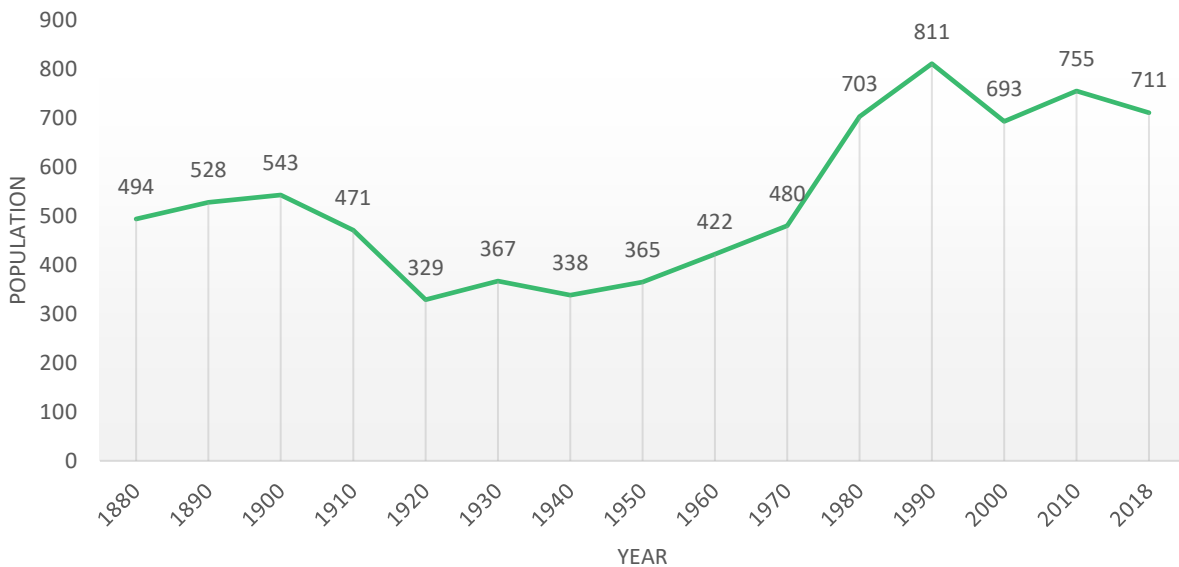
Figure JUN.1: Village of Juniata Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2018 (estimated). This figure indicates that the population of Juniata grew until 1990, declined in 2000 but has remained relatively stable since then. This is relevant to hazard mitigation because communities with declining populations may have a higher level of unoccupied housing that is not being up kept, while communities with growing populations may have additional funding opportunities to pursue mitigation projects. The village's population accounted for less than 3% of Adams County's Population in 2018.

Figure JUN.2: Juniata Population 1880-2018



Source: U.S. Census Bureau⁴⁰

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

- **Older.** The median age of Juniata was 42.6 years old in 2018, compared with the County average of 37.4 years. Juniata's population has grown older since 2010, when the median age was 36.4 years old. Juniata had a smaller proportion of people under 20 years old (19.9%) than the County (27.9%).⁴¹
- **Less ethnically diverse.** In 2010, 95% of Juniata's population was White, non-Hispanic, 1% was American Indian, 3% was other races, and 1% was two or more races. By 2018, 99% was White, non-Hispanic and 1% was two or more races. During that time, Adams County had: 1% (Black or African American), grew from 0% to 1% American Indian, 1% Asian, and declined 4% to 2% other races from 2010 to 2018 respectively.⁴²
- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Juniata was 6.0% while the County was 13% in 2018.⁴³

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

⁴¹ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

⁴² United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

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

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Juniata included Construction, Manufacturing, Retail and Education. In comparison Adams County's which included Manufacturing, Retail, and Education.⁴⁴
- **Greater household income.** Juniata's median household income in 2018 (\$\$63,661) is greater than the county's median household income (\$51,536).⁴⁵
- **More long-distance commuters.** About 42.6% percent of workers in Juniata commuted for fewer than 15 minutes, compared with about 61% of workers in Adams County. About 30.2% of workers in Juniata commute 30 minutes or more to work, compared to about 14.4% of the County workers.⁴⁶

Major Employers

The major employers in the village include Phoenix Casting, Casey's General, and CPI Grains. The local planning team indicated approximately 80% of the population commutes to Hastings for work.

Housing

In comparison to Adams County, Juniata's housing stock was:⁴⁷

- **More owner occupied.** About 82.9% of occupied housing units in Juniata are owner occupied compared with 68.2% of occupied housing in Adams County in 2018.
- **Smaller share of aged housing stock.** Juniata has a smaller share of houses built prior to 1970 than Adams County (31.7% compared to 57.3%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Juniata contains fewer multifamily housing with five or more units per structure than the County (2.8% compared to 7.1%). About 80.9% of housing in Juniata was single-family detached, compared with 75.5% of the County's housing. Juniata has a larger share of mobile and manufactured housing (9.4%) compared to the County (3.9%). The local planning team noted mobile homes are located along the southern edge of the village on Juniata Avenue.

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

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

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

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

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

Future Development Trends

In the past five years development on the Green Acres Subdivision has begun with new homes and streets. Additionally properties on the east side of town are being acquired to expand available housing stock. The village has adopted new mobile home park regulations and follow the updated county zoning regulations. The population of Juniata has declined in recent years which the local planning team attributed to a lack of industry and no available elementary school. There are currently no new residential or industrial plans for the next five years.

Parcel Improvements and Valuation

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

Table JUN.2: Juniata Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
469	306	\$26,506,960	100	33%	\$8,012,490

Source: County Assessor, GIS Workshop

Table JUN.3: Juniata Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	19-07-0520A-310293	1/28/2019	Structure (residence) removed from SFHA
LOMA	21-07-005A-310293	10/14/2020	Portion of property removed from SFHA

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites in Juniata which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. The village is primarily concerned about blocked transportation routes caused by chemical spill events. Critical facilities are located along major transportation corridors including the village shop and Well #7.

Table JUN.4: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Cooperative Producers Inc	8440 12th St	No
Cooperative Producers Inc	200 S Depot St	No

SECTION SEVEN: VILLAGE OF JUNIATA COMMUNITY PROFILE

Facility Name	Address	Located in Floodplain?
Norder Supply Inc	9765 W Highway 6	No
Mid Nebraska Lubricants LLC	8430 12th St	No

Source: Nebraska Department of Environment and Energy⁴⁸

Critical Facilities

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

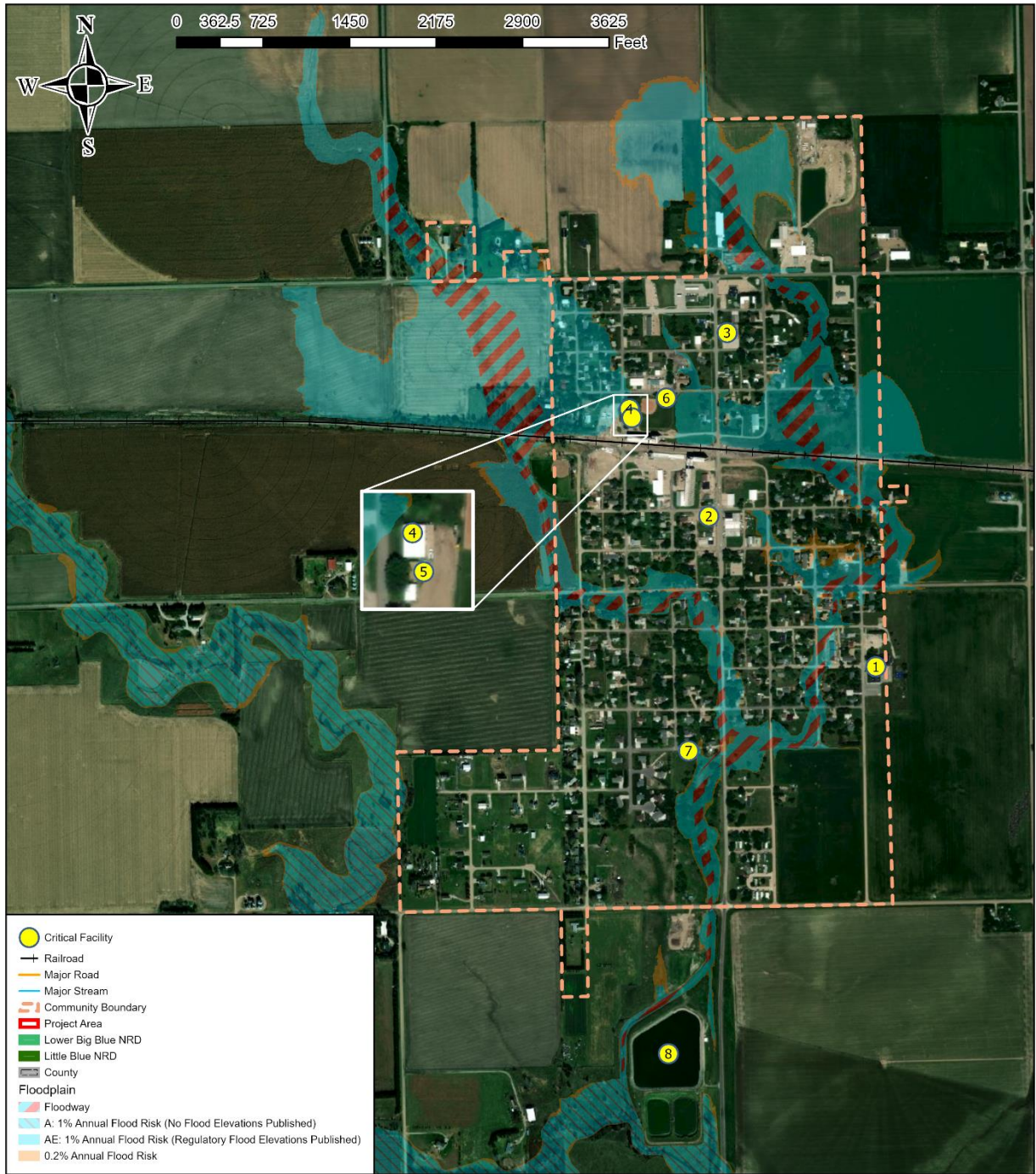
The following table and figure provide a summary of the critical facilities for the jurisdiction.



Table JUN.5: Juniata Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Food, Water, and Shelter	Adams Central Early Development	Y	N	N
2	Safety and Security	Village Hall	Y	Y (mobile)	N
3	Safety and Security	Fire Department	N	In progress	N
4	Transportation	Village Shop	N	Y	N
5	Food, Water, and Shelter	Well #1	N	Y	N
6	Food, Water, and Shelter	Well #2	N	Y	N
7	Food, Water, and Shelter	Well #3	N	Y	N
8	Health and Medical	Sewer Lagoon	N	Y	N

⁴⁸ Nebraska Department of Environment and Energy. “Search Tier II Data.” Accessed August 2020.

Figure JUN.3: Juniata Critical Facilities



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

See the Adams County community profile for historical hazard events.

Hazard Prioritization

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

Drought and Extreme Heat

Drought is locally defined as a lack of precipitation for an extended period. There were drought conditions locally in 2014. Local concerns regarding drought include a lack of drinking water and water for agricultural activities, and water rationing. The village is also concerned for a loss of pressure in the system which would require sterilization and water boil orders. Large water use threatens available water supply for fire suppression.

The village does not have a drought monitoring board or a drought response plan; however, the village has made repairs to Well #1 in the past five years and is currently evaluating new well locations. The village recently passed a water meter resolution which requires all residents to have meters installed. The village can also put restrictions in place during high use or well problem periods. During this plan update, Juniata identified a project to locate new water sources, develop a system to install more water meters, and to develop a drought management plan.

Flooding

Juniata is equally concerned with riverine and flash flooding. A heavy storm starting on June 20, 2014 brought 3.6 inches of rain to the village in eight hours and caused localized flooding.

Juniata's floodplain runs diagonally from northwest to southeast; and three major drainage channels run through the village, each of which have poor storm water drainage. During heavy rain events the north side of town experiences low-lying street flooding. Most buildings within the floodplain are in the center of the community. The adjacent image represents a critical location in need of bank stabilization. The village regularly cleans out ditches and has worked to replace culverts in town to improve stormwater drainage. The village has identified the need to upgrade most culverts, specifically the one located under the train tracks.



The Village of Juniata has significant portions of floodway and floodplain through portions of the village. The village participates in the NFIP and as of November 2020 had ten policies in-force for \$1,559,000. As of February 2020, according to NeDNR there were no reported repetitive loss properties in the village.

Severe Thunderstorms

Severe thunderstorms include impacts from heavy rain, lightning, strong winds, and hail. The village is concerned about damage to homes and infrastructure due to severe thunderstorms. A storm in 2014 damaged homes and village properties. Lightning has caused damage in the past as well. Flash flooding from rain events is a concern due to poor stormwater drainage, particularly from the north side of town.

The village uses surge protectors to avoid the loss of critical, electronic municipal records, and a well (#3), shop, and sewer lagoon have generators. Few of the power lines are buried, and no hazardous trees needing removal have been identified. Critical facilities have weather radios.

Severe Winter Storms

Severe winter storms occur annually in the planning area and include impacts from heavy snow, ice accumulation, blizzards, extreme cold, and winter storms. Local concerns regarding winter storms include being cut off from critical facilities and vulnerable populations at risk from power loss or cold temperatures. No damages have been reported to critical facilities due to winter storms.

The village has updated designated snow routes throughout the village, and uses a plow truck and loader tractor for snow removal. The tractor was recently replaced as well; however, a new snow plow is still needed. The village does not use snow fences.

Tornadoes and High Winds

Juniata's concerns about tornadoes include damage to facilities and clean-up. Two F/EF0 tornado events have occurred near the village – one in 1999 with no reported damages and one in 2016 which reported \$2,000 damages. Damage was confined to a roof being partially torn off of a metal outbuilding. Maximum wind speed was estimated to be between 75 and 80 MPH. High winds have also caused damage to village trees and structures in town.

There are community safe rooms in Juniata, in a church and in a school; and there are backup systems in place for municipal records. County emergency management offers text alerts servicing the village and sirens are located in town. The sirens have been updated to include use during high winds. All mobile home park regulations require tie downs to prevent displacement during tornado events. There are no known mutual aid agreements in place.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Juniata has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member board and the following offices: clerk/treasurer, attorney, deputy attorney, fire chief, sewage plant

operator, sewer/water/street commissioner, building and grounds, community redevelopment, a zoning representative, and county emergency management.

Capabilities

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

Table JUN.6: Capability Assessment

Survey Components		Yes/No
Planning Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Local Emergency Operational Plan	Yes
	Floodplain Ordinance	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Building Codes	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
Administrative Technical Capability	Planning Commission	No
	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	1 & 6 Year Plan	Yes
	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 and Outreach	Local citizen groups or non-profit organizations focused on environmental protection,	Yes

Survey Components		Yes/No
	emergency preparedness, 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)	Yes
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table JUN.7: Overall Capability

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

Plan Integration

The Comprehensive Plan, which was last updated in 1998, addresses the threat of flooding and drainage, and contains current and future land use maps. The future land use map does not promote development inside the floodplain or other known hazardous areas and calls for growth away from hazardous areas. Transportation systems are not designed to function under disaster conditions under the plan. There is currently no planned timeline to update the Comprehensive Plan.

The Village of Juniata is included in the Adams County Local Emergency Operations Plan (LEOP), which was last updated in March 2018. The LEOP is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management, and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county.

The Zoning Ordinance was last updated in 2005 and discourages development in hazard areas. It contains natural hazard layers, and prohibits development within, or filling of wetlands, floodways, or floodplains. The ordinance does not discourage development in the wildland-urban interface, which is a zone of transition between unoccupied land and human development that is most susceptible to wildfire impacts. The ordinance does account for population changes when considering future land uses and has zones that limit the density of developments in the floodplain. There are requirements that floodplains be kept as open space, and there are rezoning

SECTION SEVEN: VILLAGE OF JUNIATA COMMUNITY PROFILE

procedures that limit changes that allow greater intensity or density in natural hazard impact areas.

The Capital Improvement Program was last updated in 2015, and addresses drainage and culverts, fire hydrants, street upgrades, sewer lines and paid improvements, water lines and well upgrades. Three projects address hazards: drainage and culverts, fire hydrants, and water lines. The village is planning a major drainage project to handle storm water. The plan does not include projects to extend roads or utilities to high hazard areas. It does include projects for future facilities or infrastructure, or for the rehabilitation, expansion, and/or improvements of existing facilities or infrastructure.

The Floodplain Ordinance was last updated in 2003 and meets minimum federal and state requirements. It does not prohibit development within, or filling of wetlands, floodways, and floodplains. The Economic Development Plan was updated in 2015 and considers how economic development may be impacted by hazards. It promotes economic development away from known hazard-prone areas.

The Subdivision Regulations were last updated in 2010 and provides for conservation subdivisions or cluster subdivisions to conservative environmental resources. There are no regulations that allow density transfers in hazard areas. The regulations restrict subdivisions of land within or adjacent to the floodplain. They do allow for density transfers to avoid building in natural hazard areas.

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

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

service industries within the area include Health Care & Social Assistance and Retail Trade.

- Finding qualified workers remains a significant challenge within the region.... Rural counties have reported that a significant challenge with recruiting and retaining workers is the quality of housing stock. New housing is largely concentrated in higher populated areas and the quality of housing is declining on average in rural counties.

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Village Board and local emergency management. The local planning team will review the plan no less than annually and will include the public in the review and revision process by sharing information at village board meetings.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR – NORTH WELL
DESCRIPTION	Install a back-up power generator for the North Well
HAZARD(S)	All hazards
STATUS	The well has been wired for generator hookup and currently shares a mobile generator unit.

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR – FIRE STATION
DESCRIPTION	Obtain a back-up power generator for fire station
HAZARD(S)	All hazards
ESTIMATED COST	\$36,000
FUNDING	General Funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	This project is scheduled to be completed in spring of 2021.

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MITIGATION ACTION	BANK STABILIZATION
DESCRIPTION	Conduct bank stabilization, bridgehead improvements and intersection improvements
HAZARD(S)	Flooding
ESTIMATED COST	Varies
FUNDING	General Funds, HMGP, FMA, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village has removed trees in the spillway and is currently working to widen creek areas.

MITIGATION ACTION	COORDINATE WITH RED CROSS SHELTER
DESCRIPTION	Define sheltering response procedures and coordinate with local red cross designated shelter at the church
HAZARD(S)	All hazards
ESTIMATED COST	N/A
FUNDING	General Funds
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Local church groups are currently working with Red Cross to provide storm sheltering.

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)	Drought and Extreme Heat
ESTIMATED COST	\$5,000+
FUNDING	General Funds, HMGP
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Plan has not yet been developed.

MITIGATION ACTION	FLOODPLAIN MAPPING/REMAPPING
DESCRIPTION	Participate in update of floodplain maps (NDNR/FEMA project) Conduct floodplain mapping and join flood insurance program
HAZARD(S)	Flooding
ESTIMATED COST	N/A
FUNDING	General Funds
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	The update of the map is currently underway

SECTION SEVEN: VILLAGE OF JUNIATA COMMUNITY PROFILE

MITIGATION ACTION	IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM OR RESOURCES
DESCRIPTION	Purchase new snow removal equipment, specifically a new tractor
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	\$10,000
FUNDING	General Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board, Roads Dept
STATUS	Have purchased new tractor, a new plow is still needed.

MITIGATION ACTION	IMPROVE WATER SUPPLY RESOURCES
DESCRIPTION	Locate new water sources and drill a new well
HAZARD(S)	Drought and Extreme Heat
ESTIMATED COST	\$250,000
FUNDING	General Funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	SAFE ROOM/STORM SHELTER
DESCRIPTION	Construct a storm shelter for community members
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$250,000
FUNDING	General Funds, HMGP, PDM
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Civil Defense Director
STATUS	Village is working with local builders to provide individual saferooms. A mass care shelter is still needed.

MITIGATION ACTION	STREAM AND CHANNEL RENOVATIONS
DESCRIPTION	Renovate Channels; several blocks have eroding channels
HAZARD(S)	Flooding
ESTIMATED COST	Varies
FUNDING	General Funds, HMGP, BRIC, FMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village has implemented a new culvert ordinance and is currently working to rebuild the bank in several locations.

SECTION SEVEN: VILLAGE OF JUNIATA COMMUNITY PROFILE

MITIGATION ACTION	VULNERABLE POPULATION DATABASE
DESCRIPTION	Develop a vulnerable population database
HAZARD(S)	All hazards
ESTIMATED COST	N/A
FUNDING	General Fund, Staff Time
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Currently exploring opportunities with local church groups to develop a database.

MITIGATION ACTION	WASTEWATER SYSTEM IMPROVEMENTS
DESCRIPTION	Explore ways to prevent stormwater overload on wastewater system
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	Varies by scale
FUNDING	General Fund, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	Village in the process of updating runoff channels and replacing box culverts. The lagoons have also been dredged and side walls have been stabilized.

MITIGATION ACTION	WATER METERS
DESCRIPTION	Develop a system to install more water meters
HAZARD(S)	Drought and Extreme Heat
ESTIMATED COST	\$5,000+
FUNDING	General Funds, HMGP, BRIC
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Village has passed water meter resolution requiring water meter installations on all buildings by 3/2021.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Purchase and promote use of NOAA weather radios
HAZARD(S)	All hazards
ESTIMATED COST	\$50 per unit
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	Low
LEAD AGENCY	Civil Defense Director
STATUS	All churches used as shelters have new radios. Village would like to explore social media giveaway for residents.

COMMUNITY PROFILE

VILLAGE OF KENESAW

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

Local Planning Team

Table KEN.1: Village of Kenesaw Local Planning Team

Name	Title	Jurisdiction
Jeff Edmondson	Utilities Superintendent	Village of Kenesaw
Cindy Kiefer	Village Clerk	Village of Kenesaw

Location and Geography

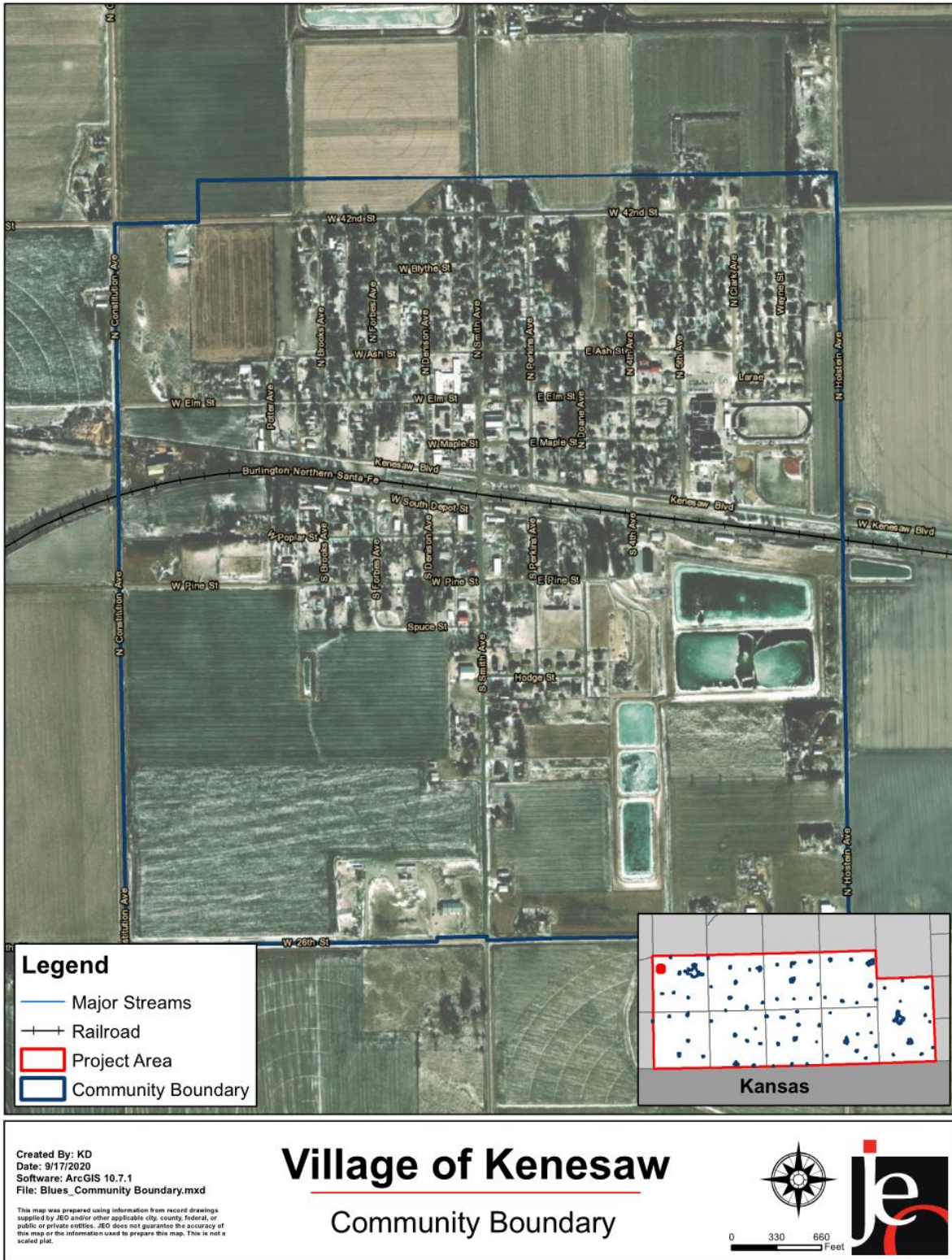
The Village of Kenesaw is located in the north western portion of Adams County. The Village of Kenesaw covers an approximate area of three quarters of one square mile. There are no major waterways within the area include, although there are three small retention ponds located in the southern portion of the community. The area is not heavily forested, nor is located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Kenesaw's major transportation corridors include Nebraska Highway Spur 1A, which runs north-south and connects Kenesaw and U.S. Highway 6/34 to the south. Spur 1A accommodates on average 605 vehicles per day, 70 of which are heavy commercial vehicles. The local planning team indicated that Kenesaw Boulevard and 12th Street are also routes of concern for the village.

Kenesaw has two rail services, Burlington Northern Santa Fe, and Amtrak, which runs on the same line. At Kenesaw, the BNSF runs east-west heading into Lincoln and west to east. The village expressed interest in putting lights near the track to improve safety. Chemicals such as anhydrous ammonia are regularly transported along local routes, according to the planning team; however, no significant spills or events have occurred. Transportation information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

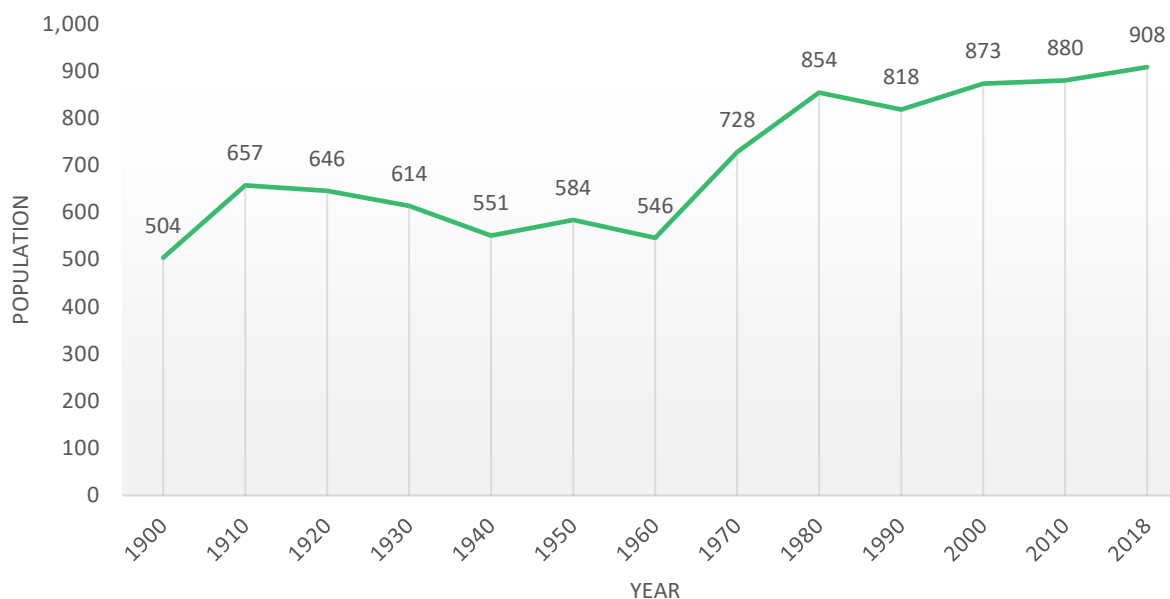
Figure KEN.1: Village of Kenesaw Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1900 to 2018 (estimated). This figure indicates that the population of Kenesaw grew 1960 and 1980, and then again between 2010 and 2018. Communities with growing populations may be more prone to developing additional land and building new structures. Growing communities may also have additional funding available to pursue mitigation actions. The village's population accounted for approximately 3% of Adams County's population in 2018.

Figure KEN.2: Kenesaw Population 1900-2018



Source: U.S. Census Bureau⁴⁹

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

- **Older.** The median age of Kenesaw was 42.1 years old in 2018, compared with the county average of 37.4 years. Kenesaw's population has grown older since 2010, when the median age was 37.2 years old. Kenesaw had a larger proportion of people under 20 years old (29.6%) than the county (27.9%).⁵⁰
- **Less ethnically diverse.** Between 2010 and 2018, Kenesaw saw no change in demographics (99% White, non-Hispanic, 1% two or more races). During that time, Adams County had: 1% (Black or African American), grew from 0% to 1% American Indian, 1% Asian, and declined 4% to 2% other races from 2010 to 2018 respectively.⁵¹
- **Equally likely to be at the federal poverty line.** The poverty rate of all persons in Kenesaw was 13.8% while the county was 13% in 2018.⁵²

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

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

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

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

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Kenesaw and Adams County included Manufacturing, Retail, and Education.⁵³
- **Household income.** Kenesaw's median household income in 2018 (\$60,855) is approximately \$9,000 higher than the county's median household income (\$51,536).⁵⁴
- **More long-distance commuters.** About 41.1% percent of workers in Kenesaw commuted for fewer than 15 minutes, compared with about 61% of workers in Adams County. About 43.6% of workers in Kenesaw commute 30 minutes or more to work, compared to about 14.4% of the county workers.⁵⁵

Major Employers

Major employers for the community include Kenesaw Public Schools and Cooperative Producers, Inc. (CPI). Approximately half of Kenesaw residents commute to other communities for work, according to the planning team.

Housing

In comparison to the Adams County, Kenesaw's housing stock was:⁵⁶

- **More owner occupied.** About 88.1% of occupied housing units in Kenesaw are owner occupied compared with 68.2% of occupied housing in Adams County in 2018.
- **Similar share of aged housing stock.** Kenesaw has a smaller share of homes built prior to 1970 (45.0%) than Adams County (57.3%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Kenesaw contains fewer multifamily housing with five or more units per structure than the county (1.4% compared to 7.1%). About 89.6% of housing in Kenesaw was single-family detached, compared with 75.5% of the county's housing. Kenesaw has a larger share of mobile and manufactured housing (6.9%) compared to the county (3.9%). The planning team indicated that five mobile homes are located near the intersection of Potter and Poplar Avenues, and three mobile homes are located at 200 Brooks Avenue.

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

Future Development Trends

In the past five years, some residential and commercial development has occurred. A new subdivision and some storage buildings were added. Multiple streets projects were also

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

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

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

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

completed. Three of the new storage buildings and one home were built in the floodplain. In the next five years, a new subdivision is planned for the northeast corridor of the village, near Esty and 42nd streets. The village has updated building codes to comply with floodplain regulations. According to census data, Kenesaw's population is growing. The local planning team attributes this to the new subdivision, low taxes, and no sales tax.

Parcel Improvements and Valuation

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

Table KEN.2: Kenesaw Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
508	411	\$34,765,685	302	73%	\$22,287,820

Source: County Assessor, GIS Workshop

Table KEN.3: Kenesaw Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	19-07-1358A-310565	5/30/2019	Structure (Residence) removed from SFHA
LOMA	19-07-1418A-310565	6/6/2019	Structure (Residence) removed from SFHA
LOMA	19-07-1741A-310565	8/20/2019	Portion of property removed from SFHA
LOMA	19-07-1935A-310565	9/23/2019	Structure (Residence) removed from SFHA
LOMA	20-07-0430A-310565	2/18/2020	Portion of property removed from SFHA
LOMA	20-07-0851A-310565	5/14/2020	Portion of property removed from SFHA
LOMA	20-07-1202A-310565	7/6/2020	Structure (Residence) removed from SFHA
LOMA	20-07-1304A-310565	7/31/2020	Structure (Residence) removed from SFHA

Source: FEMA Flood Map Service Center

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical storage site in Kenesaw which houses hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. There are no critical facilities located near chemical fixed sites, and no chemical spill events have occurred locally, as noted by the planning team.

Table KEN.4: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Cooperative Producers Inc	18250 W 26th St	N

Source: Nebraska Department of Environment and Energy⁵⁷

⁵⁷ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2020.

Critical Facilities

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

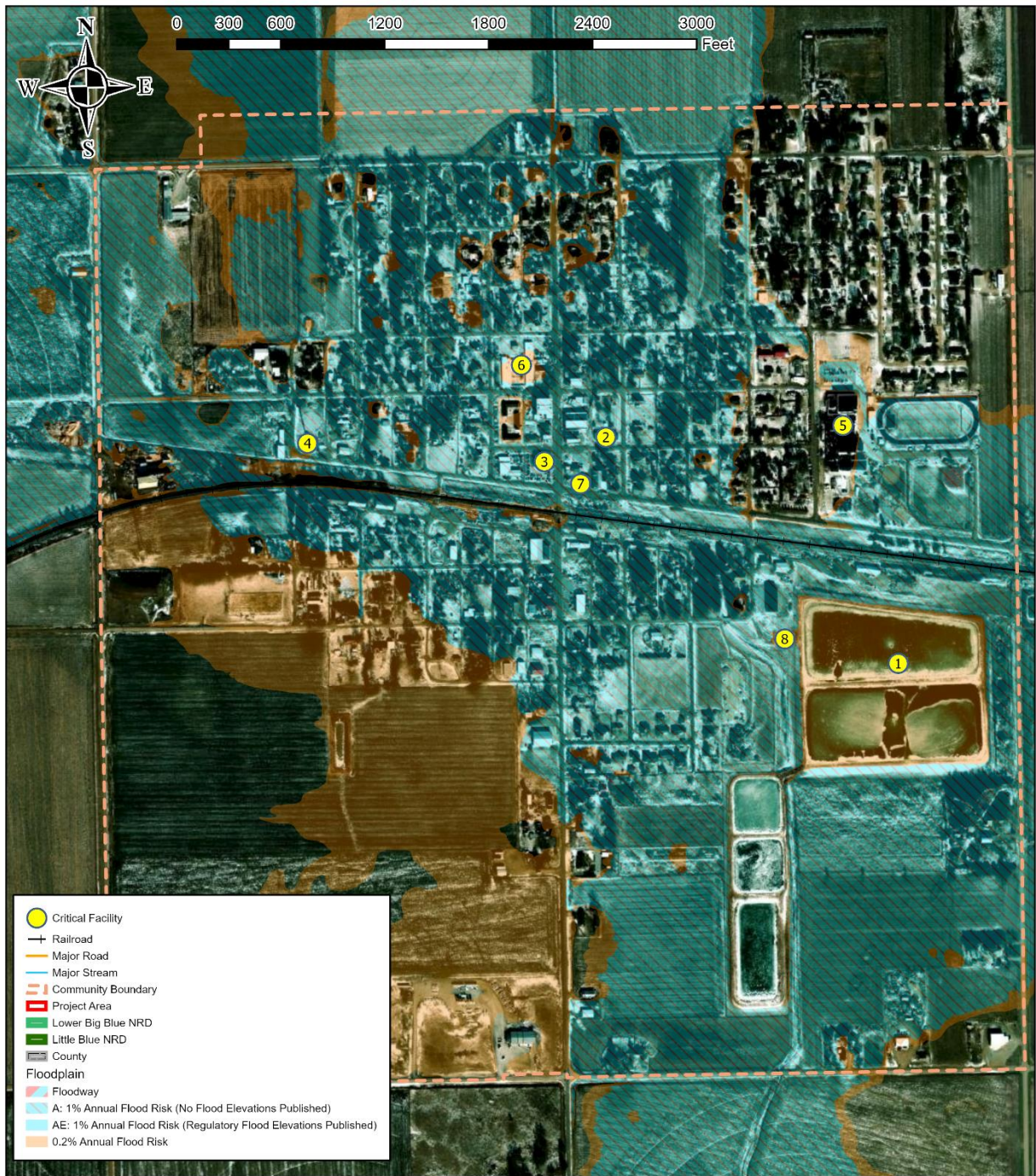
The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table KEN.5: Kenesaw Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Health and Medical	Sewer Lagoon*	N	Y	Y and N
2	Safety and Security	Fire Hall	Y	Y	Y
3	Safety and Security	Village Office	Y	Y	N
4	Food, Water, and Shelter	Water Tower	N	Y	Y
5	Food, Water, and Shelter	Kenesaw School	Y	N	Y
6	Health and Medical	Nursing Home	N	Y	Y
7	Energy	Gas Station	N	N	Y
8	Food, Water, and Shelter	Well	N	Y	Y

*Note sewer lagoons includes five individual cells. Cells 1 and 2 to the south were constructed in 1999 and are elevated above the floodplain.

Figure KEN.3: Kenesaw Critical Facilities



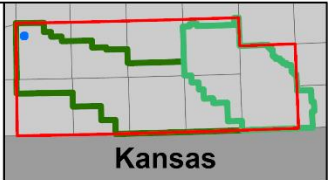
- Critical Facility
- Railroad
- Major Road
- Major Stream
- Community Boundary
- Project Area
- Lower Big Blue NRD
- Little Blue NRD
- County

Floodplain

- Floodway
- A: 1% Annual Flood Risk (No Flood Elevations Published)
- AE: 1% Annual Flood Risk (Regulatory Flood Elevations Published)
- 0.2% Annual Flood Risk

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

Village of Kenesaw
 Little Blue NRD and Lower Big Blue NRD
 Hazard Mitigation Plan 2021



Historical Occurrences

See the Adams County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

Flooding was identified as a hazard of top concern by the planning team. According to the NCEI database, there have been two reported flood events from 1996 to April 2020, resulting in \$60,000 in property damage and \$80,000 in crop damage. These were both flash flood events caused by severe thunderstorms. One of these events resulted in four feet of water on Main Street. The planning team noted that the nearby Little Blue River and the Thirty-Two Mile Creek pose the greatest threat to flooding in the community. The village recently joined the NFIP, following an update to the Adams County floodplain map.

In the past decade, the village has completed a number of drainage projects in the community. A ditch was dug near the west side of the village, new berms and ditches were added, and an overflow channel was constructed, in cooperation with the county. Interior ditch and culvert installation is currently planned for the community. Projects identified as being needed in the future include a flood mitigation study, levee/floodwall construction and improvements, and additional water storage southeast of the village.

The majority of the village is located within the floodplain. As of November 2020, Kenesaw has fifteen NFIP policies in-force for \$1,477,600. According to NeDNR as of February 2020, there are no repetitive flood loss properties in the village.

Levee Failure

Kenesaw is protected by the Kenesaw Dike. This dike is 2.5 miles in length, and presently diverts water to Thirty-Two Mile Creek. The Little Blue NRD constructed this structure on the north side of town. The Kenesaw Dike is not certified by USACE. The structure was constructed to divert water entering Kenesaw to the north. The local planning team noted the dike provides significant protection to the majority of the village. No levee renovations are needed at this time. Kenesaw is also working to update its floodplain maps and joining the NFIP.

During this plan update, Kenesaw identified the following projects to mitigate this hazard: conducted interior ditch and culvert improvements, levee/floodwall improvements, and flood mitigation study. An identified mitigation action for this plan includes raising the dike by three feet based on mapping data provided from NeDNR. This elevation is required for the dike to meet FEMA regulation standards for recognition.

Severe Winter Storms

Severe winter weather is part of the regular climate for Kenesaw and was identified as a top concern for the village. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 99 severe winter storm events in Adams County from 1996 through April 2020, resulting in \$21,570,000 in property damages and \$1,500,000 in crop damage.

Kenesaw's main concerns regarding severe winter storms centered on power outages and transportation accidents. Snow removal resources for the village include a snowplow (purchased in 2019), a motor grader, and a loader. Southern Public Power District provides power to the village and the planning team stated that no power lines are buried. Kenesaw representatives recalled a significant ice storm event approximately seven years ago which resulted in power outages of up to ten days.

Tornadoes and High Winds

Due to previous events, tornadoes and high winds were identified as hazards of top concern. According to NCEI data, there have been 40 high wind events in Adams County from 1996 to April 2020. High winds are common across the region and can cause property and tree damage and brief power outages.

On May 2, 1999, F-1 and F-2 tornadoes caused a combined total of \$450,000 in property damage in just outside of the Village of Kenesaw. In the past, the community has rented a generator. Kenesaw has one alert siren, which is located next to the fire depot. There is currently no sanctioned place for people seeking shelter from a tornado, but the village is currently working on a new office with a storm shelter. The Little Blue NRD maintains a tree inventory for Kenesaw, which has assessed the quality of each city-owned tree. Kenesaw has also expressed interest in becoming a member of Tree City USA.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Kenesaw has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five member board and the following offices: clerk/treasurer, deputy clerk/treasurer, attorney, fire chief, sewage plant operators, water & wastewater, street & drain ways, structures and contents/ fire department, public relations/ human resources, planning commissioner, EMT commissioner, street engineer, and Adams County Emergency Manager.

Capabilities

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

Table KEN.6: Capability Assessment

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

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

Table KEN.7: Overall Capability

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

Plan Integration

The Village of Kenesaw has a Comprehensive Plan which was last updated in 2020. The plan specifically discusses flooding and impacts from cyberattack/terrorism and power outages. The plan also encourages clustering development in sensitive areas and identifies areas in need of additional shelters. Currently there is no established timeline to update the Comprehensive Plan. The village’s zoning and floodplain ordinances were also updated with the Comprehensive Plan. These ordinances discourage and/or severely limit development in the floodplain or other hazardous areas. The zoning ordinances also considers the role of the urban wildfire interface (WUI) for future development. Current regulations allow the village to implement water restrictions if needed during periods of significant drought.

The Village of Kenesaw is included in the Adams County Local Emergency Operations Plan (LEOP), which was last updated in March 2018. The LEOP is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management, and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county.

The local planning team noted the current municipal budget has the ability to accommodate additional mitigation projects and available funds have increased over the past several years. Currently portions of the budget are allocated for projects to increase drainage, replace water meters, and pavement projects on local streets. The Capital Improvements Plan (CIP) is updated annually alongside the budget. The CIP includes specific projects to increase local capabilities including a new village office, storm sewer upgrades throughout the community, water main upgrades, fire hall improvements, and streets improvements.

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

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

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The last review of the profile was performed in 2018; however, no changes or revisions were identified. The local planning team will include the Utility Superintendent, Board Chairperson, Fire Chief, and County Emergency Manager. The local planning team will review the plan no less than bi-annually and will include the public in the review and revision process by sharing information through its website and at board meetings.

Mitigation Strategy

Completed Mitigation Actions:

MITIGATION ACTION	BERMS AND DITCH
DESCRIPTION	Construct berms and ditch
HAZARD(S)	Flooding
STATUS	New berms and ditches have been built to improve drainage in the village. This was one of the largest drainage projects the village has done, at a cost of \$280,000.

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Purchase a new pumper to replace an old, leaking pumper. Replace air packs.
HAZARD(S)	All hazards
STATUS	These purchases have been made and cost \$75,000.

MITIGATION ACTION	FLOODPLAIN MAPPING
DESCRIPTION	Conduct floodplain mapping and enroll in the National Flood Insurance Program
HAZARD(S)	Flooding
STATUS	Nebraska Department of Natural Resources and Adams County have finished updating the floodplain maps. Kenesaw has since joined the NFIP.

MITIGATION ACTION	OVERFLOW CHANNEL
DESCRIPTION	Construct an overflow channel
HAZARD(S)	Flooding
STATUS	Overflow channel has been built in conjunction with the drainage project.

MITIGATION ACTION	SNOW REMOVAL EQUIPMENT
DESCRIPTION	Purchase new snow removal equipment including a truck with a plow
HAZARD(S)	Severe Winter Storms
STATUS	New snow removal equipment has been purchased.

MITIGATION ACTION	WATER METERS
DESCRIPTION	Install water meters
HAZARD(S)	Drought and Extreme Heat
STATUS	New water meters have been installed. Project was funded by SRF grant for \$600,000.

Continued Mitigation Actions:

MITIGATION ACTION	DAM/LEVEE/FLOODWALL CONSTRUCTION AND IMPROVEMENTS
DESCRIPTION	Raise the village dike by three feet, based on mapping data from the state Department of Natural Resources.
HAZARD(S)	Flooding
ESTIMATED COST	\$5,000,000
FUNDING	General Funds, HMGP, BRIC, FMA
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	FLOOD MITIGATION STUDY AND/OR PARCEL LEVEL FLOOD MITIGATION PLAN
DESCRIPTION	Develop a comprehensive flood mitigation study and plan to identify specific flood reduction projects. Work with engineer to scope possible flood mitigation projects.
HAZARD(S)	Flooding
ESTIMATED COST	\$20,000+
FUNDING	General Funds, HMGP, BRIC, FMA
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	INTERIOR DITCH AND CULVERT IMPROVEMENTS
DESCRIPTION	Conduct improvements to ditches and culverts
HAZARD(S)	Flooding
ESTIMATED COST	\$5,000+
FUNDING	General Funds, HMGP, BRIC, FMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Current improvements are underway. New culverts are planned for several locations such as for Larae Street.

MITIGATION ACTION	SAFE ROOM/STORM SHELTERS
DESCRIPTION	Construct a storm shelter for community citizens
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$300,000
FUNDING	General Funds, HMGP
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	New village office with shelter is the planning phase.

SECTION SEVEN: VILLAGE OF KENESAW COMMUNITY PROFILE

MITIGATION ACTION	TREE CITY USA
DESCRIPTION	Work to join Tree City USA
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	N/A
FUNDING	General Funds, Staff Time
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

COMMUNITY PROFILE

VILLAGE OF PROSSER

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

Local Planning Team

Table PRO.1: Village of Prosser Local Planning Team

Name	Title	Jurisdiction
Michael Matthews	Utility Superintendent	Village of Prosser
Michelle Matthews	Board Chair	Village of Prosser

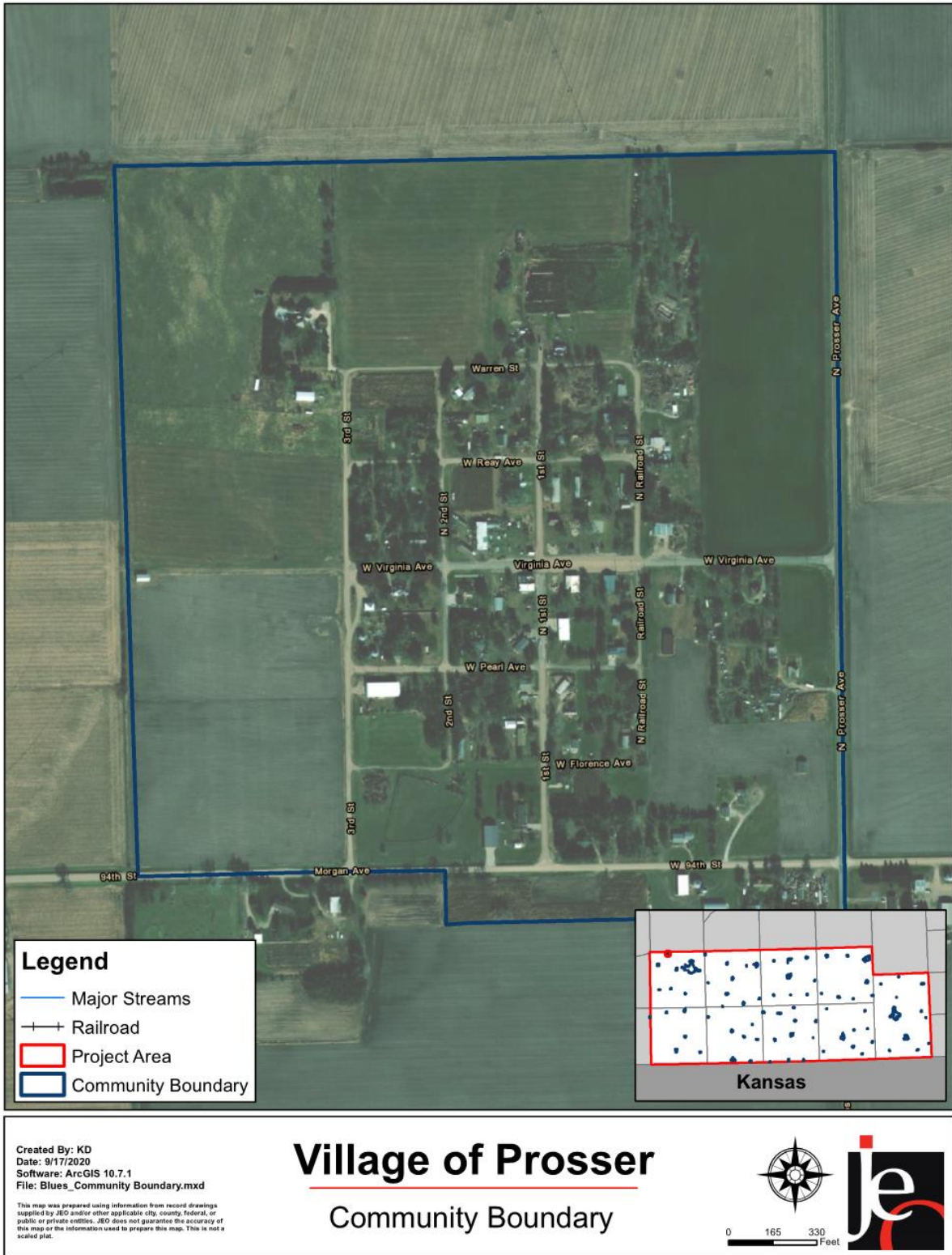
Location and Geography

The Village of Prosser is located in the northern portion of Adams County. The Village of Prosser covers an approximate area of one quarter of one square mile. There are no major waterways within the area. The area is not heavily forested, nor is located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Prosser's major transportation corridors include Nebraska Highway Spur 40D runs north-south and connects Prosser to I-80 to the north. Spur 40D accommodates on average 430 vehicles per day, 35 of which are heavy commercial vehicles. Hazardous agricultural chemicals are commonly transported by highway through the community. Prosser does not have any rail lines. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

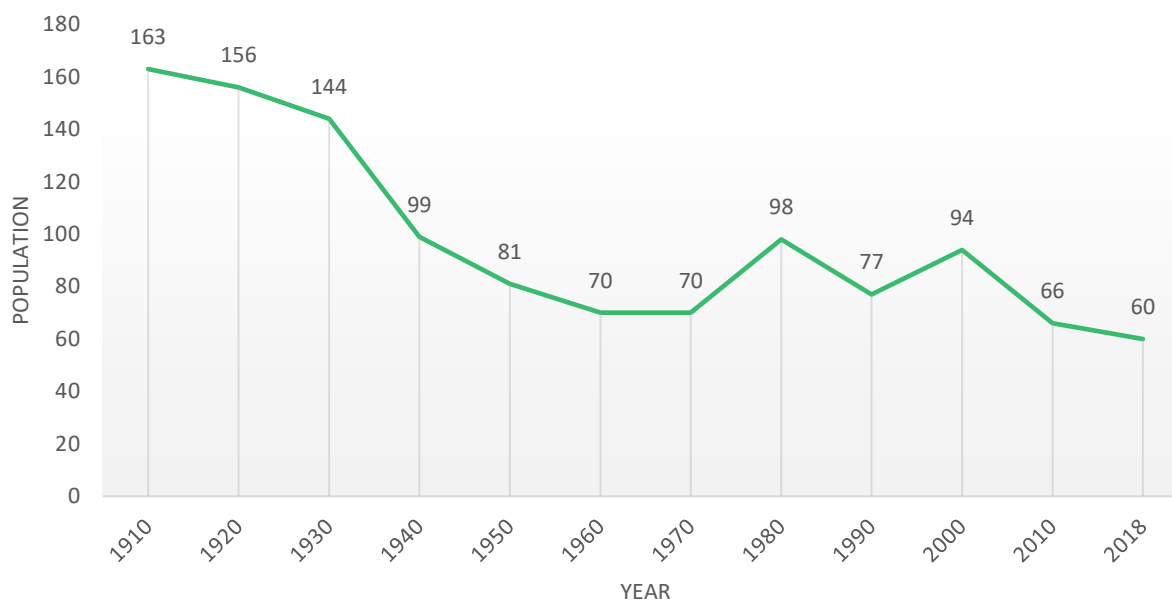
Figure PRO.1: Village of Prosser Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1910 to 2018 (estimated). This figure indicates that the population of Prosser declined until the 1960s and has fluctuated since then. The village's population accounted for less than 1% of Adams County's population in 2018.

Figure PRO.2: Prosser Population 1910-2018



Source: U.S. Census Bureau⁵⁸

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

- **Older.** The median age of Prosser was 60 years old in 2018, compared with the County average of 37.4 years. Prosser's population has grown older since 2010, when the median age was 52.5 years old. Prosser had a smaller proportion of people under 20 years old (18.4%) than the County (27.9%).⁵⁹
- **Less ethnically diverse.** Between 2010 and 2018, Prosser saw no change in demographics (100% White, non-Hispanic). During that time, Adams County had: 1% (Black or African American), grew from 0% to 1% American Indian, 1% Asian, and declined 4% to 2% other races from 2010 to 2018 respectively.⁶⁰
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Prosser was 25% while the County was 13% in 2018.⁶¹

⁵⁸ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

⁵⁹ United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]

⁶⁰ United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]

⁶¹ United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Varying mix of industries.** Employment sectors accounting for 10% or more of employment in Prosser included Construction, Manufacturing, Education, Arts and Entertainment, and other services. Primary industries in Adams County included Manufacturing, Retail, and Education.⁶²
- **Lower household income.** Prosser's median household income in 2018 (\$36,250) is approximately \$15,000 lower than the county's median household income (\$51,536).⁶³
- **More long-distance commuters.** About 63.9% percent of workers in Prosser commuted for fewer than 15 minutes, compared with about 61% of workers in Adams County. About 27.1% of workers in Prosser commute 30 minutes or more to work, compared to about 14.4% of the County workers.⁶⁴

Major Employers

The local planning team noted there are no major employers in the village and all residents either commute to surrounding areas for work or work the surrounding agricultural land.

Housing

In comparison to the Adams County, Prosser's housing stock was:⁶⁵

- **More owner occupied.** About 82.6% of occupied housing units in Prosser are owner occupied compared with 68.2% of occupied housing in Adams County in 2018.
- **Smaller share of aged housing stock.** Prosser has a smaller share of homes built prior to 1970 (50.0%) than Adams County (57.3%).
- **Fewer multi-family homes.** The predominant housing type in the village is single family detached and Prosser contains fewer multifamily housing with five or more units per structure than the County (0% compared to 7.1%). About 83.3% of housing in Prosser was single-family detached, compared with 75.5% of the County's housing. Prosser has a larger share of mobile and manufactured housing (16.7%) compared to the County (3.9%).

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

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

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

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

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

Future Development Trends

In the past five years one new home has been built in the village, some roads were improved, and one old shed on park property was demolished. There is no new residential or commercial development currently planned for the next five years. The village has seen some population growth in town which the local planning team attributes to families moving into the community.

Parcel Improvements and Valuation

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

Table PRO.2: Prosser Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
95	54	\$2,089,510	0	0%	\$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are no chemical storage site in Prosser which houses hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.⁶⁶

Critical Facilities

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

Table PRO.3: Prosser Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Village Hall / Fire Hall	Y	Y	N
2	Food, Water, and Shelter	Well House	N	Y	N

⁶⁶ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed August 2020.

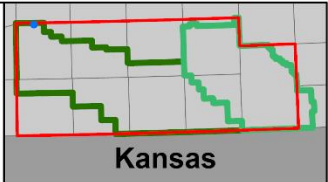
Figure PRO.3: Prosser Critical Facilities



Created By: NL
 Date: 5/24/2021
 Software: ArcGIS Pro 2.8.0
 File: Blues Critical Facilities.aprx
 This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Village of Prosser

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



Historical Occurrences

See the Adams County community profile for historical hazard events.

Hazard Prioritization

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

Severe Thunderstorms

The village has had repeated damage from storms and hail in the past. The community experiences 3 to 5 hailstorms per year and critical facilities have been damaged in the past. A severe thunderstorm and associated impacts on May 11, 2005 lead to over \$100,000 in damages to community properties. Municipal records are not currently protected by surge protectors; however, municipal records are planned to be stored at the wellhouse. The village encourages residents to use hail-resistant roofing materials on homes and businesses. The village hall has a small generator and the well house has a large generator. Adams County Emergency Management has provided weather radios to the village hall to provide weather event notification and to assist in coordination between local police and fire. The community has also identified hazardous trees that could pose a threat to power outages if a storm were down them. Prosser identified a project to backup municipal records, develop a storm shelter, and obtain a generator.

Severe Winter Storms

The largest concerns are related to road closures, resident safety, and building damage. The village does not have snow removal equipment, designated snow routes, or any snow fences in the community. The village recently purchased a GMC Blazer with a blade to remove snow on community roads and residents assist in removing snow as well. Adams County Emergency Management intends to designate emergency snow routes in the future. To address this hazard, Prosser identified a project to backup municipal records.

Tornadoes and High Winds

The village has had many damaging high wind events over the past several years and the threat of tornados is present in the area, although no significant damages have occurred in the past. The village does not currently backup municipal records, critical facilities have not been notable damaged by this hazard in the past. A new alert and warning siren was installed through an HMA grant. The community does not have any safe rooms or options available for community members seeking shelter from high wind events. The local planning team also noted many homes in the community do not have basements and is interested in exploring safe room designation at the well houses. The county offers text messages for tornado alerts and the village also has mutual aid agreements to assist in a post-disaster event. To address this hazard, Prosser identified a project to backup municipal records and develop a storm shelter.

Flooding

Flooding was not identified as a hazard of top concern and there are no floodplain areas in or around the village; however, the village is a part of the NFIP with no active policies in force.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Prosser has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member board and the following offices: clerk/treasurer, attorney, utility superintendent, chief of police, and fire chief. The village also uses the County Emergency Management and Planning Departments to assist in projects. For more information regarding regional hazards, please see Section Four: Risk Assessment.

Capabilities

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

Table PRO.4: Capability Assessment

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

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

Table PRO.5: Overall Capability

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

Plan Integration

The Village of Prosser currently has a Floodplain Ordinance as a member of the NFIP as of 2018. However, there are no identified floodplain areas located within the village and future development is unlikely to occur in flood-risk hazard areas. The village has used USDA grant programs in the past to assist in installing R/O systems due to high nitrate levels. The local planning team noted current municipal funds are limited to maintaining current infrastructure, especially as filters for the R/O systems must be replaced every two years.

The Village of Prosser is included in the Adams County Local Emergency Operations Plan (LEOP), which was last updated in March 2018. The LEOP is an all-hazards plan that provides clear assignment of responsibility in case of an emergency. By a resolution of the Adams County Board of Supervisors, the LEOP covers all cities and villages in Adams County. Specific hazards are addressed in the LEOP including Agricultural Disease, Dam Failure, Debris Management,

and Hazardous Chemical Spills. The plan also outlines proper communication channels and activation of the Emergency Operations Center in Adams County and each community within the county.

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

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

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

The village adheres to county and state zoning and building code requirements. No other planning mechanisms were identified for the Village of Prosser which integrate hazard mitigation goals and objectives.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and

Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The Village of Prosser last reviewed their section of the HMP in January 2016 with the local planning team which includes the Chairman of the Board, Village Clerk, and County Emergency Management. The local planning team will review the Community Profile annually at a minimum. The public will be notified and involved in the update review process through announcements at board and council meetings and electronic copies of the minutes as requested.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	FLOODPLAIN MAPPING
DESCRIPTION	Conduct floodplain mapping and enroll in the national flood insurance program
HAZARD(S)	Flooding
STATUS	A new county floodplain map was approved and adopted in July 2018.

MITIGATION ACTION	OUTDOOR WARNING SIREN
DESCRIPTION	Obtain and install a backup warning siren
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	A new siren was installed through HMA in 2017/2018.

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR
DESCRIPTION	Obtain and install a backup generator for fire hall
HAZARD(S)	All hazards
ESTIMATED COST	\$35,000
FUNDING	Taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	County EMA, Village Board
STATUS	A small generator to run lights and computer is needed.

MITIGATION ACTION	BACKUP MUNICIPAL RECORDS
DESCRIPTION	Develop a system to backup all municipal records
HAZARD(S)	All hazards
ESTIMATED COST	\$50/year
FUNDING	General funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	The village is currently working to relocate files to the well house for storage.

SECTION SEVEN: VILLAGE OF PROSSER COMMUNITY PROFILE

MITIGATION ACTION	SAFE ROOM/STORM SHELTER
DESCRIPTION	Construct a storm shelter / safe room
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$200,000
FUNDING	Taxes, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	County EMA, Village Board
STATUS	This project has not yet been started. The village should construct a storm shelter near the village hall to hold approximately 70 people