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## County Profile

# Brown County

## Region 24 Emergency Management
## Multi-Jurisdictional Hazard Mitigation Plan Update

## 2021

## Local Planning Team

**Table BRN.1: Brown County Local Planning Team**

| Name | Title | Jurisdiction |
|---|---|---|
| **Dennis Bauer** | Commissioner | Brown County |
| **Raymond Small** | Commissioner | Brown County |
| **Regan Wiebelhaus** | Commissioner | Brown County |
| **Kenneth Turpin Jr.** | Highway Superintendent | Brown County |

## Location, Geography, and Climate

Brown County is located in north-central Nebraska and is bordered by Keya Paha, Cherry, Blaine, Loup, and Rock Counties. The total area of Brown County is 1,225 square miles. The largest community and county seat is the City of Ainsworth. Brown County also has two villages: Johnstown and Long Pine. The county is divided in to three physiographic regions. The largest region is in the Sand Hills Region. The northeast section of the county is classified into the Holt Table Category, which is defined by rolling plains. The Niobrara River Valley defines the western section of the county.

### Climate

The table below compares climate indicators with those of the entire state. Climate data is helpful in determining if certain events are higher or lower than normal. For example, if the high temperatures in the month of July are running well into the 90s, high heat events may be more likely which could impact vulnerable populations.

**Table BRN.2: Brown County Climate**

| | Brown County | State of Nebraska |
|---|---|---|
| **July Normal High Temp[1]** | 86.9 | 87.4 |
| **January Normal Low Temp[1]** | 15.4 | 13.8 |
| **Annual Normal Precipitation[2]** | 22.7 | 23.8 |
| **Annual Normal Snowfall[2]** | 39.2 | 25.9 |

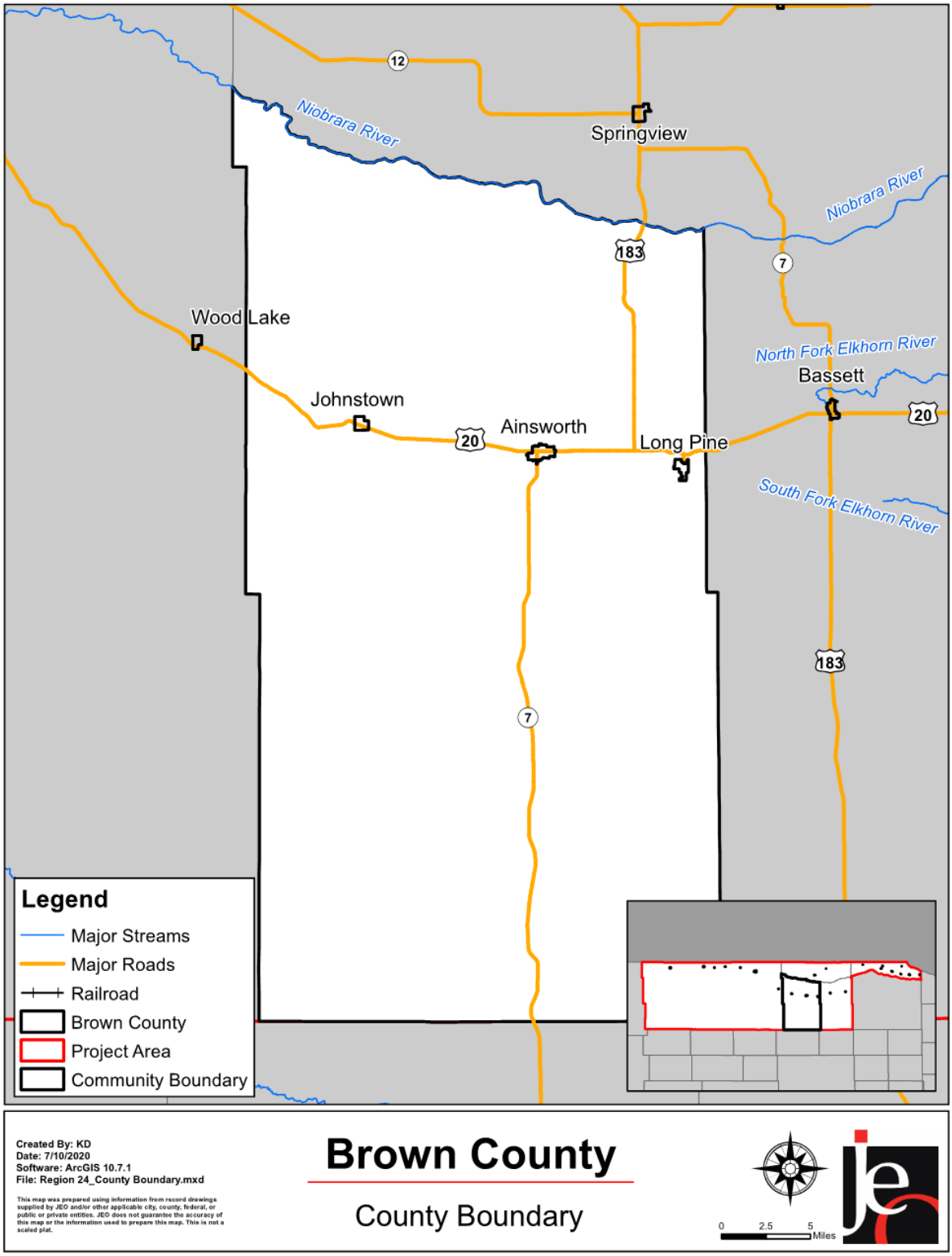
*Source: NCEI Climate Normals[1], High Plains Regional Climate Center[2]*
*Precipitation includes all rain and melted snow and ice.*

## Transportation

Brown County's major transportation corridors include US Highway 20 and 183 and Nebraska State Highways 7. Agricultural chemicals and fuel are carried along the highways and county roads. Isolated spills have occurred but have had minimal impact. There are no rail lines traveling through the county. The county also has one air landing strip located near the City of Ainsworth. Transportation routes of most concern include Meadville Avenue, Norden Avenue, Moon Lake Avenue, Elsmere Road, and South Pine Avenue. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors, as well as areas more at risk of transportation incidents.

1 National Centers for Environmental Information. "1981-2010 U.S. Climate Normals." Accessed July 2020. https://www.ncdc.noaa.gov/cdo-web/datatools.
2 High Plains Regional Climate Center. "Monthly Climate Normals 1905-2020 – Ainsworth NE." Accessed July 2020. http://climod.unl.edu/.

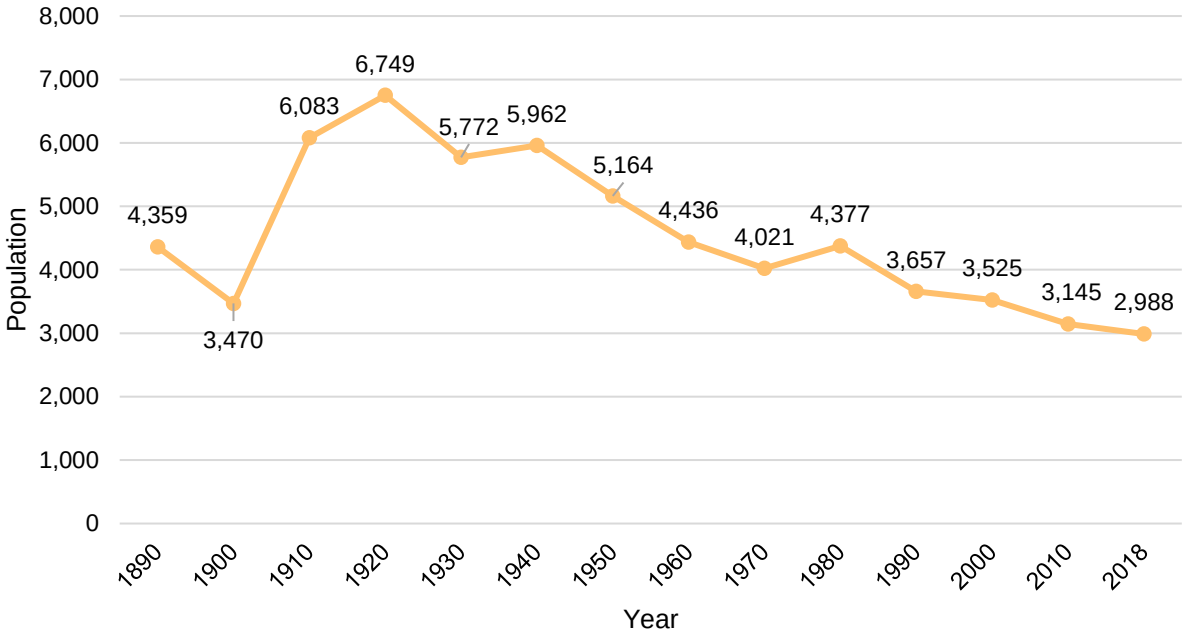
**Figure BRN.1: Brown County**



## Demographics, Economics, and Housing

The following figure displays the historical population trend from 1890 to 2018.[3] This figure indicates that the population of Brown County has been decreasing since 1980. A declining population can lead to more unoccupied housing that is not being maintained and is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the county, which could make implementation of mitigation projects more fiscally challenging.

**Figure BRN.2: Population 1890 - 2018**




*Source: U.S. Census Bureau*

The following table indicates Brown County has a lower percentage of people under the age of five and a higher percentage over the age of 64. This is relevant to hazard mitigation because the very young and elderly populations may be at greater risk from certain hazards than others. For a more elaborate discussion of this vulnerability, please see Section Four: Risk Assessment.

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

| Age | Brown County | State of Nebraska |
|---|---|---|
| **<5** | 4.6% | 6.9% |
| **5-64** | 69% | 78.1% |
| **>64** | 26.4% | 15.0% |
| **Median** | 51.1 | 36.4 |

*Source: U.S. Census Bureau*[3]

The following table indicates that median household income and per capita income for the county is lower than the State of Nebraska. Median home value and rent are also both lower than the rest of the state. These economic indicators are relevant to hazard mitigation because they indicate the relative economic strength compared to the state as a whole. Areas with economic indicators which are relatively low may influence a county's level of resilience during hazardous events.

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

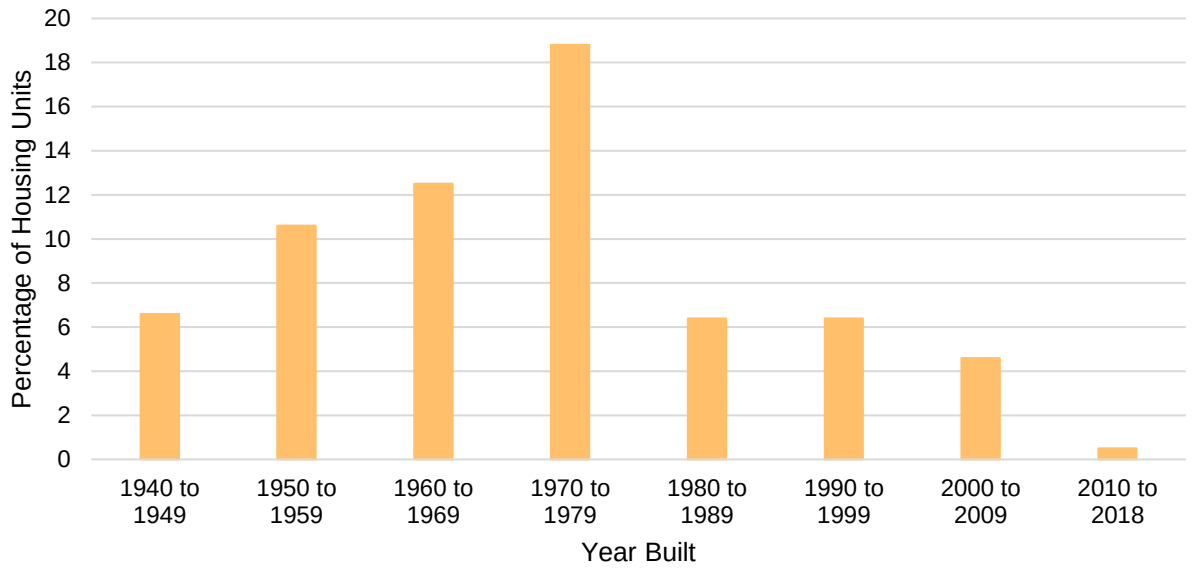
**Table BRN.4: Housing and Income**

| | Brown County | State of Nebraska |
|---|---|---|
| **Median Household Income** | $41,550 | $59,116 |
| **Per Capita Income** | $28,860 | $31,101 |
| **Median Home Value** | $80,100 | $147,800 |
| **Median Rent** | $518 | $803 |

*Source: U.S. Census Bureau[4,5]*

The following figure indicates that the majority of housing in Brown County was built between 1970 and 1979 (18.8%). According to 2018 ACS 5-year estimates, the county has 1,880 housing units with 76.3 percent of those units occupied. There are approximately 133 mobile homes in the county. Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes may be at greater risk. Finally, residents that live in mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if not anchored correctly.

**Figure BRN.3: Housing Units by Year Built**




*Source: U.S Census Bureau[4]*

**Table BRN.5: Housing Units**

| Jurisdiction | Total Housing Units | | | | Occupied Housing Units | | | |
|---|---|---|---|---|---|---|---|---|
| | Occupied | | Vacant | | Owner | | Renter | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| **Brown County** | 1,434 | 76.3% | 446 | 23.7% | 1,064 | 74.2% | 370 | 25.8% |
| **Nebraska** | 754,063 | 90.8% | 76,686 | 9.2% | 498,567 | 66.1% | 255,496 | 33.9% |

*Source: U.S. Census Bureau[4]*

## Major Employers

According to 2016 Business Patterns Census Data, Brown County had 131 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

4 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. https://data.census.gov/cedsci/.
5 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. https://data.census.gov/cedsci/.

**Table BRN.6: Business in Brown County**

| | Total Businesses | Number of Paid Employees | Annual Payroll |
|---|---|---|---|
| **Total for All Sectors** | 131 | 842 | $26,964,000 |

*Source: U.S Census Bureau*[6]

Agriculture is important to the economic fabric of the State of Nebraska. Brown County's 165 farms cover 81,892 acres of land, about 10.4% of the county's total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute to agriculture by producing, processing and marketing farm products. These businesses generate income, employment and economic activity throughout the region.

**Table BRN.7: Agricultural Inventory**

| | Agricultural Inventory |
|---|---|
| **Number of Farms with Harvested Cropland** | 165 |
| **Acres of Harvested Cropland** | 81,892 |

*Source: USDA Census of Agriculture, 2017*[7]

## Future Development Trends

Over the past five years, two fertilizer plants, a feedmill, and hog facility have all expanded. In addition, there have been improvements in infrastructure across the county. According to the 2018 American Community Survey estimates, Brown County's population is declining. The local planning team attribute this to the industrialization of agriculture needing less workers. In the next five years, no housing or new businesses are planned, however the county usually only receives notice 12-18 months prior.

## Parcel Improvements and Valuation

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

**Table BRN.8: Parcel Improvements and Value in the Floodplain**

| Number of Improvements | Total Improvement Value | Number of Improvements in Floodplain | Value of Improvements in Floodplain | Percentage of Improvements in the Floodplain |
|---|---|---|---|---|
| 1,956 | $139,769,663 | N/A | N/A | N/A |

*Source: County Assessor, 2018*
*N/A: The county does not have a mapped floodplain, so it is not known how many improvements are in the floodplain.*

## Community Lifelines

### Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are a total of eight chemical storage sites throughout Brown County. The following table lists the name, location, and whether they are in the floodplain. In addition, the local planning team also identified Bomgaars as a location that stores chemicals. The county has

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

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

a HazMat team, but there are concerns regarding response time if the spill is a long distance away.

**Table BRN.9: Chemical Storage Fixed Sites**

| Facility Name | Nearest Community | In Floodplain (Y/N) |
|---|---|---|
| CenturyLink | Ainsworth | N/A |
| Farmers/Ranchers Co-op Assn | Ainsworth | N/A |
| Farmers/Ranchers Co-op Assn | Ainsworth | N/A |
| Farmers/Ranchers Co-op Assn | Ainsworth | N/A |
| Madison's Great Western | Ainsworth | N/A |
| NDOT District 08 Headquarters | Ainsworth | N/A |
| Central Valley Ag | Ainsworth | N/A |
| Akrs Equipment Group | Ainsworth | |

*Source: Nebraska Department of Environment and Energy, 2019*[8]
*N/A: There is no mapped floodplain in the county, so it is not known if any of the sites are located in the floodplain.*

## Critical Facilities

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

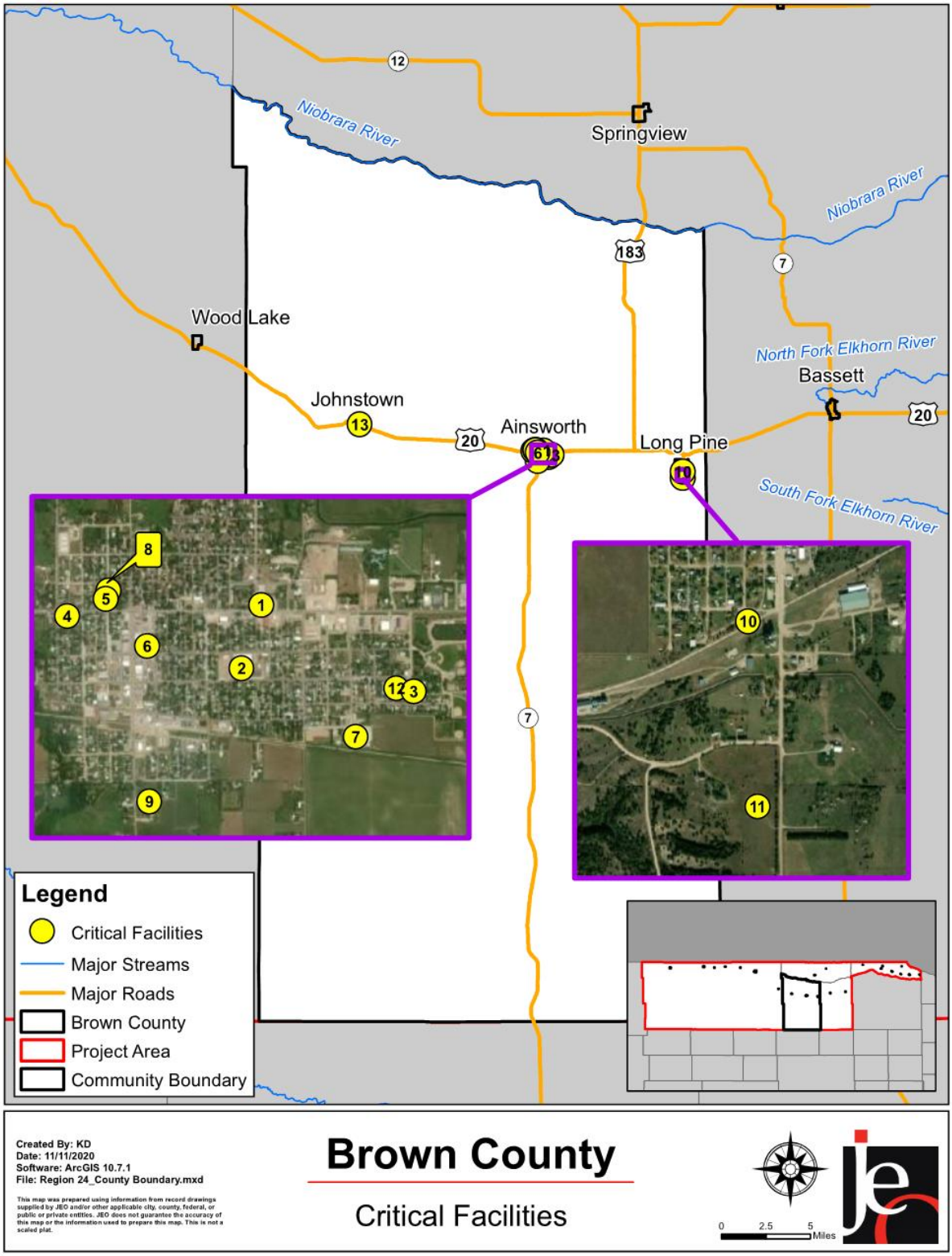
**Table BRN.10: Critical Facilities**

| CF Number | Name | Community Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---|---|---|---|---|
| **1** | Ainsworth City Offices | Y | N | N/A |
| **2** | Ainsworth Community Schools | Y | N | N/A |
| **3** | Ainsworth East Water Tower | N | N | N/A |
| **4** | Ainsworth West Water Tower | N | N | N/A |
| **5** | Brown County Courthouse | N | Y | N/A |
| **6** | Brown County Fire | N | Y | N/A |
| **7** | Brown County Hospital | N | Y | N/A |
| **8** | Brown County Sheriff's Office | N | Y | N/A |
| **9** | Cottonwood Villa | N | N | N/A |
| **10** | Long Pine City Office | N | N | N/A |
| **11** | Long Pine Water Tower | N | N | N/A |
| **12** | Sandhills Care Center | N | Y | N/A |
| **13** | Village of Johnstown Office | N | N | N/A |

*N/A: There is no mapped floodplain in the county, so it is not known if any facilities are located in the floodplain.*

8 Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed July 2020. https://deq-iis.ne.gov/tier2/tier2Download.html.

**Figure BRN.4: Critical Facilities**



## Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the county. The property damages from the NCEI Storm Events Database (January 1996 – March 2020) should be considered only as broad estimates. Crop damages reports come from the USDA Risk Management Agency for Brown County between 2000 and June 2020.

**Table BRN.11: County Hazard Loss History**

| Hazard Type | | Count | Property Damage | Crop Damage[2] |
|---|---|---|---|---|
| Agricultural Disease | Animal Disease[1] | 6 | 9 animals | N/A |
| | Plant Disease[2] | 1 | N/A | $15,835 |
| Chemical and Radiological Hazards (Fixed Site)[3] | | 1 | $0 | N/A |
| Chemical and Radiological Hazards (Transportation)[4] | | 0 | $0 | N/A |
| Civil Disorder | | 0 | N/A | N/A |
| Dam Failure[5,6] | | 4 | N/A | N/A |
| Drought[7] | | 432 of 1,502 months | $30,000,000 | $563,911 |
| Earthquakes[17] | | 2 | $0 | N/A |
| Extreme Heat[8] | | Avg. 5 days a year | N/A | $1,905,162 |
| Flooding[9] | Flash Flood | 8 | $650,000 | $0 |
| | Flood | 3 | $90,000 | |
| Grass/Wildfires[10] | | 98 | 70,603 acres | $6,616 |
| Hail[9]<br>Average: 1.2 inches<br>Range: 0.2 – 3 inches | | 224 | $2,182,000 | $6,984,037 |
| High Wind[9]<br>Average: 54 mph<br>Range: 40 – 66 mph | | 22 | $40,000 | $1,913,499 |
| Landslides[15] | | 1 | $0 | N/A |
| Levee Failure[16] | | 0 | $0 | N/A |
| Public Health Emergency | | 2 | N/A | N/A |
| Severe Thunderstorms[9] | Thunderstorm Wind<br>Average: 66 mph<br>Range: 58 – 109 mph | 69 | $2,339,500 | $3,278,029 |
| | Heavy Rain | 2 | $0 | |
| | Lightning | 1 | $2,000 | |
| Severe Winter Storms[9] | Blizzard | 13 | $37,000 | $241,182 |
| | Extreme Cold/Wind chill | 12 | $0 | |
| | Heavy Snow | 3 | $0 | |
| | Ice Storm | 1 | $0 | |
| | Winter Storm | 41 | $11,000 | |
| | Winter Weather | 0 | $0 | |
| Terrorism[14] | | 0 | $0 | N/A |
| Tornadoes[9]<br>Average: EF0<br>Range: EF0 -EF1 | | 15 | $147,00 | $0 |
| Auto[11] | | 670 | N/A | N/A |

| Hazard Type | | Count | Property Damage | Crop Damage[2] |
|---|---|---|---|---|
| | 10 Fatalities, 215 Injuries | | | |
| Transportation Incidents | Aviation[12] 8 Fatalities, 4 Injuries | 18 | N/A | N/A |
| | Highway Rail[13] | 2 | $16,500 | N/A |
| **Total** | | **1,217** | **$35,515,000** | **$14,908,271** |

*N/A: Data not available*
*1 - NDA, 2014 – March 2020*
*2 - USDA RMA, 2000 – June 2020*
*3 - NRC, 1990 – February 2020*
*4 - PHSMA, 1971 – June 2020*
*5 - Stanford NPDP, 1890 – 2018*
*6 – DNR Dam Inventory, July 2020*
*7 - NOAA, 1895 – May 2020*
*8 – NOAA Regional Climate Center, 1893 – May 2020*
*9 – NCEI, 1996 – March 2020*
*10 – NFS, 2000 – April 2020*
*11 – NDOT, 2006 – 2018*
*12 – NTSB, 1962 – June 2020*
*13 – DOT FRA, 1975 – 2020*
*14 – University of Maryland, 1970 – 2018*
*15 – University of Nebraska, 1960 – 2013*
*16 – USACE NLN, 1900 – June 2020*
*17 – USGS, 1900 – June 2020*

The following table provides a summary of hazards that have or have the potential to affect each participating jurisdiction in Brown County. Each jurisdiction was evaluated for previous hazard occurrence and the probability of future hazard events on each of the 20 hazards profiled in this plan. The evaluation process was based on data collected and summarized in Table BRN.11; previous impacts or the potential for impacts to infrastructure, critical facilities, people, and the economy; and the proximity to certain hazards such as dams and levees.

**Table BRN.12: Brown County and Community Hazard Matrix**

| Hazard | Brown County | City of Ainsworth | Village of Johnstown | City of Long Pine | Ainsworth Community Schools | Brown County Rural Fire Protection District |
|---|---|---|---|---|---|---|
| Ag. Disease | X | X | X | X | | |
| Chemical (Fixed Site) | X | X | | | X | X |
| Chemical (Transportation) | X | X | X | X | X | X |
| Civil Disorder | X | X | X | X | X | X |
| Dam Failure | X | | | | | X |
| Drought | X | X | X | X | X | X |
| Earthquakes | X | X | X | X | X | X |
| Extreme Heat | X | X | X | X | X | X |
| Flooding | X | X | X | X | X | X |
| Grass/Wildfires | X | X | X | X | X | X |
| Hail | X | X | X | X | X | X |
| High Wind | X | X | X | X | X | X |
| Landslides | X | X | X | X | X | X |
| Levee Failure | | | | | | |
| Public Health Emergency | X | X | X | X | X | X |
| Severe Thunderstorms | X | X | X | X | X | X |
| Severe Winter Storms | X | X | X | X | X | X |
| Terrorism | X | X | X | X | X | X |
| Tornadoes | X | X | X | X | X | X |

| Hazard | Brown County | City of Ainsworth | Village of Johnstown | City of Long Pine | Ainsworth Community Schools | Brown County Rural Fire Protection District |
|---|---|---|---|---|---|---|
| Transportation Incidents | X | X | X | X | X | X |

## County Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the county. The 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

While drought was considered a hazard of moderate concern, the county indicated that its water supply was sufficient and no alternative water sources are needed for the foreseeable future. The last major drought in the county occurred in 2012. Dry rangeland and agricultural land caused significant grass fires across the county. Since the last plan, the Ainsworth Irrigation District has switched from gravity flow irrigation to central pivots to help with water conservation. The county does not have a drought response plan or water conservation ordinance. In the future the county would like to work with the Middle Niobrara NRD to educate residents on water conservation practices.

### Flooding

Although the county does not have a mapped floodplain, the local planning team indicated that flooding is most likely to occur near Sand Draw Creek, Plum Creek, Willow Creek, Pine Creek, the Niobrara River, and the Calamus River. During the March 2019 floods, Brown County had bridges, culverts, and roads washed out. It also caused the water table in the southern part of the county to raise, which caused water to over top several roads. Critical facilities have also been damaged by past flooding events. The county is currently replacing the sand draw box culvert that was washed out with a new bridge. The bridge will allow more water to pass under the road and is much less likely to washout in the future. Additional culverts need to be added and replaced with larger structures.

### Grass/Wildfire

Brown County identified grass and wildfires as the hazard of top concern. Specific areas of concern include the wooded bluffs along the Niobrara River, Plum Creek Canyon, Hidden Paradise, Keller Park State Recreation Area, Long Pine State Recreation Area, and the Long Pine Wildfire Urban Interface. These areas have seen eastern redcedar encroachment and many access road and bridge limitations. The largest historical fire was the Fairfield Creek Fire, which was part of the Region 24 Wildfire Complex. This fire burned approximately 36,745 acres of land. There is one fire district in the county, the Brown County Rural Fire District which includes the two sub-districts of Long Pine and Johnstown. The district regularly updates fire suppression equipment and performs tree removal and controlled burns. The county does not have a wildland urban interface code but encourages property owners to have defensible space around structures. There are also incentive programs in place for landowners to use ignition resistant materials for construction. The Brown County Hospital has plans in place that can be used during future wildfire events and has conducted fire response exercises in the past. Since the last plan,

the county has updated the Community Wildfire Protection Plan with help from the Nebraska Forest Service.

### Severe Winter Storms

The county has designated snow routes, which are a prioritized when removing snow. The Brown County Roads Department is in charge of clearing snow from county roads. In the event an ambulance is needed on a road that has not been cleared, the county road crew will take a plow in front of the ambulance. Past ice storms have caused downed power lines and power outages. The local planning team estimated that less than five percent of power lines are buried in the county. This makes residents more vulnerable to power outages. The county has four facilities with backup power sources: the county courthouse, the fire district building in Ainsworth, the county sheriff department, and the county hospital.

### Tornadoes

The county has three sanctioned options for residents seeking safe shelter: the courthouse, Ainsworth High School, and the county hospital. Many residents also have the option of the seeking shelter in their basements. There are mobile home parks in the county in need of safe room options. The county offers emergency text alerts through their Code Red program. New weather radios have been purchased for the fire district and E911 services to help better notify the public of severe weather. The county also has mutual aid agreements with adjacent counties to assist in the response to tornado events.

## Governance

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

- County Clerk
- County Assessor
- County Treasurer
- County Attorney
- Emergency Manager
- Highway Superintendent
- Planning & Zoning
- Sheriff
- Surveyor
- Weed Superintendent
- Brown County Safety Committee
- KBR Solid Waste

## Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the county's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. The county has done a tabletop scenario with the Brown County Safety Committee and County employers to help develop hazard mitigation principles.

**Table BRN.13: Capability Assessment**

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

| Survey Components/Subcomponents | | Yes/No |
|---|---|---|
| | water use, fire safety, household preparedness, environmental education) | |
| | Natural Disaster or Safety related school programs | Yes |
| | StormReady Certification | No |
| | Firewise Communities Certification | No |
| | Tree City USA | No |
| | Other (if any) | - |

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

## Plan Integration

Brown County has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. In addition, the county has a building code, but it has not been integrated with the hazard mitigation plan. The county will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

### Brown County Local Emergency Operations Plan (2018)

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

### Capital Improvements Plan

The capital improvements plan lists projects the county would like to do in the future. Projects within the plan include upsizing of culverts and drainage structures, improving transportation routes for drainage, widening roadways, bridge improvements, and installing emergency generators in critical facilities.

### Comprehensive Plan

The comprehensive plan is designed to guide the future actions of the county. It contains goals and objectives aimed at safe growth, encourage clustering of development in sensitive areas, identifies areas that need emergency shelters, and encourages the preservation of open space in hazardous areas. The document is currently in the process of being updated.

### North Central Nebraska Community Wildfire Protection Plan (2020)

The purpose of the North Central Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection

capabilities, and identifies wildfire mitigation strategies. This document is updated every five years and has been integrated with the current hazard mitigation plan.

### Zoning Ordinance and Subdivision Regulations (2020)

The county's zoning ordinance and subdivision regulations outline where and how development should occur in the future. They prohibit development in known flooding areas and discourage development near chemical storage sites.

## Mitigation Strategy

Brown County's funds are limited to maintaining current facilities and have slightly increased over recent years. A large portion of funds are dedicated to disaster relief from the 2019 floods. The county will likely need assistance from grants to help pay for several of the mitigation actions listed below. The county has experience applying for grants and has been awarded one in the last five years.

### Completed Mitigation Actions

| Mitigation Action | Stabilize/Anchor Fertilizer, Fuel, and Propane Tanks |
|---|---|
| **Description** | Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in tornado or high wind event. |
| **Hazard(s) Addressed** | Tornadoes, High Winds, Severe Thunderstorms |
| **Status** | Completed. Structure was placed around county owned fuel barrels to prevent movement and spills. |

### Continued Mitigation Actions

| Mitigation Action | Alert/Warning Sirens |
|---|---|
| **Description** | Perform an evaluation of existing alert sirens in order to determine which sirens should be replaced or upgraded. Install new sirens where lacking and remote activation. |
| **Hazard(s) Addressed** | Tornadoes, High Winds, Severe Thunderstorms |
| **Estimated Cost** | $15,000+ |
| **Funding** | General Budget |
| **Timeline** | 1 Year |
| **Priority** | Medium |
| **Lead Agency** | Brown County Commissioners |
| **Status** | Not Started |

| Mitigation Action | Backup and Emergency Generators |
|---|---|
| **Description** | Provide a portable or stationary source of backup power to redundant power supplies, county wells, lift stations, and other critical facilities and shelters. |
| **Hazard(s) Addressed** | All Hazards |
| **Estimated Cost** | $15,000 - $30,000 per generator |
| **Funding** | General Budget |
| **Timeline** | 1 Year |
| **Priority** | Medium |
| **Lead Agency** | Board of Commissioners, Region 24 Emergency Management Agency |
| **Status** | In Progress. Currently working to replace the generator at the Sandhills Care Center and getting a generator for the County Shop. |

| Mitigation Action | Public Awareness/Education |
|---|---|
| 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. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchase education equipment such as projectors and laptops. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $5,000+ |
| Funding | General Budget |
| Timeline | 1 Year |
| Priority | Medium |
| Lead Agency | Brown County Commissioners |
| Status | In Progress. Fire department trainings and commissioner's public hearings. |

| Mitigation Action | Stormwater System and Drainage Improvements |
|---|---|
| Description | Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Smaller communities may utilize stormwater systems comprising of ditches, culverts, or drainage ponds to convey runoff. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossing can increase conveyance, reducing the potential for flooding. Replacement or modification of bridges and other flow restrictions may be necessary to provide greater capacity, maintain or improve structural integrity during flood events, and eliminate flooding threats and damages. |
| Hazard(s) Addressed | Flooding |
| Estimated Cost | $10,000 - $100,000+ |
| Funding | General Budget, CDBG |
| Timeline | 1 Year |
| Priority | High |
| Lead Agency | Brown County Commissioners |
| Status | In Progress. The county is working on cleaning out road ditches, culverts, and channels. |

| Mitigation Action | Stream Bank Stabilization / Grade Control Structures / Channel Improvements |
|---|---|
| Description | Stream bank/ bed degradation can occur along many rivers and creeks. Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented and improved to maintain the channel bed. Channel stabilization can protect structures, increase conveyance and provide flooding benefits. |
| Hazard(s) Addressed | Flooding |
| Estimated Cost | $50,000 - $100,000+ |
| Funding | General Budget |
| Timeline | 1 Year |
| Priority | High |
| Lead Agency | Brown County Commissioners |
| Status | Not Started |

## Removed Mitigation Actions

| Mitigation Action | Drainage Study / Stormwater Master Plan |
|---|---|
| Description | Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be developed to help identify stormwater problem areas and potential drainage improvements. |
| Hazard(s) Addressed | Flooding |
| Status | Removed. The county would like to focus on other mitigation projects. |

| Mitigation Action | Power, Service, Electrical, and Water Distribution Lines |
|---|---|
| Description | Brown County can work with NPPD and KBR to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Rural Water Districts can work with their county or NRD to identify vulnerable distribution lines near river crossings or creek beds and plan to place lines underground to reduce vulnerability from storm events and erosion. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding |
| Status | Removed. The county would like to focus on other mitigation actions. |

| Mitigation Action | Safe Rooms and Storm Shelters |
|---|---|
| Description | Assess, design and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Status | Removed. The county would like to focus on other mitigation actions. |

## Community Profile

# City of Ainsworth

## Region 24 Emergency Management
## Multi-Jurisdictional Hazard Mitigation Plan Update

## 2021

## Local Planning Team

**Table ANW.1: Ainsworth Local Planning Team**

| Name | Title | Jurisdiction |
|---|---|---|
| **Lisa Schroedl** | City Administrator/Clerk/Treasurer | City of Ainsworth |
| **Brad Fiala** | Fire Chief | Ainsworth Fire Department |

## Location and Geography

The City of Ainsworth is in north-central Brown County and covers an area of 640 acres. It is the county seat of Brown County and is the largest community in the county. The community of Ainsworth lies in a pocket of plains surrounded by the Sandhills. The land use surrounding the community is mainly agricultural crops, with some ranching. Nearly level to moderately steep, well-drained, and fertile soils are used for irrigated crops. The community lies immediately south of the Niobrara River. The watershed flows generally from the south to the north.

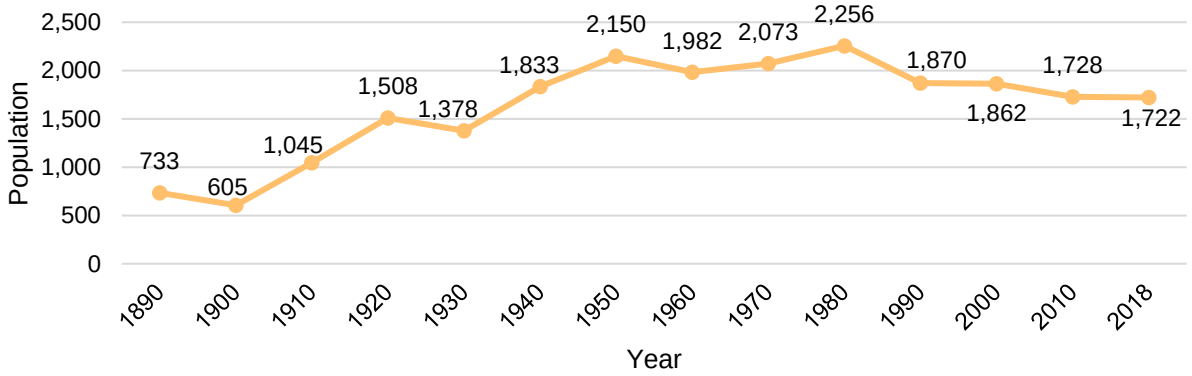
## Transportation

Ainsworth's major transportation corridors include US Highway 20 and State Highway 7. The most traveled route is Highway 20 with an average of 5,775 vehicles daily, 365 of which are trucks.[9] There are no rail lines traveling through or near the community, however, the Ainsworth Regional Airport is located two miles to the west. Highway 20 is the transportation route of most concern due to the heavy traffic on it. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

## Demographics

The City of Ainsworth's population has been declining since 1980 to about 1,722 people. A declining population can lead to more unoccupied housing that is not being maintained and is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Ainsworth's population accounted for 57.6% of Brown County's population in 2018.[10]

**Figure ANW.1: Population 1890 - 2018**

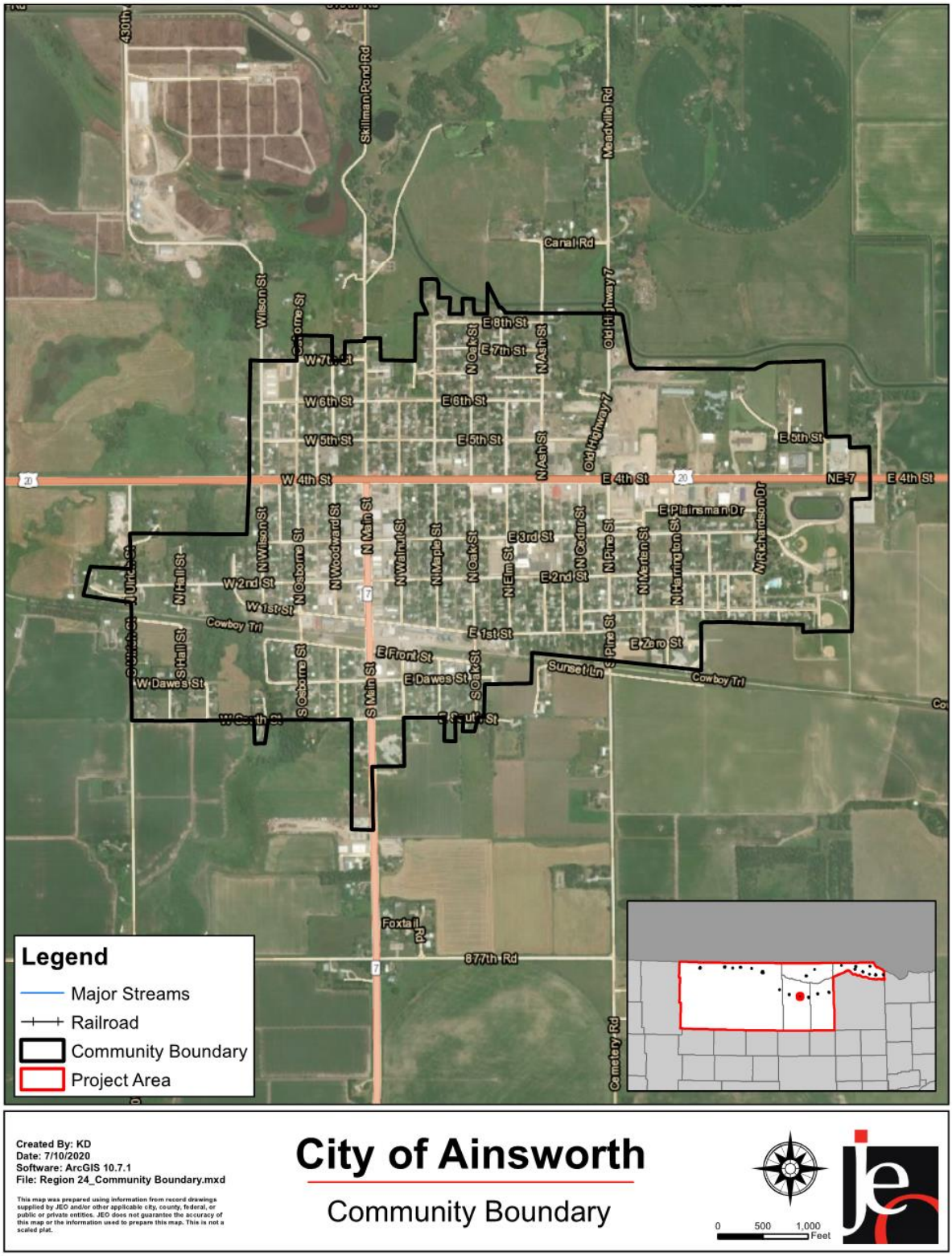



*Source: U.S. Census Bureau*

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

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

**Figure ANW.2: City of Ainsworth**



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

- **Younger.** The median age of Ainsworth was 47.1 years old in 2018, compared with Brown County's median of 51.1 years. Ainsworth's population grew slightly older since 2010, when the median age was 46.2 years old.[10]
- **Slightly more ethnically diverse**. Since 2010, Ainsworth grew more ethnically diverse. In 2010, 2.2% of Ainsworth's population was non-white. By 2018, about 3.3% was non-white. During that time, the non-white population in the county grew from 1.9% in 2010 to 2.5% in 2018.[10]
- **Slightly less likely to be below the federal poverty line.** The poverty rate in the City of Ainsworth (15% of people living below the federal poverty line) was slightly lower than the county's poverty rate (15.2%) in 2018.[11]

## Employment and Economics

In comparison to Brown County, Ainsworth's economy had:

- **Similar mix of industries.** Ainsworth's major employment sectors, accounting for 10% or more of employment each, were: retail trade, education, and entertainment.[11]
- **Similar median household income.** Ainsworth's median household income in 2018 ($41,064) was about $500 lower than the county ($41,550).[11]
- **Fewer long-distance commuters.** About 89.2% of workers in Ainsworth commuted for fewer than 15 minutes, compared with about 75.2% of workers in Brown County. About 3.6% of workers in Ainsworth commuted 30 minutes or more to work, compared to about 12.8% of county workers.[12]

### Major Employers

Major employers in the community are Brown County Hospital, Central Valley Ag, GJW hog farm, and Ainsworth Community Schools. The local planning team estimated that less than five percent of residents commute to other communities for employment. The most likely location for commuting is Rock County.

## Housing

In comparison to Brown County, Ainsworth's housing stock was:

- **Older.** Ainsworth had a larger share of housing built prior to 1970 than the county (70% compared to 63.1%).[13]
- **Less mobile and manufactured housing.** The City of Ainsworth had a smaller share of mobile and manufactured housing (1%) compared to the county (7.1%).[13]
- **More renter-occupied**. About 28.8% of occupied housing units in Ainsworth were renter-occupied compared with 25.8% of occupied housing in Brown County.[13]
- **More occupied.** Approximately 17% of Ainsworth's housing units were vacant compared to 23.7% of units in Brown County.[13]

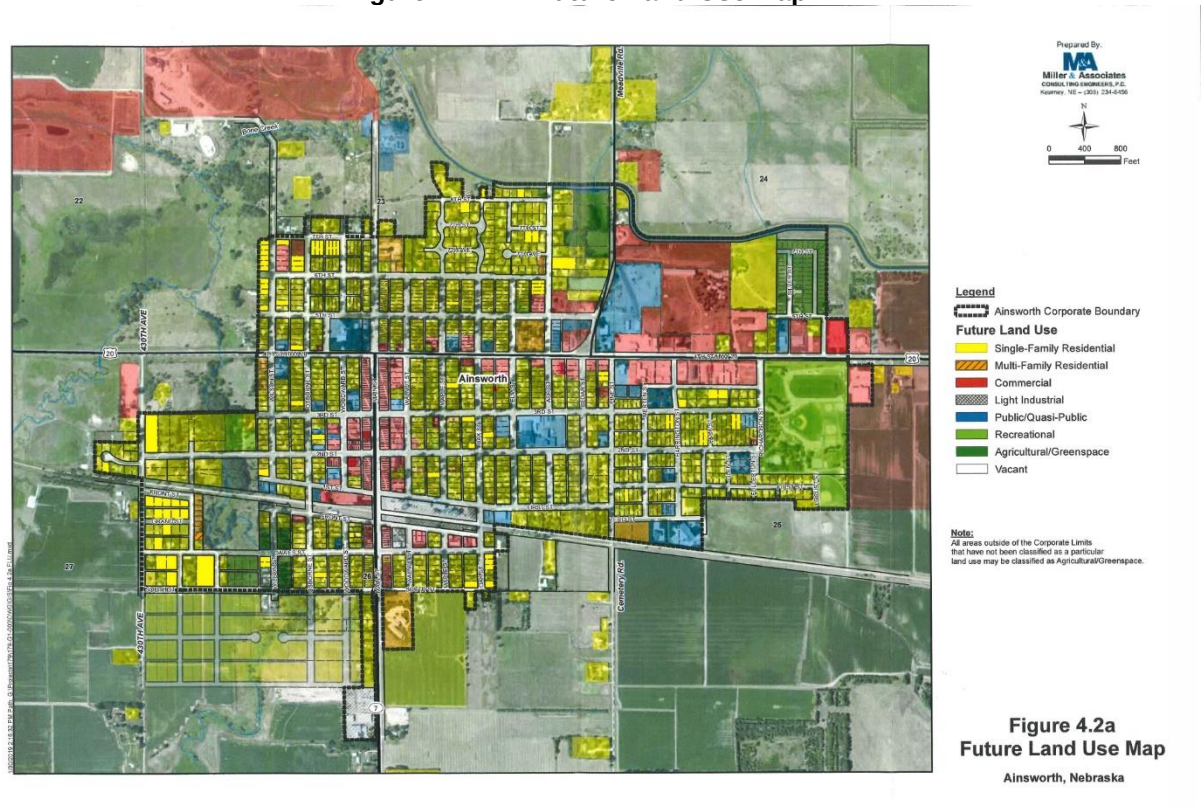
11 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. https://data.census.gov/cedsci/.
12 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. https://data.census.gov/cedsci/.
13 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. https://data.census.gov/cedsci/.

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

## Future Development Trends

Over the last five years, GJW has added more hog barns and the Central Valley Ag feed mill has expanded. The city is in the completion phase of a $2.2 million water and sewer infrastructure project which included a backup portable generator for the lift stations. No large housing developments were added. According to the 2018 American Community Survey estimates, Ainsworth's population is declining. The local planning team attribute the decline to an aging population, limited housing, and limited professional jobs. In the next five years, the city is going to work on encouraging demolition of nuisance and abandoned structures to allow for additional housing development. Ainsworth is also looking into a land bank. The figure below shows the future land use map for the city. Future housing will primarily be located on the southwestern portion of the community.

**Figure ANW.4: Future Land Use Map**




*Source: City of Ainsworth*

## Parcel Improvements and Valuation

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

**Table ANW.2: Parcel Improvements and Value in the Floodplain**

| Number of Improvements | Total Improvement Value | Number of Improvements in Floodplain | Value of Improvements in Floodplain | Percentage of Improvements in the Floodplain |
|---|---|---|---|---|
| 965 | $56,430,763 | N/A | N/A | N/A |

*Source: County Assessor, 2018*
*N/A: The community does not have a mapped floodplain, so it is not known how many improvements are in the floodplain.*

## Community Lifelines

### Critical Facilities

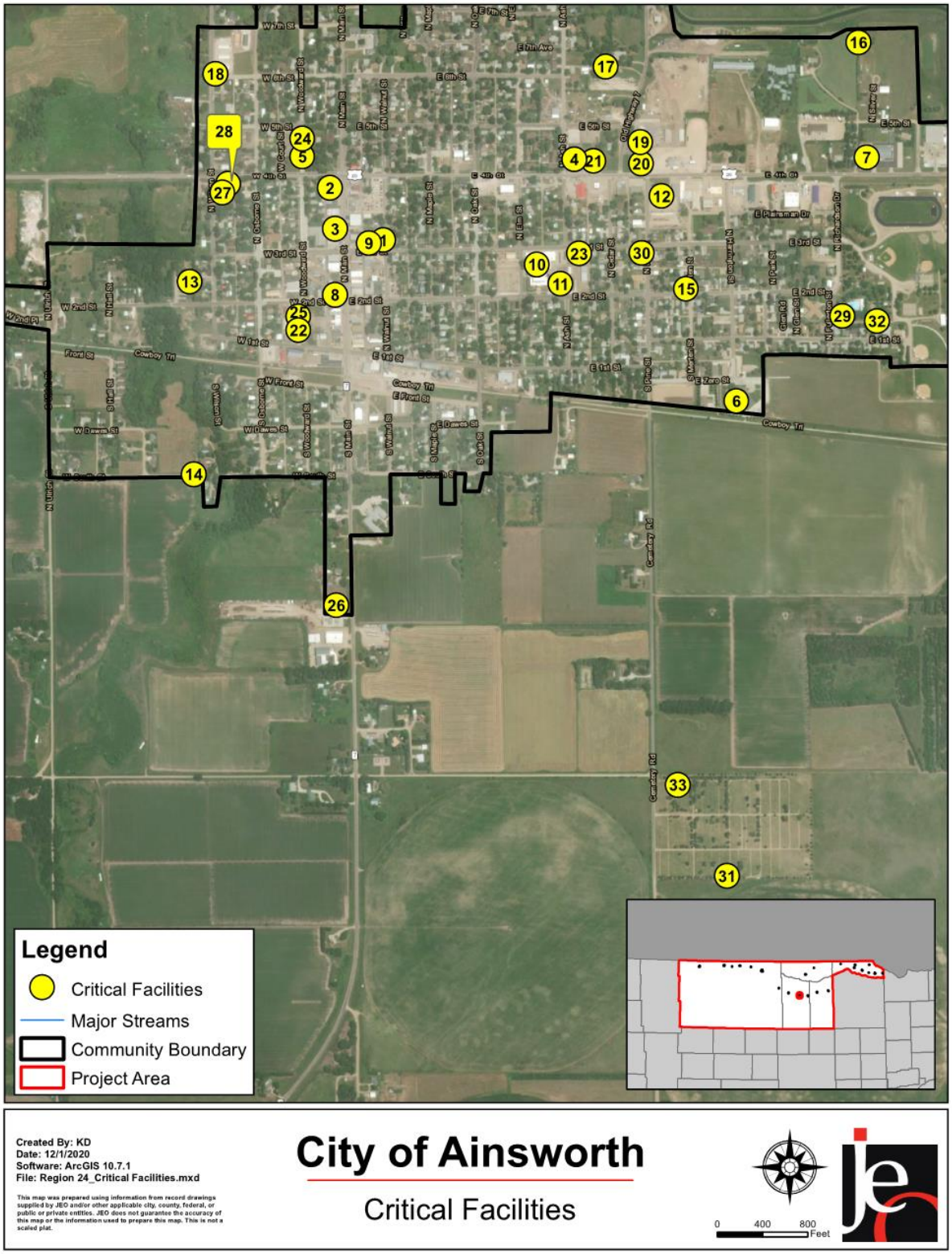
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

**Table ANW.3: Critical Facilities**

| CF Number | Name | Community Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---|---|---|---|---|
| 1 | Ambulance Barn | N | N | N/A |
| 2 | Cell Tower | N | N | N/A |
| 3 | Chamber of Commerce | N | N | N/A |
| 4 | Conference Center & City Offices | Y | N | N/A |
| 5 | County Courthouse | N | N | N/A |
| 6 | County Hospital | N | Y | N/A |
| 7 | ESU 17 Building | N | N | N/A |
| 8 | ESU 17 Office | N | N | N/A |
| 9 | Fire Department | N | N | N/A |
| 10 | Grade School | N | N | N/A |
| 11 | High School | Y | N | N/A |
| 12 | KBR Rural Public Power District | N | N | N/A |
| 13 | Lift Station #2 | N | Y | N/A |
| 14 | Lift Station #3 | N | Y | N/A |
| 15 | Lift Station #4 | N | Y | N/A |
| 16 | Lift Station #5 | N | Y | N/A |
| 17 | Lift Station #6 | N | Y | N/A |
| 18 | Lift Station #7 | N | Y | N/A |
| 19 | NE DOR | N | N | N/A |
| 20 | NE DOR District 8 HQ | N | N | N/A |
| 21 | NE Health and Human Services | N | N | N/A |
| 22 | NPPD Office | N | N | N/A |
| 23 | School Building | N | N | N/A |
| 24 | Sheriff's Office and Jail | N | N | N/A |
| 25 | Substation | N | N | N/A |
| 26 | Substation | N | N | N/A |
| 27 | Water and Sewer Department | N | Y | N/A |
| 28 | Water Tower | N | N | N/A |
| 29 | Water Tower | N | N | N/A |
| 30 | Well | N | N | N/A |
| 31 | Well #1 | N | N | N/A |
| 32 | Well #3 | N | N | N/A |
| 33 | Well #4 | N | N | N/A |

*N/A: The community does not have a mapped floodplain, so it is not known if any critical facilities are located in the floodplain.*

**Figure ANW.3: Critical Facilities**



## Historical Occurrences

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

## Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The 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

In March 2019 flooding caused damage to streets, knocked down trees, flooded basements, and broke water mains. The south and west sections of the community were without water for a week. Since then, the city added valves to water mains on either side of Bone Creek, upgraded water meters to radio read meters, and bored new water main lines to allow for better isolation for repairs, should a similar situation occur in the future. A portable generator, upgraded pumps, and upgraded controls were also installed for the lift stations. A study in Ainsworth indicated that certain areas of the community are prone to flash flooding. These locations include areas near 5th and Ash, Oak and 1st, 2nd and Woodward, Ash and Elm, and along Harrington St. Ainsworth also indicated that the drainage ditch along Ash St. needs renovations, as well as the drainage system along old Highway 7. The city participates in the NFIP and maintains strict development regulations to reduce flood impacts.

### Severe Winter Storms

Ainsworth has a planning commission, a chief building official, zoning, and buildings codes; all of which can be used to mitigate the impacts of this hazard. The community also indicated that at present there are no power lines buried, which may lead to increased power loss events from downed trees and poles. Snow removal is done by city staff. Occasionally during large snowstorms, the city will contract help to remove snow from Main Street to allow for parking and better visibility at intersections.

### Tornadoes

Ainsworth has a warning siren on the west side of the city and recently repaired the siren on the east side of the city that was hit by lighting and was not functioning. In addition, the city also installed a third warning siren on the south end of the community using a FEMA Mitigation Grant. The city does not have a safe room but there are several places for people to go if they need shelter. The city office has a small shelter, the Lutheran Church has a large basement, the school has shelter areas, and the County Courthouse basement could be used as a shelter if needed.

### Transportation Incidents

Brown County Hospital, city offices, the County Courthouse, fire department, ambulance barn, community center, and school are all located near Highway 20, which is the main transportation route through the community. The Nebraska Department of Transportation (NDOT) is planning on redoing Highway 20 in 2021. This will include adding turn lanes on the east and west ends, as that is where many accidents have occurred in the past. Through discussions with the city, NDOT will also install crosswalk signal lights on all crosswalks in order to create safer crossings between the school and community center where practices and games are held.

## Governance

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

- Clerk/Treasurer/City Administrator
- Floodplain Administrator
- Attorney
- Planning and Zoning
- Sewage Plant Operator
- Sewer/Water Department
- Street Foreman
- Economic Development
- Library Director

## Capability Assessment

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

**Table ANW.4: Capability Assessment**

| Survey Components/Subcomponents | | Yes/No |
|---|---|---|
| **Planning & Regulatory Capability** | Comprehensive Plan | Yes |
| | Capital Improvements Plan | Yes |
| | Economic Development Plan | Yes |
| | Local Emergency Operations Plan | Yes |
| | Floodplain Management Plan | Yes |
| | Storm Water Management Plan | Yes |
| | Zoning Ordinance | Yes |
| | Subdivision Regulation/Ordinance | Yes |
| | Floodplain Ordinance | Yes |
| | Building Codes | 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 | No |
| | Local Staff Who Can Assess Community's Vulnerability to Hazards | Yes |
| | Grant Manager | No |
| | Mutual Aid Agreement | Yes |

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

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

## Plan Integration

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

### Brown County Local Emergency Operations Plan (2018)
The city is an annex in the Brown County Local Emergency Operations Plan (LEOP). The LEOP establishes standardized policies, plans, guidelines and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding, direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

### Building Code (2018)
The building code sets standards for constructed buildings and structures. Ainsworth's building code indicates that the most recent International Building Code must be used. There have been no amendments to the International Building Code.

### Capital Improvements Plan (2015)
The capital improvements plan lists projects the city would like to do in the future. Projects within the plan include stormwater projects, upsizing of culverts and other drainage structures, improving transportation routes for drainage, upsizing water distribution pipes, installing water meters, water distribution improvements, downtown revitalization, burying power lines, and installing emergency generators.

### Comprehensive Plan (2019)
The comprehensive plan is designed to guide the future actions of the city. It contains goals aimed at safe growth, directs development away from flood areas, encourages infill, directs development away from chemical storage facilities, encourage clustering of development, directs housing and vulnerable populations away from major transportation routes, and encourages the elevation of structures in flood areas. This plan will be updated in 2029.

### Floodplain Regulations, Subdivision Regulations, and Zoning Ordinance (2008)
The city's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. They prohibit development in known flood areas, include well setback requirements, include the ability to implement water restrictions, and restrict the subdivision of land within a known flood area. There are plans to update the zoning ordinance within the next three years.

### Wellhead Protection Plan (2008)
The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources.

## Mitigation Strategy
Ainsworth's municipal funds a sufficient to pursue new small projects and have increased a small amount over recent years. There are currently debt payments that will be satisfied in the next five years that will provide more opportunities to pursue larger projects. The city will still likely need assistance from grants to help pay for many of the projects listed below. Several grants have been applied for and awarded in the last five years.

## Completed Mitigation Actions

| Mitigation Action | Alert/Warning Sirens |
|---|---|
| Description | Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking and remote activation. |
| Hazard(s) Addressed | All Hazards |
| Status | Completed. A new warning siren was installed in the community. |

## Continued Mitigation Actions

| Mitigation Action | Backup and Emergency Generators |
|---|---|
| Description | Ainsworth has seven generators at the lift stations but would like additional generators for other critical facilities. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $15,000 - $30,000 per generator |
| Funding | General Budget |
| Timeline | 2-5 Years |
| Priority | High |
| Lead Agency | Sewer Department, Utility Office |
| Status | In Progress. A portable generator for the lift stations was installed in 2020. |

| Mitigation Action | Business Continuity Plans |
|---|---|
| Description | Educate local businesses on the value of continuity planning. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Staff Time |
| Funding | Staff Time |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | Chamber of Commerce, Retail Committee, Region 24 Emergency Management |
| Status | Not Started |

| Mitigation Action | Civil Service Improvements |
|---|---|
| Description | Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire equipment, ATVs, water tanks/truck, snow removal equipment, pumps, etc. This would also include developing backup systems for emergency vehicles, identifying and training additional personnel for emergency response, or continuing educational opportunities for current personnel. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Varies |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | City Administrator, Street Department |
| Status | In Progress. The Brown County Ambulance Association and Ainsworth Fire Department have upgraded some equipment with help from the city and a local option sales tax. |

| Mitigation Action | Continuity Plan |
|---|---|
| **Description** | Develop continuity plans for critical community services. |
| **Hazard(s) Addressed** | All Hazards |
| **Estimated Cost** | $500 - $1,000 |
| **Funding** | General Budget |
| **Timeline** | 5+ Years |
| **Priority** | High |
| **Lead Agency** | City Administration |
| **Status** | Not Started |

| Mitigation Action | Drainage Study / Stormwater Master Plan |
|---|---|
| **Description** | Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be developed to help identify stormwater problem areas and potential drainage improvements. |
| **Hazard(s) Addressed** | Flooding |
| **Estimated Cost** | $10,000 - $100,000+ |
| **Funding** | General Budget, CDBG |
| **Timeline** | 2-5 Years |
| **Priority** | Medium |
| **Lead Agency** | City Administrator, Water Department, Street Department, Sewer Department |
| **Status** | Preliminary discussion occurred during Highway 20 design. No plans completed yet. |

| Mitigation Action | Emergency Communications |
|---|---|
| **Description** | Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications. |
| **Hazard(s) Addressed** | All Hazards |
| **Estimated Cost** | $10,000+ |
| **Funding** | General Budget |
| **Timeline** | 5+ Years |
| **Priority** | High |
| **Lead Agency** | City Administration, Region 24 Emergency Management Agency |
| **Status** | Planning Stage. The city has had consultations with Brown County Sheriff about this; however, no formalized plans yet. |

| Mitigation Action | Expand Water Storage Capacity / Emergency Water Supplies / Dry Hydrants |
|---|---|
| **Description** | Evaluate the need to expand water storage capacity through a new water tower, standpipe, etc., to provide a safe water supply for the community and additional water for fire protection. Establish emergency water supplies such as dry hydrants and individual or community cisterns for defending structures from wildland fires |
| **Hazard(s) Addressed** | Drought, Extreme Heat, Grass/Wildfires |
| **Estimated Cost** | Varies |
| **Funding** | General Budget |
| **Timeline** | 5+ Years |
| **Priority** | High |
| **Lead Agency** | Water Department, City Administrator |
| **Status** | Not Started |

| Mitigation Action | Firewise Community |
|---|---|
| Description | Work to become a Firewise Community/USA participant through the Nebraska Forest Service and US Forest Service in order to educate homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire. The Firewise Communities approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance. |
| Hazard(s) Addressed | Grass/Wildfire |
| Estimated Cost | $20,000 |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Flood-Prone Property Acquisition |
|---|---|
| Description | Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. |
| Hazard(s) Addressed | Flooding |
| Estimated Cost | Varies |
| Funding | General Budget |
| Timeline | 2-5 Years |
| Priority | High |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Floodplain Management |
|---|---|
| Description | Improve floodplain management practices such as adoption and enforcement of floodplain management requirements (regulation of construction in SFHAs), floodplain identification and mapping (local requests for map updates), description of community assistance and monitoring activities, Community Rating System participation, and participation in FEMA's Cooperating Technical Partners Program to increase local involvement in the flood mapping process. |
| Hazard(s) Addressed | Flooding |
| Estimated Cost | Staff Time |
| Funding | Staff Time |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Groundwater/Irrigation/Water Conservation Management Plan |
|---|---|
| Description | Develop and implement a plan/ best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought. Identify water saving irrigation projects or improvements such as sprinklers or soil moisture monitoring. Potential restrictions on water could include limitations on lawn watering, car washing, farm irrigation restrictions, or water sold to outside sources. Implement BMPs through water conservation practices such as changes in irrigation management, education on no-till agriculture and modified crop selection and use of xeriscaping in communities. |
| Hazard(s) Addressed | Drought |
| Estimated Cost | $10,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | City Administration |
| Status | Not Started |

| Mitigation Action | Hazardous Fuels Reduction |
|---|---|
| Description | The Nebraska Forest Service Forest Fuels Reduction Program creates strategically located corridors of thinned forests across the landscape, reduces fire intensity, improves fire suppression effectiveness, increases firefighter safety, and better protects lives and property. |
| Hazard(s) Addressed | Grass/Wildfire |
| Estimated Cost | Varies |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | City Administrator, Nebraska Forest Service |
| Status | Not Started |

| Mitigation Action | Hazardous Tree Removal |
|---|---|
| Description | Identify and remove hazardous limbs and/or trees. |
| Hazard(s) Addressed | Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms |
| Estimated Cost | $20,000 |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Administrator, Street Department |
| Status | Not Started |

| Mitigation Action | Improve Snow/Ice Removal Program / Snow Fence |
|---|---|
| Description | Revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include updating the emergency routes, acquiring equipment that is needed, paving routes, and ordinances as necessary. Consider purchase of snow fence at critical areas and installation of living snow fence. |
| Hazard(s) Addressed | Severe Winter Storms |
| Estimated Cost | $20,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | City Administrator, Street Department |
| Status | In Progress. A new pickup with hydraulic blade and gravel spreader was added to the city's snow fleet. |

| Mitigation Action | Power, Service electrical, and Water Distribution Lines |
|---|---|
| Description | Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding |
| Estimated Cost | $50,000 - $70,000 |
| Funding | General Budget |
| Timeline | 2-5 Years |
| Priority | High |
| Lead Agency | City Administrator, Natural Resource Districts, Rural Water District |
| Status | Not Started |

| Mitigation Action | Promote First Aid |
|---|---|
| Description | Promote first aid training for all residents. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $500+ |
| Funding | General Budget, Corporate Donations, Volunteer Time |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Promote Higher Codes |
|---|---|
| Description | Promote the use of higher codes and standards, such as the Fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Staff Time |
| Funding | Staff Time |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Public Awareness / Education |
|---|---|
| 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. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing education equipment such as overhead projectors and laptops. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $0 - $5,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Administrator, Region 24 Emergency Management Agency |
| Status | Not Started |

| Mitigation Action | Safe Rooms and Storm Shelters |
|---|---|
| Description | Assess, design and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Estimated Cost | $200 - $300 per square foot |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Sheltering in Place Outreach |
|---|---|
| Description | Ensure that all critical facilities, businesses, and residents located near major transportation corridors and near fixed site chemical facilities are aware of how to safely shelter in place in the event of a chemical incident. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Staff Time |
| Funding | Staff Time |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | City Administrator, Planning and Zoning, Region 24 Emergency Management |
| Status | Not Started |

| Mitigation Action | Source Water Contingency Plan |
|---|---|
| **Description** | Villages and cities can evaluate and locate new sources of groundwater to ensure adequate supplies to support the existing community and any additional growth which may occur. Also, identify and develop water sources for fire protection. |
| **Hazard(s) Addressed** | Drought, Grass/Wildfire |
| **Estimated Cost** | $5,000+ |
| **Funding** | General Budget, CDBG |
| **Timeline** | 5+ Years |
| **Priority** | Medium |
| **Lead Agency** | Water Department |
| **Status** | Not Started |

| Mitigation Action | Stormwater System and Drainage Improvements |
|---|---|
| **Description** | Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossing can increase conveyance, reducing the potential for flooding. Replacement or modification of bridges and other flow restrictions may be necessary to provide greater capacity, maintain or improve structural integrity during flood events, and eliminate flooding threats and damages. |
| **Hazard(s) Addressed** | Flooding |
| **Estimated Cost** | $10,000 - $100,000+ |
| **Funding** | General Budget, CDBG |
| **Timeline** | 2-5 Years |
| **Priority** | High |
| **Lead Agency** | Water Department, Street Department, Sewer Department |
| **Status** | This action was reviewed during the Highway 20 project design, but no action was taken. |

| Mitigation Action | Stream Bank Stabilization / Grade Control Structures / Channel Improvements |
|---|---|
| **Description** | Stream bank/ bed degradation can occur along many rivers and creeks. Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented and improved to maintain the channel bed. Channel stabilization can protect structures, increase conveyance and provide flooding benefits |
| **Hazard(s) Addressed** | Flooding |
| **Estimated Cost** | $50,000 - $100,000+ |
| **Funding** | General Budget |
| **Timeline** | 2-5 Years |
| **Priority** | Medium |
| **Lead Agency** | City Administrator, Water Department, Street Department, Sewer Department |
| **Status** | In Progress. Bank stabilization work was completed on north Bone Creek around the cell tower. |

| Mitigation Action | Tree City USA |
|---|---|
| Description | Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation. |
| Hazard(s) Addressed | Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms |
| Estimated Cost | $1,000+ |
| Funding | General Budget |
| Timeline | 2-5 Years |
| Priority | Medium |
| Lead Agency | City Administrator |
| Status | In Progress. The city has a tree board. |

| Mitigation Action | Vulnerable Population Support Database |
|---|---|
| Description | Work with stakeholders to develop a database of vulnerable populations and the organizations which support them. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Staff Time |
| Funding | Staff Time |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | City Administrator, Region 24 Emergency Management Agency, Sherriff |
| Status | Not Started |

| Mitigation Action | Warning Systems |
|---|---|
| Description | Improve city cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $10,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | City Administrator |
| Status | Not Started |

| Mitigation Action | Weather Radios |
|---|---|
| Description | Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $50 per radio |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Administrator |
| Status | Not Started |

## Removed Mitigation Actions

| Mitigation Action | Floodplain Regulation Enforcement |
|---|---|
| **Hazard(s) Addressed** | Flooding |
| **Reason for Removal** | While the city will continue to enforce all local regulations, this project is considered an ongoing action. |

| Mitigation Action | Maintain Good Standing with NFIP |
|---|---|
| **Hazard(s) Addressed** | Flooding |
| **Reason for Removal** | While the city will continue to participate and maintain compliance in the NFIP, this project is considered an ongoing action. |

## Community Profile

# Village of Johnstown

## Region 24 Emergency Management
## Multi-Jurisdictional Hazard Mitigation Plan Update

## 2021

## Local Planning Team

**Table JNT.1: Johnstown Local Planning Team**

| Name | Title | Jurisdiction |
|---|---|---|
| **Gay Magary** | Clerk/Treasurer | Village of Johnstown |
| **Brenda Goeken** | Village Chairman | Village of Johnstown |

## Location and Geography

The Village of Johnstown is in northwestern Brown County and covers an area of 341 acres. The community of Johnstown lies in the sandhills. The land use surrounding the community is primarily ranching. Low to high dunes of sand, stabilized by native grasses surround the village. The watershed flows generally from the west to east.

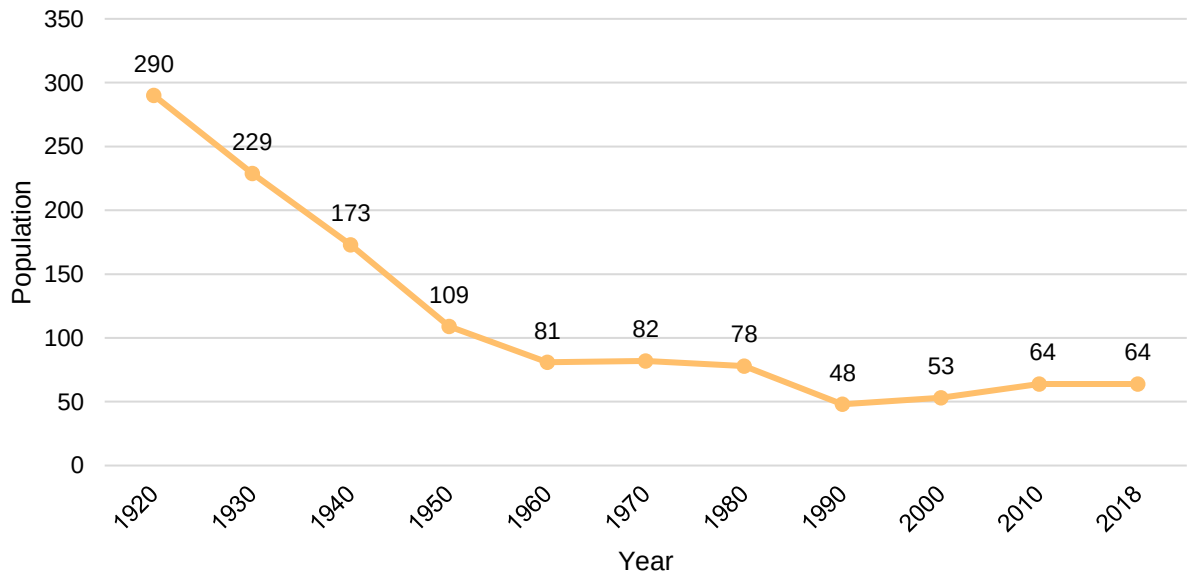
## Transportation

Johnstown's major transportation corridor includes US Highway 20. It has an average of 1,375 vehicles daily, 215 of which are trucks.[14] No large chemical spills or accidents have occurred within the village. The village does not have any rail lines traveling through or near the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

## Demographics

The Village of Johnstown's population has been stable at about 64 people since 2010. However, with a low population, there is little tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Johnstown's population accounted for 2.1% of Brown County's population in 2018.[15]

**Figure JNT.1: Population 1920 - 2018**

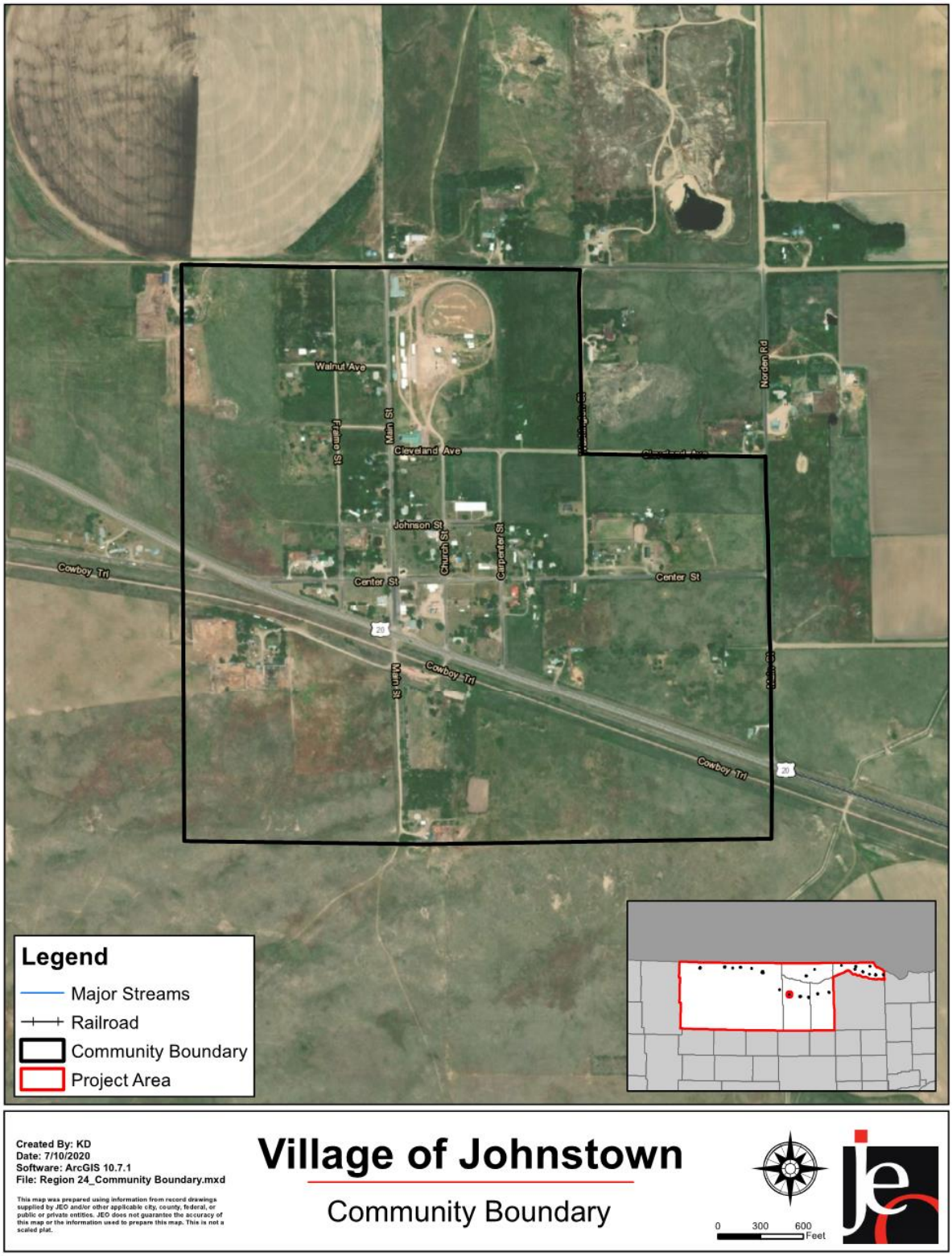



*Source: U.S. Census Bureau*

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

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

**Figure JNT.2: Village of Johnstown**



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

- **Older.** The median age of Johnstown was 52.5 years old in 2018, compared with Brown County's median of 51.1 years. Johnstown's population grew older since 2010, when the median age was 45.5 years old.[15]
- **Less ethnically diverse**. Since 2010, Johnstown became less ethnically diverse. In 2010, 3.2% of Johnstown's population was non-white. By 2018, about 0% was non-white. During that time, the non-white population in the county grew from 1.9% in 2010 to 2.5% in 2018.[15]
- **More likely to be below the federal poverty line.** The poverty rate in the Village of Johnstown (25% of people living below the federal poverty line) was higher than the county's poverty rate (15.2%) in 2018.[16]

## Employment and Economics

In comparison to Brown County, Johnstown's economy had:

- **Different mix of industries.** Johnstown's major employment sectors, accounting for 10% or more of employment each, were: agriculture, construction, transportation, and education.[16]
- **Income data is not available.**
- **More long-distance commuters.** About 16.7% of workers in Johnstown commuted for fewer than 15 minutes, compared with about 75.2% of workers in Brown County. About 25% of workers in Johnstown commuted 30 minutes or more to work, compared to about 12.8% of county workers.[17]

### Major Employers

Major employers in Johnstown include L-Bow Room, Village of Johnstown, Johnstown Post Office, and the Brown County Road shop. The local planning team indicated that approximately 25% to 40% of residents commute to Ainsworth, Bassett, Long Pine, Valentine, and rural areas of Brown, Rock, and Cherry County for employment.

## Housing

In comparison to Brown County, Johnstown's housing stock was:

- **Similar aged housing.** Johnstown had a similar share of housing built prior to 1970 than the county (62.7% compared to 63.1%).[18]
- **More mobile and manufactured housing.** The Village of Johnstown had a larger share of mobile and manufactured housing (17.6%) compared to the county (7.1%).[18]
- **More renter-occupied**. About 32.4% of occupied housing units in Johnstown were renter-occupied compared with 25.8% of occupied housing in Brown County.[18]
- **Less occupied.** Approximately 33.3% of Johnstown's housing units were vacant compared to 23.7% of units in Brown County.[18]

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

16 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. https://data.census.gov/cedsci/.
17 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. https://data.census.gov/cedsci/.
18 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. https://data.census.gov/cedsci/.

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

## Future Development Trends

In the past five years, improvements were made to the Brown County Ag Society fairgrounds/ hall areas. In addition, a couple of mobile homes, a livestock barn, and equipment buildings were constructed in the community. According to the 2018 American Community Survey estimates, Johnstown's population is generally stable. The local planning team attributes this cheaper housing and individuals returning for retirement.

## Parcel Improvements and Valuation

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

**Table JNT.2: Parcel Improvements and Value in the Floodplain**

| Number of Improvements | Total Improvement Value | Number of Improvements in Floodplain | Value of Improvements in Floodplain | Percentage of Improvements in the Floodplain |
|---|---|---|---|---|
| 47 | $1,249,959 | N/A | N/A | N/A |

*Source: County Assessor, 2018*
*N/A: The community does not have a mapped floodplain, so it is not known how many improvements are in the floodplain.*

## Community Lifelines

### Critical Facilities

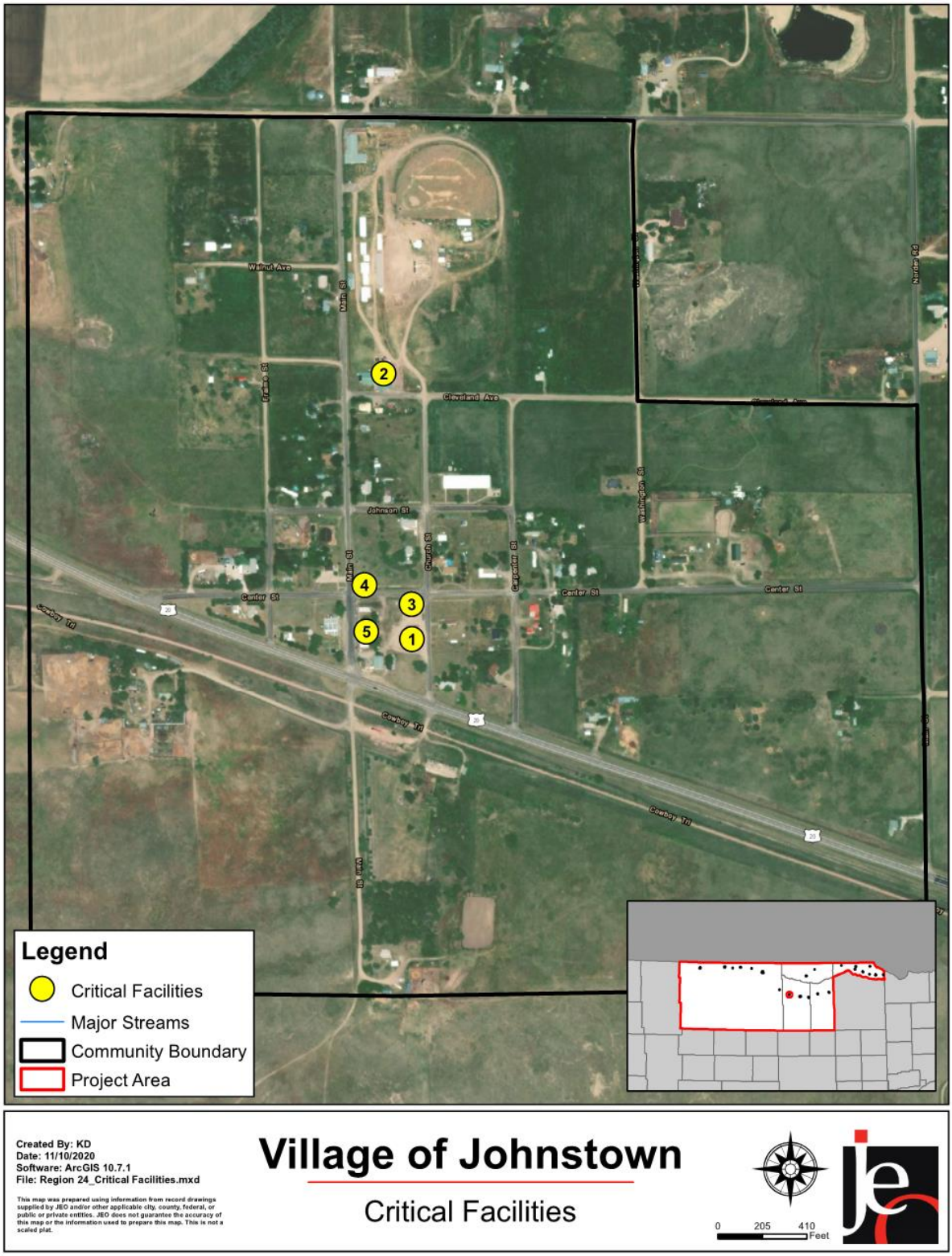
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

**Table JNT.3: Critical Facilities**

| CF Number | Name | Community Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---|---|---|---|---|
| 1 | Brown County Road Shed | N | N | N/A |
| 2 | County Fairgrounds and Community Hall | N | N | N/A |
| 3 | Johnstown Fire Department | N | N* | N/A |
| 4 | Three River Telco & Tower | N | Y | N/A |
| 5 | Village Office/Shop | N | N | N/A |

*N/A: The community does not have a mapped floodplain, so it is not known if any facilities are in the floodplain.*
**Some individual firemen have generators that the fire department can use if needed.*

**Figure JNT.3: Critical Facilities**



## Historical Occurrences

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

## Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The 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

Johnstown's level of vulnerability to this hazard is similar to the entire planning area. Johnstown indicated that the surface of the community is very flat, and it takes very heavy rains for flooding events to occur. In March 2019, flooding caused damages on Center Street and Norden Avenue. Since then, Center Street has been repaved. There is a culvert near Highway 20 and the village Main Street which is maintained by the Nebraska Department of Roads. There is another on Frame Street which is sufficiently high and has its own drainage ditch. These culverts help move stormwater out of the village. The Ainsworth Irrigation District has a large water ditch on the south side across from Highway 20, but this has not caused flooding in the community.

### Grass/Wildfire

Johnstown indicated that while the whole village is susceptible to wildfire, the areas next to the canyons on the north side of town are most vulnerable. There is no forest cover in city limits but outside of the limits to the north are canyons with many trees. In 2012, there were wildfires north of the village, but none reached the village limits. Livestock owners which keep hay bales are also more vulnerable to this hazard. The community is currently trying to keep the number of hay bales at a minimum and to maintain tree debris. The Nebraska Forest Service provides information and workshops on wildfire for the Village of Johnstown and its residents.

### Tornadoes

Tornadoes have not occurred within the village, but some have occurred nearby. The warning siren is located on village property behind the fire department and can be activated by the Brown County Sheriff's office, the local fire department, or the village board. There are no safe rooms in the community, but residents can use private basements, the Methodist Church basement, L-Bow Room, and the restrooms at the fairgrounds for shelter. In the event of power loss, only the Three River Telco has a backup generator. The city primarily uses propane for heating, while some residents have electric heating and wood burning stoves. For any storm debris, most individuals remove tree limbs themselves.

## Governance

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

- Clerk/Treasurer
- Attorney
- Engineer/Street Superintendent
- Garbage Service Collector

- Community Tree Board

## Capability Assessment

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

**Table JNT.4: Capability Assessment**

| Survey Components/Subcomponents | | Yes/No |
|---|---|---|
| **Planning & Regulatory Capability** | Comprehensive Plan | No |
| | Capital Improvements Plan | No |
| | Economic Development Plan | No |
| | Local Emergency Operations Plan | Yes |
| | Floodplain Management Plan | No |
| | Storm Water Management Plan | No |
| | Zoning Ordinance | No |
| | Subdivision Regulation/Ordinance | No |
| | Floodplain Ordinance | No |
| | Building Codes | 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 | Yes |
| | Grant Manager | No |
| | Mutual Aid Agreement | No |
| | Other (if any) | - |
| **Fiscal Capability** | Capital Improvement Plan/ 1- & 6-Year Plan | Yes |
| | Applied for grants in the past | Yes |
| | Awarded a grant in the past | Yes |
| | Authority to Levy Taxes for Specific Purposes such as Mitigation Projects | 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 |

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

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

## Plan Integration

The Village of Johnstown does not have any formal planning documents; however, they are an annex to the 2018 Brown County Local Emergency Operations Plan. The plan establishes standardized policies, plans, guidelines and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding, direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

## Mitigation Strategy

Johnstown's municipal funds are limited to maintaining current facilities and systems, but funds have not been dedicated to a specific project. The village will likely need assistance from grants and partnerships to help pay for many of the mitigation actions listed below. The village has experience applying for grants and has been awarded grants in the past.

### Completed Mitigation Actions

| Mitigation Action | Alert/Warning Sirens |
|---|---|
| **Description** | Perform an evaluation of existing alert sirens in order to determine which sirens should be replaced or upgraded. Install new sirens where lacking and remote activation. |
| **Hazard(s) Addressed** | Tornadoes, High Winds, Severe Thunderstorms |
| **Status** | Completed. Project was completed in 2015 through the Hazard Mitigation Grant Program. |

## Continued Mitigation Actions

| Mitigation Action | Backup and Emergency Generators |
|---|---|
| Description | The community identified a generator need at the community hall. If the community were to build a tornado shelter, this project would apply for that location as well. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $15,000 - $30,000 per generator |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low/Medium |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Civil Service Improvements |
|---|---|
| Description | Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire equipment, ATVs, water tanks/truck, snow removal equipment, pumps, etc. This would also include developing backup systems for emergency vehicles, identifying and training additional personnel for emergency response, or continuing educational opportunities for current personnel. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Varies |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Expand Water Storage Capacity / Emergency Water Supplies / Dry Hydrants |
|---|---|
| Description | Evaluate the need to expand water storage capacity through a new water tower, standpipe, etc., to provide a safe water supply for the community and additional water for fire protection. Establish emergency water supplies such as dry hydrants and individual or community cisterns for defending structures from wildland fires. |
| Hazard(s) Addressed | Drought, Extreme Heat, Grass/Wildfires |
| Estimated Cost | Varies |
| Funding | General Budget, Lottery |
| Timeline | 2-5 Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Hazardous Tree Removal |
|---|---|
| Description | Identify and remove hazardous limbs and/or trees. |
| Hazard(s) Addressed | Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms |
| Estimated Cost | $20,000 |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Power, Service, Electrical, and Water Distribution Lines |
|---|---|
| Description | Johnstown can work with KBR PPD to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Rural Water Districts can work with their County or NRD to identify vulnerable distribution lines near river crossings or creek beds and plan to place lines underground to reduce vulnerability from storm events and erosion. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding |
| Estimated Cost | $50,000 - $70,000 |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Safe Rooms and Storm Shelters |
|---|---|
| Description | Assess, design and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Estimated Cost | $200 - $300 per square foot |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Source Water Contingency Plan |
|---|---|
| Description | Villages and cities can evaluate and locate new sources of groundwater to ensure adequate supplies to support the existing community and any additional growth which may occur. Also, identify and develop water sources for fire protection. |
| Hazard(s) Addressed | Drought, Grass/Wildfires |
| Estimated Cost | $5,000+ |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

| Mitigation Action | Stormwater System and Drainage Improvements |
|---|---|
| Description | Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Smaller communities may utilize stormwater systems comprising of ditches, culverts, or drainage ponds to convey runoff. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossing can increase conveyance, reducing the potential for flooding. Replacement or modification of bridges and other flow restrictions may be necessary to provide greater capacity, maintain or improve structural integrity during flood events, and eliminate flooding threats and damages. |
| Hazard(s) Addressed | Flooding |
| Estimated Cost | $10,000 - $100,000+ |
| Funding | General Budget, Lottery |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Village Board of Trustees, Clerk |
| Status | Not Started |

## Removed Mitigation Actions

| Mitigation Action | Public Awareness/Education |
|---|---|
| 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. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing education equipment such as overhead projectors and laptops. |
| Hazard(s) Addressed | All Hazards |
| Status | Removed. The village would like to focus on other mitigation actions. |

| Mitigation Action | Stabilize/Anchor Fertilizer, Fuel, and Propane Tanks |
|---|---|
| Description | Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in tornado or high wind event. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Status | Removed. The village would like to focus on other mitigation actions. |

## Community Profile

# City of Long Pine

## Region 24 Emergency Management
## Multi-Jurisdictional Hazard Mitigation Plan Update

## 2021

## Local Planning Team

**Table LGP.1: Long Pine Local Planning Team**

| Name | Title | Jurisdiction |
|---|---|---|
| **Jim Debolt** | Utility Superintendent | City of Long Pine |
| **Ed Brown** | Mayor | City of Long Pine |
| **Matt Pozehl** | Fire Chief | City of Long Pine |
| **Firewise Group** | - | City of Long Pine |

## Location and Geography

The City of Long Pine is in east-central Brown County and covers an area of 371 acres. The community of Long Pine sits above the Long Pine Creek and is surrounded by plains. The land use surrounding the community is agricultural crops and ranching. Hilly land with moderate to steep slopes and rounded ridge crests along with steep, pine covered canyons are the dominant land features. The community lies immediately east of Long Pine Creek. The watershed flows generally from the south to the north.

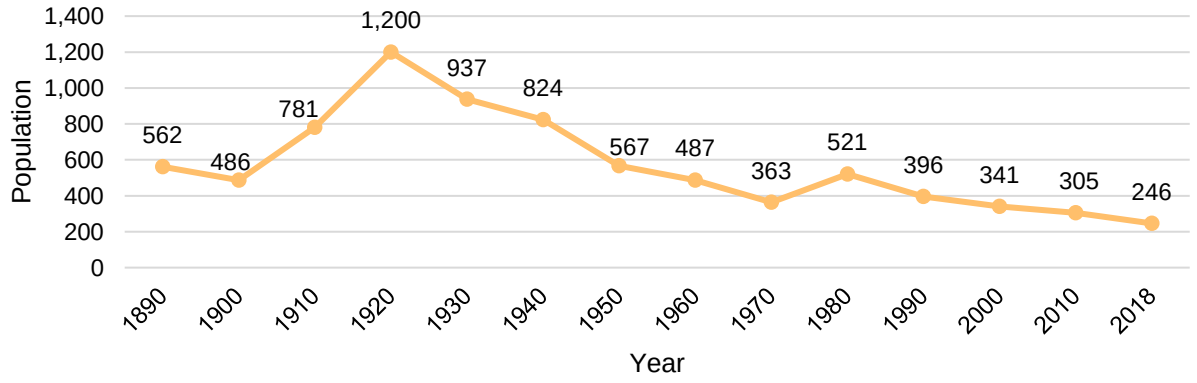
## Transportation

Long Pine's major transportation corridors include State Highway 9A and US Highway 20. The most traveled route is Highway 20 with an average of 2,845 vehicles daily, 380 of which are trucks.[19] Propane is regularly transported to residents, but no major spills have occurred in the last 10 years. The city does not have a rail line traveling through or near the community. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

## Demographics

The City of Long Pine's population has been declining since 1980 to about 246 people. A declining population can lead to more unoccupied housing that is not being maintained and is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Long Pine's population accounted for 8.2% of Brown County's population in 2018.[20]

**Figure LGP.1: Population 1890 - 2018**

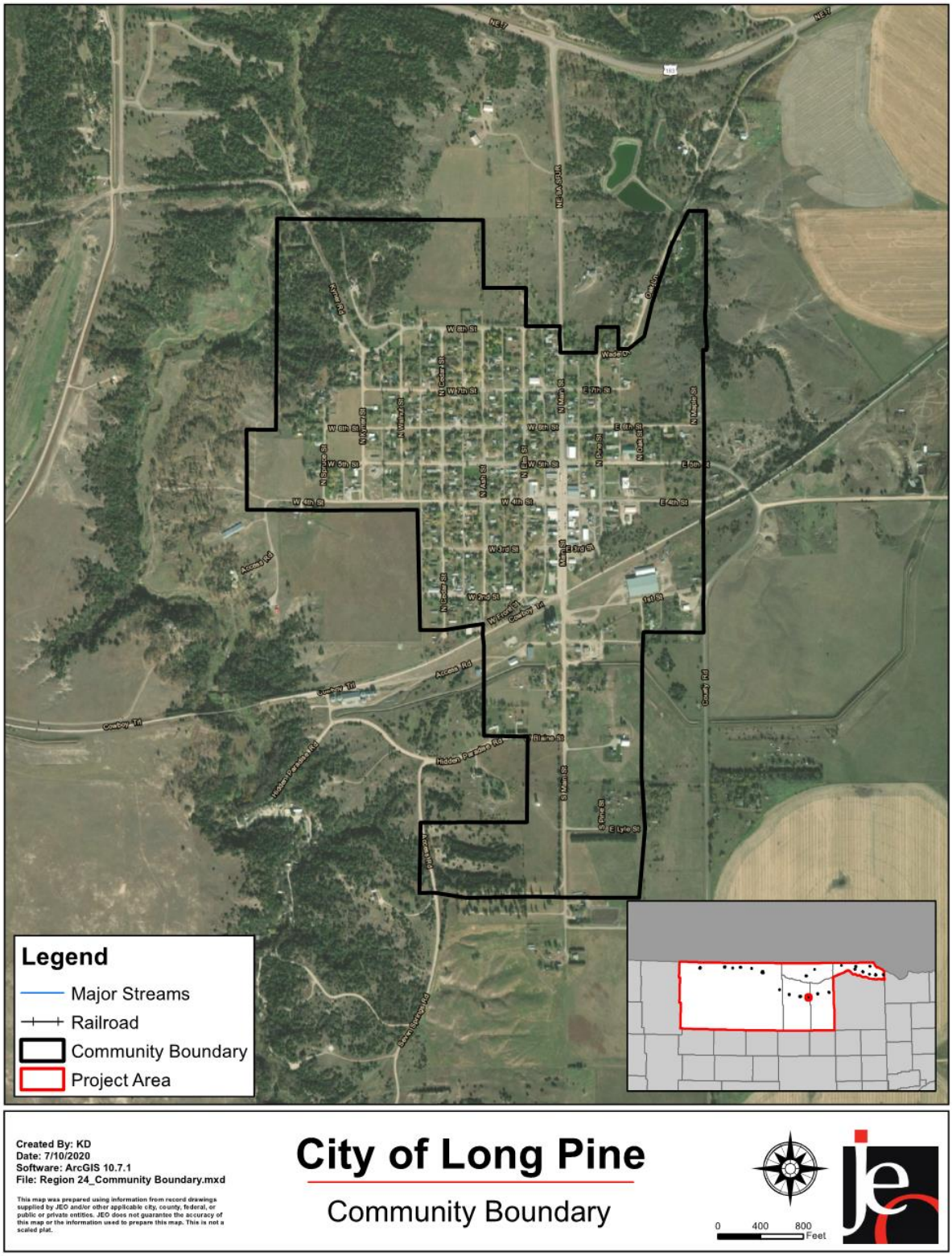



*Source: U.S. Census Bureau*

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

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

**Figure LGP.2: City of Long Pine**



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

- **Older.** The median age of Long Pine was 61.7 years old in 2018, compared with Brown County's median of 51.1 years. Long Pine's population grew older since 2010, when the median age was 45.7 years old.[20]
- **Less ethnically diverse**. Since 2010, Long Pine grew more ethnically diverse. In 2010, 0% of Long Pine's population was non-white. By 2018, about 0.8% was non-white. During that time, the non-white population in the county grew from 1.9% in 2010 to 2.5% in 2018.[20]
- **Less likely to be below the federal poverty line.** The poverty rate in the City of Long Pine (11.5% of people living below the federal poverty line) was lower than the county's poverty rate (15.2%) in 2018.[21]

## Employment and Economics

In comparison to Brown County, Long Pine's economy had:

- **Different mix of industries.** Long Pine's major employment sectors, accounting for 10% or more of employment each, were: construction, education, and public administration.[21]
- **Lower median household income.** Long Pine's median household income in 2018 ($29,167) was about $12,400 lower than the county ($41,550).[21]
- **More long-distance commuters.** About 68.6% of workers in Long Pine commuted for fewer than 15 minutes, compared with about 75.2% of workers in Brown County. About 16.7% of workers in Long Pine commuted 30 minutes or more to work, compared to about 12.8% of county workers.[22]

### Major Employers

Major employers in Long Pine include Long Pine Feed Service, Long Pine Lumber, Sandhills Lounge, Small Beginnings Child Care, Anderson's Market, and Simple Solutions. The local planning team estimated that 33% of residents commute to Ainsworth or Bassett for employment.

## Housing

In comparison to Brown County, Long Pine's housing stock was:

- **Older.** Long Pine had a larger share of housing built prior to 1970 than the county (79.3% compared to 63.1%).[23]
- **Similar amounts of mobile and manufactured housing.** The City of Long Pine had a slightly smaller share of mobile and manufactured housing (6.7%) compared to the county (7.1%).[23]
- **Less renter-occupied**. About 3.9% of occupied housing units in Long Pine were renter-occupied compared with 25.8% of occupied housing in Brown County.[23]
- **Less occupied.** Approximately 28.5% of Long Pine's housing units were vacant compared to 23.7% of units in Brown County.[23]

21 United States Census Bureau. 2018. "DP03: Selected Economic Characteristics." [database file]. https://data.census.gov/cedsci/.
22 United States Census Bureau. 2018. "S0802: Means of Transportation to Work by Selected Characteristics." [database file]. https://data.census.gov/cedsci/.
23 United States Census Bureau. 2018. "DP04: Selected Housing Characteristics." [database file]. https://data.census.gov/cedsci/.

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

## Future Development Trends

Over the past five years, one house, one cabin, and one commercial building were constructed in the city. In addition, two houses and two mobile homes were demolished. According to the 2018 American Community Survey estimates, Long Pine's population is generally declining. The local planning team attribute this to young people moving away, a lack of available housing, and a lack of career development. In the next five years, there are no planned housing development or new businesses for the city.

## Parcel Improvements and Valuation

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

**Table LGP.2: Parcel Improvements and Value in the Floodplain**

| Number of Improvements | Total Improvement Value | Number of Improvements in Floodplain | Value of Improvements in Floodplain | Percentage of Improvements in the Floodplain |
|---|---|---|---|---|
| 270 | $8,012,949 | N/A | N/A | N/A |

*Source: County Assessor, 2018*
*N/A: The community does not have a mapped floodplain, so it is not known how many improvements are in the floodplain.*

## Community Lifelines

### Critical Facilities

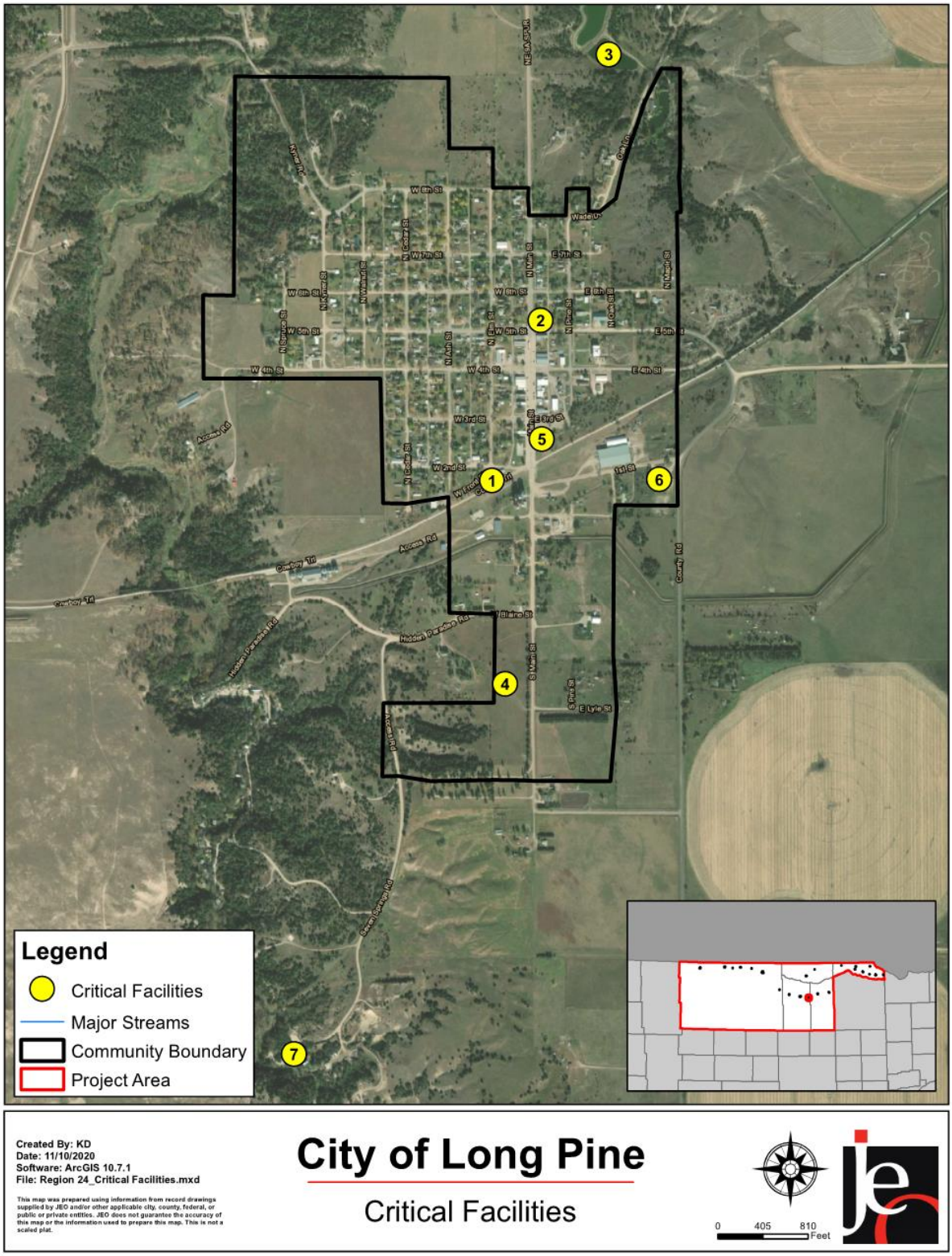
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

**Table LGP.3: Critical Facilities**

| CF Number | Name | Community Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---|---|---|---|---|
| 1 | City Building | N | N | N/A |
| 2 | Fire Department | N | N | N/A |
| 3 | Lagoons | N | N | N/A |
| 4 | Stand Pipe | N | N | N/A |
| 5 | Substation | N | N | N/A |
| 6 | Utilities Department | N | N | N/A |
| 7 | Water Source | N | Y | N/A |

*N/A: The community does not have a mapped floodplain, so it is not known if the facilities are located in the floodplain.*

**Figure LGP.3: Critical Facilities**



## Historical Occurrences

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

## Hazard Prioritization

The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were selected by the local planning team from the regional list as relevant hazards for the community. The 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

Long Pine indicated that the flood prone areas are outside city limits along Pine Creek. However, there are structures in this area including the well house. Long Pine does not allow any new development in the floodplain. Local officials remarked that there is little concern for flooding in the city, and that only three structures on the southwest side of the city may be vulnerable to flood damage. In March 2019 high rainfall and snowmelt combined to raise the water table. Because of this, five to ten basements were flooded on the southwest part of the city. In addition, the bridge and approach to the city's water source sustained damage due to erosion from Pine Creek. The city paid $45,000 to repair the damage. A steel wall has been installed along the bank of Pine Creek near the water source to limit future erosion. An additional mitigation action includes road work to deflect water to the sides for better drainage.

### Grass/Wildfire

While the entire city is susceptible to wildfire risk, the community indicated that Pine Creek Canyon is heavily forested, and the Conservation Reserve Program grounds located south of the city are most vulnerable. Pine Creek is currently upgrading their fire hydrants at a rate of two per year and regularly work to keep property debris-free. The city has cleared cedar trees on the city side of Pine Creek for approximately ¾ of a mile. The local fire department also regularly conducts tabletop exercises related to wildfire. The city has also installed a dry hydrant on residential property in vulnerable areas. Lightning occasionally causes hay fires in the rural agricultural areas of Long Pine; however, these events were quickly addressed and have not encroached upon the municipal boundaries of the community. The city has a volunteer fire department, which consists of approximately 12 firefighters. During any given event, approximately six are called to respond. This department services fires in the city, as well as the rural areas in the vicinity. Long Pine was a Firewise Community but lapsed in 2020. The city is currently working on re-certifying.

### Severe Winter Storms

Severe winter storms have posed considerable concern to Long Pine, especially in terms of the impact on its population and critical facilities. The historical occurrence of this hazard and future probability is similar to that of the planning area. Past events have caused heavy drifting of snow, which has made travel difficult. The City of Long Pine is responsible for snow removal using a newer grader, an older backhoe, and an older dump truck. For larger snow events, a part-time grader operator has been hired to help clear snow. The local planning team indicated that no power lines in the community are buried. This makes residents more susceptible to power loss from downed power lines and tree limbs.

### Tornadoes

The community uses the "old palace" as a shelter location. This facility is open to the public for temporary sheltering during tornado and high wind events. Long Pine currently has a siren at the city shop on W. 1st Street and a siren in the alley on 5th and Cedar St. Both were replaced with new sirens in 2018. The local planning team did not recall any tornadoes or damages in recent memory. Storm spotting is done by the local fire department to help notify the public of any incoming severe storm. Members of the fire department also have pagers and cell phones for severe weather alerts.

## Governance

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

- Clerk/Treasurer
- Planning Commission
- Attorney
- Utility Superintendent
- Sewage Plant Operator
- Sewer/Water/Street Commissioner
- Engineer
- Long Pine Health Board
- Fire Department
- Firewise Group

## Capability Assessment

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

**Table LGP.4: Capability Assessment**

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

| Survey Components/Subcomponents | | Yes/No |
|---|---|---|
| **Administrative & Technical Capability** | Planning Commission | Yes |
| | Floodplain Administration | No |
| | GIS Capabilities | No |
| | Chief Building Official | Yes |
| | Civil Engineering | Yes |
| | Local Staff Who Can Assess Community's Vulnerability to Hazards | Yes |
| | Grant Manager | Yes |
| | Mutual Aid Agreement | Yes |
| | Other (if any) | Health Board |
| **Fiscal Capability** | Capital Improvement Plan/ 1- & 6-Year Plan | Yes |
| | Applied for grants in the past | Yes |
| | Awarded a grant in the past | Yes |
| | Authority to Levy Taxes for Specific Purposes such as Mitigation Projects | Yes |
| | Gas/Electric Service Fees | No |
| | Storm Water Service Fees | No |
| | Water/Sewer Service Fees | Yes |
| | Development Impact Fees | No |
| | General Obligation Revenue or Special Tax Bonds | No |
| | Other (if any) | - |
| **Education & Outreach Capability** | Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc. | 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 |
| | Firewise Communities Certification | No |
| | Tree City USA | No |
| | Other (if any) | - |

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

## Plan Integration

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

### Building Code (2019)

A building code is a set of rules that specify standards for constructed buildings and structures. Long Pine's building code is based off the 2018 International Building Codes and no amendments to the code have been made.

### Brown County Local Emergency Operations Plan (2018)

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

### Zoning Ordinance and Subdivision Regulations (2019)

The city's zoning ordinance and subdivision regulations outline where and how development should occur in the future. They include well setback requirements and include the ability to implement water restrictions if needed.

## Mitigation Strategy

Long Pine's municipal funds are limited to maintaining current facilities and systems but have increased annually overt recent years. Although a large portion of funds are not dedicated to a specific project, the city will still likely need assistance from grants to help pay for many of the mitigation actions listed below. The city has experience applying for grants and has been awarded a CDBG grant in the past. The city would also benefit from partnerships with the county, local NRD, and various state agencies.

### Completed Mitigation Actions

| Mitigation Action | Alert/Warning Sirens |
|---|---|
| Description | Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking and remote activation. Long Pine currently has siren at the city shop and in the alley on 5th and Cedar St. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Status | Completed. The city updated both alter sirens in 2018. |

| Mitigation Action | Stream Bank Stabilization / Grade Control Structures / Channel Improvements |
|---|---|
| Description | Stream bank/ bed degradation can occur along many rivers and creeks. Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented and improved to maintain the channel bed. Channel stabilization can protect structures, increase conveyance and provide flooding benefits. |
| Hazard(s) Addressed | Flooding |
| Status | Completed. The bank around the bridge to the city's water source has been reinforced with steel panels in 2020. |

## Continued Mitigation Actions

| Mitigation Action | Backup and Emergency Generators |
|---|---|
| Description | Provide a portable or stationary source of backup power to redundant power supplies, county wells, lift stations, and other critical facilities and shelters. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms |
| Estimated Cost | $15,000 - $30,000 per generator |
| Funding | Keno Funds, Selling Old Equipment, Local Tax Funds |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | Mayor, City Council, Fire Department |
| Status | Planning Stage. The fire department plans to get an emergency generator. |

| Mitigation Action | Civil Service Improvements |
|---|---|
| Description | Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire equipment, ATVs, water tanks/truck, snow removal equipment, pumps, etc. This would also include developing backup systems for emergency vehicles, identifying and training additional personnel for emergency response, or continuing educational opportunities for current personnel. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | Varies |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Council, Fire Department |
| Status | In Progress. The city purchased a UTV to get to and from the city's water source. |

| Mitigation Action | Firewise Community |
|---|---|
| Description | Work to become a Firewise Community/USA participant through the Nebraska Forest Service and US Forest Service in order to educate homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire. The Firewise Communities approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance. |
| Hazard(s) Addressed | Grass/Wildfire |
| Estimated Cost | $20,000 |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | City Council, Fire Department |
| Status | Planning Stage. A local group is leading the Firewise Community effort. |

| Mitigation Action | Hazardous Fuels Reduction |
|---|---|
| Description | The Nebraska Forest Service Forest Fuels Reduction Program creates strategically located corridors of thinned forests across the landscape, reduces fire intensity, improves fire suppression effectiveness, increases firefighter safety, and better protects lives and property. |
| Hazard(s) Addressed | Grass/Wildfires |
| Estimated Cost | $300 per acre |
| Funding | Donations, General Budget |
| Timeline | 5+ Years |
| Priority | High |
| Lead Agency | Fire Department, City Council |
| Status | In Progress. The city has cleared cedar trees on the city side of Pine Creek for approximately ¾ of a mile, but addition clearing is needed. |

| Mitigation Action | Power, Service, Electrical, and Water Distribution Lines |
|---|---|
| Description | Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Rural Water Districts can work with their county or NRD to identify vulnerable distribution lines near river crossings or creek beds and plan to place lines underground to reduce vulnerability from storm events and erosion. |
| Hazard(s) Addressed | Tornadoes, Severe Thunderstorms, High Winds, Severe Winter Storms, Flooding |
| Estimated Cost | $50,000 - $70,000 |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Council, Utilities Superintendent |
| Status | Not Started |

| Mitigation Action | Public Awareness/Education |
|---|---|
| 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. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing education equipment such as overhead projectors and laptops. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $0 - $5,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Council |
| Status | Not Started |

| Mitigation Action | Stabilize/Anchor Fertilizer, Fuel, and Propane Tanks |
|---|---|
| Description | Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in tornado or high wind event. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Estimated Cost | $1,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | City Council |
| Status | Not Started |

| Mitigation Action | Stormwater System and Drainage Improvements |
|---|---|
| Description | Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Smaller communities may utilize stormwater systems comprising of ditches, culverts, or drainage ponds to convey runoff. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossing can increase conveyance, reducing the potential for flooding. Replacement or modification of bridges and other flow restrictions may be necessary to provide greater capacity, maintain or improve structural integrity during flood events, and eliminate flooding threats and damages. |
| Hazard(s) Addressed | Flooding |
| Estimated Cost | $10,000 - $100,000 |
| Funding | General Budget, CDBG |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | Utilities Superintendent |
| Status | In Progress. The utilities superintendent regularly cleans storm drains. |

**School District Profile**

# Ainsworth Community Schools

## Region 24 Emergency Management
## Multi-Jurisdictional Hazard Mitigation Plan Update

**2021**

## Local Planning Team

**Table AWS.1: Ainsworth Community Schools Local Planning Team**

| Name | Title | Jurisdiction |
|---|---|---|
| **Dale Hafer** | Superintendent | Ainsworth Community Schools |

## Location

Ainsworth Community Schools is in northeastern Brown County and serves four schools in one large facility. The school district provides services to students in the communities of Ainsworth, Johnstown, and Long Pine.

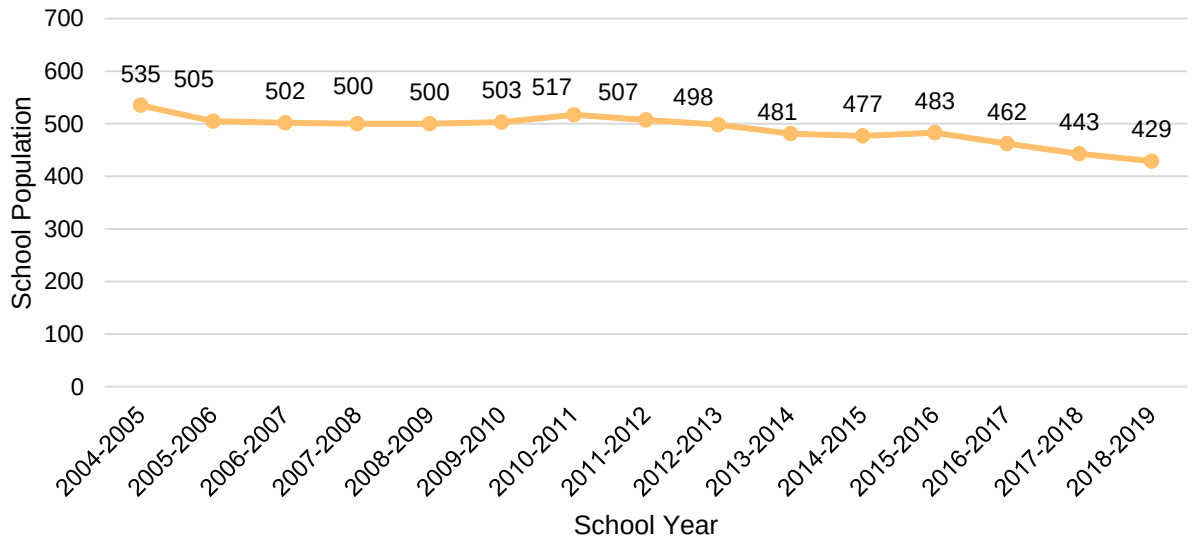
## Transportation

Three major transportation corridors intersect near the district's schools: US Highways 20 and 183 and Nebraska State Highway 7. The most traveled route is Highway 20 with a total annual average of 5,775 vehicles daily, 365 of which are trucks. [24] The school district owns five buses and runs two bus routes. Approximately 50 students are bused to and from school on a daily basis. Bus routes to Long Pine and Johnstown are the routes of most concern for the district. Vehicular accidents have occurred in the past by they typically small crashes between to vehicles. There are no rail lines in the district. Transportation information is important to hazard mitigation plans because it suggests areas more at risk of transportation incidents.

## Demographics

The following figure displays the historical student population trend starting with the 2004-05 school year and ending with the 2018-19 year. It indicates that the student population has been declining since 2015 and the district anticipates a gradual decline in the future. In 2020, there are 415 students in pre-kindergarten to 12th grade.

**Figure AWS.2: Student Population 2004-2019**




*Source: Nebraska Department of Education*[25]

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

25 Nebraska Department of Education. August 2020. "2018-2019 Education Profile for District: Ainsworth Community Schools." https://nep.education.ne.gov/snapshot.html#09-0010-000.

**Figure AWS.1: Ainsworth Community Schools**

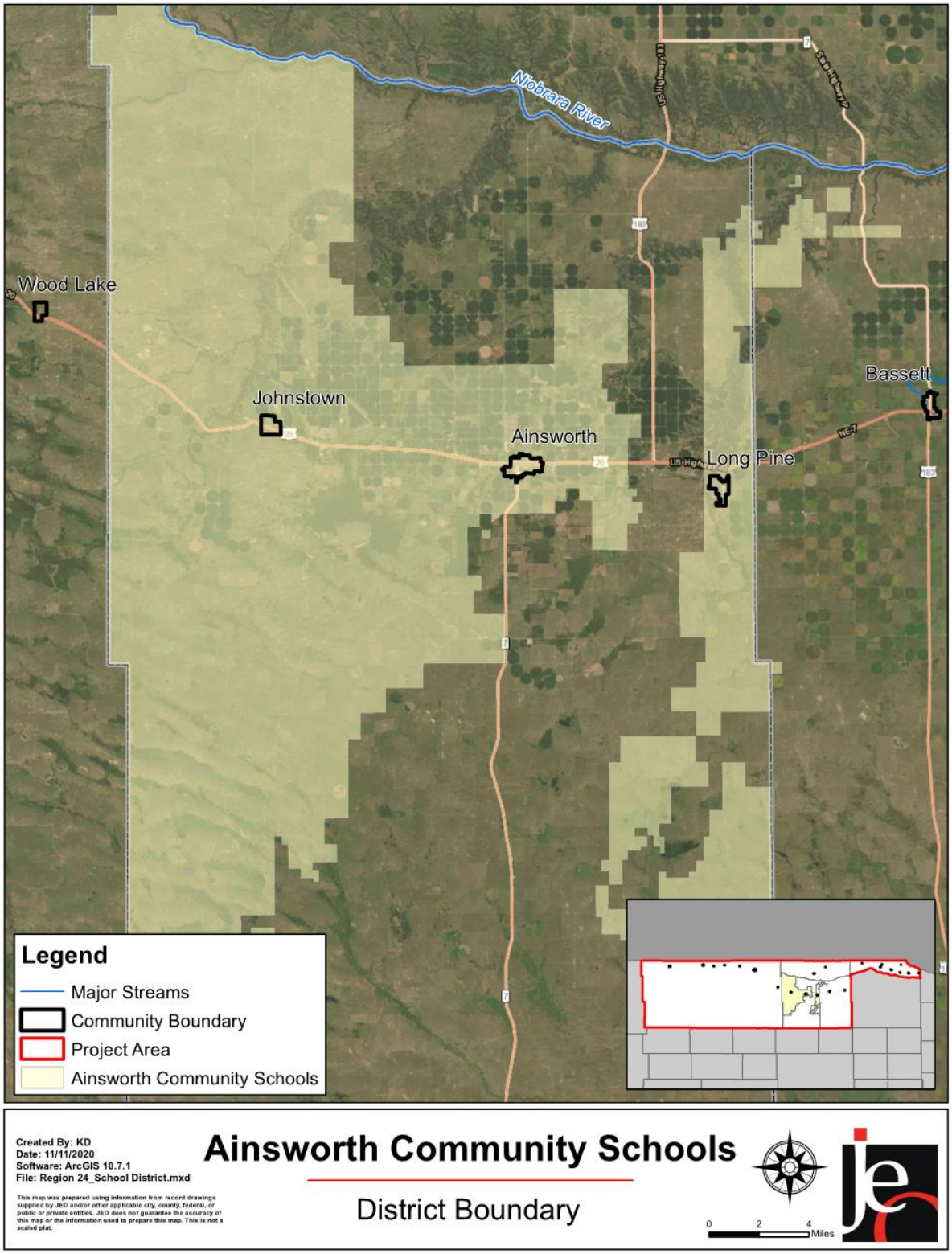
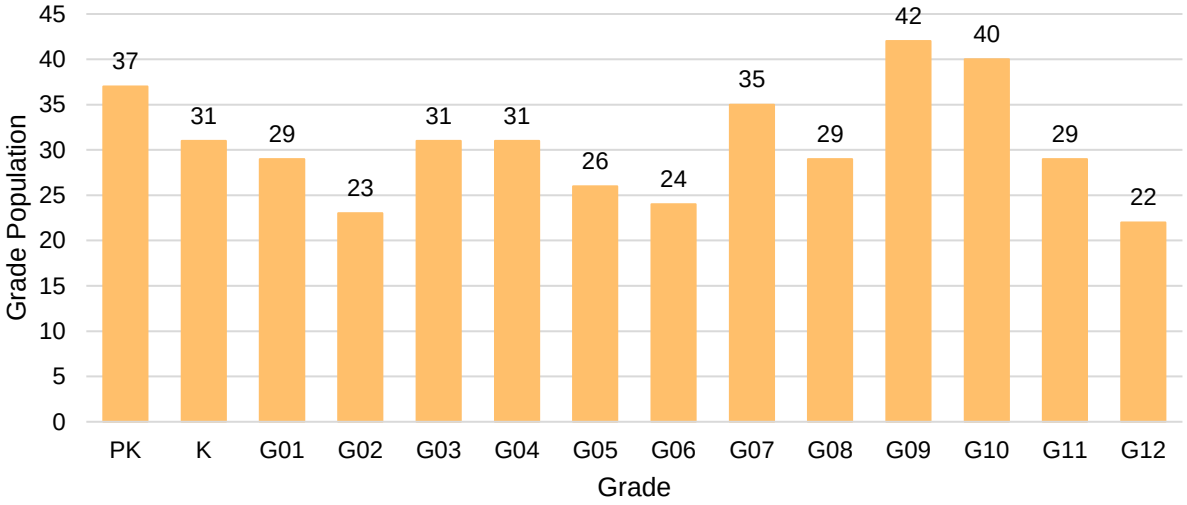


**Figure AWS.3: Number of Students by Grade, 2018-2019**




*Source: Nebraska Department of Education*

The figure above indicates that the largest number of students are in the pre-kindergarten, 9th, and 10th grades. The lowest population of students are 12th, 2nd, and 6th grades. According to the Nebraska Department of Education (NDE), 46.4% of students receive either free or reduced priced meals at school. This is slightly higher than the state average of 45.2%. Additionally, nearly 13.8% of students are in the Special Education Program and 3.1% of students are English Language Learners (ELL). The other language spoken in the district is Spanish. Over the past five years, the district has seen an increasing in the ELL population. These particular students may be more vulnerable during a hazardous event than the rest of the student population.

**Table AWS.2: Student Statistics, 2018-2019**

| | School District | State of Nebraska |
|---|---|---|
| **Free/Reduced Priced Meals** | 46.4% | 45.2% |
| **School Mobility Rate** | 11.0% | 10.3% |
| **English Language Learners** | 3.1% | 7.2% |
| **Special Education Students** | 13.8% | 15.5% |

*Source: Nebraska Department of Education*[26]

## Future Development Trends

Over the past five years, the district demolished the old shop building and replaced it with a new Ag/Tech facility during the 2018-19 school year. In addition, the chiller unit that provides cooling to the building was replaced. Currently, the district is working with Trane Climate Solutions to consider possible updates to the facility including new windows, a new gym flood, and replacement of various roof sections. Because of the ongoing pandemic, two existing rooms were converted to Covid-19 isolation rooms.

26 Nebraska Education Profile. "School Report Card." Accessed August 2020. http://nep.education.ne.gov/Home/.

# Community Lifelines

## Critical Facilities

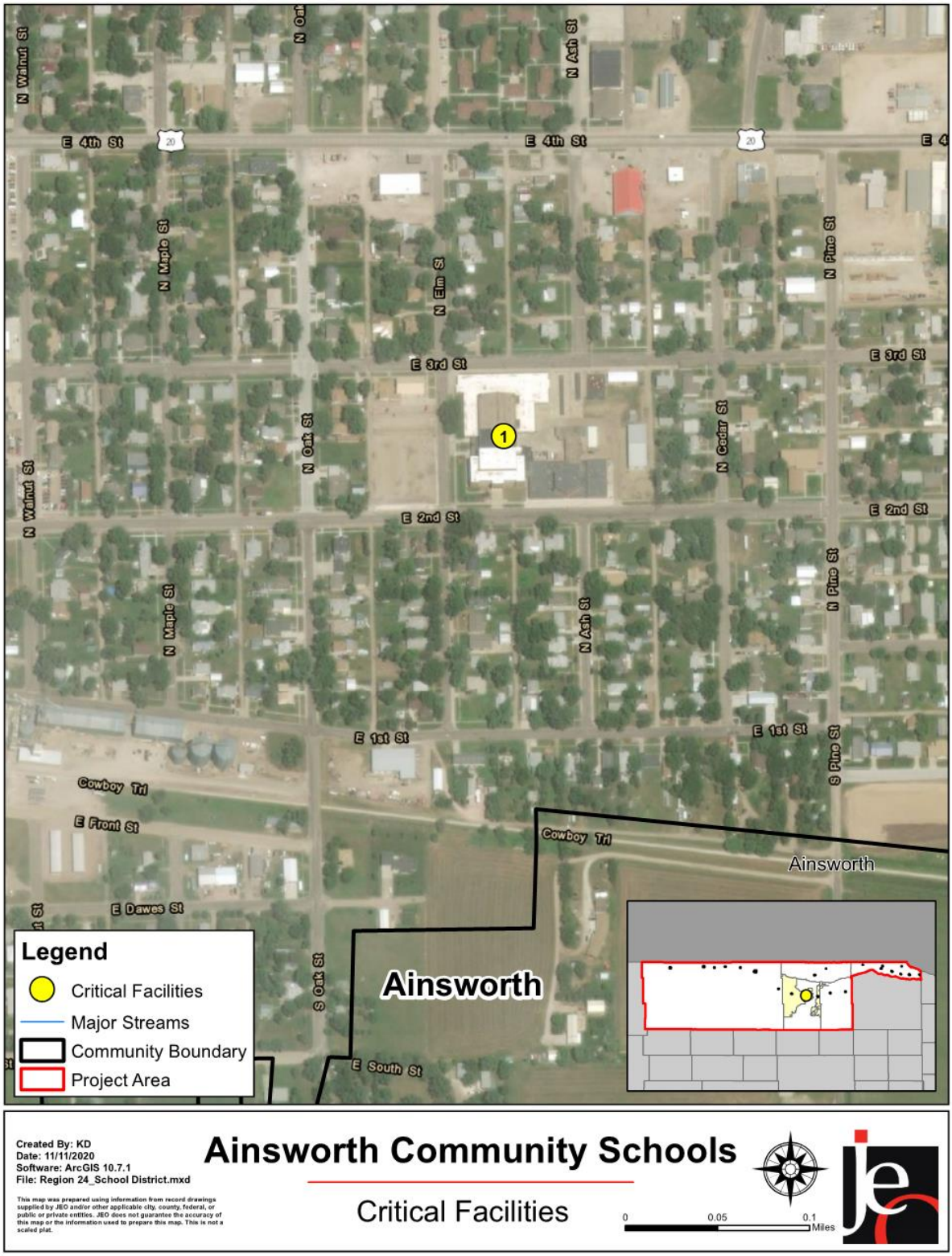
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as part of this plan update. The following table and figure provide a summary of the critical facilities for the school. The school district also has a bus barn just east of the high school and an ag shop area. Both are under the same address as the school. A local agreement with the City of Ainsworth to use the community center and football field for various activities is in place. All school owned facilities have a weather radio.

**Table AWS.3: Critical Facilities**

| CF Number | Name | # of Students | # of Staff | Community Shelter (Y/N) | Safe Room (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---|---|---|---|---|---|---|---|
| **1** | Little Paws Preschool / McAndrew Elementary / Middle School / High School | 415 | 74 | Y | N | N | N/A |

*N/A: The district is not located in a mapped floodplain, so it is not known if the facility is located in the floodplain.*

**Figure AWS.4: Critical Facilities**



## Historical Occurrences

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

## Hazard Prioritization

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

### Drought

Concerns for the district include an increased risk of grass/wildfires and negative impacts on the agricultural economy. The district's budget may get impacted since the budget is mostly funded by local property taxes. The last significant drought in the area occurred in 2012-2013.

### Grass/Wildfires

Ainsworth Community Schools are located in the center of Ainsworth, far from the Wildland Urban Interface. If a wildfire were to occur, the school indicated it would rely primarily on city emergency personnel. During the 2012 wildfires, the school served as a staging site for the Red Cross. The school conducts ten fire drills per year, with the fire alarms being tested ten times per year at a minimum. The building is constructed of steel, concrete, brick, and wood. The district works with local fire officials to be informed and prepared for any potential wildfires.

### Public Health Emergency

The primary concern for the school district related to a public health emergency is getting clear direction and information from the State of Nebraska, region, or county health professionals to make clearer decisions. The current Covid-19 pandemic has created a lot of grey area that makes decisions difficult and creates issues and concerns for those involved with the school. Covid-19 has impacted every aspect of the school district. Protocols have had to be implemented via the district's new re-entry plan. The biggest impact is managing the situation in a way that keeps students and staff safe, while also being productive. Tremendous amounts of time and finances have been dedicated to managing the situation.

The school district works with the North Central District Health Department, Nebraska Department of Education, Nebraska School Activities Association, DHHS, and the Governor to get information related to Covid-19 and the proper protocols. Collaboration with neighboring school districts and other districts across Nebraska has taken place. In addition, the State School Boards Association, Rural Community Schools Association, and Nebraska Council of School Administrators has provided excellent support and information.

### Severe Thunderstorms

In September 2019, a severe thunderstorm with lightning caused significant damage to the school's main air conditioning and chiller unit. This resulted in an insurance claim and replacement of the chiller which was a $180,000 project. Along with potential building damages, the district is also concerned with travel during severe weather and maintaining proper shelter areas for those in the facility. To help mitigate the impacts of severe thunderstorms the district reviews the proper shelter areas and performs drills with students and staff. In addition, the administration offices maintain ongoing contact with local news and weather to know when severe weather is a

possibility. Checking the forecast on a continual basis is standard practice for the administration before any activity occurs, especially ones that require travel.

### Severe Winter Storms

The school district has dealt with numerous winter storms and continues to manage snow and ice. The main impacts of severe winter storms on the school is snow removal and vehicle access to the building, which can be hazardous given high snow and ice accumulation. There are also power lines on the east side of the buildings which are vulnerable to heavy ice and snow, which may cause power outages. Late starts and school cancellations are used when the weather dictates in order to promote a high degree of safety. Local road and highway officials are also contacted to help make decisions on late starts and cancellations. A new bobcat and snow brush were purchased to better remove snow and ice.

### Tornadoes

Although no tornadoes have impacted the school in the past, the risk for significant damage still exists. They school has shelter areas for students and staff. District staff teach and re-teach about tornado safety and drills are performed on an annual basis. In the event of a power outage, important records are backed up through ESU staff and the district's technology coordinator. All school owned facilities are equipped with a weather radio.

## Administration

The school district has a superintendent and two principals. The school board is made up of a six-member panel.

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

## Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Staff are trained about emergency procedures by providing information through the state required School Safety Committee. The safe committee meets four to five times a year. Furthermore, annual safety training is provided through the school's insurance agent. Students and family are educated about emergency procedure through the district website and Facebook page. Information is also provided in the student-parent handbooks. Resources are available in Spanish and interpreters are used to assist in communication and to answer questions or concerns.

**Table AWS.5: Capability Assessment**

| Survey Components/Subcomponents | | Yes/No |
|---|---|---|
| **Planning Capability** | Capital Improvements Plan/Long-Term Budget | No |
| | Continuity of Operations Plan | No |
| | Disaster Response Plan | Yes |
| | Other (if any) | - |
| **Administration & Technical Capability** | GIS Capabilities | No |
| | Civil Engineering | No |
| | Local staff who can assess community's vulnerability to hazards | Yes |
| | Grant Manager | No |
| | Mutual Aid Agreement | No |
| | Other (if any) | - |
| **Fiscal Capability** | Applied for grants in the past | Yes |
| | Awarded grants in the past | Yes |
| | Authority to levy taxes for specific purposes such as mitigation projects | Yes |
| | Development Impact Fees | No |
| | General Obligation Revenue or Special Tax Bonds | No |
| | Approved bonds in the past | Yes |
| | Flood Insurance | No |
| | Other (if any) | - |
| **Education & Outreach Capability** | Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, hazard mitigation boards, etc.) | Yes |
| | Ongoing public education or information program (Ex. Responsible water use, fire safety, household preparedness, environmental education, etc.) | Yes |
| | StormReady Certification | No |
| | Other (if any) | - |
| **Drills** | Fire | 10 / year |
| | Tornado | 2 / year |
| | Intruder | 2 / year |
| | Bus evacuation | 2 / year |
| | Evacuation | 2 / year |
| | Other (if any) | - |

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

## Plan Integration

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

### Ainsworth Community Schools Emergency Safety and Security Management Plan (2018)

The plan covers the district's response in the event of fire, chemical spills, power outage, winter storm, tornadoes, flooding, assaults, bomb threats, intruders, and crisis due to death. It also assigns specific responsibilities to individuals, addresses shelter in place protocols, identifies evacuation routes, and identifies sheltering locations. The was prepared by hiring a safety consultant to lead the district in the process. Departments familiar with the plan include administration, school nurse, custodians, and the crisis team. All staff are generally aware of the plan.

### School Reentry Plan with Covid-19 Response Protocols (2020)

The goal of the plan is to create an environment that will reduce the spread of Covid-19, while minimizing the impact on the school community and the student learning experience. The plan outlines the protocols the school will take based on four different scenarios: Green "minimal community spread", Yellow "moderate community spread", Orange "elevated moderate community spread, and Red "significant community spread".

## Mitigation Strategy

District funds are limited to maintain current facilities and system, have been decreasing over time due to a decreasing student population. Although a large portion of funds are not dedicated to a specific project, the district is likely to need help from grants to pay for the mitigation projects listed below. The district has experience applying for grants and has won several grants in recent years.

### Completed Mitigation Actions

| Mitigation Action | Weather Radios |
|---|---|
| Description | Conduct an inventory of weather radios at schools and school facilities and provide new radios as needed. |
| Hazard(s) Addressed | All Hazards |
| Status | Completed. All school owned facilities now have a weather radio. |

### Continued Mitigation Actions

| Mitigation Action | Backup and Emergency Generators |
|---|---|
| Description | Provide a portable or stationary source of backup power. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $15,000 - $30,000 per generator |
| Funding | General Budget |
| Timeline | 1 Year |
| Priority | Low |
| Lead Agency | School Superintendent, Maintenance Director |
| Status | Not Started |

| Mitigation Action | Emergency Communications |
|---|---|
| Description | Establish an action plan to improve communication between schools and other government agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $10,000+ |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Medium |
| Lead Agency | School Superintendent, School Board, Local Fire and Law Enforcement |
| Status | Not Started |

| Mitigation Action | Install Vehicular Barriers |
|---|---|
| Description | Install vehicular barriers to protect school facilities where possible. |
| Hazard(s) Addressed | Transportation Incidents, Terrorism, Civil Disorder |
| Estimated Cost | Varies |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | School Superintendent, School Board |
| Status | Not Started |

| Mitigation Action | Power, Service, Electrical, and Water Distribution Lines |
|---|---|
| Description | Schools / School Districts can work with their local KBR Public Power District to identify vulnerable transmission and distribution lines on school property and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding |
| Estimated Cost | $50,000 - $70,000 |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | School Superintendent |
| Status | Not Started |

| Mitigation Action | Promote First Aid |
|---|---|
| Description | Promote first aid training for all staff. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $500+ |
| Funding | General Budget, Volunteer Time, Corporate Donations |
| Timeline | 1 Year |
| Priority | High |
| Lead Agency | School Superintendent, School Nurse |
| Status | Ongoing. CPR and first aid courses are provided on a routine basis to certify new and renew previously trained staff. |

| Mitigation Action | Public Awareness/Education |
|---|---|
| Description | Educate staff, students, and parents about hazard vulnerability and mitigation measures. Activities may include classroom modules profiling certain hazards and discussing preparedness measures. Educational materials, such as brochures and fliers, can be developed and provided to parents to increase community wide hazard awareness. Staff training can be conducted regarding school hazard vulnerability. In addition, purchasing education equipment such as overhead projectors and laptops. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $0 - $5,000+ |
| Funding | General Budget |
| Timeline | 1 Year |
| Priority | Low |
| Lead Agency | School Superintendent |
| Status | Ongoing. The school district annually provides a variety of professional development and training to our staff through the SafeSchools online training course. |

| Mitigation Action | Safe Rooms and Storm Shelters |
|---|---|
| Description | Assess, design, and construct fully supplied safe rooms in school facilities. |
| Hazard(s) Addressed | Tornadoes, High Winds, Severe Thunderstorms |
| Estimated Cost | $200 - $300 per square foot |
| Funding | General Budget |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | School Superintendent, School Board |
| Status | Not Started |

| Mitigation Action | School Continuity Plan |
|---|---|
| Description | Develop continuity plans for critical services to increase resiliency after a hazardous event. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $500 - $1,000 |
| Funding | General Budget |
| Timeline | 2-5 Years |
| Priority | Medium |
| Lead Agency | School Superintendent, Local Fire and Law Enforcement |
| Status | Ongoing. This is updated annually by the school safety committee. |

**Fire District Profile**

# Brown County Rural Fire Protection District

## Region 24 Emergency Management
## Multi-Jurisdictional Hazard Mitigation Plan Update

**2021**

## Local Planning Team

**Table BFD.1: Brown County Rural Fire Protection District Local Planning Team**

| Name | Title | Jurisdiction |
|---|---|---|
| **Brad Fiala** | Fire Chief | Ainsworth Fire Department |
| **Jim Debolt** | Clerk | Brown County Rural Fire Protection District |

## Location and Geography

The Brown County Rural Fire Protection District covers all of Brown County, including the City of Ainsworth, City of Long Pine, and Village of Johnstown. The fire district includes the sub-districts of Long Pine and Johnstown with stations and buildings in Ainsworth, Long Pine, Johnstown, Raven, South Pine, and Calamus.

## Transportation

US Highway 20, 183, and Nebraska State Highway 7 all travel through the Brown County Rural Fire Protection District. The most travel route is US Highway 20 is with a total annual average of 5,775 vehicles daily, 365 of which are trucks.[27] No rail lines travel through the district. Highway 20 is the route of most concern for the local planning team due to the high traffic volume and bulk chemical transport. Propane, fuel oil, gasoline, oxygen, ammonia, and acetylene are all regularly transported on Highway 20. No large spills have occurred on any local routes. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors and areas more at risk of transportation incidents.

## Demographics

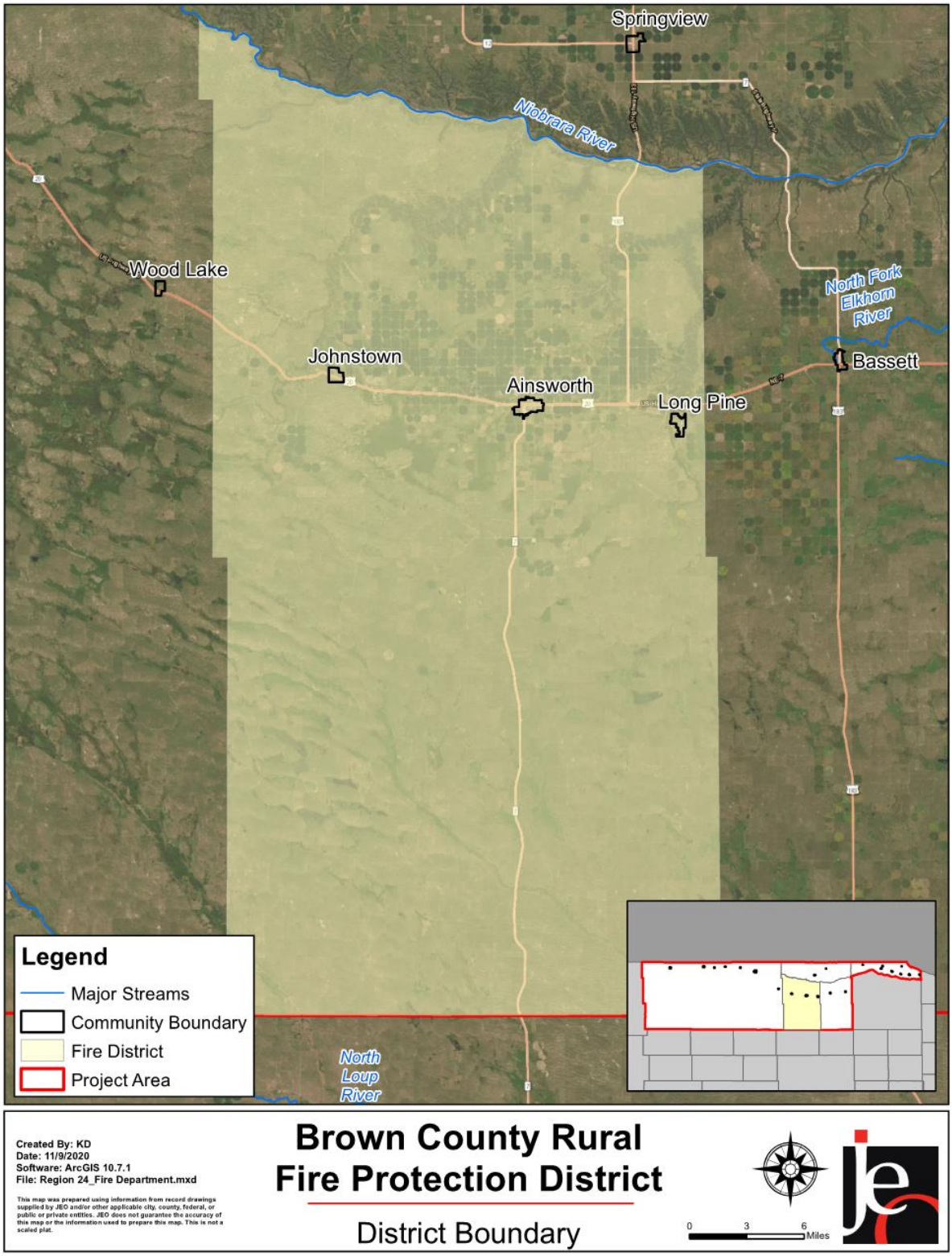
See the City of Ainsworth, City of Long Pine, Village of Johnstown and the Brown County profiles for regional demographic information. The district serves approximately 3,000 people.

## Future Development Trends

Over the past five years, a new fire station was built in Long Pine and the unincorporated community of Raven. Building codes have also been updated and quicker response times have also occurred. In the next five years, there are plans for a new fire station for the South Pine and a new backup power generator for the Long Pine fire station.

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

**Figure BFD.1: Brown County Rural Fire Protection District**



# Community Lifelines

## Chemical Storage Fixed Sites

Information on chemical storage sites can be found in the Brown County profile. Primary concerns related to fixed chemical sites is potential spills and leaks impacting the safety of residents and responding fire department members. All volunteers and staff receive training from the Nebraska Fire School on spill response. No individuals are HazMat certified and the closest HazMat team is located in Norfolk.

## Critical Facilities

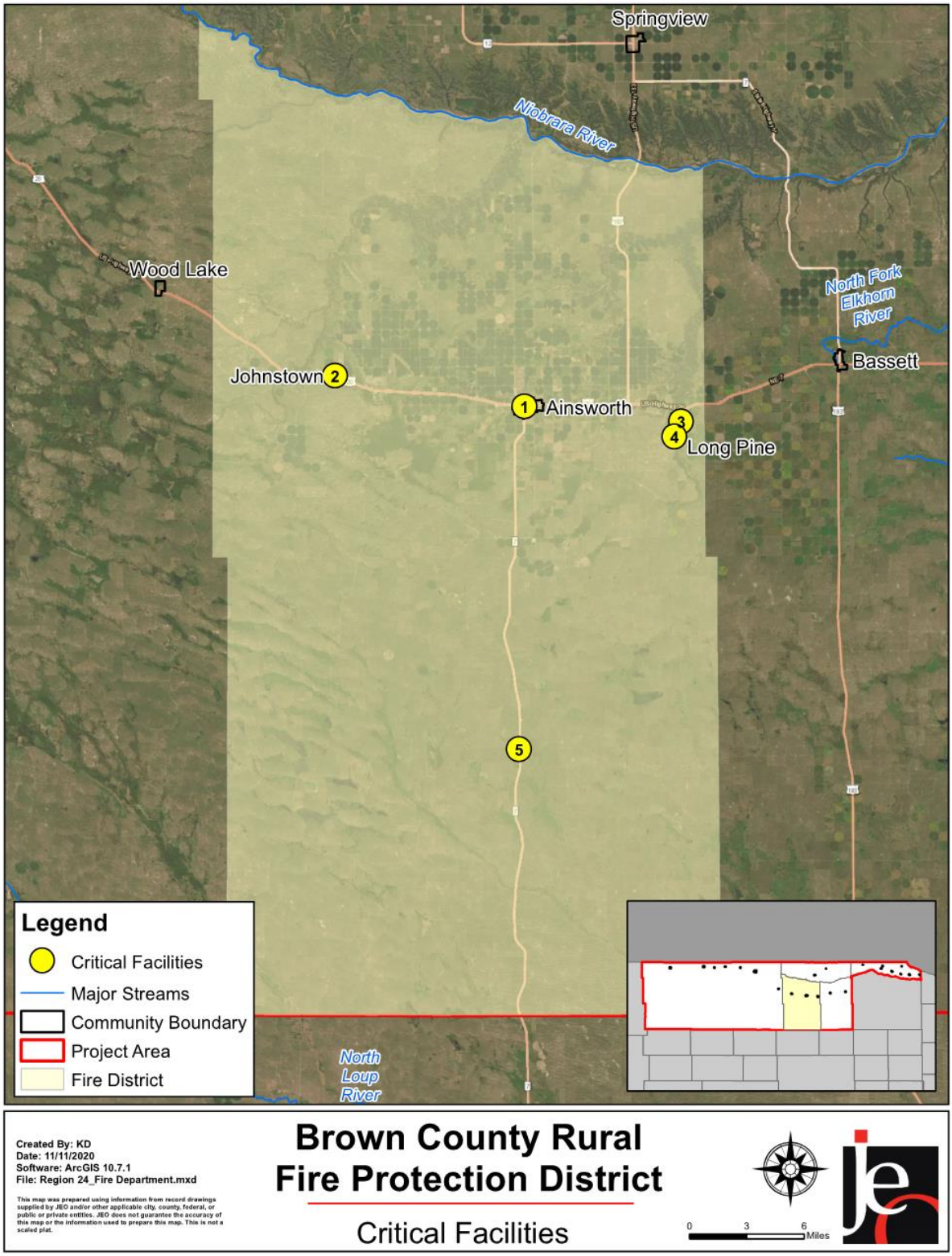
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction. None of the facilities have weather radios.

**Table BFD.2: Critical Facilities**

| CF Number | Name | Community Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---|---|---|---|---|
| 1 | Ainsworth Fire Station | N | Y | N/A |
| 2 | Johnstown Rural Fire Station | N | N | N/A |
| 3 | Long Pine Rural Fire Station | N | N | N/A |
| 4 | Long Pine Well House | N | N | N/A |
| 5 | Raven Rural Fire Station | N | N | N/A |

*N/A: The district does not fall within a mapped floodplain area. Therefore, it is not known if any of the facilities are located in the floodplain.*

**Figure BFD.2: Critical Facilities**



## Historical Occurrences

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

## Hazard Prioritization

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

### Drought and Extreme Heat

The local planning team is concerned with drought and extreme heat because of their ability to lead to grass/wildfires. During drought or extreme heat conditions, grassland and forested areas can become extremely dry causing an increased fire risk. Water for fire suppression may also be at risk if water levels drop.

### Grass/Wildfire

All areas within the district are at risk of fire, as much of the land is made up of grasslands and canyons. Specific areas of concern include wooded bluffs along the Niobrara River and Hidden Paradise on Pine Creek. These areas have heavy eastern redcedar encroachment and can be difficult to access with road and bridge limitations. The largest historical wildfire occurred July 2012 and was part of the Region 24 Wildfire Complex. Called the Fairfield Creek Fire, this wildfire burned 36,745 acres. Response vehicles include a 1,500-gallon tanker, 1,000-gallon tanker/brush attack 6x6 AM General, a 3,000-gallon tanker Harsco 6x6, a rescue truck, a 6x6 two-and-a-half-ton truck, a 6x6 five-ton truck, and 4,700-gallon tanker. Public outreach and education include Fire Prevention Week, promoting the cleaning of chimneys, and replacing batteries in smoke detectors. Fuels reduction is done in the canyon areas and Hidden Paradise. The district does not have a Wildland-Urban Interface Code. Residents in the county are encouraged to maintain defensible spaces around structures and to acquire burn permits when the weather permits.

### Severe Thunderstorms and High Winds

The district is concerned with severe thunderstorms and high winds because they can cause and help spread wildfires. Lightning strikes cause a large number of wildfires in the area. During a grass/wildfire event, high winds can make it very difficult to contain the fire as the wind can spread embers over long distances.

### Transportation Incidents

Concerns regarding transportation incidents include the ability to start fires, potential for chemical releases, and accidents affecting response times. If an accident were to occur it is possible for a fire to start, which could potentially spread to the surrounding area. Along with fire response, the individual fire stations within the fire district also respond to chemical spills, which could occur due to an accident. Finally, a transportation incident could lead to potential road closures, which may affect response times.

## Staffing

The Brown County Rural Fire Protection District is supervised by six fire chiefs and a five-member board of directors who will oversee the implementation of hazard mitigation projects. Other offices are listed below. There are approximately 109 members between the six fire departments.

- Chairman
- Vice-Chairman
- Clerk
- Two other board members

## Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities. The Brown County Rural Fire Protection District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects. Training on emergency procedures is left up to each individual fire department.

**Table BFD.3: Overall Capability**

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

## Plan Integration

The Brown County Rural Fire Protection District has board policies that were updated and adopted in 2011. These policies outline the basic requirements that the individual fire departments must follow as part of the fire district. The district is also a part of the 2020 North Central Nebraska Community Wildfire Protection Plan (CWPP). The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years and has been integrated with the current hazard mitigation plan. No other planning documents were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

## Mitigation Strategy

District funds are sufficient to pursue new capital projects with a large portion already dedicated to a purchasing a new grass rig for the Long Pine Rural Fire Station and a new fire station in South Pine. District funds have stayed the same over recent years. The rural board has not applied for grants but the individual fire station within the fire district have applied for grants with the Nebraska Forest Service. The district will likely need to pursue grants to help pay for several of the mitigation actions listed below.

## New Mitigation Actions

| Mitigation Action Name | Backup and Emergency Generators |
|---|---|
| Description | A backup generator is needed for the Long Pine Fire Hall. |
| Hazard(s) Addressed | Severe Thunderstorms, Severe Winter Storms, Tornadoes, High Winds |
| Estimated Cost | $20,000+ |
| Funding | Sinking Fund |
| Timeline | 2-5 Years |
| Priority | High |
| Lead Agency | Rural Board |
| Status | Not Started |

| Mitigation Action | New Fire Hall/Barn |
|---|---|
| Description | A new fire station is needed for South Pine. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $100,000+ |
| Funding | Sinking Fund |
| Timeline | 2-5 Years |
| Priority | High |
| Lead Agency | Rural Board |
| Status | Planning Stage. Currently looking at potential locations and cost. |

| Mitigation Action | Weather Radios |
|---|---|
| Description | Weather radios are needed at all critical facilities. |
| Hazard(s) Addressed | All Hazards |
| Estimated Cost | $25 per radio |
| Funding | Sinking Fund |
| Timeline | 5+ Years |
| Priority | Low |
| Lead Agency | Rural Board, Fire Chiefs |
| Status | Not Started |