Cheyenne County Appendix

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County Profile

Cheyenne County

South Platte NRD Hazard Mitigation Plan 2022

SOUTH PLATTE NRD HAZARD MITIGATION PLAN | 2022

Local Planning Team

Table CHN.1: Cheyenne County Local Planning Team

| Name | Title | Jurisdiction |
|----------------|-------------------------------|-----------------|
| Douglas Hart | Highway Superintendent | Cheyenne County |
| Colleen Terman | Planning & Zoning Coordinator | Cheyenne County |
| Ron Leal | Region 21 EMA Director | Cheyenne County |

Location, Geography, and Climate

Cheyenne County is located in western Nebraska and is bordered by Banner, Kimball, Morrill, Deuel, and Garden Counties in Nebraska, and Sedgwick and Logan Counties in Colorado. The total area of Cheyenne County is 1,196 square miles. Major waterways within the county include Lodgepole Creek and Sidney Draw. Most of Cheyenne County lies in the plains topographic region, with the vast majority of the county's land characterized by agricultural fields

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 CHN.2: Cheyenne County Climate Normals

| | Cheyenne County | State of Nebraska |
|--|-----------------|-------------------|
| July Normal High Temp ¹ | 88.6 °F | 88.0 °F |
| January Normal Low Temp ¹ | 15.0 °F | 12.0 °F |
| Annual Normal Precipitation ² | 17 inches | 30.3 inches |
| Annual Normal Snowfall ² | 28.8 inches | 25.9 inches |

Source: NCEI 1981-2010 Climate Normals¹, High Plains Regional Climate Center, 1981-2010² Precipitation includes all rain and melted snow and ice.

¹ National Centers for Environmental Information. "1981-2010 U.S. Climate Normals." Accessed May 2021. https://www.ncdc.noaa.gov/cdo-web/datatools.

² High Plains Regional Climate Center. "Monthly Climate Normals 1981-2010 – Sidney, NE." Accessed May 2021. http://climod.unl.edu/.

Transportation

Cheyenne County's major transportation corridors include US Highway 30, which runs east/west through the county. US-30 on average accommodates 5,485 vehicles per day, at Sidney, 220 of which are heavy commercial vehicles. US-385 runs north/south through the center of the county, and on average accommodates 4,765 vehicles per day, 407 of which are heavy commercial vehicles.³ Finally, Interstate 80 runs east/west through southern Cheyenne County.

The county has multiple air landing strips dispersed throughout the planning area. The Union Pacific Railroad runs east/west through the center of the county and the Burlington Northern-Santa Fe line runs north/south through the center of the county.

According to the local planning team, roadways are safe during normal driving conditions. Under inclement weather, roadways may be more dangerous. Some critical facilities are located along transportation routes, including the county courthouse, which is within 0.1 miles of the railroad, and a block away from Highway 30. The planning team also noted that diesel spills from tanker trucks are the most common transportation event that happens in the county. These spills range anywhere between 25 and 100 gallons per spill.

³ Nebraska Department of Transportation. 2020. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=8ed4b009b0d546f19f0284e5bba0f972 .

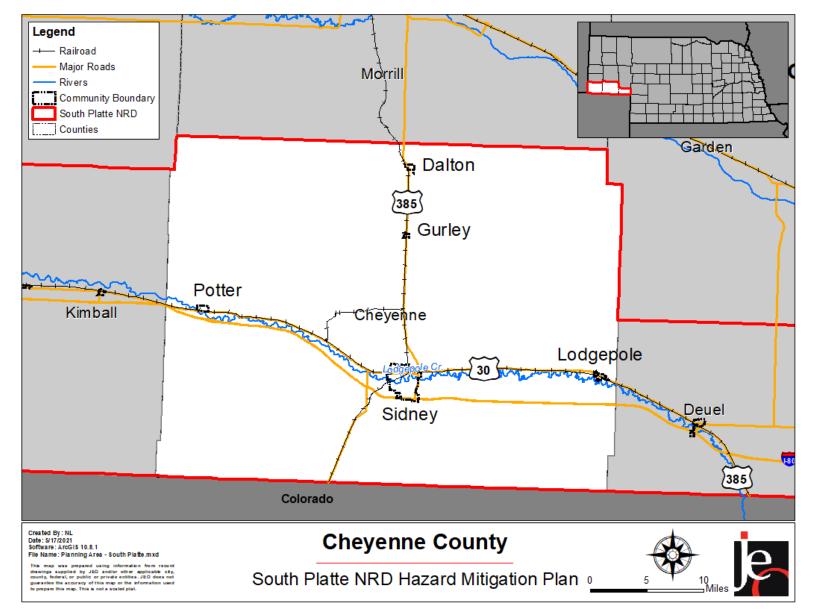


Figure CHN.1: Cheyenne County

Demographics

The following figure displays the historical population trend from 1880 to 2019. This figure indicates that the population of Cheyenne County fluctuated multiple times from 1880 to 1970. Since then the population has remained relatively stable. The 2019 estimate shows the population slightly decreasing from 2010. This is notable for hazard mitigation because counties with declining population may also have a higher level of unoccupied housing that is not being kept up. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for communities and the county, which could make implementation of mitigation and strategic actions more fiscally challenging.

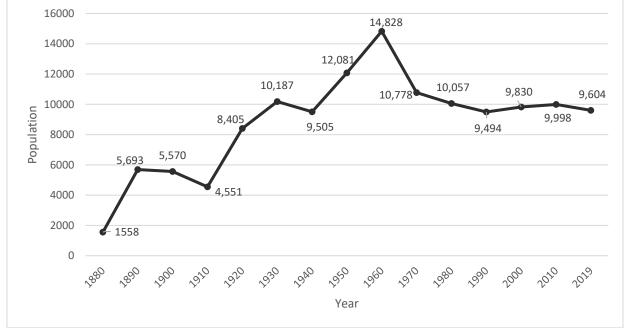


Figure CHN.2: Estimated Population 1880 - 2019

The following table indicates Cheyenne County has a similar percentage of people under the age of five as the State of Nebraska. The county has a smaller percentage of people between the ages of 5 and 64 and a larger percentage of those over 64. The median age in Cheyenne County is larger than the state. This information is relevant to hazard mitigation as the very young and elderly populations may be at greater risk from certain hazards than others. For a more elaborate discussion of this vulnerability, please see *Section Four: Risk Assessment*.

| Table CHN.3: Population by Age | e |
|--------------------------------|---|
|--------------------------------|---|

| Age | Cheyenne County | State of Nebraska |
|--------|-----------------|-------------------|
| <5 | 6.8% | 6.9% |
| 5-64 | 74.7% | 77.7% |
| >64 | 18.5% | 15.4% |
| Median | 40.4 | 36.5 |

Source: U.S. Census Bureau⁵

Source: U.S. Census Bureau⁴

⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>

⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. https://data.census.gov.

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.

| | Cheyenne County | State of Nebraska |
|-------------------------|-----------------|-------------------|
| Median Household Income | \$53,871 | \$61,439 |
| Per Capita Income | \$31,294 | \$32,302 |
| Median Home Value | \$103,000 | \$155,800 |
| Median Rent | \$792 | \$833 |

Table CHN.4: Housing and Income

The following figure indicates that most of the housing in Cheyenne County was built prior to 1960. According to the Census Bureau, the county has 5,014 housing units; with 87.7 percent of those units being occupied. 4.4 percent of the county's housing is classified as mobile homes. Housing age can serve as an indicator of risk as structures built prior to the development of state building codes may be more vulnerable to hazards. The State of Nebraska first adopted building codes in 1987 and the state currently has adopted the 2018 International Building Code. Finally, communities with a substantial number of mobile homes may have a higher number of residents vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

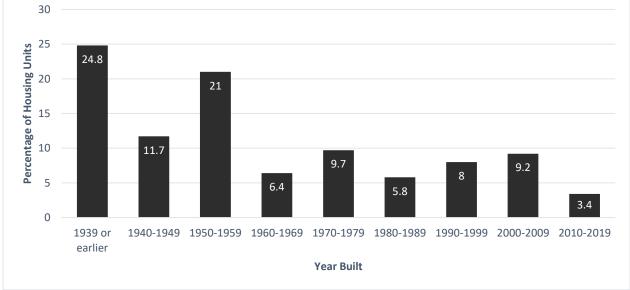


Figure CHN.3: Housing Units by Year Built

Source: U.S. Census Bureau⁶

⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. https://data.census.gov.

| Jurisdiction | risdictionTotal Housing UnitsOccupiedVacant | | | Occ | upied Ho | ousing U | Inits | | |
|--------------------|---|---------|-----------|---------|----------|----------|---------|---------|---------|
| | | | ant Owner | | ner | Renter | | | |
| | Number | Percent | Number | Percent | | Number | Percent | Number | Percent |
| Cheyenne County | 4,395 | 87.7 | 619 | 12.3% | | 2,928 | 66.6% | 1,467 | 33.1% |
| Nebraska | 759,176 | 90.7% | 78,300 | 9.3% | | 501,679 | 66.1% | 257,497 | 33.9% |

Table CHN.5: Housing Units

Source: U.S. Census Bureau⁷

Major Employers

According to 2018 Business Patterns Census Data, Cheyenne County had 290 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars. Communities which have a diverse economic makeup may be more resilient following a hazardous event, especially if certain industries are more impacted than others.

Table CHN.6: Businesses in Cheyenne County

| | Total Businesses | Number of Paid Employees | Annual Payroll (in thousands) |
|------------------------------|---------------------|-----------------------------|----------------------------------|
| Total for All Sectors (2012) | 292 | 5,144 | \$216,448 |
| Total for All Sectors (2018) | 290 | 4,545 | \$230,955 |

Source: U.S Census Bureau⁸

Agriculture is also important to the economic fabric of Cheyenne County, and the state of Nebraska as a whole. Cheyenne County's 572 farms cover 759,469 acres of land, about 99% of the county's total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute as well by producing, processing, and marketing farm and food products. These businesses generate income, employment, and economic activity throughout the region.

Table CHN.7: Cheyenne County Agricultural Inventory

| Cheyenne County Agricultural Inventory | | |
|--|---------|--|
| Number of Farms | 572 | |
| Land in Farms (acres) | 759,469 | |

Source: USDA 2017 Census of Agriculture⁹

Future Development Trends

Development over the last five years in Cheyenne County includes some new housing, a few small businesses, and a new east interchange on I-80 into Sidney. According to census estimates, the county's population has decreased slightly. The planning team attributes this decline to the

⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov</u>.

⁸ United States Census Bureau. "2018 Census Bureau American Community Survey: Geography Area Series County Business Patterns 2018 Business Patterns." [database file]. <u>https://data.census.gov.</u>

⁹ United States Department of Agriculture, National Agricultural Statistics Server. 2019. "2017 Census of Agriculture – County Data." <u>https://www.nass.usda.gov/Publications/AgCensus/2017/index.php.</u>

sale of Cabela's Inc. to Bass Pro Shops and the subsequent closures. There are no new developments planned for the next five years at this time.

Structural Inventory and Valuation

GIS parcel data as of July 2021 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table CHN.8: Cheyenne County Parcel Valuation

| Table Office: One year to be and the area valuation | | | | |
|---|---------------|---------------|---------------|---------------|
| Total Number | Total | Number of | Value of | % of |
| of | Improvement | Improvements | Improvements | Improvements |
| Improvements | Value | in Floodplain | in Floodplain | in Floodplain |
| 5,071 | \$576,001,932 | 304 | \$26,704,880 | 6% |

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 111 chemical storage sites throughout Cheyenne County that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. For a description of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Critical Facilities

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

Table CHN.9: Critical Facilities

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|-----------------------------|---------------|--------------------|---------------------|
| 1 | Cheyenne County Courthouse | Y | Y | N |
| 2 | Sunol Outdoor Warning Siren | N | Ν | N |

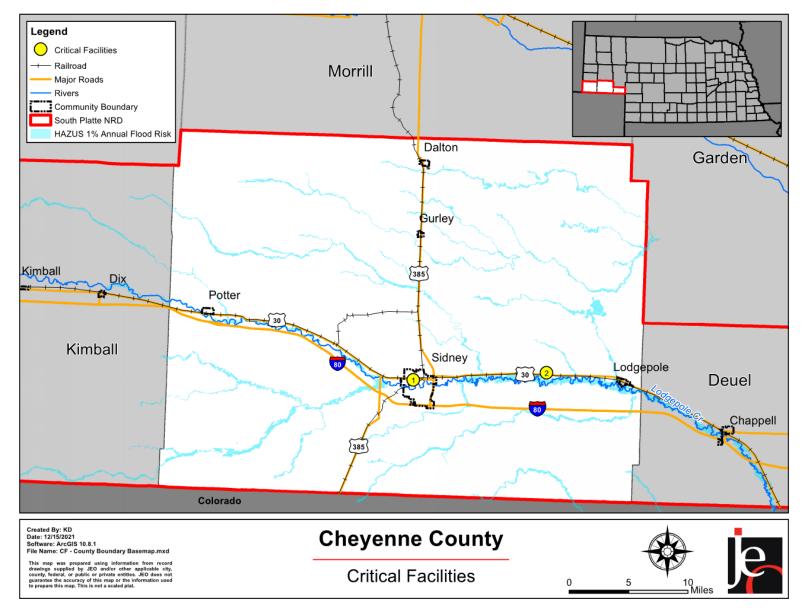


Figure CHN.4: Critical Facilities

Governance

A county's governance indicates the number of boards or offices that may be available to help implement hazard mitigation and strategic actions. Cheyenne County has three-member board of commissioners and the following departments and offices.

- Assessor
- Attorney
- Clerk
- District Court
- Register of Deeds
- Highway Superintendent
- Planning/ Zoning
- Sheriff
- Treasurer
- Veteran Services Officer
- Emergency Management

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

| Surve | y Components/Subcomponents | Yes/No |
|-----------------|----------------------------------|--------|
| | Comprehensive Plan | Yes |
| | Capital Improvements Plan | Yes |
| | Economic Development Plan | No |
| | Emergency Operations Plan | Yes |
| | Floodplain Management Plan | No |
| Planning | Storm Water Management Plan | No |
| & Regulatory | Zoning Ordinance | Yes |
| Capability | Subdivision Regulation/Ordinance | Yes |
| Capability | Floodplain Ordinance | Yes |
| | Building Codes | Yes |
| | National Flood Insurance Program | Yes |
| | Community Rating System | No |
| | Other (if any) | |
| | Planning Commission | Yes |
| Administrative | Floodplain Administration | No |
| & Technical | GIS Capabilities | Yes |
| Capability | Chief Building Official | No |
| | Civil Engineering | No |

Table CHN.11: Capability Assessment

| | Local Staff Who Can Assess Community's Vulnerability to Hazards | Yes |
|--|---|-----|
| | Grant Manager | No |
| | Mutual Aid Agreement | Yes |
| | Other (if any) | |
| | Capital Improvement Plan/ 1 & 6 Year plan | Yes |
| | Applied for grants in the past | Yes |
| | Awarded a grant in the past | No |
| | Authority to Levy Taxes for Specific Purposes such as Mitigation Projects | Yes |
| Fiscal | Gas/Electric Service Fees | No |
| Capability | Storm Water Service Fees | No |
| | Water/Sewer Service Fees | No |
| | Development Impact Fees | No |
| | General Obligation Revenue or Special Tax Bonds | No |
| | Other (if any) | |
| | 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 |
| Education & Outreach Capability | Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education) | No |
| | Natural Disaster or Safety related school programs | Yes |
| | StormReady Certification | Yes |
| | Firewise Communities Certification | No |
| | Tree City USA | N/A |
| | Other (if any) | |

Table CHN.12: Overall Capability

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

Plan Integration

Cheyenne 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. 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.

Capital Improvement Plan

The capital improvement plan outlines large purchases and projects that the county would like to pursue. Projects identified in the plan include: regular maintenance for drainage structures, improving transportation routes for drainage, and bridge improvements.

Comprehensive Plan (1976)

The comprehensive plan is designed to guide the future actions and growth of the county. It discourages development in known hazard areas, such as the floodplain, chemical storage facilities, and dam inundation areas. There is no timeline to update the comprehensive plan.

Cheyenne County Local Emergency Operations Plan (2018)

The Cheyenne County Local Emergency Operations Plan (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 (1999), Subdivision Regulations (1999), Floodplain Ordinance (1999)

The county's floodplain ordinance, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. These documents discourage development in the floodplain and near chemical fixed sites, restrict subdivision of land within the floodplain, and include well setback requirements. The planning team noted that these documents need to be updated to include floodplain maps, prohibit filling of wetlands, discourage development along major transportation routes, and consider wildfire and the wildland urban interface.

Wildcat Hills Region Community Wildfire Protection Plan (2021)

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the County Clerk, County Commissioners, Highway Superintendent, Planning and Zoning Administrator, and Region 21 Emergency Manager. The plan will be reviewed annually. The public will be included in the review and revision process via social media and the Region 21 website.

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 – April 2021) should be considered only as broad estimates. Sources include but are not limited to: emergency management; local law enforcement; Skywarn spotters; NWS damage surveys; newspaper clipping services; insurance industry; and the general public. Crop damages reports come from the USDA Risk Management Agency for Cheyenne County between 2000 and 2020.

| Hazard T | | Count | Property | Crop ² |
|--|--|---------------------|-------------|--------------------------|
| Agricultural | Animal Disease ¹ | 0 | 0 animals | N/A |
| Disease | Plant Disease ² | 50 | N/A | \$1,498,207 |
| Dam Failure ⁵ | | 1 | \$0 | N/A |
| Drought ⁷ | | 438/1,512 months | \$0 | \$25,350,538 |
| Earthquakes ⁸ | | 0 | \$0 | \$0 |
| Extreme Heat ⁶ | | Avg. 3 days/yr | \$0 | \$3,478,797 |
| Flooding ⁹ | Flash Flood | 34 | \$2,145,000 | |
| Flooding ⁹ | Flood | 3 | \$3,000 | \$65,542 |
| Grass/Wildfire ¹⁰ Injuries: 2 Fatalities: 5 | | 380 | \$12,450 | \$21,356 |
| Hail ⁹ Average: 1.2 in. Range: 0.5 - 4 Injuries: 0 | | 349 | \$6,692,000 | \$41,737,465 |
| Hazardous Materials | Hazardous Materials - Fixed Sites ³ | | \$0 | N/A |
| Hazardous Materials - Transportation ⁴ | | 32 | \$253,652 | N/A |
| High Winds⁹ Average: 53 mph Range: 40-73 mph | Average: 53 mph | | \$25,500 | \$4,732,471 |
| Levee Failure ¹¹ | | 0 | \$0 | N/A |

Table CHN.13: Hazard Events for Cheyenne County

| Hazard 1 | Гуре | Count | Property | Crop ² |
|--|---|-------|-------------|-------------------|
| Severe Thunderstorms ⁹ | Thunderstorm Wind Average: 64 mph Range: 58-94 mph | 112 | \$51,000 | N/A |
| munuerstonns | Heavy Rain | 12 | \$0 | \$5,570,631 |
| | Lightning | 1 | \$1,000 | N/A |
| Severe Winter Storms ⁹ | Blizzard Injuries: 3 | 18 | \$30,000 | |
| | Extreme Cold/Wind Chill | 10 | \$0 | |
| | Heavy Snow | 23 | \$0 | \$11,423,410 |
| | Ice Storm | 1 | \$50,000 | |
| | Winter Storm | 37 | \$296,000 | |
| | Winter Weather | 24 | \$74,500 |] |
| Terrorism and Civil Disorder ¹² | | 0 | \$0 | N/A |
| Tornadoes ⁹ | Tornado Average: EF0 Range: EF0-EF1 | 26 | \$30,000 | \$1,920 |
| Totals | | 1,185 | \$9,664,102 | \$93,880,337 |

N/A: Data not available 1 NDA (2014-2020)

2 USDÀ RMA (2000-2020) 3 NRC (1990-2020) 4 PHMSA (1971-2020) 5 DNR Dam Inventory (May 2021) 6 HPRCC (1948 - May 2021) 7 NOAA (1895-2020) 8 USGS (1900-2020) 9 NCEI (January 1996 - April 2021) 10 NFS (January 2000 - 2020) 11 USACE NLD (May 2021) 20 Chebal Tarraina Databasa (1070 2)

12 Global Terrorism Database (1970-2017)

The following table provides a summary of hazards that have or have the potential to affect each participating jurisdiction in Cheyenne County. Each jurisdiction was evaluated for previous hazard occurrence and the probability of future hazard events on each of the 16 hazards profiled in this plan. The evaluation process was based on data collected and summarized in Table CHN.13; 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.

| Hazard | Cheyenne County | Village of Dalton | Village of Gurley | Village of Lodgepole | Village of Potter | City of Sidney |
|--|--------------------|----------------------|----------------------|-------------------------|----------------------|-------------------|
| Animal and Plant Disease | Х | Х | Х | Х | Х | Х |
| Dam Failure | Х | | | Х | Х | Х |
| Drought | Х | Х | Х | Х | Х | Х |
| Earthquakes | Х | Х | Х | Х | Х | Х |
| Extreme Heat | Х | Х | Х | Х | Х | Х |
| Flooding | Х | Х | Х | Х | Х | Х |
| Grass/Wildfire | Х | Х | Х | X X | Х | X X X |
| Hail | Х | Х | Х | X | Х | Х |
| Hazardous Materials - Fixed Sites | Х | Х | Х | Х | Х | х |
| Hazardous Materials - Transportation | х | х | Х | х | х | х |
| High Winds | Х | Х | Х | Х | Х | Х |
| Levee Failure | Х | | | | | Х |
| Severe Thunderstorms | Х | Х | Х | Х | Х | Х |
| Severe Winter Storms | Х | Х | Х | Х | Х | Х |
| Terrorism and Civil Disorder | Х | Х | Х | Х | х | Х |
| Tornadoes | Х | Х | Х | Х | Х | Х |

Table CHN.14: Cheyenne County Hazard Matrix

County Hazard Prioritization

For additional discussion regarding area-wide hazards, please see Section Four: Risk Assessment. The hazards discussed in detail below were either identified in the previous HMP and determined to still be of top concern or were added by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Dam Failure

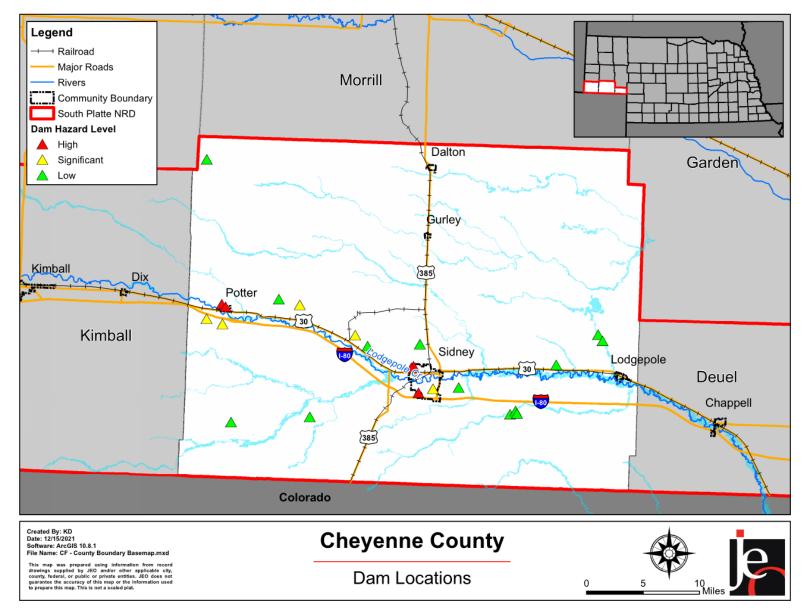
According to the USACE National Inventory of Dams, there are 19 dams in Cheyenne County. Of these dams, five have been classified as high hazard dams. A "high hazard" designation is not an evaluation of the condition of a dam. Instead, it signifies the high number of individuals that live downstream from it. While these were not considered a top concern for the planning area, a dam failure may affect a large section of Cheyenne County. Table CHN.15 provides details of the high hazard dams in the county. Figure CHN.5 shows a map of all dams within the county. They can also be viewed on the Nebraska Department of Natural Resources Dam Inventory map (https://dnr.nebraska.gov/dam-safety).

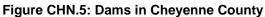
| Dam Name | NID ID | Location | Condition | Inspection Date |
|-----------------------|---------|----------|--------------|--------------------|
| Heimer Dam | NE00601 | Potter | Fair | 8/11/2020 |
| Verde Lane Dam | NE00607 | Sidney | Satisfactory | 8/11/2020 |
| Sidney East Dam | NE01146 | Sidney | Satisfactory | 8/11/2020 |
| Sidney West Dam | NE01147 | Sidney | Satisfactory | 8/11/2020 |
| Potter Dam | NE02293 | Potter | Satisfactory | 8/11/2020 |
| Source: LISACE 202110 | | | | |

Table CHN.15: High Hazard Dams in Cheyenne County

Source: USACE. 2021¹⁰

¹⁰ United States Army Corps of Engineers. February 2021. "National Inventory of Dams." https://nid.sec.usace.army.mil/ords/f?p=105:19:15077170345077::NO:::





Drought

The county's top concerns regarding drought are related to crop failure, reduced water availability, maintaining transportation routes, and increased fire potential. In the past, drought impacts have included road degradations, crop and animal loss, and other associated economic losses. Extreme drought last occurred in the region in 2012/2013, according to the NCEI. Significant drought, however, was reported in September of 2020. In Cheyenne County, drought may be defined as an extended period of time without significant rainfall. Local water supplies come from groundwater and the Ogallala Aquifer. Annual precipitation for Cheyenne County is considerably lower than that of the state of Nebraska average; and as a result, deviation from precipitation norms is felt more quickly than in other regions.

Currently the county uses mostly informal drought monitoring protocols in combination of regional and national monitoring tools such as the National Drought Monitor. Cheyenne County uses meters to monitor the residential water supply and has protocols in place to slow water consumption in the case of a drought, such as watering lawns during even/odd days.

Flooding

The county typically experiences flooding during severe thunderstorms, or immediately after snow conditions, followed by warm conditions. According to the NCEI, there were 37 flood events in Cheyenne County from 1996 to April 2021, resulting in \$2,148,000 in property damages and \$530,000 in crop damages. The planning team noted that spring snowfall and quick thaw in 2019 led to a large amount of runoff and flooding in the county, with roadway and shoulders washing out.

In general, the local planning team is more concerned about flash flooding than riverine flooding, as the county has many dry creeks, which may flood at any time during summer months. In addition to flash flooding, storm water drainage is a concern for the county as well, as a result of several roads with corrugated metal pipe for drainage, which may be insufficient for certain localized events.

The county has recently acquired additional barricades and lights for flooded and washed-out areas. These were in short supply during the 2019 floods. The county has also been cleaning culverts and repairing damaged ends. Continued culvert work for improved drainage is needed in the future to reduce the impacts of this hazard.

Grass/Wildfire

The county's top concern as it relates to grass/wildfire is the fact that the topography of the county may not allow for fire response in certain parts of the planning area. If a fire were to occur in one of these parts of the county which does not allow for adequate response, first responders may not be able to put the fire out in a timely manner, enabling the fire to grow. According to the Nebraska Forest Service, there were 380 fires responded to in Cheyenne County from 2000 to 2020. These fires burned 18,617 acres and resulted in \$21,356 in crop damage and \$12,450 in property damage. Two injuries and five fatalities also resulted.

The county has both local city and village fire departments which would be able to respond in the case of grass/wildfire event. To prevent lasting structural impacts as a result of grass/wildfire, Cheyenne County encourages residents to keep ground clear, but does not have regulations in place requiring defensible space.

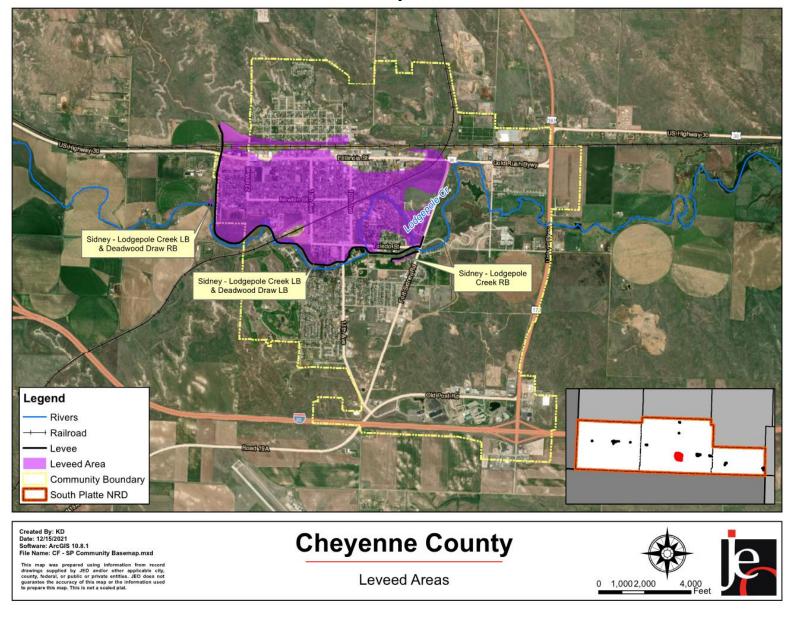
Levee Failure

Although Levee Failure was not identified as a top concern for the county, there is a levee system within the county. The Sidney Levee Project is made up of three sections: the Sidney - Lodgepole Creek RB, the Sidney - Lodgepole Creek LB & Deadwood Draw LB, and the Sidney - Lodgepole Creek LB & Deadwood Draw RB. The levee was classified as Low Risk by the USACE in February 2020. Levee details can be seen in Table CHN.16.

Table CHN.16: Cheyenne County Levees

| Levee Name | Length | Population Protected | Sponsor |
|---|---------|-------------------------|----------------|
| Sidney - Lodgepole Creek LB & Deadwood Draw LB | 2.38 mi | 2,855 | City of Sidney |
| Sidney - Lodgepole Creek LB & Deadwood Draw RB | 0.03 mi | 0 | City of Sidney |
| Sidney - Lodgepole Creek RB | 0.24 mi | 0 | City of Sidney |

A map of the leveed areas is shown in Figure CHN.6. Areas shaded in purple are land areas protected by the levees and are therefore vulnerable if the levees were to fail.



CHN.6: Sidney Levee Area

Severe Thunderstorms

The local planning team indicated that the county is most concerned about severe thunderstorms events which can result in erosion and lightning strikes which have resulted in wildland fires. Additionally, the planning team is concerned with the potential for high winds to cause future damages as a result of hazardous trees. The local planning team indicated that critical facilities have been damaged in the past as a result of severe thunderstorms. Thunderstorm wind in the summer of 2021 caused a power outage in Sidney, resulting in the County Courthouse running on a backup generator for a while.

To mitigate against lasting impacts as a result of severe thunderstorms, the county's records are protected with surge protectors. In addition, the county has invested in backup power generators, to protect against prolonged power outages. Continued preventative maintenance on the generator at the County Courthouse is also planned.

Severe Winter Storms

The local planning team indicated that the county is most concerned about structural issues associated with heavy snow, flooding resulting from snow melt and runoff, and medical issues associated with snow removal. Impacts to livestock is also an important concern. With annual snow accumulations of only 22 inches, the county is less concerned with accumulation amount, and more concerned with high winds and drifting on roadways. The county is responsible for removing snow from major roadways during significant events, to do this, they have fourteen road graders, and four trucks with plows. These snow removal resources have been deemed insufficient and need to be updated. The planning team also indicated that a bomb cyclone/blizzard event occurred in 2019 which resulted in icy roads, snow drifts, low visibility, and impacts to livestock.

To prevent lasting impacts as a result of severe winter storms, agricultural producers will assist commuters by leaving standing crops in certain problem areas, to act as a snow fence. The planning team expressed a need for timely weather forecasting and notification to county ranchers.

Mitigation Strategy

| Mitigation Action | Drainage Ditches and Culverts |
|-------------------|---|
| DESCRIPTION | Clean out and repair damaged culverts. Deepen drainage ditches throughout the county. |
| HAZARD(S) | Flooding, Severe Thunderstorms |
| ESTIMATED COST | \$5,000+ |
| FUNDING | General Fund |
| TIMELINE | 1-3 years |
| PRIORITY | Medium |
| LEAD AGENCY | County Highway Department |
| STATUS | Some culverts have been cleaned and repaired since the 2019 floods. |

| Mitigation Action | Snow Removal Equipment |
|-------------------|--------------------------------------|
| DESCRIPTION | Purchase new snow removal equipment. |
| HAZARD(S) | Severe Winter Storms |
| ESTIMATED COST | \$25,000+ |
| FUNDING | General Fund |
| TIMELINE | 5+ years |
| PRIORITY | Medium |
| LEAD AGENCY | County Highway Department |
| STATUS | Not started |

Continued Mitigation and Strategic Actions

| Mitigation Action | Civil Service Improvements | | |
|-------------------|---|--|--|
| DESCRIPTION | Improve emergency rescue and response equipment and facilities by providing additional equipment or updating existing emergency rescue equipment – this could include fire equipment, ATVs, water tanks/trunk, snow removal equipment, pumps, etc.; develop backup systems for emergency vehicles, identifying and training additional personnel for emergency response, or continuing educational opportunities for current personnel. | | |
| HAZARD(S) | All Hazards | | |
| ESTIMATED COST | \$4,000-\$5,000 | | |
| FUNDING | General Fund | | |
| TIMELINE | 5+ years | | |
| PRIORITY | Low | | |
| LEAD AGENCY | Highway Department | | |
| STATUS | Identifying which equipment needs updating/replacing. | | |

| Mitigation Action | Outdoor Warning Sirens |
|-------------------|---|
| DESCRIPTION | Outdoor Warning Sirens are needed at Lorenzo and Bronson |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$20,000+ |
| FUNDING | General Fund |
| TIMELINE | 5+ years |
| PRIORITY | High |
| LEAD AGENCY | County Commissioners, Region 21 Emergency Management |
| STATUS | Region 21 EMA applied for a grant in 2017, but the grant was not awarded. |

| Mitigation Action | Public Awareness and Education | |
|-----------------------|--|--|
| DESCRIPTION | 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; conduct an annual storm spotter training; share information via the County Facebook page, as well as information regarding animal and plant disease through the UNL extension. | |
| HAZARD(S) | All Hazards | |
| ESTIMATED COST \$500+ | | |
| FUNDING | General Fund | |
| TIMELINE | Ongoing | |
| PRIORITY | Low | |
| LEAD AGENCY | County Commissioners, Region 21 Emergency Management | |
| STATUS | Public awareness and outreach occur annually | |

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Community Profile

Village of Dalton

South Platte NRD Hazard Mitigation Plan 2022

Local Planning Team

Table DAL.1: Dalton Local Planning Team

| Name | Title | Jurisdiction |
|----------------|--------------------------|-------------------|
| Sherry Craig | Clerk/Treasurer | Village of Dalton |
| Jeff Juelfs | Utilities Superintendent | Village of Dalton |
| Ronald W Flohr | Village Trustee | Village of Dalton |

Location and Geography

The Village of Dalton is located in the northern portion of Cheyenne County and covers an area of 0.34 square miles. The major waterway in the area is the North Platte River which is located 20 miles north of the community.

Transportation

According to the Nebraska Department of Transportation, US Highway 385 runs north/south through central Dalton, and accommodates approximately 1,525 vehicles per day, 300 of which are heavy commercial vehicles.¹¹ The Burlington Northern-Santa Fe railroad runs north/south along western Dalton.

The local planning team noted that chemicals are regularly transported through the community on the Burlington Northern rail line, or along Highway 385. Local planning team members added that most often vehicles are likely carrying fuel, agricultural chemicals or ethanol. Further, planning team members added that there are especially dangerous intersections within Dalton. Of particular concern is the intersection of Highway 385 and State Street.

¹¹ Nebraska Department of Transportation. 2020. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=8ed4b009b0d546f19f0284e5bba0f972.

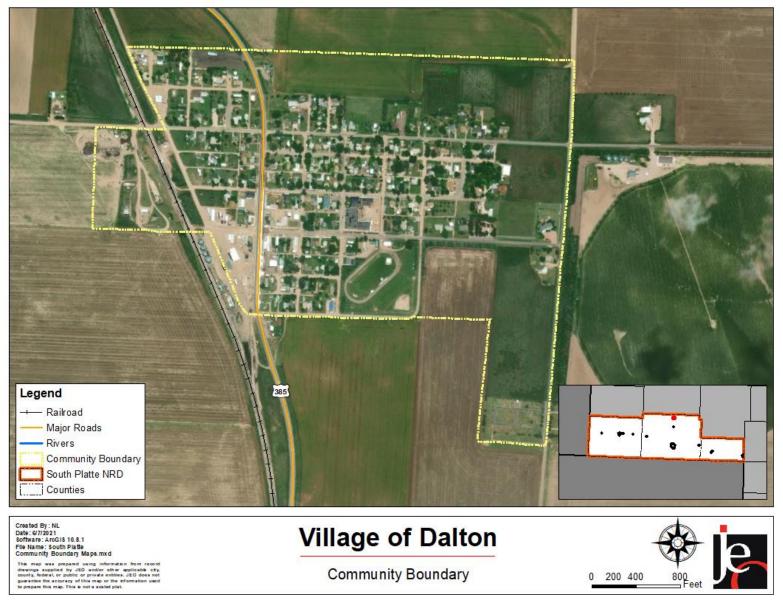
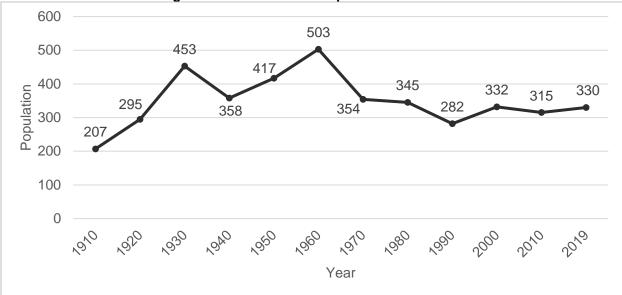
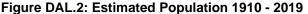


Figure DAL.1: Village of Dalton

Demographics

Dalton's estimated population in 2019 was 330. The following figure displays the historical population trend from 1910 to 2019. This figure indicates that the population of Dalton has generally increased since 2010. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. Dalton's population accounted for 3 percent of Chevenne County's population in 2019.¹²





Source: U.S. Census Bureau¹³

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

- **Younger.** The median age of Dalton was 44.5 years old in 2019, compared with the county average of 40.4 years. Dalton's population grew younger since 2010, when the median age was 48.1 years old. Dalton had a greater proportion of people under 20 years old (27.6%) than the county (25.7%).¹⁴
- Less ethnically diverse. Since 2010, Dalton's ethnic diversity did not change. In 2010, • 0.0% of Dalton's population was non-white. By 2019, 0.0% of Dalton's population was non-white. During that time, those who were non-white in the county grew from 4% to 5.1%.¹⁵
- More likely to be at the federal poverty line. The poverty rate of all persons in Dalton (13.6%) was higher than the county (9.6%) in 2019.¹⁶

¹² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. https://data.census.gov.

 ¹⁴ United States Census Bureau. 2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ¹⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ¹⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>
 ¹⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>

¹⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. https://doi.org/10.1016/j.j.com/10016/j. data.census.gov.

Employment and Economics

The village's economic base is a mixture of industries. In comparison to Chevenne County, Dalton's economy had:

- Different mix of industries. Employment sectors accounting for 10% or more of employment in Dalton included: Agriculture, Retail Trade, Education Services, and Entertainment. Chevenne County's employment sectors included Retail Trade and Educational Services in 2019.¹⁷
- Lower household income. Dalton's median household income in 2019 (\$51,042) was about \$2,500 lower than the county (\$53,871).¹⁸
- Fewer long-distance commuters. 27.9% of workers in Dalton commuted for fewer than 15 minutes, compared with 67.2% of workers in Cheyenne County. 5.9% of workers in Dalton commute 30 minutes or more to work, compared to 11.5% of the county workers.¹⁹

Major Employers

Major employers in Dalton include the school, bank, grocery store, seed company, and two trucking businesses. According to the planning team, about 22% of residents commute elsewhere for work, such as Bridgeport and Sidney.

Housina

In comparison to Chevenne County, Dalton's housing stock was:

- More owner occupied. 87.4% of occupied housing units in Dalton are owner occupied • compared with 66.6% of occupied housing in Chevenne County in 2019.²⁰
- Older housing stock. Dalton has a larger share of housing built prior to 1970 (74.0%) compared to the county (63.9%).²¹
- **No multifamily homes.** The predominant housing type in the village is single family detached, and Dalton contains less multifamily housing with five or more units per structure compared to the county (0% compared to 10.3%). 86.5% of housing in Dalton was single-family detached, compared with 74.9% of the county's housing. Dalton has a greater share of mobile and manufactured housing (12.4%) compared to the county (4.4%).²² Mobile and manufactured homes are scattered throughout the village.

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

 ¹⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ¹⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ¹⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file].

https://data.census.gov. ²⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ²¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u>

²² United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. https://data.census.gov.

Future Development Trends

Over the last five years, multiple businesses have opened in the village, including a diesel/gas mechanic shop, beauty shop, and organic seed processor. There are currently no commercial or residential developments planned for the next five years.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of July 2021. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table DAL.2: Dalton Parcel Valuation

| Total Number | Total | Number of | Value of | % of |
|---------------------|--------------|---------------|---------------|---------------|
| of | Improvement | Improvements | Improvements | Improvements |
| Improvements | Value | in Floodplain | in Floodplain | in Floodplain |
| 201 | \$12,038,410 | 0 | \$0 | 0% |

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 10 chemical storage sites in Dalton that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table DAL.3: Chemical Storage Fixed Sites

| able DAEle. Onemidal otorage rixed ones | | |
|---|--------------------|--|
| Facility Name | Address | |
| Frenchman Valley Farmers Co-op | 602 Broad St | |
| AT&T Microwave Tower 1340 | 10974 Road 58 | |
| Hotel 10 Launch Facility | Road 56 | |
| Hotel 08 Launch Facility | County Rd 36 | |
| Graff 6 & 7 | Road 60 | |
| Reimers Well | Jct Roads 54 & 107 | |
| Hotel 11 Launch Facility | County Rd 56 | |
| Hotel 02 Launch Facility | County Rd 52 | |
| Panhandle Co-op Assn | 4857 Road 107 | |
| NDOT Dalton Reload Yard | 5808 Highway 385 | |
| | | |

Source: Nebraska Department of Environment and Energy²³

²³ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021. <u>https://deg-iis.ne.gov/tier2/search.faces</u>.

Critical Facilities

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

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|----------------------------|------------------|--------------------|---------------------|
| 1 | West Water Well | N | N | N |
| 2 | Legion Hall | Y | N | N |
| 3 | Village Maintenance | N | N | Ν |
| 4 | Citizen Center | N | N | Ν |
| 5 | Post Office | N | Ν | N |
| 6 | Leyton Public School | N | Ν | Ν |
| 7 | St. Mary's Catholic School | Y | N | Ν |
| 8 | Dalton Assembly of God | Y | N | Ν |
| 9 | Presbyterian Church | Y | Ν | N |
| 10 | Water Tower | N | Ν | Ν |
| 11 | ELCA Lutheran Church | Y | N | N |
| 12 | County Shed | N | N | Ν |
| 13 | North Water Well | N | N | Ν |
| 14 | South Water Well | N | N | Ν |

Table DAL.4: Critical Facilities

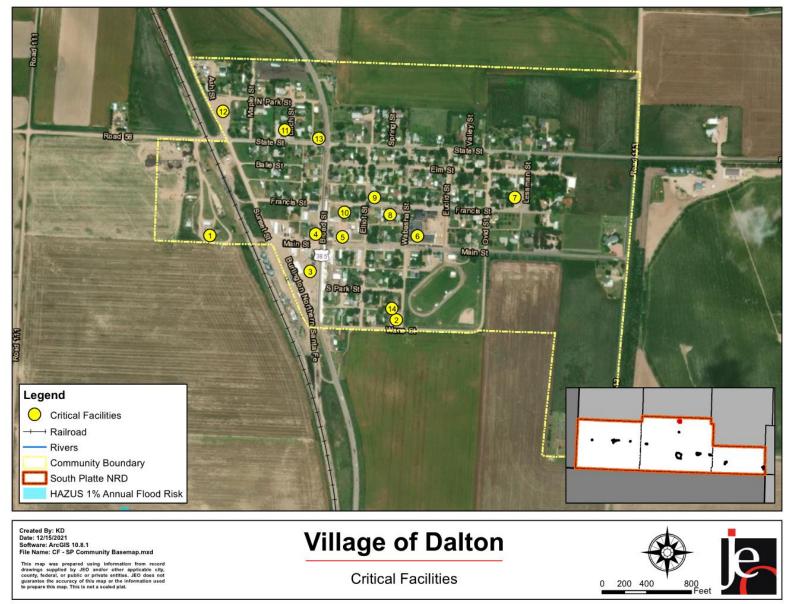


Figure DAL.3: Critical Facilities

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation and strategic actions. Dalton has a five-member village board and the following offices.

- Clerk/Treasurer
- Attorney
- Utilities Superintendent
- Fire Chief
- Sewage Plant Operator
- Street/Water Commissioner

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

| Table DAL.5: | Capability | y Assessment |
|--------------|------------|--------------|
| | | |

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

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

Table DAL.6: Overall Capability

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

Plan Integration

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

Grants and Funding

The Village of Dalton's funds are currently limited to maintaining current facilities and municipal systems. The amount of municipal funds has increased gradually in recent years. The village has not applied for any grants in the last five years.

Building Codes (2018)

The building code sets standards for constructed buildings and structures. The village follows the 2018 International Building Code as adopted by the State of Nebraska.

Wellhead Protection Plan (2012)

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.

Cheyenne County Local Emergency Operations Plan (2018)

The village has an annex in the Cheyenne 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.

Wildcat Hills Region Community Wildfire Protection Plan (2021)

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Clerk, Maintenance Superintendent, and a Board Trustee. The plan will be reviewed annually. The public will be included in the review and revision process via board meetings and website updates.

Historical Occurrences

See the Cheyenne County community profile for historical hazard events.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see Section Four: Risk Assessment. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards

were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities.

Grass/Wildfire

The local planning team identified grass/wildfire as a hazard of top concern for Dalton. According to the Nebraska Forest Service, the Dalton Fire Department responded to 79 fires within the district from 2000 to 2020, with an average magnitude of 147 acres. The most common causes were lightning, the railroad, and equipment. No injuries or fatalities resulted from any of these events. Dalton is largely surrounded by cropland and pastureland, so there is an increased risk. There are 45 firefighters that serve at the fire department.

Hail

According to the local planning team, the community is most concerned about damage to village property. The village's wells, while they are not necessarily hail resistant, do have stucco removable roofs, so that they may be replaced after being damaged. According to the NCEI, 38 hail events have occurred since 1996 (annual occurrence of approximately three events), there were no injuries or deaths attributed to the 38 events, however three of these events did result in local damages totaling \$32,700 (an average of \$10,900 per damage event).

In order to protect the community from lasting impacts from further hail damages, the community purchases insurance on village property.

Hazardous Materials – Transportation

The local planning team is highly concerned about chemical transportation through Dalton, primarily agricultural chemicals. While a significant chemical spill has not occurred in the past, the planning team recognizes the additional vulnerability from Highway 385, which runs along the west side of the community. Further, the fire hall is located very close to Highway 385. Therefore, a chemical spill event which occurs near the fire hall may present an additional complication for response. In the event of a large spill, the local fire department and Region 21 Emergency Management would respond.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Dalton and were identified as a hazard of top concern. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 114 severe winter storm events in Cheyenne County from 1996 through April 2021, resulting in \$500,500 in property damages and \$11,423,410 in crop damages.

The planning team indicated that much of the concern for this hazard relates to potential power outages and snow removal. The community does not have snow routes within town and the village utility supervisor is responsible for clearing snow off roadways. Having limited resources, power lines aloft, and a lack of snow routes may contribute to overall vulnerability of Dalton to severe winter storms.

Additional snow removal equipment was purchased in recent years to better respond to winter storms. The village currently has a payloader and a grader to remove snow. Approximately 10% of powerlines are buried.

Tornadoes

According to the local planning team, the village's biggest concerns about tornadoes are the potentials for bodily harm and loss of life. No tornadoes were recorded by the NCEI from 1996 to April 2021; however, the local planning team indicated that the village had been impacted by tornadoes sometime in the past. These tornado events impacted trees and resulted in power outages.

The Village of Dalton has worked to limit the lasting impacts resulting from tornadoes. The village has been fully outfitted with warning sirens which are activated by the Cheyenne County Communication Center and reach all areas of the village Municipal records have also been backup up electronically. The planning team identified the need for a tornado safe room which would allow for added protection. Residents can currently seek shelter in the basements of homes, churches, and the Legion Hall. Weather radios are not currently available at critical facilities.

Mitigation Strategy

| completed witigation and otrategic Actions | | |
|--|---|--|
| Mitigation Action | Well Head Protection Planning | |
| DESCRIPTION | Develop a Well Head Protection Plan to limit/reduce the ground water contamination of municipal water supplies. | |
| HAZARD(S) | Flood, Drought | |
| STATUS | A Wellhead Protection Plan for the village was completed in 2012. | |

Completed Mitigation and Strategic Actions

Continued Mitigation and Strategic Actions

| Mitigation Action | Backup Generator |
|-------------------|---|
| DESCRIPTION | Obtain a backup generator for the village wells |
| Hazard(s) | Severe Thunderstorms, Severe Winter Storms, Tornadoes, High Winds |
| ESTIMATED COST | \$25,000-\$50,000 |
| FUNDING | Village Water Fund, Village General Fund |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Utility Superintendent |
| STATUS | This project has not yet started due to lack of funding. |

| Mitigation Action | Public Awareness and Education |
|-------------------|---|
| DESCRIPTION | 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; install water meters to aid water conservation. |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$500+ |
| FUNDING | General Fund |
| TIMELINE | 5+ Years |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| Status | Water meters were recently installed throughout the village. Educational flyers were mailed out with utility bills and shared on Facebook. This project is ongoing. |

| Mitigation Action | Safe Rooms |
|-------------------|---|
| 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) | Tornadoes, High Winds |
| ESTIMATED COST | \$200-\$300/sq ft stand alone, \$150-\$200 addition/retrofit |
| FUNDING | General Fund, Grant assistance |
| TIMELINE | 5+ Years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | This project has not yet started due to lack of funding. |

| Mitigation Action | Snowplow |
|-------------------|--|
| DESCRIPTION | Purchase additional snowplow. |
| HAZARD(S) | Severe Winter Storms |
| ESTIMATED COST | \$50,000 |
| FUNDING | General Fund |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Utility Supervisor |
| STATUS | This project has not yet started due to lack of funding. |

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Community Profile

Village of Gurley

South Platte NRD Hazard Mitigation Plan 2022

Local Planning Team

Table GUR.1: Gurley Local Planning Team

| Name | Title | Jurisdiction |
|---------------|-------------|-------------------|
| Randall Horst | Board Chair | Village of Gurley |

Location and Geography

The Village of Gurley is located in the northern portion of Cheyenne County and covers an area of 0.19 square miles. There are no major waterways in the community.

Transportation

According to the Nebraska Department of Transportation, US Highway 385 runs north/south through central Gurley, and accommodates approximately 1,995 vehicles per day, 310 of which are heavy commercial vehicles.²⁴ The Burlington Northern-Santa Fe railroad runs north/south through central Gurley along US Highway 385.

The local planning team added that there are some roadways and intersections in Gurley which are more dangerous than others. Due to high traffic volumes, Highway 385 and 1st Streets are considered especially dangerous. The planning team noted that agricultural chemicals are regularly transported throughout the community, specifically on Highway 385.

²⁴ Nebraska Department of Transportation. 2020. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=8ed4b009b0d546f19f0284e5bba0f972.

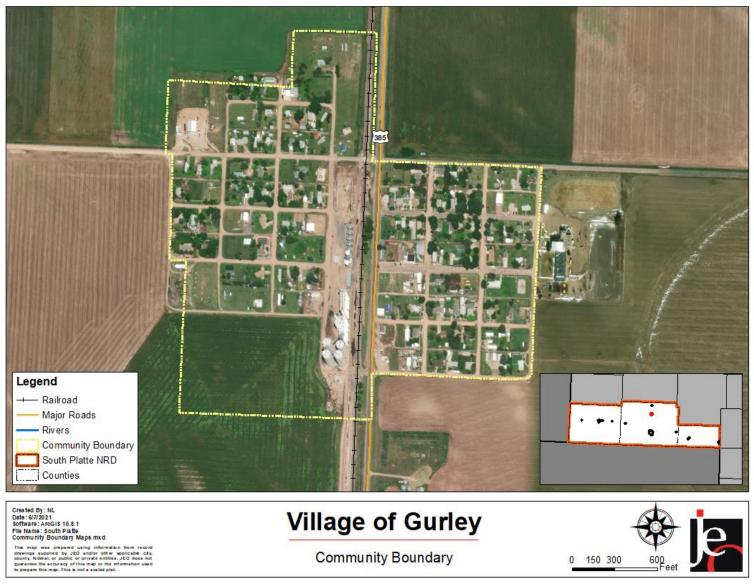
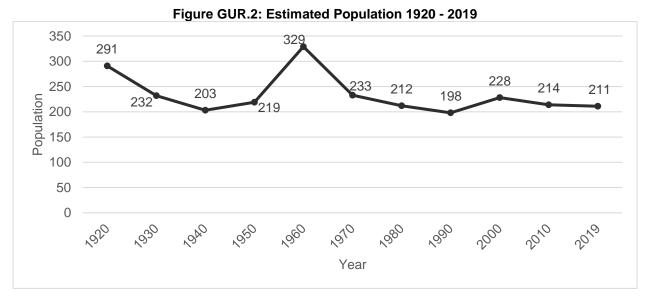


Figure GUR.1: Village of Gurley

Demographics

Gurley's estimated population in 2019 was 211. The following figure displays the historical population trend from 1920 to 2019. This figure indicates that the population of Gurley has generally decreased since 2000. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation and strategic actions more fiscally challenging. Gurley's population accounted for 2 percent of Cheyenne County's population in 2019.²⁵



Source: U.S. Census Bureau²⁶

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

- **Younger.** The median age of Gurley was 41.5 years old in 2019, compared with the county average of 40.4 years. Gurley's population grew younger since 2010, when the median age was 51.1 years old. Gurley had a greater proportion of people under 20 years old (26.6%) than the county (25.7%).²⁷
- **More ethnically diverse**. Since 2010, Gurley's ethnic diversity has increased. In 2010, 2.4% of Gurley's population was non-white. By 2019, 11.8% of Gurley's population was non-white. During that time, those who were non-white in the county grew from 4% to 5.1%.²⁸
- Less likely to be at the federal poverty line. The poverty rate of all persons in Gurley (8.7%) was higher than the county (9.6%) in 2019.²⁹

²⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. https://data.census.gov.

 ²⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ²¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ²² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>

 ²⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov</u>.
 ²⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov</u>.

²⁹ United States Census Bureau. 2019 Census Bureau American Community Survey. DP03. ACS Deniographic and Housing Estimates. [Database hile]. <u>https://data.census.gov</u>.

Employment and Economics

The Village's economic base is a mixture of industries. In comparison to Chevenne County, Gurley's economy had:

- Different mix of industries. Employment sectors accounting for 10% or more of • employment in Gurley included: Construction, Retail Trade, Transportation, and Educational Services. Chevenne County's employment sectors included Retail Trade and Educational Services in 2019.³⁰
- Slightly lower household income. Gurley's median household income in 2019 (\$53,750) was about \$100 lower than the county (\$53,871).³¹
- More long-distance commuters. 26.4% of workers in Gurley commuted for fewer than 15 minutes, compared with 67.2% of workers in Cheyenne County. 41.6% of workers in Gurley commute 30 minutes or more to work, compared to 11.5% of the county workers.³²

Major Employers

The major employers in Gurley include Leyton Public Schools, Crossroads Co-op, and the Egging Company. According to the planning team, a large percentage of residents commute to Sidney for work.

Housina

In comparison to Cheyenne County, Gurley's housing stock was:

- More owner occupied. 79.8% of occupied housing units in Gurley are owner occupied compared with 66.6% of occupied housing in Cheyenne County in 2019.33
- **Older housing stock.** Gurley has a smaller share of housing built prior to 1970 (62.1%) • compared to the county (63.9%).³⁴
- Less multifamily homes. The predominant housing type in the village is single family detached, and Gurley contains less multifamily housing with five or more units per structure compared to the county (1.7% compared to 10.3%). 71.6% of housing in Gurley was single-family detached, compared with 74.9% of the county's housing. Gurley has a larger share of mobile and manufactured housing (21.6%) compared to the county (4.4%).³⁵ According to the local planning team, mobile homes are located at various spots throughout the village.

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

Future Development Trends

Other than a few houses being abandoned, not much has changed in the past five years regarding development. At this time there are no new housing or businesses planned for the next five years.

³⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ³¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ³² United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file].

https://data.census.gov. ³³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ³⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ³⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u>

³⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. https://data.census.gov.

According to census data, Gurley's population has decreased over the last decade. The local planning team attributes this to an aging population and the loss of a major employer in the area.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of July 2021. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table GUR.2: Gurley Parcel Valuation

| Total Number | Total | Number of | Value of | % of |
|---------------------|-------------|---------------|---------------|---------------|
| of | Improvement | Improvements | Improvements | Improvements |
| Improvements | Value | in Floodplain | in Floodplain | in Floodplain |
| 127 | \$5,865,770 | 0 | \$0 | 0% |

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 15 chemical storage sites in Gurley that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table GUR.3: Chemical Storage Fixed Sites

| able GOR.5. Chemical Storage Tract Sites | | |
|--|--------------------|--|
| Facility Name | Address | |
| Egging Company | 12145 Road 38 | |
| Knievel 5 | Jct Roads 121 & 42 | |
| Reimers Unit | Road 50 | |
| Golf 11 Launch Facility | County Rd 50 | |
| Golf 03 Launch Facility | County Rd 50 | |
| Golf 02 Launch Facility | County Rd 42 | |
| Golf 04 Launch Facility | County Rd 42 | |
| Hotel 09 Launch Facility | Road 46 | |
| Hotel 01 MAF | 12770 Road 46 | |
| Hotel 03 Launch Facility | County Rd 73 | |
| Hotel 05 Launch Facility | County Rd 38 | |
| Jormar Unit | Road 109 | |
| Ammo Federal Crude Oil Battery | Roads 105 & 32 | |
| R L Stevens Lease | Jct Roads 119 & 42 | |
| Stueve Lease | Rd 42 | |
| | | |

Source: Nebraska Department of Environment and Energy³⁶

Critical Facilities

The local planning team identified critical facilities that are vital for disaster response, public shelter, 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

³⁶ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021. https://deq-iis.ne.gov/tier2/search.faces.

planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

| Table | GUR.4: | Critical | Facilities |
|-------|--------|----------|------------|
| | | | |

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|--------------------------|------------------|--------------------|---------------------|
| 1 | Substation | Ν | Ν | Ν |
| 2 | County Shop | Ν | Ν | Ν |
| 3 | Salem Evangelical Church | Ν | Ν | Ν |
| 4 | Water Tower | Ν | Ν | Ν |
| 5 | Park | N | N | N |
| 6 | Municipal Well | Ν | Ν | Ν |
| 7 | Leyton Public Schools | N | Ν | Ν |
| 8 | Post Office | N | Ν | Ν |
| 9 | Fire Department | Ν | Ν | Ν |
| 10 | Community Hall | Ν | Ν | Ν |
| 11 | Municipal Well | Ν | Ν | Ν |

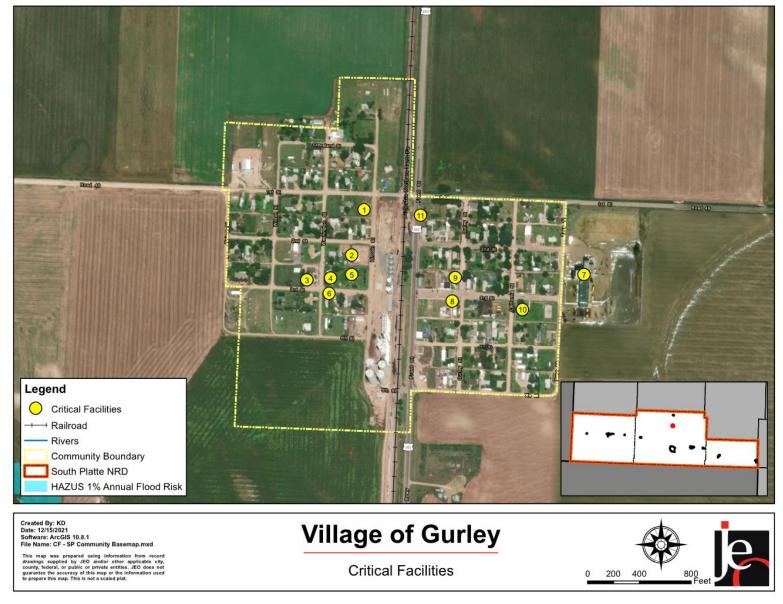


Figure GUR.3: Critical Facilities

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation and strategic actions. Gurley has a five-member Village Board and the following offices.

- Clerk/Treasurer
- Sewer/Street/Water Commissioner

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

Table GUR.5: Capability Assessment

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

| | Gas/Electric Service Fees | No |
|----------------------------|--|-----|
| | Storm Water Service Fees | No |
| | Water/Sewer Service Fees | Yes |
| | Development Impact Fees | No |
| | General Obligation Revenue or Special Tax Bonds | Yes |
| | Other (if any) | |
| Education & Outreach | 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. Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education) | Yes |
| Capability | Natural Disaster or Safety related school programs | No |
| | StormReady Certification | No |
| | Firewise Communities Certification | No |
| | Tree City USA | No |
| | Other (if any) | |

Table GUR.6: Overall Capability

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

Plan Integration

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

Grants and Funding

The Village of Gurley's funds are currently limited to maintaining current facilities and systems. Funds for the village have increased in recent years. In the last five years, the village has been awarded a grant for a new alert siren, with assistance from Region 21 Emergency Management.

Building Codes (2018)

The building code sets standards for constructed buildings and structures. The village follows the 2018 International Building Code as adopted by the State of Nebraska.

Cheyenne County Local Emergency Operations Plan (2018)

The village has an annex in the Cheyenne 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.

Wildcat Hills Region Community Wildfire Protection Plan (2021)

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

Historical Occurrences

See the Cheyenne County community profile for historical hazard events.

Hazard Prioritization

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

Drought

The local planning team indicated that drought is a relatively common phenomenon for the jurisdiction. The planning team noted that the village experienced drought events in 2002, 2003, and 2012. Extreme drought last occurred in the region in 2012/2013, according to the NCEI. Significant drought, however, was reported in 2020/2021.

In Gurley, drought often results in agricultural issues, fire suppression concerns, and water quality issues. Additionally, mechanical breakdowns of pumps are common during drought, due to the increased amount of pumping. In 1995, Gurley encountered water quality issues, where the community needed to curb consumption significantly.

Locally, the community generally defines drought as a lack of rain and well drawdowns. To limit impacts of a drought event in town, well drawdowns are monitored. The village has three wells. According to the planning team, the water supply has been sufficient, and no new sources are needed.

Hazardous Materials – Transportation

The local planning team expressed concerns about the railroad, as well as agricultural chemicals being transported throughout the community. The railroad, Burlington Northern Santa-Fe, brings many crude oil/ethanol tankers through town, as well as freight cars with chemical placards. The community has not had a derailment event, however, the vulnerability for this event certainly

exists. Gurley has a few homes within a block and a half of the railroad tracks which would be more vulnerable in the event of a spill. According to PHMSA, the village has experienced one spill event between 1971 and January 2021. The event occurred in April 2004 when a straight truck carrying fuel went off the road and into a ditch, catching fire. 20 gallons of diesel fuel and 20 gallons of gasoline were released as a result. No injuries or evacuations were reported.

For response resources, the local fire department has participated in Hazardous Materials training. However, the local response role here would likely be minimal, as protective gear is lacking, and the regional Hazardous Materials team would likely take over from Scottsbluff.

Severe Thunderstorms

In recent years, the village has experienced approximately three extreme thunderstorms annually, which often result in a prolonged power outage. These power outages typically last 1-2 hours. According to the NCEI, Gurley has experienced 17 severe thunderstorm events from 1996 to April 2021; however, no damages were reported to have occurred.

The village has a variety of strategies for awareness of an impending storm event, including utilizing cell phones, NOAA weather radios, fireman's pagers, and a tornado siren. Only 5% of power lines are currently buried underground.

Severe Winter Storms

The local planning team indicated that a 'severe' storm is typically categorized as 6"-8" of accumulation, often accompanied with high winds. According to the NCEI, there were 114 severe winter storm events in Cheyenne County from 1996 through April 2021, resulting in \$500,500 in property damages and \$11,423,410 in crop damages. The community experiences two or three of these events annually. The village has not received any damages as a result of severe winter storms in the past.

The village is highly concerned about severe winter storms, specifically related to transportation for the elderly. The local planning team has noted that EMTs have a difficult time reaching residents, especially during these storm events. In the past, the village has utilized payloaders to allow access to residences. Village maintenance staff is responsible for removing snow in the community. The village has a loader, a road grader, a plow, and a tractor, which may be utilized for local events. The local planning team deemed these resources as sufficient for local events.

To mitigate against lasting impacts as a result of severe winter storms, the community has invested in snow fences to prevent drifting on roadways, as well as investing in a backup generator for the municipal well.

Tornadoes

According to the NCEI, one F0 touched down in Gurley in June 2004, though no damages or injuries were reported to have occurred. Like other communities in the planning area, Gurley's concerns related to tornadoes are directly linked to devastation they can wreak on both human life and structures, and the unpredictability associated with these events.

In terms of awareness, the community has a tornado siren, which may be activated locally or remotely, from the Cheyenne County Communications Center, during times of inclement weather. The planning team also indicated that many residents (80-90%) have basements, where they may seek refuge from a storm event. Weather radios are located at Leyton Public Schools and the village shop. Storm spotting is performed by the fire department, Region 21 Emergency Management, and trained volunteers. Hazardous tree removal occurs regularly.

Mitigation Strategy

Completed Mitigation and Strategic Actions

| Mitigation Action | Alert/Warning Sirens |
|-------------------|--|
| DESCRIPTION | Perform evaluation of existing alert sirens to determine replacement needs or placement of new sirens. |
| HAZARD(S) | All hazards |
| STATUS | A new siren was installed and everything is operational. |

Continued Mitigation and Strategic Actions

| Mitigation Action | Backup Municipal Records |
|-------------------|--|
| DESCRIPTION | Develop protocol for backup of critical municipal records. |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$0-\$100 for external hard drive |
| FUNDING | Local Funds |
| TIMELINE | 2-5 Years |
| PRIORITY | Low |
| LEAD AGENCY | Village Clerk |
| STATUS | This project is currently in progress. |

| Mitigation Action | Weather Radios |
|-------------------|--|
| DESCRIPTION | Conduct an inventory of weather radios at schools and other critical facilities; provide new radios as needed. |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$50 per unit |
| FUNDING | Local Funds |
| TIMELINE | 1 Year |
| PRIORITY | Medium |
| LEAD AGENCY | Village, School District |
| STATUS | This project has not yet started. |

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Community Profile

Village of Lodgepole

South Platte NRD Hazard Mitigation Plan 2022

SOUTH PLATTE NRD HAZARD MITIGATION PLAN | 2022

Local Planning Team

Table LDP.1: Lodgepole Local Planning Team

| Name | Title | Jurisdiction |
|---------------|--------------------------------|----------------------|
| Rita Bartling | Clerk/Floodplain Administrator | Village of Lodgepole |

Location and Geography

The Village of Lodgepole is located in the eastern portion of Cheyenne County and covers an area of 0.48 square miles. The major waterway in the area is Lodgepole Creek, which runs just south of the community.

Transportation

According to the Nebraska Department of Transportation, US Highway 30 runs east/west through Lodgepole and accommodates an average of 1,075 vehicles per day, 100 of which are heavy commercial vehicles.³⁷ The Union Pacific Railroad runs east/west along Lodgepole's southern border.

The local planning team indicated that Highway 30, Interstate 80, and railroad crossings were the top transportation facilities of concern. Because Highway 30 runs directly through the village, drivers are forced to slow to 45 miles per hour within corporate limits. As drivers merge onto or off Highway 30, drivers can have trouble with this difference in speed limits. Some critical facilities, such as City Hall and the fire department, experience a heightened level of vulnerability due to their proximity to Highway 30. According to the planning team, no significant transportation events have occurred locally.

³⁷ Nebraska Department of Transportation. 2020. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=8ed4b009b0d546f19f0284e5bba0f972.

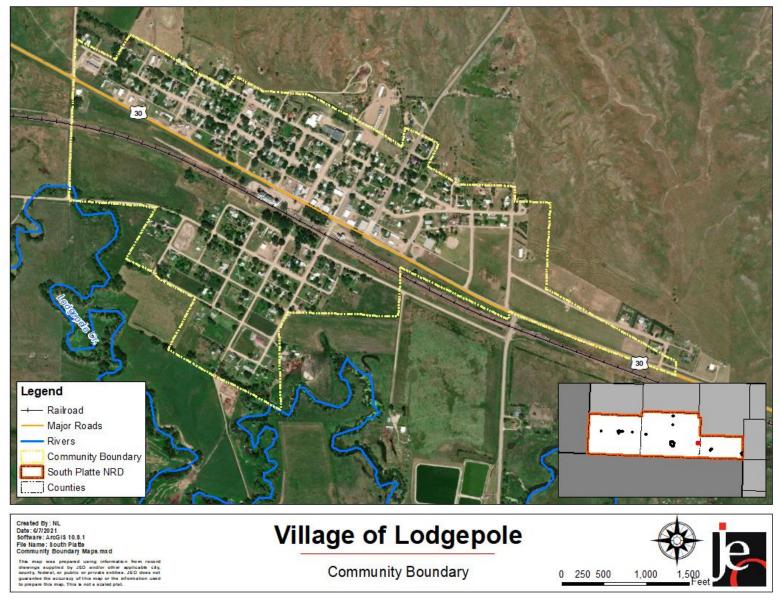


Figure LDP.1: Village of Lodgepole

Demographics

Lodgepole's estimated population in 2019 was 325. The following figure displays the historical population trend from 1910 to 2019. This figure indicates that the population of Lodgepole has denerally increased since 2010. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. Lodgepole's population accounted for three percent of Chevenne County's population in 2019.38

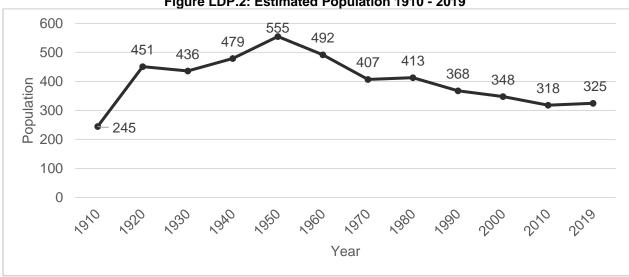


Figure LDP.2: Estimated Population 1910 - 2019

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

- Younger. The median age of Lodgepole was 48.0 years old in 2019, compared with the county average of 40.4 years. Lodgepole's population grew younger since 2010, when the median age was 49.3 years old. Lodgepole had a smaller proportion of people under 20 years old (19.4%) than the county (25.7%).⁴⁰
- More ethnically diverse. Since 2010, Lodgepole's ethnic diversity increased. In 2010, • 1.8% of Lodgepole's population was non-white. By 2019, 2.2% of Lodgepole's population was non-white. During that time, those who were non-white in the county grew from 4% to 5.1%.41
- More likely to be at the federal poverty line. The poverty rate of all persons in Lodgepole (15.3%) was higher than the county (9.6%) in 2019.42

Source: U.S. Census Bureau³⁹

³⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. https://data.census.gov.

³⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. https://data.census.gov

 ⁴¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>
 ⁴¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>

⁴² United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. https://doi.org/10.1016/j.j.com/10016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10.1016/j.j.com/10016/j.j.com/10016/j.j.com/10016/j.j.com/10016/j.j.com/10016/j.j.com/10016/j.j.com/10016/j.j.com/1001 lata.census.gov.

Employment and Economics

The Village's economic base is a mixture of industries. In comparison to Chevenne County, Lodgepole's economy had:

- Similar mix of industries. Employment sectors accounting for 10% or more of • employment in Lodgepole included: Manufacturing, Retail Trade, Transportation, and Educational Services. Chevenne County's employment sectors included Retail Trade and Educational Services in 2019.43
- Lower household income. Lodgepole's median household income in 2019 (\$48,750) was about \$5,000 lower than the county (\$53,871).44
- More long-distance commuters. 24.6% of workers in Lodgepole commuted for fewer than 15 minutes, compared with 67.2% of workers in Cheyenne County. 32.3% of workers in Lodgepole commute 30 minutes or more to work, compared to 11.5% of the county workers.45

Major Employers

The main employer within Lodgepole is BNSF railroad. The planning team indicated that a large percentage of residents commute to Sidney and other communities for work.

Housina

In comparison to Cheyenne County, Lodgepole's housing stock was:

- More owner occupied, 83.1% of occupied housing units in Lodgepole are owner occupied compared with 66.1% of occupied housing in Cheyenne County in 2019.⁴⁶
- Older housing stock. Lodgepole has a larger share of housing built prior to 1970 (70.0%) • compared to the county (63.9%).⁴⁷
- Less multifamily homes. The predominant housing type in the village is single family detached, and Lodgepole contains less multifamily housing with five or more units per structure compared to the county (2.5% compared to 10.3%). 90.1% of housing in Lodgepole was single-family detached, compared with 74.9% of the county's housing. Lodgepole has a smaller share of mobile and manufactured housing (5.4%) compared to the county (4.4%).⁴⁸ The planning team noted that there is one mobile home park, which is located on the northeast side of the community.

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

Future Development Trends

In the last five years the village office has relocated, and a new business has opened. No new housing developments are currently planned, but a new bakery is planning to open soon.

⁴³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ⁴⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ⁴⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file].

https://data.census.gov. ⁴⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ⁴⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u>

⁴⁸ United States Census Bureau. #2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. https://data.census.gov.

According to census estimates, the population of Lodgepole has slightly increased in recent years. The planning team attributes this growth to people out of state wanting to move away from cities.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of July 2021. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table LDP.2: Lodgepole Parcel Valuation

| Total Number | Total | Number of | Value of | % of |
|--------------|--------------|---------------|---------------|---------------|
| of | Improvement | Improvements | Improvements | Improvements |
| Improvements | Value | in Floodplain | in Floodplain | in Floodplain |
| 214 | \$10,020,180 | 41 | \$1,394,020 | 19% |

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites in Lodgepole that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table LDP.3: Chemical Storage Fixed Sites

| Facility Name | Address |
|--------------------------|--------------|
| India 05 Launch Facility | Road 8 |
| Hotel 06 Launch Facility | Road 139 |
| Hotel 04 Launch Facility | County Rd 34 |
| NDOT Lodgepole Yard | Link 17F |

Source: Nebraska Department of Environment and Energy⁴⁹

Critical Facilities

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

⁴⁹ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021. https://deg-iis.ne.gov/tier2/search.faces.

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|-------------------------------|------------------|--------------------|---------------------|
| 1 | Creek Valley Middle School | N | N | Ν |
| 2 | School | N | Ν | N |
| 3 | Water Tower | N | Ν | Ν |
| 4 | Football Field and Facilities | N | Ν | Ν |
| 5 | New Hope Church | Y | N | N |
| 6 | United Methodist Church | Y | Ν | Ν |
| 7 | Community Hall | Y | Ν | N |
| 8 | Museum | N | N | N |
| 9 | Park, Baseball Field, Tennis | N | Ν | Ν |
| 10 | County Maintenance Shop | N | Ν | Ν |
| 11 | Water and Utility Building | N | Y | Ν |
| 12 | Fire Department | Y | Ν | N |
| 13 | Post Office | N | Ν | Ν |
| 14 | Park | N | Ν | Ν |
| 15 | County Maintenance Yard | N | Ν | Y |
| 16 | Well | N | N | N |
| 17 | Well | N | Ν | N |
| 18 | Well | N | Ν | Ν |
| 19 | Gloria Dei Lutheran Church | Y | Ν | Ν |

Table LDP.4: Critical Facilities

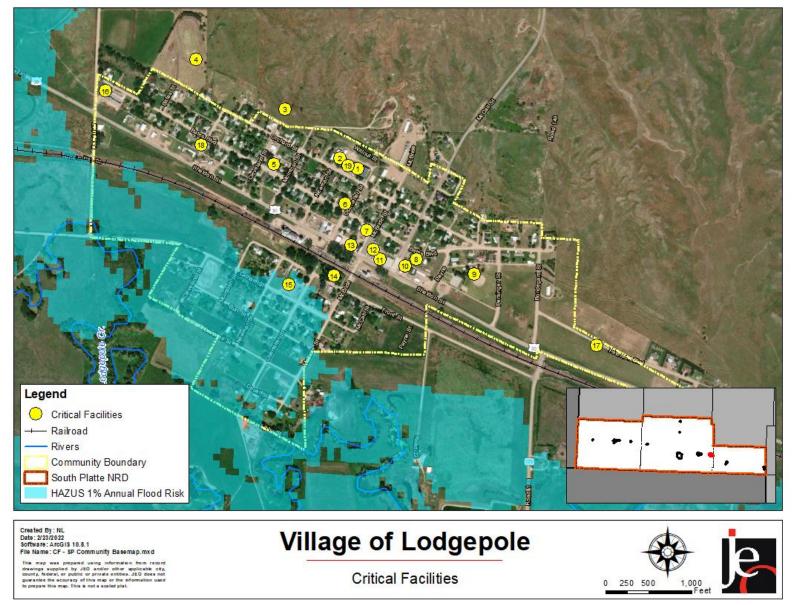


Figure LDP.3: Critical Facilities

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation and strategic actions. Lodgepole has a five-member Village Board and the following offices.

- Clerk/Treasurer
- Attorney
- Utility Superintendent
- Fire Chief
- Sewage Plant Operator
- Sewer/Water Commissioner
- Street Commissioner
- Purchasing Officer
- Planning and Zoning

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

| Su | rvey Components/Subcomponents | Yes/No |
|------------------------------|--|------------|
| | Comprehensive Plan | Yes |
| | Capital Improvements Plan | No |
| | Economic Development Plan | No |
| | Emergency Operational Plan | Yes |
| | Floodplain Management Plan | No |
| Planning & | Storm Water Management Plan | No |
| ∝ Regulatory | Zoning Ordinance | Yes |
| Capability | Subdivision Regulation/Ordinance | Yes |
| | Floodplain Ordinance | Yes |
| | Building Codes | Yes |
| | National Flood Insurance Program | Yes |
| | Community Rating System | No |
| | Other (if any) | |
| | Planning Commission | Yes |
| Administrative | Floodplain Administration | Yes |
| Administrative | GIS Capabilities | No |
| a Technical Capability | Chief Building Official | No |
| | Civil Engineering | Consultant |
| | Local Staff Who Can Assess Community's Vulnerability to Hazards | Yes |

Table LDP.5: Capability Assessment

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

Table LDP.6: Overall Capability

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Village Clerk and Fire Chief, and the plan will be reviewed bi-annually. The public will be included in the review and revision process at village board meetings.

Plan Integration

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

Grants and Funding

The Village of Lodgepole's funds are currently limited to maintaining current facilities and systems. A water project is planned for the next few years to upsize pipes throughout the village. Funds for the village have remained relatively stable over recent years. In the last five years, the village has been awarded CDBG and USDA grants.

Comprehensive Plan

The comprehensive plan is designed to guide the future actions and growth of the village. Lodgepole's Comprehensive Plan currently does not integrate natural hazard mitigation components, but the planning team noted they will incorporate hazard mitigation when the plan is next updated. There is presently no timeline for updating the plan.

Building Codes (2018)

The building code sets standards for constructed buildings and structures. The village follows the 2018 International Building Code as adopted by the State of Nebraska.

Zoning Ordinance, Floodplain Ordinance, Subdivision Regulations (2018)

The city's zoning ordinance, floodplain ordinance, and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, identify floodplain areas as parks or open space, and include the ability to implement water restrictions. The village plans to update the regulations in 2022.

Cheyenne County Local Emergency Operations Plan (2018)

The village has an annex in the Cheyenne 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.

Wildcat Hills Region Community Wildfire Protection Plan (2021)

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

Historical Occurrences

See the Cheyenne County community profile for historical hazard events.

Hazard Prioritization

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

Animal and Plant Disease

Lodgepole and the unincorporated areas surrounding Lodgepole have significant concerns related to prairie dogs. According to the local planning team, thousands of prairie dogs have a habitat in the area. Prairie dogs are a concern because they carry diseases and create/provide habitat for rattlesnakes. Presently, the USDA is working with landowners to reduce the populations. The local planning team noted that the bubonic plague is presently decimating prairie dog populations. In other parts of the country, specifically Colorado, bubonic plague has been transmitted via flea from one mammal to another. If this plague should spread, there may be detrimental economic impacts.

Flooding

Lodgepole has three NFIP policies in-force for \$420,000 as of August 2021. According to NeDNR as of November 2021, there is one repetitive flood loss property in Lodgepole. The body of water of most concern for Lodgepole is Lodgepole Creek, which runs along the south side of the village. The water table is also a significant issue in Lodgepole as basements will flood in times of high precipitation and soil saturation. The planning team indicated that the south side of the village is most prone to flooding, particularly the area south of the Union Pacific rail line.

According to the NCEI, there have been seven flood events in Lodgepole from 1996 to April 2021. These events have resulted in \$50,000 in property damage, but no injuries or fatalities occurring. A significant flood in July 2010 resulted in flooded basements, closed roadways, and police cars being swept away. The highway link connecting the community to I-80 also closed, forcing residents to detour through Chappell, adding an extra ten miles to their trip. Both the Red Cross and FEMA assisted with the flood response, as did regional emergency management.

Grass/Wildfire

According to the Nebraska Forest Service, Lodgepole Fire Department responded to eleven fires within the district from 2000 to 2020, with an average magnitude of 17.1 acres. The local planning team indicated that there was also a grass fire in March of 2020 that the fire department

responded to. Lodgepole is largely surrounded by pastureland around the community. The fire department has large tankers to bring water outside the communities, these are sufficient resources for local events. The most common cause was from the railroad. No injuries or fatalities resulted from any of these events.

High Winds

While the community has not had direct impacts from a tornado event, high winds are very common in this region, and have been known to cause power outages. The NCEI reports that 67 high wind events have occurred throughout Cheyenne County from 1996 to April 2021, resulting in \$25,500 in property damage. According to the local planning team, Lodgepole experiences approximately five to six power outages per year because of high wind events. A mobile home park is located on the northeast side of the community and may be more vulnerable to impacts from high winds.

To minimize the effects of high winds and power outages, the community has backup generators on hand; however, the planning team indicated these need to be updated. Currently up to one third of the community may be powered on the current generator resources. To ensure the generators are in working condition, they are tested twice per year. The generators are no longer covered by insurance.

Mitigation Strategy

Continued Mitigation and Strategic Actions

| Mitigation Action | Acquire Identification Resource | |
|-------------------|---|--|
| DESCRIPTION | Provide the opportunity to purchase and have available the most current Emergency Response Guidebook: this guidebook outlines emergency protocol and visually identifies hazardous materials labels; this would aid in the identification of which chemicals were being transported, to further informed action on the part of the observer and responders | |
| HAZARD(S) | Hazardous Materials (Transportation) | |
| ESTIMATED COST | \$9 per book | |
| FUNDING | Village General Fund, Hazard Mitigation Assistance (HMA) | |
| TIMELINE | 1 Year | |
| PRIORITY | High | |
| LEAD AGENCY | Village Clerk and Fire Chief | |
| STATUS | No project-related activities are currently planned | |

| Mitigation Action | Agricultural Disease Outbreak Emergency Exercise |
|-------------------|---|
| DESCRIPTION | Conduct an outbreak exercise with producers, emergency managers, veterinarians, extension agents, etc. to identify areas for improvement and become familiar with procedures. |
| HAZARD(S) | Ag Animal and Plant Disease |
| ESTIMATED COST | \$2,000+ |
| FUNDING | Village General Fund, Buckley Grant |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Backup Generator |
|-------------------|--|
| DESCRIPTION | Update or install backup generators in village wells, fire departments, village halls, schools, and community halls. |
| Hazard(s) | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms |
| ESTIMATED COST | \$3,500+ depending on site requirements |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | Presently cost-prohibitive |

| Mitigation Action | Bank Stabilization |
|-------------------|--|
| DESCRIPTION | Stabilize banks along streams and rivers. This may include, but is not limited to: reducing bank slope, addition of riprap, installation of erosion control materials/fabrics. |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$10,000+, varies by scope |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 Years |
| PRIORITY | High |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Channel and Bridge Improvements |
|-------------------|---|
| DESCRIPTION | Implement channel and bridge improvements to increase channel conveyance and decrease the base flood elevations |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$10,000+, varies by scope |
| FUNDING | R&S Funds |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | R&S Superintendent |
| STATUS | This project has not yet started. |

| Mitigation Action | Civil Service Improvements |
|-------------------|---|
| DESCRIPTION | Improve emergency rescue and response equipment and facilities by providing additional emergency response equipment or updating existing equipment. This can include fire trucks, ATV's, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response. |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$5,000-\$400,000 |
| FUNDING | Village General Fund, Buckley Trust (local grant) |
| TIMELINE | Ongoing |
| PRIORITY | Medium |
| LEAD AGENCY | Fire Department, Village superintendent |
| STATUS | The village obtained a new municipal truck in 2016, a new tractor in 2015 (grant assisted), and a mower in 2015. The village is currently in need of a warning siren. |

| Mitigation Action | Community Education – Chemical Transport |
|-------------------|--|
| DESCRIPTION | Develop an education program to inform residents of risks related to chemical releases; this could include direct outreach to residents living in the immediate vicinity of chemical storage sites |
| HAZARD(S) | Chemical Transportation |
| \$3,000+ | \$3,000+ |
| FUNDING | Village General Fund |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | An education program has not yet been developed. |

| Mitigation Action | Community Rating System: Enroll and Participate |
|-------------------|--|
| DESCRIPTION | Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$5,000 |
| FUNDING | Village General Fund |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Crop Insurance |
|-------------------|---|
| DESCRIPTION | Ensure that local farmers have crop insurance |
| HAZARD(S) | Ag Animal and Plant Disease |
| ESTIMATED COST | Staff Time |
| FUNDING | Grant – Crop Insurance |
| TIMELINE | 2-5 years |
| PRIORITY | Low |
| LEAD AGENCY | Village Clerk |
| STATUS | This is an ongoing process. No specific activities are currently planned. |

| Mitigation Action | Develop a Drought Management Plan |
|-------------------|---|
| DESCRIPTION | Coordinate with National Drought Mitigation Center to develop drought plans and protocols |
| HAZARD(S) | Grass/Wildfire, Drought |
| ESTIMATED COST | Staff Time |
| FUNDING | Fire Department |
| TIMELINE | 2-5 Years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Develop an Agricultural Disease Response Action Plan |
|-------------------|---|
| DESCRIPTION | Coordinate with farmers, USDA, UNL, and other local actors to develop a plan of action to contain or respond to disease outbreaks |
| HAZARD(S) | Ag Animal and Plant Disease |
| ESTIMATED COST | \$1,000+ Staff Time |
| FUNDING | Village General Fund, Farm Bureau Grant |
| TIMELINE | 2-5 years |
| PRIORITY | Low |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Drainage Ditches |
|-------------------|--|
| DESCRIPTION | Deepen drainage ditches and clean out culverts |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$5,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | There has been some work on ditches and culverts in the last five years; however, no activities are currently planned. |

| 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 conducted to perform a community- wide stormwater evaluation, identifying municipal problem areas and drainage improvements. |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$10,000-\$100,000 |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 5+ years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | Presently cost-prohibitive |

| Mitigation Action | Education Programs |
|-------------------|---|
| DESCRIPTION | Develop educational programs for farmers and general public on the types of agricultural diseases, what to do in an outbreak and best practices |
| HAZARD(S) | Ag Animal and Plant Disease |
| ESTIMATED COST | \$3,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Electrical System Looped Distribution/Redundancies |
|-------------------|--|
| DESCRIPTION | Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails |
| HAZARD(S) | Tornadoes, Severe Winter Storms, Severe Thunderstorms |
| ESTIMATED COST | \$50,000+ |
| FUNDING | Electrical & Loans |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Electric Superintendent |
| STATUS | This project has not yet started. |

| Mitigation Action | Emergency Communication |
|-------------------|---|
| DESCRIPTION | Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies; establish inter-operable communications. |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$1,000+, Staff Time |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 1 Year |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Emergency Management Exercise |
|-------------------|--|
| DESCRIPTION | Develop and facilitate an exercise to identify gaps in planning and to ensure that community response plans are sufficient to meet the needs of the jurisdiction |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$5,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 5+ years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | First Aid Training |
|-------------------|--|
| DESCRIPTION | Promote first aid training for all residents |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$100 per person |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | No training classes are currently planned. |

| Mitigation Action | Floodplain Management |
|-------------------|--|
| DESCRIPTION | Continue or improve floodplain management practices; prohibit development within the floodplain. |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$20,000- \$50,000 |
| FUNDING | Village General Fund, Water Contingency Fund (NDEE) |
| TIMELINE | Ongoing |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | No project activities are currently planned. |

| Mitigation Action | Hazardous Tree Removal Program |
|-------------------|---|
| DESCRIPTION | Identify and remove hazardous limbs and/or trees, on average, the village works with two properties to remove hazardous trees; work with the South Platte NRD to utilize their cost share program; utilizes Lodgepole their newsletter to let residents know about the removal program. |
| Hazard(s) | Severe Thunderstorms, Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms |
| ESTIMATED COST | \$20,000 |
| FUNDING | South Platte NRD, Private Funding, Village General Fund |
| TIMELINE | Ongoing |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | The village removes hazardous limbs and trees on an annual basis. |

| Mitigation Action | Improve Drainage |
|-------------------|--|
| DESCRIPTION | Improve storm sewers and drainage patterns in and around the community |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$25,000 |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Install Vehicular Barriers |
|-------------------|--|
| DESCRIPTION | Install vehicular barriers to protect critical facilities and key infrastructure where possible. |
| HAZARD(S) | Chemical Transportation |
| ESTIMATED COST | \$500 per concrete barrier. \$20 per linear foot of chain linked fence |
| FUNDING | Roads Department |
| TIMELINE | 2-5 years |
| PRIORITY | Low |
| LEAD AGENCY | Village Clerk and R&S Superintendent |
| STATUS | This project has not yet started. |

| Mitigation Action | New Municipal Well |
|-------------------|--|
| DESCRIPTION | Due to arsenic issues in groundwater, Lodgepole fell under a DHHS administrative order to drill a new well field |
| Hazard(s) | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms |
| ESTIMATED COST | \$3,500+ depending on site requirements |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 Years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | The village is currently working on drilling the new well. |

| Mitigation Action | Parcel Level Evaluation of Flood Prone Properties |
|-------------------|--|
| DESCRIPTION | Conduct a study examining parcels located in flood prone areas and identify mitigation measures that can reduce future impacts |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$25,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 5+ years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Public Awareness and Education |
|-------------------|---|
| DESCRIPTION | Outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Lodgepole intends to utilize the community website and Facebook page |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$3,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 1 Year |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | The village regularly educates the public on hazards through the community website and Facebook page. |

| Mitigation Action | Residential Safe Room Program |
|-------------------|---|
| DESCRIPTION | Create a database of interested homeowners in obtaining tornado safe rooms (often prefabricated); work to provide grant assistance. |
| HAZARD(S) | Tornadoes, High Winds |
| ESTIMATED COST | Staff Time |
| FUNDING | Village General Fund, HMA, CDBG |
| TIMELINE | 5+ years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | Presently cost-prohibitive. |

| Mitigation Action | Public Safe Rooms & Post-Disaster Storm Shelters |
|-------------------|---|
| DESCRIPTION | Identify and evaluate existing safe rooms and/or storm shelters Improve and/or construct safe rooms and/or storm shelters Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, etc. |
| HAZARD(S) | Tornadoes, High Winds, Severe Thunderstorms |
| ESTIMATED COST | \$150/sf for retrofit; \$300 for new construction |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 Years |
| PRIORITY | High |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Stormwater System and Drainage Improvements |
|-------------------|--|
| DESCRIPTION | Smaller communities may utilize stormwater systems comprising of ditches, culverts, or drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. 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 stream and rivers. Cleanout and reshaping of channel segments at bridge crossings can increase conveyance, reducing the potential for flooding |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$100,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Storm Water Management |
|-------------------|---|
| DESCRIPTION | Upgrade combined sewer system to improve storm water management |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$10,000 |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Tree City USA |
|-------------------|---|
| DESCRIPTION | Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements Include: 1) 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) | Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms |
| ESTIMATED COST | \$1,000+ |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 5+ Years |
| PRIORITY | Low |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Water System Improvements |
|-------------------|---|
| DESCRIPTION | Make water system improvements to include additional fire hydrants/increase supply and pressure; high pressure is needed in the event of an emergency to effectively fight fires and to meet increasing demands. |
| HAZARD(S) | Grass/Wildfire |
| ESTIMATED COST | \$10,000+, varies by scope |
| FUNDING | Water Funds, HMA |
| TIMELINE | 5+ years |
| PRIORITY | High |
| LEAD AGENCY | Village Clerk & Water Superintendent |
| STATUS | New hydrants are in the process of being installed. |

| Mitigation Action | Weather Radios |
|-------------------|---|
| DESCRIPTION | Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed. The area of highest concern is the community hall basement, due to poor service |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$50/radio |
| FUNDING | Village General Fund, HMA |
| TIMELINE | 1 year |
| PRIORITY | High |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

| Mitigation Action | Wildfire Education |
|-------------------|---|
| DESCRIPTION | Develop a wildfire education program to inform citizens of actions they can take to reduce personal vulnerabilities |
| HAZARD(S) | Grass/Wildfire |
| ESTIMATED COST | \$3,000+ |
| FUNDING | Fire Department |
| TIMELINE | 2-5 Years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Clerk |
| STATUS | This project has not yet started. |

Removed Mitigation and Strategic Actions

| Mitigation Action | Community Rating System: Continuation |
|--------------------|--|
| DESCRIPTION | Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation |
| HAZARD(S) | Flooding |
| REASON FOR REMOVAL | The village has not yet joined the CRS. A separate action is already listed for becoming a CRS community. |

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Community Profile

Village of Potter

South Platte NRD Hazard Mitigation Plan 2022

Local Planning Team

Table PTR.1: Potter Local Planning Team

| Name | Title | Jurisdiction |
|-----------------|-----------------|----------------------|
| Melissa Gorsuch | Clerk/Treasurer | Village of Potter |
| Mark Onstott | Fire Chief | Potter Fire District |

Location and Geography

The Village of Potter is located in the western portion of Cheyenne County and covers an area of 0.46 square miles. The village also has annexed lands ten miles east that cover an area of approximately 0.84 square miles. Lodgepole Creek runs from northwest to southeast along the southern side of the village.

Transportation

According to the Nebraska Department of Transportation, US Highway 30 runs east/west along southern Potter, and accommodates approximately 745 vehicles per day, 85 of which are heavy commercial vehicles.⁵⁰ The Union Pacific Railroad runs east/west along Potter's southern border.

The local planning team noted that there are certain intersections and roadways which are especially concerning. The intersection where Highway 30 meets County Road 77/Chestnut Street is particularly dangerous. The planning team also noted that Highway 30 is often used to transport chemicals, hazardous materials, and oil. No major transportation events or spills have occurred locally.

⁵⁰ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=8ed4b009b0d546f19f0284e5bba0f972.

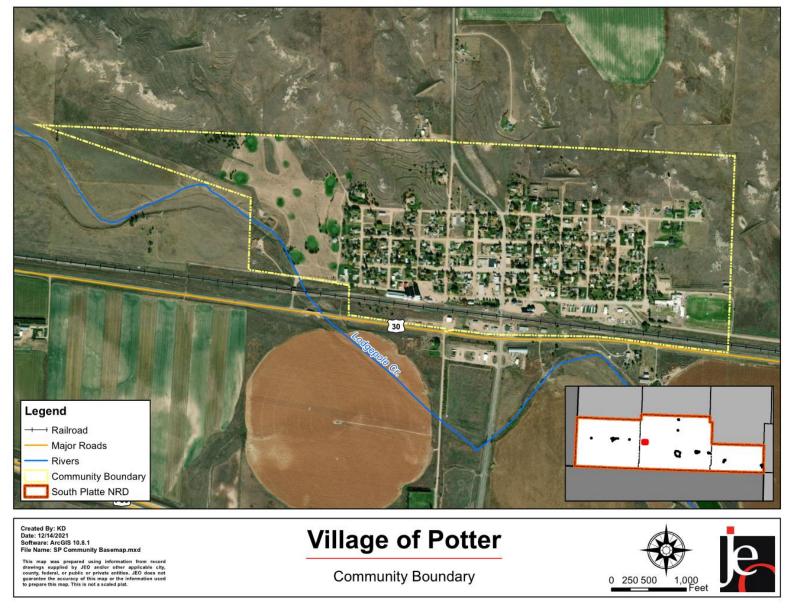
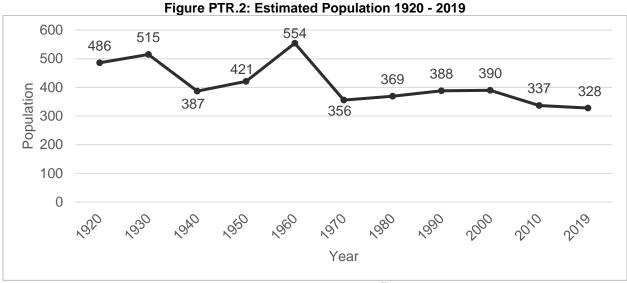


Figure PTR.1: Village of Potter

Demographics

Potter's estimated population in 2019 was 328. The following figure displays the historical population trend from 1920 to 2019. This figure indicates that the population of Potter has generally decreased since 2000. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore. areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation and strategic actions more fiscally challenging. Potter's population accounted for 3 percent of Chevenne County's population in 2019.51



Source: U.S. Census Bureau⁵²

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

- **Older.** The median age of Potter was 48.3 years old in 2019, compared with the county average of 40.4 years. Potter's population grew older since 2010, when the median age was 42.8 years old. Potter had a smaller proportion of people under 20 years old (21.9%) than the county (25.7%).53
- More ethnically diverse. Since 2010, Potter's ethnic diversity has increased. In 2010, 0.5% of Potter's population was non-white. By 2019, 2.1% of Potter's population was nonwhite. During that time, those who were non-white in the county grew from 4% to 5.1%.⁵⁴
- Less likely to be at the federal poverty line. The poverty rate of all persons in Potter (5.5%) was lower than the county (9.6%) in 2019.55

 ⁵¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ⁵² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ⁵³ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ⁵⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>
 ⁵⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>
 ⁵⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>

⁵⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. https://doi.org/10.1016/j.j.com/10016/j. data.census.gov.

Employment and Economics

The village's economic base is a mixture of industries. In comparison to Chevenne County, Potter's economy had:

- Similar mix of industries. Employment sectors accounting for 10% or more of employment in Potter included: Retail Trade and Educational Services. Cheyenne County's employment sectors included Retail Trade and Educational Services in 2019.⁵⁶
- Lower household income. Potter's median household income in 2019 (\$50,833) was about \$3,000 lower than the county (\$53,871).⁵⁷
- Fewer long-distance commuters. 32.7% of workers in Potter commuted for fewer than • 15 minutes, compared with 67.2% of workers in Cheyenne County. 28.4% of workers in Potter commute 30 minutes or more to work, compared to 11.5% of the county workers.⁵⁸

Major Employers

Major employers in Potter include Potter-Dix Public Schools, M & S Drilling, Crossroad, and Potter State Bank. The planning team indicated that a large percentage of residents commute to other cities for work, such as Sidney, Kimball, and Scottsbluff.

Housing

In comparison to Cheyenne County, Potter's housing stock was:

- More owner occupied. 86.1% of occupied housing units in Potter are owner occupied compared with 66.6% of occupied housing in Chevenne County in 2019.59
- Older housing stock. Potter has a larger share of housing built prior to 1970 (77.1%) compared to the county (63.9%).⁶⁰
- Less multifamily homes. The predominant housing type in the village is single family • detached, and Potter contains less multifamily housing with five or more units per structure compared to the county (0.5% compared to 10.3%). 94.8% of housing in Potter was singlefamily detached, compared with 74.9% of the county's housing. Potter has a larger share of mobile and manufactured housing (4.7%) compared to the county (4.4%).⁶¹ The planning team indicated that the majority of mobile and manufactured homes are located in the southeast corner of town. Some older mobile homes are located on residential lots throughout the village.

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

Future Development Trends

Over the past five years, one house was demolished, and a coffee shop opened downtown. According to census estimates, Potter's population has decreased over the last decade. The planning team attributed this to the fact that a large portion of the population are elderly and live

 ⁵⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ⁵⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <u>https://data.census.gov</u>.
 ⁵⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file].

https://data.census.gov. ⁵⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ⁶⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u>

⁶¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. https://data.census.gov.

alone in homes. However, families are beginning to move into homes as some of them turn over. There are currently no plans for new commercial or residential developments in the next five years.

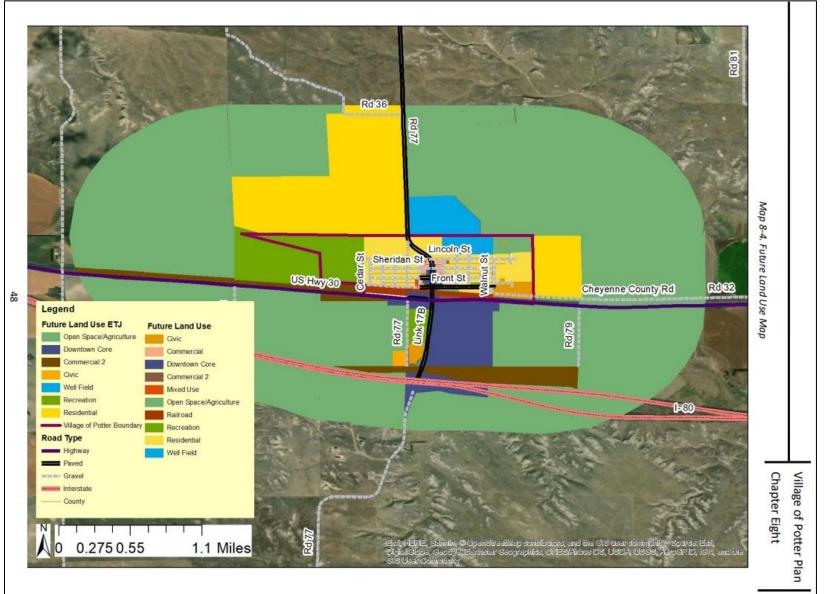


Figure PTR.3: Future Land Use Map

Source: Village of Potter Comprehensive Plan 2020

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of July 2021. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table PTR.2: Potter Parcel Valuation

| Total Number | Total | Number of | Value of | % of |
|---------------------|--------------|---------------|---------------|---------------|
| of | Improvement | Improvements | Improvements | Improvements |
| Improvements | Value | in Floodplain | in Floodplain | in Floodplain |
| 209 | \$13,006,180 | 0 | \$0 | 0% |

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 20 chemical storage sites in Potter that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table PTR.3: Chemical Storage Fixed Sites

| <u>v</u> | |
|---|---------------|
| Facility Name | Address |
| Frenchman Valley Farmers Co-op | 3040 Link 17B |
| Juliet 10 Launch Facility | Road 77 |
| Foxtrot 05 Launch Facility | Road 83 |
| Nelson Lease | Road 73 |
| Nelson D Lease | Road 69 |
| State of Nebraska 1 Lease | Unknown |
| Willis D Lease | Roads 56 & 85 |
| BWAB Inc Olsen 1 & 3 Lease | Unknown |
| Golf 10 Launch Facility | County Rd 40 |
| Mills Lease | County Rd 69 |
| Engstrom A Lease | Unknown |
| Foxtrot 04 Launch Facility | County Rd 46 |
| Foxtrot 03 Launch Facility | County Rd 75 |
| Foxtrot 07 Launch Facility | Road 77 |
| Golf 09 Launch Facility | County Rd 26 |
| Wilson B-1X | Road 73 |
| Eggling 2 Crude Oil Battery | US Highway 30 |
| NDOT Potter Yard | Link 17B |
| Slama 2 Lease | Road 81 |
| Slama Lease | Road 81 |
| Courses Networks Dependences of Franking months and Franking 62 | |

Source: Nebraska Department of Environment and Energy62

⁶² Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021. https://deq-iis.ne.gov/tier2/search.faces.

Critical Facilities

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

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|----------------------------------|------------------|--------------------|---------------------|
| 1 | County Roads Department | N | N | N |
| 2 | Potter Fire Hall | Ν | Ν | Ν |
| 3 | Potter Depot Museum | Ν | Ν | Ν |
| 4 | Volleyball Court | Ν | Ν | Ν |
| 5 | Sherman Street Museum | Ν | Ν | Ν |
| 6 | Village Office & Shop | Ν | Ν | Ν |
| 7 | Potter Library | N | Ν | N |
| 8 | Community Hall | Y | Ν | Ν |
| 9 | Prairie West Christian Church | Y | Ν | N |
| 10 | Bus Barn | Ν | Ν | N |
| 11 | Potter-Dix Public Schools | Y | N | N |
| 12 | Park | N | Ν | N |
| 13 | Water Tower | N | N | N |
| 14 | Well House - Upper | N | Y | N |
| 15 | Well House - Lower | N | N | N |
| 16 | FVC Cenex Gas Station | N | Ν | Y |
| 17 | Visitors Center/Public Restrooms | N | Ν | N |
| 18 | Potter Post Office | Ν | Ν | Ν |

Table PTR.4: Critical Facilities

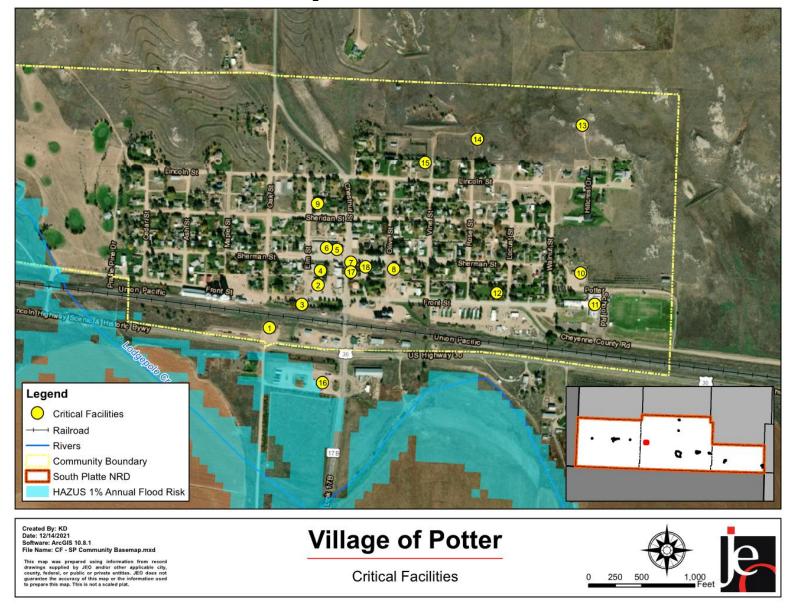


Figure PTR.4: Critical Facilities

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation and strategic actions. Potter has a five-member Village Board and the following offices.

- Clerk/Treasurer
- Attorney
- Utility Superintendent
- Sewer Commissioner
- Street Commissioner
- Water Commissioner

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

Table PTR.6: Capability Assessment

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

| Surve | ey Components/Subcomponents | Yes/No |
|----------------------------|---|--------|
| Capability | 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) | |
| | 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 |
| Education & Outreach | Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education) | Yes |
| Capability | Natural Disaster or Safety related school programs | No |
| | StormReady Certification | No |
| | Firewise Communities Certification | No |
| | Tree City USA | Yes |
| | Other (if any) | |

Table PTR.7: Overall Capability

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

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Clerk/Treasurer and the plan will be reviewed bi-annually. The public will be included in the review and revision process via board meetings and the monthly community newspaper.

Plan Integration

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

Grants and Funding

The Village of Potter's funds are currently limited to maintaining current facilities and municipal systems. The amount of municipal funds has decreased in recent years. Projects included in the municipal budget that are also in the hazard mitigation plan include: backup generator, tree removal, public awareness and education, and maintaining the fire line on the north side of the village.

In the last five years, the village has been awarded the following grants:

- South Platte NRD Community Forestry Grant: Tree planting and removal
- Land and Water Conservation Fund Grant: Community Hall renovations
- CA Story Grant: Community Hall renovations
- Cheyenne County Tourism Grant: Community Hall renovations
- Free Trees for Fall Grant: Tree planting
- NDEE Scrap Tire Waste Grant: Rubber mulch for parks
- Public Water System Security Grant: Backup generator

Comprehensive Plan (2020)

The comprehensive plan is designed to guide the future actions and growth of the village. Potter's comprehensive plan currently does not integrate natural hazard mitigation components, but the planning team noted they will incorporate hazard mitigation when the plan is next updated. There is presently no timeline for updating the plan.

Building Codes (2018)

Potter has adopted the 2018 International Building Codes. The code integrates hazard mitigation in the following ways: requires elevation of structures in the floodplain, requires mechanical systems to be elevated for structures in the floodplain, requires onsite storm water detention for

commercial structures, encourages the use of permeable surfaces, and requires a safe room in multiple dwelling units.

Zoning Ordinance (2021)

The village's zoning and subdivision ordinance outlines where and how development should occur in the future. The regulations do not currently integrate hazard mitigation components. The zoning ordinance is updated as needed.

Cheyenne County Local Emergency Operations Plan (2018)

The village has an annex in the Cheyenne 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.

Wildcat Hills Region Community Wildfire Protection Plan (2021)

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

Historical Occurrences

See the Cheyenne County community profile for historical hazard events.

Hazard Prioritization

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

Dam Failure

Due to the presence of multiple dams near the Village of Potter, dam failure was identified as a hazard of top concern by the local planning team. If a high hazard dam were to fail, loss of human life is probable and would cause significant economic impacts. A significant hazard dam would not likely cause loss of life, but could result in major economic loss, environmental damage, or disruption of lifeline facilities.

According to the USACE National Inventory of Dams, there are four dams located in or near Potter. Two of these are considered high hazard dams. The community does have evacuation maps for the community, should a dam fail. A dam failure for Potter would likely cause damages to properties, the railroad, and streets within the village. Potter follows NDEE's recommendations from their annual dam inspections.

Table PTR.8 lists currently constructed high hazard dams near Potter. Dams near Potter, as well as their hazard level, can be seen in Figure PTR.5. They can also be viewed on the Nebraska Department of Natural Resources Dam Inventory map (<u>https://dnr.nebraska.gov/dam-safety</u>).

| DAM NAME | NID ID | LOCATION | CONDITION | INSPECTION DATE |
|------------|---------|------------------|--------------|--------------------|
| HEIMER DAM | NE00601 | North of Potter | Fair | 8/11/2020 |
| POTTER DAM | NE02293 | Northeast Potter | Satisfactory | 8/11/2020 |
| 0 | | | | |

Source: USACE, 202163

⁶³ United States Army Corps of Engineers. February 2021. "National Inventory of Dams." https://nid.sec.usace.army.mil/ords/f?p=105:19:15077170345077::NO:::

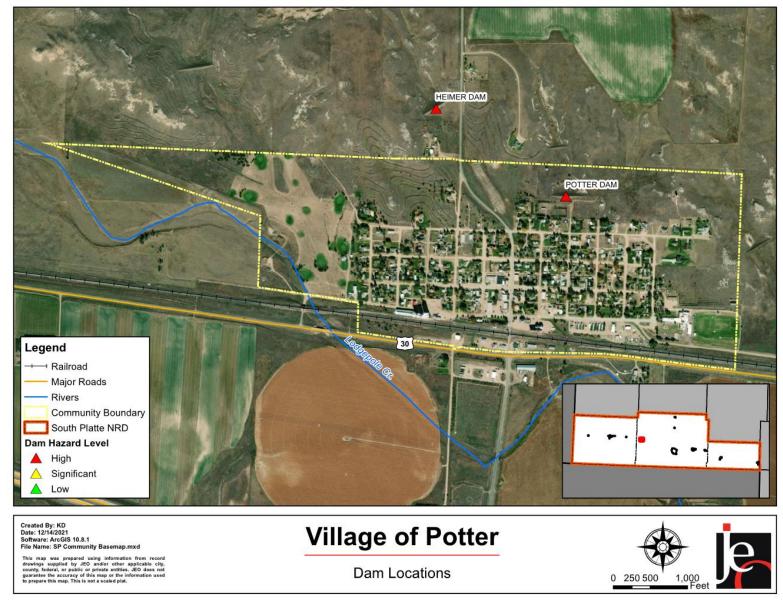


Figure PTR.5: Potter Dams

Flooding

Flooding was identified as a top concern for the village. According to the NCEI, there have been six flood events from 1996 to April 2021, resulting in \$2,500,000 in property damage, and \$500,000 in crop damage. According to the local planning team, a 1996 thunderstorm resulted in flooding of the normally dry Lodgepole Creek. When the railroad underpass was blocked, water was diverted onto Front Street and several homes were flooded early in the morning. This resulted in a rescue situation for some residents, and the eventual demolition of some damaged residences. Another storm in May 1997 resulted in flooding on Front Street and Sherman Street, with some homes and businesses being inundated with four feet of water. The planning team indicated that access to Highway 30 during a flood is a concern for the community.

While Potter does not have a designated Special Flood Hazard Area (SFHA), the community does participate in the NFIP, which may lead to additional protection from lasting impacts of flooding. Potter has no repetitive flood loss properties as of October 2021.

Grass/Wildfire

The planning team identified grass/wildfire as a hazard of top concern due to prior events. According to the Nebraska Forest Service, the Potter Fire Department responded to 88 wildfires, from 2000 to 2020, which burned a total of 5,585 acres in the district. According to the planning team, one fire burned 100 acres on the north edge of town and threatened several homes. Residential trees were burned and the main well house for the village was damaged.

To mitigate lasting impacts from future wildfire events, the village worked with the Potter Fire Department to create fire line breaks at multiple locations, including the north edge of town, near the school on the east side of town, and at the organic landfill that is located one mile north of the village on Road 77. The fire department also has mutual aid agreements with neighboring fire departments for events which may exhaust local resources. While Potter does not work to encourage defensible space directly, the village does participate in tree removal programs with the Natural Resources District.

Hail

Potter is highly prone to hailstorms and experiences approximately two events per year. According to the NCEI, there were 48 hail events in Potter from 1996 to April 2021. Hailstones from these storms ranged from 0.5 to 4.25 inches and resulted in \$340,000 in property damage and \$420,000 in crop damage. The local planning team noted that hailstorms during the summer of 1997 were extremely damaging. These events stripped bark off trees, killed livestock, and accounted for extensive property damages. The village also sustained significant damages during the summers of 2010-2013; and although these events were not as severe as the 1997 event, the planning team indicated they still accounted for substantial damage. Concerns for the village include injuries or fatalities from hail events, property damage, disruption of services, impacts to vulnerable populations, and falling tree limbs.

To mitigate against impacts resulting from hail damages, the village installed metal and rubber roofing for village buildings and insures village-owned buildings. A backup generator was recently installed at a well house to provide water during an extended power outage. Further, the village has a tree board, responsible for trimming problem limbs before they fall might fall during a hail event.

Hazardous Materials (Transportation)

The local planning team identified transportation-related hazardous materials as a top concern for Potter. Highway 30 and the Union Pacific railroad run directly through Potter and often carry agricultural chemicals and other chemicals, according to the local planning team. Many of these chemicals are disposed of west of Potter, at the Clean Harbors site near Kimball, Nebraska. Due to Potter's proximity to Kimball, a large amount of these dangerous chemicals must be transported through Potter on their way to Kimball. The planning team indicated that waste associated with the Ebola crisis, as well as Love Canal Superfund waste, has also been transported to Clean Harbors to be disposed of in recent years.

According to the Pipeline and Hazardous Materials Safety Administration, there have been two transportation hazardous material spills in Potter between 1971 and January 2021. One event occurred in 1994 and the other in 2015. Both events were minor and occurred on the railroad. Neither event resulted in evacuations, injuries, or fatalities, but the derailment in 2015 did result in spillage of 55 gallons of hydrochloric acid.

Concerns for the village include injuries or fatalities from a hazardous spill, blocked transportations routes (I-80, HWY 30, UPRR, local county roads), disruptions of services, and impacts to vulnerable populations. The planning team indicated that the Potter-Dix schools are not far from both the Union Pacific tracks and Highway 30. Additionally, grain elevators are located adjacent to the railroad. These facilities may experience a higher level of vulnerability due to being located so close to these major transportation corridors. In the event of a hazardous materials spill, Potter Fire Department would be the first to respond.

Severe Thunderstorms

Severe thunderstorms are common events in the planning area and were identified as a top concern for the community. Severe thunderstorms may consist of heavy rain, lightning, and thunderstorm wind and can result in the loss of electricity, blocked roadways, damages to trees, and flooding. The NCEI recorded 12 severe thunderstorm events in Potter from 1996 to April 2021. These storms resulted in \$15,000 in property damage and \$5,000 in crop damage. Concerns for the village include injuries or fatalities from thunderstorm events, blocked or washed-out transportation routes, property damage, disruption of services, impacts to vulnerable populations, and falling tree limbs.

To mitigate against impacts from thunderstorm damages, the village recently installed a backup generator at a well house to provide water during an extended power outage. The village also has a tree board, which is responsible for trimming problem limbs before they fall might fall during a thunderstorm event.

Tornadoes

Tornadoes were identified as being a hazard of top concern for the community. Tornadoes have the potential for significant damages, economic impacts, and loss of life. The NCEI reported that between January 1996 and April 2021, eight tornadoes appeared in or near Potter. An EF1 tornado in June 1997 resulted in \$15,000 in property damage, and an EF0 in 2005 resulted in \$5,000 in property damage. No injuries or fatalities were reported from any tornado event.

According to the local planning team, the village itself has not been directly impacted by a tornado event, but several large trees outside of town have been uprooted as a result of tornadoes in the past. The community recognizes its vulnerability to tornado events and has worked to mitigate its risk. Presently, Potter is looking into the feasibility of installing a hardened area downtown near the shopping center, to serve as a tornado safe room. The community has a backup system

protocol for data, so that data will not be lost after a power surge/outage. Potter also has a tornado siren, operated by the county, to assist in awareness of an impending tornado. The planning team indicated that critical facilities may have weather radios, but an inventory needs to be taken.

For village employees and those downtown, some structures have basements to seek refuge during a tornado. Additionally, to improve awareness of a tornado, Region 21 Emergency Management provides CodeRed text alerts, as an opt-in option. Potter utilizes the local radio and a newspaper to publish information about preparing for inclement weather.

Mitigation Strategy

Completed Mitigation and Strategic Actions

| Mitigation Action | Backup Generator |
|-------------------|---|
| DESCRIPTION | Provide backup power for the wellhouse |
| HAZARD(S) | All hazards |
| STATUS | Backup generator has been installed at the upper wellhouse. |

Continued Mitigation and Strategic 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) | All Hazards |
| ESTIMATED COST | \$15,000 |
| FUNDING | Property Taxes |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| STATUS | Not started due to a lack of funding. |

| Mitigation Action | Complete/Update Wildfire Protection Plan |
|-------------------|--|
| DESCRIPTION | Complete and/ or update a Community Wildfire Protection Plan: the Community Wildfire Protection Plan enables a community to plan how it will reduce the risk of wildfire |
| HAZARD(S) | Wildfire |
| ESTIMATED COST | \$20,000 |
| FUNDING | Property Taxes, Grant Funding |
| TIMELINE | 2-5 years |
| PRIORITY | Low |
| LEAD AGENCY | Potter VFD |
| STATUS | This is an ongoing project. The CWPP is updated every five years. |

| Mitigation Action | Fire Prevention Program |
|-------------------|---|
| DESCRIPTION | The Nebraska Forest Service Wildland Fire Protection Program provides services in wildfire suppression training, equipment, pre- suppression planning, wildfire prevention, and aerial fire suppression |
| HAZARD(S) | Wildfire |
| ESTIMATED COST | Unknown |
| FUNDING | Property Taxes |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Potter VFD |
| Status | This is an ongoing project. The fire department gets training yearly locally and at the Nebraska State Fire School. The fire department also regularly applies for grants through the Forest Service. |

| 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) | Wildfire |
| ESTIMATED COST | \$20,000 |
| FUNDING | Property Taxes |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Potter Volunteer Fire Department |
| Status | The village plans to maintain the fire line that was created in 2020 on the north side of the community to reduce the fire risk to the community. |

| Mitigation Action | Floodplain Management |
|-------------------|---|
| DESCRIPTION | Improve floodplain management practices such as adoption and enforcement of floodplain management requirements (regulation of construction in significant flood hazard areas), floodplain identification and mapping (local requests for map updates), description of community assistance and monitoring activities, explanation for failure to participate in the National Flood Insurance Program, Community Rating System (CRS), and participation in Federal Emergency Management Agency's Cooperating Technical Partners Program (CTP) to increase local involvement in the flood mapping process |
| HAZARD(S) | Flooding |
| ESTIMATED COST | Staff Time |
| FUNDING | Property Taxes |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| STATUS | The project has not yet started. NeDNR is in the process of updating the floodplain map. |

| Mitigation Action | Groundwater/Irrigation/Water Conservation Management Plan and Practices |
|-------------------|---|
| DESCRIPTION | Develop and implement a plan/best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought. Identify water saving irrigation projects or improvements such as sprinklers or soil moisture monitoring. Potential restrictions on water could include limitations on lawn watering, car washing, farm irrigation restrictions, or water sold to outside sources. Implement best management practices through water conservation practices such as changes in irrigation management, education on no-till agriculture and modified crop selection, and use of xeroscaping in communities |
| HAZARD(S) | Drought |
| ESTIMATED COST | \$10,000+ |
| FUNDING | Property Taxes |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| STATUS | This has not yet started. Water meters are needed. |

| Mitigation Action | Hazardous Spill Emergency Training |
|-------------------|---|
| DESCRIPTION | Utilize exercise to prepare for potential explosions or hazardous spills; ensure that nearby businesses and residents have appropriate plans in place |
| HAZARD(S) | Hazardous Materials - Transportation |
| ESTIMATED COST | \$5,000 |
| FUNDING | General Fund |
| TIMELINE | 2-5 years |
| PRIORITY | High |
| LEAD AGENCY | Fire Department |
| STATUS | This project has not yet started. |

| Mitigation Action | Hazardous Tree Removal Program |
|-------------------|---|
| DESCRIPTION | Identify and remove hazardous limbs and/or trees |
| Hazard(s) | High Winds, Tornadoes, Severe Thunderstorms, Severe Winter Storms |
| ESTIMATED COST | \$20,000 |
| FUNDING | Property Taxes, Grant funding |
| TIMELINE | 5+ Years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | Hazardous trees and limbs are removed annually. This is an ongoing project. |

| Mitigation Action | Public Awareness/Education |
|-------------------|--|
| DESCRIPTION | Outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$500+ |
| FUNDING | Property Taxes |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| STATUS | The village regularly educates the public about hazards through the local monthly paper. |

| Mitigation Action | Regulation Enforcement and Updates |
|-------------------|--|
| DESCRIPTION | Continue to enforce local floodplain regulations for structures located in the 100-year floodplain. Strict enforcement of the type of development and elevations of structures should be considered through issuance of building permits by any community or County. Continue education of building inspectors or Certified Floodplain Managers. Encourage building regulations for storm-resistance structures. |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$4,000+ |
| FUNDING | Property Taxes |
| TIMELINE | Ongoing |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| STATUS | Potter will continue to enforce floodplain management requirements. |

| Mitigation Action | Safe Rooms |
|-------------------|---|
| 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) | Tornadoes, High Winds |
| ESTIMATED COST | \$200-\$300/sq ft stand alone, \$150-\$200 addition/retrofit |
| FUNDING | Property Taxes, Grants |
| TIMELINE | 5+ Years |
| PRIORITY | Medium |
| LEAD AGENCY | Village Board |
| STATUS | This has not yet started due to a lack of funding. |

| Mitigation Action | Stabilize 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 a tornado or high wind event, "tie downs" can be used to anchor manufactured homes to their pads or concrete foundations |
| HAZARD(S) | High Winds, Tornadoes |
| ESTIMATED COST | \$1,000 |
| FUNDING | Bonds, Grant Funding |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | Village Board |
| STATUS | This project has not yet started. |

| Mitigation Action | Stormwater System and Drainage Improvements |
|-------------------|---|
| DESCRIPTION | These improvements can serve to move effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water. |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$250,000 |
| FUNDING | Property Taxes/CDBG Funds/Bonds |
| TIMELINE | 5+ years |
| PRIORITY | High |
| LEAD AGENCY | Village Board |
| STATUS | The village noted that stormwater and drainage issues need to be addressed. |

Removed Mitigation and Strategic Actions

| Mitigation Action | Warning Systems |
|--------------------|--|
| DESCRIPTION | Improve village warning system and implement telephone interrupt system such as reverse 911. |
| HAZARD(S) | All Hazards |
| REASON FOR REMOVAL | This action in no longer being pursued since Cheyenne County implemented a new warning system that calls and texts when there is a severe weather alert. |

| 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) | All Hazards |
| REASON FOR REMOVAL | This action in no longer being pursued since Cheyenne County implemented a new warning system that calls and texts when there is a severe weather alert. |

Community Profile

City of Sidney

South Platte NRD Hazard Mitigation Plan 2022

SOUTH PLATTE NRD HAZARD MITIGATION PLAN | 2022

Local Planning Team

| Name | Title | Jurisdiction |
|--------------|--------------|----------------|
| Joe Aikens | Police Chief | City of Sidney |
| LaVerne Bown | Fire Chief | City of Sidney |
| David Scott | City Manager | City of Sidney |

Table SDY.1: Sidney Local Planning Team

Location and Geography

The City of Sidney is located in the southern portion of Cheyenne County and covers an area of 6.93 square miles. Major waterways in the area include Lodgepole Creek, which runs through the center of Sidney.

Transportation

According to the Nebraska Department of Transportation, US Highway 30 runs east/west through northern Sidney, and accommodates approximately 5,485 vehicles per day, 220 of which are heavy commercial vehicles. US Highway 385 runs north/south through the eastern edge of Sidney, and accommodates approximately 4,765 vehicles per day, 407 of which are heavy commercial vehicles.⁶⁴ The Union Pacific railroad runs east/west through northern Sidney, and the Burlington Northern-Santa Fe line runs a north/south route through the center of the city.

The local planning team indicated that the largest transportation-related concern is I-80 closures during winter storms, in which travelers will often seek refuge in Sidney. Additionally, many critical facilities, such as police, water, and electrical departments are all located along a primary railroad corridor in Sidney. These facilities experience a higher level of vulnerability due to their proximity to the rail line.

The planning team also noted that a significant transportation event occurred recently when a semi-truck tanker was punctured and released roughly 5000 gallons of a product used in the production of hand sanitizer on April 20, 2020. This spill occurred on Exit 59 on ramp to Interstate 80 and was handled by a local towing firm and the State of Nebraska. The site was excavated, and new uncontaminated fill was brought in to repair the damage.

⁶⁴ Nebraska Department of Transportation. 2020. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=8ed4b009b0d546f19f0284e5bba0f972.

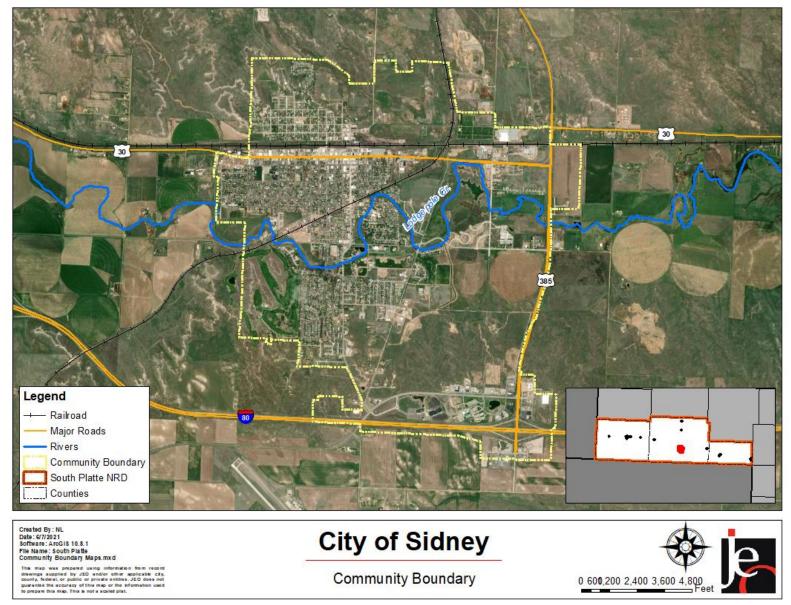


Figure SDY.1: City of Sidney

Demographics

Sidney's estimated population in 2019 was 6,572. The following figure displays the historical population trend from 1900 to 2019. This figure indicates that the population of Sidney increased from 1990 to 2010 but has since declined. 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 can make implementation of mitigation projects fiscally challenging. Sidney's population accounted for 68 percent of Chevenne County's population in 2019.65

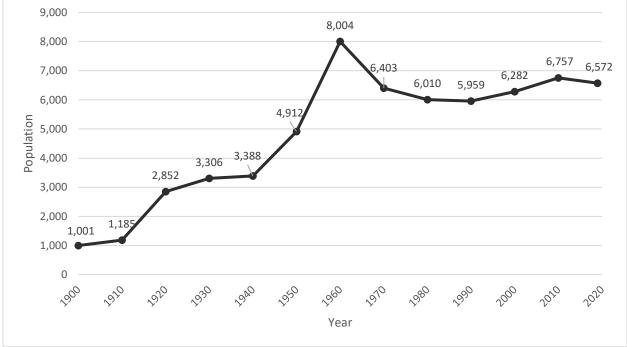


Figure SDY.2: Estimated Population 1900 - 2019

Source: U.S. Census Bureau⁶⁶

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

- **Older.** The median age of Sidney was 37.9 years old in 2019, compared with the county average of 40.4 years. Sidney's population grew older since 2010, when the median age was 37.1 years old. Sidney had a greater proportion of people under 20 years old (27.1%) than the county (25.7%).67
- More ethnically diverse. Since 2010. Sidney's ethnic diversity did not change much. In 2010, 5.4% of Sidney's population was non-white. By 2019, 5.5% of Sidney's population was non-white. During that time, those who were non-white in the county grew from 4% to 5.1%.68
- Less likely to be at the federal poverty line. The poverty rate of all persons in Sidney (8.9%) was lower than the county (9.6%) in 2019.69

⁶⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. https://data.census.gov.

 ⁶⁰ United States Census Bureau. 2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ⁶⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <u>https://data.census.gov.</u>
 ⁶⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>
 ⁶⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>
 ⁶⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <u>https://data.census.gov.</u>

⁶⁹ United States Census Bureau. *2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. http:// lata.census.gov.

Employment and Economics

The city's economic base is a mixture of industries. In comparison to Chevenne County, Sidney's economy had:

- Similar mix of industries. Employment sectors accounting for 10% or more of employment in Sidney included: Retail Trade and Educational Services. Cheyenne County's employment sectors also included Retail Trade and Educational Services in 2019.70
- Greater household income. Sidney's median household income in 2019 (\$55,346) was about \$1,500 higher than the county (\$53,871).⁷¹
- Fewer long-distance commuters. 83.1% of workers in Sidney commuted for fewer than 15 minutes, compared with 67.2% of workers in Cheyenne County. 5.2% of workers in Sidney commute 30 minutes or more to work, compared to 11.5% of the county workers.⁷²

Major Employers

Major employers in Sidney include Sidney Regional Medical Center, Agriplastics, Lukejan, and the City of Sidney. The majority of residents work within the city with only around 10% commuting elsewhere for work.

Housina

In comparison to Chevenne County, Sidney's housing stock was:

- **Less owner occupied.** 60.7% of occupied housing units in Sidney are owner occupied compared with 66.6% of occupied housing in Cheyenne County in 2019.73
- Newer housing stock. Sidney has a smaller share of housing built prior to 1970 (60.1%) • compared to the county (63.9%).⁷⁴
- **More multifamily homes.** Although the predominant housing type in the city is single family detached, Sidney contains more multifamily housing with five or more units per structure compared to the county (14.7% compared to 10.3%). 70.9% of housing in Sidney was single-family detached, compared with 74.9% of the county's housing. Sidney has a smaller share of mobile and manufactured housing (1.6%) compared to the county (4.4%).⁷⁵ According to the planning team, there are two mobile home parks in Sidney. Gordon's is located at 19th and Sidney Draw Road, and Conestoga is located on east Highway 30.

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

 ⁷⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file], <u>https://data.census.gov</u>.
 ⁷¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file], <u>https://data.census.gov</u>.
 ⁷² United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file].

https://data.census.gov. ⁷³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ⁷⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u> ⁷⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <u>https://data.census.gov.</u>

⁷⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. https://data.census.gov

Future Development Trends

There has been little change in new housing, businesses, and demolished buildings over the past five years. The city has added about one new single-family structure per year within existing subdivisions. Most new business additions are rehabilitating existing buildings. According to census data, Sidney's population has decreased over the last decade. The planning team attributes this decline to Bass Pro Shops having closed 95 percent of the Cabela's corporate offices, displacing approximately 1,800 workers. There are no specific plans for new business or housing developments in the next few years; however, the city currently has a good inventory of buildable lots within city limits.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of July 2021. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table SDY.2: Sidney Parcel Valuation

| Total Number | Total | Number of | Value of | % of |
|---------------------|---------------|---------------|---------------|---------------|
| of | Improvement | Improvements | Improvements | Improvements |
| Improvements | Value | in Floodplain | in Floodplain | in Floodplain |
| 2,864 | \$364,170,747 | 0 | \$0 | 0% |

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 56 chemical storage sites in Sidney that contain hazardous chemicals. According to the planning team, the Love's Truck Stop and City Power Plant also house hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table SDY.3: Chemical Storage Fixed Sites

| Facility Name | Address |
|--------------------------------|-----------------------|
| TIGT Huntsman Station 01 | 2835 Road 111 |
| Sidney Ready-Mix | 2535 Fort Sidney Rd |
| Frenchman Valley Farmers Co-op | Jct 9th & Forrest Sts |
| Sapp Bros Sidney Truck Stop | 2914 Upland Pkwy |
| Titan Machinery Inc | 525 Parkland Dr |
| Beyer TXO 1A | Road 103 |
| Olson 3-1 | Jct 17E & Road 18 |
| NDOT Sidney Yard | 2320 Illinois St |
| CenturyLink | 1100 Jackson St |
| West Engelland Compressor Sta | Road 111 |
| Frenchman Valley Farmers Co-op | 303 E Illinois St |
| Frenchman Valley Farmers Co-op | 1402 Illinois St |
| Progress Rail Services Corp | 3224 Road 107 |
| AT&T Microwave Tower 1350 | 1686 Road 131 |
| Basin Electric Power Co-op | 10515 Road 28 |

| Facility Name | Address |
|-------------------------------|-----------------------------|
| WAPA Virginia Smith Converter | 2281 Road 111 |
| WAPA Sidney Substation | 2291 Road 111 |
| Progress Rail Services Corp | 10929 Road 32N |
| Bird Oil Field | County Roads 20 & 93 |
| Diamond B Oil Inc Shop | Highway 30 & Fairgrounds Rd |
| Hruska 1 Lease | Jct Roads 103 & 32S |
| Krueger - Ladegard Lease | Road 99 |
| Sorge Lease | Jct Roads 103 & 32 S |
| M Cruise 1 Lease | Road 30 |
| Tremain Lease | Roads 32 & 130 |
| Doran D Field | Highway 30 |
| Cruise A | 2829 Road 111 |
| Johnson Field | Road 32 |
| Sparks B & C | Road 107 |
| State 4 | Road 16 |
| Armstrong 2 Lease | Road 101 |
| Rudolph Lease 2 & 3 | Unknown |
| Golf 05 Launch Facility | County Rd 41 |
| Golf 06 Launch Facility | County Rd 26 |
| India 11 Launch Facility | Road 119 |
| India 10 Launch Facility | Road 115 |
| Spearow Field | Jct Roads 36 & 119 |
| CHH Federal 01 | Jct Roads 40 & 107 |
| Golf 07 Launch Facility | Highway 19 |
| India 01 MAF | County Rd 125 |
| India 02 Launch Facility | County Rd 16 |
| Sioux Federal 9 Lease | Jct Roads 103 & 42 |
| Cabelas Inc | 115 Cabela Dr |
| Pasque 1 | Road 16 |
| Pro Oil Bulk Plant | 11574 US Highway 30 |
| Cabelas Distribution Center | 3200 Road 101 |
| M & B Mather Lease | Jct Roads 113 & 28 |
| Pahl Lease | Jct Roads 111 & 30 |
| Rippe B Lease | Jct Roads 111 & 30 |
| Sparks A Lease | Jct Roads 109 & 28 |
| Mathewson 1-20 | Road 89 |
| ATC Sunol 88995 | 1686 Road 131 |
| Sidney Sand & Gravel Plant | 1839 Road 117 |
| Bell Lumber & Pole Company | 9965 Road 34 |
| Adams Industries Inc | 1655 Industrial Ave |
| Charter Communications NE0085 | 1830 10th Ave |
| *Love's Truck Stop | 645 Chase Blvd |
| *City Power Plant | 801 11 th Ave |

Source: Nebraska Department of Environment and Energy⁷⁶

*Facilities not included in NDEE list of Tier II facilities.

⁷⁶ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021. https://deq-iis.ne.gov/tier2/search.faces.

Critical Facilities

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

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|--|------------------|--------------------|---------------------|
| 1 | Well #12 | N | N | N |
| 2 | Well #10 | N | Ν | N |
| 3 | Memorial Health Center | Y | Y | N |
| 4 | County Courthouse/Emergency Operations Center | Y | Y | Ν |
| 5 | Sidney High School | Y | Ν | N |
| 6 | Sidney Middle School | Y | Ν | N |
| 7 | Central Elementary School | Y | Ν | N |
| 8 | West Elementary School | Y | N | N |
| 9 | South Elementary School | Y | N | N |
| 10 | North Elementary School | Y | N | N |
| 11 | City Hall/Fire Station/ Library | Y | N | N |
| 12 | Police Department | N | N | N |
| 13 | Sewage Treatment Plant | Y | N | N |
| 14 | Power Plant | Y | Y | N |
| 15 | Underground Water Tank | N | N | N |
| 16 | Water Tower | N | Y | N |
| 17 | Water Tank | N | Y | N |
| 18 | Blending Station | N | Y | N |
| 19 | Water Tank | N | N | N |
| 20 | Water Tank | N | N | N |
| 21 | Well | N | N | N |
| 22 | Well | N | Y | N |
| 23 | Well | N | N | N |
| 24 | Well | N | N | N |
| 25 | Well | N | N | N |
| 26 | Well | N | N | N |
| 27 | Well | N | N | N |
| 28 | Lift Station | N | N | N |
| 29 | Lift Station | N | N | N |
| 30 | Lift Station | N | N | N |
| 31 | Lift Station | N | N | N |
| 32 | Lift Station | N | N | N |
| 33 | Lift Station | N | N | N |
| 34 | Substation | N | N | N |
| 35 | Substation | N | Ν | N |

Table SDY.4: Critical Facilities

| CF # | Name | Shelter (Y/N) | Generator (Y/N) | Floodplain (Y/N) |
|---------|-------------------------|------------------|--------------------|---------------------|
| 36 | Substation | Ν | N | N |
| 37 | Substation | N | N | N |
| 38 | Water Booster Pump | N | Y | N |
| 39 | Water Booster Pump | N | Y | N |
| 40 | Water Booster Pump | Ν | Y | Ν |
| 41 | Airport | Y | Y | N |
| 42 | 13th Ave Underpass | N | N | Y |
| 43 | Sidney Draw Road Bridge | N | N | N |
| 44 | 13th Ave Bridge | Ν | N | N |
| 45 | 11th Ave Bridge | N | N | N |
| 46 | Fort Sidney Road Bridge | N | N | N |
| 47 | Greenwood Road Bridge | Ν | N | N |
| 48 | Well #11 | N | N | N |
| 49 | Lift Station | Ν | N | N |

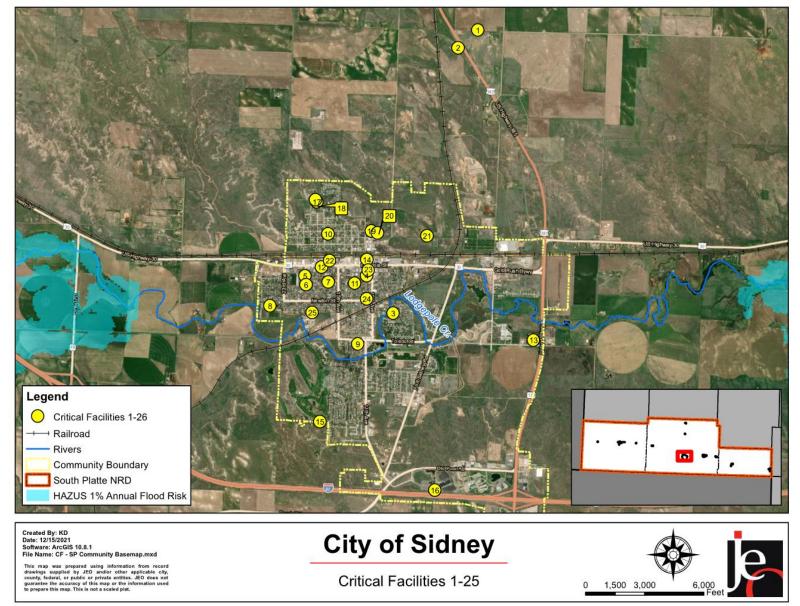


Figure SDY.3: Critical Facilities 1-25

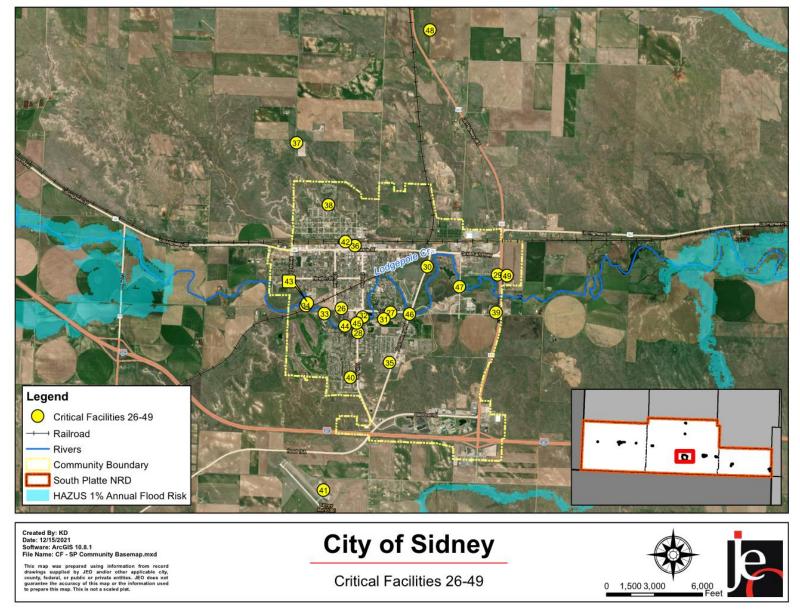


Figure SDY.4: Critical Facilities 26-49

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation and strategic actions. Sidney has a five-member city council and the following offices.

- City Manager
- Clerk/Treasurer
- Attorney
- Assistant City Manager
- Chief of Police
- Fire Chief
- Wastewater Plant Superintendent
- Water/Sewer Superintendent
- Solid Waste Superintendent
- Street Superintendent
- Airport Authority Chairperson
- City Inspector
- Economic Development Director
- Electric Department Superintendent
- Library Board Chairperson
- Parks Superintendent
- GIS/Zoning Administrator
- Public Transportation Director

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

Table SDY.6: Capability Assessment

| Survey Components/Subcomponents | | Yes/No |
|---|----------------------------------|--------|
| | Comprehensive Plan | Yes |
| | Capital Improvements Plan | Yes |
| | Economic Development Plan | Yes |
| | Emergency Operational Plan | Yes |
| Planning & Regulatory Capability | 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) | |
|--|---|-----|
| | Planning Commission | Yes |
| | Floodplain Administration | Yes |
| | GIS Capabilities | Yes |
| Administrative | Chief Building Official | Yes |
| & | Civil Engineering | Yes |
| Technical Capability | Local Staff Who Can Assess Community's Vulnerability to Hazards | Yes |
| | Grant Manager | No |
| | Mutual Aid Agreement | Yes |
| | Other (if any) | |
| | 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 |
| Fiscal | Gas/Electric Service Fees | Yes |
| Capability | Storm Water Service Fees | Yes |
| | Water/Sewer Service Fees | Yes |
| | Development Impact Fees | Yes |
| | General Obligation Revenue or Special Tax Bonds | Yes |
| | Other (if any) | |
| | Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc. | Yes |
| Education & Outreach Capability | 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 | Yes |
| | Other (if any) | |

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

Table SDY.7: Overall Capability

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the City Manager, Chief of Police, Fire Chief, Street Superintendent, Electric Superintendent, Water/Sewer Superintendent, and Solid Waste Superintendent. The plan will be reviewed bi-annually. The public will be included in the review and revision process via board/council meetings, website updates, and social media.

Plan Integration

Sidney has several planning documents that discuss or relate to hazard mitigation. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. 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.

Grants and Funding

The City of Sidney's funds are sufficient to pursue new capital projects. The amount of municipal funds has decreased in the last five years. The city is currently pursuing electric and water capital projects. The city has not applied for any grants in the last five years.

Capital Improvement Plan

The capital improvement plan outlines large purchases and projects that the city would like to pursue. Projects identified in the plan include: storm water projects, upsizing of culverts/drainage structures, regular maintenance for drainage structures, upgrading storm sewer systems, regular maintenance for the storm sewer system, improving transportation routes for drainage, upsizing water distribution pipes, installing water meters for residential structures, updating the electrical distribution system, burying powerlines, improving the fire hall, improving the police headquarters, information technology projects, and roofing projects. The city plans to add the installation of backup generators at critical facilities in a future update to the plan. The capital improvement plan is updated annually.

Comprehensive Plan (2012)

The comprehensive plan is designed to guide the future actions and growth of the city. It contains goals aimed at Safe Growth, limits density in areas adjacent to known hazardous areas, encourages infill development, encourages "clustering of development" in sensitive areas, identifies areas that need emergency shelters, and encourages preservation of open space in hazard-prone areas. The city plans to update the comprehensive plan in 2022.

Building Codes (2018)

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

Zoning Ordinance (2021), Subdivision Regulations (2021), Floodplain Ordinance (2021)

The city's floodplain ordinance, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, prohibit/discourage development in the floodplain, limit population density in the floodplain, identify floodplain areas as parks or open space, require more than one foot of elevation above Base Flood Elevation in the floodplain, prohibit filling of wetlands, discourage development near chemical storage sites and along transportation routes, limit development in the ETJ, consider wildfire and the wildland urban interface, include well setback requirements, include the ability to implement water restrictions, allow density transfers in hazard areas, and restrict subdivision of land within or adjacent to the floodplain.

Wellhead Protection Plan (2010)

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.

Cheyenne County Local Emergency Operations Plan (2018)

The city has an annex in the Cheyenne 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.

Wildcat Hills Region Community Wildfire Protection Plan (2021)

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

Historical Occurrences

See the Cheyenne County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

Flooding was identified as a top concern for the city. According to the NCEI, there have been 14 flood events from 1996 to April 2021, resulting in \$60,000 in property damage, and \$30,000 in crop damage. The planning team noted that 2010 and 2011 saw many areas downtown flooded as a result of having poor stormwater drainage. The south end of the city, near the South Platte NRD office, experienced much of this flooding. Because the nearest body of water (Lodgepole Creek) is an intermittent stream, the city is most concerned about flash flooding, which may exhaust drainage resources. In the past, businesses have been damaged as a result of flooding, specifically in the downtown area.

In recent years, the city has worked to complete a number of flood mitigation projects, to limit the impact of future flooding events. The city completed both a drainage study/stormwater master plan and stream bank stabilization efforts. Flood mitigation efforts are also recorded in the city's 2012 Comprehensive Plan, which notes that the construction of the Lodgepole Creek Flood Channel alleviated many flooding concerns. The city is currently in the construction phase of a repaving project on 13th Avenue, which includes the installation of storm water drainage pipes.

Sidney has four NFIP policies in-force for \$539,700 and there are no repetitive flood loss properties as of October 2021.

Hail

Sidney has been affected by a number of hail events in the past. According to the NCEI, Sidney has been affected by 149 hail events from 1996 to April 2021, with an average stone size of 1.2 inches. These storms resulted in \$292,000 in property damage and \$120,000 in crop damage. Local planning team members recall that the city experienced a significant hailstorm in the summer of 2011, in which automobiles, roofs, and electrical infrastructure was damaged.

To minimize the effect of future hail events, the city has purchased hail insurance to insure all city-owned buildings. Additionally, the city has a tree board which trims dead/dying branches to pre-emptively cut down dangerous limbs.

Hazardous Materials – Transportation

The local planning team identified transportation-related hazardous materials as a hazard of top concern for the community. According to PHMSA, the city has experienced 18 spill events from 1971 to January 2021. A spill occurred in April 2020 when a tanker full of denatured alcohol disconnected from its truck and tipped over, resulting in 2,500 gallons spilled. Sidney Fire Department, Police Department, and Public Works Department responded to the scene and an evacuation of the area was necessary. No fatalities have resulted from any spill events in the city; however, two injuries were reported.

Sidney lies adjacent to a large interstate system, as well as two railroads, which often transport chemicals. The transportation routes of largest concern include the Burlington Northern-Santa Fe railroad, the Union Pacific Railroad, as well as Interstate 80, Highway 385, and Highway 30. Chemicals are regularly transported along these routes; however, residents do not know what type of chemicals they are. Critical facilities are located near these transportation routes, which add a level of vulnerability to these sites, such as the water, electric, and police departments, which are all housed along the railroad tracks in Sidney. The planning team indicated the city has local resources to respond to most spills.

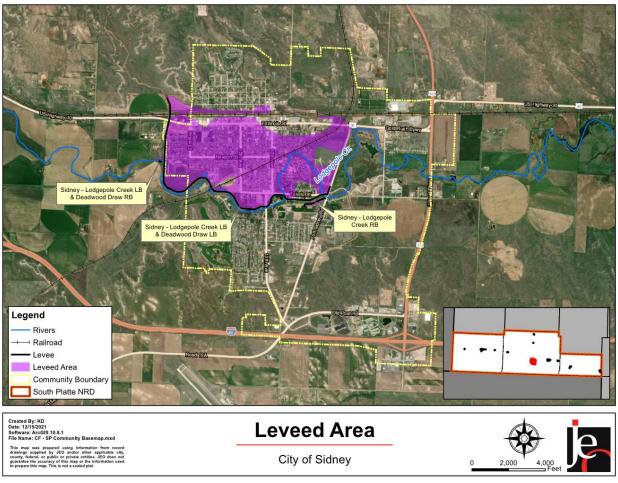
Levee Failure

Although Levee Failure was not identified as a top concern by the local planning team, there is a levee system in the city. The Sidney Levee Project is made up of three sections: the Sidney - Lodgepole Creek RB, the Sidney - Lodgepole Creek LB & Deadwood Draw LB, and the Sidney - Lodgepole Creek LB & Deadwood Draw RB. The levee was classified as Low Risk by the USACE in February 2020. Levee details can be seen in Table SDY.8.

Table SDY.8: Sidney Levee Project

| Levee Name | Length | Population Protected | Sponsor |
|---|---------|-------------------------|----------------|
| Sidney - Lodgepole Creek LB & Deadwood Draw LB | 2.38 mi | 2,855 | City of Sidney |
| Sidney - Lodgepole Creek LB & Deadwood Draw RB | 0.03 mi | 0 | City of Sidney |
| Sidney - Lodgepole Creek RB | 0.24 mi | 0 | City of Sidney |

A map of the leveed areas is shown in Figure SDY.5. Areas shaded in purple are land areas protected by the levees and are therefore vulnerable if the levees were to fail.



SDY.5: Sidney Levee Area

Severe Winter Storms

Sidney has been affected annually by severe winter storms. According to the NCEI, there were 114 severe winter storm events in Cheyenne County from 1996 through April 2021, resulting in \$500,500 in property damages and \$11,423,410 in crop damages. The specific concerns the city had related to severe winter storms tend to be related to traffic, electrical outages, and the restriction of emergency vehicles, due to transportation issues. The city has experienced damages as a result of severe winter storms, specifically electrical outages related to downed power lines. The city is in charge of removing snow for the community, such as plows, front end loaders, dump trucks, and snow blowers. However, city officials noted that these resources are never sufficient.

To mitigate the effects of a severe winter storms, the city has buried 70% of their power lines, as well as designating snow routes on primary roadways. The city plans to bury all primary and secondary power lines in the community.

Tornadoes

Tornadoes were identified as a hazard of top concern for the city by the local planning team. According to the NCEI, there have been six tornado events in Sidney from 1996 to April 2021. All of these were EF0 tornadoes, and no injuries or fatalities occurred as a result. According to the planning team, Sidney experienced a direct hit from a tornado in the 1960s.

To mitigate against the effects of tornadoes, the city has invested in digital backup systems for computers and warning sirens. While the community does not have safe rooms built to FEMA specifications, community members seeking refuge may utilize government buildings with basements. Additionally, the county intends to offer text alerts with a new communications center. The city also intends to begin a program of educational outreach for tornado awareness. All critical facilities in the city have weather radios.

Mitigation Strategy

Continued Mitigation and Strategic Actions

| Mitigation Action | Backup Generators | |
|-------------------|---|--|
| DESCRIPTION | Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters. Water/Streets Department has been identified as needing one. | |
| HAZARD(S) | All hazards | |
| ESTIMATED COST | \$10,000-\$15,000 per generator | |
| FUNDING | General Fund | |
| TIMELINE | 2-5 years | |
| PRIORITY | High | |
| LEAD AGENCY | Water/Streets Department | |
| STATUS | The city is currently exploring possible funding sources. | |

| Mitigation Action | Back-up Municipal Records |
|-------------------|---|
| DESCRIPTION | Develop protocol for backup of municipal records |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$100 |
| FUNDING | General Fund |
| TIMELINE | Ongoing |
| PRIORITY | High |
| LEAD AGENCY | City Council |
| STATUS | The city will continue to store important documents electronically. |

| Mitigation Action | Bury Power Lines | | |
|-------------------|---|--|--|
| DESCRIPTION | Work with local Public Power Districts to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. | | |
| Hazard(s) | Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms | | |
| ESTIMATED COST | \$75,000-\$125,000 per mile | | |
| FUNDING | General Fund | | |
| TIMELINE | 1 year | | |
| PRIORITY | High | | |
| LEAD AGENCY | Utility Superintendent | | |
| Status | Approximately 70% of power lines are buried. The city works in phases to complete this project. | | |

| Mitigation Action | Emergency Communication |
|-------------------|--|
| 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) | All Hazards |
| ESTIMATED COST | \$10,000+ |
| FUNDING | General Fund |
| TIMELINE | 2-5 years |
| PRIORITY | Medium |
| LEAD AGENCY | Police/Fire/Sheriff |
| STATUS | The city plans to seek radio maintenance agreements in the coming year. |

| Mitigation Action | Emergency Operations Center |
|-------------------|---|
| DESCRIPTION | Identify and establish an Emergency Operations Center |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | Staff Time |
| FUNDING | General Fund |
| TIMELINE | 5+ years |
| PRIORITY | Medium |
| LEAD AGENCY | City Manager |
| STATUS | This project is not yet started. |

| Mitigation Action | First Aid Training |
|-------------------|--|
| DESCRIPTION | Promote first aid training for all residents |
| HAZARD(S) | All Hazards |
| ESTIMATED COST | \$100 per person |
| FUNDING | Individual Residents |
| TIMELINE | Ongoing |
| PRIORITY | Low |
| LEAD AGENCY | City HR |
| STATUS | This action is ongoing as training takes place regularly |

| Mitigation Action | Floodplain Management/Bank Stabilization |
|-------------------|--|
| DESCRIPTION | Stabilize banks along streams and rivers; this may include, but is not limited to: reducing bank slope, addition of rip rap, installation of erosion control materials/fabrics |
| HAZARD(S) | Flooding |
| ESTIMATED COST | \$10,000+, varies by scope |
| FUNDING | General Fund |
| TIMELINE | Ongoing |
| PRIORITY | High |
| LEAD AGENCY | City Manager's Office and Nebraska Department of Natural Resources |
| STATUS | Floodplain management and bank stabilization actions occur as resources allow. |

| Mitigation Action | Hazardous Tree Removal |
|-------------------|---|
| DESCRIPTION | Identify and remove hazardous limbs and/or trees |
| Hazard(s) | High Winds, Tornadoes, Severe Thunderstorms, Severe Winter Storms |
| ESTIMATED COST | \$500 per tree |
| FUNDING | General Fund |
| TIMELINE | Ongoing |
| PRIORITY | High |
| LEAD AGENCY | Tree Board |
| STATUS | Hazardous trees and limbs are removed regularly. |

| Mitigation Action | Tornado Safety |
|-------------------|---|
| DESCRIPTION | Implement a tornado safety program |
| HAZARD(S) | Tornadoes |
| ESTIMATED COST | \$3,000+ |
| FUNDING | General Fund |
| TIMELINE | Ongoing |
| PRIORITY | Low |
| LEAD AGENCY | City Manager's Office |
| STATUS | The city helps make residents aware of tornado safety on a regular basis. |

| Mitigation Action | Tree Planting |
|-------------------|---|
| DESCRIPTION | Develop city tree planting and maintenance guidelines |
| Hazard(s) | High Winds, Tornadoes, Severe Thunderstorms, Severe Winter Storms |
| ESTIMATED COST | \$3,000 |
| FUNDING | General Fund |
| TIMELINE | Ongoing |
| PRIORITY | Medium |
| LEAD AGENCY | Parks Department |
| STATUS | Tree planting is done by the city on a regular basis. |

| Mitigation Action | Storm Shelter |
|-------------------|---|
| DESCRIPTION | Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools and other areas |
| HAZARD(S) | High Winds, Tornadoes |
| ESTIMATED COST | \$200-\$250/sq ft |
| FUNDING | General Fund |
| TIMELINE | 5+ years |
| PRIORITY | Low |
| LEAD AGENCY | City Manager's Office |
| STATUS | This project is no longer a priority for the city. |

Removed Mitigation and Strategic Actions