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County Profile

Lincoln County

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table LIN.1: Lincoln County Local Planning Team

Name	Title	Jurisdiction
Brandon Myers	Emergency Manager	Lincoln County
Bill Henry	County Commissioner	Lincoln County
Dennis Thompson	Fire Chief	North Platte Fire District

Location, Geography, and Climate

In the western half of Nebraska covering 2,575 square miles, Lincoln County is bordered by Keith, Perkins and McPherson Counties. Major waterways within the county include the North Platte River, South Platte River, Sutherland Reservoir, and Lake Maloney. The county is not heavily forested, nor is it located in a geographic area prone to landslides. Most of Lincoln County lies in the sandhills and dissected plains topographic region.

Climate

The table below compares climate indicators with those of the entire state. Climate data are 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 LIN.2: Lincoln County Climate

	Lincoln County	State of Nebraska
July Normal High Temp[1]	89.3°F	87.4°F
January Normal Low Temp[1]	12.1°F	13.8°F
Annual Normal Precipitation[2]	21.6”	23.8”
Annual Normal Snowfall[2]	28.6”	25.9”

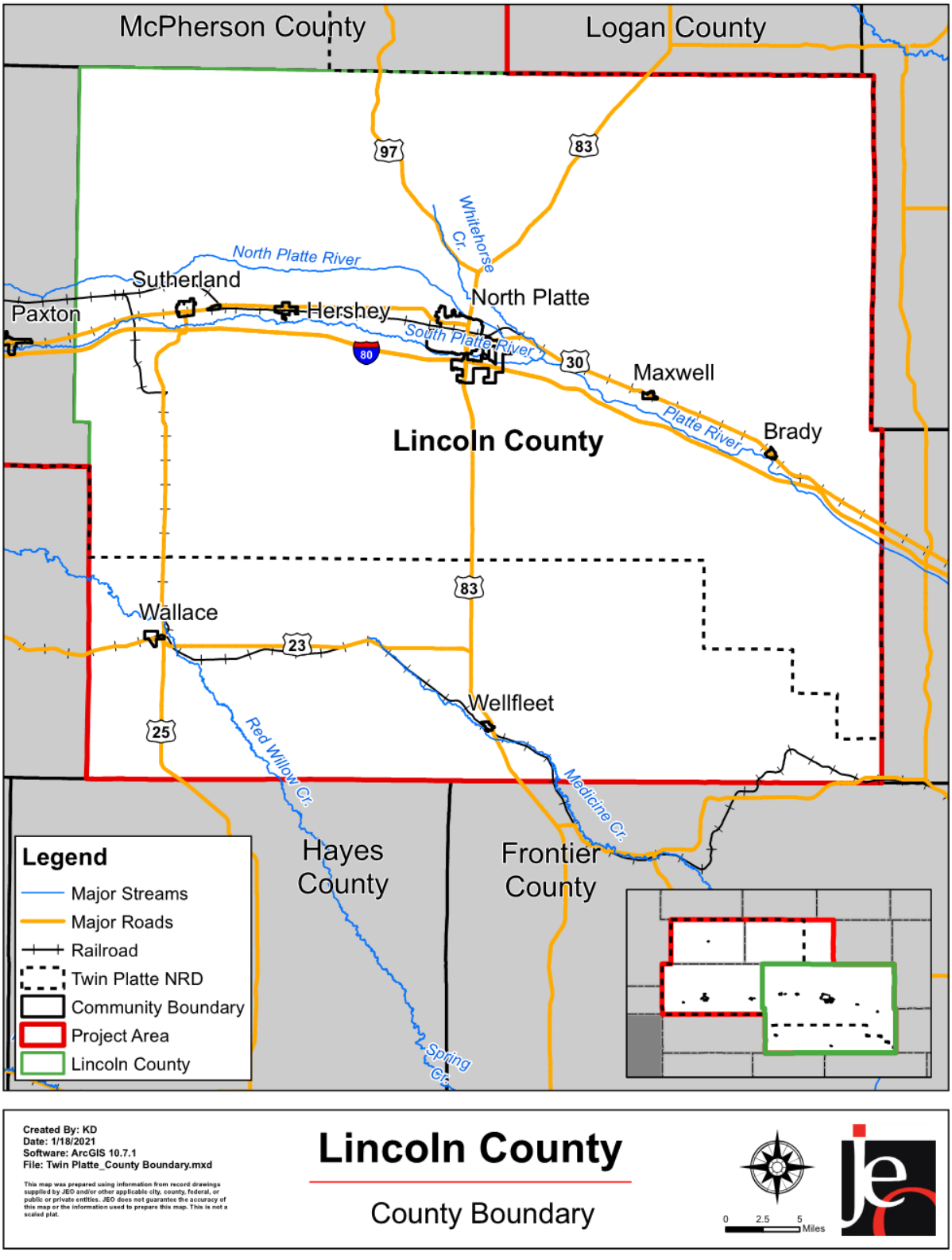
Source: NCEI 1981-2010 Climate Normals[1], High Plains Regional Climate Center, 1981-2010[2]
Precipitation includes all rain and melted snow and ice.

Transportation

Lincoln County’s major transportation corridors include Interstate 80, Highway 30, and Highway 83. The most traveled route is Interstate 80 with an average of 18,010 vehicles daily, 7,020 of which are trucks.[3] Numerous types of hazardous, biological, and radiological chemicals are transported in the county, primarily along Interstate 80. Chemical spills have occurred in the past, but impacts were confined to the immediate area. Interstate 80 is regularly closed due to weather and accidents. Highway 83 has also been closed due to accidents in the past. A Union Pacific rail line runs east to west through the central portion of the county. A derailment of Union Pacific tankers occurred west of Maxwell; no chemicals were spilled during the event. A Nebraska Kansas Colorado rail line also runs east to west through the southwestern portion of the county. The county also has two airports with North Platte Regional Airport (Lee Bird Field) and Wallace Municipal. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors, as well as areas more at risk of transportation incidents. Several critical facilities for the county are located along or near major transportation routes.

1 National Centers for Environmental Information. “1981-2010 U.S. Climate Normals.” Accessed July 2020. https://www.ncdc.noaa.gov/cdo-web/datatools.
2 High Plains Regional Climate Center. “Monthly Climate Normals 1981-2010 – Curtis NE.” Accessed July 2020. http://climod.unl.edu/.
3 Nebraska Department of Roads. 2018. “Interactive Statewide Traffic Counts Map.” [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34.

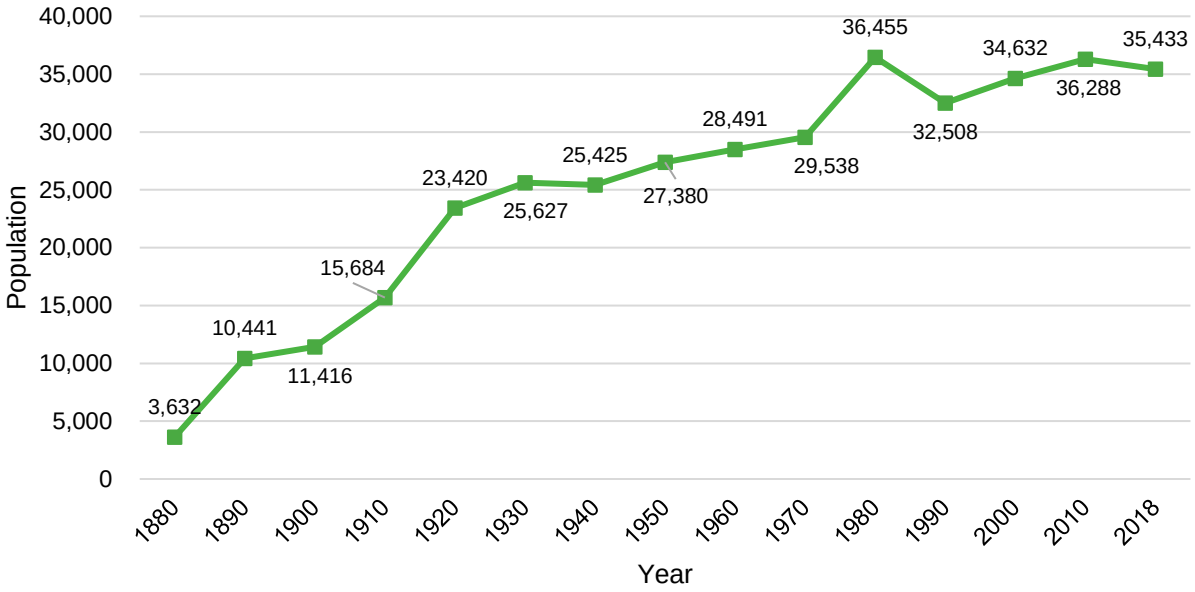
Figure LIN.1: Lincoln County



Demographics, Economics, and Housing

The following figure displays the historical population trend from 1880 to 2018.[4] This figure indicates that the population of Lincoln County has been decreasing since 2010. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, tax revenue decreases, making it more fiscally challenging to implement mitigation projects.

Figure LIN.2: Population 1880 - 2018



Source: U.S. Census Bureau

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

Table LIN.3: Population by Age

Age	Lincoln County	State of Nebraska
<5	5.9%	6.9%
5-64	75.7%	78.1%
>64	18.4%	15%
Median	40.3	36.4

Source: U.S. Census Bureau[3]

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

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

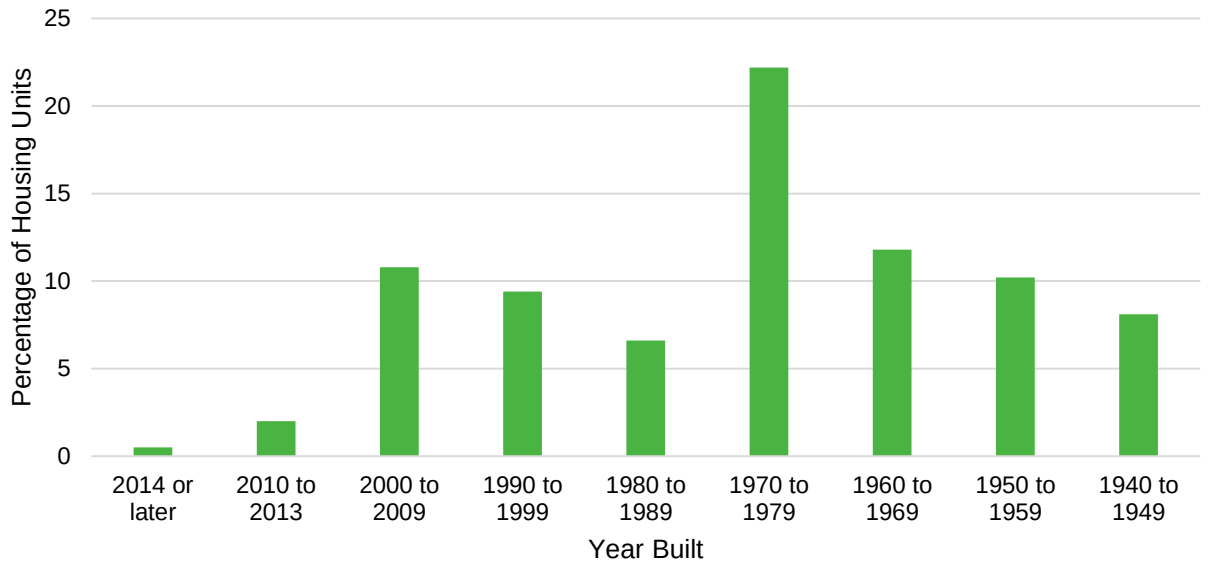
Table LIN.4: Housing and Income

	Lincoln County	State of Nebraska
Median Household Income	$56,794	$59,116
Per Capita Income	$30,073	$31,101
Median Home Value	$135,700	$147,800
Median Rent	$697	$805

Source: U.S. Census Bureau[5,6]

The following figure indicates that the majority of housing in Lincoln County was built between 1970 and 1979 (22.2%). Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes may be at greater risk. According to 2018 ACS 5-year estimates, the county has 14,985 housing units with 89.3% of those units occupied. There are approximately 1,386 mobile homes in the county. Finally, residents that live in mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if not anchored correctly.

Figure LIN.3: Housing Units by Year Built



Source: U.S Census Bureau[4]

Table LIN.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Lincoln County	14,985	89.3%	1,797	10.7%	9,780	65.3%	5,205	34.7%
Nebraska	754,063	90.8%	76,686	9.2%	498,567	66.1%	255,496	33.9%

Source: U.S. Census Bureau[4]

Major Employers

According to 2016 Business Patterns Census Data, Lincoln County had 1,054 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars.

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

Table LIN.6: Business in Lincoln County

	Total Businesses	Number of Paid Employees	Annual Payroll (In Thousands)
Total for All Sectors	1,054	11,970	$416,871,000

Source: U.S Census Bureau[7]

Agriculture is important to the State of Nebraska's economic fabric. Lincoln County's 1,040 farms cover 1,356,769 acres of land, about 82.3% of the county's total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute to agriculture by producing, processing, and marketing farm products. These businesses generate income, employment, and economic activity throughout the region.

Table LIN.7: Agricultural Inventory

	Agricultural Inventory
Number of Farms with Harvested Cropland	629
Acres of Harvested Cropland	374,240

Source: USDA Census of Agriculture, 2017[8]

Future Development Trends

Over the past five years, the county has lost several businesses, mostly due to the Covid-19 pandemic. According to the 2018 American Community Survey estimates, Lincoln County's population is declining. The local planning team attributed this to a lack of jobs, railroad downsizing, and a lack of affordable housing. In the next five years, no housing or business developments are planned. Hazard mitigation principles are considered in any new county-owned developments. The county also puts out information for any new private developments on how to obtain the latest safety measures. Figure LIN.4 shows the future land use map for the county. Commercial areas in the county are located around Interstate 80 near communities. Transitional agriculture is located around all communities and the Interstate 80 corridor. Industry is primarily located along the highways between Sutherland and North Platte, as well as Sutherland and Wallace.

Parcel Improvements and Valuation

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

Table LIN.8: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
15,024	$2,222,525,974	1,553	$275,052,810	10.3%

Source: County Assessor, 2018

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

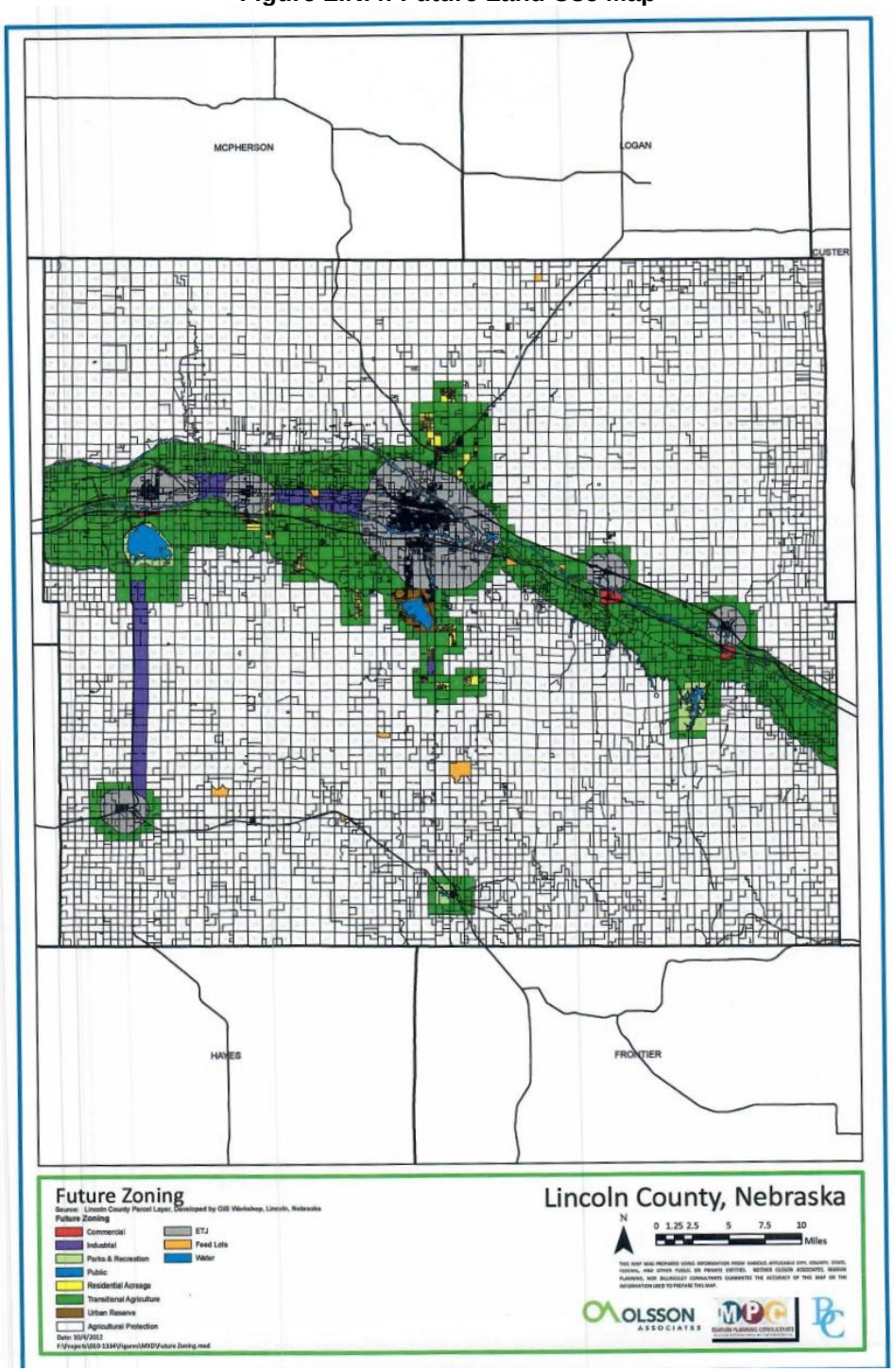
8 U.S. Department of Agriculture. "2017 Census of Agriculture." https://www.nass.usda.gov/Publications/AgCensus/2017/.

Table LIN.9: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
15,024	$2,222,525,974	7,151	$1,199,194,604	47.6%

Source: County Assessor, 2018

Figure LIN.4: Future Land Use Map



Community Lifelines

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are a total of 45 chemical storage sites throughout Lincoln County. The following table lists their name, location, and floodplain status. None of the critical facilities are located near chemical fixed sites but spills could impact Highways 25, 30, and 83. Vulnerable populations in Sutherland are located near chemical fixed sites. Residents near fixed sites are educated about the threat and appropriate response to a spill. Lincoln County has a state-certified HazMat team that would respond to large and hazardous chemical spills.

Table LIN.10: Chemical Storage Fixed Sites

Facility Name	Location	Floodplain (Y/N)
Ag Valley Co-op Warehouse	302 E 7th St, North Platte, NE	N
AT&T Communications 9159	7080 S Platte View Rd, North Platte, NE	N
AT&T Microwave Tower 0620	W Island Rd, Maxwell, NE	N
AT&T Microwave Tower 6050	S Sivedel Rd, Brady, NE	N
CenturyLink Central Office	405 N Vine St, North Platte, NE	Y (0.2%)
Charter Communications NE0014	1015 N Carr Ave, North Platte, NE	N
Chesterman Coca-Cola	2008 E Philip Ave, North Platte	Y (0.2%)
Croell Inc	3606 E Highway 30, North Platte, NE	Y (0.2%)
Extreme Ag Inc	2200 E Walker Rd, North Platte, NE	N
Hild Propane Company Inc	33146 W Highway 23, Wallace, NE	N
Hild Propane Company Inc	7629 N Eshleman Rd, North Platte, NE	N
Hi-Line Co-op Inc	101 S Maple St, Sutherland, NE	Y (0.2%)
Hi-Line Co-op Inc	1000 1st St, Sutherland, NE	N
Hi-Line Co-op Inc	Highway 30 E, Sutherland, NE	N
Hi-Line Co-op Inc Bulk Plant	Jct Highways 23 & 25, Wallace, NE	N
Hi-Line Co-op Inc Station	322 S Commercial Ave, Wallace, NE	N
Masonite Corporation	1120 Industrial Ave, North Platte, NE	Y (0.2%)
MCI	N Sand Rd, Hershey, NE	N
Meedco LLC 01	Jct E 7th & N Walnut Streets, North Platte, NE	N
Melton Unit Tank Battery	W Burma Rd, Wallace, NE	N
Mentzer Oil Co Fuel Site 1	1000 E Front St, North Platte, NE	Y (0.2%)
Mentzer Oil Co Fuel Site 2	506 E 8th St, North Platte, NE	N
Midwest Renewable Energy LLC	27532 W Highway 30, Sutherland, NE	N
NDOT North Platte 30 Yard	2400 W 14th St, North Platte, NE	N
NDOT North Platte I-80 Yard	500 W South River Rd, North Platte, NE	Y (0.2%)
NDOT North Platte North	703 E Hall School Rd, North Platte, NE	Y (0.2%)
NDOT Sutherland Yard	921 N Highway 25, Sutherland, NE	Y (0.2%)
NDOT Wallace Yard	201 E Highway 23, Wallace, NE	N
Nebraska Machinery Co	3501 S Jeffers St, North Platte, NE	Y (0.2%)
North Platte Terminal	17504 S Highway 83, North Platte, NE	N
NPPD Gerald Gentleman Station	6089 S Highway 25, Sutherland, NE	N
NPPD North Platte Hydro Plant	402 E State Farm Rd, North Platte, NE	N
NPPD Sutherland Outlet Canal	3464 S Bubble Rd, Sutherland, NE	N

Facility Name	Location	Floodplain (Y/N)
Paulsen Inc Ready-Mix SE	1905 S Newberry Access, North Platte, NE	Y (0.2%)
Pilot Flying J 687	3400 Newberry Rd, North Platte, NE	Y (0.2%)
Sapp Bros Petroleum Bulk Plant	N Lakeview Rd, North Platte, NE	Y (0.2%)
Simplot Grower Solutions	401 E Front St, Hershey, NE	N
SkyWest Airlines/United Express	5400 E Lee Bird Dr Ste 10, North Platte, NE	Y (0.2%)
State Grand Tank Battery	S Steck Rd, Wallace, NE	N
Titan Machinery Inc	3211 Rodeo Rd, North Platte, NE	N
Trego/Dugan Aviation Inc	5560 E Lee Bird Dr, North Platte, NE	Y (0.2%)
Union Pacific Railroad	4601 W Front St, North Platte, NE	Y (0.2%)
Verizon Wireless	306 E 6th St, North Platte, NE	Y (0.2%)
Wal Mart Distribution Ctr 7018	3001 E State Farm Rd, North Platte, NE	Y (0.2%)
Wallace Aviation Inc	600 S Commercial Ave, Wallace, NE	N

Source: Nebraska Department of Environment and Energy, 2020[9]

Critical Facilities

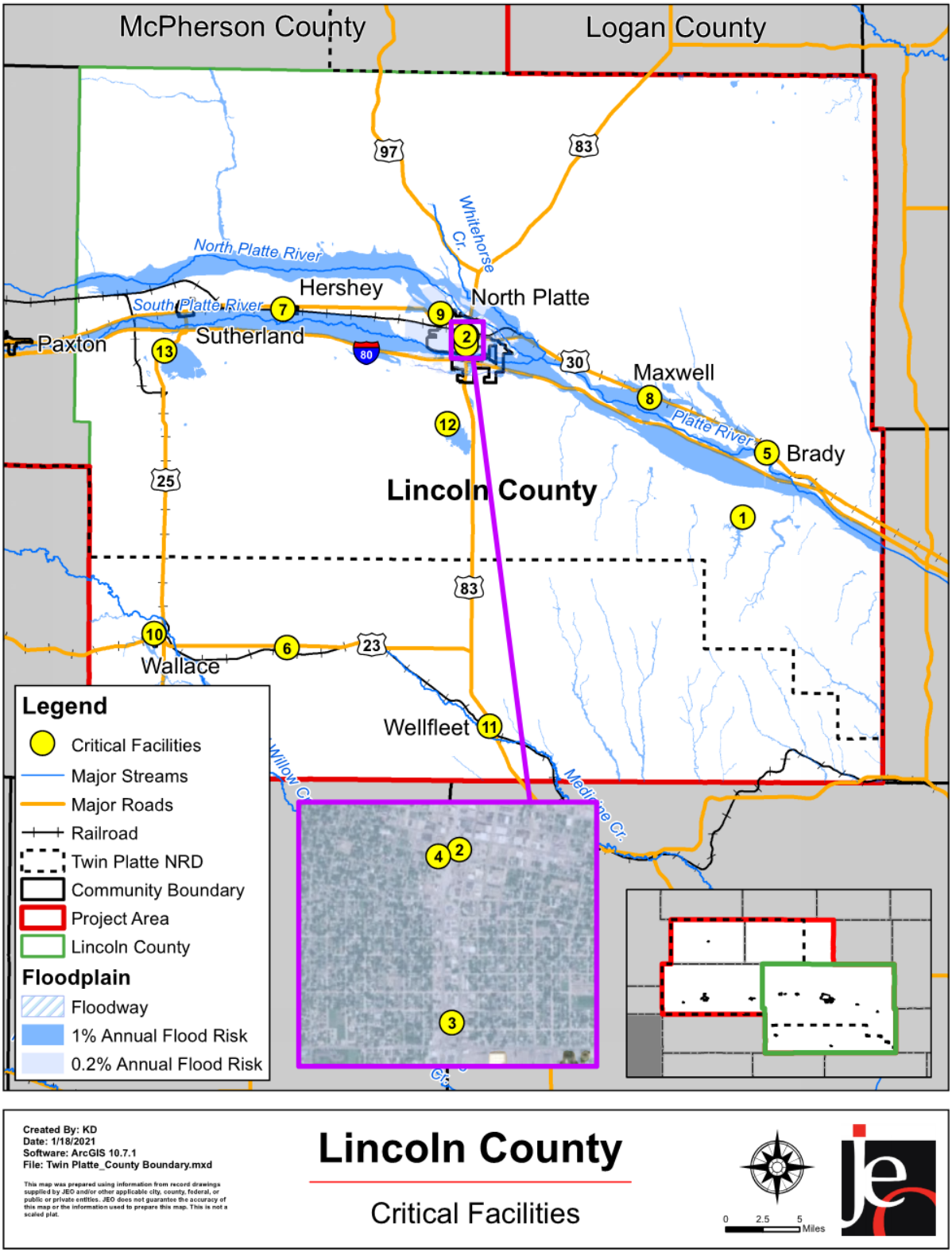
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

Table LIN.11: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Jeffrey Dam	N	N	N
2	Lincoln County Courthouse and Planning & Zoning	N	Partial	Y (0.2%)
3	Lincoln County Emergency Management	N	Y	Y (0.2%)
4	Lincoln County Sheriff	N	Y	Y (0.2%)
5	Lincoln County Roads Shop - Brady	N	N	N
6	Lincoln County Roads Shop – Dickens	N	N	N
7	Lincoln County Roads Shop – Hershey	N	N	N
8	Lincoln County Roads Shop – Maxwell	N	N	Y (1%)
9	Lincoln County Roads Shop – North Platte	N	N	N
10	Lincoln County Roads Shop – Wallace	N	N	N
11	Lincoln County Roads Shop - Wellfleet	N	N	N
12	Maloney Dam	N	N	N
13	Sutherland Dam	N	N	N

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

Figure LIN.5: Critical Facilities



Governance

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

- County Clerk/Election Commissioner
- County Treasurer
- County Assessor
- County Roads
- County Court
- County Attorney
- Planning & Zoning
- Register of Deeds
- Sheriff
- Surveyor
- Veteran Services
- Wood Supervisor
- Emergency Management

Capability Assessment

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

Table LIN.12: Capability Assessment

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

Survey Components/Subcomponents		Yes/No
	Local Staff Who Can Assess County's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1- & 6-Year Plan	No
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to levy taxes for specific purposes such as mitigation projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural disaster or safety related school programs	No
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Other (if any)	

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

Plan Integration

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

Building Code (2020)
Building codes set standards for constructed buildings and structures. The county has adopted the 2018 International Building Codes with no amendments.

Capital Improvements Plan (2020)
The capital improvements plan identifies projects that the county would like to pursue. Projects identified include stormwater projects, upsizing culverts, improving transportation routes, bridge improvements, emergency generators, and constructing new police headquarters.

Comprehensive Plan (2019)
The comprehensive plan is designed to guide the future actions of the county. It contains goals aimed at safe growth, directs development away from the floodplain, encourages clustering of development, directs development away from chemical storage facilities, encourages the preservation of open space, directs housing away from major transportation routes, and identifies areas that need emergency shelters. There is currently no timeline to update this document as it was recently completed.

Floodplain Ordinance and Subdivision Regulations (2016)
The county's floodplain regulations and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, discourage development in the floodplain, and limit population density in the floodplain. The plans are updated as needed by the county.

Lincoln County Local Emergency Operations Plan (2019)
The local emergency operations plan establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

Community Wildfire Protection Plans (2018-2021)
Lincoln County was initially split between the Southwest, Loess Canyons, and Central Sandhills Community Wildfire Protection Plans (CWPP) regions. With the currently in-progress Loess Canyons CWPP update, Lincoln County is entirely within the Loess Canyons CWPP region. This update should be completed before the end of 2021. The purpose of the CWPPs is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPPs discuss county-specific historical wildfire occurrences and impacts, identify areas most at risk from wildfires, discuss protection capabilities, and identify wildfire mitigation strategies. These documents are updated every five years.

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

Table LIN.13: County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage[2]
Agricultural Disease	Animal Disease[1]	20	29 animals	N/A
	Plant Disease[2]	12	N/A	$165,250
Chemical Spills – Fixed Site[3]		83	N/A	N/A
Chemical Spills – Transportation[4]		355	$447,176	N/A
Dam Failure[5]		0	N/A	NA
Drought[6,8]		434 months in drought out of 1,498	$20,000,000	$29,418,811
Earthquakes[11]		0	N/A	NA
Extreme Heat[7]		Average: 9 days/year	N/A	$7,866,553
Flooding[8]	Flash Flood	37	$2,042,000	$454,464
	Flood	18	$586,000	
Grass/Wildfires[12] *4 injuries*		899	70,150 acres	$141,035
Hail[8] Range (in): 0.75-4.5 Average (in): 1.26 *2 injuries*		816	$54,304,700	$57,185,594
High Winds[8] Range (mph): 40-78 Average (mph): 57.5 *7 injuries*		37	$652,000	$3,530,730
Levee Failure[10]		0	N/A	NA
Public Health Emergency		Undefined	N/A	N/A
Severe Thunderstorms[8]	Thunderstorm Wind Range (mph): 57.5-118 Average(mph): 67 *1 injury*	334	$3,553,700	$3,965,820
	Heavy Rain	4	$0	
	Lightning	10	$66,000	
Severe Winter Storms[8] *3 deaths*	Blizzard	7	$20,000	$3,016,853
	Extreme Cold/Wind chill	3	$0	
	Heavy Snow	6	$0	
	Ice Storm	0	$0	
	Winter Storm	34	$75,000	
	Winter Weather	1	$1,000,000	
Terrorism[9]		0	$0	N/A
Tornadoes[8] Range: EF0-EF3 Average: EF0 *14 injuries*		53	$3,310,750	$2,548
Total		**2,729**	**$86,057,326**	**$105,747,658**

N/A: Data not available
1 - NDA, 2014 – November 2020
2 - USDA RMA, 2000 –2019
3 - NRC, 1990 – February 2020
4 - PHSMA, 1971 – July 2020
5 – NeDNR Correspondence
6 - NOAA, 1895 – October 2019
7 - NOAA, 1893 – July 2020
8 - NCEI, 1996 - December 2019
9 - University of Maryland, 1970-2018
10 – USACE NLN, 1900 – July 2020
11 – USGS, 1900 – July 2020

12 – NFS 2000 – 2017

The following table provides a summary of hazards that have affected or have the potential to affect each participating jurisdiction in Lincoln County. Each jurisdiction was evaluated for previous hazard occurrence and the probability of future hazard events on each of the 17 hazards profiled in this plan. The evaluation process was based on data collected and summarized in Table LIN.11; previous impacts or the potential for impacts to infrastructure, critical facilities, people, and the economy; and the proximity to certain hazards such as dams and levees. For example, while there have not been instances of dam failure in the county, there exists a possibility for a dam to fail in the future due to the presence of dams in the county.

Table LIN.14: Lincoln County and Community Hazard Matrix

Hazard	Lincoln County	City of North Platte	Hershey Public Schools	North Platte Public Schools	Village of Brady	Village of Hershey	Village of Sutherland	Village of Wallace	Village of Wellfleet
Ag. Disease	X	X	X	X	X	X	X	X	X
Chemical Spills (Fixed Site)	X	X	X	X	X	X	X	X	X
Chemical Spills (Transportation)	X	X	X	X	X	X	X	X	X
Dam Failure	X	X	X	X	X	X	X	X	X
Drought	X	X	X	X	X	X	X	X	X
Earthquakes	X	X	X	X	X	X	X	X	X
Extreme Heat	X	X	X	X	X	X	X	X	X
Flooding	X	X	X	X	X	X	X	X	X
Grass/Wildfires	X	X	X	X	X	X	X	X	X
Hail	X	X	X	X	X	X	X	X	X
High Winds	X	X	X	X	X	X	X	X	X
Levee Failure									
Public Health Emergency	X	X	X	X	X	X	X	X	X
Severe Thunderstorms	X	X	X	X	X	X	X	X	X
Severe Winter Storms	X	X	X	X	X	X	X	X	X
Terrorism	X	X	X	X	X	X	X	X	X
Tornadoes	X	X	X	X	X	X	X	X	X

County Hazard Prioritization

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

Dam Failure

There are 22 dams in Lincoln County. Of these, three dams have been identified as high hazard dams: Sutherland Dam, Maloney Dam, and Jeffrey Dam. Figure LIN.6 shows the location of the dams in the county.

According to the Lincoln County LEOP, failure from four dams would affect Lincoln County: Kingsley Dam (Keith County), Maloney Dam, Jeffrey Dam, and Sutherland Dam. Approximately 85% of Lincoln County's population could be affected by the failure of these dams. Dam failure has not occurred in the past. The county works closely with NPPD and Central Nebraska Public Power and Irrigation on monitoring dams.

If Kingsley Dam, an upstream dam, were to fail, it would affect the North Platte River as far as the Missouri River. In Lincoln County, the area affected would be slightly greater than the 100-year floodplain. Hershey, North Platte, Maxwell, and Brady would approach 100% inundation. This would affect residential homes, government buildings, businesses, and traffic along major transportation routes.

If Lake Maloney Dam were to fail, it would affect the South Platte River as far as Hershey. The area affected would be slightly greater than the 100-year floodplain, with the greatest effect on commercial areas in North Platte and Highway 83 south of Interstate 80. According to the local planning team, a failure of Maloney Dam would be the most devastating to human populations.

If Jeffrey Dam were to fail, it would affect the South Platte River north and south of Interstate 80 as far as Brady. The affected area would be slightly greater than the 100-year floodplain, with the greatest effect on commercial property at the junction of NE 25 and Interstate 80 and east of Brady.

If Sutherland Dam were to fail, it would affect the South Platte River north and south of Interstate 80 as far as Hershey. The area affected would be slightly greater than the 100-year floodplain, with the greatest effect on commercial property at the junction of NE 25 and Interstate 80.

Flooding

NCEI recorded 55 flooding events that have caused $2,628,000 in property damages and two injuries. Flash flooding along the southern portion of the county in 1999 caused $1,000,000 damages and caused two injuries. Flash flooding in May 2007 near Dickens caused $400,000 in damages to roadways, the railroad, and residential houses. Most recently, heavy rains in 2019 damaged and washed-out county roads. No critical facilities have been damaged by flooding events. Local concerns regarding this hazard include loss of individual property and crops along the North and South Platte Rivers. Much farmland near those areas has been affected in the past.

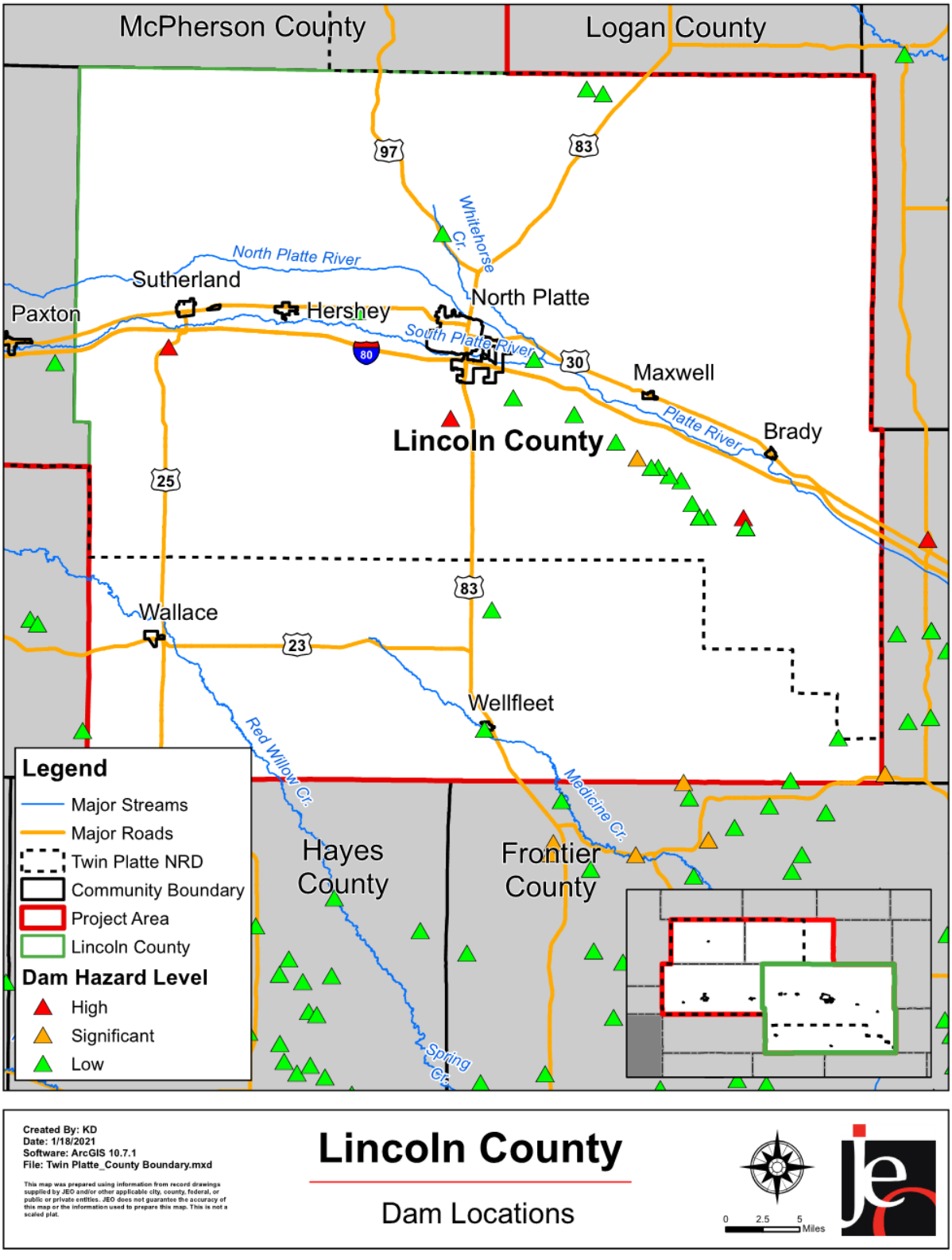
Grass/Wildfire

Grassfires occur on a yearly basis in Lincoln County. The Cody Park fire resulted in houses threatened and 100+ acres burned. Other past fires have impacted pastures, farmland, and residential areas. There are 11 fire districts in the county which respond to grass/wildfires.

Hail

Hail is a frequent occurrence in Lincoln County. Local concerns regarding this hazard include damage to crops, buildings, and vehicles. Previous hailstorms have broken windows on vehicles and houses. County facilities are self-insured for hail. NCEI has recorded 816 hail events from 1996 through 2019 that caused $54,304,700 in property damages. RMA data reported $57,185,594 in crop damages from hail in Lincoln County. The most damaging event occurred in April 2012 when 2.5-inch hail in North Platte caused $30 million in damages.

Figure LIN.6: Dam Locations



Public Health Emergency

Public health emergencies concern the local planning team due to their effects on resident health, potential to cause business closures, overburdening medical facilities, and the potential for public unrest. The Covid-19 pandemic had major impacts on the county. As of January 12, 2021, Lincoln County had 15,186 total positive cases with 37 deaths. An outbreak occurred at one of the long-term care facilities in the county. County government offices were closed to the public for a short period of time. Pandemic barricades were installed in county buildings and cleaning procedures were upgraded. Local school sports and recreation leagues had to cancel events. Several local businesses had to permanently close or lay off workers. The Lincoln County Fair was downsized to only allow families of 4H to attend. In addition, various rodeos, fairs, and small concerts were cancelled. This significantly decreased tourism in the area. For the Covid-19 pandemic and for future events, the Nebraska Department of Health and Human Services and West Central District Health Department lead the tracking and response of an outbreak. The local planning team identified the need for a stockpile of PPE gear, cleaning supplies, and other items to help mitigate any future pandemics.

Severe Thunderstorms

Local concerns regarding this hazard include secondary hazards such as hail, high winds, and street flooding. The NCEI recorded 348 severe thunderstorms since 1996 that caused $3,619,700 in property damages. The most damaging event occurred in August 2013, when thunderstorm winds near North Platte caused $1 million in damages and power outages between Buffalo Bill and Poplar Street. Interstate 80 also closed due to overturned semis. None of the powerlines in the unincorporated areas of Lincoln County are buried.

Severe Winter Storms

According to NCEI data there have been 51 severe winter storms that have occurred since 1996, resulting in $1,095,000 in property damages. Potential impacts include road closures, damage to buildings, and power loss. However, the local planning team is more concerned with the potential for loss of life than property damages. The county improved their snow removal response, which secured transportation routes and reduced the risk for loss of life during winter storms.

Tornadoes

According to NCEI data, 53 tornadic events occurred in Lincoln County since 1996, the largest being an EF3. These events have caused $3,310,750 in property damages. The local planning team indicated that there are not enough sirens in the county areas. There are no sirens at recreational areas such as the Sutherland Reservoir or Jeffrey Lake. Additionally, there are no storm shelters within the county.

Mitigation Strategy

Lincoln County's funds are limited to maintaining current facilities and systems and have stayed consistent over recent years. The county is likely to need grant assistance to help pay for many of the mitigation actions listed below. Lincoln County has applied for and been awarded several grants in the past, including grants from the U.S. Department of Justice, U.S. Department of Transportation, U.S. Department of Health and Human Services, U.S. Department of Homeland Security, and FEMA.

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
Estimated Cost	$20,000 - $50,000 per generator
Funding	County General Fund, Private entities
Timeline	2-5 Years
Priority	High
Lead Agency	Lincoln County Emergency Management
Status	In Progress: Backup generators have been added to some facilities, but additional generators are still needed

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 material/fabrics.
Hazard(s) Addressed	Flooding
Estimated Cost	$15,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Lincoln County Emergency Management, Planning and Zoning, Highway Superintendent
Status	In Progress: Work has been done but additional is needed

Mitigation Action	Channel and Bridge Improvements
Description	Implement channel and bridge improvements to increase channel conveyance and decrease the base flood elevations.
Hazard(s) Addressed	Flooding
Estimated Cost	$15,000+
Funding	County General Fund
Timeline	5 Years
Priority	Medium
Lead Agency	Lincoln County Emergency Management, Planning and Zoning, Highway Superintendent
Status	Not Started

Mitigation Action	Drainage Ditches
Description	Deepen drainage ditches and clean out culverts.
Hazard(s) Addressed	Flooding
Estimated Cost	$4,300
Funding	County General Fund
Timeline	1-2 Years
Priority	Low
Lead Agency	Highway Superintendent
Status	In Progress: Additional ditches need to be widened and cleaned out

Mitigation Action	Emergency Management Exercise
Description	Develop and facilitate an emergency management exercise.
Hazard(s) Addressed	All Hazards
Estimated Cost	$3,500
Funding	County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Lincoln County Emergency Management
Status	In Progress: Exercises are done on a yearly basis

Mitigation Action	Emergency Operations
Description	Identify and establish an Emergency Operations Center (EOC).
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Lincoln County Emergency Management
Status	In Progress: The county has an EOC in the Public Safety Building but is still working on completing it

Mitigation Action	Facility Flood Proofing
Description	Explore the possibility of floodproofing facilities which fall into the HAZUS 1-percent flood inundation areas.
Hazard(s) Addressed	Flooding
Estimated Cost	$15,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Emergency Management, Planning and Zoning, Highway Superintendent
Status	Not Started

Mitigation Action	Improve Snow/Ice Removal Program
Description	As needed, revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include equipment that is needed and paving routes.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$15,000
Funding	County General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Highway Superintendent, Emergency Management
Status	In Progress: The program is updated when issues arise

Mitigation Action	Purchase Snowplow
Description	Purchase additional snowplows.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$15,000+
Funding	County Funds
Timeline	1 Year
Priority	Medium
Lead Agency	Highway Superintendent
Status	In Progress: The county needs to replace snowplows periodically

Removed Mitigation Actions

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

Community Profile

Village of Brady

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table BRD.1: Brady Local Planning Team

Name	Title	Jurisdiction
Arlee Gentry	Board Chairperson	Village of Brady
Sharon Axthelm	Clerk	Village of Brady
Todd Roe	Board Member – Water Committee	Village of Brady

Location and Geography

The Village of Brady is in western Lincoln County and covers an area of 210 acres. The closest waterbodies to Brady are the Platte River and Pawnee Creek, which are located directly southwest of the village.

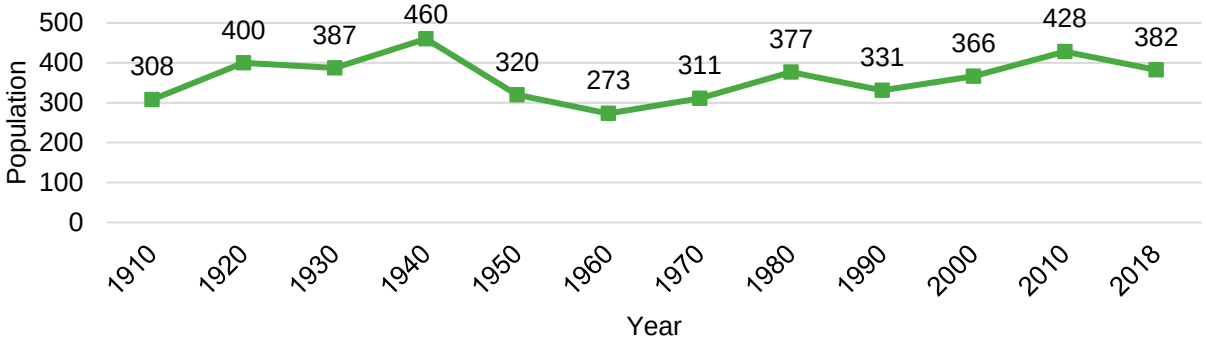
Transportation

Brady's major transportation corridors include U.S. Highway 30, Nebraska Highway 56D, and Interstate 80, which is located two and a half miles south of the village. The most traveled route is Highway 30 with an average of 2,040 vehicles daily, 180 of which are trucks.[10] Interstate 80 is located directly south of the community and any construction or closures could impact the village. If Interstate 80 closes, it can cause significant traffic issues at the Highway 56D and Highway 30 intersection. The village has one Union Pacific Railroad line traveling east to west through center of the community. Transportation routes of most concern include the overpass on Highway 56D and N Main Street/S Brady Road north of the community. Agricultural chemicals are regularly transported on these routes and the highways. No chemical spills have occurred in the past. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Brady's population has been declining since 2010 and sat at about 382 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, tax revenue decreases for the community, which could make implementation of mitigation projects more fiscally challenging. Brady's population accounted for 1.08% of Lincoln County's population in 2018.[11]

Figure BRD.1: Population 1910 - 2018

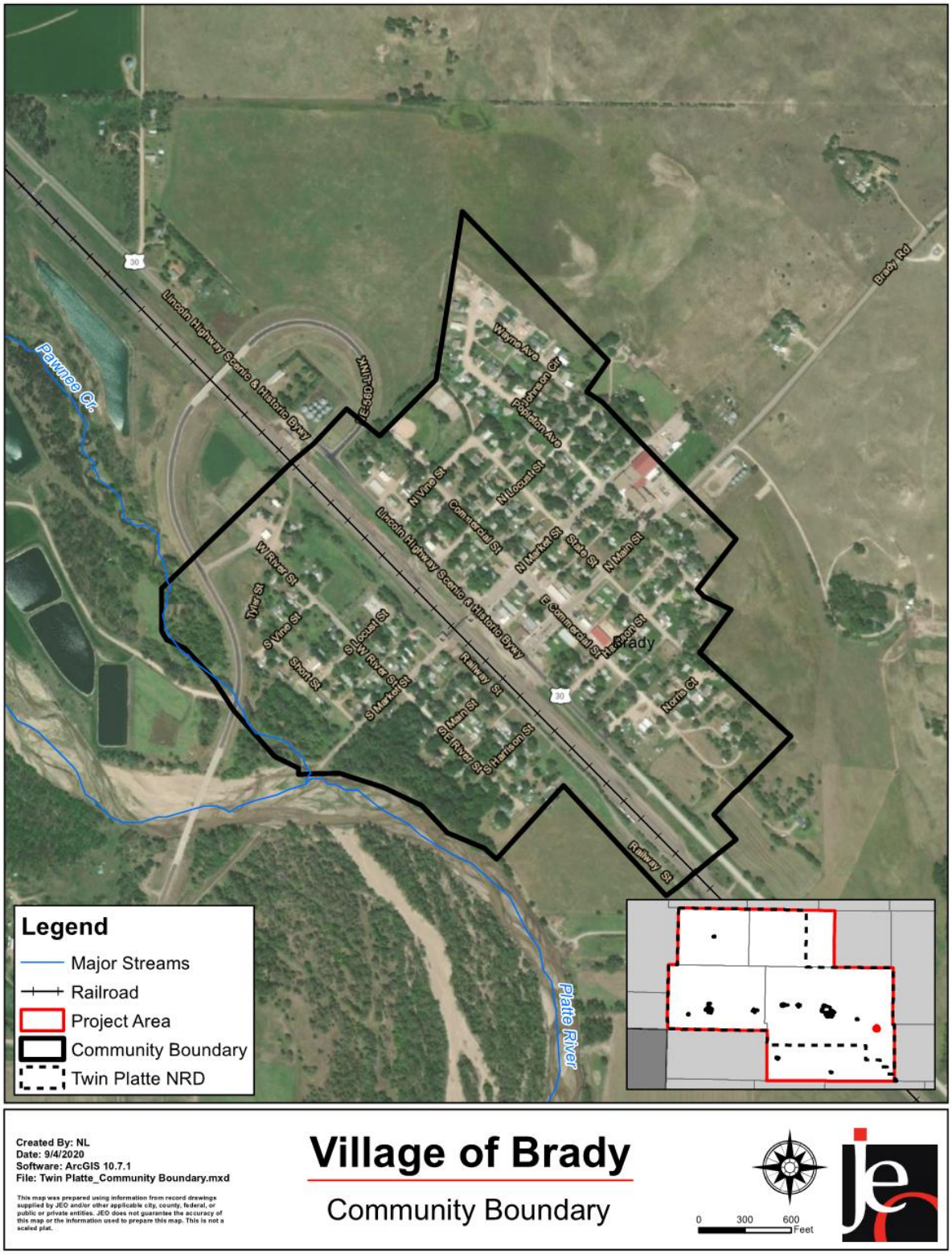


Source: U.S. Census Bureau

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

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

Figure BRD.2: Village of Brady



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

- **Similar.** The median age of Brady was 40.2 years old in 2018, compared with Lincoln County's median of 40.3 years. Brady's population grew older since 2010, when the median age was 36.2 years old.[11]
- **Less ethnically diverse**. Since 2010, Brady grew less ethnically diverse. In 2010, 0.9% of Brady's population was non-white. By 2018, about 0.3% was non-white. During that time, the non-white population in the county declined from 5.7% in 2010 to 4.8% in 2018.[11]
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Brady (11.3% of people living below the federal poverty line) was lower than the county's poverty rate (12.2%) in 2018.[12]

Employment and Economics

In comparison to Lincoln County, Brady's economy had:

- **Similar mix of industries.** Brady's major employment sectors, accounting for 10% or more of employment each, were retail trade, transportation and utilities, and educational services.[12]
- **Lower median household income.** Brady's median household income in 2018 ($54,286) was about $2,500 lower than the county ($56,794).[12]
- **More long-distance commuters.** About 31.1% of workers in Brady commuted for fewer than 15 minutes, compared with about 60.7% of workers in Lincoln County. About 40.6% of workers in Brady commuted 30 minutes or more to work, compared to about 11.5% of county workers.[13]

Major Employers

The major employer in Brady is Brady Public Schools. The local planning team estimates that 65% of residents commute to North Platte, Gothenburg, and other surrounding communities for employment.

Housing

In comparison to Lincoln County, Brady's housing stock was:

- **Newer.** Brady had a smaller share of housing built prior to 1970 than the county (40.4% compared to 48.6%).[14]
- **More mobile and manufactured housing.** The Village of Brady had a larger share of mobile and manufactured housing (18.1%) compared to the county (8.3%).[14]
- **Less renter-occupied**. About 24.1% of occupied housing units in Brady were renter-occupied compared with 34.7% of occupied housing in Lincoln County.[14]
- **More occupied.** Approximately 5.3% of Brady's housing units were vacant compared to 10.7% of units in Lincoln County.[14]

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

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

Future Development Trends

Over the past five years, four new houses and two new businesses were built. None of the new structures were built in the floodplain. According to the 2018 American Community Survey estimates, Brady's population is declining. The local planning team attributes this to the increased cost of commuting and lack of employment opportunities in the village. In the next five years, two new homes are planned to be built on the north side of the community. In addition, two new businesses are also planned. Figure BRD.3 shows the zoning map for the village. Residential areas are kept out of the floodplain and away from major transportation routes.

Parcel Improvements and Valuation

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

Table BRD.2: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
212	$12,899,440	4	$246,450	1.9%

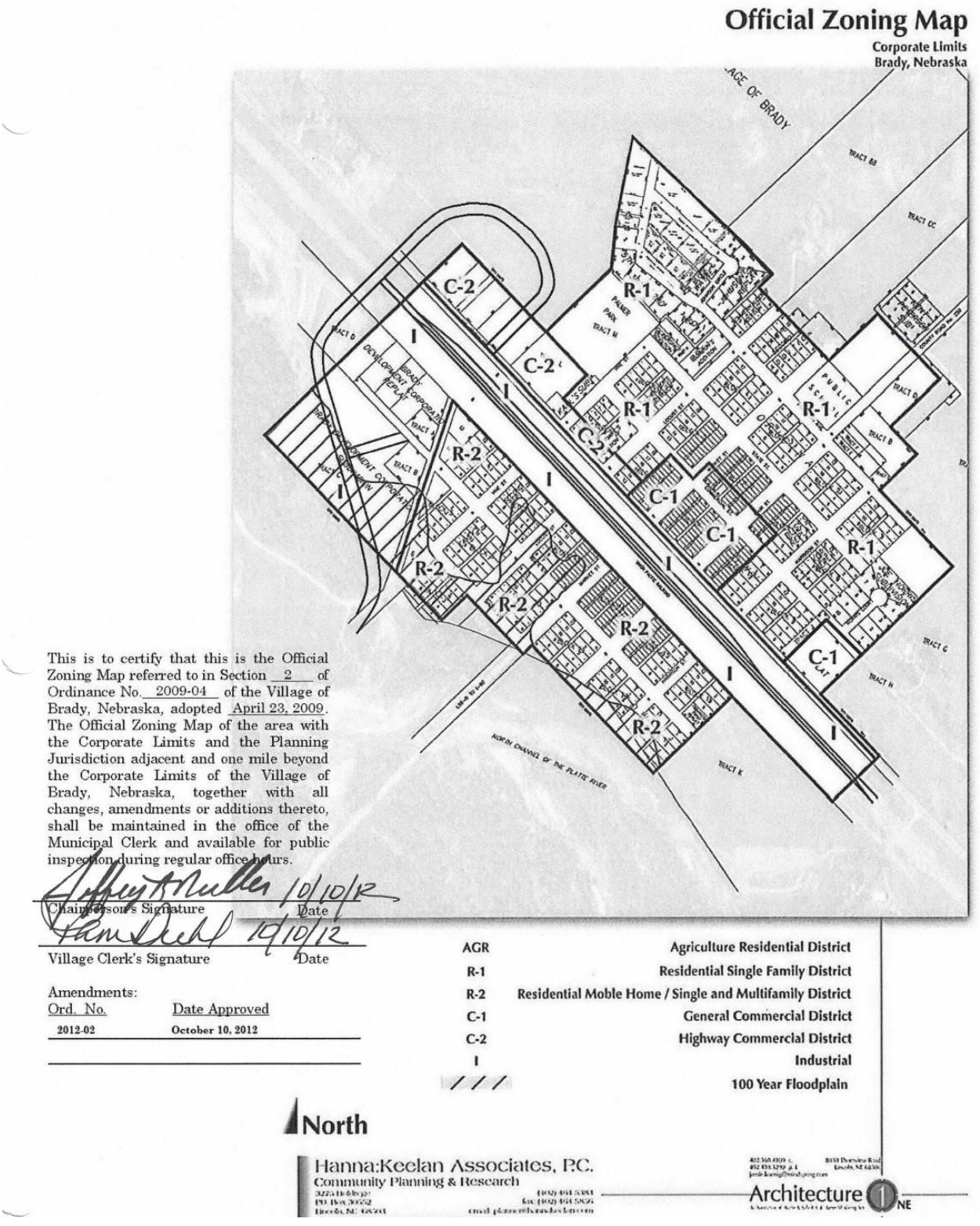
Source: County Assessor, 2018

Table BRD.3: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
212	$12,899,440	0	$0	0%

Source: County Assessor, 2018

Figure BRD.3: Zoning Map



Community Lifelines

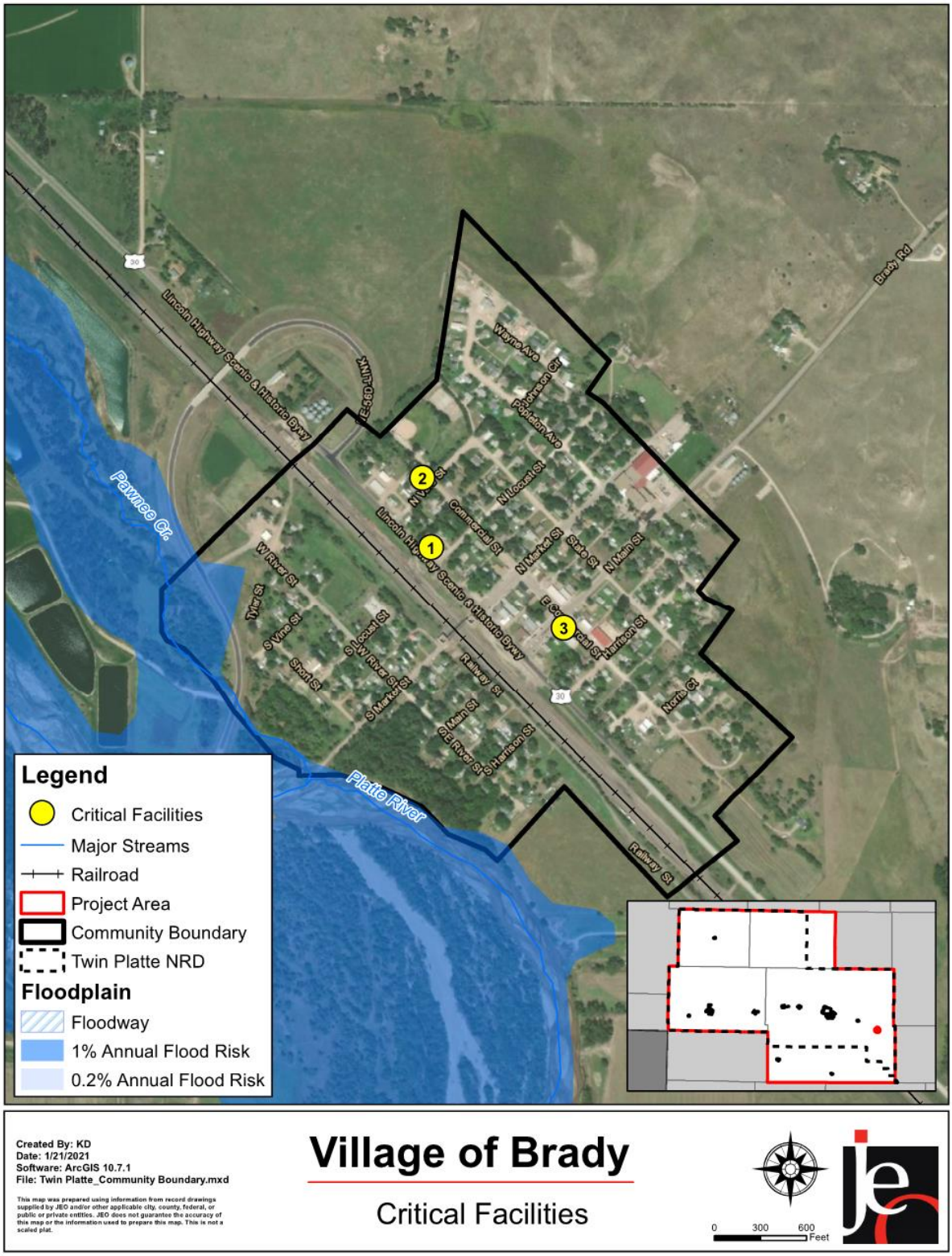
Critical Facilities

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

Table BRD.4: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Village Shop	N	Y	N
2	Well House #1	N	Y	N
3	Well House #2	N	Y	N

Figure BRD.4: Critical Facilities



Governance

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

- Clerk
- Treasurer
- Floodplain Administrator
- Attorney
- Utility Superintendent/Sewage Plan Operator
- Sewer/Water Commissioner
- Street Maintenance Superintendent
- Engineer

Capability Assessment

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

Table BRD.5: Capability Assessment

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

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

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

Plan Integration

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

Floodplain Ordinance and Zoning Ordinance (2020)

The village's floodplain ordinance and zoning ordinance outline where and how development should occur in the future. These documents discourage development in the floodplain, limit population density in the floodplain, identify floodplain areas as parks or open space, and require

more than one foot of elevation above Base Flood Elevation. There are no plans to update these documents.

Lincoln County Local Emergency Operations Plan (2019)

The Village of Brady is an annex in the Lincoln 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.

Historical Occurrences

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

Hazard Prioritization

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

Chemical Spills – Transportation

Highway 30, Highway 56D, and a Union Pacific rail line all travel through the community. Highway 30 and the rail line split the village in half as they travel directly through its center. A variety of chemicals are transported on the rail line and primarily agricultural chemicals are carried on the highways. If a large spill were to occur in the community, it may prompt a large-scale evacuation. The village would contact the North Platte HazMat team for assistance in the event of a large chemical spill. No chemical spills have occurred in the past.

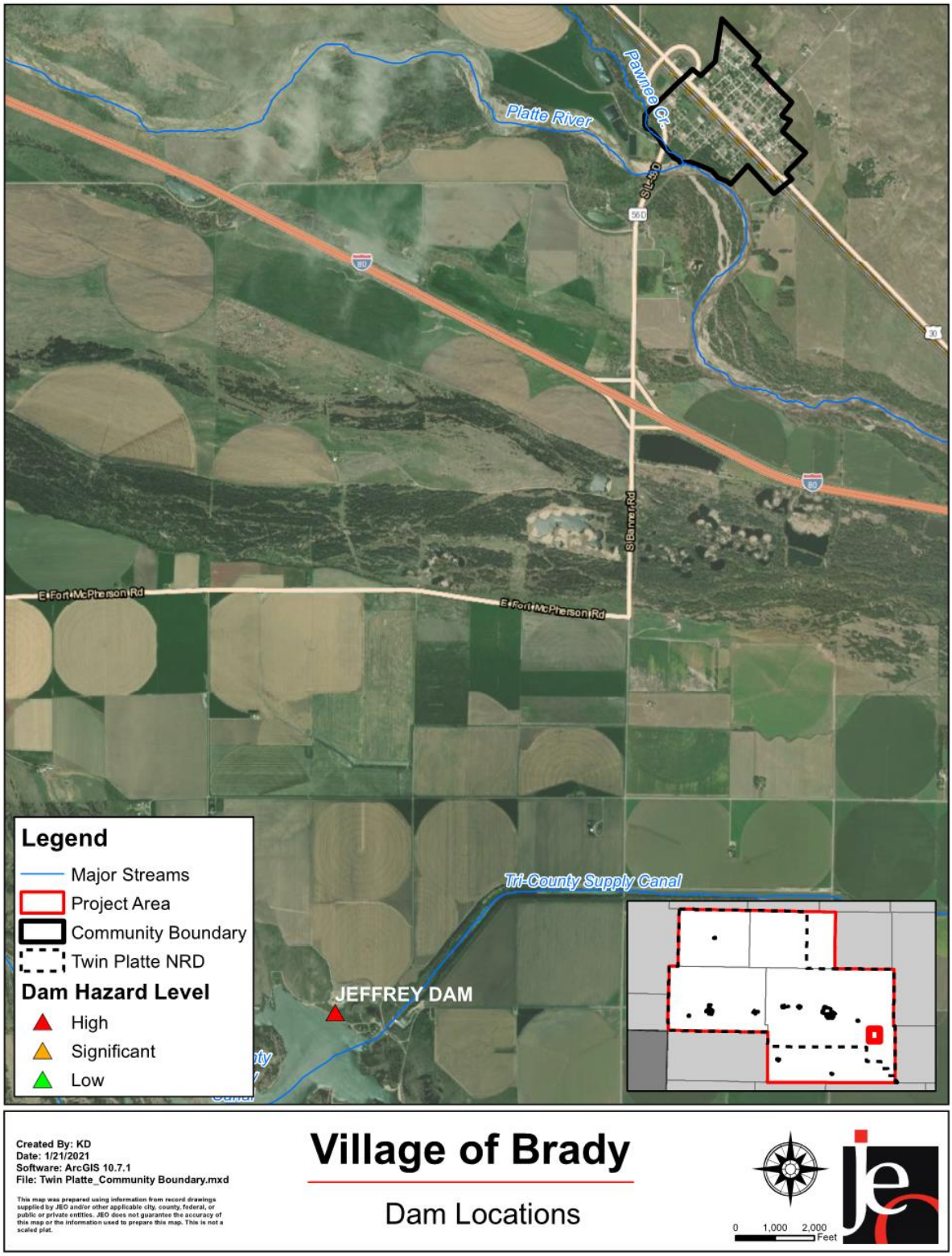
Dam Failure

Although not identified as a top concern for the local planning team, there is a high hazard dam located near the community. The Jeffrey Dam is located five miles south of the village as shown in Figure BRD.5. A failure of the dam would likely affect an area slightly greater than the 100-year floodplain. Dam failure has not occurred in the past.

Public Health Emergency

The Covid-19 pandemic caused the cancellation of many community, private, and public events. Businesses were temporarily closed, and hours were cut back at varying levels. In addition, the community center was closed to the public until cases lowered. It is not known how many individuals in the community had Covid-19 as that data are only available on a county wide basis. In the past, Brady had a health committee which included a nurse, community members, and clinic personnel. Because of the pandemic, the community would like to reinstate this committee.

Figure BRD.5: Dam Locations



Severe Winter Storms

The local planning indicated that winter storms cause annual damage to both property and crops. Common impacts include loss of power, inaccessible water, and impeded mobility. In addition, response times from emergency services can be impacted. Critical facilities have not been damaged in the past. Primary power to the village is aboveground but most residential areas have buried powerlines. Village maintenance is responsible for snow removal using a loader, grader, front-end plow on a truck, and two ATVs with plows. The village regularly meets to discuss personnel needs to aid the community.

Mitigation Strategy

Brady's municipal funds are sufficient to pursue small capital projects and have increased slightly over recent years. Event with a large portion of funds not already dedicated the village will likely need grant assistance to help pay for the actions listed below. The village has not applied for grants in the past.

New Mitigation Actions

Mitigation Action	Stormwater System and Drainage Improvements
Description	Improve drainage from the school to the highway.
Hazard(s) Addressed	Flooding
Estimated Cost	$75,000 - $100,000
Local Funding	Street and Roads Fund, Water and Sewer Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Community Profile

Village of Hershey

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table HSH.1: Hershey Local Planning Team

Name	Title	Jurisdiction
Shelby Morrison	Village Clerk/Treasurer	Village of Hershey
Thomas Wolfgang	Board Chairperson	Village of Hershey
Ronnie Stewart	Maintenance Superintendent	Village of Hershey

Location and Geography

In northwest Lincoln County, the Village of Hershey covers an area of 489 acres. The closest waterbodies to Hershey are the South Platte River, which is located one and a half miles south of the village and Hershey Lake, located two miles south of the village. There are two wildlife management areas near Hershey. The Hershey State Wildlife Management Area is located south of the village next to Hershey Lake and the East Sutherland State Wildlife Management Area is located six miles southwest of the village.

Transportation

Hershey's major transportation corridors include U.S. Highway 30 and Nebraska Highway 56C. The most traveled route is Highway 30 with an average of 3,820 vehicles daily, 330 of which are trucks.[15] In November of 2016, a roundabout and overpass were built that connect Highway 230 to Highway 56C and Interstate 80. Interstate 80 is located directly south of the community and could impact the village during closures and construction. Farm chemicals are regularly transported on Highway 30. The village has a Union Pacific rail line, running through the center of the community. The local planning team indicated that no large crashes or chemical spills have occurred on any local transportation routes. All critical facilities are located near a major transportation route, with Hershey Schools and Simplot directly along the routes. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Hershey's population has been decreasing since 2010 to about 555 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which could make implementation of mitigation projects more fiscally challenging. Hershey's population accounted for 1.6% of Lincoln County's population in 2018.[16]

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

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

Figure HSH.1: Village of Hershey

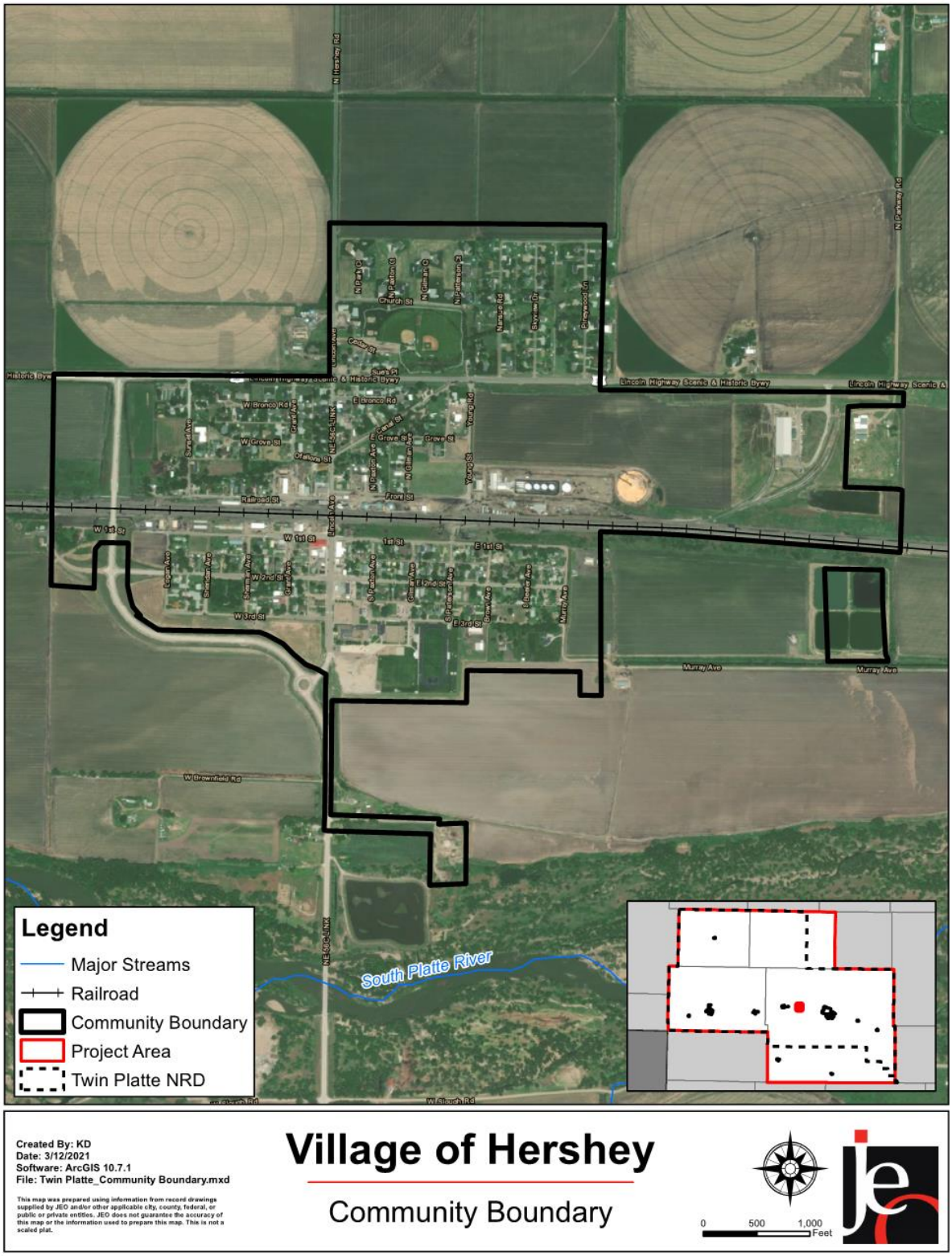
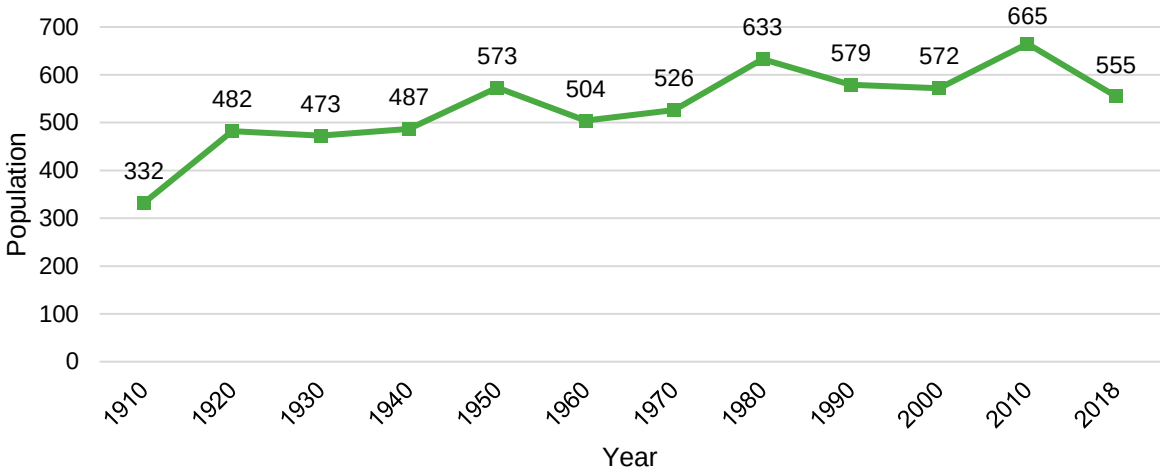


Figure HSH.2: Population 1910 - 2018



Source: U.S. Census Bureau

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

- **Older.** The median age of Hershey was 45.7 years old in 2018, compared with Lincoln County's median of 40.3 years. Hershey's population grew older since 2010, when the median age was 40.6 years old.[16]
- **Less ethnically diverse**. Since 2010, Hershey grew less ethnically diverse. In 2010, 9.5% of Hershey's population was non-white. By 2018, about 2% was non-white. During that time, the non-white population in the county also decreased from 5.7% in 2010 to 4.8% in 2018.[16]
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Hershey (7% of people living below the federal poverty line) was less than the county's poverty rate (12.2%) in 2018.[17]

Employment and Economics

In comparison to Lincoln County, Hershey's economy had:

- **Similar mix of industries.** Hershey's major employment sectors, accounting for 10% or more of employment each, were transportation and utilities, and education.[17]
- **Slightly lower median household income.** Hershey's median household income in 2018 ($55,938) was about $900 lower than the county ($56,794).[17]
- **More long-distance commuters.** About 25% of workers in Hershey commuted for fewer than 15 minutes, compared with about 60.7% of workers in Lincoln County. About 15.1% of workers in Hershey commuted 30 minutes or more to work, compared to about 11.5% of county workers.[18]

Major Employers

Hershey's major employers include Hershey Public School, Hershey State Bank, and Simplot. A large percentage of residents also commute to North Platte for employment.

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

Housing

In comparison to Lincoln County, Hershey's housing stock was:

- **Similarly aged.** Hershey had a similar share of housing built prior to 1970 than the county (47.6% compared to 48.6%).[19]
- **Less mobile and manufactured housing.** The Village of Hershey had a smaller share of mobile and manufactured housing (3.8%) compared to the county (8.3%).[19]
- **Less renter-occupied**. About 21% of occupied housing units in Hershey were renter-occupied compared with 34.7% of occupied housing in Lincoln County.[19]
- **Less occupied.** Approximately 15.6% of Hershey's housing units were vacant compared to 10.7% of units in Lincoln County.[19]

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly maintained. Unoccupied housing may also suggest that future development may be less likely to occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms if those homes are not anchored correctly. There are approximately 24 mobile homes in the Village of Hershey. The majority of those mobile homes are located along Highway 30. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

Future Development Trends

Over the past five years, some significant changes occurred in the community. In November 2016, the construction of a new roundabout and overpass in the village connected Highway 30, Highway 56C, and Interstate 80. Two railroad crossings have been closed, and a new pedestrian bridge resides near the Lincoln Avenue crossing. Additional developments in the community include new housing and a new well house at Tranquility Park. There will also be a new Rail Park built east of the village. According to the American Community Survey estimates, Hershey's population is generally declining. The local planning team attributes the decline to a lack of employment opportunities in the area. The community has made efforts to plan for future development by ensuring compliance with zoning ordinances and obtaining backup generators and other essential supplies.

Parcel Improvements and Valuation

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

Table HSH.2: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
336	$31,806,470	142	$9,606,150	42.3%

Source: County Assessor, 2018

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

Table HSH.3: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
336	$31,806,470	0	$0	0%

Source: County Assessor, 2018

Community Lifelines

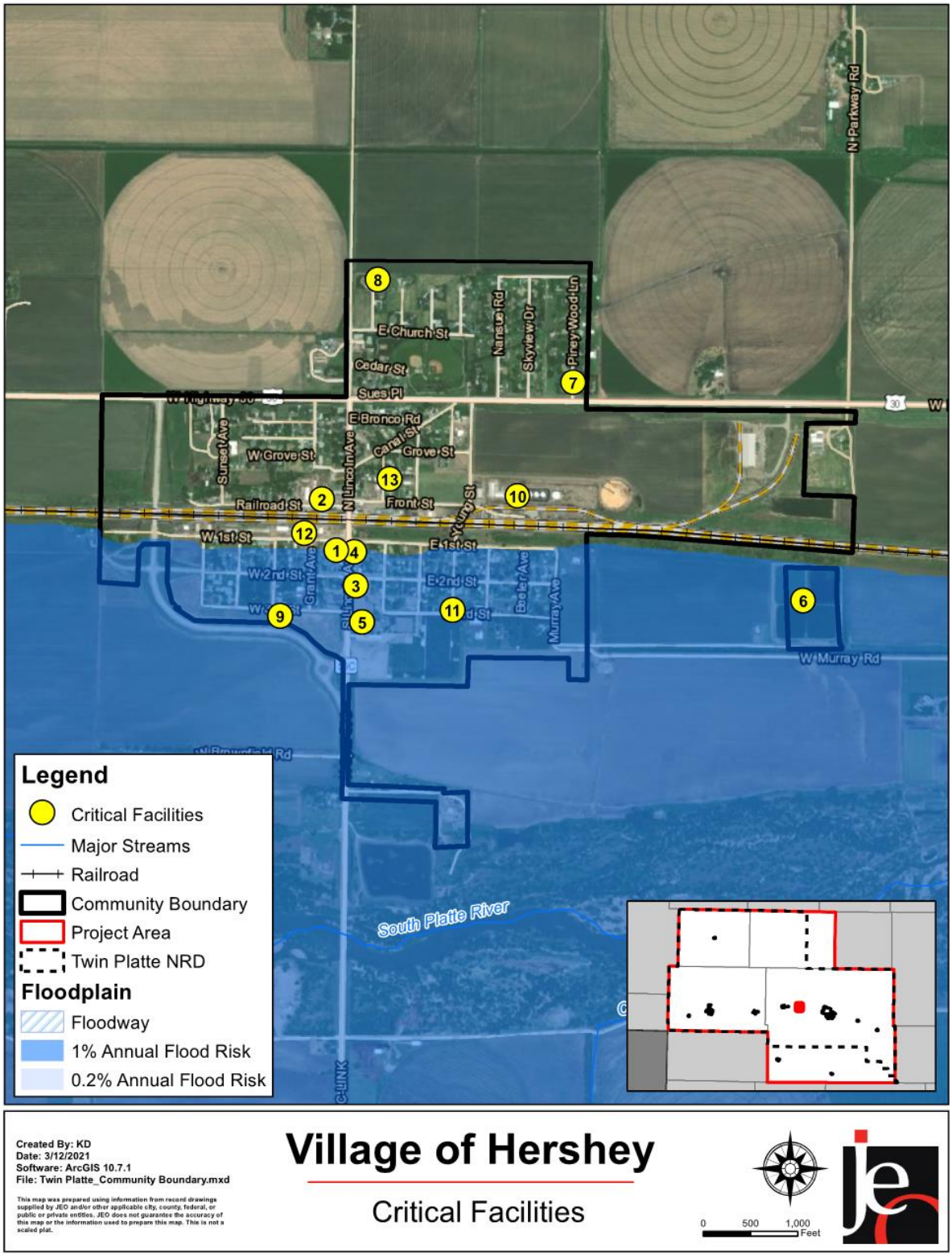
Critical Facilities

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

Table HSH.4: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Communications Tower	N	Y	Y (1%)
2	Fire Department	N	Y	N
3	Gas Station	N	N	Y (1%)
4	Grocery Store	N	N	Y (1%)
5	Hershey Public Schools	Y	N	Y (1%)
6	Lagoon	N	Y	Y (1%)
7	Lift Station	N	Y	N
8	North Well	N	Y	N
9	Park Well	N	Y	Y (1%)
10	Simplot	N	N	N
11	South Well	N	Y	Y (1%)
12	Village Office	N	Y	N
13	Water Tower	N	N	N

Figure HSH.3: Critical Facilities



Governance

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

- Clerk/Treasurer
- Attorney
- Streets/Parks Commissioner
- Planning Commission
- Housing Authority
- Water Operator
- Sewer Commissioner
- Streets Commissioner
- Water Commissioner
- Parks Director
- Volunteer Fire Department
- Maintenance Superintendent
- Ditch Board
- Tree Board
- Engineer
- Green Team Committee

Capability Assessment

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

Table HSH.5: Capability Assessment

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

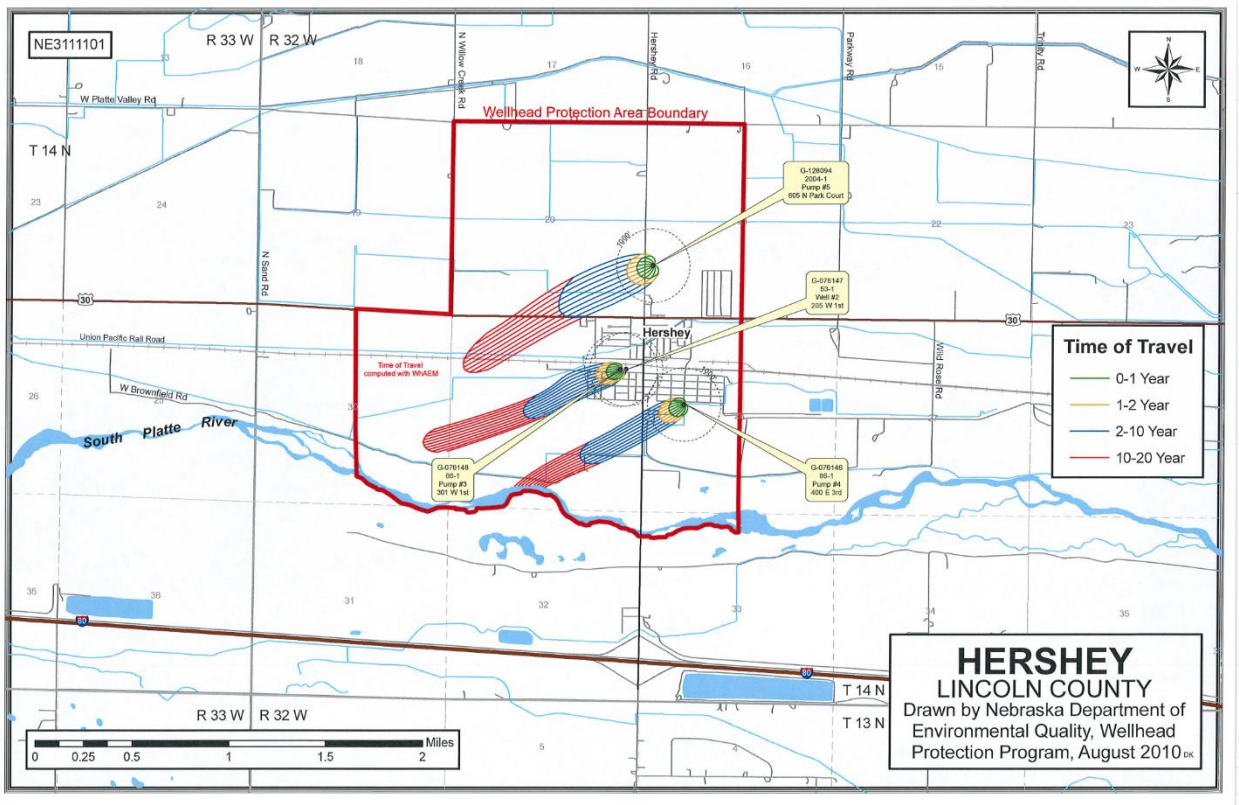
Survey Components/Subcomponents		Yes/No
Technical Capability	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	Tree Board
Fiscal Capability	Capital Improvement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

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

Plan Integration

The Village of Hershey has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. In addition, the village has an ongoing capital improvements plan and a wellhead protection map (Figure HSH.4). No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Figure HSH.4: Wellhead Protection Map



Comprehensive Plan (2002)

The comprehensive plan is designed to guide the future actions of the village. It encourages elevation of structures located in the floodplain. Due to its age, very little has been integrated with the hazard mitigation plans. There have been recent discussions about updating the plan.

Floodplain Ordinance (1997), Zoning Ordinance (2004), and Subdivision Regulations (2004)

Hershey's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. These documents require more than one foot elevation above Base Flood Elevation and include well setback requirements.

Lincoln County Local Emergency Operations Plan (2019)

The Village of Hershey is an annex in the Lincoln County Local Emergency Operations Plan (LEOP). The LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning,

damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

Water System Emergency Response Plan (2020)

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

Historical Occurrences

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

Hazard Prioritization

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

Chemical Spills (Transportation)

Chemical transportation is a concern for the Village of Hershey due to the railroad. Approximately 160 trains go through Hershey per day. These trains carry a wide variety of chemicals. There is also a large gas pipeline located on the northeast side of town, and another line three quarters of a mile outside of town. A chemical spill would likely cause damage to exposed infrastructure and may impact exposed individuals. North Platte has HazMat resources and would respond to any chemical spill. Vulnerable populations are located west and south of Simplot, as well as along the railroad tracks.

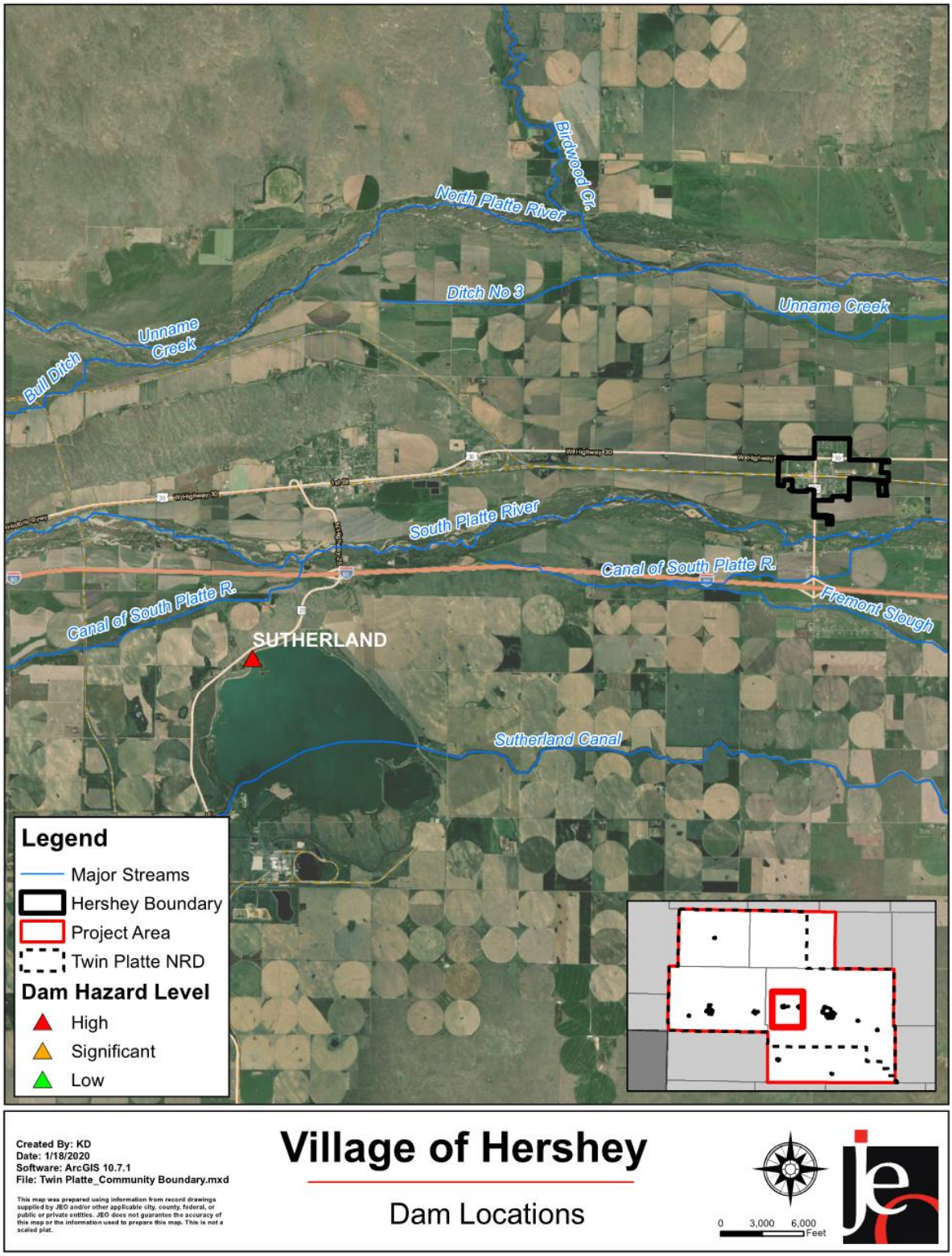
Dam Failure

According to the Lincoln County LEOP, Hershey would be affected by the failure of any of the following dams: Kingsley Dam, Lake Maloney Dam, Jeffery Regulating Reservoir Dam, and Sutherland Reservoir Dam. If these dams were to fail, the affected area would be slightly greater than the 100-year floodplain. If Kingsley Dam were to fail, Hershey would approach 100% inundation within approximately 20 hours. The village is working on an emergency evacuation plan and dam failure exercises to prepare for this hazard.

Flooding

According to NCEI data, eight flooding events have caused $11,000 in property damages. However, the local planning team indicated that minor flooding is a regular occurrence in Hershey. Significant events in 2013 and 2015 resulted in street closures, unseen erosion, main breaks, and damages to infrastructure such as the lagoon and streets. However, Hershey was not impacted by the March 2019 flood event. Areas around town that have poor drainage include 1st & Lincoln, E. Bronco, Lincoln, and Hwy 30, 2nd & Grant, and in front of Hershey Public Schools. The flooding in areas with poor drainage does not regularly impact structures. The south side of town regularly has flooding issues as it is near the Platte River and located in the 1% annual flood risk area.

Figure HSH.4: Dam Locations



Hail
According to NCEI data, there have been 84 instances of hail in Hershey since 1996 with reported damages of $277,000. In 2007, a hail event caused $100,000 in damages to roofs and vehicles. The largest reported hailstone during that time was 2.75 inches. The village continues to utilize hail insurance. The village is also a part of Tree City USA which helps promote education on dealing with tree damage during storm events.

Public Health Emergency
Primary concerns regarding this hazard include the health of residents and economic impacts due to closed businesses and events. During the Covid-19 pandemic, a handful of businesses were temporarily closed due to the State of Nebraska Directed Health Measures. The number of positive Covid-19 cases in the village is not known, however, as of January 6, 2021, there were 3,074 positive cases and 37 deaths in Lincoln County. Many events at the local bar and church had to be cancelled and many other events were scaled back to reduce the spread. Due to the Covid-19 pandemic, Hershey created a pandemic plan in 2020. It focuses on sustaining area functions, while also reducing the spread of the outbreak. In 2020, the village also entered into a one-year memorandum of understanding with the West Central Nebraska Health District to take mitigative actions and follow directed health measures during the coronavirus pandemic.

Severe Thunderstorms
NCEI data reports 28 severe thunderstorm events since 1996. The storms resulted in $45,000 in property damages. In 2000, a severe thunderstorm event caused $10,000 in property damages and downed powerlines. Storms regularly cause power outages every year. In 2013, a major storm caused a power outage that lasted 74 hours. These power outages can have significant economic damages. The grocery store has lost tens of thousands of dollars due to power outages. Other potential impacts include damage to structures, wildfires started from lightning, loss of retail services, and wind damage.

Tornadoes
According to NCEI data, four tornadoes have been reported in the Hershey area since 1996. These storms have resulted in minimal damages ($750). Residents have limited options for shelter in the event of a tornado. Hershey has no safe rooms, and there are very few basements due to the floodplain.

Mitigation Strategy
Hershey's municipal funds are sufficient (depending on the size of proposed projects) but have slightly decreased over recent years. Currently a large portion of funds are already dedicated to developing a park and a nuisance abatement program. Hershey will likely need grant assistance to help pay for many of the actions listed below. The village has experience applying for grants and has recently applied for both tree and greener town grants.

Completed Mitigation Actions

Mitigation Action	Improve Warning Systems
Description	Evaluate current warning systems, improve warning systems and develop a new warning system.
Hazard(s) Addressed	All Hazards
Status	Completed

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) Addressed	Flooding
Status	Flood study completed in 2017

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 materials on how to establish a hazardous tree identification and removal program.
Hazard(s) Addressed	Severe Thunderstorms, High Winds, Severe Winter Storms, Hail
Status	Completed: The designation is awarded each year

Continued Mitigation Actions

Mitigation Action	Channel and Bridge Improvements
Description	Implement channel and bridge improvements to increase channel conveyance and decrease the base flood elevations.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000 - $200,000
Funding	State Funds, Village Fund
Timeline	2-3 Years
Priority	High
Lead Agency	Maintenance Department
Status	In Progress: State agencies have been working on monitoring the flow of the South Platte River

Mitigation Action	Critical Facility Siting
Description	Prohibit the construction of critical facilities within the immediate radius of chemical storage facilities through resolution or ordinance.
Hazard(s) Addressed	Chemical Spills (Fixed Site)
Estimated Cost	Staff Time
Funding	Village Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	In Progress: Going through approvals

Mitigation Action	Dam Failure Exercise
Description	Conduct tabletop exercises to determine the response scenarios in the event of dam failure.
Hazard(s) Addressed	Dam failure
Estimated Cost	$5,000
Funding	Village Fund, County Emergency Management Funds
Timeline	1-2 Years
Priority	Low
Lead Agency	Clerk, Village Board, Lincoln County Emergency Management
Status	In Progress: Developing a local emergency evacuation plan

Mitigation Action	Drainage Ditches
Description	Deepen drainage ditches and clean out culverts.
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000 - $50,000, depending on extent
Funding	State Funds, Village Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Maintenance Department
Status	In Progress: Improvements have been made in the village

Mitigation Action	Drainage Study/Stormwater Master Plan
Description	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be developed to help identify stormwater problem areas and potential drainage improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000
Funding	Village Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Maintenance Department, Village Board
Status	In Progress: Improvements being made; new drainage pipe was installed on 2.5 blocks of East 3rd street

Mitigation Action	Emergency Fuel Supply Plan
Description	Plan to ensure adequate fuel supply is available during an emergency. Actions might include prioritization and rationing plan for gasoline and diesel uses in extended loss of fuel supply or electric power supply; a plan to purchase local fuel supply, etc.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding, Dam Failure
Estimated Cost	$5,000
Funding	Village Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Maintenance Department
Status	In Progress: The community is continuing to do research

Mitigation Action	Grade Control Structures
Description	Streambed degradation occurs along many rivers and creeks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented to maintain the channel bed.
Hazard(s) Addressed	Flooding
Estimated Cost	$20,000- $100,000, depending on project
Funding	Village Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Maintenance Department, Village Board
Status	In Progress: Improvements continuing to be made in the village

Mitigation Action	Lightning Rods
Description	Install lightning rods in strategic locations at high points.
Hazard(s) Addressed	Severe Thunderstorms
Estimated Cost	$500
Funding	Village Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Maintenance Department
Status	In Progress: Research for locations is currently being done

Mitigation Action	Public Awareness/Education
Description	Activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Educate citizens on water conservation methods, evacuation plans, etc. Purchase equipment such as overhead projectors and laptops.
Hazard(s) Addressed	All Hazards
Estimated Cost	$200+
Funding	Village Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Clerk, Maintenance Department, Village Board
Status	In Progress: The community has utilized signage, Facebook notifications, and newsletters

Mitigation Action	Storm Shelters/Safe Rooms
Description	Identify and evaluate existing safe rooms and/or storm shelters. Improve and/or construct safe rooms and/or storm shelters.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms, Hail
Estimated Cost	$150/sf for retrofit; $300/sf for new construction
Funding	Village Fund, Private residents
Timeline	2-5 Years
Priority	Medium
Lead Agency	Lincoln County Emergency Manager, Clerk, Maintenance Department
Status	In Progress: Continue researching with site project managers for construction

Mitigation Action	Stormwater Management Committee
Description	Establish a stormwater development committee to oversee improvements to the stormwater system and to respond to community concerns.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	Village Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Clerk, Village Board
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 - $250,000
Funding	Village Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Maintenance Department
Status	In Progress: Improvements continuing to be made in the village.

Removed Mitigation Actions

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

Mitigation Action	Bank Stabilization
Hazard(s) Addressed	Flooding
Reason for Removal	The village would like to prioritize other actions.

Mitigation Action	Remove Flow Restrictions
Hazard(s) Addressed	Flooding
Reason for Removal	The village would like to prioritize other actions.

Community Profile

City of North Platte

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table NTP.1: North Platte Local Planning Team

Name	Title	Jurisdiction
Layne Groseth	Public Service Director/ML & W Director	City of North Platte
Brent Burklund	City Engineer	City of North Platte
Dan Hudson	Police Chief	City of North Platte
Dennis Thompson	Fire Chief	North Platte Fire District
Judy Clark	Planning	City of North Platte

Location and Geography

In central Lincoln County, the City of North Platte covers an area of 13.42 square miles. North Platte is surrounded by multiple waterbodies. North Platte is bordered by the North Platte River to the north and the South Platte River to the south. These two rivers merge to become the Platte River just east of the City of North Platte. Lake Maloney is located approximately eight miles south of North Platte. There are also several State Wildlife Management Areas near the city.

Transportation

North Platte's major transportation corridors include U.S. Highway 30, U.S. Highway 83, and Interstate 80 located two miles south of the city. The most traveled route is Interstate 80 with an average of 18,010 vehicles daily, 7,020 of which are trucks.[20] Various chemicals are transported along all local routes. The city has a large volume of fuel transport due to the fuel terminal located south of the community. Chemicals spills of all sizes have occurred in the past. North Platte has a Union Pacific line running east and west on the north half of the city. Highways 30, 83, and Interstate 80 are of most concern due to their traffic volumes. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. Several critical facilities for the city abut or are near major transportation routes.

Demographics

The City of North Platte's population has been stable since 2010 at about 24,011 people in 2018. A stable population can lead to a stable tax base, making it easier to implement mitigation actions. North Platte's population accounted for 67.8% of Lincoln County's population in 2018.[21]

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

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

Figure NTP.1: City of North Platte

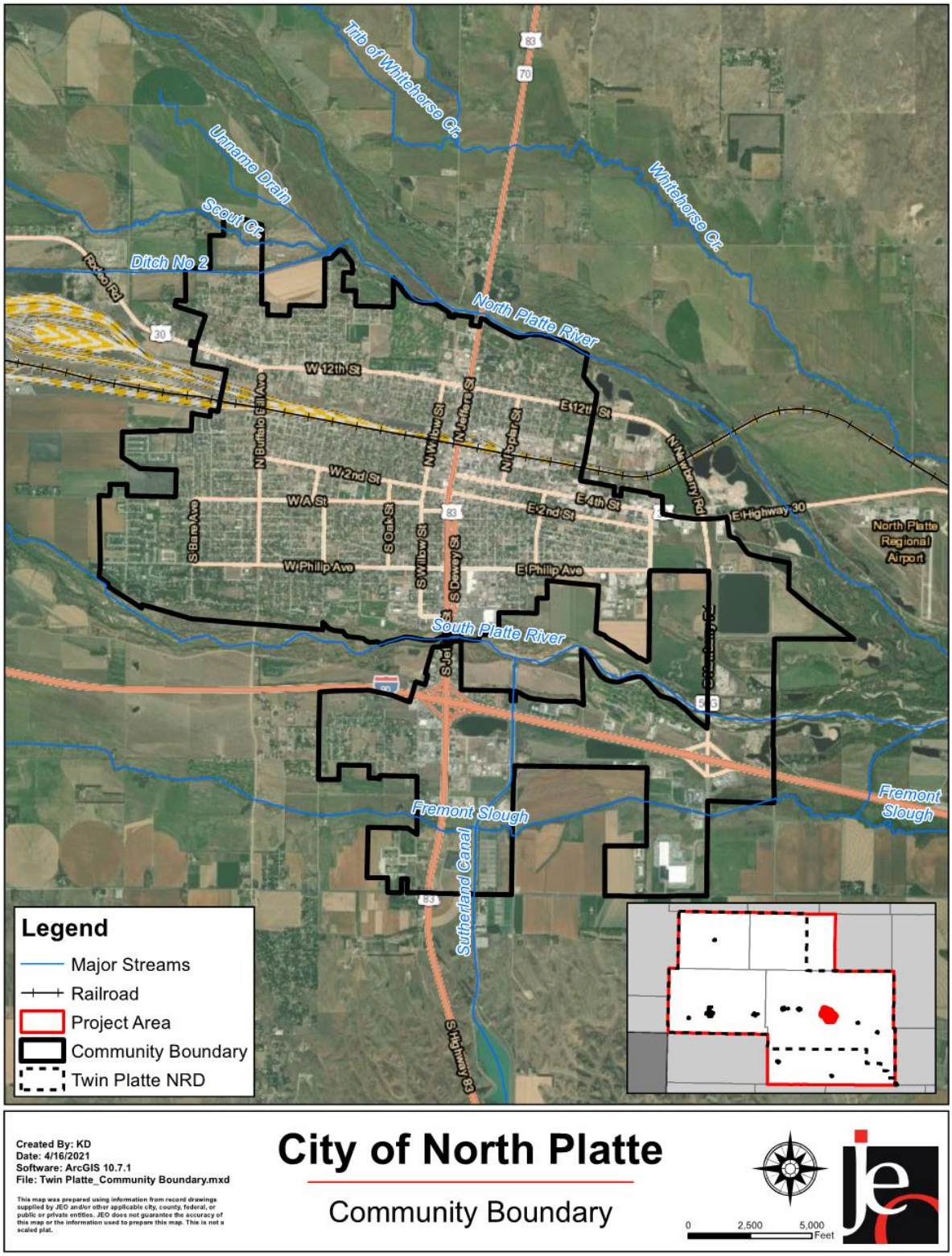
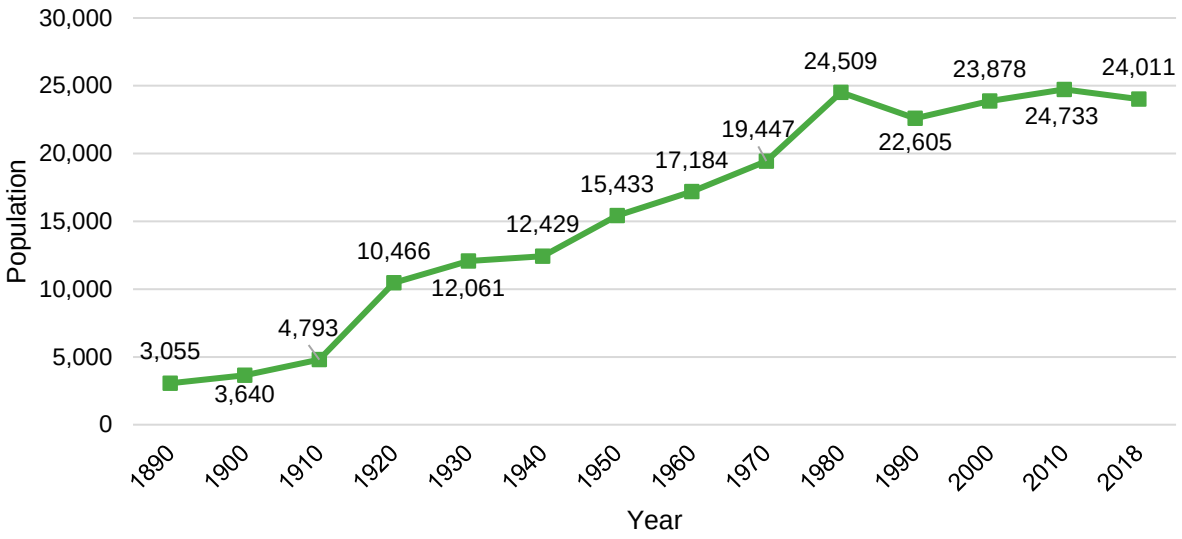


Figure NTP.2: Population 1890 - 2018



Source: U.S. Census Bureau

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

- **Younger.** The median age of North Platte was 38.1 years old in 2018, compared with Lincoln County's median of 40.3 years. North Platte's population grew older since 2010, when the median age was 37.1 years old.[21]
- **Similarly ethnically diverse**. Since 2010, North Platte grew less ethnically diverse. In 2010, 6.9% of North Platte's population was non-white. By 2018, about 4.7% was non-white. During that time, the non-white population in the county decreased from 5.7% in 2010 to 4.8% in 2018.[21]
- **More likely to be below the federal poverty line.** The poverty rate in the City of North Platte (15.3% of people living below the federal poverty line) was higher than the county's poverty rate (12.2%) in 2018.[22]

Employment and Economics

In comparison to Lincoln County, North Platte's economy had:

- **Similar mix of industries.** North Platte's major employment sectors, accounting for 10% or more of employment each, were: retail trade, educational services, recreation and accommodation, and transportation and utilities.[22]
- **Lower median household income.** North Platte's median household income in 2018 ($49,622) was about $7,200 lower than the county ($56,794).[22]
- **Fewer long-distance commuters.** About 75.8% of workers in North Platte commuted for fewer than 15 minutes, compared with about 60.7% of workers in Lincoln County. About 5.8% of workers in North Platte commuted 30 minutes or more to work, compared to about 11.5% of county workers.[23]

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

Major Employers

Major employers in North Platte include Union Pacific Railroad, Great Plains Regional Medical Center, North Platte Public Schools, Wal-Mart, the City of North Platte, Nebraska Public Power District, Cabela's, Lincoln County, and Mid Plains Community College. Very few residents commute to other communities for employment. Many workers commute to North Platte from surrounding communities for employment.

Housing

In comparison to Lincoln County, North Platte's housing stock was:

- **Older.** North Platte had a larger share of housing built prior to 1970 than the county (54.4% compared to 48.6%).[24]
- **More mobile and manufactured housing.** The City of North Platte had a larger share of mobile and manufactured housing (9.1%) compared to the county (8.3%).[5]
- **More renter-occupied**. About 42.8% of occupied housing units in North Platte were renter-occupied compared with 34.7% of occupied housing in Lincoln County.[5]
- **More occupied.** Approximately 8.6% of North Platte's housing units were vacant compared to 10.7% of units in Lincoln County.[5]

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

Future Development Trends

Over the past five years, North Platte saw several new housing and business developments. Below is a list of new development locations.

- 1100 Block of West Walker Road – Subdivision with new housing developing
- Dixie Avenue & Philip Avenue – New subdivision with housing development
- 3700 West Philip Avenue – New housing for established retirement village
- 4000 Block Parkland Circle & West Park Drive area have continued housing construction
- 400 North Pacific Street – New apartment complexes
- Great Plains Health – New construction and upgrades
- New construction on 800 Block South Maple – Various medical offices (dental, etc.)
- Pal's Brewery – New construction on South Buffalo Bill
- Peg Leg Brewery – New construction on Halligan Drive
- 3 new motels on Halligan Drive
- New car dealership on Halligan Drive
- New commercial development on Sitting Bull Drive
- New commercial buildings on Twin Rivers Road
- Expansion of Mid Plains Community College

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

New residences were built in floodplain areas in 2016, 2017, and 2018 and new commercial properties were built in the floodplain in 2019. Any structure built in the city's jurisdiction is required to be elevated at least one foot above base flood elevation.

According to the 2018 American Community Survey estimates, North Platte's population is stable. The local planning team attributes this to the continued success of major employment opportunities with the city, the numerous schools both public and private, the city park system, and nearby recreational activities such as hunting and fishing.

In the next five years, the city has several developments planned. The list below includes the known projects, but there will likely be additional projects as time goes on. Hazard mitigation principles considered for new developments, including elevating structures in floodplain areas, adopting current codes for building, safe rooms, generators, and stormwater detention.

- New apartments on Pacific Street
- Remodeling of the downtown buildings including the Parkade building with new owners
- West A Street Project – Mixed use commercial and apartments
- Mixed use extended stay and apartments on Sioux Meadows
- Commercial development buildings on Twin Rivers
- Senior living on Halligan Drive
- Commercial construction on the corner of Walker and S Buffalo

Parcel Improvements and Valuation

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

Table NTP.2: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
9,275	$1,416,276,514	107	$67,914,130	1.2%

Source: County Assessor, 2018

Table NTP.3: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
9,275	$1,416,276,514	7,033	$1,181,903,704	75.8%

Source: County Assessor, 2018

Community Lifelines

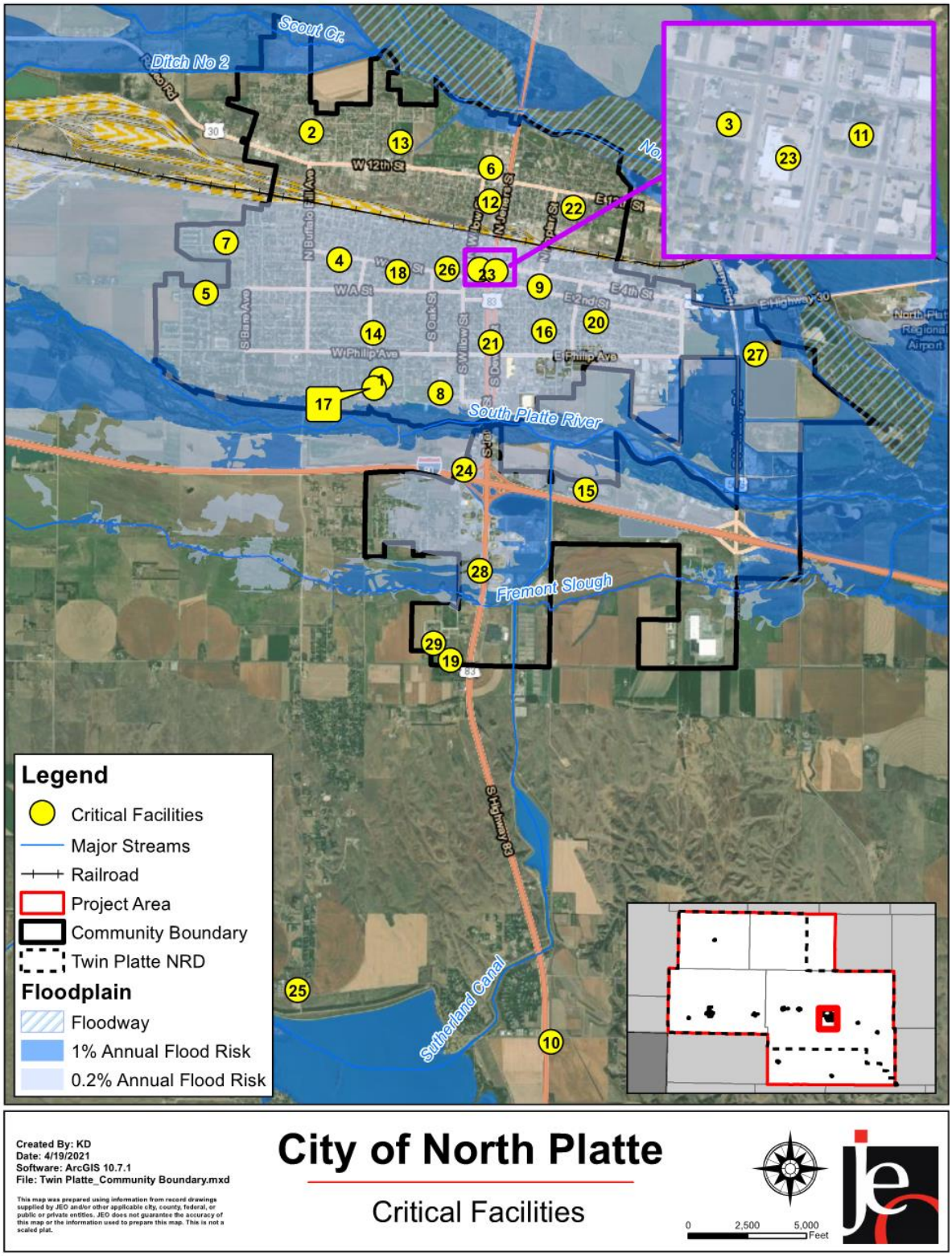
Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction. In addition, there are 22 wells throughout the city, seven of which have backup generators. There are also various communication towers, with those associated with emergency management having backup generators.

Table NTP.4: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Adams Middle School	Y	N	Y (0.2%)
2	Buffalo School	N	N	N
3	City Hall	N	N	Y (0.2%)
4	Cody Elementary School	Y	N	Y (0.2%)
5	Eisenhower Elementary School	Y	N	Y (0.2%)
6	Fire Station #2	N	Y	N
7	Fire Station #3	N	Y	Y (0.2%)
8	Great Plains Health	N	N	Y (0.2%)
9	Jefferson Elementary	Y	N	Y (0.2%)
10	Lake School	N	N	N
11	Lincoln County Courthouse	N	N	Y (0.2%)
12	Lincoln Elementary School	Y	N	N
13	Madison Middle School	Y	N	N
14	McDonald School	Y	N	Y (0.2%)
15	Mid Plains Community College/Voc Tech Campus	Y	Y	N
16	North Platte Catholic School	Y	N	Y (0.2%)
17	North Platte City Recreation	Y	N	Y (0.2%)
18	North Platte High School	Y	N	Y (0.2%)
19	Osgood School	N	N	N
20	Our Redeemer Lutheran School	N	N	Y (0.2%)
21	Police, 911, and Fire Station #1	N	Y	Y (0.2%)
22	Senior Center	Y	N	N
23	Sheriff's Office/Jail	N	Y	Y (0.2%)
24	State Patrol Troop D	N	Y	Y (0.2%)
25	Transfer Station	N	N	N
26	Washington Elementary	Y	N	Y (0.2%)
27	Wastewater Treatment	N	Y	N
28	Water Tank	N	N	Y (0.2%)
29	Mid Plains Community College - Mc Donald Belton Campus	Y	Y	N

Figure NTP.3: Critical Facilities



Governance

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

- City Administrator
- Finance Director
- City Attorney
- Utility Manager
- Clerk/Treasurer
- Streets Commissioner
- Planning Commission
- Housing Authority
- Development Director
- Public Service Director
- Information Systems Director
- Public Transit Superintendent
- Water and Sewer Department
- Police Department
- Public Transit
- Sanitation
- Recreation Department
- Engineering Department
- Fire Department
- Building Inspector
- Community Redevelopment Authority
- Boards of Equalization and Adjustment

Capability Assessment

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

Table NTP.5: Capability Assessment

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

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

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

Plan Integration

The City of North Platte has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. In addition, the city has a capital improvements plan that has not been 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.

Building Code (2018)
The building code sets standards for constructed buildings and structures. The city has adopted the 2020 International Building Codes with amendments made in 2020.

Comprehensive Plan (2012)
The comprehensive plan is designed to guide the future actions of the city. It contains goals aimed at safe growth, directs development away from the floodplain, encourages infill, directs development away from chemical storage sites, encourages clustering of development, directs housing and vulnerable populations away from major transportation routes, encourages the elevation of structures located in the floodplain, identifies areas that need emergency shelters, and encourages the preservation of open space. The plan is amended annually with a major updated planned in the next five years.

Floodplain Ordinance (2009), Zoning Ordinance (2012), Subdivision Regulations (2012)
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, discourage development in the floodplain, limit population density in the floodplain, identify floodplain areas as parks and open space, discourage development near chemical storage sites, and restrict subdivision of land within the floodplain. These documents are reviewed and amended as needed on an annual basis.

Lincoln Count Local Emergency Operations Plan (2019)
The City of North Platte is an annex in the Lincoln 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.

Loess Canyons Community Wildfire Protection Plan (2021)
The Nebraska Forest Service is currently updating the Loess Canyons Community Wildfire Protection Plan (CWPP). The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. North Platte Fire and the city will be a part of this plan. This document is updated every five years.

Protection of Public Water Supply System Ordinance (2002)
The purpose of the ordinance is to protect the city's water system by regulating the surface and subsurface areas surrounding a water well or well field. It requires wells to be registered and any new well to be permitted prior to installation. It also lists several prohibited facilities near protected well areas and includes well setback requirements.

Water System Emergency Response Plan (2021)

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

Historical Occurrences

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

Hazard Prioritization

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

Chemical Spills (Transportation)

Transportation based chemical spills are a significant concern to the local planning team. The proximity of I-80 and Union Pacific's Bailey Yard, the largest rail yard in the world, increases the risk of a chemical transportation incident. Union Pacific and the North Platte Fire Department work closely together to handle incidents that may occur at Bailey Yard. North Platte HazMat personnel are responsible only for the stabilization of a HazMat incident at Bailey Yard. Union Pacific has additional personnel that respond in the event of a chemical spill. The local planning team indicated that chemical spills at the Baily Yard vary in frequency but typically occur once a year to once every few years. Large spills along the rail line may cause surrounding areas in the city to evacuate.

Civil Unrest

Although not a hazard covered in this plan, the local planning team identified civil unrest as hazard of top concern for the community. The current political climate has increased the overall potential for civil unrest. Additionally, Covid-19 has increased stresses in the city that may show in public situations. While North Platte has not experienced civil unrest in the past, the community has had protests and marches. In the summer of 2020, community members held a peaceful demonstration for social justice issues that engulfed the nation. The community then had a larger rally and march for similar social justice issues. During both events, the North Platte Police Department was very active in communicating with organizers and assisted with the planning of the march route. Civil unrest and demonstrations would most likely occur at the police department, sheriff's office, county courthouse, Nebraska State Patrol headquarters, or city hall. The most likely impacts would be traffic disruption if demonstrators were to overflow onto public streets. To reduce the occurrence of civil unrest and its impacts, the North Platte Police Department continues to monitor social media and local community groups to ensure the department is aware of current political and social issues that could impact the community. The department continues to work with community activists to ensure they can exercise their First Amendment Rights and responses quickly to any and all media inquiries.

Dam Failure

The Lake Maloney high hazard dam is located south of the city. Figure NTP.4 shows the location of nearby dams. If the Lake Maloney Dam were to fail, the area of North Platte south of Interstate 80 would be impacted. According to the Lincoln County LEOP, if Kingsley Dam in Keith County were to fail, North Platte would reach 100% inundation. In addition, the local planning team identified the NPPD Forebay Dam as dam of concern. Dam failure has not occurred in the past. North Platte is in communication with the Bureau of Reclamation for Wyoming Dams, National Weather Service, Department of Natural Resources, Army Corps of Engineers, Nebraska Public Power District, Central Public Power and Irrigation District, and Lincoln County Emergency Management on the status of dams that could affect the city.

Flooding

Flooding was selected as a significant concern for North Platte due to its frequent occurrence and potential for property damages or loss of property. NCEI reports 13 floods occurring in North Platte since 1996, with $25,000 in reported damages. Past impacts include property damage and loss of business. Flooding is most likely to occur along the North Platte River, South Platte River, and Fremont Slough. There are various areas throughout the city that have poor stormwater drainage. The city would like to continue to develop communication strategies for when flooding occurs.

Hail

Hail is a frequently occurring and severely damaging hazard within North Platte. The NCEI reports 286 hail events that caused $43,855,000 in property damages and one injury. The most damaging event occurred in April 2012 when 2.5-inch hail caused $30,000,000 in damage across the city. Critical facilities have experienced minor damage to roofs but not enough to require major repair or insurance claims. The city has insurance on city-owned buildings through the League Associate of Risk Management.

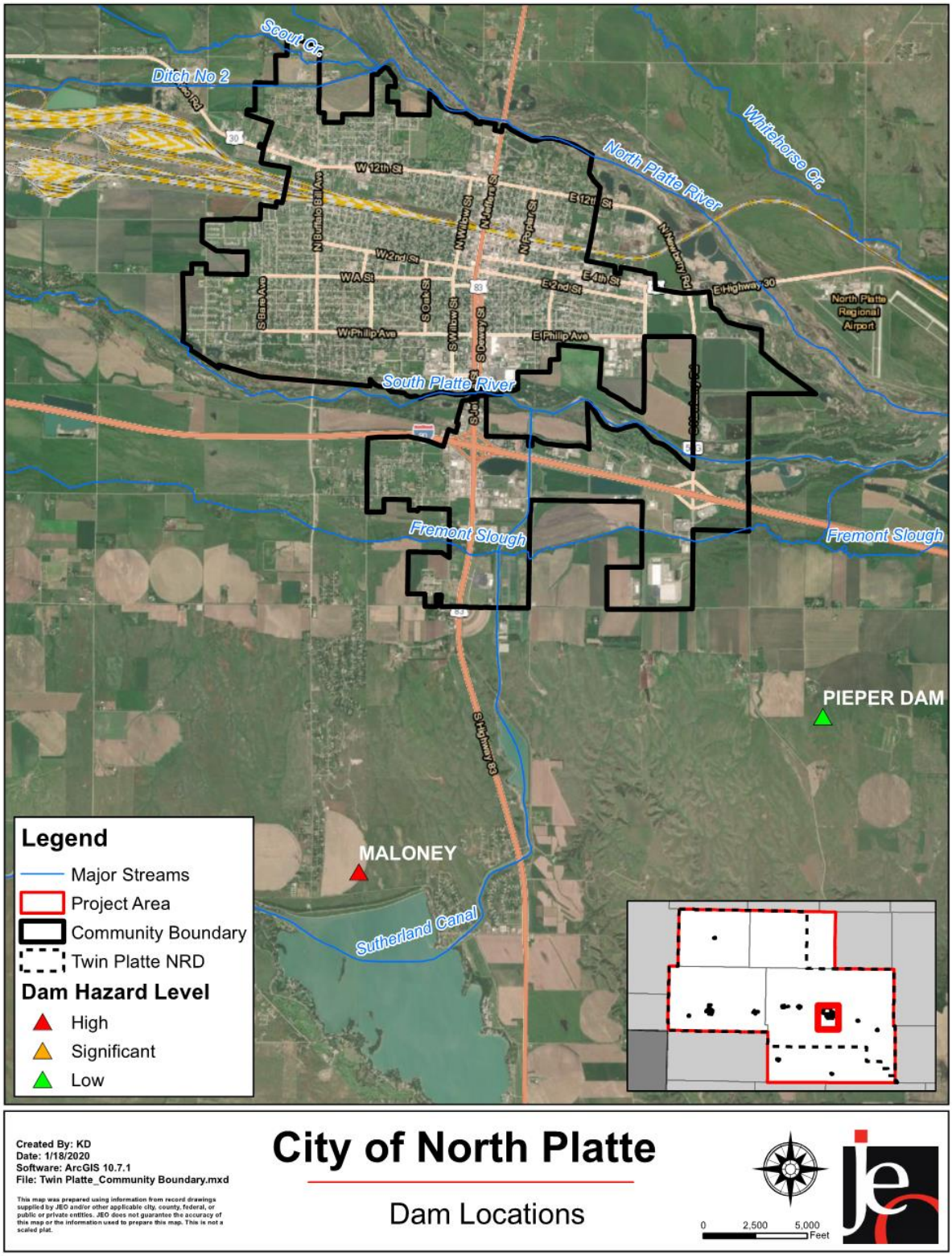
Severe Winter Storms

Severe winter storms are a regular part of the climate in North Platte, occurring every year. These storms can cause dangerous road conditions causing accidents, ice buildup on power lines resulting in power outages, and damage to property from heavy snow. In addition, slick walkways and heavy snow can cause injuries to people and animals. The local planning team identified an ice storm in 2011 that damaged powerlines. Streets are cleared by the city and snow removal resources are sufficient for local events. The city would like to continue to develop communication strategies for when natural events occur.

Tornadoes

Tornadoes have the potential for significant damages and loss of life. According to NCEI, North Platte has experienced 16 tornadic events in or near the community since 1996 that have resulted in a total of $1,852,000 in damages. The largest and most damaging event occurred in March 2012, when an EF3 tornado caused $750,000 in damages. Fifteen tank cars were blown over, two homes were destroyed, and two additional homes experienced significant damages. Many city-owned buildings have rooms that can function as shelters during severe storms and individual buildings have shelter plans in place. The city has 18 sirens which provide coverage for the entire community.

Figure NTP.4: Dam Locations



Mitigation Strategy

North Platte's municipal funds vary based on many issues and mechanisms. Currently, the city is balancing funds for limited new construction with capacity increase and maintenance. Funds have been slowly increasing over recent years. The city will likely need grant assistance to help pay for many of the mitigation actions listed below. The city has applied for grants in the past and has been awarded CDBG and historic preservation grants.

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. A backup generator is needed at City Hall.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
Estimated Cost	$150,000
Funding	City General Fund, Private entities
Timeline	2-5 Years
Priority	High
Lead Agency	Emergency Manager, City Administrator
Status	In Progress: Generators have been added to some facilities, but more are needed

Mitigation Action	Flood Proofing Critical Facilities
Description	Conduct flood proofing feasibility study for structures and implement flood proofing measures.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Funding	City General Funds, private residents
Timeline	5+ Years
Priority	Medium
Lead Agency	Planning Department, Building Department
Status	Not Started

Mitigation Action	Improve Electrical Service
Description	Evaluate hardening, retrofitting, looping and/or burying of power lines and related infrastructure and/or comparable protection measures. Implement measures to improve electrical service.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms, Hail
Estimated Cost	Unknown
Funding	City General Fund, NPPD
Timeline	5+ Years
Priority	Medium
Lead Agency	Utilities Department, NPPD
Status	In Progress: Updates are made as needs arise

Mitigation Action	Improve Warning Systems
Description	Evaluate current warning systems, improve warning systems, develop new warning systems and obtain/upgrade warning system equipment and methods, including alert sirens. Identify locations of weather warning radios, improve weather radio system, and obtain/upgrade weather radios.
Hazard(s) Addressed	All Hazards
Estimated Cost	$350,000 - $400,000
Funding	City General Fund, Private Funds
Timeline	5+ Years
Priority	Medium
Lead Agency	Emergency Manager, City Council
Status	Not Started

Mitigation Action	Reduce Fire Damage
Description	Identify vulnerable areas and combustion sources, evaluate fire resistant roofing and develop plan to reduce wildfire impact and reduce combustion materials. Reduce combustible material by removal or other methods. Enact building codes/ordinances for fire resistant roofing.
Hazard(s) Addressed	Wildfire
Estimated Cost	$500 - $5,000
Funding	City General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City Administrator, Chief Building Official, Fire Department
Status	Not Started

Mitigation Action	Reduce Flow Restrictions
Description	Evaluate restrictions and measures to prevent or reduce damage from flooding. Implement appropriate nonstructural or structural methods on an emergency or permanent basis (such as monitoring, ice jam dusting, or other flow improvements).
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 - $50,000 for studies; $10,000 - $100,000+ for infrastructure/structural improvements
Funding	City General Fund, County General Funds, Twin Platte NRD
Timeline	5+ Years
Priority	Medium
Lead Agency	City Administrator, Twin Platte NRD, Emergency Management
Status	In Progress: Updates are made as needs arise

Mitigation Action	Storm Shelters/Safe Rooms
Description	Identify and evaluate existing safe rooms and/or storm shelters. Improve and/or construct safe rooms and/or storm shelters.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms, Hail
Estimated Cost	$150/sf for retrofit; $300/sf for new construction
Funding	City General Fund, Private residents
Timeline	5+ Years
Priority	Medium
Lead Agency	Emergency Manager, City Council
Status	Not Started: New projects are evaluated and encouraged to consider safe rooms and shelters as needed

Mitigation Action	Stream/Bank/Grade Structure Improvements
Description	Evaluate current streambed and bank stabilization needs and implement streambed and bank improvements including grade control structures, rock rip rap, vegetative cover, etc.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000+
Funding	City General Fund, Private Residents
Timeline	5+ Years
Priority	Medium
Lead Agency	Planning Department, Building Department, Twin Platte NRD
Status	In Progress: Some work on the North Platte River has been done

Mitigation Action	Update Floodplain Information/Mapping
Description	Conduct mapping/remapping of floodplain and revise floodplain/ insurance maps,
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000+
Funding	City General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Planning Department, Building Department
Status	In Progress: The mapping portion has been completed

Removed Mitigation Actions

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

Community Profile

Village of Sutherland

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table SUT.1: Sutherland Local Planning Team

Name	Title	Jurisdiction
Melissa Wilson	Clerk/Treasurer	Village of Sutherland
Samuel Haworth	Board Member	Village of Sutherland
Henry Henderson	Maintenance Assistant	Village of Sutherland
Casey Kendall	Superintendent	Village of Sutherland
Frank Fleecs	Board Member	Village of Sutherland

Location and Geography

In western Lincoln County, the Village of Sutherland covers an area of 1.30 square miles. Sutherland is north of the South Platte River and the Sutherland Reservoir.

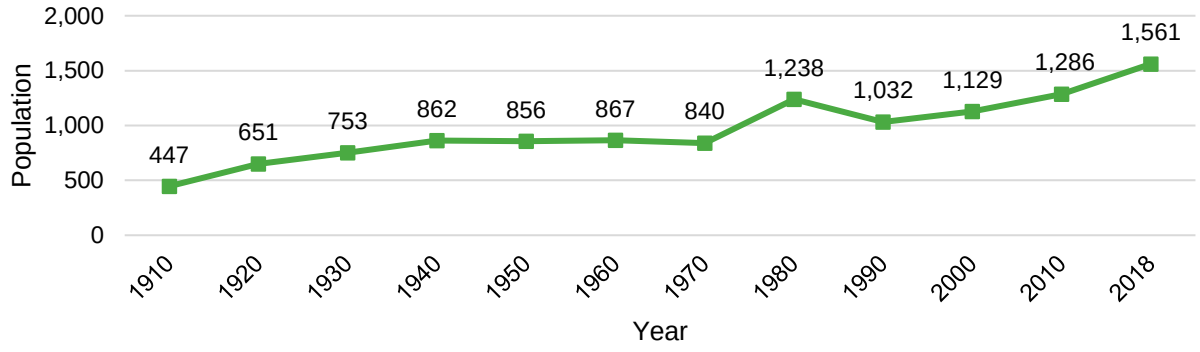
Transportation

Sutherland's major transportation corridors include State Highway 25 and U.S. Highway 30. The most traveled route is Highway 30 with an average of 2,975 vehicles daily, 295 of which are trucks.[25] Interstate 80 is located directly south of the community and could impact the village during closures and construction. Sutherland has a Union Pacific rail line running east and west through the south end of the community. All petroleum-based liquids along with numerous other hazardous materials are shipped down Highway 25, 30, and the railroad. No chemical spills or large accidents have occurred locally. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents. Midwest Renewable Energy, the fire hall, and village office are all located along Highway 30.

Demographics

The Village of Sutherland's population has been increasing since 2010 to about 1,561 people in 2018. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Growing populations also contribute to tax revenue, allowing communities to pursue additional mitigation projects. Sutherland's population accounted for 4.4% of Lincoln County's population in 2018.[26]

Figure SUT.1: Population 1910 - 2018

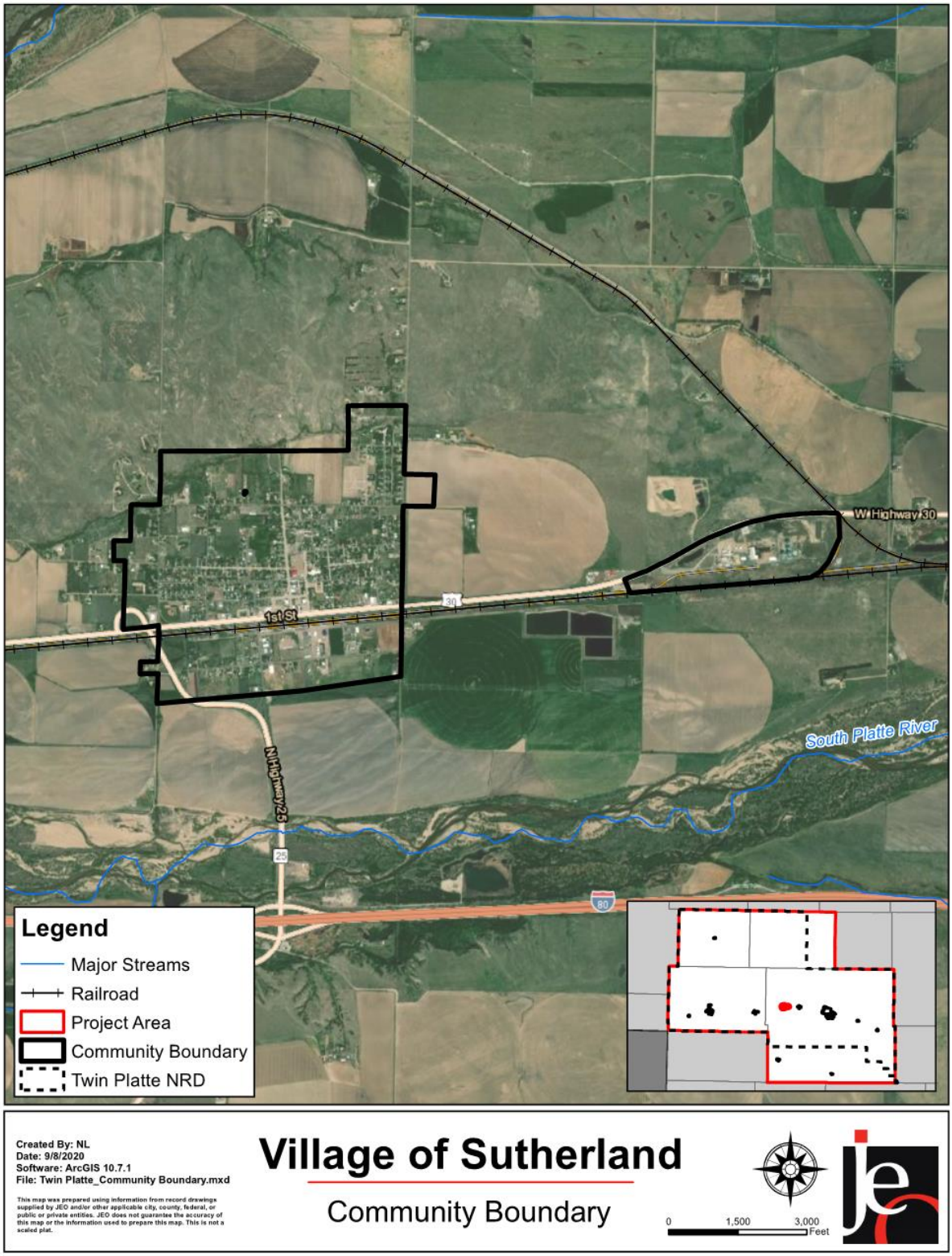


Source: U.S. Census Bureau

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

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

Figure SUT.2: Village of Sutherland



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

- **Slightly older.** The median age of Sutherland was 42.6 years old in 2018, compared with Lincoln County's median of 40.3 years. Sutherland's population grew older since 2010, when the median age was 39.9 years old.[26]
- **More ethnically diverse**. Since 2010, Sutherland grew more ethnically diverse. In 2010, 3% of Sutherland's population was non-white. By 2018, about 6.2% was non-white. During that time, the non-white population in the county declined from 5.7% in 2010 to 4.8% in 2018.[26]
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Sutherland (6.3% of people living below the federal poverty line) was lower than the county's poverty rate (12.2%) in 2018.[27]

Employment and Economics

In comparison to Lincoln County, Sutherland's economy had:

- **Similar mix of industries.** Sutherland's major employment sectors, accounting for 10% or more of employment each, were transportation and education.[27]
- **Higher median household income.** Sutherland's median household income in 2018 ($71,154) was about $14,400 higher than the county ($56,794).[27]
- **Fewer long-distance commuters.** About 34.2% of workers in Sutherland commuted for fewer than 15 minutes, compared with about 60.7% of workers in Lincoln County. About 30.4% of workers in Sutherland commuted 30 minutes or more to work, compared to about 11.5% of county workers.[28]

Major Employers

Major employers in Sutherland include Nebraska Public Power District, Union Pacific, and Midwest Renewable Energy. The local planning team estimates that 60% of residents commute to North Platte for employment.

Housing

In comparison to Lincoln County, Sutherland's housing stock was:

- **Slightly older.** Sutherland had a larger share of housing built prior to 1970 than the county (52.7% compared to 48.6%).[29]
- **Less mobile and manufactured housing.** The Village of Sutherland had a smaller share of mobile and manufactured housing (4.4%) compared to the county (8.3%).[29]
- **Less renter-occupied**. About 20.6% of occupied housing units in Sutherland were renter-occupied compared with 34.7% of occupied housing in Lincoln County.[29]
- **More occupied.** Approximately 8.0% of Sutherland's housing units were vacant compared to 10.7% of units in Lincoln County.[29]

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

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

Future Development Trends

Over the past five years, the village added five new businesses, several new houses, and built a new fire hall. A backup generator was purchased for the new fire hall. In addition, Highway 30 between Hershey and Sutherland was re-surfaced and a retaining pond was built at the park for flood control. No new structures were developed in the floodplain. According to the 2018 American Community Survey estimates, Sutherland's population is growing. The local planning team attributed the growth to the school and lower taxes. In the next five years, no housing or business developments are planned. Sutherland has a future land use map, but it is not provided as it is in the process of being updated.

Parcel Improvements and Valuation

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

Table SUT.2: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
578	$58,732,300	60	$5,021,990	10.4%

Source: County Assessor, 2018

Table SUT.3: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
578	$58,732,300	0	$0	0%

Source: County Assessor, 2018

Community Lifelines

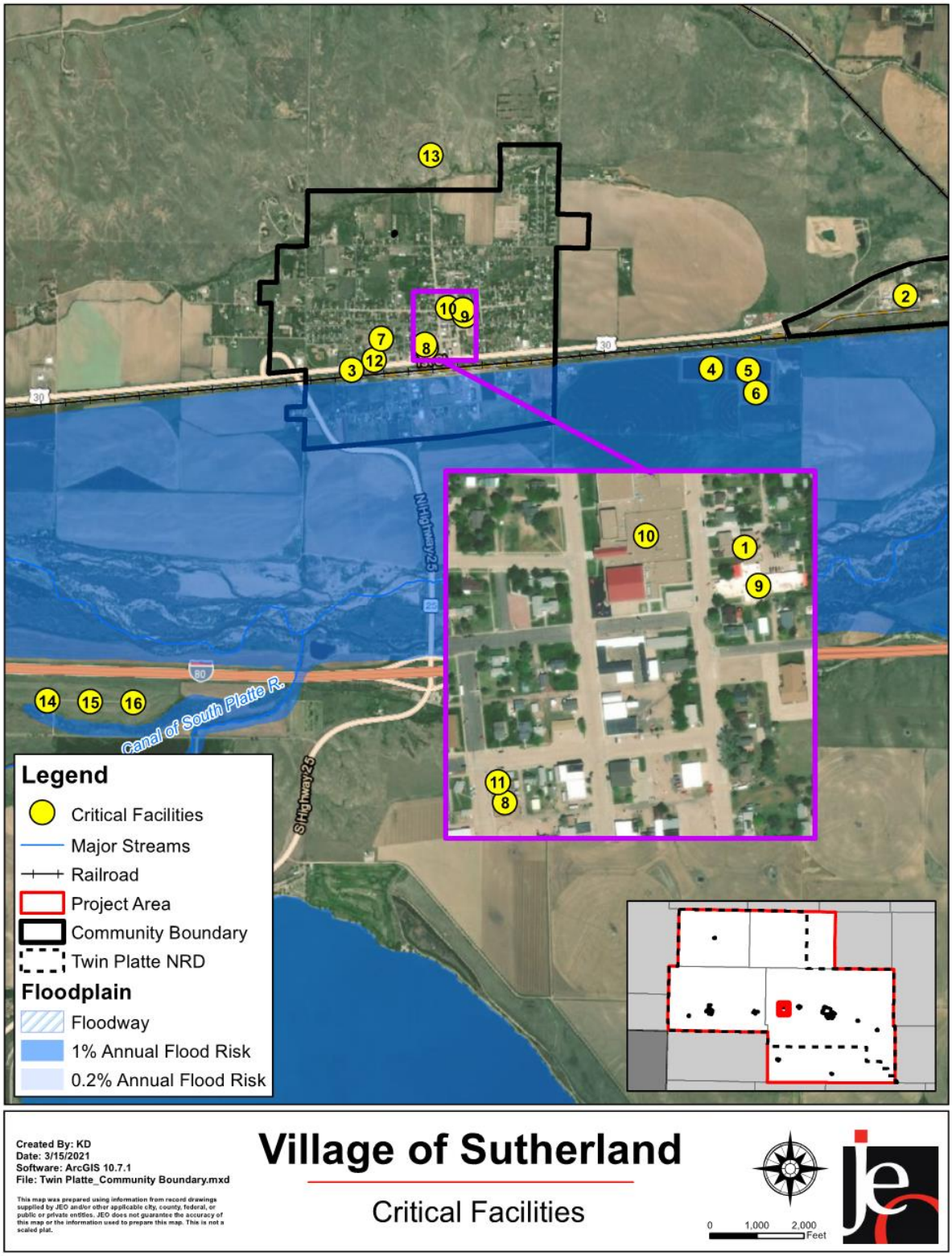
Critical Facilities

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

Table SUT.4: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Clinic	N	Y	N
2	Ethanol Plant	N	Y	N
3	Fire Hall	N	N	N
4	Lagoon #1	N	N	Y (1%)
5	Lagoon #2	N	N	Y (1%)
6	Lagoon #3	N	N	Y (1%)
7	Low Income Elderly Facility	N	N	N
8	Maintenance Shop	N	N	N
9	Nursing Home	N	Y	N
10	School	Y	N	N
11	Substation	N	N	N
12	Village Office	N	N	N
13	Water Tower	N	N	N
14	Well 2009-1	N	N	N
15	Well 2009-2	N	Y	N
16	Well 2009-3	N	N	N

Figure SUT.3: Critical Facilities



Governance

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

- Clerk/Treasurer
- Streets Commissioner
- Parks Commissioner
- Planning Commissioner
- Engineer
- Utilities Superintendent
- Volunteer Fire Department
- Floodplain Administrator
- Attorney

Capability Assessment

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

Table SUT.5: Capability Assessment

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

Survey Components/Subcomponents		Yes/No
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1- & 6-Year Plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	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 to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate
Public support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Plan Integration

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

Capital Improvements Plan

The capital improvements plan outlines short-term projects the village would like to pursue and provides a planning schedule and financing options. Projects include stormwater projects,

upsizing culverts and drainage structures, upgrading storm sewer systems, improving transportation routes for drainage, widening roadways, installing new municipal wells, upsizing water distribution pipes, installing emergency generators, and constructing a new fire hall.

Comprehensive Plan (2020)

The comprehensive plan is designed to guide the future actions of the village. It contains goals aimed at safe growth, directs development away from the floodplain, encourages infill, directs development away from chemical storage facilities, encourages the elevation of structures located in the floodplain, directs housing away from major transportation routes, and encourages the preservation of open space. There is no timeline to update the plan as it was done very recently.

Floodplain Ordinance, Zoning Ordinance, and Subdivision Regulations

The village's floodplain regulations, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, discourage development in the floodplain, require more than one foot of elevation above Base Flood Elevation, discourage development near chemical storage sites, discourage development along major transportation routes, include well setback requirements, include the ability to implement water restrictions, allow density transfers, and restrict the subdivision of land within the floodplain. There are no plans to update these documents.

Lincoln County Local Emergency Operations Plan (2019)

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

Water System Emergency Response Plan

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

Wellhead Protection Plan

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

Historical Occurrences

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

Hazard Prioritization

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

Dam Failure
The high hazard Sutherland Dam is located near the community (Figure SUT.4) and if it were to fail the wellfield would be underwater. The dam's Emergency Action Plan indicates that the rest Sutherland would not be inundated because the water would flow down the Platte River to the south of the community. Sutherland would be affected if the upstream dam, Kingsley Dam, were to fail. Dam failure has not previously occurred in the planning area.

Grass/Wildfire
Wildfires are a fairly common occurrence in Sutherland and the surrounding planning area. The Sutherland Fire Department reported to the Nebraska Forest Service that it responded to 87 wildfires from 2000 to 2018. These fires burned 1,682 acres, or 19 acres per fire. The largest fire occurred in 2002 when lightning caused 900 acres to burn. A new fire hall with a backup generator was recently constructed for the Sutherland Fire Department.

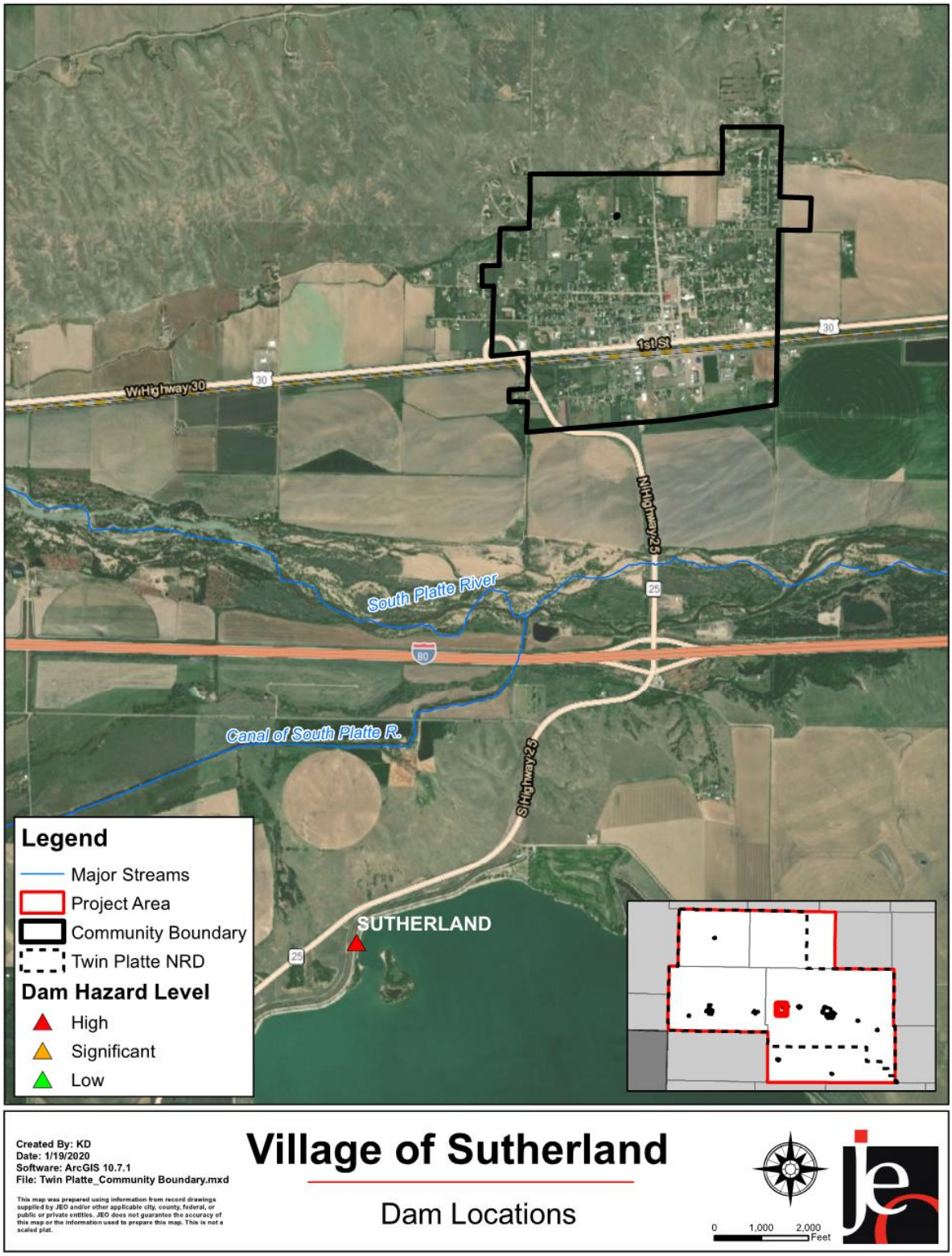
Flooding
According to NCEI data, there have been 10 flooding events since 1996 that have caused $465,000 in property damages. The most damaging event occurred in September 2013 when flooding along the South Platte River caused $180,000 in damages. There are areas around the village with poor stormwater drainage, including Walnut and 3rd Streets. Some critical facilities such as the nursing home and school have experienced minor flooding in the past. Each minor flooding event has cost approximately $250 to $300 to clean up, and minor preventative action has cost $120. The village recently constructed a retention pond in the park to help with flood control.

Severe Thunderstorms
Severe thunderstorms are a regular part of the climate in Sutherland, as they occur several times a year. Severe thunderstorms have the ability to cause significant damages to property and buildings. According to NCEI data, 31 thunderstorm events occurred since 1996 that caused $36,000 in property damages. The largest thunderstorm wind event was measured at 104 mph. The local planning team indicated that a number of hazardous trees that need to be removed throughout the village. Critical facilities such as the sewer plant and wells have been identified as needing backup generators. None of the powerlines have been buried within the village.

Severe Winter Storms
Severe winter weather occurs several times a year in Sutherland. No structural damages have impacted critical facilities from severe winter storms. Designated snow routes in town are Walnut, Maple, 1st, Oak, and 2nd Streets. Streets are cleared by Utilities staff and snow removal resources are currently sufficient for local events. However, the local planning team is concerned regarding the ability to clear the streets in the event of a major winter storm.

Tornadoes
Tornadic events have the potential to cause significant property damages and loss of life. NCEI reports that there have been ten tornadoes located in or near Sutherland since 2010. Property damage estimates as a result of these tornadic events are low at $1,000. The local planning team indicated that critical facilities have not been damaged by a tornado in the past. Sutherland residents have limited options for shelter in the event of a tornado as the village does not have a safe room.

Figure SUT.4: Dam Locations



Mitigation Strategy

Sutherland's municipal funds are sufficient to pursue new capital projects and have increased over recent years. However, with a large portion of funds already dedicated to the new fire hall, the village will likely need grant assistance to help pay for many of the mitigation actions listed below. The community has experience applying for grants and has been awarded grants from Farm Credit Services, Game and Parks, Walmart, Visitors Bureau, and the Equitable Bank Mid NE Community Foundation in the past.

Completed Mitigation Actions

Mitigation Action	Map Municipal Infrastructure
Description	Acquire Geographic Information System (GIS) to map municipal infrastructure.
Hazard(s) Addressed	All Hazards
Status	Completed

Mitigation Action	Purchase Snowplow
Description	Purchase additional snowplow
Hazard(s) Addressed	Severe Winter Storm
Status	Completed

New Mitigation Actions

Mitigation Action	Clean Ditches
Description	Keep the north ditch clean to better disperse water and keep the Keith Lincoln Irrigation Ditch from breeching.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000+
Funding	Village Taxes
Timeline	5+ Years
Priority	Medium
Lead Agency	Utilities, Village Board
Status	Not Started

Mitigation Action	New Fire Hall
Description	Construct a new fire hall for the village.
Hazard(s) Addressed	All Hazards
Estimated Cost	$200,000+
Funding	Village General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Not Started

Mitigation Action	New Municipal Well
Description	Build a well on the south side of the river not in a dam inundation area or floodplain.
Hazard(s) Addressed	Flooding, Dam Failure
Estimated Cost	$350,000
Funding	Water Bond
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, TC Engineering
Status	Not Started

Mitigation Action	Raise Existing Wells
Description	Raise existing wells so they are located above the dam inundation area and Base Flood Elevation.
Hazard(s) Addressed	Flooding, Dam Failure
Estimated Cost	Unknown
Funding	Water Bond
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, TC Engineering
Status	Not Started

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
Estimated Cost	$10,000 - $50,000 per generator
Funding	Village Taxes, User Fees
Timeline	2-5 Years
Priority	High
Lead Agency	Utilities, Village Board
Status	In Progress: A generator was purchased for the new fire hall; additional generators at critical facilities are still needed

Mitigation Action	Evacuation Plan
Description	Develop local evacuation plan.
Hazard(s) Addressed	Dam Failure, Grass/Wildfire
Estimated Cost	$2,000
Funding	Village Taxes
Timeline	2-5 Years
Priority	Medium
Lead Agency	Lincoln County Emergency Manager, Utilities
Status	Not Started

Mitigation Action	Public Education
Description	Develop/improve public awareness program. Develop or obtain materials and conduct multi-faceted public education.
Hazard(s) Addressed	All Hazards
Estimated Cost	$2,000+
Funding	Water Rates, Twin Platte NRD
Timeline	Ongoing
Priority	Medium
Lead Agency	Utilities, Planning and Zoning, Twin Platte NRD
Status	Not Started

Mitigation Action	Reduce Flow Restrictions
Description	Evaluate restrictions and measures to prevent or reduce damage from flooding. Implement appropriate nonstructural or structural methods on an emergency or permanent basis (such as monitoring, ice jam dusting, or other flow improvements).
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 - $50,000 for studies; $10,000 - $100,000+ for infrastructure/structural improvements
Funding	Village General Fund, Bonds, Twin Platte NRD
Timeline	5+ Years
Priority	Medium
Lead Agency	Utilities, Twin Platte NRD, Emergency Management
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Improve storm sewers and drainage patterns in and around the community.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000,000
Funding	Village Taxes
Timeline	5+ Years
Priority	High
Lead Agency	Utilities, Village Board
Status	In Progress: A retaining pond was built at the park for flood control; additional drainage improvements are still needed

Removed Mitigation Actions

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

Community Profile

Village of Wallace

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table WAL.1: Wallace Local Planning Team

Name	Title	Jurisdiction
Mary May	Clerk/Treasurer	Village of Wallace

Location and Geography

In southwest Lincoln County, the Village of Wallace covers an area of 455 acres. Red Willow Creek flows north to south just outside the community's eastern boundary.

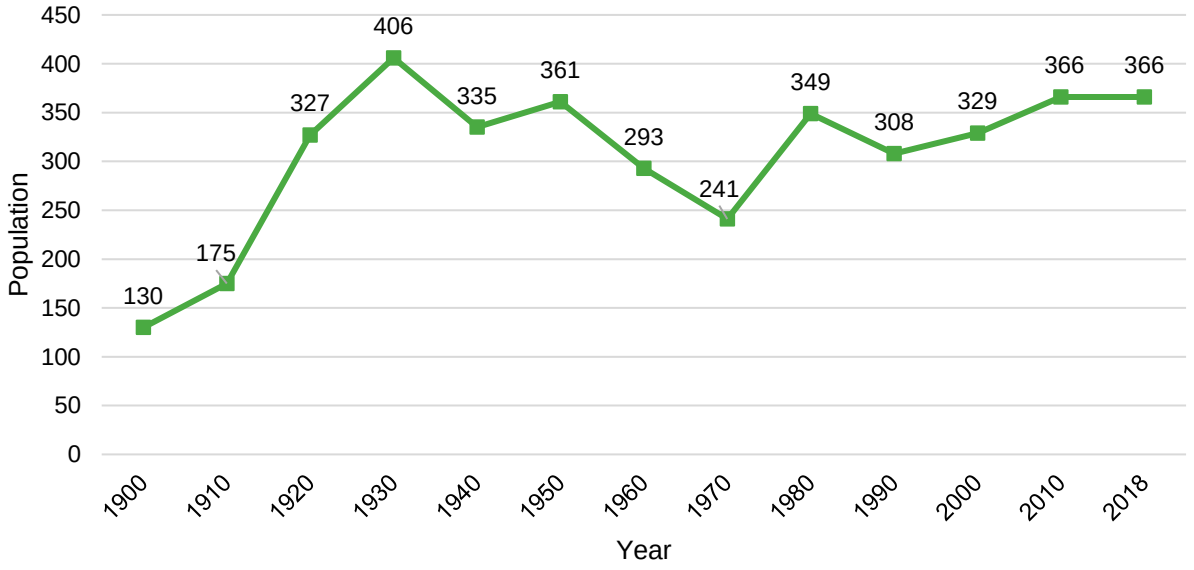
Transportation

Wallace's major transportation corridors include State Highways 23 and 25. The most traveled route is Highway 25 with an average of 990 vehicles daily, 200 of which are trucks.[30] Farm chemicals are regularly transported on both highways. The village has a Nebraska Kansas Colorado Railway line running east and west, and an NPPD rail line running north from the east side of town. The Wallace Municipal Airport is located south of the community near Highway 23. The local planning team indicated that no large crashes or chemical spills have occurred on any local transportation routes. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Wallace's population has been stable since 2010 and sat at about 366 people in 2018. A stable population can lead to a stable tax base, making it easier to implement mitigation actions. Wallace's population accounted for 1.0% of Lincoln County's population in 2018.[31]

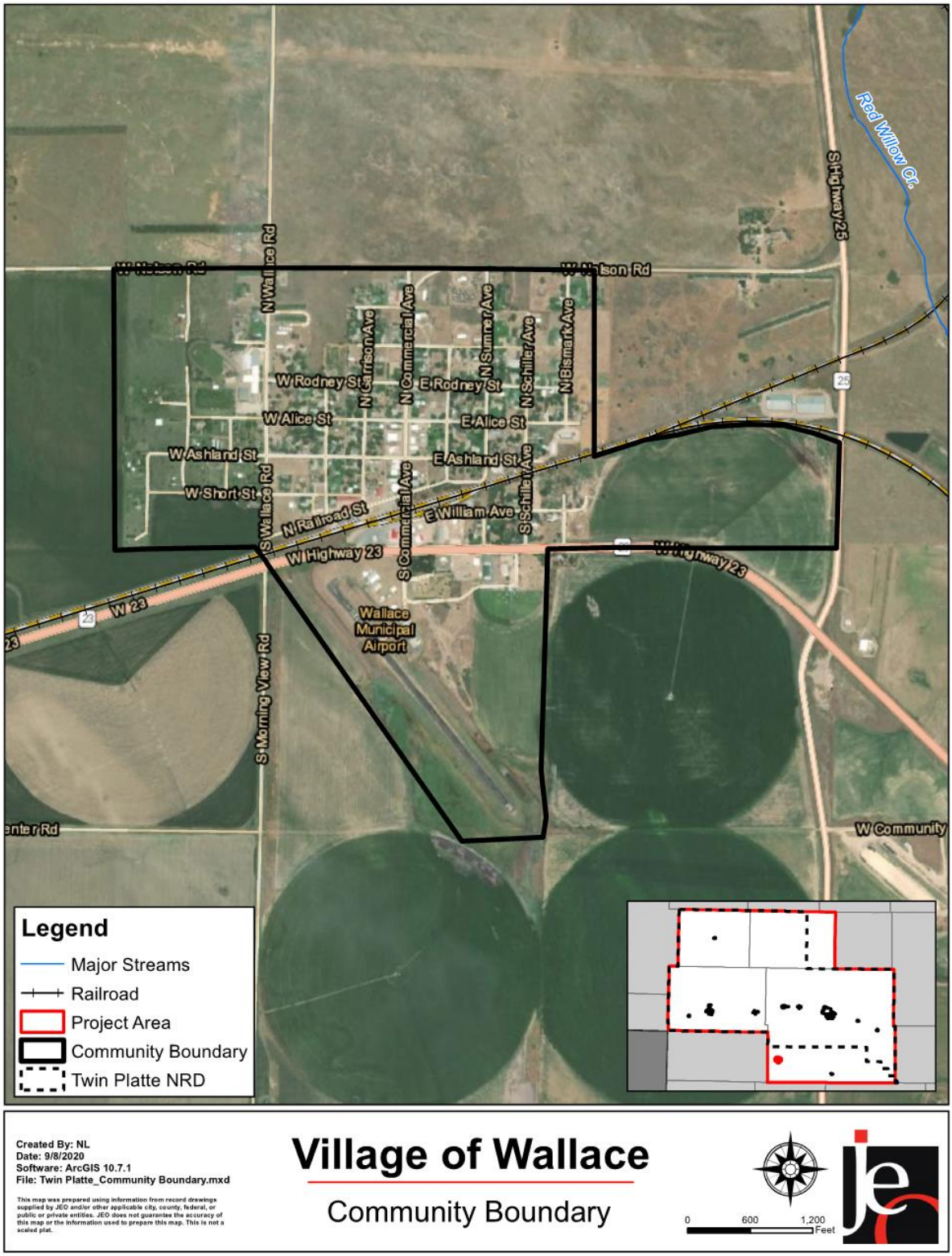
Figure WAL.1: Population 1900 - 2018



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

30 Nebraska Department of Roads. 2018. "Interactive Statewide Traffic Counts Map." [map]. https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34.
31 United States Census Bureau. 2018. "DP05: Demographic and Housing Estimates [database file]. https://data.census.gov/cedsci/

Figure WAL.2: Village of Wallace



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

- **Older.** The median age of Wallace was 46.4 years old in 2018, compared with Lincoln County's median of 40.3 years. Wallace's population grew older since 2010, when the median age was 35.8 years old.[31]
- **Less ethnically diverse**. Since 2010, Wallace grew less ethnically diverse. In 2010, 14.5% of Wallace's population was non-white. By 2018, about 2.3% was non-white. During that time, the non-white population in the county decreased from 5.7% in 2010 to 4.8% in 2018.[31]
- **Less likely to be below the federal poverty line.** The poverty rate in the Village of Wallace (5.4% of people living below the federal poverty line) was lower than the county's poverty rate (12.2%) in 2018.[32]

Employment and Economics

In comparison to Lincoln County, Wallace's economy had:

- **Similar mix of industries.** Wallace's major employment sectors, accounting for 10% or more of employment each, were: agriculture, retail trade, transportation, and education.[32]
- **Lower median household income.** Wallace's median household income in 2018 ($51,250) was about $5,500 lower than the county ($56,794).[32]
- **More long-distance commuters.** About 49.6% of workers in Wallace commuted for fewer than 15 minutes, compared with about 60.7% of workers in Lincoln County. About 26.1% of workers in Wallace commuted 30 minutes or more to work, compared to about 11.5% of county workers.[33]

Major Employers

Wallace's major employers include Wallace Public School, the pig farm southwest of Wallace, and the feed lots east of Wallace. Residents who don't work in Wallace or the surrounding area typically commute to North Platte or Sutherland for employment.

Housing

In comparison to Lincoln County, Wallace's housing stock was:

- **Older.** Wallace had a larger share of housing built prior to 1970 than the county (61.3% compared to 48.6%).[34]
- **More mobile and manufactured housing.** The Village of Wallace had a larger share of mobile and manufactured housing (21.7%) compared to the county (8.3%).[34]
- **Less renter-occupied**. About 23.9% of occupied housing units in Wallace were renter-occupied compared with 34.7% of occupied housing in Lincoln County.[34]
- **Slightly more occupied.** Approximately 9.3% of Wallace's housing units were vacant compared to 10.7% of units in Lincoln County.[34]

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

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

Future Development Trends

Over the past five years, there have been no changes in the community other than modifications to existing buildings. According to the local planning team, the population in the village is stable due to the school helping to retain families, but a lack rentals and new housing options. In the next five years, no new housing or businesses are planned. Most building permits are issued to add garages or outbuildings.

Parcel Improvements and Valuation

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

Table WAL.2: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
203	$10,525,605	0	$0	0%

Source: County Assessor, 2018

Table WAL.3: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
203	$10,525,605	0	$0	0%

Source: County Assessor, 2018

Community Lifelines

Critical Facilities

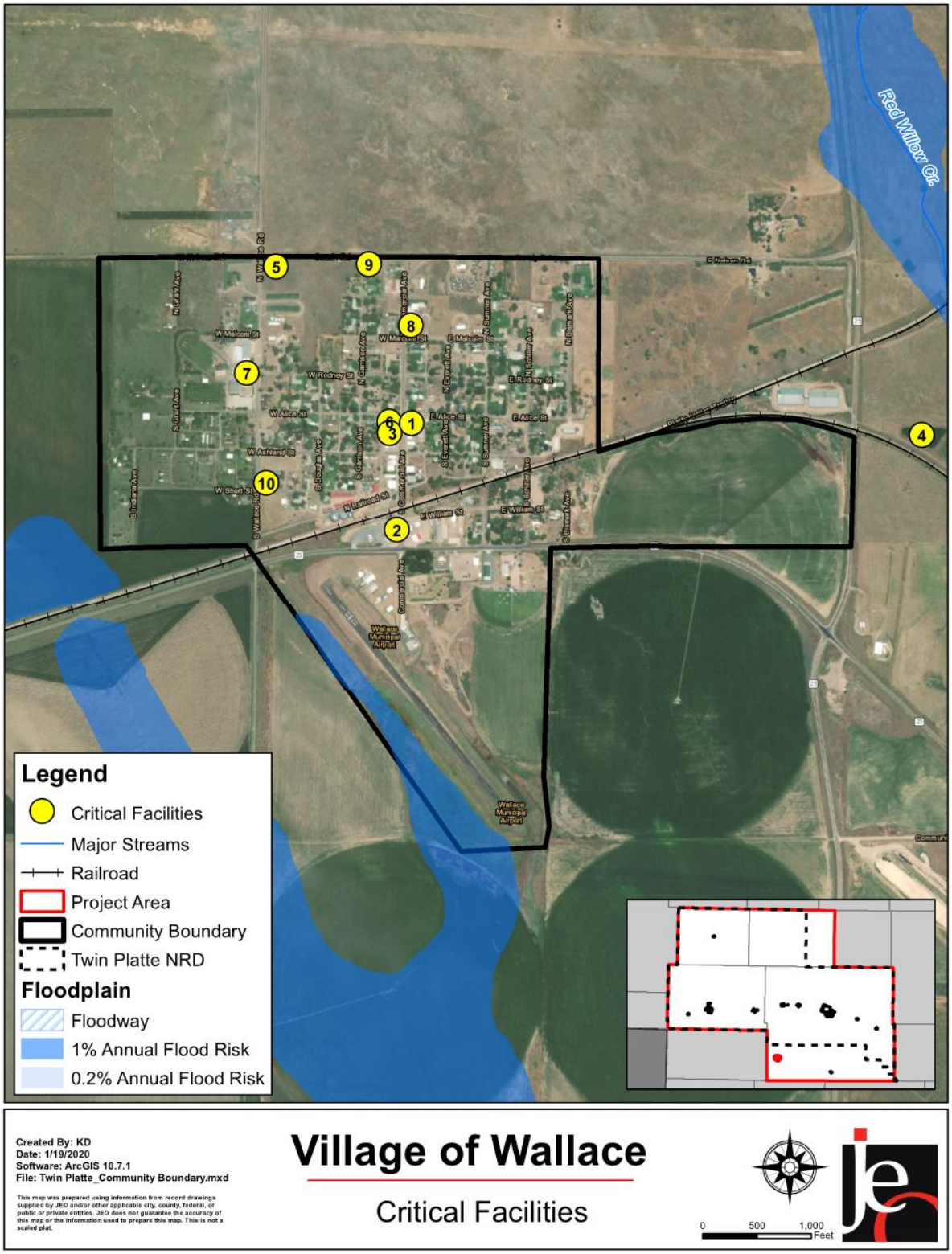
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

Table WAL.4: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Community Center	N	N	N
2	Co-op Fuel	N	N	N
3	Fire Hall	N	N	N
4	Lagoon	N	N	N
5	Substation	N	N	N
6	Village Office	N	N	N
7	Wallace Public School	Y	N	N
8	Water Tower	N	N	N
9	Well #1	N	N*	N
10	Well #2	N	N*	N

*Wells can be manually operated by a tractor if loss of power occurs.

Figure WAL.3: Critical Facilities



Governance

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

- Clerk/Treasurer
- Public Works
- Attorney
- Planning Commissioner
- Volunteer Fire Department

Capability Assessment

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

Table WAL.5: Capability Assessment

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

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

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

Plan Integration

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

Building Code (2000)

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

Capital Improvements Plan (2021)
The capital improvements plan lists projects the village would like to do in the future. Projects within the plan include stormwater projects, upsizing the culverts and drainage structures, and installing emergency generators in critical facilities. This plan is updated on a yearly basis.

Comprehensive Plan (2019)
The comprehensive plan is designed to guide the future actions of the village. It directs development away from chemical storage facilities, directs housing away from major transportation routes, and encourages infill development. There are no plans to update this document at this time.

Lincoln County Local Emergency Operations Plan (2019)
The Village of Wallace is an annex in the Lincoln County Local Emergency Operations Plan (LEOP. The LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

Water System Emergency Response Plan (2019)
A water system emergency response plan serves as a guideline for water operators and village administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events.

Wellhead Protection Plan (2000)
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.

Zoning Ordinance and Subdivision Regions (2000)
The village's zoning ordinance and subdivision regulations outline where and how development should occur in the future. They discourage development near chemical storage sites, discourage housing along major transportation routes, include well setback requirements, and include the ability to implement water restrictions. There are currently no plans to update this document.

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

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

Flooding
Wallace does not participate in the NFIP and there are no repetitive flood loss properties in the village. NCEI reports five instances of flooding since 1996 that caused $246,000 in property damages. In June of 2015, the village received four inches of rain in two hours that caused half of the airport runway to be underwater. Several houses had floodwaters reach the foundation, with one home damaged. The Wallace Fire Department used a boat to check on residents and rescued one. The local planning team indicated that the southwest corner of the community is most likely to flood due to upstream rains. One house in the village had a corner elevated due to flood damages in the past.

Grass/Wildfire
Grassfires occur frequently in the surrounding areas. The Wallace Fire Department's jurisdiction covers over 454 square miles and they have responded to 58 fires since 2000. Most have been small with the largest occurring in 2007 with 640 acres burned. The local planning team indicated that no large fires have occurred near the community. The Wallace Fire Department is made up of 26 volunteer members. Response times are quick with many volunteers working in the village. The village does not have a Wildland Urban Interface code and does not do any type of fuel reductions.

Hail
Hail is a common occurrence in Wallace. NCEI reports 61 hail events since 1996, causing $1,926,000 in property damages. The local planning team estimated that the village has yearly small hail events, with larger more damaging events occurring every four to five years. The largest hail event had hailstones measuring 2.75 inches. The local planning team indicated that the community hall roof was replaced in 2009 and has a lifetime warranty. On July 20, 2020, a hail event caused $200,000 in damages to village property. Most residents had damage to roofs, windows, siding, and cars. Tree damage was minimal other than loss of leaves. Damages from hail in Wallace is such a common occurrence that some insurance companies stopped covering the community.

High Winds
High wind events can cause significant damages. Past high wind events have knocked down trees and caused power outages. Power outages usually last only a short amount of time and none have lasted for more than 24 hours. Midwest Power is able to respond quickly whenever a power outage occurs. The village typically experiences one or two high wind events in the summer and one or two high wind events in the winter.

Severe Thunderstorms
Severe thunderstorms are a common occurrence in Wallace and the rest of the planning area. NCEI has reported 21 thunderstorms wind events that caused $482,000 dollars in property damages. In 2009, a severe thunderstorm wind event caused $350,000 in damage to trees and roofs, including the roof of the school gymnasium. Other impacts from severe thunderstorms include damage to trees and short-term power loss.

Severe Winter Storms
In October of 2009, Wallace received 10 inches of snow and ice. The storm knocked out power throughout the community. Snow removal is handled by the village maintenance person. Village equipment includes a truck with a blade, a tractor with a blade, and a sander. The local snow removal resources are sufficient for local events. Snow fences are also used in areas of heavy

drifting and signs are put up along snow routes, so people don't park in the street. Power outages typically occur in the late winter or early spring when ice knocks down powerlines.

Tornadoes

According to NCEI, an EF1 tornado occurred in May of 2000 one mile northeast of the community and caused $100,000 of damage to irrigation systems. In the event of a tornado, residents can go to the community hall, churches, the schoolhouse, and the basement of the local hotel. Many houses also have basements, which can be used for shelter. The tornado siren is nine years old and can be heard all over the community. It is tested every evening at 6:00pm.

Mitigation Strategy

Wallace's municipal funds are limited to maintaining current facilities and have stayed the same over recent years. Currently a large portion of funds are already dedicated to painting the water tower and adding radio readers for water meters. The village will likely need grant assistance to help cover the costs for any large mitigation project. The village has experience applying for grants and has applied for a tire removal grant recently.

New Mitigation Actions

Mitigation Action Name	Radio Readers on Meters
Description	Add radio readers to all the water meters in the community.
Hazard(s) Addressed	Drought
Estimated Cost	$41,000
Local Funding	Water Rates, General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Clerk
Status	Not Started

Mitigation Action Name	Stormwater System and Drainage Improvements
Description	Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Additional culverts are needed on the southwest corner of the community.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Clerk
Status	Not Started

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Provide a source of backup power for critical facilities and other community owned structures. A backup generator is needed for the north well.
Hazard(s) Addressed	All Hazards
Estimated Cost	$30,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Clerk
Status	Not Started

Mitigation Action	Participate in the NFIP
Description	Join the National Flood Insurance Program.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	Staff Time
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started.

Removed Mitigation Actions

Mitigation Action	Public Safe Rooms and Storm Shelters
Description	Identify and evaluate existing safe rooms and/or storm shelters and improve and/or construct safe rooms and storm shelters.
Status	Removed. There are four community buildings that have basements that can be used for shelter.

Community Profile

Village of Wellfleet

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table WEL.1: Wellfleet Local Planning Team

Name	Title	Jurisdiction
Ruth Hasenauer	Board Chairperson	Village of Wellfleet
John Lewis	Treasurer	Village of Wellfleet

Location and Geography

On the southern edge of Lincoln County, the Village of Wellfleet covers an area of 173 acres. The closest waterbody to the village is Wellfleet Lake, which is located on the community's western side. Wellfleet Lake connects to Medicine Creek which flows past the village.

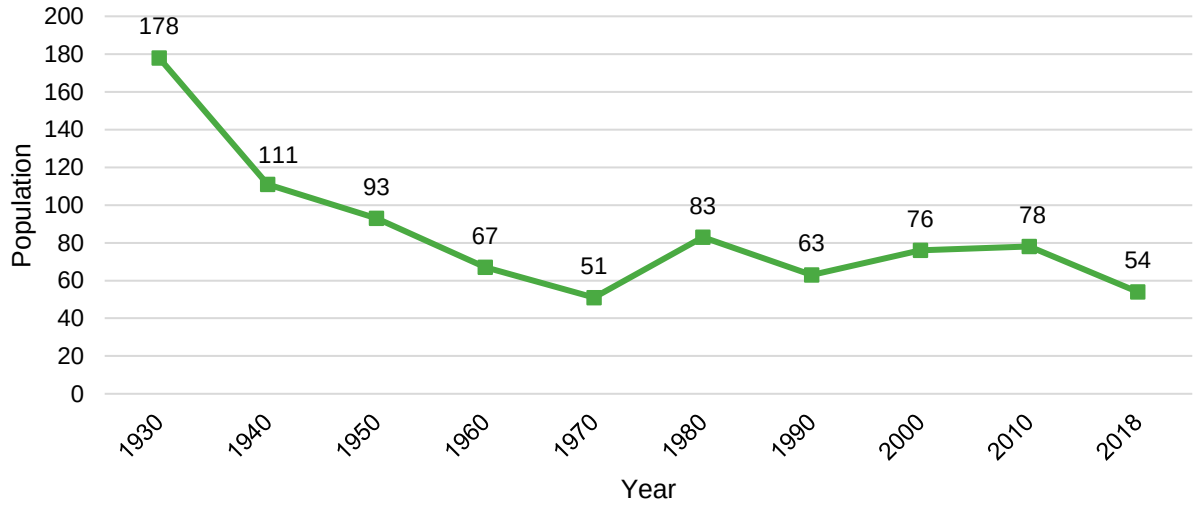
Transportation

Wellfleet's major transportation corridor and most traveled route is U.S. Highway 83, with an average of 2,135 vehicles daily, 320 of which are trucks.[35] Chemicals are transported on the highway, but the village is unsure of the types. No chemical spills have occurred in the village. The village used to have a Nebraska Kansas Colorado Railway line traveling northwest to southeast through the southern edge of the community. However, that line has been closed. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Demographics

The Village of Wellfleet's population has been declining since 2010 to about 54 people in 2018. A declining population can lead to more unoccupied and unmaintained housing that is then at risk to high winds and other hazards. Furthermore, with fewer residents, tax revenue decreases for the community, which could make implementation of mitigation projects more fiscally challenging. Wellfleet's population accounted for 0.15% of Lincoln County's population in 2018.[36]

Figure WEL.1: Population 1930 - 2018

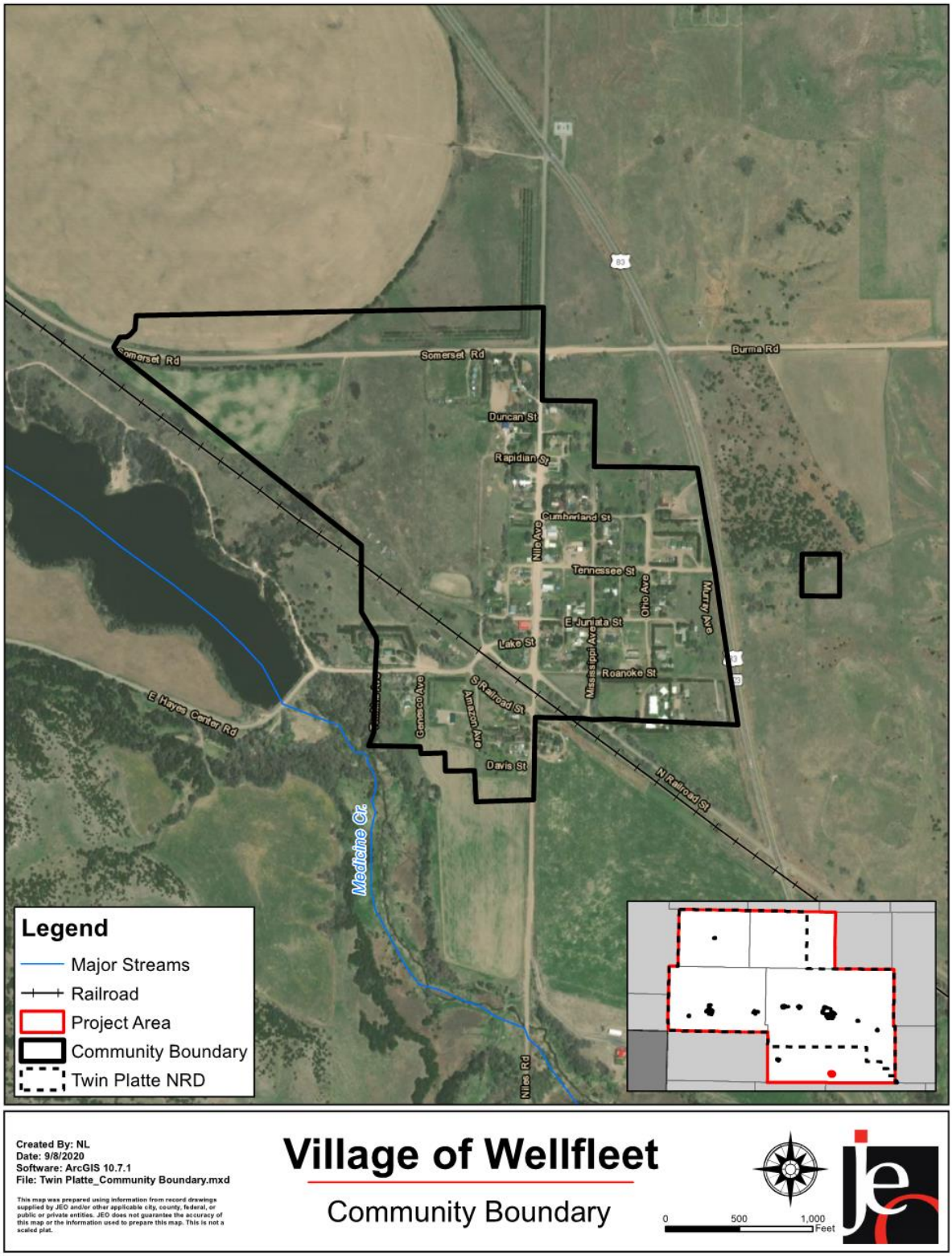


Source: U.S. Census Bureau

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

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

Figure WEL.2: Village of Wellfleet



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

- **Younger.** The median age of Wellfleet was 33.5 years old in 2018, compared with Lincoln County's median of 40.3 years. Wellfleet's population grew younger since 2010, when the median age was 50.5 years old.[36]
- **Less ethnically diverse**. Since 2010, Wellfleet grew less ethnically diverse. In 2010, 23.1% of Wellfleet's population was non-white. By 2018, about 0% was non-white. During that time, the non-white population in the county decreased from 5.7% in 2010 to 4.8% in 2018.[36]
- **About as likely to be below the federal poverty line.** The poverty rate in the Village of Wellfleet (13% of people living below the federal poverty line) was slightly higher than the county's poverty rate (12.2%) in 2018.[37]

Employment and Economics

In comparison to Lincoln County, Wellfleet's economy had:

- **Different mix of industries.** Wellfleet's major employment sectors, accounting for 10% or more of employment each, were: agriculture, manufacturing, education, transportation, and finance.[37]
- **Lower median household income.** Wellfleet's median household income in 2018 ($43,333) was about $13,400 lower than the county ($56,794).[37]
- **More long-distance commuters.** About 26.7% of workers in Wellfleet commuted for fewer than 15 minutes, compared with about 60.7% of workers in Lincoln County. About 20% of workers in Wellfleet commuted 30 minutes or more to work, compared to about 11.5% of county workers.[38]

Major Employers

There are no major employers in the community. Most residents are self-employed in the agricultural sector or commute to North Platte for employment.

Housing

In comparison to Lincoln County, Wellfleet's housing stock was:

- **Slightly newer.** Wellfleet had a smaller share of housing built prior to 1970 than the county (44% compared to 48.6%).[39]
- **More mobile and manufactured housing.** The Village of Wellfleet had a larger share of mobile and manufactured housing (44%) compared to the county (8.3%).[39]
- **Less renter-occupied**. About 9.1% of occupied housing units in Wellfleet were renter-occupied compared with 34.7% of occupied housing in Lincoln County.[39]
- **Less occupied.** Approximately 12% of Wellfleet's housing units were vacant compared to 10.7% of units in Lincoln County.[39]

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

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

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

Future Development Trends

Over the past five years, the village has made repairs to Nile Avenue. No new homes or businesses were added. According to the 2018 American Community Survey estimates, Wellfleet's population is declining. The local planning team attributed this to an aging population with few young families. In the next five years, no housing or business developments are planned.

Parcel Improvements and Valuation

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

Table WEL.2: Parcel Improvements and Value in the 1% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
51	$1,274,120	0	$0	0%

Source: County Assessor, 2018

Table WEL.3: Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
51	$1,274,120	0	$0	0%

Source: County Assessor, 2018

Community Lifelines

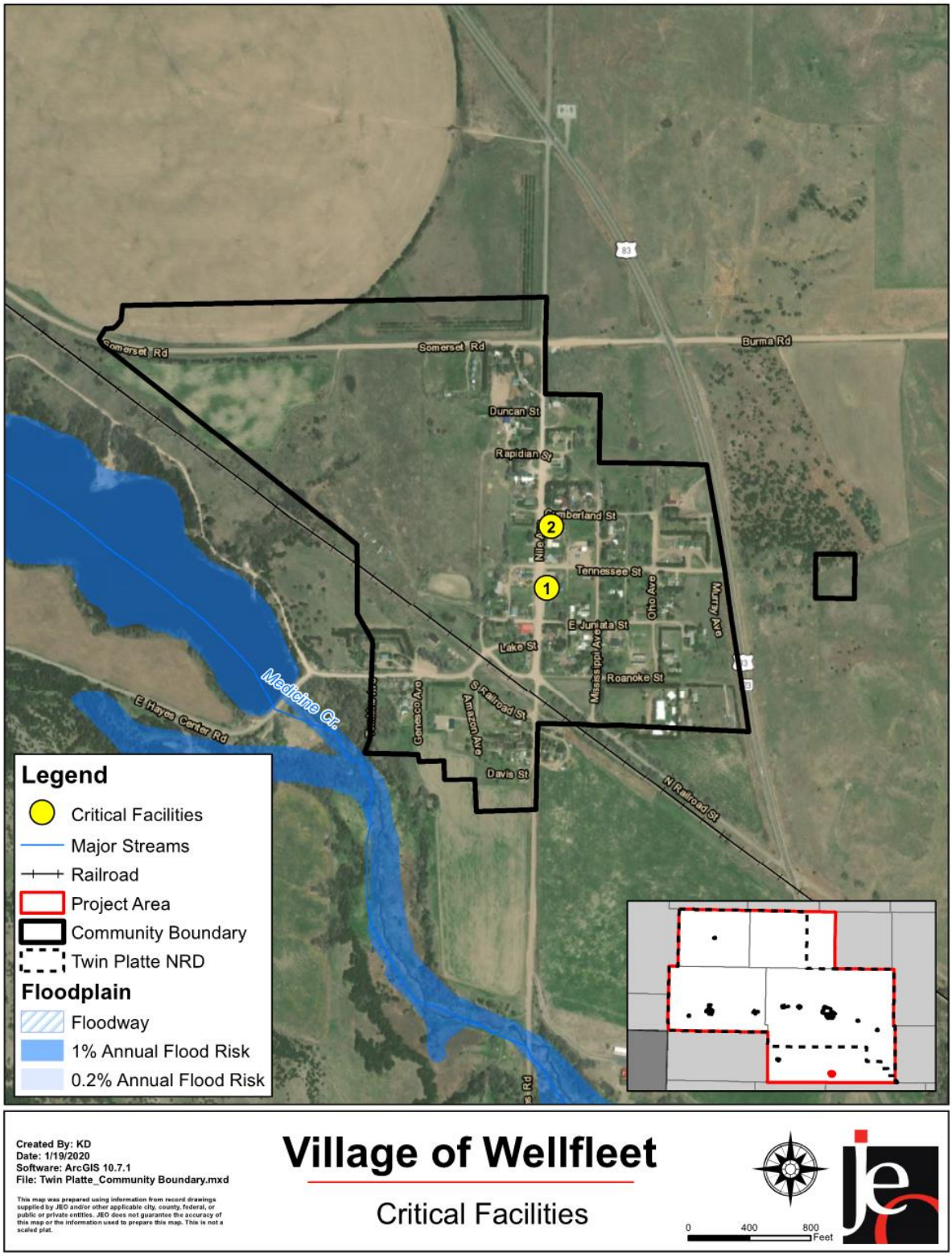
Critical Facilities

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

Table WEL.4: Critical Facilities

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

Figure WEL.3: Critical Facilities



Governance

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

- Clerk/Treasurer
- Attorney
- Engineer

Capability Assessment

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

Table WEL.5: Capability Assessment

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

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

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

Plan Integration

Wellfleet has a zoning ordinance that was last updated in 1990. Due to its age, it has not been integrated with the hazard mitigation plan. There are currently no plans to update the document. The village is also an annex in the 2019 Lincoln 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. No other planning documents were identified during this process. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Historical Occurrences

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

Hazard Prioritization

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

Drought

Drought can have a large impact on the agricultural sector, which is the primary source of income for many residents in the village. All streets in the community are dirt which has caused blowing sand when conditions are dry. All residents in Wellfleet have their own wells for water. Because of this the village is unable to implement water restrictions. Even with individual wells there have not been issues with high nitrates or other contaminants. There have also not been any past issues with individual wells running dry during past drought events.

Flooding

Flash flooding is more of a concern in the village as no parcels are located in the floodplain. Past flood events have damaged Nile Avenue and basements along this street due to culverts not being able to handle the stormwater. The village has worked with the county in the past to help direct stormwater away from homes. The southern part of the community also has poor stormwater drainage. The village was not impacted during the March 2019 flood event.

High Winds

The primary concern regarding high winds is downed trees causing damage to structures. No damage to critical facilities has occurred in the past. There are several trees in the community that need to be trimmed, but most are located on private property. Although power loss is not a large concern, in the event that it occurs, all important records are backed up.

Severe Thunderstorms

The most damaging thunderstorm event occurred in April 2001, when a thunderstorm wind event damaged the roofs of several homes. In the past, the village hall sustained hail damage and was repaired using money from insurance. All village-owned buildings have insurance for damage from hail and other severe storms. Notifying residents is a concern for the community. The county emergency management offers text alerts for severe weather, but many residents do not use the service. The local planning team estimated that very few powerlines are buried; however, power loss has not been an issue in the past.

Tornadoes

Although tornadoes have not impacted the village in the past, the risk still exists. If a tornado were to touch down in the community, it could cause large scale damage to all structures. Wellfleet has one tornado siren that can be activated by the Lincoln County Sheriff's Office. There are no safe rooms or shelter areas in the community. Residents seeking safe shelter must use their own or a neighbor's basement. In the event of a disaster the village has a mutual aid agreement with Lincoln County.

Mitigation Strategy

Wellfleet's municipal funds are sufficient to pursue new capital projects and have stayed the same over recent years. With a large portion of funds already dedicated to street improvements, the village will likely need grant assistance to help pay for the mitigation actions listed below. The village has applied for grants in the past but has not been awarded funds.

New Mitigation Actions

Mitigation Action	Stormwater System and Drainage Improvements
Description	Drainage improvements are needed along Nile Avenue and in the south portion of the community.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,000+
Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Lincoln County Department of Roads
Status	In Progress: Improvements are made when funds are available

School District Profile

Hershey Public Schools

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table HPS.1: Hershey Public Schools Local Planning Team

Name	Title	Jurisdiction
Jane Davis	Superintendent	Hershey Public Schools
Steve Koch	School Board President	Hershey Public Schools
Jeff Steinbeck	7-12 Principal	Hershey Public Schools
Jared Thomsen	K-6 Principal	Hershey Public Schools

Location

In northwestern Lincoln County, Hershey Public Schools serves two schools: Hershey Elementary School and Hershey High School. The school district provides services to students in the Village of Hershey, as well as 180 students from North Platte and Sutherland who option into the district.

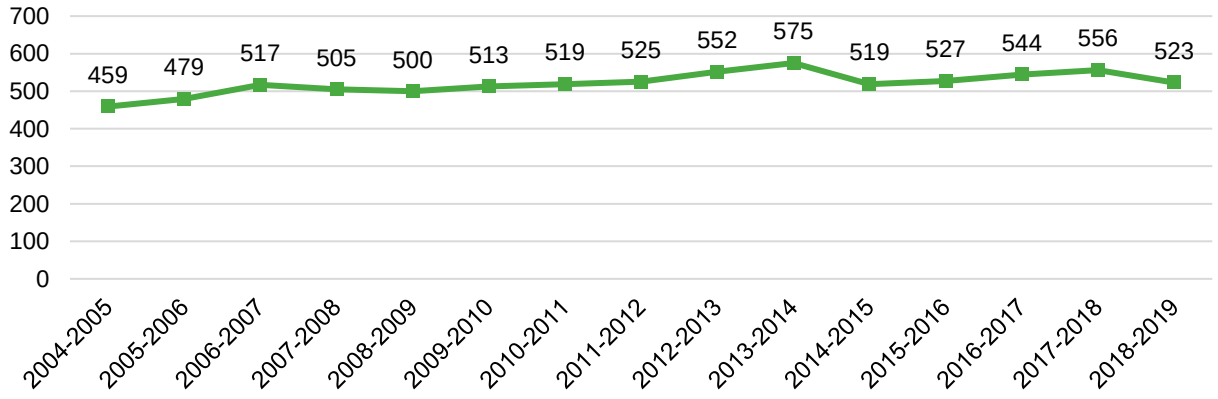
Transportation

Two major transportation corridors intersect near the district's schools: U.S. Highway 30 and Nebraska Highway 56C. The most traveled route is Highway 30 with an average of 3,820 vehicles daily, 330 of which are trucks. [40] In addition to the highways, the local planning team is also concerned with many rural routes, like Suburban Road, Miller School Road, and North River Road. Many of these roads have high traffic and poor road conditions. No accidents have occurred involving school transportation. The district meets on a monthly basis to be proactive in preventing accidents and ensuring safety. A Union Pacific rail line runs through the district. Transportation information is important to hazard mitigation plans because it suggests areas more at risk of transportation incidents. The district currently has seven yellow buses and one coach bus. Approximately 100 students are bused to and from school on a daily basis.

Demographics

The following figure displays the historical student population trend starting with the 2004-05 school year and ending with the 2018-19 year. It indicates that the student population has been declining since 2017. There are 125 students enrolled in the district.[41] The local planning team anticipates little change in student enrollment due to option enrollment.

Figure HPS.2: Student Population 2006-2019



Source: Nebraska Department of Education

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

41 Nebraska Department of Education. September 2020. "2018-2019 Education Profile for District: Hershey Public Schools." https://nep.education.ne.gov//Districts/Index/56-0037-000?DataYears=20182019

Figure HPS.1: Hershey Public Schools

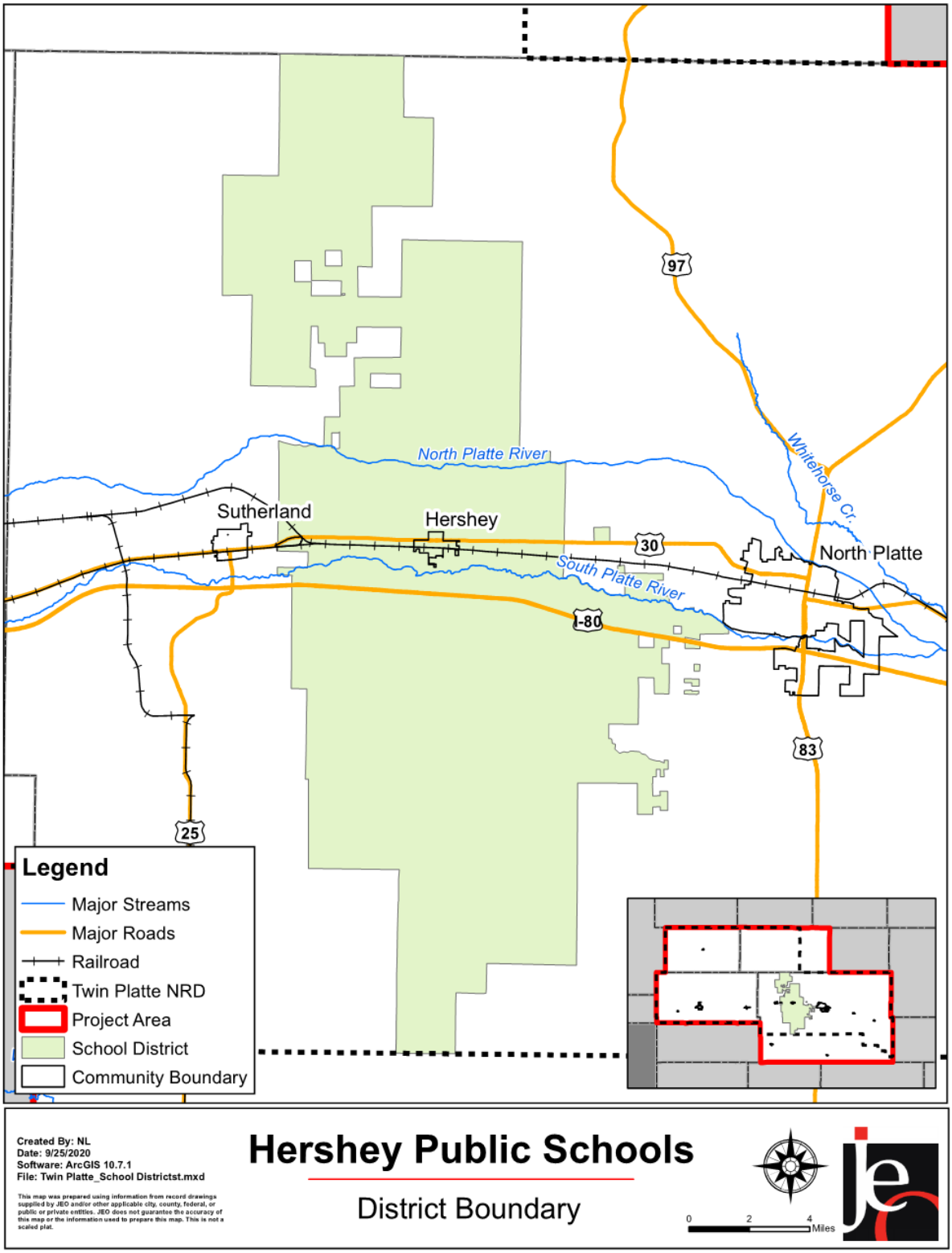
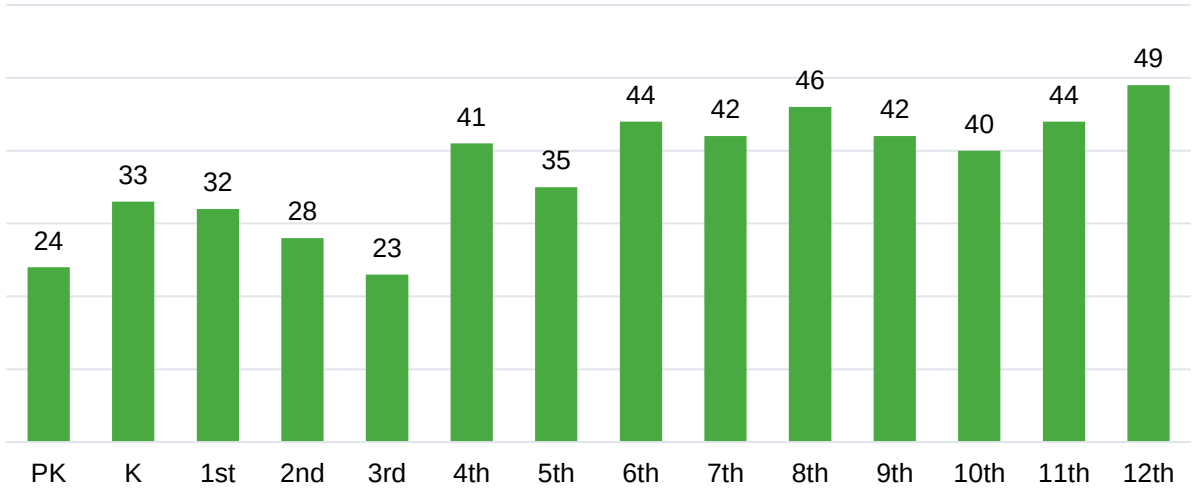


Figure HPS.3: Number of Students by Grade, 2019-2020



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in 12th and 8th grades. The lowest population of students are pre-kindergarten, 2nd, and 3rd grades. According to the Nebraska Department of Education (NDE), 26.7% of students receive either free or reduced priced meals at school. This is lower than the state average of 45.6%. Additionally, over 12% of students are in the Special Education Program. Other than English, some students speak Spanish. These particular students may be more vulnerable during a hazardous event than the rest of the student population.

Table HPS.2: Student Statistics, 2019-2020

	School District	State of Nebraska
Free/Reduced Priced Meals	26.7%	45.6%
School Mobility Rate	2.5%	8.4%
English Language Learners	*	7.4%
Special Education Students	12.5%	15.6%

Source: Nebraska Department of Education[42]
**Fewer than 10 students were reported in a group.*

Future Development Trends

Hershey Public Schools has been working with a community committee to determine the district's need for additional large and small instructional spaces. The community committee has also identified the school building's need for a safe and secure single entrance. Other items being discussed include electrical lighting retrofit from T8 to LED in all classrooms; updating the fire alarm system; adding onto a few classrooms; and remodeling existing locker rooms. The district also needs a safe and secure shelter area for tornadoes and other hazards, especially as the school building is the main shelter facility open to the community through the Red Cross. In addition, the district is looking at adding on a large instructional classroom, which could seat 60 students in a lecture type setting. This room could be a safe room in the event of storms. A few years ago, the school hallways were deemed unsuitable for students to shelter in during tornadoes. As a result of that, students currently use bathrooms, interior rooms, and locker rooms.

42 Nebraska Education Profile. "School Report Card." Accessed January 2021. http://nep.education.ne.gov/Home/.

Community Lifelines

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as part of this plan update. The following table and figure provide a summary of the district's critical facilities. In addition to the school building, the district has two bus barns located at 400 East 3rd Street. The superintendent's office has a weather radio.

Table HPS.3: Critical Facilities

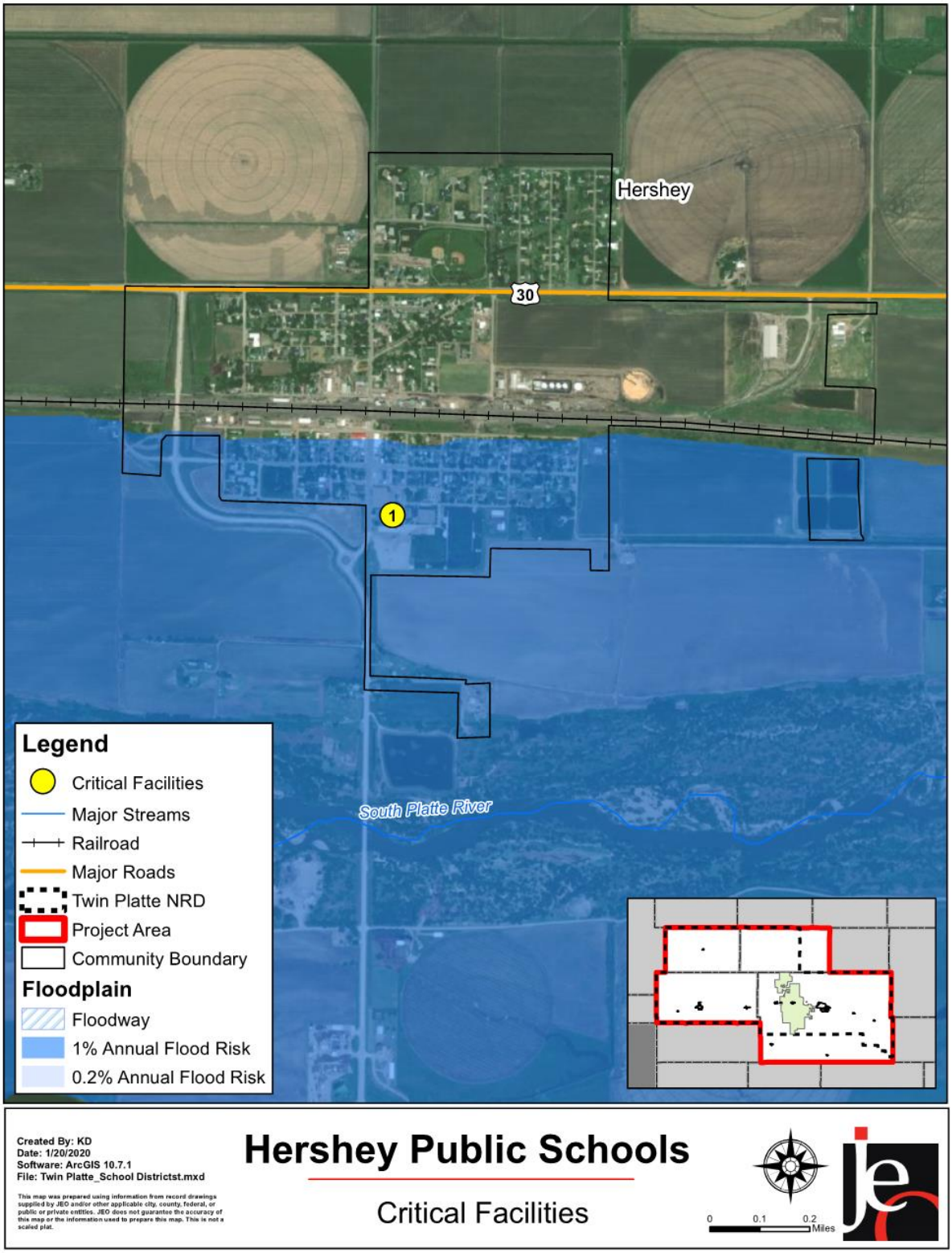
CF #	Name	# of Students	# of Staff	Community Shelter (Y/N)	Safe Room (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Hershey Public Schools	518	65	Y	N	N	Y

Administration

The school district has a superintendent, two principals, and an assistant principal. The school board is made up of a six-member panel. Additional positions and departments that may be involved in mitigation planning are identified below.

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

Figure HPS.4: Critical Facilities



Capability Assessment

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects. Staff are trained on Standard Response Protocol, which is the protocol that the Nebraska Department of Education has determined that schools should follow for emergency procedures. Additional training is needed in the reunification portion of the plan. Staff also participate in All Lines Interlocal Cooperative Aggregate Pool's (ALICAP) safe schools training, suicide prevention training, and Title IX training.

The district recently implemented an anonymous tip line for reporting that uses a geofencing program called Rave Panic Button, which immediately reports to the 911 center. It uses GPS technologies, so the 911 center knows exactly where the person is in the building when they activate the alarm. This is activated for any situation needing emergency response such as a fire, medical situation, intruder or active shooter.

Table HPS.4: Capability Assessment

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

Survey Components/Subcomponents		Yes/No
	household preparedness, environmental education, etc.)	
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	10 / year
	Tornado	2 / year
	Intruder	1 / year
	Bus evacuation	2 / year
	Evacuation	1 / year
	Other (if any)	-

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

Plan Integration

The school conducts an annual safety audit as a requirement of Rule 10. Rule 10 is the mandated rules and procedures for accreditation by Nebraska Department of Education. The Hershey Public Schools Safety Plan was last updated in 2017. It covers response to bomb threat, fire, hostage situation, intruder, tornado, train derailment, chemical spill, and other emergencies. The district also has a Crisis Response Plan that is reviewed each summer by the Crisis Management Team. It assigns clear and specific responsibilities to individuals during emergencies. No other planning documents were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Historical Occurrences

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

Hazard Prioritization

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

Chemical Spills (Transportation)

Chemical transportation is a concern for the Hershey School District due to the location of the railroad and Highway 30. The railway is located two blocks from the school and approximately 160 trains travel through Hershey per day. These trains carry a wide variety of chemicals. A large gas pipeline is located on the east side of town, and another line ¾ mile outside of town. North Platte has HazMat resources and would respond to any chemical spill near Hershey Public Schools. No spills have affected the district in the past. The district trains student and staff on evacuation and shelter in place procedures, should a spill or train derailment occur.

Dam Failure

There are no dams in Hershey; however, there are dams that can affect Hershey. According to

the Lincoln County LEOP, Hershey would be affected by the failure of any of the following dams: Kingsley Dam, Lake Maloney Dam, Jeffery Regulating Reservoir Dam, and Sutherland Reservoir Dam. If these dams were to fail, the affected area would be slightly greater than the 100-year floodplain, including the school. If Kingsley Dam were to fail, Hershey would approach 100% inundation. The failure of any of the mentioned dams would result in significant flooding damages to the school and require evacuation of the school facility and community.

Flooding

Hershey Public Schools is located within the floodplain and has experienced flooding issues in the past. In the summer of 2015, a municipal stormwater pipe located underneath the school burst and flooded parts of the school. In 2018, a village water pipe broke, which also flooded a portion of the school. In addition to pipes breaking, the South Platte River flooded in 2013 and 2015. Each flooding event has caused loss of use of the flooded area and required cleanup and restoration of the property. The school is currently in communication with village representatives to evaluate the feasibility of moving the stormwater infrastructure. The community has also built a berm along the south side of the school to reduce flood damages.

Terrorism

Terrorism is difficult to predict. Although there are no historical occurrences of terrorism, there is a possibility that an act of terrorism could occur. Potential acts of terrorism can manifest in the form of an active shooter, threat of explosive devices, etc. A terrorism event is most likely to occur during the school day or at athletic events in the evening. The district recently implemented an anonymous tip line called Rave Panic Button, which immediately reports to the 911 center. This is used for any situation needing emergency response such as a fire, medical situation, intruder or active shooter. The district is still in need of a secure single entrance to the school building.

Tornadoes

According to NCEI data, four tornadoes have been recorded in the Village of Hershey between 1996 and 2009. The tornadoes did not affect the school district; however, tornadoes have the potential to cause significant damage and loss of life. A safe room for grades K-6 has been identified but a centrally located safe room for 7-12 grades is still needed. Currently students can use interior rooms and locker rooms. The district regularly holds tornado drills for students and staff.

Mitigation Strategy

Hershey Public School's funds are limited to maintaining current facilities and systems and have stayed the same over recent years. The district is likely to need grant assistance to help pay for many of the actions listed below. ReVision grants have been applied for and awarded in the past.

Continued Mitigation Actions

Mitigation Action	Backup and Emergency Generators
Description	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
Estimated Cost	$20,000 - $50,000 per generator
Funding	Special Build Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	School Board, Superintendent
Status	Not Started

Mitigation Action	Storm Shelters/Safe Rooms
Description	Identify and evaluate existing safe rooms and/or storm shelters. Improve and/or construct safe rooms and/or storm shelters.
Hazard(s) Addressed	Tornados, High Winds, Severe Thunderstorms
Estimated Cost	$150/sf for retrofit; $300/sf for new construction
Funding	Special Build Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	School Board, Superintendent
Status	In Progress: A safe room for K-6 has been identified, but not for 7-12 grade students; the school is looking into new construction for a 7-12 grade safe room

Mitigation Action	Stormwater System and Drainage Improvements
Description	Relocate stormwater infrastructure from under the school.
Hazard(s) Addressed	Flooding
Estimated Cost	$50,000 - $150,000+
Funding	Special Build Fund, Village of Hershey
Timeline	2-5 Years
Priority	High
Lead Agency	School Board, Superintendent, Village Board
Status	Not Started

School District Profile

North Platte Public Schools

Twin Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

Table NPS.1: North Platte Public Schools Local Planning Team

Name	Title	Jurisdiction
Stuart Simpson	Executive Director of Finance, Facilities, and Operations	North Platte Public Schools

Location

North Platte Public Schools is in central Lincoln County and serves 12 schools. The school district provides services to students in the community of North Platte and the rural areas surrounding it.

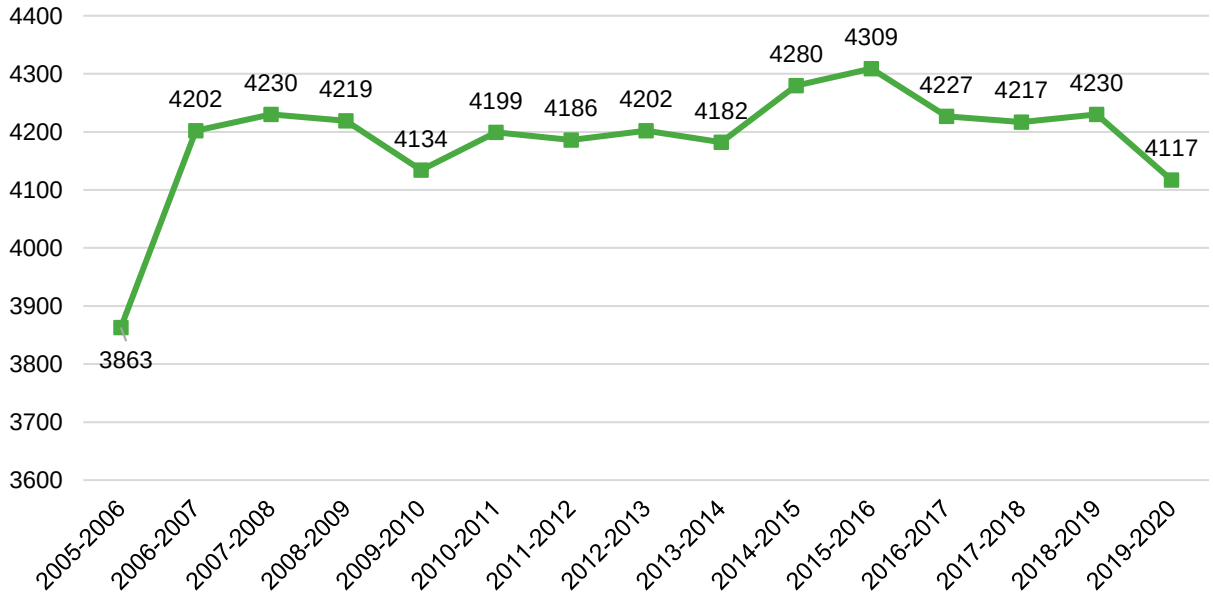
Transportation

Three major transportation corridors travel through the district: Interstate 80 and US Highways 30 and 83. The most traveled route is Interstate 80 with an average of 18,010 vehicles daily, 7,020 of which are trucks. [43] A Union Pacific Railroad line runs east to west through the northern portion of the district. Cody Elementary School is located near the Union Pacific yard. The district does not bus students to and from school. Transportation information is important to hazard mitigation plans because it suggests areas more at risk of transportation incidents.

Demographics

The following figure displays the historical student population trend starting with the 2005-06 school year and ending with the 2019-20 year. It indicates that the student population has been generally declining since 2015. There are 4,117 students enrolled in the district.[44] The local planning team anticipates a decrease in students in the coming years due to families moving to other cities for employment.

Figure NPS.1: Student Population 2005-2020



Source: Nebraska Department of Education

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

44 Nebraska Department of Education. January 2021. "2019-2020 Education Profile for District: North Platte Public Schools." https://nep.education.ne.gov/snapshot.html#56-0001-000.

Figure NPS.2: District Boundary

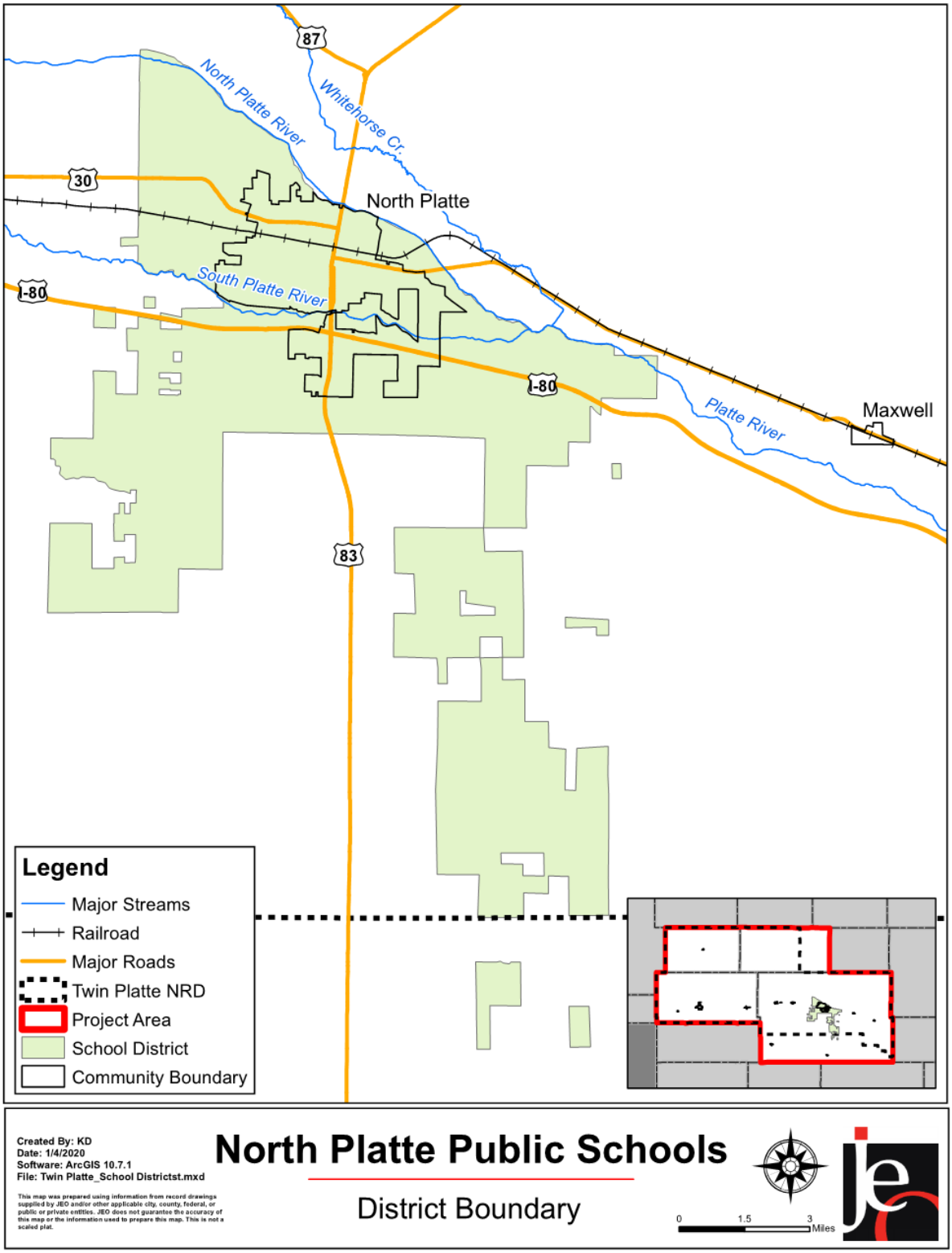
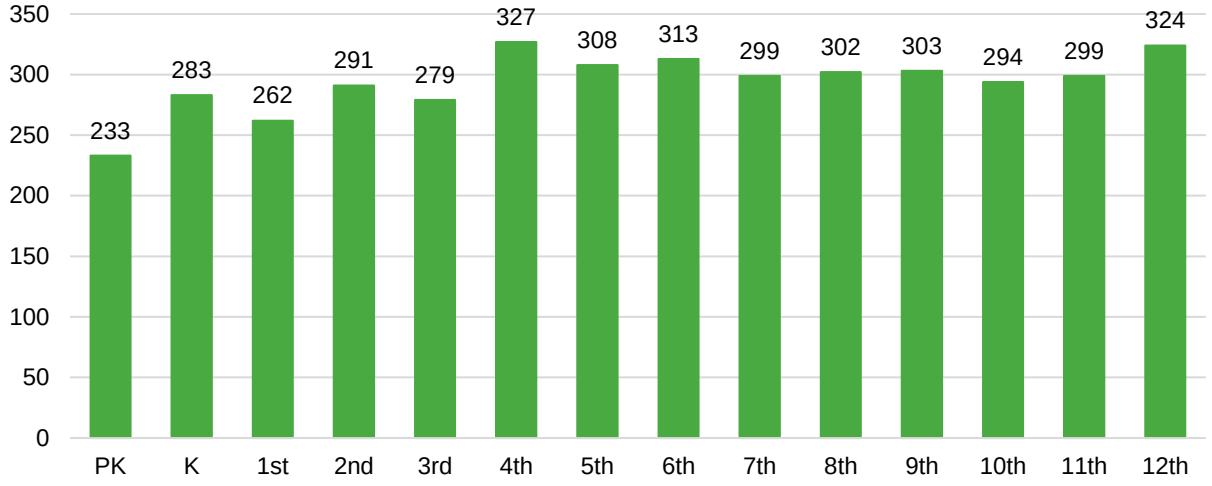


Figure NPS.3: Number of Students by Grade, 2019-2020



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the 4th and 12th grades. The lowest population of students are pre-kindergarten and 1st grades. According to the Nebraska Department of Education (NDE), 54% of students receive either free or reduced priced meals at school, a higher percentage than the state average of 44%. Additionally, over 18% of students are in the Special Education Program and 2% of students are English Language Learners. In addition to English, both Spanish and Chinese are spoken in the district. These particular students may be more vulnerable during a hazardous event than the rest of the student population.

Table NPS.2: Student Statistics, 2019-2020

	School District	State of Nebraska
Free/Reduced Priced Meals	54.48%	45.60%
School Mobility Rate	9.53%	8.36%
English Language Learners	1.91%	7.43%
Special Education Students	18.15%	15.48%

Source: Nebraska Department of Education[45]

Future Development Trends

Over the past five years, the district sold a building. There are plans to update school building roofs and install a new HVAC system at Adams Middle School.

Community Lifelines

Critical Facilities

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

45 Nebraska Education Profile. "School Report Card." Accessed January 2021. http://nep.education.ne.gov/Home/.

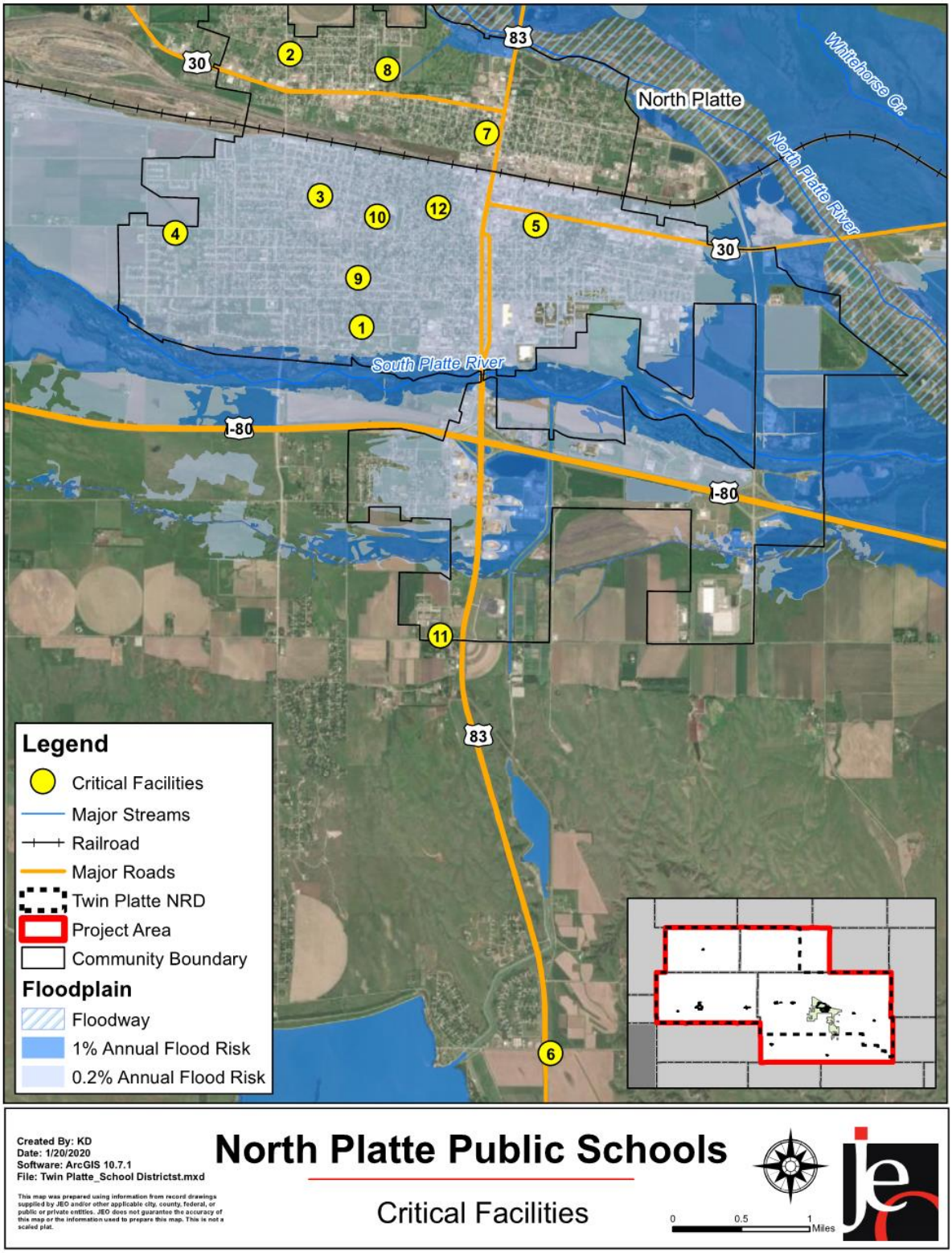
Table NPS.3: Critical Facilities

CF Number	Name	Community Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Adams Middle School	Y	N	Y (0.2%)
2	Buffalo Elementary School	N	N	N
3	Cody Elementary School	Y	N	Y (0.2%)
4	Eisenhower Elementary School	Y	N	Y (0.2%)
5	Jefferson Elementary School	Y	N	Y (0.2%)
6	Lake Maloney Elementary School	N	N	N
7	Lincoln Elementary School	Y	N	N
8	Madison Middle School	Y	N	N
9	McDonald Elementary School	Y	N	Y (0.2%)
10	North Platte High School	Y	N	Y (0.2%)
11	Osgood Elementary School	N	N	N
12	Washington Elementary School	Y	N	Y (0.2%)

Administration

The school district has a superintendent, 14 principals, and over 700 staff. The school board is made up of a six-member panel.

Figure NPS.4: Critical Facilities



Capability Assessment

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

Table NPS.4: Capability Assessment

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

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

Plan Integration

North Platte Public Schools has one plan related to hazard mitigation: The Disaster Response Plan. It covers response to bomb threat, fire, intruder, tornado, and other emergencies. This plan is reviewed and updated before every school year. No other planning documents were identified during this process. The district will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Historical Occurrences

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

Hazard Prioritization

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

Chemical Spills (Transportation)

In 2009, a chemical release in the Union Pacific yards caused Cody Elementary School to evacuate. No injuries resulted from the event. Due to the school's proximity to the Union Pacific yards, chemical spills will always be a high risk for the district. The Lake Maloney Elementary School is located next to south Highway 83 and could be impacted by a spill or large accident. The district works with the local HazMat group to help mitigate any potential impacts from a chemical spill.

Flooding

The North Platte River is the biggest flood risk in the district. Madison Middle School and the Buffalo Early Learning Center have been impacted by flooding in the past. The district has had to move items to locations outside of flood risk areas, so they do not become lost or damaged. Several other schools are located in the 500-year floodplain but have not been affected by past flood events. In addition, the district's stream tunnels have flooded in the past, causing mold issues.

Terrorism

The district's primary concerns related to terrorism include risk of harm to students and staff, damage to buildings, and learning disruption. Although there have been no occurrences of terrorism or threats in the past, the district continues to work with local law enforcement to ensure entryways are covered and buildings have appropriate security measures. The local planning team indicated that no school is more at risk of a terrorism event than any others.

Mitigation Strategy

North Platte Public School funds have stayed the same over recent years. The district will likely need grant assistance to help pay for many of the actions listed below. Partnerships with the Lincoln County Emergency Management, NRD, and state agencies would also help the district implement mitigation projects.

New Mitigation Actions

Mitigation Action	Flood and Mold Remediation
Description	Flooding in the stream tunnels has occurred in the past causing mold issues. Remove mold and protect tunnels from flooding in the future.
Hazard(s) Addressed	Flooding
Estimated Cost	$100,000
Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Executive Director of Finance, Facilities, and Operations
Status	Not Started