

SCOTTS BLUFF COUNTY APPENDIX

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County Profile

SCOTTS BLUFF COUNTY

**North Platte NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table SBC.1: Scotts Bluff County Local Planning Team

NAME	TITLE	JURISDICTION
TIM NEWMAN	Emergency Manager / Director	Scotts Bluff County / Region 22 EMA
BILL MABIN	Building and Zoning Director	Scotts Bluff County
SUZI WICK	GIS Coordinator	Scotts Bluff County

Location, Geography, and Climate

Scotts Bluff County is located in northwest Nebraska and is bordered by Sioux, Morrill, Banner Counties, and Goshen County, Wyoming. The total area of Scotts Bluff County is 746 square miles. Major waterways within the county include the North Platte River which runs through the center of the county, and four lakes which are in the northeast quarter of the county. The county is not heavily forested, nor is it located in a geographic area of the state prone to landslides. Most of Scotts Bluff County lies in the plains topographic region, with the vast majority of the county's land characterized by agricultural fields and grassland.

Climate

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

Table SBC.2: Scotts Bluff County Climate Normals

	SCOTTS BLUFF COUNTY	STATE OF NEBRASKA
JULY NORMAL HIGH TEMP¹	89.5°F	87.4°F
JANUARY NORMAL LOW TEMP¹	14.9°F	13.8°F
ANNUAL NORMAL PRECIPITATION²	15.6"	23.8"
ANNUAL NORMAL SNOWFALL²	42.1"	25.9"

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

Transportation

There are three major highways in the county: US HWY 26, NE HWY 71, and NE HWY 92. According to the Nebraska Department of Transportation, the average daily traffic count for US HWY 26 is 3,790 vehicles per day, 335 of which are heavy commercial vehicles. NE HWY 71 has an average traffic count of 1,150 vehicles per day, 150 of which are heavy commercial vehicles. NE HWY 92 has an average traffic county of 2,675 vehicles per day, 300 of which are heavy commercial vehicles.³ There have been numerous beet truck and passenger vehicle accidents on US HWY 26.

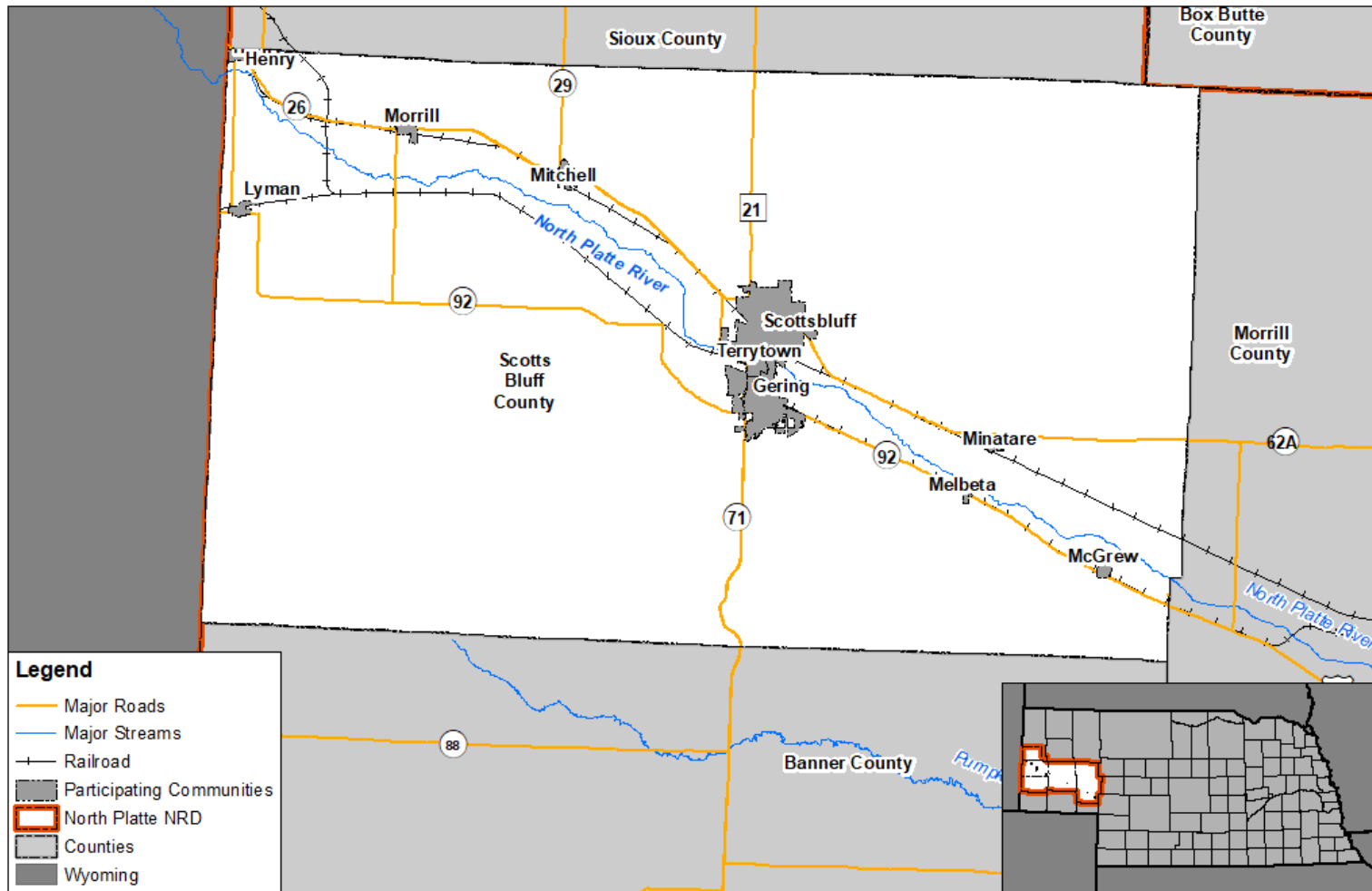
¹ National Centers for Environmental Information. "1981-2010 U.S. Climate Normals." Accessed December 2020. <https://www.ncdc.noaa.gov/cdo-web/datatools>.

² High Plains Regional Climate Center. "Monthly Climate Normals 1981-2010 – Scottsbluff, NE." Accessed December 2020. <http://climod.unl.edu/>.

³ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

Figure SBC.1: Scotts Bluff County



Legend

- Major Roads
- Major Streams
- Railroad
- Participating Communities
- North Platte NRD
- Counties
- Wyoming

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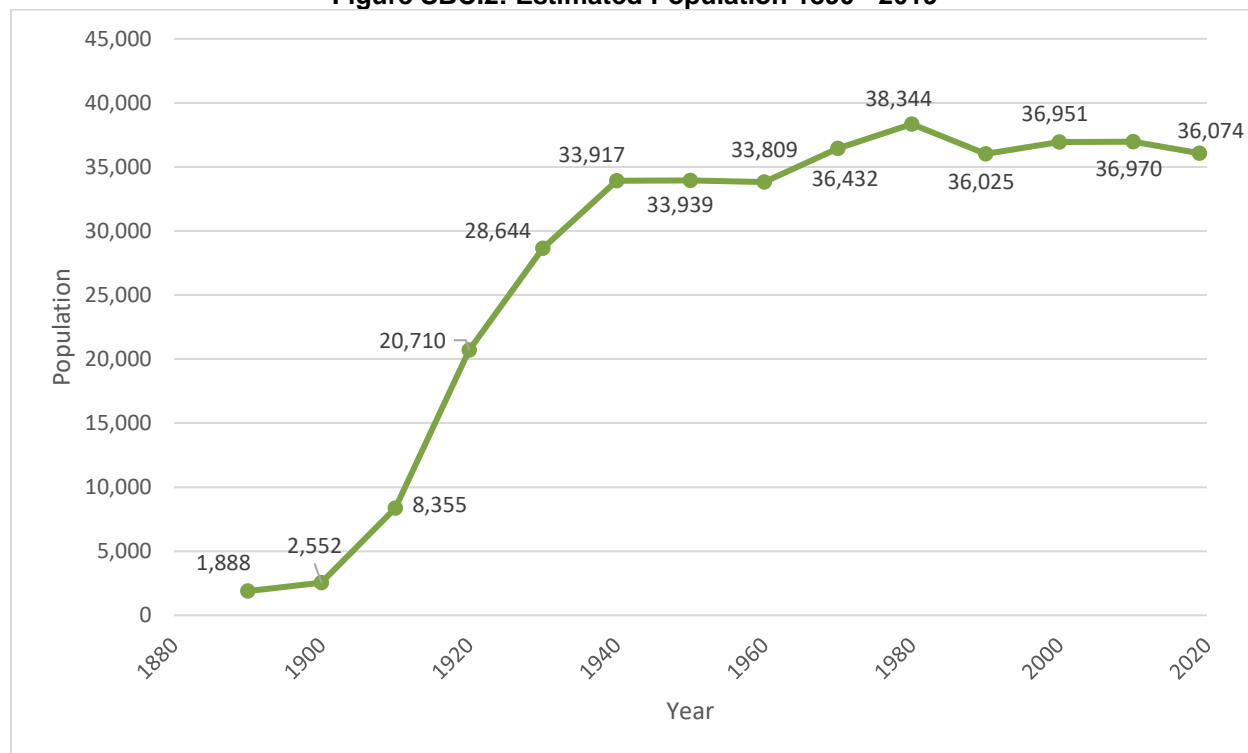
Scotts Bluff County

County Boundary

Demographics

The following figure displays the historical population trend from 1890 to 2019. This figure indicates that the population of Scotts Bluff County increased dramatically from 1900 to 1940. Since then, the population has only fluctuated slightly. The 2019 estimate shows the population slightly decreasing from 2010. This is relevant to hazard mitigation because counties with a growing population may be more prone to developing additional land and building new structures, while counties with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards.

Figure SBC.2: Estimated Population 1890 - 2019



Source: U.S. Census Bureau⁴

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

Table SBC.3: Population by Age

AGE	SCOTTS BLUFF COUNTY	STATE OF NEBRASKA
<5	6.7%	6.9%
5-64	74.6%	77.7%
>64	18.7%	15.4%
MEDIAN	39	36.5

Source: U.S. Census Bureau⁵

⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.
⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

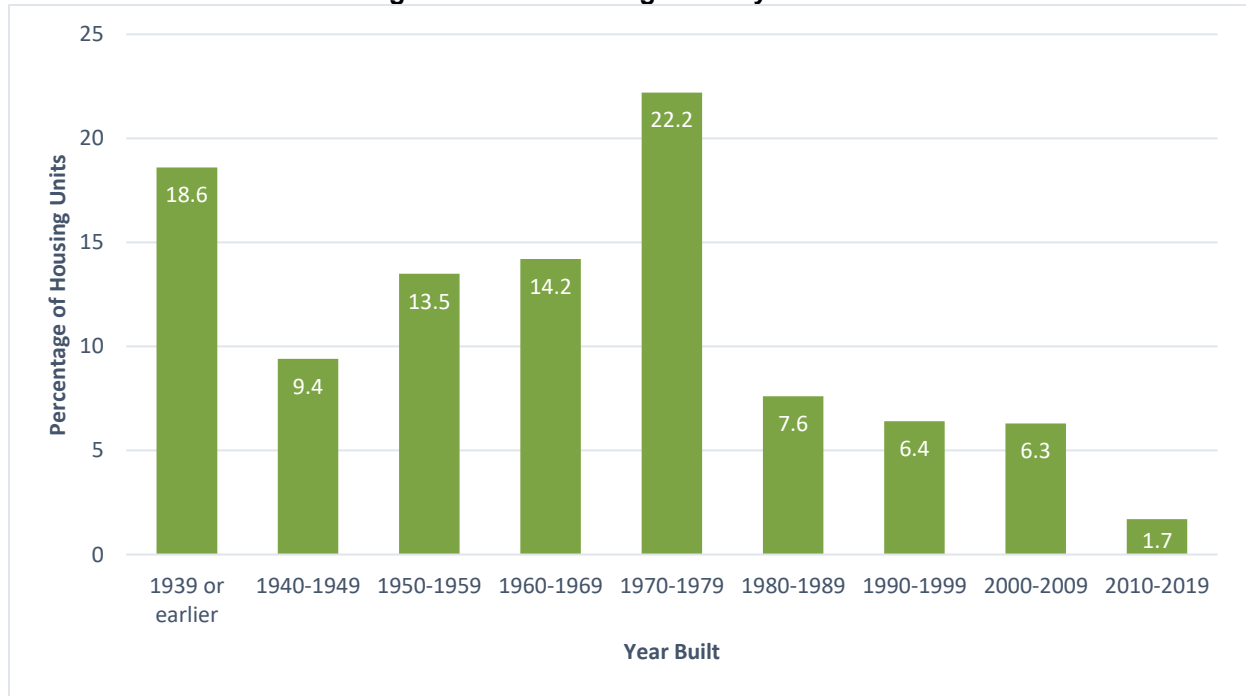
The following table indicates that median household income and per capita income for the county is lower than the State of Nebraska. Median home value and rent are also both lower than the rest of the state. These economic indicators are relevant to hazard mitigation because they indicate the relative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

Table SBC.4: Housing and Income

	SCOTTS BLUFF COUNTY	STATE OF NEBRASKA
MEDIAN HOUSEHOLD INCOME	\$49,745	\$61,439
PER CAPITA INCOME	\$27,978	\$32,302
MEDIAN HOME VALUE	\$128,100	\$155,800
MEDIAN RENT	\$761	\$833

The following figure indicates that most of the housing in Scotts Bluff County was built prior to 1980, with 22.2 percent being built during the 1970s. According to the Census Bureau, the county has 16,381 housing units; with 89.9 percent of those units being occupied. 5.8 percent of the county’s housing is classified as mobile homes. Housing age can serve as an indicator of risk as structures built prior to the development of state building codes may be more vulnerable to hazards. The State of Nebraska first adopted building codes in 1987, the state currently has adopted the 2018 International Building Code. Finally, communities with a substantial number of mobile homes may have a higher number of residents vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

Figure SBC.3: Housing Units by Year Built



Source: U.S. Census Bureau⁶

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

Table SBC.5: Housing Units

JURISDICTION	TOTAL HOUSING UNITS				OCCUPIED HOUSING UNITS			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
SCOTTS BLUFF COUNTY	14,732	89.9%	1,649	10.1%	9,863	66.9%	4,869	33.1%
NEBRASKA	759,176	90.7%	78,300	9.3%	501,679	66.1%	257,497	33.9%

Source: U.S. Census Bureau⁷

Major Employers

According to 2018 Business Patterns Census Data, Scotts Bluff County had 1,070 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars. Communities which have a diverse economic makeup may be more resilient following a hazardous event, especially if certain industries are more impacted than others.

Table SBC.6: Businesses in Scotts Bluff County

	TOTAL BUSINESSES	NUMBER OF PAID EMPLOYEES	ANNUAL PAYROLL (IN THOUSANDS)
TOTAL FOR ALL SECTORS (2012)	1,102	12,872	\$442,512
TOTAL FOR ALL SECTORS (2018)	1,070	12,939	\$482,631

Source: U.S. Census Bureau⁸

Agriculture is also important to the economic fabric of Scotts Bluff County, and the state of Nebraska as a whole. Scotts Bluff County's 760 farms cover 441,624 acres of land, about 92% of the county's total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute as well by producing, processing, and marketing farm and food products. These businesses generate income, employment, and economic activity throughout the region.

Table SBC.7: Scotts Bluff County Agricultural Inventory

SCOTTS BLUFF COUNTY AGRICULTURAL INVENTORY	
NUMBER OF FARMS	760
LAND IN FARMS (ACRES)	441,624

Source: USDA 2017 Census of Agriculture⁹

Future Development Trends

Over the past five years, new residential homes and a few businesses were built. Some structures were built in the floodplain, but they were mainly commercial farming structures. According to the 2019 American Community Survey estimates, Scotts Bluff County's population is decreasing slightly. The local planning team attribute this to a loss of jobs across the county. In the next five years, the county is unsure if new housing development or businesses will be built.

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

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

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

Structural Inventory and Valuation

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

Table SBC.8: Scotts Bluff County Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
15,402	\$1,950,736,432	1,107	\$166,797,502	7%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 41 chemical storage sites throughout Scotts Bluff County that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. For a description of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Critical Facilities

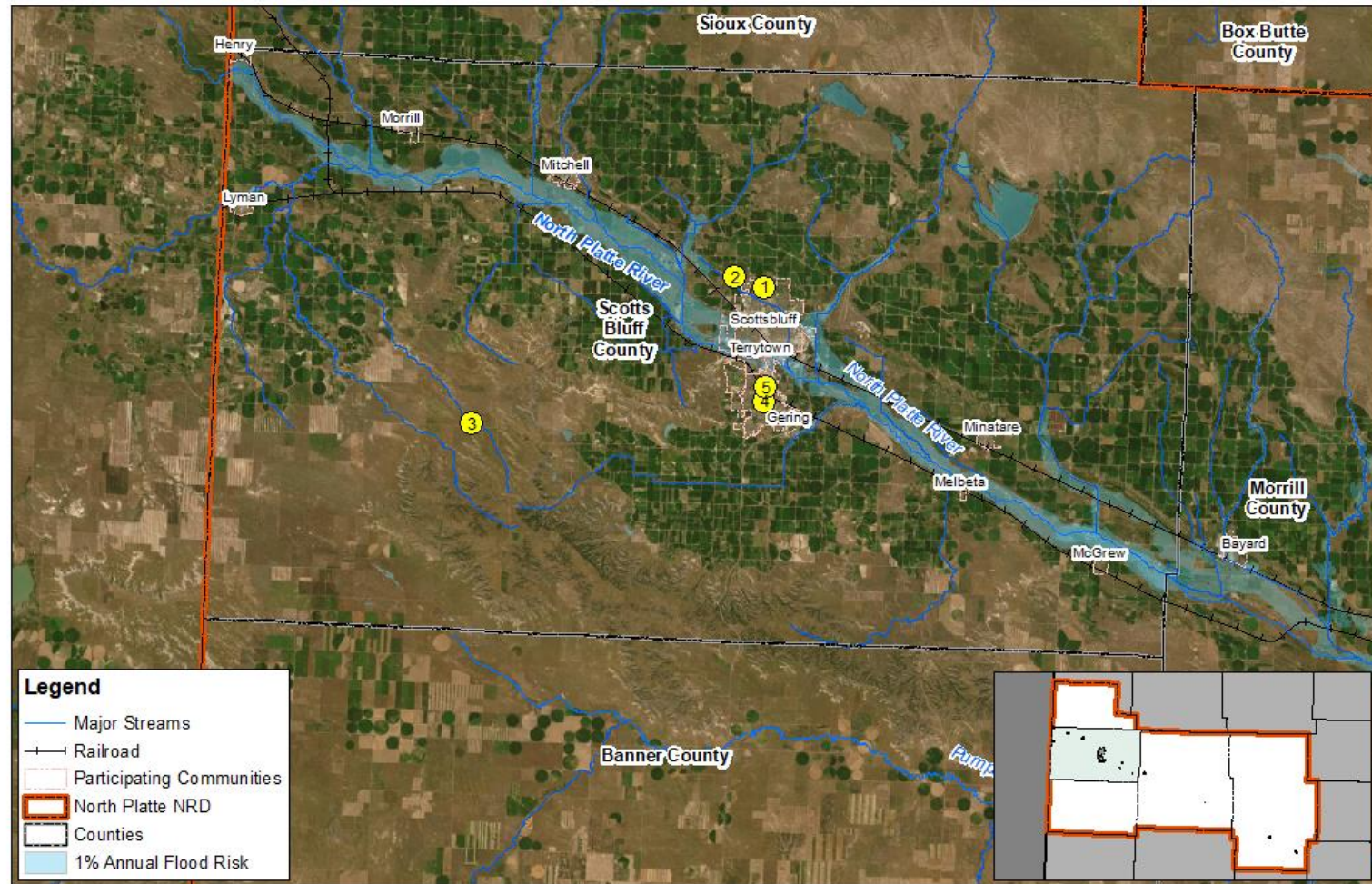
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and are essential for returning the jurisdiction's functions to normal during and after a disaster. Critical facilities were identified during the original planning process and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

Table SBC.9: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Regional West Medical	N	N	N
2	Extensive Wellfield	N	N	N
3	Substation	N	N	N
4	Courthouse Auxiliary (CHA)	Y	N	N
5	Administration Building	Y	Y	N

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

Figure SBC.3: Critical Facilities



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Scotts Bluff County

Critical Facilities





0 4 8 Miles



Governance

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

- Assessor
- Attorney
- Clerk
- District Court
- Health Director
- Register of Deeds
- GIS/Mapping
- Highway Superintendent
- Management Account
- Planning/ Zoning
- Public Defender
- Region 22 Emergency Management
- Sheriff
- Surveyor
- Treasurer
- Veteran Services Officer
- Weed Superintendent

Capability Assessment

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

Table SBC.10: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes (State)
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	No

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	No
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	No
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)	No
	Natural Disaster or Safety related school programs	No
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree City USA	N/A
	Other (if any)	No

Table SBC.11: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Plan Maintenance

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

The Emergency Manager, Commission Chair, and Region 22 Emergency Management Agency Board of Directors are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than bi-annually and will include the public in the review and revision process by sharing information through reminders set in the LEOP program.

Plan Integration

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

Annual Budget (2021)

County funds are limited to maintaining current facilities and systems; however, a large portion of the funds are not already dedicated to a certain project. Funds have increased a minimal amount over recent years. In the past five years, the county has been awarded Covid grants and Homeland Security grants to help pay for projects.

Building Codes (2021)

The building code sets standards for constructed buildings and structures. The county has adopted the 2021 International Building Codes with no amendments made.

Capital Improvements Plan (2021)

The capital improvements plan outlines large purchases and projects that the county would like to pursue. Projects identified in the plan include: stormwater projects, upsizing culverts and drainage structures, and installing emergency generators at critical facilities.

Comprehensive Plan (1996)

The comprehensive plan is designed to guide the future actions and growth of the county. It contains goals aimed at safe growth, encourages the preservation of open space in hazard-prone areas, and specifically discusses flooding. There is no timeline to update the comprehensive plan.

Scotts Bluff Local Emergency Operations Plan (2020)

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

Zoning Ordinance (2018), Subdivision Regulations (2015), Floodplain Ordinance (2015)

The county's floodplain ordinance, zoning ordinance, and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, discourage development in the floodplain, identify floodplain areas as parks or open spaces, prohibit the filling of wetlands, discourage development near chemical storage sites, consider the wildland urban interface, and include well setback requirements. There are currently no plans to update these documents.

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

Table SBC.12: Hazard Events for Scotts Bluff County

HAZARD TYPE		COUNT	PROPERTY	CROP ²
AGRICULTURAL DISEASE	Animal Disease ¹	8	51 animals	N/A
	Plant Disease ²	26	N/A	\$455,236
DAM FAILURE⁵		1	\$0	N/A
DROUGHT⁷		438/1,512 months	\$0	\$949,856
EARTHQUAKES⁸		0	\$0	\$0
EXTREME HEAT⁶		Avg. 5 days/yr	\$0	\$4,809,060
FLOODING⁹	Flash Flood	25	\$630,000	\$164,074
	Flood	2	\$1,000	
GRASS/WILDFIRE¹⁰ <i>Injuries: 1</i>		776	27,242 acres	\$31,900
HAZARDOUS MATERIALS - FIXED SITES³		15	\$0	N/A
HAZARDOUS MATERIALS - TRANSPORTATION⁴		22	\$3,186,863	N/A
LEVEE FAILURE¹¹		0	\$0	N/A

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

HAZARD TYPE		COUNT	PROPERTY	CROP ²
PUBLIC HEALTH EMERGENCY¹³ <i>Fatalities: 88</i>		3,241 cases		N/A
SEVERE THUNDERSTORMS⁹	Thunderstorm Wind <i>Average: 64 mph Range: 58-91 mph Injuries: 2</i>	104	\$103,600	N/A
	Hail <i>Average: 1.4 in. Range: 0.75-4.25 Injuries: 37</i>	334	\$105,747,650	\$36,100,836
	Heavy Rain	9	\$0	\$3,357,865
	Lightning	0	\$0	N/A
	SEVERE WINTER STORMS⁹	Blizzard <i>Injuries: 1</i>	13	\$32,000
Extreme Cold/Wind Chill	9	\$0		
Heavy Snow	24	\$0	\$13,913,614	
Ice Storm	0	\$0		
Winter Storm	39	\$0		
Winter Weather	16	\$21,000		
TERRORISM¹²		0	\$0	N/A
TORNADOES AND HIGH WINDS⁹	Tornado <i>Average: EF0 Range: EF0-EF4</i>	26	\$189,000	\$0
	High Winds <i>Average: 58 mph Range: 40-83 mph</i>	67	\$15,500	\$10,285,785
TOTALS		1,516	\$110,009,013	\$70,068,226

N/A: Data not available
 1 NDA (2014-2020)
 2 USDA RMA (2000-2020)
 3 NRC 1990 – 2020
 4 PHMSA (1971-2020)
 5 Stanford NPDP (1911-2018)
 6 NOAA 1889-2020

7 HPRCC (1897-2020)
 8 USGS (1900-2020)
 9 NCEI (January 1996 - September 2020)
 10 NFS (January 2000 - May 2020)
 11 USACE NLD (2020)
 12 Global Terrorism Database (1970-2017)
 13 Nebraska DHHS (Feb 12, 2021)

The following table provides a summary of hazards that have or have the potential to affect each participating jurisdiction in Scotts Bluff County. Each jurisdiction was evaluated for previous hazard occurrence and the probability of future hazard events on each of the 15 hazards profiled in this plan. The evaluation process was based on data collected and summarized in Table SBC.12; 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.

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

Table SBC.13: Scotts Bluff County Hazard Matrix

HAZARD	SCOTTS BLUFF COUNTY	CITY OF GERING	VILLAGE OF HENRY	VILLAGE OF LYMAN	VILLAGE OF MCGREW	VILLAGE OF MELBETA	CITY OF MINATARE	CITY OF MITCHELL	VILLAGE OF MORRILL	CITY OF SCOTTSBLUFF	CITY OF TERRYTOWN
Agricultural Disease	X	X	X	X	X	X	X	X	X	X	X
Dam Failure	X	X			X	X	X	X		X	X
Drought	X	X	X	X	X	X	X	X	X	X	X
Earthquake	X	X	X	X	X	X	X	X	X	X	X
Extreme Heat	X	X	X	X	X	X	X	X	X	X	X
Flooding	X	X	X	X	X	X	X	X	X	X	X
Grass/Wildfire	X	X	X	X	X	X		X	X	X	X
Hazardous Materials – Fixed Sites	X	X		X	X		X		X	X	X
Hazardous Materials – Transportation	X	X	X	X	X	X	X	X	X	X	X
Levee Failure	X	X								X	X
Public Health Emergency	X	X	X	X	X	X	X	X	X	X	X
Severe Thunderstorms	X	X	X	X	X	X	X	X	X	X	X
Severe Winter Storms	X	X	X	X	X	X	X	X	X	X	X
Terrorism	X	X	X	X	X	X	X	X	X	X	X
Tornadoes and High Winds	X	X	X	X	X	X	X	X	X	X	X

County Hazard Prioritization

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

Agricultural Animal and Plant Disease

Based on the number of acres dedicated to agriculture and feedlots, Scotts Bluff County identified agricultural animal and plant disease as one of the concerns facing the county. When local disease events occur, the biggest concern is the disposal of animal carcasses. According to the local planning team, there are varying degrees of sizes of feedlots in Scotts Bluff County, totaling close to 1,000,000 cattle in the county. The Scotts Bluff County Local Emergency Operations Plan (LEOP) outlines a variety of triggers and responses in the case of contagious animal disease. The Scotts Bluff LEOP also discusses the order of operations, and how to proceed in the case of an outbreak. The county has performed trainings based on agricultural related disasters in the past.

Dam Failure

There are 24 dams in Scotts Bluff County. Of these, five dams have been identified as a high hazard dam. A “high hazard” designation is not an evaluation of the condition of the dam. Instead, it shows the number of individuals who live behind it.

Table SBC.14: Dams in Scotts Bluff County

	NUMBER OF DAMS	LOW	SIGNIFICANT	HIGH
Scotts Bluff County	24	12	7	5
Planning Area	74	52	14	8

Source: USACE, 2020

Only one dam will affect an area outside of the county if it fails, the Lake Alice Lower Dam. The Lake Alice Dams are located near the Sioux County border in the northern part of Scotts Bluff County. The Minatare dam is located at the Minatare State Recreation area. The Gering Valley A dam is located to the northeast of the Wildcat Hills State Recreation area. Additionally, some dams upriver of Scotts Bluff may affect the planning area. Two dams in Wyoming are listed in the Scotts Bluff Local Emergency Operations Plan as potentially having impacts within Scotts Bluff County. The Grayrocks Dam, should it fail, would have the greatest impact on McGrew and Minatare, which would approach 100 percent inundation, according to the Local Emergency Operations Plan. The plan also lists Wyoming’s Guernsey Dam, which would affect the entire North Platte River, as far as Lake McConaughy.

Table SBC.15: High Hazard Dams

NIDID	DAM NAME	LOCATION	STREAM NAME	OWNER
NE00664	Gering Valley A	Gering	Gering Drain Tributary	NPNRD
NE01071	Lake Alice Lower Dam	Bridgeport	Interstate Canal Off North Platte River	Bureau of Reclamation
NE01072	Lake Alice No.1	Scottsbluff	Interstate Canal Off North Platte River	Bureau of Reclamation
NE01072	Lake Alice No. 1-1/2	Scottsbluff	Interstate Canal Off North Platte River	Bureau of Reclamation
NE01075	Minatare Dam	Rural Minatare	Supply Canal	Bureau of Reclamation

Source: USACE, 2020

Drought

Drought is a concern for the county as the area is heavily irrigated. Many farmers rely on good Rocky Mountain Snowpack each winter to provide enough water for crops. Minimal drought conditions occur almost annually. The last severe drought in the area occurred in 2012. All new wells in the county are required to be installed by a licensed well driller and be registered to NeDNR. Community wells have not been impacted during past drought events due to the depth in which they are drilled.

Flooding

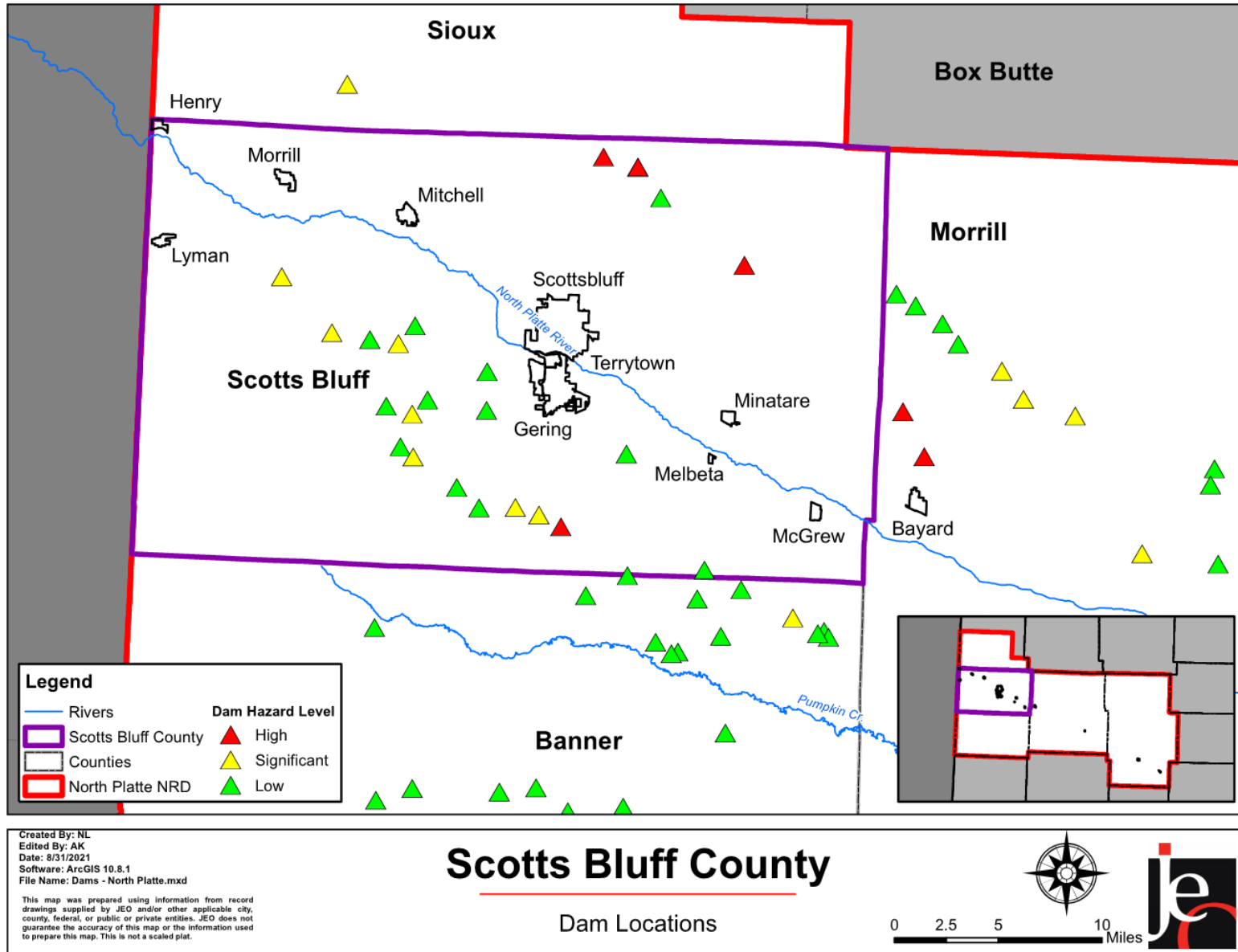
The local planning team indicated that the most recent effect from flooding occurred in the summer of 2015, when minor flooding occurred due to excessive rain. Most of the flooding within Scotts Bluff County is a result of both riverine flooding and flash flooding. The areas of the county which are prone to flooding tend to be the communities lower in elevation: Henry, Morrill, Mitchell, Scottsbluff, and Minatare. The local planning team indicated that there are a few bodies of water within Scotts Bluff County, such as Glendo Reservoir, the North Platte River, and Lake Minatare; communities near these areas will likely be more prone to flooding compared with the rest of the county. To prevent future losses, the county has worked to purchase land within the floodplain.

Grass/Wildfire

The most recent large wildfire event occurred in August and September 2020. The fire lasted six days and burned almost 4,000 acres. The area of most concern is the Wildcat Hills region in the southern part of the county. It is a highly forested area and housing developments within this region are a concern during wildfires. Within the county there is one paid city fire department, seven volunteer fire departments, and one volunteer airport fire department that can provide mutual aid for structure protection. All fire departments have annual training in wildfire suppression and incident management. In addition, some fuels reduction takes place during this training. Scotts Bluff County is part of the Wildcat Hills Community Wildfire Protection plan which involves emergency managers, fire departments, North Platte NRD, and the Nebraska Forest Service.

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

Figure SBC.4: Dam Locations in Scotts Bluff County



Severe Thunderstorms

The local planning team indicated that the most recent severe thunderstorm occurred in August of 2019 and resulted in power outages in areas south and east of Gering. To assist with awareness of inclement weather, weather radios are located in county-owned buildings, to protect employees and residents. As the community works to continue to prevent large scale damages, a few areas of vulnerability are lightning strikes, and the potential failure of the power grid. Hail is also a substantial concern for the county as a whole. The area has experienced significant hailstorms in the last five years, especially the community of Scottsbluff. Approximately 150 to 200 storm spotters are trained annually to assist with early warning.

Severe Winter Storms

The local planning team indicated that severe winter storms occur frequently in Scotts Bluff County. 2019 and 2021 had significant blizzards. Motorists were stranded for several hours on county roads and even graders were getting stuck. Tracked dozers were used to clear some snow drifts. During the extremely cold temperatures in February 2021 the county experienced rolling blackouts. The biggest concerns regarding severe winter storms are snow depth and visibility issues. Regarding implications for Scotts Bluff County, the biggest concerns are a storm hampering the effectiveness of all emergency medical services, hospitals, schools, and power outages for any community. In order to reduce the impact from each event, the county does have snow routes to clear the most significant areas of town first, followed by less utilized roadways. On the village level, each individual village is responsible for snow removal in their own respective communities, 90 percent of the time this is sufficient, however, 10 percent of events require additional support. Six-wheel drive graders are needed in the future to help with snow removal.

Tornadoes and High Winds

The most recent tornado that occurred in the county was in August 2020. This was an EF0 and there were no reported damages for the event. Although there were no damages, tornadoes and high winds have the potential to do large amounts of damage in a short amount of time. Notification for severe weather is done in several ways. Weather radios are located in all county-owned buildings. Approximately 150-200 local storm spotters that are trained annually. They county is part of Panhandle Alert which is a mass notification system. Region 22 is currently working on IPAWS certification. The county has one safe room at the Minatare High School which was built in 2015.

There are a number of locations that need upgraded sirens in the county. These include but are not limited to: City of Gering, City of Scottsbluff, Village of Melbeta, Village of McGrew, City of Minatare, Village of Morrill, City of Mitchell, and Village of Lyman, and the Western Nebraska Regional Airport. Areas that need sirens where they do not currently exist are the Scottsbluff Country Club area, the Lacy Park area of Rural Scottsbluff, near the Riverside Golf Course near the City of Scottsbluff, and the Wildcat Estates area of rural Gering.

Mitigation Strategy

Continued Mitigation and Strategic Actions

MITIGATION ACTION	ALERT SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or placement of new sirens. Needed at Lacy Park, Wildcat Hills, Lake Minatare, Haig, Rural Schools.
HAZARD(S)	All hazards
ESTIMATED COST	\$30,000/siren
FUNDING	General Fund
TIMELINE	2 years
PRIORITY	High
LEAD AGENCY	Region 22 Emergency Management, County Board, Individual Communities
STATUS	In Progress. Currently working with cities and villages to upgrade sirens to electronic with voice over capabilities.

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a stationary source of backup power for the Scotts Bluff County courthouse.
HAZARD(S)	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
ESTIMATED COST	\$15,000 - \$30,000
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	County Board
STATUS	Planning Stage. Currently exploring grants

MITIGATION ACTION	BARRICADES
DESCRIPTION	Improve barricade capabilities, specifically for flooding events on county roads.
HAZARD(S)	All hazards
ESTIMATED COST	\$300
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	Low
LEAD AGENCY	Highway Superintendent
STATUS	In Progress. Some barricades have been purchased but some are still needed.

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

MITIGATION ACTION	CHANNEL AND BRIDGE IMPROVEMENTS
DESCRIPTION	Implement channel and bridge improvements to increase channel conveyance and decrease the base flood elevations.
HAZARD(S)	Flooding
ESTIMATED COST	\$400,000/bridge
FUNDING	General Fund
TIMELINE	Ongoing, one bridge per year
PRIORITY	High
LEAD AGENCY	Highway Superintendent
STATUS	In Progress. Several bridge and channel improvements have been made.

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Obtain a 6 wheel-drive road grader for each of the three highway districts in Scotts Bluff County
HAZARD(S)	Severe Winter Storm
ESTIMATED COST	\$300,000/grader
FUNDING	General Fund
TIMELINE	3 Years
PRIORITY	Medium
LEAD AGENCY	Highway Superintendent
STATUS	Planning Stage. Planning to purchase one grader per year.

MITIGATION ACTION	EMERGENCY MANAGEMENT EXERCISE
DESCRIPTION	Develop and facilitate an exercise to identify gaps in planning and to ensure that community response plans are sufficient to meet the needs of jurisdictions.
HAZARD(S)	Flooding
ESTIMATED COST	\$5,000
FUNDING	General Fund
TIMELINE	3 years
PRIORITY	Medium
LEAD AGENCY	Region 22 Emergency Management, Public Works
STATUS	In Progress. The West Nebraska Engine Academy is an annual exercise in September. There are plans to expand this to incorporate more agencies and organizations.

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

MITIGATION ACTION	IMPROVE DRAINAGE DITCH/STORMWATER CONVEYANCE
DESCRIPTION	The County of Scotts Bluff and the City of Scottsbluff have a drainage ditch which has been repurposed to function as storm water conveyance. The ditch begins outside of the city, and continues through the city of Scottsbluff below ground, in a 48” culvert. The city intends to open this drainage up, so it would not be limited to the size of the culvert. The city has discussed options with their city engineer and intends to move forward as funds allow. The county will be responsible for the percentage of drainage stretch which falls outside the city.
HAZARD(S)	Flooding
ESTIMATED COST	\$15 million
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Highway Superintendent, City of Scottsbluff
STATUS	In Progress. Incremental work has been done as funding allows.

MITIGATION ACTION	PUBLIC AWARENESS
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury and death. It increases knowledge on emergency procedures, facilities, conservation and is key to preparedness.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	County Health Department
STATUS	In Progress. Panhandle Alert is a mass notification system. Currently working on IPAWS certification.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Assess, design, and construct fully supplied safe rooms in highly vulnerable urban and rural areas. Scotts Bluff County is specifically interested in getting a safe room for the roads department and other county-owned buildings
HAZARD(S)	Tornadoes and High Winds
ESTIMATED COST	\$200-\$300 sq ft stand alone, \$150-\$200 sq ft addition/retrofit
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	County Board
STATUS	Not Started. Cost prohibitive at this time.

SECTION SEVEN: SCOTTS BLUFF COUNTY COMMUNITY PROFILE

MITIGATION ACTION	STABILIZE/ ANCHOR FERTILIZER, FUEL, AND PROPANE TANKS AND SECURE AT-RISK DEVELOPMENT
DESCRIPTION	Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in a tornado or high wind event. "Tie downs" can be used to anchor manufactured homes to their pads or concrete foundations. Needed at Wesco, Cenex, French Valley Coop, and Slater Oil.
HAZARD(S)	Tornadoes and High Winds, Flooding
ESTIMATED COST	\$1,000+
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	County Board
STATUS	Not Started

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to more effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000- \$100,000
FUNDING	Matching Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	County Board
STATUS	In Progress. Several improvements have been made in the past five years.

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/ CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/ grade stabilization improvements can serve to more effectively protect structures, increase conveyance, prevent down cutting, and provide flooding benefits. Needed in the area bordering the Platte River.
HAZARD(S)	Flooding
ESTIMATED COST	\$50,000- \$100,000
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	County Board
STATUS	In Progress. Several improvements have been made in the past five years.

MITIGATION ACTION	STORM WATER 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. Storm water master plans can be developed to help identify storm water problem areas and potential drainage improvements.
HAZARD(S)	Flooding
ESTIMATED COST	\$150,000
FUNDING	General Fund
TIMELINE	2-3 years
PRIORITY	High
LEAD AGENCY	Roads/Bridges Department, Building and Zoning Department
STATUS	Not Started

Removed Mitigation and Strategic Actions

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
STATUS	Removed. All schools and other CIKR facilities have weather radios or other alerting methods in place.

Community Profile

CITY OF GERING

North Platte NRD Hazard Mitigation Plan 2021

Local Planning Team

Table GER.1: Gering Local Planning Team

NAME	TITLE	JURISDICTION
PAT HEATH	City Administrator	City of Gering
ANNIE FOLCK	City Engineer	City of Gering
CASEY DAHLGRIN	Street Superintendent	City of Gering
NATHAN FLOWERS	Fire Chief	City of Gering

Location and Geography

The City of Gering is located in the central portion of Scotts Bluff County and covers an area of 3.7 square miles. The major waterway in the area is the North Platte River.

Transportation

There are two major highways which pass near Gering: Nebraska Highway 71 and Nebraska Highway 92. According to the Nebraska Department of Transportation, the average daily traffic count for Highway 71 is 3,180 vehicles, 180 of which are heavy commercial vehicles. The traffic count for Highway 92 at the junction with Highway 71 is 1,940, 110 of which are heavy commercial vehicles.¹⁰ There are two railroads in the city. One line runs from the south and the other line runs from east to west. The lines meet at the city's eastern border and the south line ends splitting either east or west.

Demographics

Gering's estimated population in 2019 was 8,254. The following figure displays the historical population trend from 1900 to 2019. This figure indicates that the population of Gering has generally increased since 1900. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. Gering's population accounted for 23 percent of Scotts Bluff County's population in 2019.¹¹

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

¹¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure GER.1: City of Gering

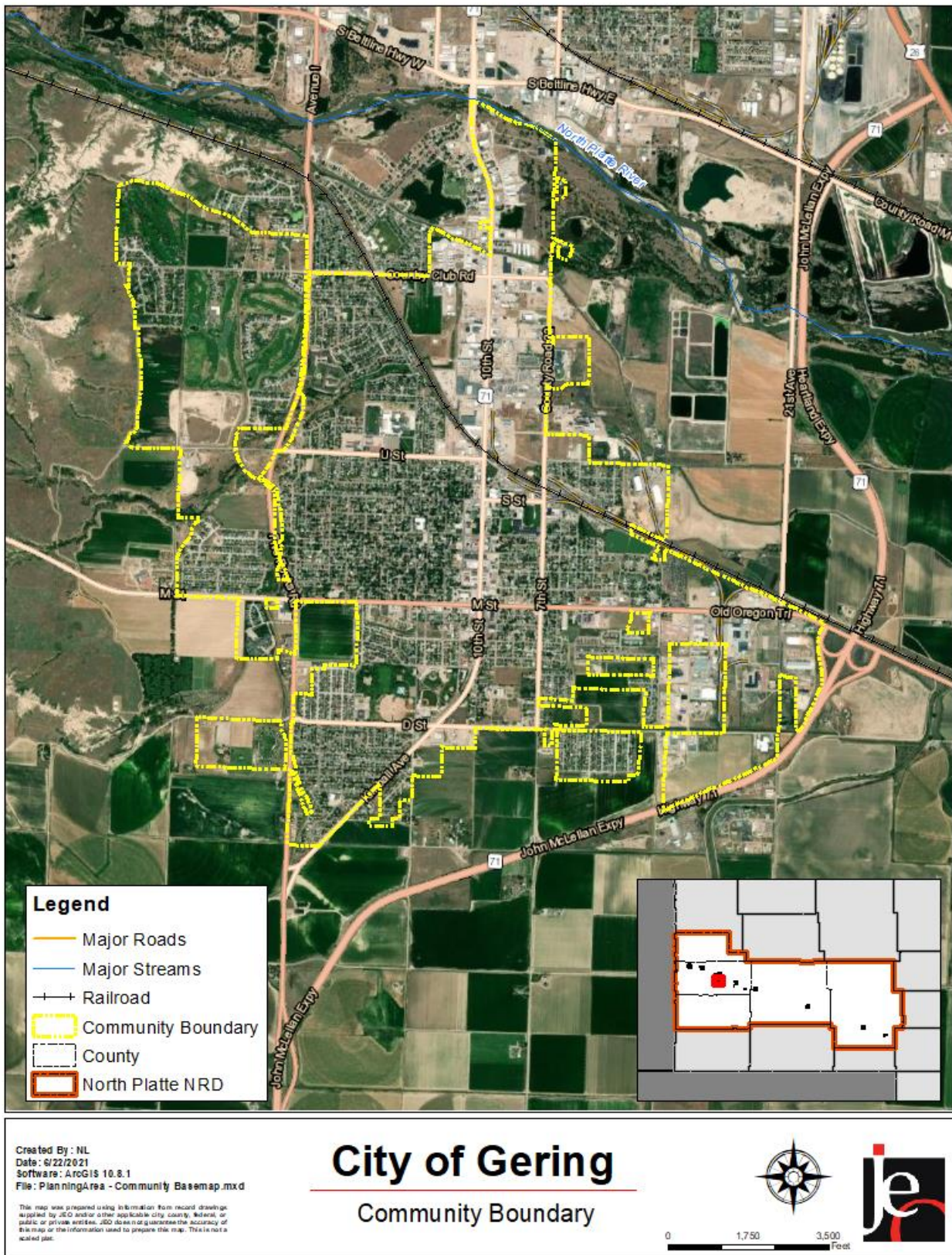
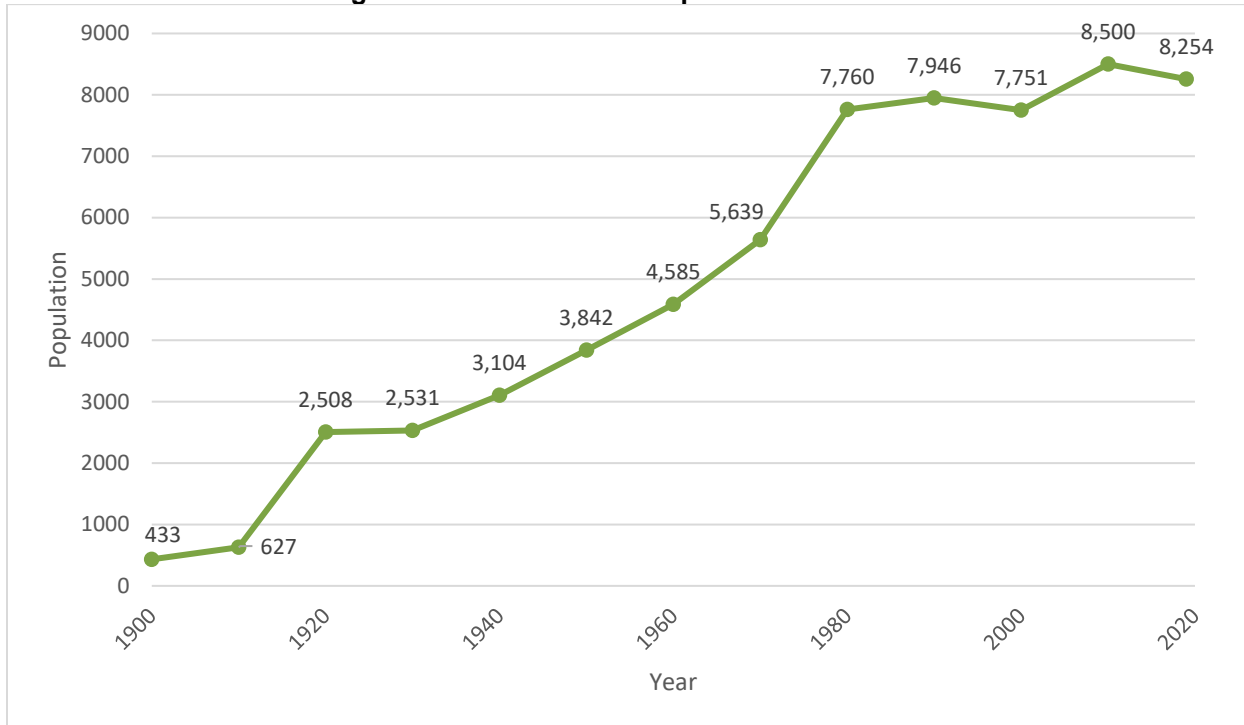


Figure GER.2: Estimated Population 1900 - 2019



Source: U.S. Census Bureau¹²

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

- **Younger.** The median age of Gering was 38.1 years old in 2019, compared with the county average of 39.5 years. Gering's population has grown a little older since 2010, when the median age was 36.4 years old. Gering had the same percentage of people under 20 years old as the county in 2019 (27.5%).¹³
- **Less ethnically diverse.** Since 2010, Gering grew more ethnically diverse. In 2010, 3.8% of Gering's population was non-white. By 2019, 6.6% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.¹⁴
- **Less likely to be at the federal poverty line.** The poverty rate in Gering (5.6% of families living below the federal poverty line) is lower than the county's poverty rate (10.3%) in 2019.¹⁵

Employment and Economics

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

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

¹³ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

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

¹⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Gering included: Educational Services and Retail Trade. Scotts Bluff County's employment sectors also included Educational Services and Retail Trade in 2019.¹⁶
- **Higher household income.** Gering's median household income in 2019 (\$56,907) was \$7,162 higher than the county (\$49,745).¹⁷
- **Similar number of long-distance commuters.** About 61% percent of workers in Gering commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 9% of workers in Gering commute 30 minutes or more to work, which is the same as county workers.¹⁸

Major Employers

Major employers in Gering include the Gering Public School District, the City of Gering, Scotts Bluff County government, and the Nebraska Department of Health and Human Services. According to the planning team, many residents commute to nearby communities for work, especially Scottsbluff.

Housing

In comparison to Scotts Bluff County, Gering's housing stock was:

- **More owner occupied.** 75.3% of occupied housing units in Gering are owner occupied compared with 66.9% of occupied housing in Scotts Bluff County in 2019.¹⁹
- **Newer housing stock.** Gering has a smaller share of housing built prior to 1970 (47.5% compared to 55.7%).²⁰
- **Similar share of multifamily homes.** Although the predominant housing type in the city is single family detached, 6.7% is made up of multifamily housing with five or more units per structure. This is similar to the county amount of 6.6%. About 84% of housing in Gering was single-family detached, compared with 77.1% of the county's housing. Gering has a smaller share of mobile and manufactured housing (0.7%) compared to the county (5.8%).²¹ A large mobile home park on the east side of Gering is made up of 64 mobile homes. This area consists of eight cul-de-sacs that have eight mobile homes each that is serviced by a street that connects the park to two busy streets.

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

Future Development Trends

In 2017 the City of Gering created a large industrial park east of the city. The industrial park is zoned Heavy Industrial and is currently in the development stage. In 2020 a large CO-OP began construction of a large facility within the industrial park. The city is anticipating future growth within the area.

¹⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

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

¹⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

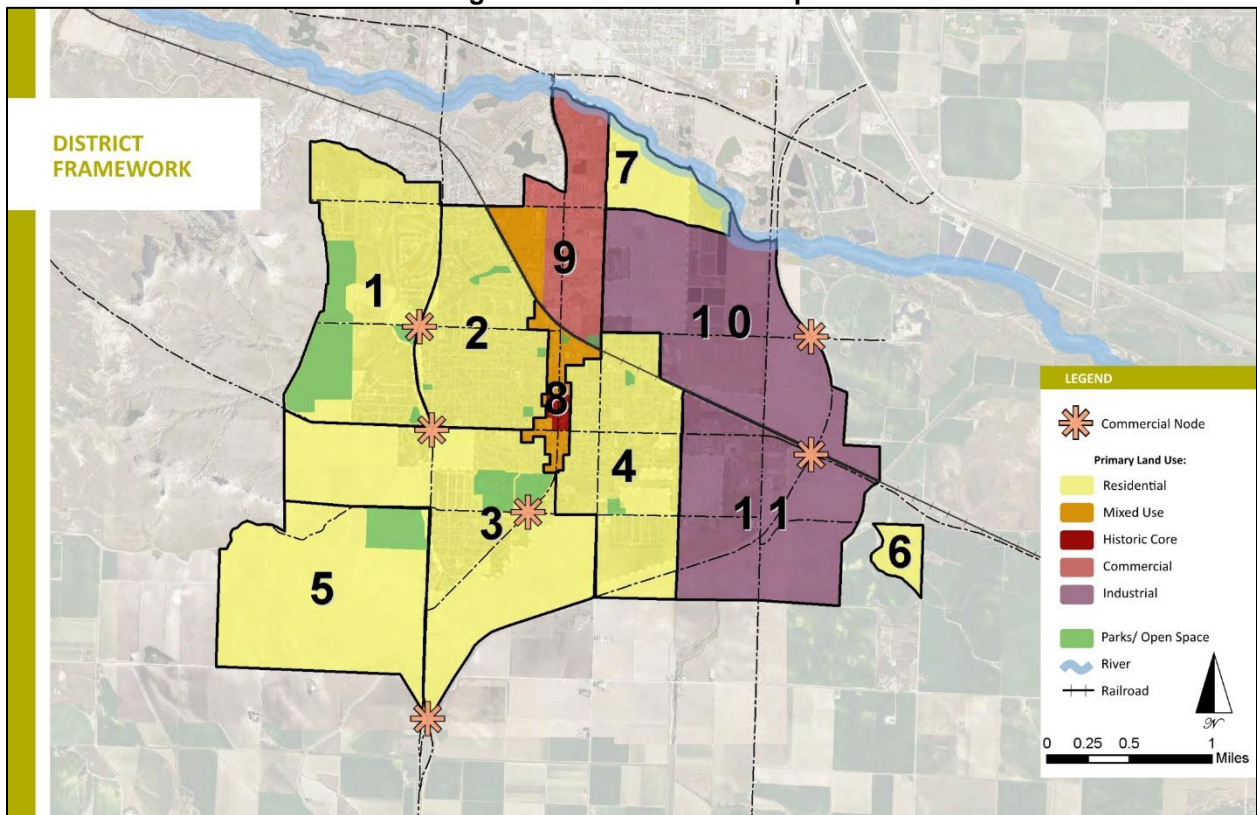
²⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

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

Gering completed a comprehensive plan in 2019 which outlines potential future expansion for the city. Current development is focused on undeveloped land and lots within city limits, such as the area near Geil Elementary School. Other expected growth includes the Meadows Addition and to the south. CS Precision has begun a large addition to their manufacturing plant and Bri Mark Medical recently broke ground on a large sleep medicine clinic within the corporate limits.

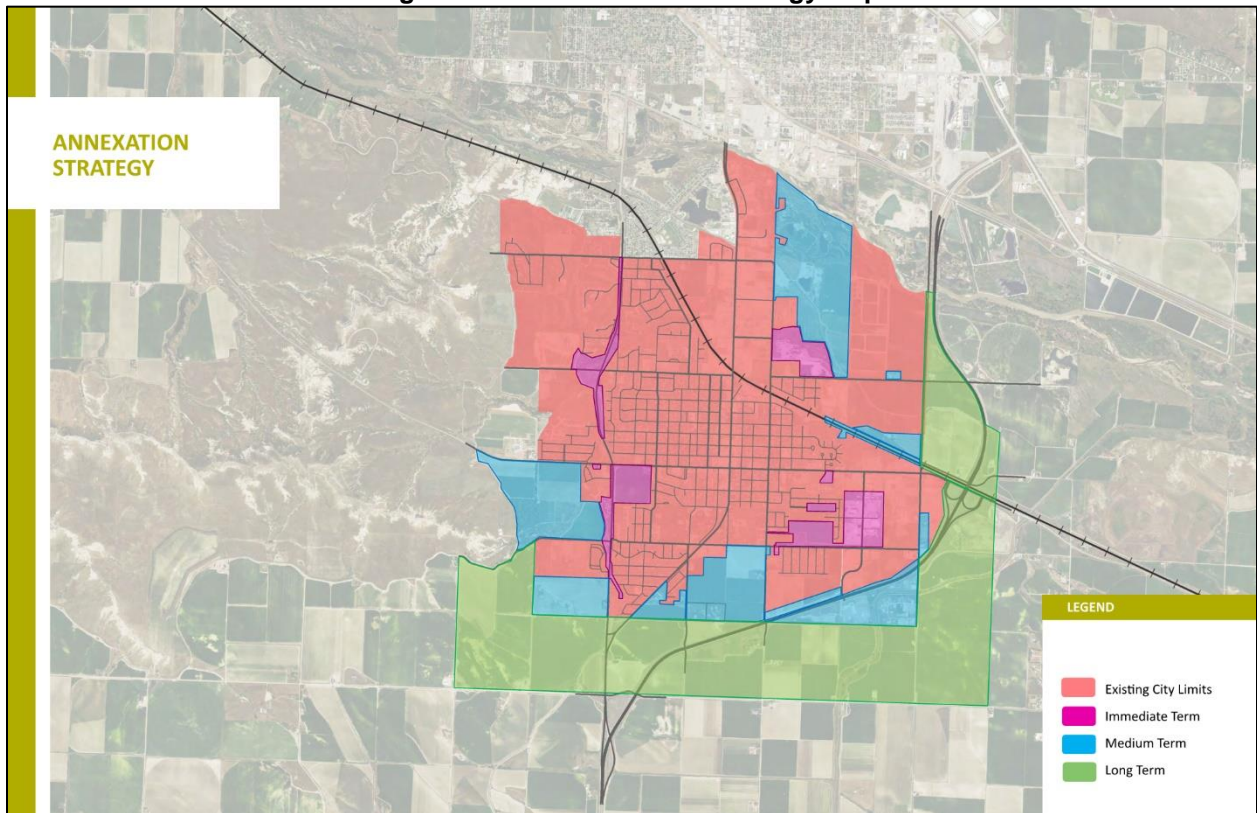
According to the census data, Gering’s population has generally increased over the past few decades. However, the estimated 2019 population declined by 2.8% from what it was in 2010. The local planning team noted that the Scottsbluff/Gering area is considered the hub for Western Nebraska which has led to Gering’s generally increasing population. The recent decline in population could be attributed to the downward trend in Nebraska’s rural population, as suggested by the planning team.

Figure GER.3: Land Use Map



Source: Gering, Nebraska Comprehensive Plan

Figure GER.4: Annexation Strategy Map



Source: Gering, Nebraska Comprehensive Plan

Structural Inventory and Valuation

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

Table GER.2: Gering Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
3,297	\$437,319,440	29	\$6,298,791	1%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 14 chemical storage sites in Gering that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table GER.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS
Charlie 02 Launch Facility	Highway 71
Mead 1	Road 40
CS Precision Manufacturing Inc	140028 Lockwood Rd
Nebraska Machinery Co	2705 10th St
Matheson Tri-Gas Inc	3930 10th St
Furst McNess Company	780 Rundell Rd
Schwan's Home Service	855 Rundell Rd
WAPA Gering Substation	1030 U St
CenturyLink	1526 10th St
State A Lease	County Roads T & 17
NDOT Gering Yard 52601	140375 Rundell Rd
Westco Agronomy	1290 Rundell Rd
Verizon Wireless Rocks Rd	570 U St
Great Plains Central Warehouse	220757 Highway 92

Source: Nebraska Department of Environment and Energy²²

Critical Facilities

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

Table GER.4: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	21st Street Substation	N	N	N
2	Baling Facility	N	N	N
3	Ball Park Substation	N	N	N
4	Central Stores	N	Y	N
5	Central Water Treatment Plant	N	Y	N
6	City Hall - Police Station	N	N	N
7	City Main Substation	N	N	N
8	Crescent Street Lift Station	N	N	Y
9	D Street Substation	N	N	N
10	Emergency Operations Center	N	Y	N
11	Fire Station	N	N	N
12	Geil Elementary School	N	N	N
13	Gering Junior High School	N	N	N
14	Gering Public Library	Y	N	N
15	Gering Senior High School	N	N	N
16	Lincoln Elementary School	N	N	N
17	Lockwood Street Lift Station	N	N	N
18	Lockwood Substation	N	N	N

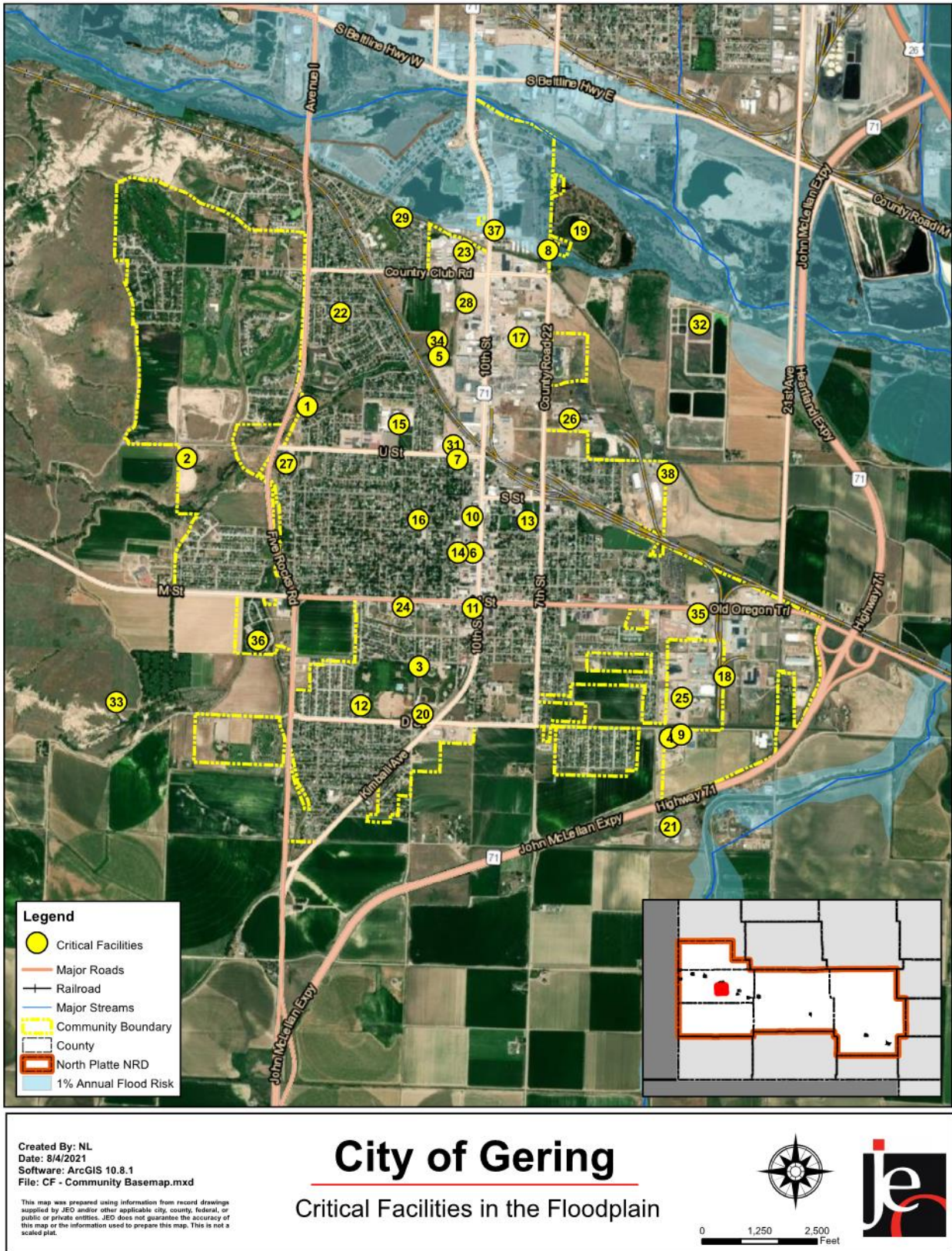
²² Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2020. <https://deq-iis.ne.gov/tier2/search.faces>.

SECTION SEVEN: CITY OF GERING COMMUNITY PROFILE

19	Midtown Wellfield	N	Y	N
20	National Guard Armory	N	N	N
21	Nebraska Department of Transportation	N	Y	N
22	Northfield Elementary School	N	N	N
23	Red Barn Lift Station	N	N	N
24	Regional West Physicians Clinic	N	N	N
25	Scotts Bluff County Dept. of Roads	N	N	N
26	Sugar Factory Substation	N	N	N
27	Summit Christian College	N	N	N
28	Swift Substation	N	N	N
29	Terrytown Wellfield	N	N	N
30*	Gueck Wellfield	N	N	N
31	WAPA - Gering Substation	N	N	N
32	Wastewater Treatment Plant	N	Y	N
33	Water Storage Tanks (2)	N	Y	N
34	Water Tank	N	N	N
35	Westco Fuel Plant	N	N	N
36	Heritage Estates	N	Y	N
37	CAPWN	N	Y	Y
38	U Street Substation	N	N	N

**Gueck Wellfield is located northwest of Gering and is not mapped*

Figure GER.5: Critical Facilities



Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Gering has a mayor, an eight-member council, and the following offices.

- Clerk
- Treasurer
- City Administrator
- Attorney
- Utility Superintendent
- Chief of Police
- Fire Chief
- Sewage Plant Operator
- Sewer/Water Superintendent
- Street Superintendent
- Sanitation Superintendent
- Park & Recreation
- Human Resource Director
- Planning Commission Chairperson
- Purchasing Officer
- Engineer

Capability Assessment

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

Table GER.5: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		YES/NO
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes

SECTION SEVEN: CITY OF GERING COMMUNITY PROFILE

	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	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.	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	
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

Table GER.6: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The profile was last reviewed in December 2018. The local planning team will include the City Engineer and Fire Chief. The plan will be reviewed no less than bi-annually and will include the public in the review and revision process by sharing information through social media, website updates, and at City Council and Planning Commission meetings.

Plan Integration

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

Annual Municipal Budget (2020-2021)

Gering's annual budget is currently limited to maintaining current facilities and systems due to the recent completion of several capital projects. Municipal funds have increased over recent years, but costs have increased at a higher rate. Projects identified in the hazard mitigation plan that are included in the municipal budget include stormwater system and drainage improvements and floodplain management training. In the last five years the city has been awarded a Land and Water Conservations Fund grant and an NDEE Waste Reduction Grant.

Building Code (2018)

The building code sets standards for constructed buildings and structures. The city has adopted the 2018 International Building Code, with an amendment made to exempt residential structures from the sprinkler requirement.

Comprehensive Plan (2019)

The comprehensive plan is designed to guide the future actions of the city. It limits density in areas adjacent to known hazardous areas, encourages infill development, and encourages preservation of open space in hazard-prone areas. There are currently no plans to update the document.

Floodplain Ordinance, Zoning Ordinance, Subdivision Regulations (2020)

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, limit population density in the floodplain, discourage development near chemical storage sites, and includes well setback requirements. These documents are reviewed and amended as needed.

Scotts Bluff County Local Emergency Operations Plan (2020)

The City of Gering is an annex in the Scotts Bluff 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.

Stormwater Management Plan (2017)

A stormwater management plan (SWMP) describes the best practices to be implemented to minimize the discharge of pollutants into the storm drain system. Gering collaborated with the City of Terrytown to develop a SWMP in 2017.

Wildcat Hills Community Wildfire Protection Plan (2021)

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

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Dam Failure

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

The dam of most concern to the planning team is a small dam owned by the city, located on the southwest edge, near West Lawn Cemetery. The dam is unlikely to fail, according to the planning team, but if it did, the results would be catastrophic. A nursing home and many residential and commercial properties would be impacted. The dam is below the capacity which would require regulation by the Nebraska Department of Natural Resources; however, due to the potential impacts, the City of Gering has been working with DNR to determine actions that would mitigate risk. Some of these include removal of trees and root balls from the dam, restoring the auxiliary spillway, removing the gate from the upstream end of the drawdown, and removing the gate at the downstream end of the principal spillway.

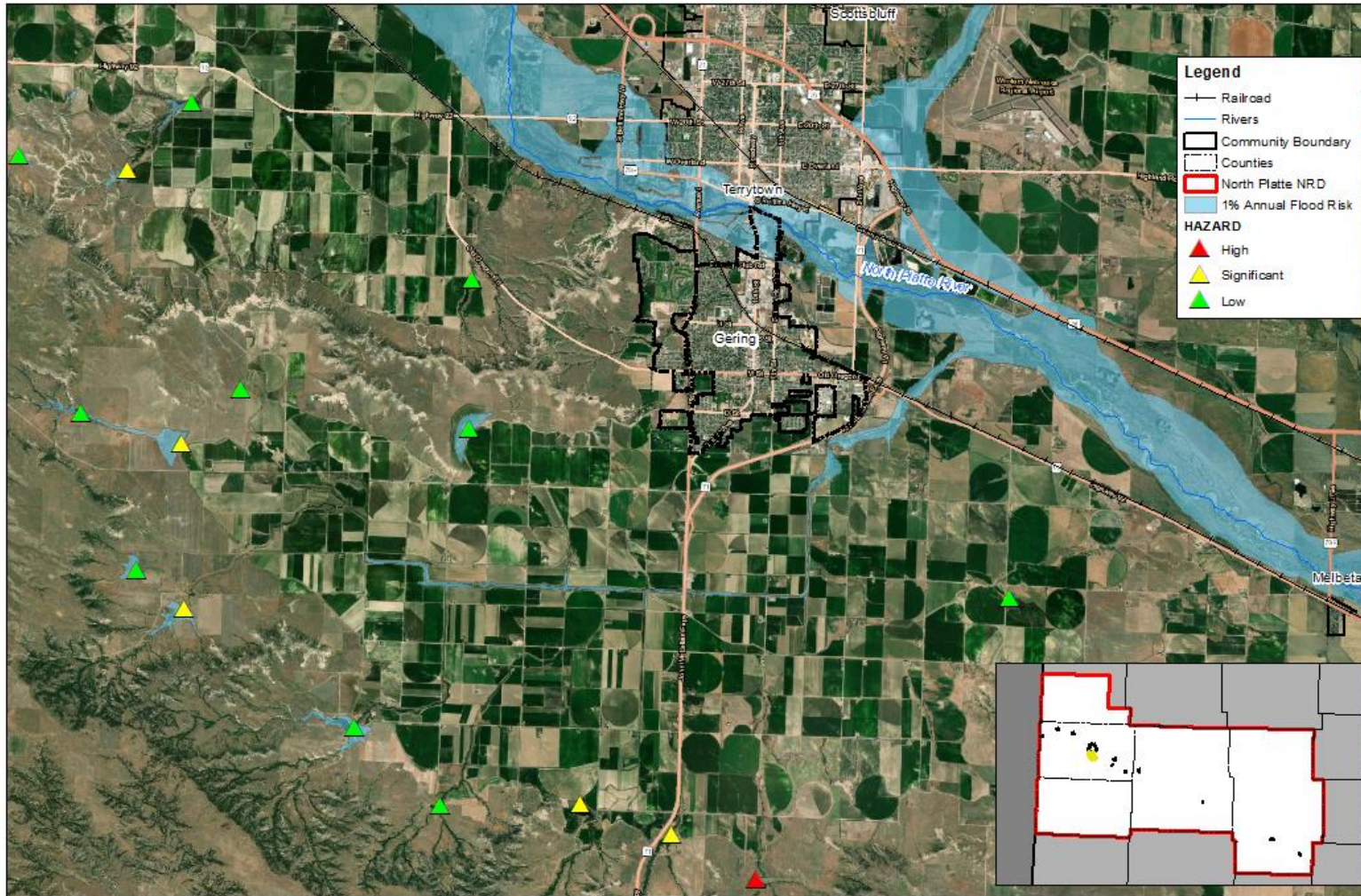
Table GER.7 lists currently constructed high hazard dams near Gering, according to the Department of Natural Resources. Dams near Gering, as well as their hazard level, can be seen in Figure GER.6. They can also be viewed on the Nebraska Department of Natural Resources Dam Inventory map (<https://dnr.nebraska.gov/dam-safety>).

SECTION SEVEN: CITY OF GERING COMMUNITY PROFILE

Table GER.7: High Hazard Dams in Gering

NIDID	Dam Name	Stream Name	Owner
NE00664	Gering Valley A	Tr-Gering Drain	North Platte NRD
NE00659	Gering Valley B	Tr-Gering Drain	North Platte NRD

Figure GER.6: Gering Dams



Created By : NL
 Date : 8/3/2021
 Software : ArcGIS 10.8.1
 File Name : Dams - Gering.mxd

This map was prepared using information from record drawings supplied by JCO and/or other applicable city, county, federal, or public or private entities. JCO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

City of Gering
 Nearby Dams

A north arrow is positioned above a scale bar that indicates distances of 0, 1, and 2 miles. To the right of the scale bar is the logo for JCO (Jeffrey C. O'Connell & Associates), featuring the letters 'je' in a stylized font.

Flooding

Flooding was identified as a top concern for the city. According to the NCEI, there have been four flood events from 1996 to September 2020, resulting in \$50,000 in property damage. The planning team noted that Gering's most serious flooding event occurred in 2011, in north Gering. The biggest concern is a wastewater treatment plan in the floodplain and floodway. To prevent against lasting impact from flooding events, Gering hopes to install a portable levee system in the case of a significant flooding event. If the wastewater site were to be compromised by a flooding event, the city is able to combine storm sewer and wastewater to flush wastewater. Nearly the entire community is vulnerable to a 0.2% annual chance flood event, according to the planning team. Areas prone to regular flooding are much of 7th street and 10th street (from O - U Streets).

The city has identified employees that are capable to assist during a flood emergency and has completed an Incident Action Plan to better ensure successful response when a flood event occurs.

Gering has ten NFIP policies in-force for \$3,386,200 and there are no repetitive flood loss properties as of February 2020.

Hazardous Materials - Transportation

The local planning team identified transportation-related hazardous materials as a top concern for Gering. The Pipeline and Hazardous Materials Safety Administration reported no incidents from 1971 to 2020. However, the local planning team did recall a spill of molasses at the Western Sugar Co, in 1989. This event injured three employees and caused extensive damage to the facility. The planning team also noted a large gasoline spill in 2018 that leaked into the storm sewer system. Historically, there have been several small leaks and spills from transportation vehicles.

In Gering, rail lines run both south and north of the city and commonly transport crude oil and ethanol. The Union Pacific line passes near three of Gering's schools, which would be a significant concern in the case of a chemical spill. The local planning team also expressed concern regarding the major highways in town, Highways 71, 92, and 26, which many trucks use to transport chemicals. As an agricultural community, the area has many trucks carrying anhydrous ammonia for use on fields. Westco, a large agricultural cooperative, sits on the edge of Gering and borders several neighborhoods. In recent years, the cooperative has increased their capabilities of producing fertilizers and storing chemicals.

In the event of a chemical spill, the first responders would be the Gering Fire Department, followed by a hazardous materials team in Scottsbluff. Many Gering Fire Department personnel have obtained Hazmat certifications to assist with response. The department has also trained with the Scottsbluff Hazmat Team on simulated incidents. The City of Gering has begun implementing community awareness campaigns to educate the public on hazardous materials. Additionally, city staff were recently trained on hazardous materials during MS3 Stormwater Trainings.

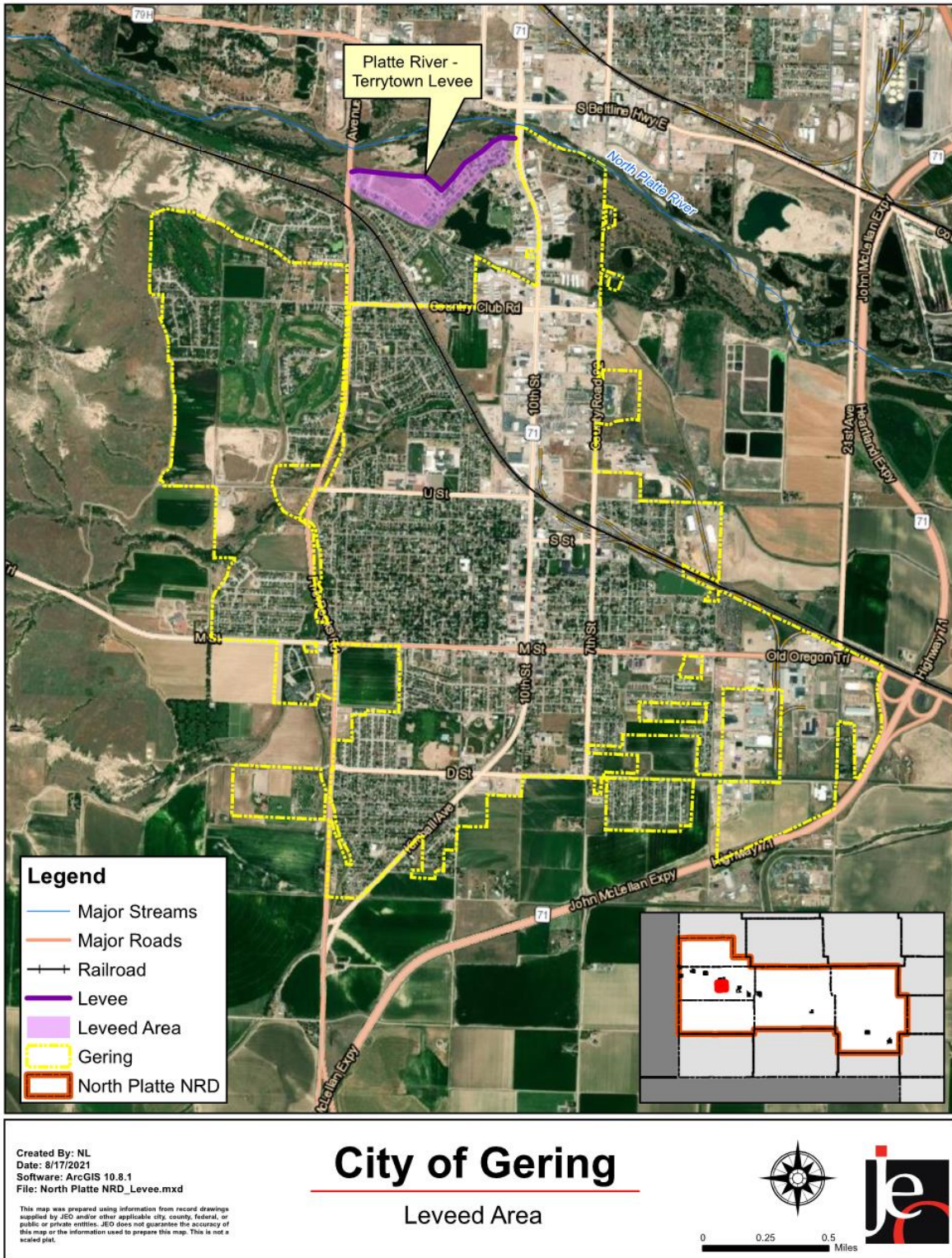
Levee Failure

There is one levee located in or near the city: the Platte River - Terrytown levee. The Platte River - Terrytown levee spans 0.76 miles in length and protects 284 residents and 70 structures. The levee is sponsored by the City of Terrytown. This levee can be seen in Figure GER.7.

There is also a structure located south of the city known as the Gering Canal (or Gering Drain). It is not properly considered a levee, but it does include a canal and berm, according to the Army

Corps of Engineers. The canal was built primarily to control drainage from adjacent agricultural land. The canal system is made up of six different sections and spans 25 miles

Figure GER.7: Platte River-Terrytown Levee



Severe Thunderstorm

Severe thunderstorms are common events in the planning area and were identified as a top concern for the community. Severe thunderstorms and hail can result in the loss of electricity, blocked roadways, damages to trees, and flooding. The NCEI recorded 56 severe thunderstorm events in Gering from 1996 to September 2020. These storms resulted in \$95,000 in property damage and \$10,000 in crop damage. Hailstones from these storms have ranged from 0.75 to 2.75 inches.

The city's biggest concern as it applies to thunderstorms is hazardous trees in the area. While the community is a Tree City USA, the local tree board struggles to trim all hazardous trees due to political issues and residents' wishes. The electrical superintendent oversees tree trimming for the community. Presently, the superintendent is working to bury power lines to prevent further hazardous events. About five percent of power lines are buried.

The planning team noted that residences and other buildings have been severely damaged by hail in recent years. Most residents are forced to re-roof every four to five years due to hail damage and many residents have invested in carports for their vehicles. A 2001 hail event produced softball-sized hail and damaged several facilities and structures within Gering. According to local reports, about 20 people were hospitalized for hail-related injuries.

Thunderstorm events in 2020 damaged infrastructure, buildings, and vehicles, as indicated by the planning team. Multiple storms caused loss of power throughout the city, leaving vulnerable population at greater risk. Additionally, thunderstorm wind destroyed large overhead doors at the Sanitation Baler Facility.

Critical facilities, such as City Hall and the fire station, need backup power generators. City Hall acts as a secondary Incident Command Post and hosts the server and critical software that run daily operations. The fire station has had multiple power outages from thunderstorms and high winds in the past. The city has applied for several grants to purchase backup generators but have so far been unsuccessful.

For general storm awareness, the city relies on Region 22 Emergency Management to send out text alerts and phone alerts during severe weather. Gering is currently working with Scotts Bluff County to evaluate and update the radio and communication system within the county. The team noted that when a severe storm occurs, most residents seek refuge in their basements. Those in public locations will likely seek refuge at the bank or library.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Gering and were identified as a hazard of top concern. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 101 severe winter storm events in Scotts Bluff County from 1996 through September 2020, resulting in \$53,000 in property damages and \$1,000 in crop damages. The city was impacted by significant snowfall in 2019 and extreme cold and snowfall in 2021. A city street was damaged during snow removal and several pieces of equipment needed repair. Direct costs associated with the storm was estimated at \$75,000. Street replacement cost was estimated at \$250,000.

Winter storms in recent years were so intense that the city was forced to enact their Emergency Snow Plan which is typically enacted any time the city receives four or more inches of accumulation, coupled with winds. To prevent significant drifting, the community has worked to

install snow fences along Five Rocks Road. Presently, snow removal resources are sufficient for most local events. Resources include three truck plows, a road grader, pickup plows, and a snow blower. The city does not clear residential streets after a storm event. This can be a concern for anyone hoping to use the roads after such an event. To clear main roadways as fast as possible, the city established snow routes.

The local planning team is also concerned about funding the labor it requires to clear a snow event. The city spent \$135,000 in two weeks in the winter of 2014/2015 on labor alone. Additionally, snowstorms have caused damage to the road infrastructure, contributing to potentially unsafe conditions and requiring increased maintenance and repair. According to the planning team, the city reviews their emergency plans every year and city staff are trained on response should the need arise. The LEOP is also reviewed if Gering needs assistance from outlying communities.

Terrorism

The local planning team identified terrorism as a top concern for the City of Gering. According to the Global Terrorism Database, no terrorist or civil disorder events have been reported in Gering. The biggest concerns regarding terrorism include large events such as Oregon Trail Days or the Monument Marathon. Several thousand people also visit the Scottsbluff National Monument every year, contributing to the number of visitors Gering regularly sees. According to the Gering Chief of Police, the police department is aware of any large event and the additional threat they can pose. City staff have several meetings with event coordinators prior to any event to create emergency plans. During events, the city pays law enforcement officers overtime to manage event safety.

The county has a S.W.A.T. Team which would take about one hour to mobilize in Gering. The city has updated S.W.A.T. equipment recently, as well. The local planning team identified potential targets as banks, city infrastructure, and religious organizations. To prevent against lasting impacts at Gering Public Schools, the school hired a School Resource Officer whose primary job is to prevent violent acts at the school and to identify students who show symptoms of abuse and neglect.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	WEST LAWN DAM MAINTENANCE
DESCRIPTION	Perform maintenance to mitigate dam failure. Maintenance activities can include: removing trees and large root balls from dam, filling low area along crest dam, restoring auxiliary spillway on south end of dam, maintaining wing dike along auxiliary spillway, excavating and removing gate from upstream end of drawdown, removing slide gate at downstream end of principal spillway.
HAZARD(S)	Flooding
ESTIMATED COST	\$15,000- \$20,000
FUNDING	Stormwater Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	City of Gering
STATUS	Not started.

Continued Mitigation and Strategic Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, and other critical facilities and shelters.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$15,000- \$30,000
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Public Works – Water Department
STATUS	The city has tried for multiple funding opportunities to acquire backup generators but has so far been unsuccessful. Alternative financing is currently being sought. The fire department and city hall were identified as priority locations in need of generators.

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.
HAZARD(S)	Flooding
ESTIMATED COST	\$50,000-\$100,000
FUNDING	City General Fund
TIMELINE	2 years
PRIORITY	High
LEAD AGENCY	Streets, Engineering, Public Works
STATUS	Public Works department is currently identifying outflows and prioritizing areas to mitigate or alleviate flooding.

MITIGATION ACTION	FLOOD-PRONE PROPERTY ACQUISITION
DESCRIPTION	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
HAZARD(S)	Flooding
ESTIMATED COST	\$20,000-\$100,000
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Public Works, Streets, Engineering, Floodplain Administrator
STATUS	This project is ongoing due to limited funding.

MITIGATION ACTION	FLOODPLAIN MANAGEMENT
DESCRIPTION	Improve floodplain management practices such as adoption and enforcement of floodplain management requirements (regulation of construction in SFHAs), floodplain identification and mapping (local requests for map updates), description of community assistance and monitoring activities, explanation for failure to participate in the NFIP, Community Rating System (CRS), and participation in FEMA's Cooperating Technical Partners Program (CTP) to increase local involvement in the flood mapping process
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Engineering and Public Works, Floodplain Administrator
STATUS	City Engineer continues to work with partners to identify and mitigate flood-prone areas of the city. Limited funding and time have delayed progress.

MITIGATION ACTION	FLOODPLAIN REGULATION ENFORCEMENTS AND UPDATES
DESCRIPTION	Continue to enforce local floodplain regulation for structures located in the 100-year floodplain. Strict enforcement of the type of development and elevations of structures should be considered through issuance of building permits by any community or county. Continue education of building inspectors or Certified Floodplain Managers. Encourage building regulations for storm-resistance structures.
HAZARD(S)	Flooding
ESTIMATED COST	\$5,000, Staff Time
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Engineering and Public Works, Floodplain Administrator
STATUS	This project is ongoing.

SECTION SEVEN: CITY OF GERING COMMUNITY PROFILE

MITIGATION ACTION	HAZARDOUS TREE REMOVAL
DESCRIPTION	Identify and remove hazardous limbs and/or trees. Decrease the risk of damage to electrical lines and personal property.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$20,000
FUNDING	Department Maintenance/Replacement Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Electrical Department
STATUS	The city has recently removed several trees identified as hazardous. Through city staff and boards, hazardous trees/limbs are identified, and corrective action is taken. This process is ongoing.

MITIGATION ACTION	MAINTAIN GOOD STANDING IN THE NFIP
DESCRIPTION	Maintain good standing with National Flood Insurance Program (NFIP) including floodplain management practices/requirements and regulation enforcement and updates.
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Engineering and Public Works, Floodplain Administrator
STATUS	Gering will continue to enforce floodplain management requirements including regulating new construction in Special Flood Hazard Areas.

MITIGATION ACTION	PUBLIC AWARENESS/ EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury, and death. It increases knowledge on emergency procedures, facilities, conservation, and is key to preparedness.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	City and school district budgets
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Gering School District and City Administration
STATUS	The city has provided prevention trainings within the community and schools to reduce fire risk. The city continues to collaborate with Gering Schools to educate and reduce risk to hazards.

MITIGATION ACTION	POWER, SERVICE, ELECTRICAL, AND WATER DISTRIBUTION LINE IMPROVEMENTS
DESCRIPTION	Work with local Public Power District to identify vulnerable transmission and distribution lines and plan to bury lines underground, upgrade, or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Work with Rural Water District, County, and/or Natural Resources District to identify vulnerable distribution lines near river crossings or creek beds and plan to place lines underground to reduce vulnerability from storm events and erosion.
HAZARD(S)	Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$500,000-\$750,000 per mile of electrical, \$650,000-\$700,000 per mile for water mains, \$2,000,000-\$3,000,000 for WWTP within the floodway
FUNDING	Department Maintenance/Replacements
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Electrical, Public Works Departments
STATUS	Improvements are made as the budget allows. Wells, transmission lines, and wastewater treatment plant are located in flood-prone areas. There are limited distribution mains in the floodplain.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Assess, design, and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting.
HAZARD(S)	Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. ft. addition/retrofit
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Public Works/Administration Departments
STATUS	This project is in preliminary stages. The city has storm shelters in city hall and the public library. Additional shelters will be designed/built as budget allows.

SECTION SEVEN: CITY OF GERING COMMUNITY PROFILE

MITIGATION ACTION	STABILIZE/ANCHOR FERTILIZER, FUEL AND PROPANE TANKS AND SECURE AT-RISK DEVELOPMENT
DESCRIPTION	Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in a tornado or high wind event. "Tie downs" can be used to anchor manufactured homes to their pads or concrete foundations
HAZARD(S)	Tornadoes and High Winds, Flooding
ESTIMATED COST	\$1,000+
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Engineering, Planning, Building Inspector, Public Works
STATUS	Gering requires foundations to meet International Building Codes for manufactured homes, sheds, and above ground fuel tanks. Numerous older structures that would need to be retrofitted, including structures, and tanks owned privately, and by the city, including public works/central stores department, and businesses including, but not limited to WestCo and Schwan's.

MITIGATION ACTION	STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to move effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$1,000,000+
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Streets, Engineering, and Public Works Departments
STATUS	Improvements are completed as budget allows. The city has a major need to upgrade drainage areas and install underground storm piping city-wide. Locations include 10th Street with lines east and west, P Street Extension, from 8th Street East- numerous locations.

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/ CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/grade stabilization improvements can serve to protect structures, increase conveyance, prevent down cutting, and provide flooding benefits more effectively.
HAZARD(S)	Flooding
ESTIMATED COST	\$50,000- \$100,000
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Engineering, Public Works, Streets Departments
STATUS	U.S. Army Corps of Engineers has previously placed fill along riverbed, currently considering installing larger box culverts.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
ESTIMATED COST	\$50/radio
FUNDING	City and school district budgets
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Public Works and Gering School District
STATUS	The city is currently working with a vendor to update the radio system and is working with the county to identify ways to improve radio communications in the event of severe weather.

Community Profile

VILLAGE OF HENRY

**North Platte NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table HEN.1: Henry Local Planning Team

NAME	TITLE	JURISDICTION
MARY HAAGENSEN	Chairperson	Village of Henry
JANINE SCHMIDT	Clerk	Village of Henry

Location and Geography

The Village of Henry is located in the northwest portion of Scotts Bluff County and covers an area of 0.29 square miles. The major waterway in the area is the North Platte River.

Transportation

There is one major highway that passes through Henry, US HWY 26. According to the Nebraska Department of Transportation, the average daily traffic count for US HWY 26 is 3,915 vehicles, 355 of which are heavy commercial vehicles.²³ There is one railroad that passes through the village from the northwest to the southeast. No significant transportation events have occurred locally according to the planning team.

Demographics

Henry's estimated population in 2019 was 91. The following figure displays the historical population trend from 1920 to 2019. This figure indicates that the population of Henry has fluctuated since 1920 and more recently has dramatically decreased from 2000 to 2019. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. Henry's population accounted for about 0.3 percent of Scotts Bluff County's population in 2019.²⁴

²³ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

²⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure HEN.1: Village of Henry

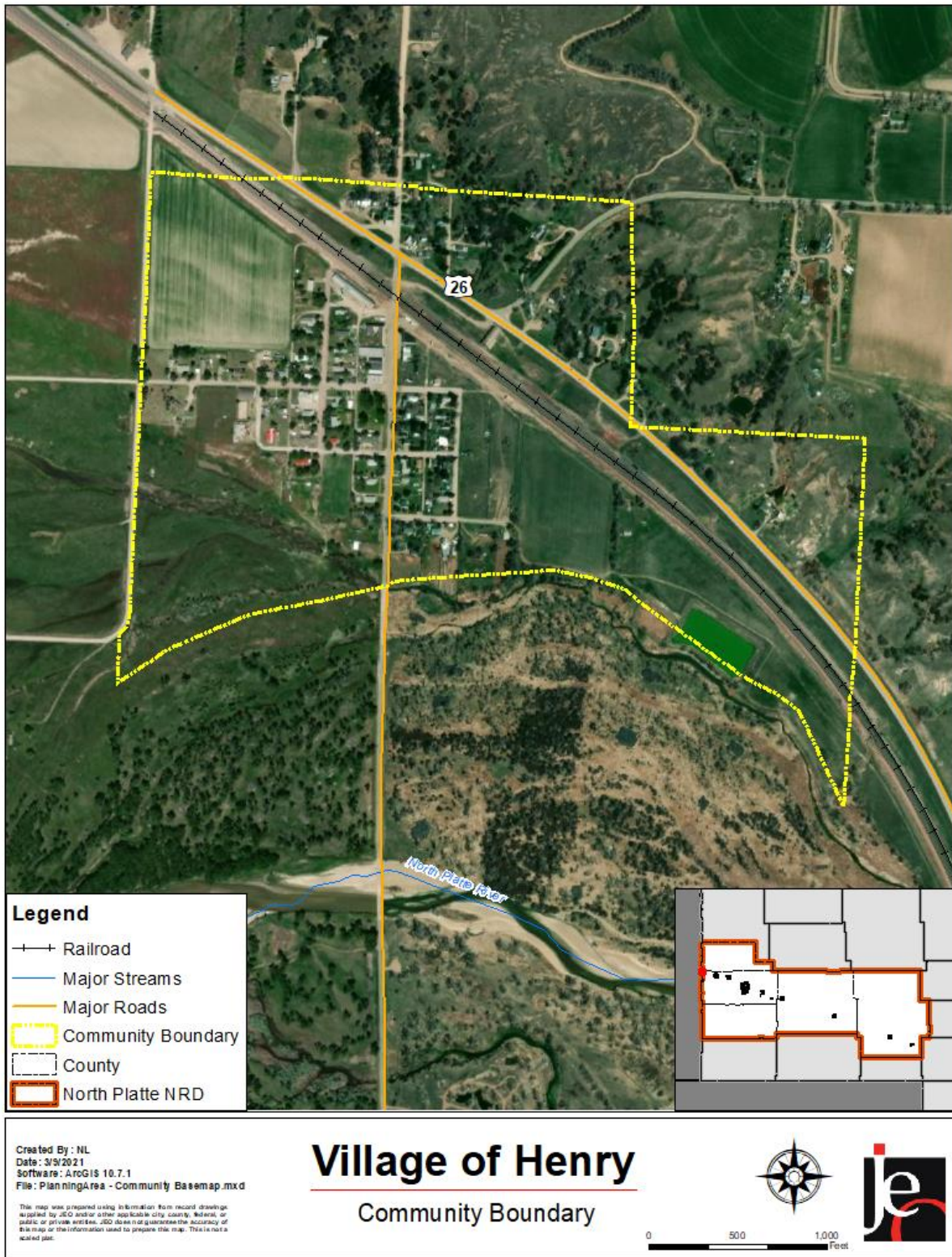
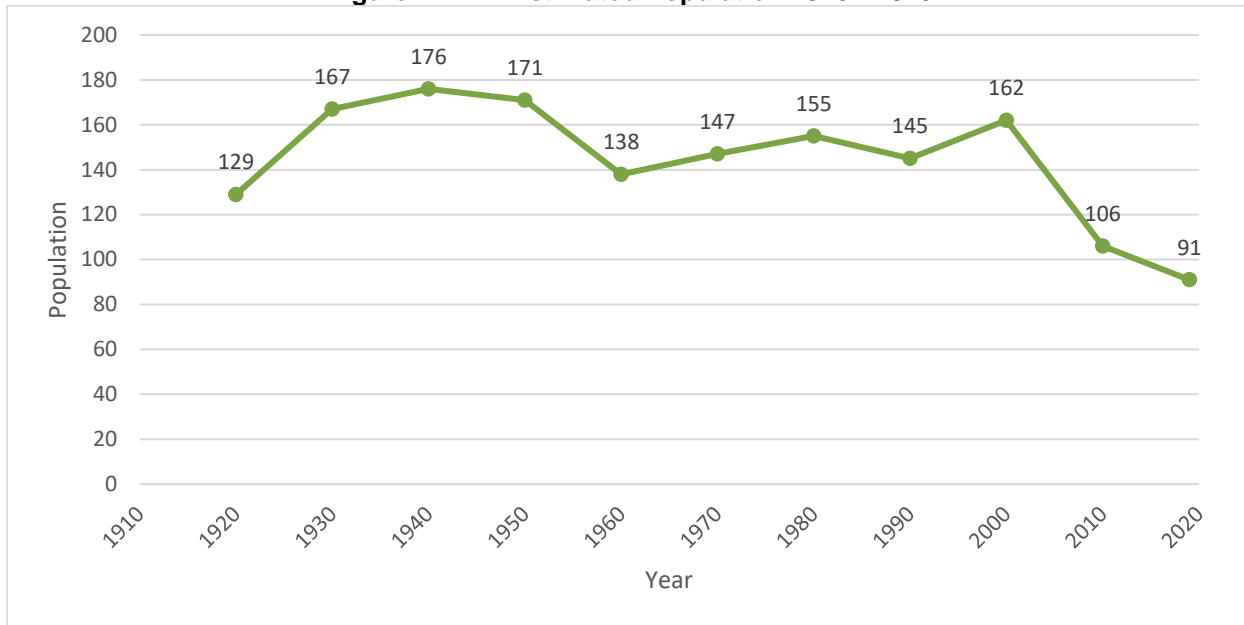


Figure HEN.2: Estimated Population 1920 - 2019

Source: U.S. Census Bureau²⁵

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

- **Younger.** The median age of Henry was 31.9 years old in 2019, compared with the county average of 39.5 years. Henry's population has grown older since 2010, when the median age was 25.1 years old. Henry had a larger proportion of people under 20 years old (33%) than the county (27.5%) in 2019.²⁶
- **Less ethnically diverse.** Since 2010, Henry grew less ethnically diverse. In 2010, 8% of Henry's population was non-white. By 2019, 1.1% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.²⁷
- **More likely to be at the federal poverty line.** The poverty rate in Henry (25% of families living below the federal poverty line) is higher than the county's poverty rate (10.3%) in 2019.²⁸

Employment and Economics

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

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Henry included: Agriculture, Transportation, Retail Trade, Manufacturing, and Educational Services. Scotts Bluff County's employment sectors included Educational Services and Retail Trade in 2019.²⁹

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

²⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

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

²⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

²⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

SECTION SEVEN: VILLAGE OF HENRY COMMUNITY PROFILE

- **Lower household income.** Henry's median household income in 2019 (\$48,929) was \$816 lower than the county (\$49,745).³⁰
- **More long-distance commuters.** About 40% percent of workers in Henry commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 16% of workers in Henry commute 30 minutes or more to work, compared to about 9% of the county workers.³¹

Most residents commute to other communities for work, such as Scottsbluff, Gering, and Lyman, and Torrington, Wyoming.

Housing

In comparison to Scotts Bluff County, Henry's housing stock was:

- **More owner occupied.** 72.5% of occupied housing units in Henry are owner occupied, compared with 66.9% of occupied housing in Scotts Bluff County in 2019.³²
- **Older housing stock.** Henry has a larger share of housing built prior to 1970 (66% compared to 55.7%).³³
- **Fewer multifamily homes.** The predominant housing type in the village is single family detached and Henry contains less multifamily housing with five or more units per structure than the county (0% compared to 6.6%). About 78% of housing in Henry was single-family detached, compared with 77.1% of the county's housing. Henry has a greater share of mobile and manufactured housing (14%) compared to the county (5.8%).³⁴ According to the planning team, mobile homes in the community are located on Carroll Street.

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

Future Development Trends

There has not been much development over the past five years in Henry, but there has been an increased effort to enforce ordinances for property cleanup. No new housing or commercial development is planned for the next five years.

Structural Inventory and Valuation

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

³⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

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

³² United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

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

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

Table HEN.2: Henry Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
76	\$3,316,011	1	\$42,455	1%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are zero chemical storage sites in Henry that contain hazardous chemicals.³⁵ In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Critical Facilities

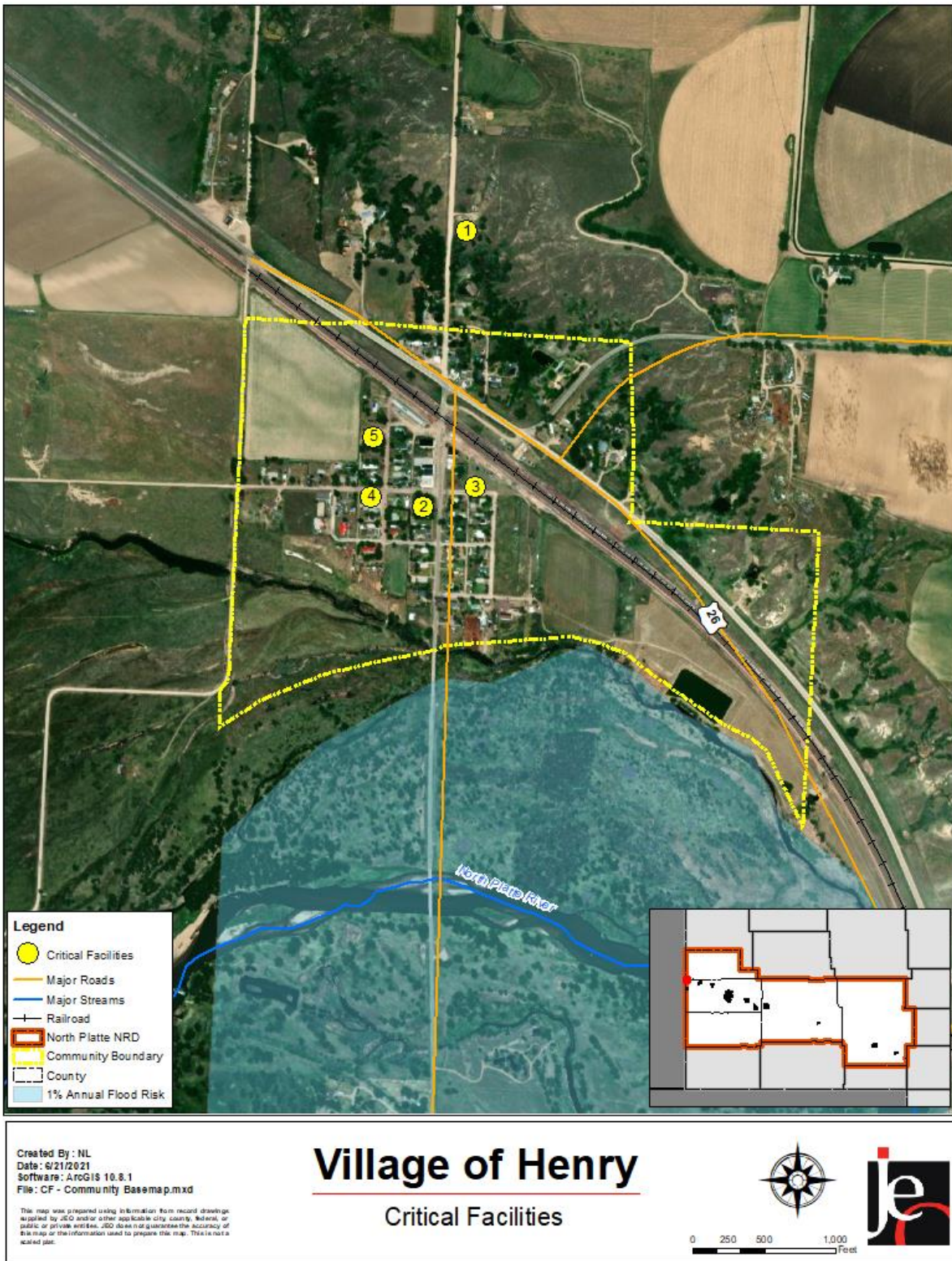
The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original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

Table HEN.3: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Water Tower	N	N	N
2	Park and Facility	N	N	N
3	Fire Department	N	N	N
4	Henry-Lyman United Methodist	N	N	N
5	Henry Bible Church	Y	N	N

³⁵ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2020. <https://deq-iis.ne.gov/tier2/search.faces>.

Figure HEN.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. Henry has a five-member board and the following offices.

- Clerk/Treasurer
- Attorney
- Water Operator
- Lyman Police Department
- Sheep Creek & Farmers Fire District

Capability Assessment

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

Table HEN.4: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operational Plan	County
	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	No
	Floodplain Administration	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	No

SECTION SEVEN: VILLAGE OF HENRY COMMUNITY PROFILE

	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
Education & Outreach 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	
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table HEN.5: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Community support to implement projects	Limited
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The Board of Trustees, Village Engineer, and Scotts Bluff County is responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will

review the plan no less than annually and will include the public in the review and revision process by sharing information in a letter to all residents and at board meetings.

Plan Integration

The Village of Henry 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 the ability to implement water restrictions if needed. 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.

Annual Municipal Budget (2020-2021)

Henry's municipal budget is limited to maintaining current facilities and systems. However, a large portion of funds are not already dedicated to a specific project. Municipal funds have remained steady over recent years.

Comprehensive Plan (2007)

The comprehensive plan is designed to guide the future actions and growth of the village. It contains goals aimed at safe growth, limits density in known hazardous areas, encourage infill development, identifies areas that need emergency shelters, and encourage the preservation of open space. It also specifically discusses flooding, tornadoes, wildfires, drought, high winds, and snow. There are currently no plans to update the comprehensive plan.

Building Codes (2018)

The building code sets standards for constructed buildings and structures. The village does not have their own building codes but uses the county building codes, which are based on the 2018 International Building Codes.

Scotts Bluff County Local Emergency Operations Plan (2020)

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

Zoning Ordinance (2021), Subdivision Regulations (2021)

The village's zoning ordinance and subdivision regulations outline where and how development should occur in the future. These documents contain floodplain maps, prohibit development in the floodplain, identify floodplain areas as parks and open space, discourage development near chemical storage sites, discourage development along major transportation routes, limit development in the ETJ, prohibit the filling of wetlands, include well setback requirements, and restrict the subdivision of land within the floodplain.

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Tornadoes and High Winds

The local planning team identified tornadoes and high winds as a hazard of top concern for the community. High winds are common across the region and can cause property and tree damage and brief power outages. Tornadoes are much less common, but the impacts can be far greater. Between January 1996 and September 2020, the NCEI recorded 67 high wind events in Scotts Bluff County and one tornado in Henry. The brief tornado event occurred in May 1998 with an F0 tornado being spotted just east of the village and quickly dissipating. No damages or injuries were reported. The village does have data backup systems for municipal records in case of a significant power outage/storm surge. Many of the homeowners in Henry have basements, which supply added protection from tornado and high wind events. For those who do not have basements, the Henry Baptist Church has a safe room which can supply additional protection.

For awareness, the Emergency Management Region offers an opt-in text message alert system called CodeRED, which allows individuals to receive messages regarding severe weather in one's area. The village also sends out a mailer which informs community members about the location of the safe room. In the event of a disaster, the village also has mutual aid agreements with neighboring fire departments to help. Additionally, the village recently purchased a new weather siren that is connected to the Scotts Bluff County Emergency Communication System.

Mitigation Strategy

Completed Mitigation and Strategic Actions

MITIGATION ACTION	LEVEE/ FLOODWALL CONSTRUCTION AND/OR IMPROVEMENTS
DESCRIPTION	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. If possible, the structure may be designed to FEMA standards to provide 100-year flood protection providing additional flood insurance benefits.
HAZARD(S)	Flooding
STATUS	The levee's integrity has been approved and functions well

Continued Mitigation and Strategic Actions

MITIGATION ACTION	PUBLIC AWARENESS/ EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury, and death. It increases knowledge on emergency procedures, facilities, conservation, and the key to preparedness.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	Village General Fund
TIMELINE	Ongoing
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village sends out the Plan of Emergency Operation each spring and fall.

Removed Mitigation and Strategic Actions

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Obtain newer vehicles to be more prepared for fire events; in addition to continuing to check/maintain old equipment
HAZARD(S)	Grass/Wildfire
STATUS	The Henry Fire Department was disbanded in February 2021.

MITIGATION ACTION	EMERGENCY FUEL SUPPLY PLAN
DESCRIPTION	The Henry Fire Department is looking into purchasing a tank for emergency fuels program.
HAZARD(S)	All hazards
STATUS	The Henry Fire Department was disbanded in February 2021.

Community Profile

VILLAGE OF LYMAN

**North Platte NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table LYM.1: Lyman Local Planning Team

NAME	TITLE	JURISDICTION
KIM ROBB	Clerk	Village of Lyman
TERRY DERR	Foreman	Village of Lyman
KEATON ROBB	Parks Department	Village of Lyman
STEPHANIE KINNAMON	Deputy Clerk	Village of Lyman

Location and Geography

The Village of Lyman is located in the western portion of Scotts Bluff County and covers an area of 0.40 square miles. The major waterway in the area includes the Horse Creek to the north of the village.

Transportation

There is one major highway that passes through Lyman - Nebraska Highway 92. According to the Nebraska Department of Transportation, the average daily traffic count for NE HWY 92 is 600 vehicles per day, 60 of which are heavy commercial vehicles.³⁶ There is one railroad that passes through the north part of the village. No significant transportation events have occurred locally, according to the planning team.

Demographics

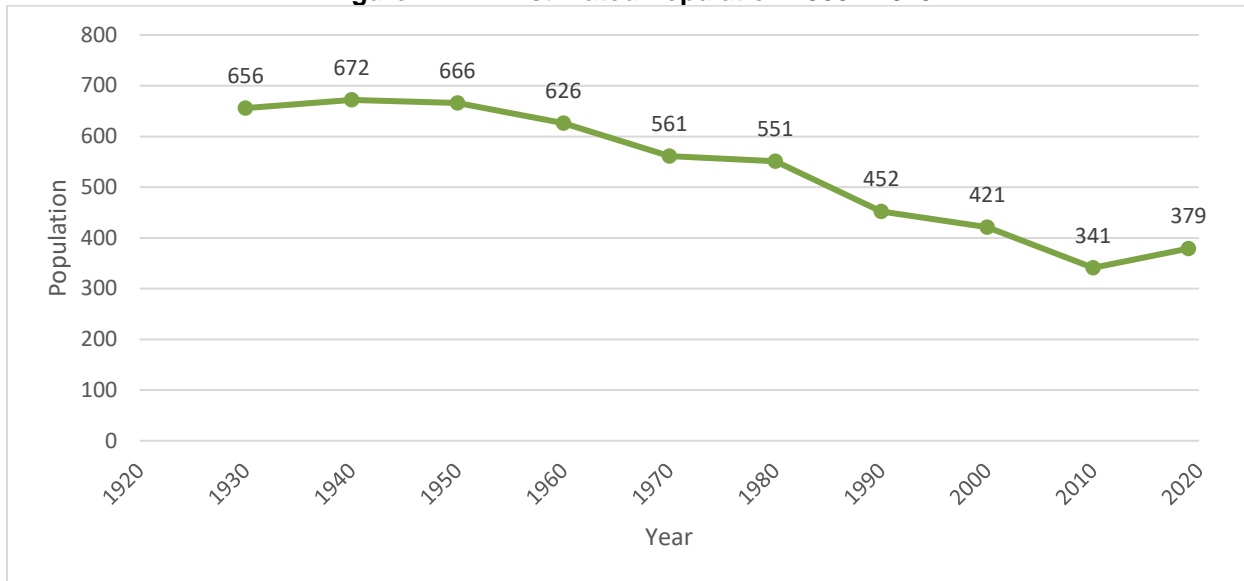
Lyman's estimated population in 2019 was 379. The following figure displays the historical population trend from 1930 to 2019. This figure indicates that the population of Lyman has generally declined since 1930; however, the population increased from 2010-2019 according to recent estimates. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures, while communities with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards. Lyman's population accounted for about 1 percent of Scotts Bluff County's population in 2019.³⁷

³⁶ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

³⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure LYM.1: Village of Lyman



Figure LYM.2: Estimated Population 1930 - 2019

Source: U.S. Census Bureau³⁸

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

- **Older.** The median age of Lyman was 39.9 years old in 2019, compared with the county average of 39.5 years. Lyman's population has grown older since 2010, when the median age was 33 years old. Lyman had a smaller proportion of people under 20 years old (26.6%) than the county (27.5%) in 2019.³⁹
- **Less ethnically diverse.** Since 2010, Lyman grew less ethnically diverse. In 2010, 15.2% of Lyman's population was non-white. By 2019, 5.5% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.⁴⁰
- **More likely to be at the federal poverty line.** The poverty rate in Lyman (18.2% of families living below the federal poverty line) is higher than the county's poverty rate (10.3%) in 2019.⁴¹

Employment and Economics

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

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Lyman included: Transportation, Manufacturing, Retail Trade, and Educational Services. Scotts Bluff County's employment sectors included Educational Services and Retail Trade in 2019.⁴²
- **Lower household income.** Lyman's median household income in 2019 (\$49,167) was \$578 lower than the county (\$49,745).⁴³

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

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

⁴⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

⁴¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁴² United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁴³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

- **More long-distance commuters.** About 33% of workers in Lyman commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 44% of workers in Lyman commute 30 minutes or more to work, compared to about 9% of the county workers.⁴⁴

Major Employers

The main employers in Lyman include Kurt Manufacturing and Crossroads Co-op. According to the planning team, a large percentage of residents commute to other communities for work, such as Scottsbluff and Torrington, Wyoming.

Housing

In comparison to Scotts Bluff County, Lyman's housing stock was:

- **More owner occupied.** 83.6% of occupied housing units in Lyman are owner occupied, compared with 66.9% of occupied housing in Scotts Bluff County in 2019.⁴⁵
- **Older housing stock.** Lyman has a larger share of housing built prior to 1970 (75.6% compared to 55.7%).⁴⁶
- **Fewer multifamily homes.** The predominant housing type in the village is single family detached and Lyman contains less multifamily housing with five or more units per structure than the county (0% compared to 6.6%). About 95% of housing in Lyman is single-family detached, compared with 77.1% of the county's housing. Lyman has a smaller share of mobile and manufactured housing (5.1%) compared to the county (5.8%).⁴⁷ According to the planning team, mobile homes are spread throughout the village.

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

Future Development Trends

In the last five years, one new business has opened in Lyman and an existing business changed owners. No new housing or commercial developments are planned for the next five years. According to census estimates, Lyman's population has increased in recent years. The planning team attributes this to residents from Colorado wanting to move away from bigger cities.

Structural Inventory and Valuation

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

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

⁴⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

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

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

Table LYM.2: Lyman Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
228	\$7,412,671	0	-	-

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

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

Table LYM.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS
Kurt Manufacturing Company	114 W O St
Basin Electric Power Co-op	150179 County Road 6
Westco Dry Plant	505 Lane Ave
WAPA Stegall Substation	130563 Stegall Rd
Tri-State Generation & Trans	130445 Stegall Rd

Critical Facilities

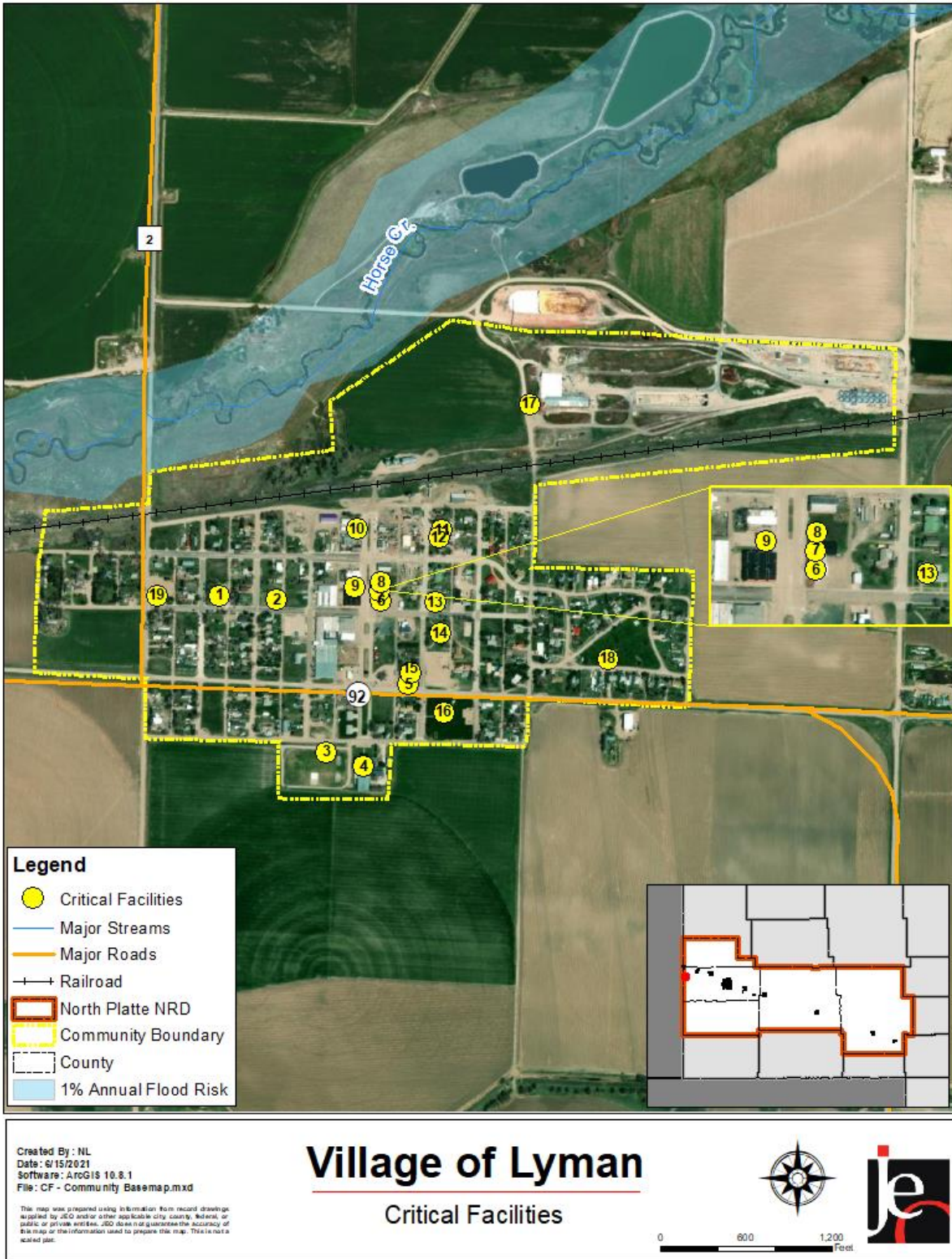
The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original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

SECTION SEVEN: VILLAGE OF LYMAN COMMUNITY PROFILE

Table LYM.4: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Lyman Christian Church	N	N	N
2	Lyman United Methodist	N	N	N
3	Ballfields and Facilities	N	N	N
4	Old Lyman High School	N	N	N
5	Village Substation	N	N	N
6	Kiowa Rural Fire	N	N	N
7	Lyman VFD & Tornado Shelter	Y	N	N
8	Public Library	N	N	N
9	USPS	N	N	N
10	Village Office and Shop	N	N	N
11	County Shop	N	N	N
12	Water Tower	N	N	N
13	Sacred Heart of Jesus Catholic Church	N	N	N
14	Old School	N	N	N
15	Communications Equipment	N	N	N
16	Park	N	N	N
17	Water Tower	N	N	N
18	Park Well	N	N	N
19	United Church of Christ	N	N	N

Figure LYM.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. Lyman has a mayor/chairperson, a four-member board, and the following offices.

- Administrator/Clerk/Treasurer
- Attorney
- Fire Chief
- Street Commissioner
- Water Operator
- Wastewater Operator
- Engineer
- Police Chief

Capability Assessment

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

Table LYM.6: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational 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	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No

	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	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	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)	

Table LYM.7: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Community support to implement projects	Limited
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The last review of the profile was performed in 2020; however, no changes or revisions were identified. The Village Clerk and Board of Trustees are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than bi-annually and will include the public in the review and revision process by sharing information at board meetings.

Plan Integration

The Village of Lyman 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 building codes (2008), a zoning ordinance (2009), and subdivision regulations (2008) that have not been integrated with the hazard mitigation plan. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Annual Municipal Budget (2020)

A large portion of municipal funds have already been dedicated to a street improvement project and water bond payments. The village is able to allocate funds to sinking funds to help defer the costs of large project that they would like to complete in the future. Municipal funds have decreased in recent years due to less state aid coming in. Over the past five years the village has received a CDBG grant and a DED grant.

Comprehensive Plan (2008)

The comprehensive plan is designed to guide the future actions of the village. It contains goals aimed at safe growth, limits density in known hazardous areas, encourages infill development, and identifies areas that need emergency shelters. There are currently no plans to update the comprehensive plan.

Scotts Bluff County Local Emergency Operations Plan (2020)

The Village of Lyman is an annex in the Scotts Bluff 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.

Floodplain Ordinance

The village's floodplain ordinance outlines the construction standards in the floodplain. This ordinance contains floodplain maps and helps to limit construction within the floodplain. There are currently no plans to update the ordinance.

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Drought

The local planning team identified drought as a top concern for the Village of Lyman. Drought is very common across the whole planning area. As drought relates to Lyman, the community is most concerned about the health of crops and the water table. Because Lyman and much of the planning area is an agricultural-based economy, drought plays an important role for the community. Extreme drought last occurred in the region in 2012/2013, according to the NCEI. Significant drought, however, was reported in September of 2020. Locally, the community generally defines drought as an event where wells cannot pump quickly, the water table decreases, and water restrictions are placed on crop irrigation.

A few characteristics of Lyman make the community more resilient in the face of a drought event: including ordinances for water restrictions, native plantings, and the usage of a regional well field. The well field serves, Lyman, Morrill, and Henry. The planning team noted that since this well field has been used, water restrictions have not been necessary. While the community does have water restriction ordinances, the community has not set triggers to notify when the water levels are dangerously low. This is a potential concern for the community because Lyman may implement restrictions too late to mitigate long term effects of a drought.

Severe Thunderstorms (including Hail)

The local planning team indicated that severe thunderstorms are one of the top concerns for Lyman. This is consistent with the planning area as severe thunderstorms are very common. The NCEI recorded 13 severe thunderstorm events in Lyman from 1996 to September 2020. These storms resulted in \$750,000 in crop damage. Hailstones from these storms have ranged from 0.75 to 2 inches. The village experienced significant storms and street flooding during the spring/early summer of 2015. Preventing structures from flooding due to heavy rains is a priority for Lyman. To assist with this, the community is currently taking bids on a project to improve its storm drains.

In order to protect against lasting impacts from severe thunderstorm events, Lyman has invested in storm surge protectors to protect computers with municipal records. Lyman has also worked to supply backup power generators to critical facilities. While the village does not have a tree board, local residents are very good about doing their part and removing or pruning dangerous trees. Finally, to improve awareness, the community hosts an annual storm spotter training to improve knowledge of severe events and to improve reporting of storms hitting Lyman.

While no significant hail events have occurred in Lyman recently, hail is common in the planning area. Lyman may be more vulnerable to lasting impacts due to critical facilities not having hail resistant building materials. Additionally, nearly 30 percent of the homes in Lyman were built before 1940. Older homes are generally more susceptible to hail damages, especially if they have not been remodeled/reroofed for many years.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Lyman and were identified as a hazard of top concern. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 101 severe winter storm events in Scotts Bluff County from 1996 through September 2020, resulting in \$53,000 in property damages and \$1,000 in crop damages. Extreme cold in February 2021 did not have many impacts on the community but did lead to higher utility bills.

The village's concerns as it relates to winter storms are primarily broken power lines, snow drifts, and transportation incidents. While there are not officially designated snow routes within the community, Lyman does make a point to clear Main Street, Jeffers Avenue, and areas in front of manufacturing businesses first. The village employees are responsible for removing snow from roadways, which is typical for local events. The community has a backhoe, grader, dump truck, and a tractor with a snow blade on it, which are sufficient for local events. If the community experiences an event in which they need additional resources, community members and local farmers will come into town to assist in the cleanup effort.

Tornadoes and High Winds

Tornadoes and high winds were identified as a hazard of top concern for the community. High winds are common across the region and can cause property and tree damage and brief power outages. Tornadoes are much less common, but the impacts can be far greater. Between January 1996 and September 2020, the NCEI recorded 67 high wind events in Scotts Bluff County. No tornadoes were reported in Lyman.

The local planning team recalled a recent event five miles from town, where center irrigation pivots were overturned, and sheds were knocked down due to high winds. The village has a few characteristics which make the community less vulnerable to lasting impacts from a high wind event. Many of the homeowners in Lyman have basements to seek refuge during a tornado or high wind event. Additionally, the village backs up municipal records each afternoon to limit loss in case of a storm surge. The community does have a storm shelter in the basement of the fire hall in case of an emergency. To keep the community aware of severe weather in the area, the Region 21 and Region 22 emergency management has subscribed to CodeRED opt-in text messaging, which will send warning text messages to individuals in the area regarding severe weather.

Mitigation Strategy

Completed Mitigation and Strategic Actions

MITIGATION ACTION	STABILIZE/ ANCHOR FERTILIZER, FUEL AND PROPANE TANKS AND SECURE AT-RISK DEVELOPMENT
DESCRIPTION	Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in a tornado or high wind event. "Tie downs" can be used to anchor manufactured homes to their pads or concrete foundations.
HAZARD(S)	Flooding, Tornadoes and High Winds
STATUS	Fuel tanks have been anchored.

Continued Mitigation and Strategic Actions

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Improve emergency rescue and response equipment and facilities by providing additional emergency response equipment or updating existing equipment. This can include fire trucks, ATVs water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	\$300,000
FUNDING	Village General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	The village has purchased one new fire truck and will be looking at a new ambulance in the near future. The whole county is in the process of radio upgrades as the current ones are at the end of life. This is a project that will be rather costly for all communities involved. Meetings are currently being held to get all information and pricing for the entities involved.

MITIGATION ACTION	FACILITIES FOR VULNERABLE POPULATIONS
DESCRIPTION	Ensure that facilities which will house vulnerable populations are placed in the least vulnerable areas of the community. Harden existing facilities if applicable.
HAZARD(S)	Flooding, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$50,000
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board, Planning/Zoning
STATUS	This is an ongoing project.

SECTION SEVEN: VILLAGE OF LYMAN COMMUNITY PROFILE

MITIGATION ACTION	IMPACT RESISTANT ROOF COVERINGS
DESCRIPTION	Use roofing materials that are resistant to hail impacts for new buildings. Retrofit existing buildings with hail resistant roofing.
HAZARD(S)	Severe Thunderstorms/Hail
ESTIMATED COST	\$20,000
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	Impact-resistant roofing is being installed when roofs need replacing.

MITIGATION ACTION	PROTECT ROOFTOP UTILITIES
DESCRIPTION	Retrofit utilities on building rooftops to provide protection from hail events.
HAZARD(S)	Severe Thunderstorms/Hail, Tornadoes and High Winds
ESTIMATED COST	\$20,000
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	Rooftop utility protection is being installed as needed and as budget allows.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools and other areas.
HAZARD(S)	Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. foot addition/retrofit
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	The village is currently trying to find funding for this project. The Fire Hall is a potential location for a new safe room.

SECTION SEVEN: VILLAGE OF LYMAN COMMUNITY PROFILE

MITIGATION ACTION	STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to more effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000- \$100,000
FUNDING	Highway Auction
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Streets Department
STATUS	The improvement project has been approved and will begin as soon as bids are received and awarded.

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/ CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/grade stabilization improvements can serve to more effectively protect structures, increase conveyance, prevent down cutting, and provide flooding benefits.
HAZARD(S)	Flooding
ESTIMATED COST	\$50,000-\$100,000
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project is ongoing. The area near the lift station, on Horse Creek is in need of improvements.

MITIGATION ACTION	TREE CITY USA
DESCRIPTION	Work to become a Tree City USA through the National Arbor Day Foundation. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$1,000+
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Parks Department
STATUS	After a change in parks employees, this project is starting back up.

SECTION SEVEN: VILLAGE OF LYMAN COMMUNITY PROFILE

MITIGATION ACTION	TREE PLANTING
DESCRIPTION	Develop village tree planting and maintenance guidelines
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$500+
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	The village currently receive trees from the NRD annually and plants them to replace dead or dying trees. Dead branches are also regularly cut back.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
ESTIMATED COST	\$50/radio
FUNDING	Village General Fund
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Fire Department
STATUS	Weather radios are being replaced as needed.

Community Profile

VILLAGE OF MCGREW

**North Platte NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table MCG.1: McGrew Local Planning Team

NAME	TITLE	JURISDICTION
KEVIN ROSS	Chairman	Village of McGrew
MARTIN STAAB	Board Member	Village of McGrew
TIM NEWMAN	Emergency Manager	Region 22 Emergency EMA

Location and Geography

The Village of McGrew is located in the southeast portion of Scotts Bluff County and covers an area of .36 square miles. The major waterway in the area is the North Platte River.

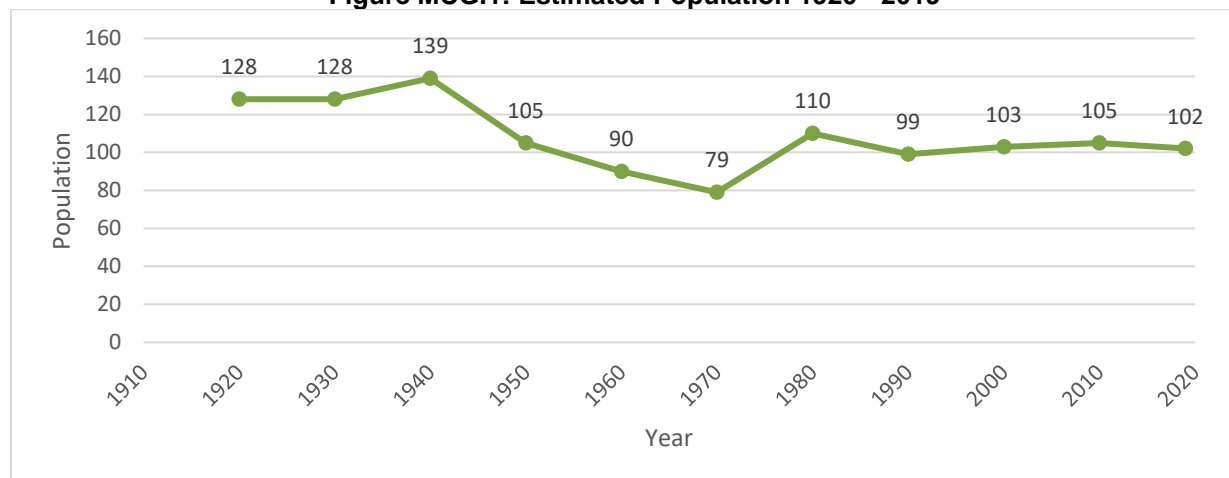
Transportation

There is one major highway that passes through McGrew, NE HWY 92. According to the Nebraska Department of Transportation, the average daily traffic count for NE HWY 92 is 2,675 vehicles per day, 300 of which are heavy commercial vehicles.⁴⁸ Although it did not affect the community, a coal train derailed on the Union Pacific tracks east of McGrew in 2015.

Demographics

McGrew's estimated population in 2019 was 102. The following figure displays the historical population trend from 1920 to 2019. This figure indicates that the population of McGrew has fluctuated since 1920; however, the number has remained relatively stable since 1980. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures, while communities with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards. McGrew's population accounted for about 0.3 percent of Scotts Bluff County's population in 2019.⁴⁹

Figure MCG.1: Estimated Population 1920 - 2019



Source: U.S. Census Bureau⁵⁰

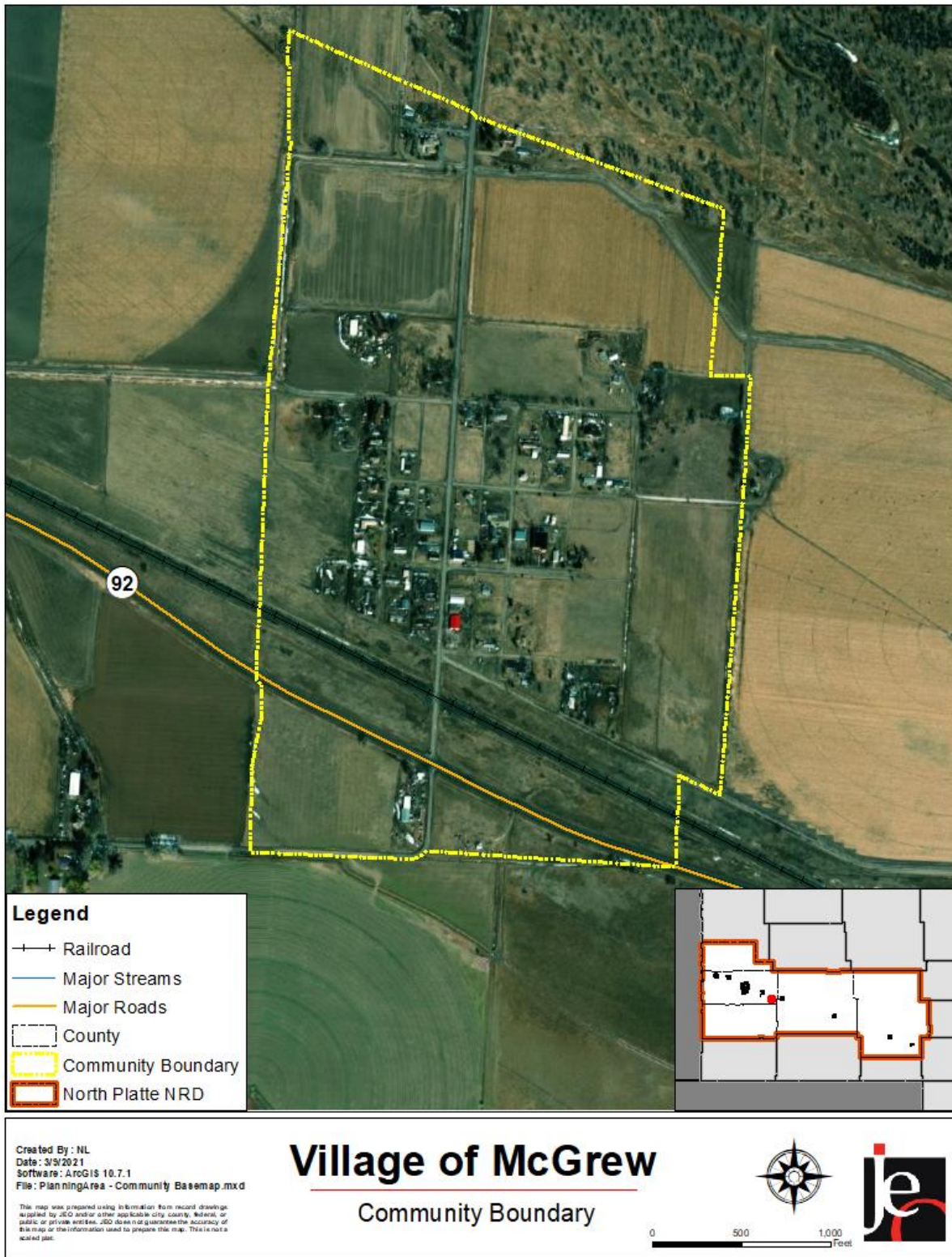
⁴⁸ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map].

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

⁴⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁵⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure MCG.2: Village of McGrew



SECTION SEVEN: VILLAGE OF MCGREW COMMUNITY PROFILE

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

- **Older.** The median age of McGrew was 48.3 years old in 2019, compared with the county average of 39.5 years. McGrew's population has grown older since 2010, when the median age was 37 years old. McGrew had a greater proportion of people under 20 years old (31.3%) than the county (27.5%) in 2019.⁵¹
- **More ethnically diverse.** Since 2010, McGrew grew more ethnically diverse. In 2010, 0% of McGrew's population was non-white. By 2019, 13.7% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.⁵²
- **Less likely to be at the federal poverty line.** The poverty rate in McGrew (6.9% of families living below the federal poverty line) is lower than the county's poverty rate (10.3%) in 2019.⁵³

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in McGrew included: Educational Services, Retail Trade, and Transportation. Scotts Bluff County's employment sectors included Educational Services and Retail Trade in 2019.⁵⁴
- **Lower household income.** McGrew's median household income in 2019 (\$34,375) was \$15,370 lower than the county (\$49,745).⁵⁵
- **More long-distance commuters.** About 18% of workers in McGrew commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 48% of workers in McGrew commute 30 minutes or more to work, compared to about 9% of the county workers.⁵⁶

Major Employers

The Village of McGrew does not have any major employers. Most people in the community will commute to Scottsbluff, Gering, or Bridgeport for employment.

Housing

In comparison to Scotts Bluff County, McGrew's housing stock was:

- **More owner occupied.** 83.3% of occupied housing units in McGrew are owner occupied, compared with 66.9% of occupied housing in Scotts Bluff County in 2019.⁵⁷
- **Older housing stock.** McGrew has a larger share of housing built prior to 1970 (66.1% compared to 55.7%).⁵⁸

⁵¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

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

⁵³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁵⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁵⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

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

⁵⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁵⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

- Fewer multifamily homes.** The predominant housing type in the village is single family detached and McGrew contains less multifamily housing with five or more units per structure than the county (0% compared to 6.6%). About 69% of housing in McGrew is single-family detached, compared with 77.1% of the county’s housing. McGrew has a larger share of mobile and manufactured housing (30.6%) compared to the county (5.8%).⁵⁹

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

Future Development Trends

Over the past five years, there have been no significant changes in the community. According to the American Community Survey estimates, McGrew’s population has remained stable. The local planning team attribute this to very few changes in the village. In the next five years, no housing developments or new businesses are planned.

Structural Inventory and Valuation

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

Table MCG.2: McGrew Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
67	\$2,382,175	0	\$0	0%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

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

Table MCG.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
Burchfield Lease	Road 63	N

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

Critical Facilities

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

Table MCG.4: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Oregon Trail Chapel	N	N	N
2	Fire Department	N	N	N
3	Lift Station	N	N	N
4	City Office	N	N	N
5	McGrew Park	N	N	N
6	Bueno Family Home	N	N	N

Figure MCG.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. McGrew has a mayor/chairperson, a five-member board, and the following offices.

- Clerk/Treasurer
- Attorney
- Street Commissioner
- Planning Commissioner

Capability Assessment

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

Table MCG.5: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	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	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	No

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	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)	

Table MCG.6: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Community support to implement projects	Limited
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The Village Board Chair and Region 22 Emergency Manager are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will

review the plan no less than bi-annually and will include the public in the review and revision process by sharing information through board meetings.

Plan Integration

The Village of McGrew has one planning document that discusses and relates to hazard mitigation. The 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 annual municipal budget, comprehensive plan, and zoning ordinance that has not been integrated with the hazard mitigation plan. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Scotts Bluff County Local Emergency Operations Plan (2020)

The Village of McGrew is an annex in the Scotts Bluff 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 Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

While McGrew has not been damaged recently by any flooding events, the community is extremely close to the North Platte River, which is prone to spring flooding. Despite the proximity to the North Platte River (0.5 miles) to the north, McGrew primarily experiences flash flooding from the south end of town. During flooding in summer months of 2011, the village experienced lowland flooding. Homes on the north side of town have also experienced flood damages in the past. Critical facilities have not been damaged by past flood events.

Levee Failure

There is one levee located in the village. It is not identified on the National Levee Database and is not accredited or certified. It is located in the northeast corner of the village. The levee does not provide 1% annual flood protection and if it were to fail it would likely cause flooding in the village.

Severe Thunderstorms (including Hail)

McGrew has been affected by thunderstorms recently, two severe events occurred in 2020 but did not cause any damages. In the past, critical facilities have been damaged as a result of hail events, the fire hall, village offices, and power lines have all been damaged from hail events.

However, McGrew has outfitted their critical facilities with hail resistant materials, and they have also insured all of the municipal facilities in city limits. McGrew's primary concern regarding severe thunderstorm is ensuring that Norris Public Power District continues to provide access to electricity, and that residents have enough lead time to prepare for the event. Other concerns include damage to vehicles, roofs, and windows from large hail events. To protect against lasting impacts of a severe thunderstorm, McGrew has placed surge protectors on electronic devices which contain municipal records. Further, the community has worked to remove any hazardous trees which may jeopardize a power line or structure in the case of a thunderstorm. However, a few attributes of McGrew make the village more vulnerable to lasting impacts from severe thunderstorms: the community has about 95 percent of their power lines aloft, which increases vulnerability to prolonged power outages, secondly the village does not have weather radios in critical facilities, which may warn residents about dangerous weather.

Severe Winter Storms

During the extremely cold temperatures in February 2021, the village experienced rolling blackouts to help conserve power. Significant winter storms are common in the entire planning area, and much of Nebraska. The local planning team indicated that the largest concern regarding severe winter storms is clearing roadways after a hazard event. For smaller communities, this can be a formidable challenge due to a lack of resources or personnel. McGrew has worked to obtain resources which will minimize the lasting effects of a severe winter storm. The village has purchased a tractor with a snowplow blade to use in snow events. These resources are sufficient for local events. To protect against prolonged power outages, the village has invested in backup power generators, specifically for the fire hall.

Tornadoes and High Winds

The NCEI reports two tornadoes which have recorded a combined \$120,000 in damages within the village. In the past, powerlines and the fire hall have been damaged as a result of high winds. The community has worked to minimize the threat of a lasting impact as a result of a tornado by installing storm surge protectors on electronic devices which contain municipal records. A few factors make McGrew especially vulnerable to a tornado event: primarily, the village does not have safe room, or certified shelter for the public, the local planning team has indicated that residents would use neighbor's basement in the case of an emergency. The community does not do any sort of outreach or educational opportunity for the public. McGrew's older housing stock may also be a source for added vulnerability. With over 50 percent of the homes in McGrew being constructed before 1950, these structures may be more liable to damages from a tornado event as a result of older building material. Additionally, 30% of the homes in McGrew are mobile homes. In case of a tornado event which would exhaust the response resources as a local level, the village has Mutual Aid Agreements with Gering, Bayard, Minatare, and Scottsbluff.

Mitigation Strategy

Continued Mitigation and Strategic Actions

MITIGATION ACTION	ALERT/WARNING SIRENS
DESCRIPTION	Perform and evaluation of existing alert sirens in order to determine which should be replaced or upgraded. Install new sirens where lacking and remote activation. Current siren is outdated. To conform to county-wide warning plan, siren should be replaced with electronic siren with voice-over capability.
HAZARD(S)	All hazards
ESTIMATED COST	\$15,000+
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board, Region 22 Emergency Management
STATUS	Not Started.

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities, and shelters.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$15,000- \$30,000
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Not Started

MITIGATION ACTION	DRAINAGE STUDY/ STORMWATER MASTER PLAN
DESCRIPTION	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000-\$100,000
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Not Started

SECTION SEVEN: VILLAGE OF MCGREW COMMUNITY PROFILE

MITIGATION ACTION	PARTICIPATE IN THE NFIP
DESCRIPTION	Participate in the National Flood Insurance Program
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	Not Started

MITIGATION ACTION	PUBLIC AWARENESS/ EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury and death. It increases knowledge on emergency procedures, facilities, conservation, and is the key to preparedness.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	In Progress. Storm spotter classes are held every year to raise awareness of the public.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools and other areas.
HAZARD(S)	Severe Thunderstorms, Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. foot addition/retrofit
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Not Started

MITIGATION ACTION	STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to more effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000- \$100,000
FUNDING	Village General Fund, Streets Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Streets Department
STATUS	Not Started

SECTION SEVEN: VILLAGE OF MCGREW COMMUNITY PROFILE

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/ CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/grade stabilization improvements can serve to more effectively protect structures, increase conveyance, prevent down cutting, and provide flooding benefits.
HAZARD(S)	Flooding
ESTIMATED COST	\$50,000-\$100,000
FUNDING	Village General Fund, Streets Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Not Started

MITIGATION ACTION	TREE CITY USA
DESCRIPTION	Work to become a Tree City USA through the National Arbor Day Foundation to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program to limit potential tree damage and damages caused by trees in a community when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$1,000+
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	Not Started

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
ESTIMATED COST	\$50/radio
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	Not Started

Community Profile

VILLAGE OF MELBETA

**North Platte NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table MEL.1: Melbeta Local Planning Team

NAME	TITLE	JURISDICTION
LISA LANDRUM	Clerk	Village of Melbeta
TIM NEWMAN	Emergency Manager	Region 22 EMA

Location and Geography

The Village of Melbeta is located in the southeast portion of Scotts Bluff County and covers an area of 0.10 square miles. The major waterway in the area is the North Platte River, which runs a half mile north of the village.

Transportation

There is one major highway that passes through Melbeta, NE HWY 92. Highway Spur 79E connects the village to U.S. Highway 26, which is two miles north. According to the Nebraska Department of Transportation, the average daily traffic count for NE HWY 92 is 3,045 vehicles per day, 320 of which are heavy commercial vehicles.⁶⁰ There is one railroad that passes by the north side of the village. No major transportation incidents have occurred which impacted the village.

Demographics

Melbeta's estimated population in 2019 was 144. The following figure displays the historical population trend from 1920 to 2019. This figure indicates that the population of Melbeta has fluctuated since 1920 and has increased since 2010, according to recent estimates. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures, while communities with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards. Melbeta's population accounted for about 0.4 percent of Scotts Bluff County's population in 2019.⁶¹

⁶⁰ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

⁶¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure MEL.1: Village of Melbeta

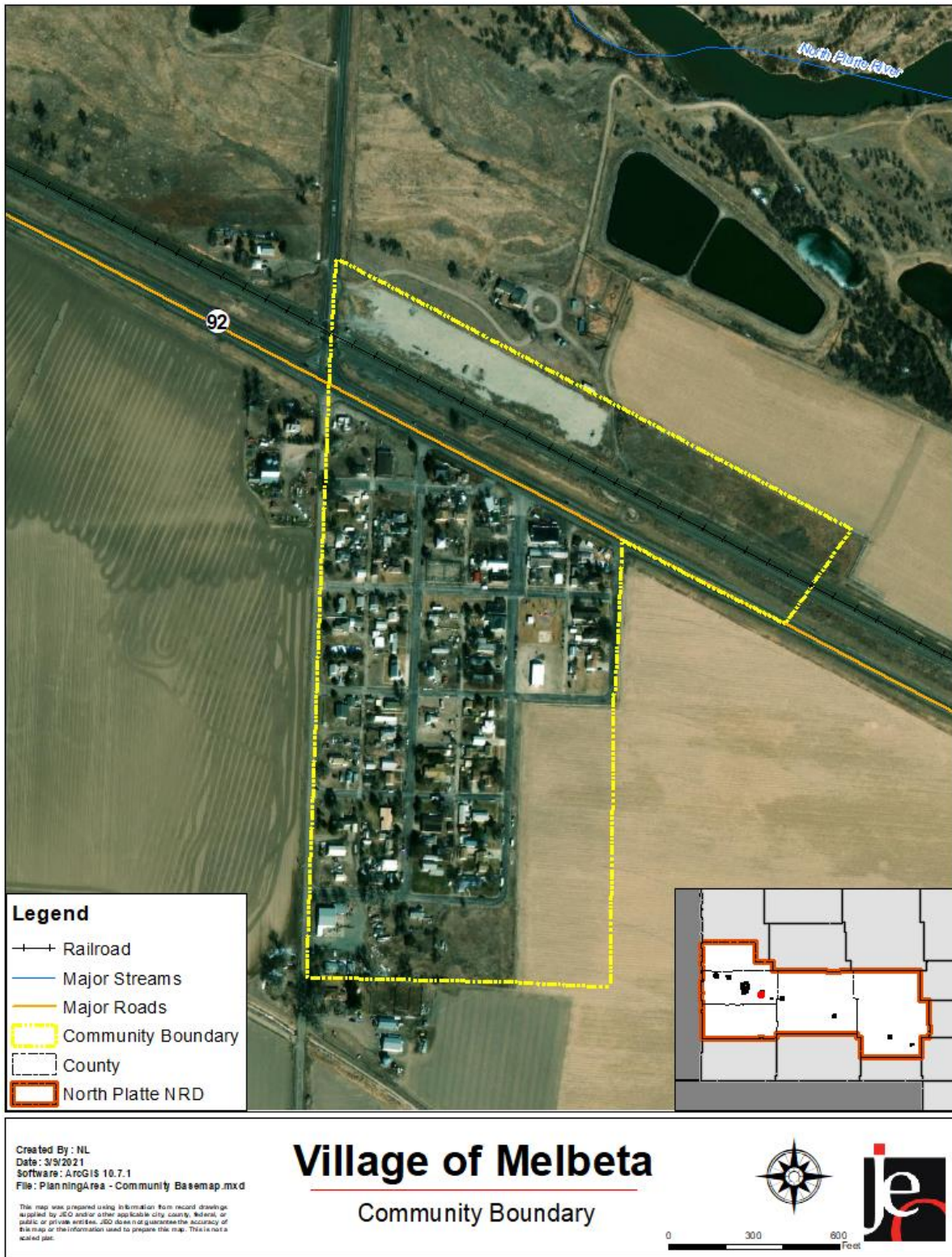


Figure MEL.2: Estimated Population 1920 - 2019

Source: U.S. Census Bureau⁶²

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

- **Younger.** The median age of Melbeta was 31.5 years old in 2019, compared with the county average of 39.5 years. Melbeta's population has grown younger since 2010, when the median age was 54 years old. Melbeta had a smaller proportion of people under 20 years old (17.4%) than the county (27.5%) in 2019.⁶³
- **Less ethnically diverse.** Since 2010, Melbeta grew more ethnically diverse. In 2010, 0% of Melbeta's population was non-white. By 2019, 1.4% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.⁶⁴
- **More likely to be at the federal poverty line.** The poverty rate in Melbeta (13.9% of families living below the federal poverty line) is higher than the county's poverty rate (10.3%) in 2019.⁶⁵

Employment and Economics

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

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Melbeta included: Transportation, Retail Trade, and Construction. Scotts

⁶² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁶³ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁶⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

⁶⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

Bluff County's employment sectors included Educational Services and Retail Trade in 2019.⁶⁶

- **Higher household income.** Melbeta's median household income in 2019 (\$53,365) was \$3,620 higher than the county (\$49,745).⁶⁷
- **Fewer long-distance commuters.** About 40% of workers in Melbeta commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 4% of workers in Melbeta commute 30 minutes or more to work, compared to about 9% of the county workers.⁶⁸

Major Employers

There are no major employers in the village. Residents in Melbeta primarily commute to Scottsbluff or Gering for employment.

Housing

In comparison to Scotts Bluff County, Melbeta's housing stock was:

- **More owner occupied.** 93.2% of occupied housing units in Melbeta are owner occupied, compared with 66.9% of occupied housing in Scotts Bluff County in 2019.⁶⁹
- **Older housing stock.** Melbeta has a larger share of housing built prior to 1970 (70.9% compared to 55.7%).⁷⁰
- **Fewer multifamily homes.** The predominant housing type in the village is single family detached and Melbeta contains less multifamily housing with five or more units per structure than the county (0% compared to 6.6%). About 85% of housing in Melbeta is single-family detached, compared with 77.1% of the county's housing. Melbeta has a greater share of mobile and manufactured housing (15.4%) compared to the county (5.8%).⁷¹ The local planning team noted mobile homes are scattered throughout the village.

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

Future Development Trends

No major changes or development have occurred in the village over the past five years. At this time there are no developments or changes anticipated in the coming five years. The population in Melbeta has grown over the last several years which is likely attributed to residents living in Melbeta while commuting for work to Scottsbluff.

⁶⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁶⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁶⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov>.

⁶⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁷⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁷¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

Structural Inventory and Valuation

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

Table MEL.2: Melbeta Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
73	\$2,680,530	0	-	-

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are no chemical storage sites in Melbeta that contain hazardous chemicals.⁷² In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Critical Facilities

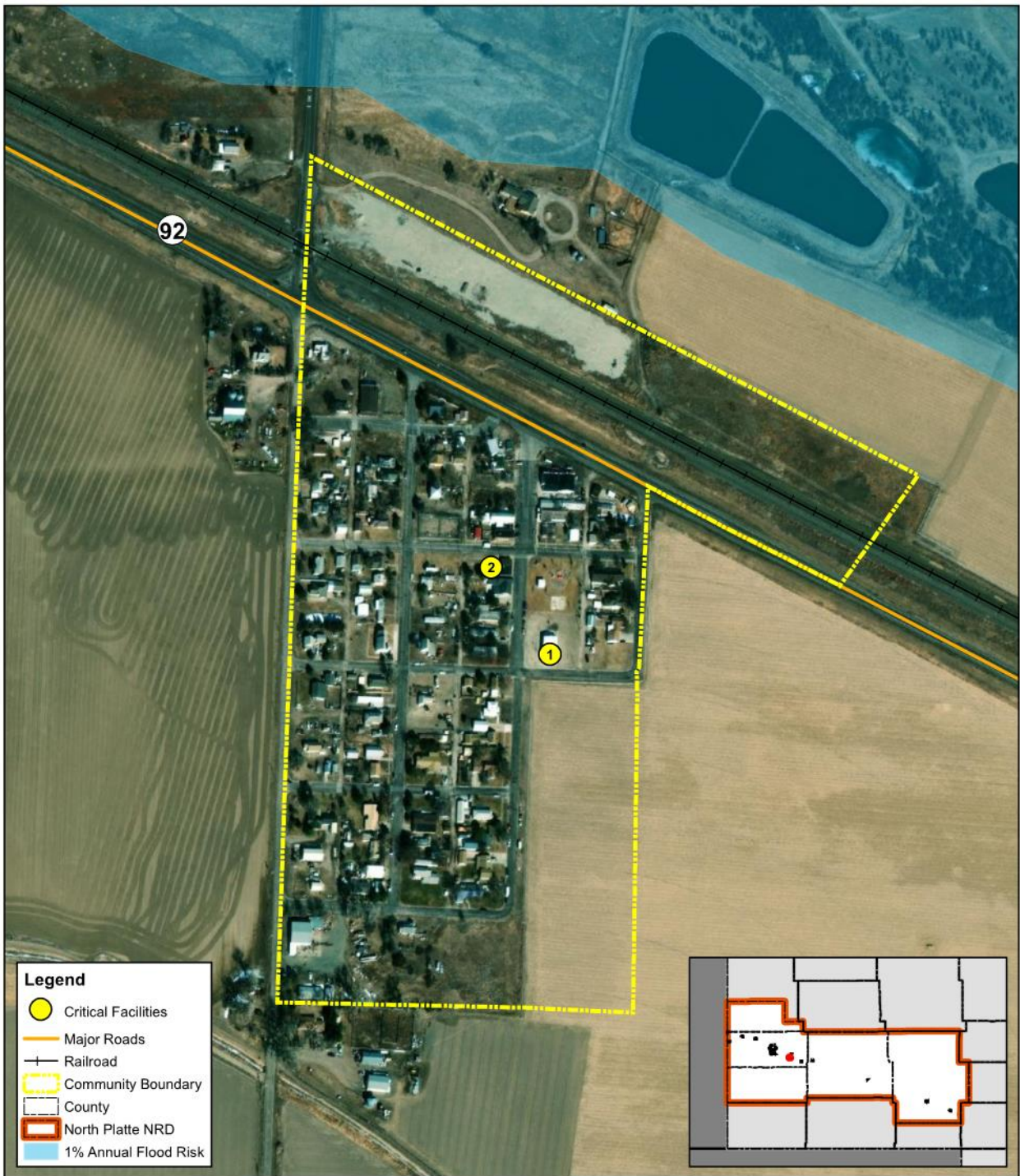
The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table MEL.3: Melbeta Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Fire Station	Y	N	N
2	Village Hall	N	N	N

⁷² Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2020. <https://deq-iis.ne.gov/tier2/search.faces>.

Figure MEL.3: Critical Facilities




- Legend**
- Critical Facilities
 - Major Roads
 - Railroad
 - Community Boundary
 - County
 - North Platte NRD
 - 1% Annual Flood Risk


Created By: KD
 Date: 9/8/2021
 Software: ArcGIS 10.8.1
 File: CF - Community Basemap.mxd


This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Village of Melbeta

Critical Facilities







Governance

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

- Clerk/Treasurer
- Fire Department
- Sewage Plant Operator
- Water Operator

Capability Assessment

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

Table MEL.4: Capability Assessment

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

	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
Education & Outreach 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)	

Table MEL.5: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Community support to implement projects	Limited
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The local county emergency management and village clerk are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than bi-annually and will include the public in the review and revision process by sharing information at board meetings.

Plan Integration

The Village of Melbeta has one planning document that discusses and relates to hazard mitigation. The plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. The village will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Scotts Bluff County Local Emergency Operations Plan (2020)

The Village of Melbeta is an annex in the Scotts Bluff 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 Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Grass/Wildfire

Grass and wildfires are of concern for the local planning team as wildfire events have occurred near the village in the past. The local volunteer fire department would respond to wildfire events in the surrounding areas. Local water resources may be limited during extensive wildfire events. While the village has not experienced damages from wildfire events in recent years, the county as a whole has experienced over 770 wildfire events from January 2000 to May 2020. These wildfires burned 27,000 acres and caused \$31,900 in property damages, according to NFS.

Severe Thunderstorms (including Hail)

Severe thunderstorms are a common part of the local climate. Severe thunderstorms include impacts from lightning, heavy rain, strong winds, and hail. In the past, community facilities and homes have been damaged as a result of hail events. Melbeta's primary concern regarding severe thunderstorms is for power outages and damage to buildings. The majority of powerlines in Melbeta are above ground. However, the local planning team did not identify any hazardous trees of concern.

Severe Winter Storms

The Local Planning Team indicated that severe winter storms are a significant concern for the city. Significant winter storms are common in the entire planning area, and much of Nebraska. The local planning team indicated that the largest concern regarding severe winter storms is clearing roadways after a hazard event. For smaller communities, this can be a formidable

challenge due to a lack of resources or personnel. The village identified a need to obtain resources which will minimize the lasting effects of a severe winter storm. To protect against prolonged power outages, the village should also invest in backup power generators, specifically for the fire hall.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	ALERT/WARNING SIRENS
DESCRIPTION	Perform and evaluation of existing alert sirens in order to determine which should be replaced or upgraded. Install new sirens where lacking and remote activation.
HAZARD(S)	All hazards
ESTIMATED COST	\$15,000+
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board, Region 22 Emergency Management
STATUS	This project has not yet been started.

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities, and shelters.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$15,000- \$30,000
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This can include fire trucks, ATVs, water tanks, trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.
HAZARD(S)	Urban Fire / Grass/Wildfire
ESTIMATED COST	\$300,000 - \$500,000
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

SECTION SEVEN: VILLAGE OF MELBETA COMMUNITY PROFILE

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools and other areas.
HAZARD(S)	Severe Thunderstorms, Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. foot addition/retrofit
FUNDING	Village General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

Community Profile

CITY OF MINATARE

North Platte NRD Hazard Mitigation Plan 2021

Local Planning Team

Table MIN.1: Minatare Local Planning Team

NAME	TITLE	JURISDICTION
CAROLYN NELSON	City Clerk	City of Minatare
TOM CASE	Utility Supervisor/Emergency Management Supervisor	City of Minatare

Location and Geography

The City of Minatare is located in the southeast portion of Scotts Bluff County and covers an area of .38 square miles. The major waterway in the area is the North Platte River.

Transportation

There is one major highway that passes through Minatare, US Highway 26. According to the Nebraska Department of Transportation, the average daily traffic count for US Highway 26 is 4,155 vehicles per day, 355 of which are heavy commercial vehicles.⁷³ There is one railroad that passes through the southern portion of the city.

Demographics

Minatare's estimated population in 2019 was 896. The following figure displays the historical population trend from 1910 to 2019. This figure indicates that the population of Minatare increased significantly from 1910 to 1940, then sharply decreased from 1940 to 1950. The population has generally increased since then, apart from the 1980-1990 period. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures, while communities with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards. Minatare's population accounted for 2.5 percent of Scotts Bluff County's population in 2019.⁷⁴

⁷³ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

⁷⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure MIN.1: City of Minatare

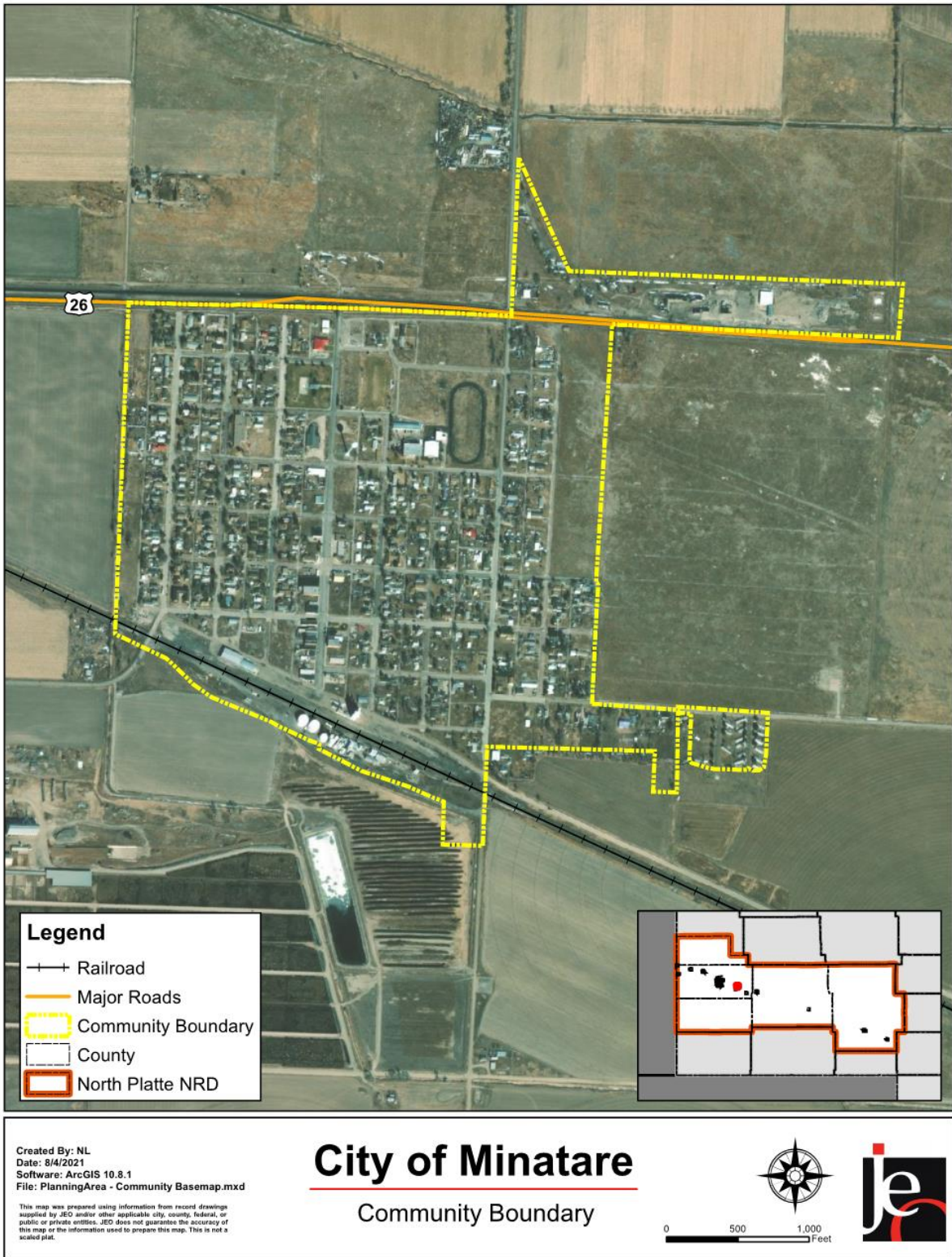
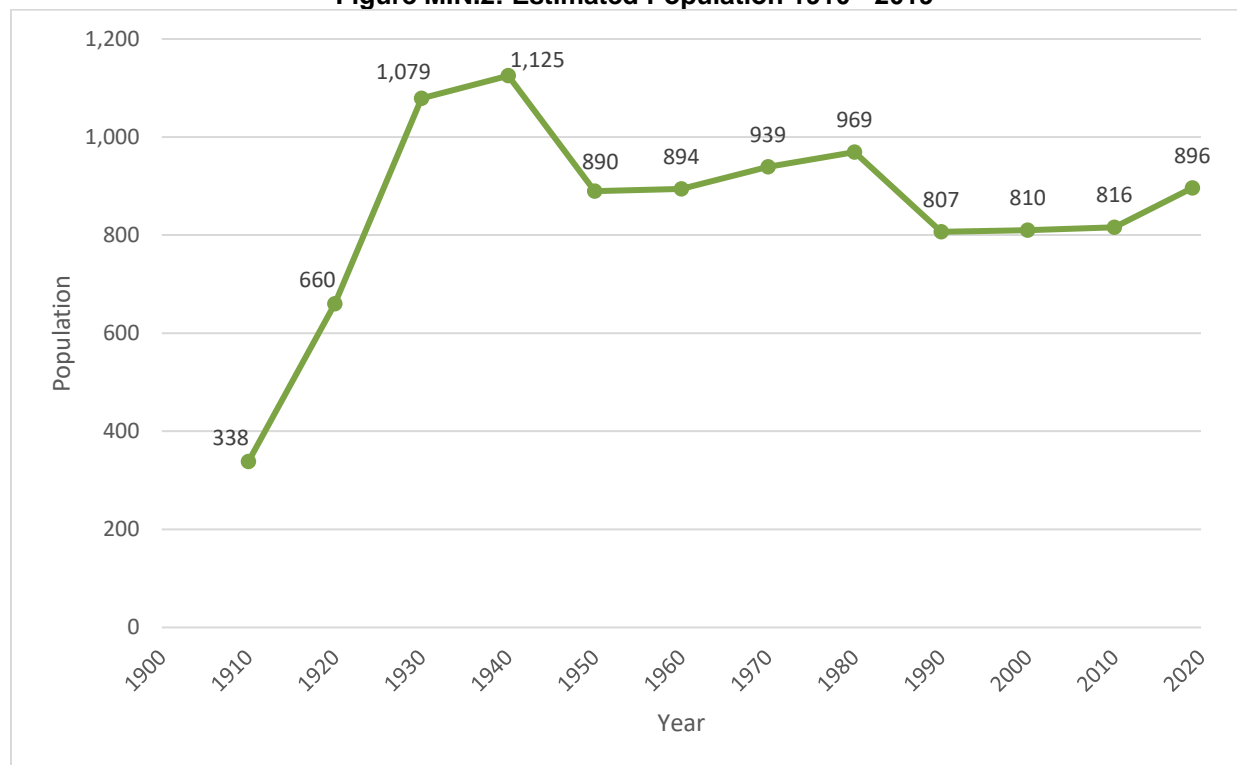


Figure MIN.2: Estimated Population 1910 - 2019



Source: U.S. Census Bureau⁷⁵

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

- **Younger.** The median age of Minatare was 36.8 years old in 2019, compared with the county average of 39.5 years. Minatare's population has grown a little older since 2010, when the median age was 34.4 years old. Minatare had a larger share of people under 20 years old (32.9%), compared to the county (27.5%) in 2019.⁷⁶
- **Less ethnically diverse.** Since 2010, Minatare grew less ethnically diverse. In 2010, 8.1% of Minatare's population was non-white. By 2019, 3.7% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.⁷⁷
- **More likely to be at the federal poverty line.** The poverty rate in Minatare (11.3% of families living below the federal poverty line) is higher than the county's poverty rate (10.3%) in 2019.⁷⁸

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Minatare included: Educational Services, Retail Trade, and Construction.

⁷⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁷⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁷⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

⁷⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

Scotts Bluff County's employment sectors also included Educational Services and Retail Trade in 2019.⁷⁹

- **Lower household income.** Minatare's median household income in 2019 (\$42,938) was \$6,807 lower than the county (\$49,745).⁸⁰
- **Similar number of long-distance commuters.** About 31% percent of workers in Minatare commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 9% of workers in Minatare commuted 30 minutes or more to work, which is the same as county workers.⁸¹

Major Employers

The main employers in Minatare include the Minatare Public School District, Kelly Bean Company, and Silver Spur Feeders. According to the planning team, most residents commute to Scottsbluff and other nearby communities for work.

Housing

In comparison to Scotts Bluff County, Minatare's housing stock was:

- **Less owner occupied.** 57.2% of occupied housing units in Minatare are owner occupied compared with 66.9% of occupied housing in Scotts Bluff County in 2019.⁸²
- **Older housing stock.** Minatare has a greater share of housing built prior to 1970 (62% compared to 55.7%).⁸³
- **Similar share of multifamily homes.** Although the predominant housing type in the city is single family detached, 6.9% is made up of multifamily housing with five or more units per structure. This is similar to the county amount of 6.6%. 73.5% of housing in Minatare is single-family detached, compared with 77.1% of the county's housing. Minatare has a larger share of mobile and manufactured housing (11.9%) compared to the county (5.8%).⁸⁴ The planning team indicated that a mobile home court is located on the southeast edge of the community.

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

Future Development Trends

In the last five years, the city has experienced the loss of a bank and grocery store. According to census estimates, Minatare's population has generally increased over the past few decades, the planning team attributes this growth to larger families. No new housing developments or businesses are currently planned, but the team noted that a new business could open on the northeast side of the city.

⁷⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁸⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁸¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov>.

⁸² United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁸³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁸⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

Structural Inventory and Valuation

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

Table MIN.2: Minatare Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
356	\$ 11,179,064	0	\$0	0%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

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

Table MIN.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS
Winner Circle Feedyard	320094 Granada Rd
Midwest PMS Inc	100 Railroad St

Source: Nebraska Department of Environment and Energy⁸⁵

⁸⁵ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2020. <https://deg-iis.ne.gov/tier2/search.faces>.

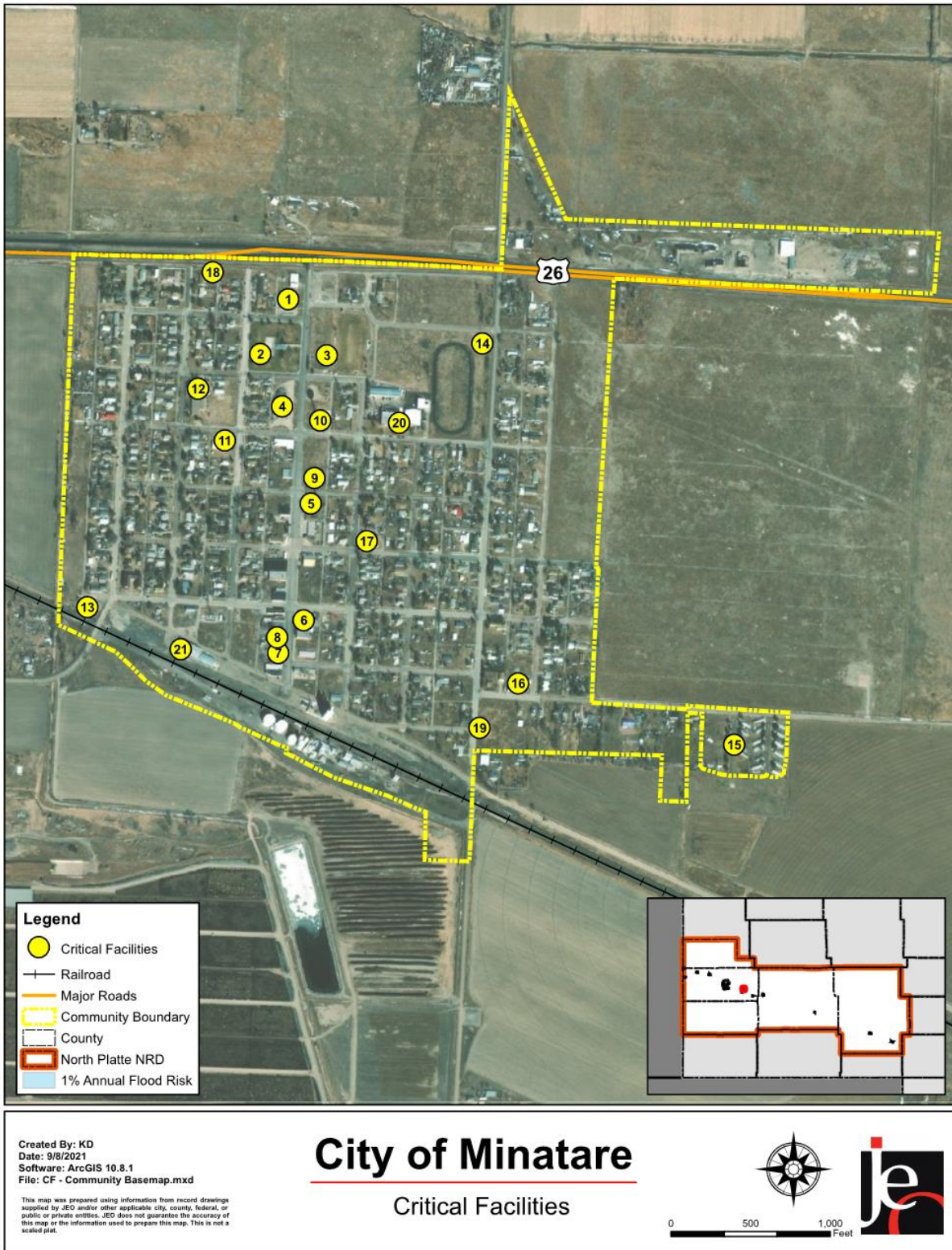
Critical Facilities

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

Table MIN.4: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Lighthouse Community Assembly of God	N	N	N
2	Park	N	N	N
3	Ballfields	N	N	N
4	Bar & Grill	N	N	N
5	Old Church	N	N	N
6	US Post Office	N	N	N
7	Head Start	N	N	N
8	City Offices/Library	N	N	N
9	Fire Department	N	N	N
10	Water Tower	N	N	N
11	Church of Christ	N	N	N
12	Minatare Elementary School	N	N	N
13	Sub Station	N	N	N
14	Main Well	N	N	N
15	RV Park	N	N	N
16	City Shop	N	N	N
17	Presbyterian Church	N	N	N
18	Backup Well	N	N	N
19	Sewer Lift Station	N	N	N
20	Jr/Sr High School	Y	Y	N
21	SNF	Y	N	N

Figure MIN.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. Minatare has a mayor, four-member council, and the following offices.

- Clerk/Treasurer
- Attorney
- Utility Superintendent
- Chief of Police
- Fire Chief
- Sewage Plant Operator
- Sewer/Street Commissioner
- Water Commissioner
- Personnel Director
- Engineer

Capability Assessment

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

Table MIN.6: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		YES/NO
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	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	Yes
	Chief Building Official	No
	Civil Engineering	No

SECTION SEVEN: CITY OF MINATARE COMMUNITY PROFILE

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
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	
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table MIN.7: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	High
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Plan Maintenance

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

The Mayor, City Council, and Street Supervisor are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than annually and will include the public in the review and revision process by sharing information through website updates.

Plan Integration

The City of Minatare 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, Minatare has a comprehensive plan that was updated in 2020 but 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.

Annual Municipal Budget (2021)

Minatare's annual budget is sufficient to pursue new capital projects with a large portion of funds not already dedicated to a specific project. Municipal funds have stayed the same over recent years.

Building Code (2018)

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

Capital Improvements Plan

The capital improvements plan outlines large purchases and projects that the city would like to pursue. Projects identified in the plan include regular maintenance for drainage structures, installing backup generators, constructing a new public works facility, and improving the existing water treatment facility.

Comprehensive Plan (2020)

The comprehensive plan is designed to guide the future actions of the city. It limits density in areas adjacent to known hazardous areas, encourages infill development, and contains goals/objectives aimed at Safe Growth. The local planning team indicated that in a future update, the plan will also encourage preservation of open space in hazard-prone areas. Hazards discussed in the plan include severe thunderstorms, and severe winter storms. There is currently no timetable to update the comprehensive plan.

Scotts Bluff County Local Emergency Operations Plan (2020)

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

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

Zoning Ordinance (2020)

The city's zoning ordinance outlines where and how development should occur in the future. This document prohibits filling of wetlands, discourages development near chemical storage sites, discourages development along major transportation routes, considers the wildland urban interface, includes well setback requirements, and includes the ability to implement water restrictions. The zoning ordinance is updated every five years.

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Severe Thunderstorms (includes Hail)

The Minatare local planning team indicated that severe thunderstorms are a top concern for the community. Severe thunderstorms and hail can result in the loss of electricity, blocked roadways, damages to trees, and flooding. The NCEI recorded 27 severe thunderstorm events in Gering from 1996 to September 2020. These storms resulted in \$57,600,000 in property damage. Hailstones from these storms have ranged from 0.75 to 4.25 inches.

The planning team noted that a significant thunderstorm event in May 2015 dropped 2.5 inches of rain in 40 minutes. In Minatare this much rainwater causes the wastewater pumps to run an unusual amount. In order to protect Minatare from lasting impacts from severe thunderstorms, the community has worked on a variety of mitigation projects. Minatare has backup generators at critical facilities to prevent prolonged power outages. The community has also installed surge protectors on all electronic devices containing municipal records, to protect against power surges. To improve awareness, Minatare has also installed weather radios in critical facilities.

The biggest priority for the community regarding hail is the protection of individuals and building damages. In the past, Minatare has experienced a both damages to trees and buildings. In order to protect buildings from lasting impacts from hail, the city has outfitted some of their critical facilities with hail resistant building materials and have insured all of the municipal facilities. Further, the community distributes information regarding hail resistant building materials with building permits. However, the city may be more vulnerable to the impacts of a natural hazard event due to 31 percent of the homes in Minatare being built before 1940. These homes are likely more susceptible to damages, compared to newer homes.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Minatare and were identified as a hazard of top concern. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 101 severe winter storm events in Scotts Bluff County from 1996 through September 2020, resulting in \$53,000 in property damages and \$1,000 in crop damages.

The planning team indicated that extremely cold temperatures in February of 2021 led to frozen residential pipes. A typical snowstorm in Minatare consists of blowing snow and snow drifts. A unique challenge in Minatare during winter storms are traffic accidents and access to sewage pumps. In the past, the city has seen winter storm damages at the maintenance shop. In order to prevent lasting impacts affecting Minatare, the city has invested in a grader, a front-end loader and a medium sized mower with blade to clear roadways. The local planning team has indicated that these resources are sufficient for local events.

Tornadoes and High Winds

The local planning team identified tornadoes and high winds as a hazard of top concern for the city. High winds are common across the region and can cause property and tree damage and brief power outages. Tornadoes are much less common, but the impacts can be far greater. Between January 1996 and September 2020, the NCEI recorded 67 high wind events in Scotts Bluff County and two tornadoes in Minatare. One tornado occurred in July 1996 and the other occurred in May 2003. Both tornadoes were rated F0, with the latter one causing \$50,000 in property damage. Although not shown as impacting Minatare in the NCEI database, a tornado was spotted nearby in June 2017, shortly after a safe room was added to the high school. If the tornado would have turned toward the city, the safe room could have been used for shelter.

The planning team indicated that a high wind event in June 2015 caused extensive tree damage and power outages. Minatare is primarily concerned about prolonged power outages in a high wind event, which may be a large stress to Minatare's elderly population. To protect against data loss, the city has outfitted computers housing municipal records with surge protectors. Certain characteristics of Minatare make the community more resilient to high wind events, the community has previously had a tree care board, which has since dissolved. The city continues to do a good job of maintaining trees near utility lines and right of way lines. Residents also do their part to trim hazardous limbs and minimize any potential threat a tree may pose to life or possessions.

In the event of a tornado, the local planning team indicated that community members may be able to seek shelter in Minatare schools. The high school added a FEMA-certified safe room in 2017. The community works to assist in awareness by participating in Weather Awareness Week, which serves to educate the public about the dangers of tornadoes. A few characteristics of Minatare make the community more vulnerable to lasting impacts from tornado events: 31 percent of the city's housing was built before 1940. Older homes tend to be more vulnerable to damage from high winds, due to the age of the building materials. Further, debris from these older homes may fly off and impact other neighboring structures, causing more damage. In the event of a significant tornado event, outside resources would be needed. The city currently has a mutual aid agreement with Scottsbluff, Terrytown, and Bayard.

Mitigation Strategy

Completed Mitigation and Strategic Actions

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Assess, design, and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting.
HAZARD(S)	Tornadoes and High Winds
STATUS	This project was completed in 2018 at the local high school.

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/grade stabilization improvements can serve to more effectively protect structures, increase conveyance, prevent down cutting, and provide flooding benefits.
HAZARD(S)	Flooding
STATUS	This project was completed in March 2020.

Continued Mitigation and Strategic Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, and other critical facilities and shelters.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$15,000- \$30,000
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	City Council
STATUS	The city is still trying to acquire a backup generator at the fire hall and one for the pump house.

MITIGATION ACTION	PUBLIC AWARENESS/ EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury and death. It increases knowledge on emergency procedures, facilities, conservation, and is key to preparedness.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	City Council
STATUS	Public awareness/education is an ongoing activity within the community.

Removed Mitigation and Strategic Actions

MITIGATION ACTION	DRAINAGE STUDY/ STORMWATER MASTER PLAN
DESCRIPTION	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding.
HAZARD(S)	Flooding
REASON FOR REMOVAL	The city no longer wishes to pursue this.

MITIGATION ACTION	STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to move effectively convey runoff within cities and villages, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water.
HAZARD(S)	Flooding
REASON FOR REMOVAL	The city no longer wishes to pursue this.

Community Profile

CITY OF MITCHELL

North Platte NRD Hazard Mitigation Plan 2021

Local Planning Team

Table MIT.1: Mitchell Local Planning Team

NAME	TITLE	JURISDICTION
PERRY MADER	City Administrator	City of Mitchell

Location and Geography

The City of Mitchell is located in the north central portion of Scotts Bluff County and covers an area of 0.67 square miles. The major waterway in the area is the North Platte River.

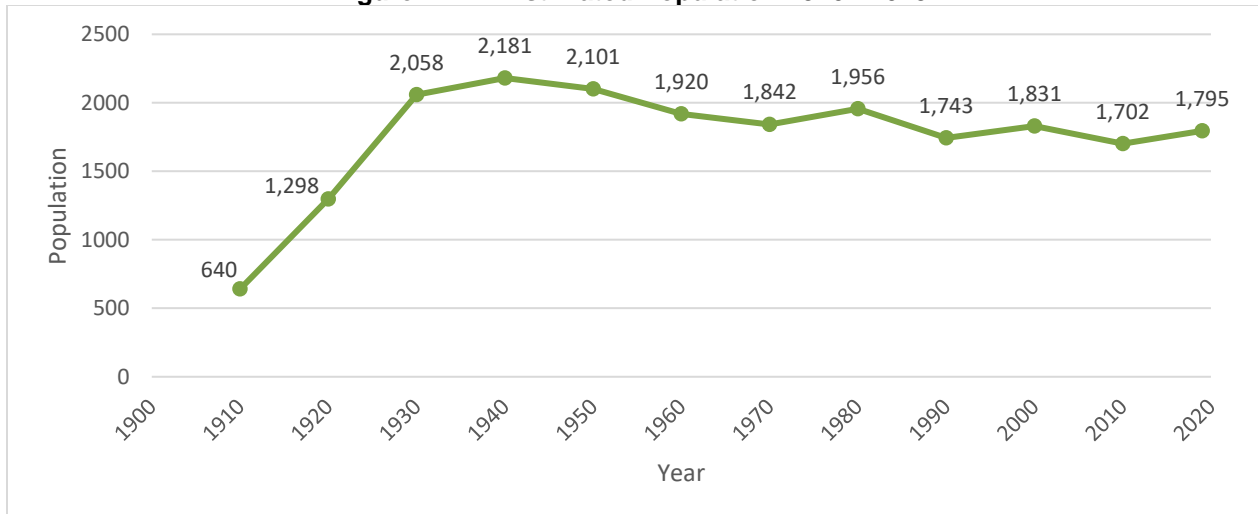
Transportation

There are two major highways which pass through Mitchell, US HWY 26 and NE HWY 29. According to the Nebraska Department of Transportation, the average daily traffic count for US HWY 26 is 9,070 vehicles per day, 665 of which are heavy commercial vehicles. The traffic count for NE HWY 29 is 960 vehicles per day, 55 of which are heavy commercial vehicles.⁸⁶ There is one railroad that passes through the southern portion of the city. According to the planning team, no significant transportation events have occurred locally.

Demographics

Mitchell's estimated population in 2019 was 1,795. The following figure displays the historical population trend from 1910 to 2019. This figure indicates that the population of Mitchell increased significantly from 1910 to 1940, then decreased until 1970, and has fluctuated up and down since. The population has most recently increased from 2010 to 2019. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures, while communities with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards. Mitchell's population accounted for five percent of Scotts Bluff County's population in 2019.⁸⁷

Figure MIT.1: Estimated Population 1910 - 2019



Source: U.S. Census Bureau⁸⁸

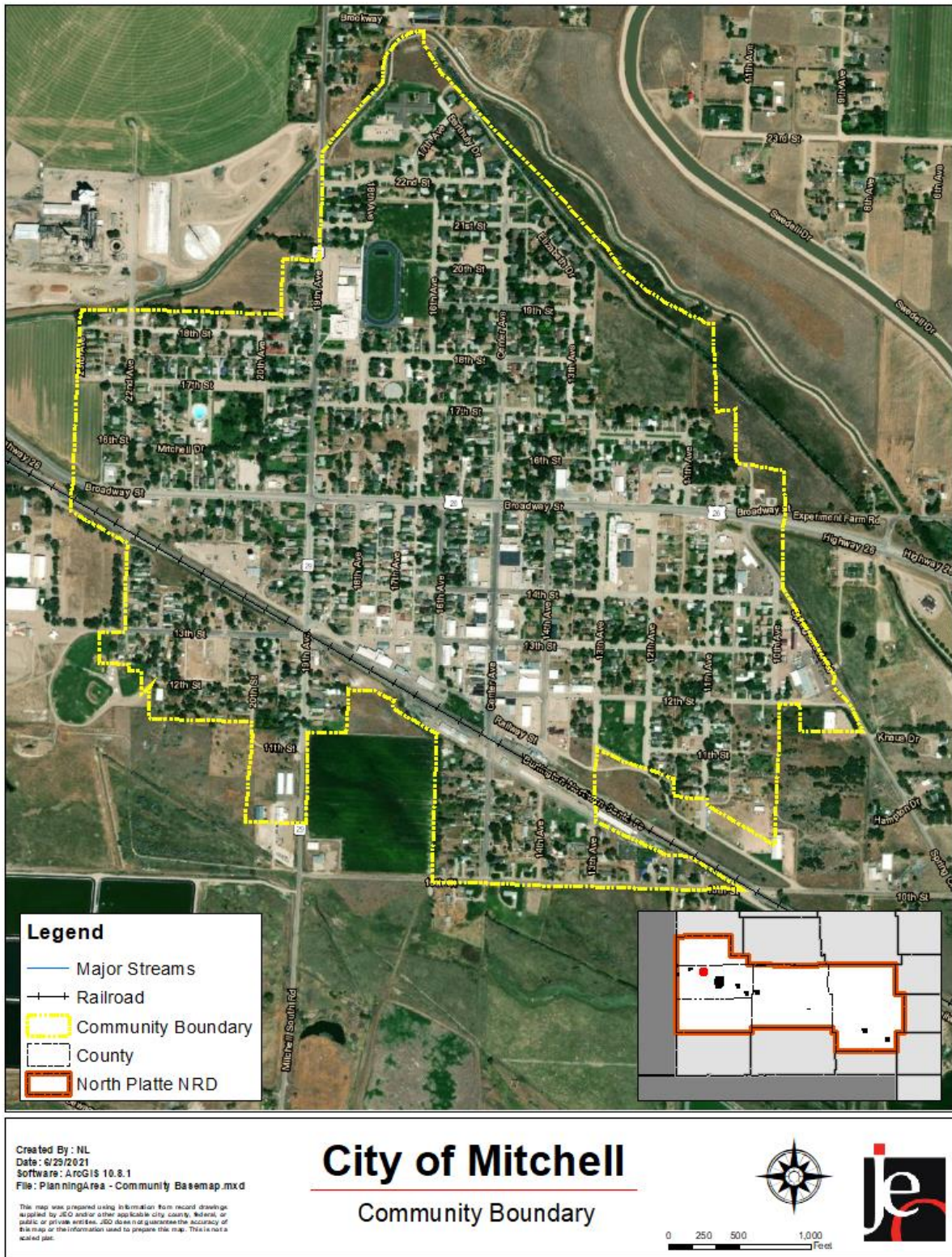
⁸⁶ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map].

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

⁸⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁸⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure MIT.2: City of Mitchell



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

- **Older.** The median age of Mitchell was 41.4 years old in 2019, compared with the county average of 39.5 years. Mitchell's population has grown a little older since 2010, when the median age was 41.1 years old. Mitchell had a smaller share of people under 20 years old (22.6%), compared to the county (27.5%) in 2019.⁸⁹
- **More ethnically diverse.** Since 2010, Mitchell grew less ethnically diverse. In 2010, 10.1% of Mitchell's population was non-white. By 2019, 9% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.⁹⁰
- **Less likely to be at the federal poverty line.** The poverty rate in Mitchell (7% of families living below the federal poverty line) is lower than the county's poverty rate (10.3%) in 2019.⁹¹

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Mitchell included: Educational Services, Retail Trade, and Professional Services. Scotts Bluff County's employment sectors also included Educational Services and Retail Trade in 2019.⁹²
- **Lower household income.** Mitchell's median household income in 2019 (\$45,265) was \$4,480 lower than the county (\$49,745).⁹³
- **Fewer long-distance commuters.** About 34% percent of workers in Mitchell commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 7% of workers in Mitchell commuted 30 minutes or more to work, compared to about 9% of the county workers.⁹⁴

Major Employers

Major employers in Mitchell include Mitchell Public Schools, Kelly Bean Company, the City of Mitchell, and Mitchell Care Center. According to the planning team, a large percentage of residents commute to other communities for work, such as Scottsbluff, Gering, and Torrington, Wyoming.

Housing

In comparison to Scotts Bluff County, Mitchell's housing stock was:

- **More owner occupied.** 77% of occupied housing units in Mitchell are owner occupied compared with 66.9% of occupied housing in Scotts Bluff County in 2019.⁹⁵

⁸⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

⁹⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

⁹¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁹² United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁹³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

⁹⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov>.

⁹⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

- **Older housing stock.** Mitchell has a greater share of housing built prior to 1970 (71.1% compared to 55.7%).⁹⁶
- **More multifamily homes.** The predominant housing type in the city is single family detached and Mitchell contains more multifamily housing with five or more units per structure than the county (7.8 compared to 6.6%). 85.7% of housing in Mitchell was single-family detached, compared with 77.1% of the county’s housing. Mitchell has a smaller share of mobile and manufactured housing (2.7%) compared to the county (5.8%).⁹⁷ The planning team noted that mobile homes are primarily located in the southwest part of the city, along 13th Street.

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

Future Development Trends

In the last five years, one house was demolished, and one mobile home was removed. There are no new housing or commercial developments planned for the next five years. According to census data estimates, Mitchell’s populations has increased in recent years. The planning team attributes this growth to the city’s affordable housing, good school system, and opportunities for business growth.

Structural Inventory and Valuation

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

Table MIT.2: Mitchell Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
796	\$53,428,518	39	\$5,334,483	5%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are no chemical storage sites in Mitchell that contain hazardous chemicals.⁹⁸ In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

⁹⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁹⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

⁹⁸ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2020. <https://deq-iis.ne.gov/tier2/search.faces>.

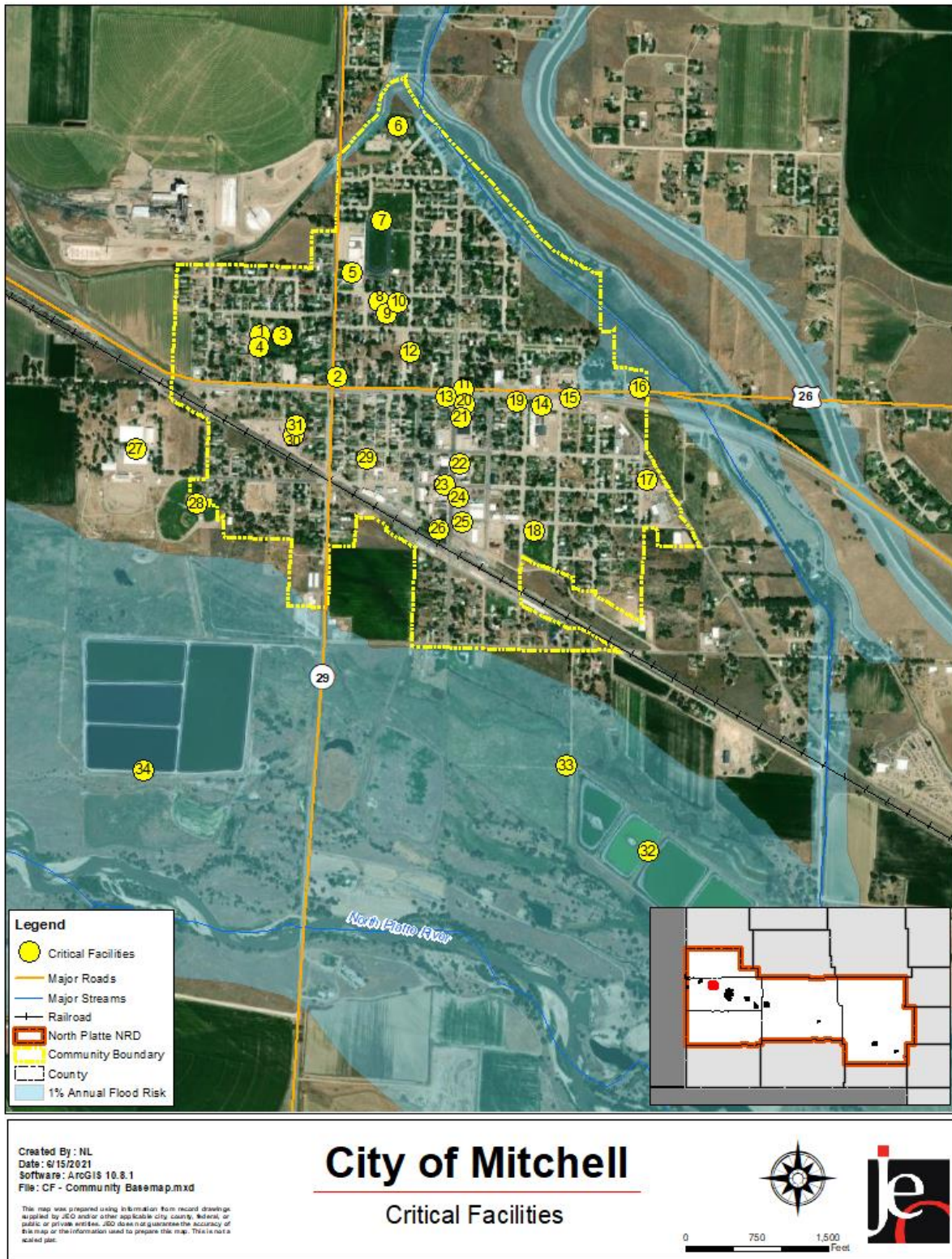
Critical Facilities

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

Table MIT.3: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Pool	N	N	N
2	Mitchell United Methodist	N	N	N
3	Park	N	N	N
4	Well	N	N	N
5	Mitchell High School	N	N	N
6	Mitchell Care Center	Y	Y	N
7	Football Field	N	N	N
8	Holy Apostles Episcopal	N	N	N
9	St. Theresa Catholic	N	N	N
10	Receipt Hall	N	N	N
11	Federated Church	N	N	N
12	Water System- Chlorine	N	N	N
13	Medical Clinic	N	N	N
14	Mitchell Elementary	N	N	N
15	St. Paul Church	N	N	N
16	Sub Station	N	N	N
17	Well	N	Y	N
18	Ziegler Park	N	N	N
19	New Hope Assembly	N	N	N
20	Library	N	N	N
21	Post Office	N	N	N
22	Legion	N	N	N
23	City Offices	Y	N	N
24	Senior Center	N	N	N
25	Fire Department	Y	Y	N
26	Park	N	N	N
27	Fairgrounds	N	N	N
28	Ball Fields	N	N	N
29	Mason Lodge	N	N	N
30	Street Department	N	N	N
31	Water Tower	N	N	N
32	Sewer Lagoons	N	Y	Y
33	Lagoon Lift Station	N	Y	Y
34	Sewer Lagoon	N	N	Y

Figure MIT.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. Mitchell has a mayor/chairperson, a four-member council, and the following offices.

- Electrical Department
- Fire Department
- Police Department
- Water/ Sewer Department
- Streets Department
- City Golf Course

Capability Assessment

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

Table MIT.5: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operational 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	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
	Other (if any)	
Fiscal	Capital Improvement Plan/ 1 & 6 Year plan	Yes

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Capability	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	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	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

Table MIT.6: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Plan Maintenance

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

The City Administrator, Water/Wastewater Supervisor, and Street Supervisor are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than bi-annually and will include the public in review and revision process by sharing information through social media, council meetings, public works committee meetings, newspaper, planning commission meetings, and the newsletter.

Plan Integration

The City of Mitchell 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, Mitchell is able to implement water restrictions if needed. 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.

Annual Municipal Budget (2021)

Mitchell's annual budget is sufficient to pursue new capital projects, however, a large portion of funds have already been dedicated to a new lagoon. Municipal funds have stayed steady over recent years. Some utility funds have increased due to rate increases. In the past five years the city was awarded a grant from the USDA to build a new lagoon.

Building Code (2018)

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

Capital Improvements Plan (2021)

The capital improvements plan outlines large purchases and projects that the city would like to pursue. Projects identified in the plan include updating the electrical distribution system, installing water meters, and improving community owned structures. This plan is updated annually as part of the annual budgeting process.

Comprehensive Plan (2010)

The comprehensive plan is designed to guide the future actions and growth of the city. The plan specifically discusses flooding, tornadoes, hail, and groundwater contamination. There are currently no plans to update the document.

Scotts Bluff County Local Emergency Operations Plan (2020)

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

Zoning Ordinance (2012), Floodplain 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, require more than one foot elevation above Base Flood Elevation,

prohibit the filling of wetlands, include well setback requirements, and restrict the subdivision of land within the floodplain.

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

The local planning team identified flooding as a top concern for the community. According to the NCEI, there have been two flood events in Mitchell from 1996 to September 2020. Both were flash floods, and no damages were reported. The community's biggest concern relates to the North Platte River, as storm water drainage often backs up directly into the city. The planning team noted that much of the southern portion of town is inundated following as little as half an inch of rain. Many of Mitchell's critical facilities are within the inundation zone, including the police department, fire department, and city hall. The biggest issue relating to flooding in Mitchell is that the drainage outlets are simply too small to accommodate all of the city's runoff. The community is currently looking into different mitigation actions to limit some of the lasting impacts of flooding.

Mitchell has two NFIP policies in-force for \$126,200 and there are no repetitive flood loss properties as of February 2020.

Hazardous Materials - Fixed Sites

The planning team identified hazardous materials at fixed storage sites as a hazard of top concern for the community. According to the U.S. Coast Guard National Response Center, there has been one fixed site hazardous material spills in Mitchell between 1990 and 2020. In 1994, the hose on an anhydrous ammonia tank failed and released 4,000 pounds into the air. The leak was secured, and no evacuations, injuries, or fatalities were reported. To reduce risk of spills the city has removed all transformers that contain PCB's using a certified contractor for the removal and disposal. If a spill were to occur Region 22 Emergency Management and Mitchell Rural Fire would be the first to respond. Both have training in spill response, protective gear, and resources to clean the spill.

Hazardous Materials - Transportation

The local planning team ranked hazardous materials from a transportation spill as a top concern for the city. According to the Pipeline and Hazardous Materials Safety Administration, there have not been any transportation spills in Mitchell between 1971 and 2020. While the community has never had a significant chemical spill, their concern is related to a recent development in Sioux County, 15 miles north of Mitchell. An oil and gas company, Terex, recently gained permission to dispose of fracking wastewater in former oil wells, north of Mitchell. While community members are concerned about the drinking water supply, a greater concern is the transportation of these chemicals, directly through the center of Mitchell. Terex estimates that when the disposal site is fully operational, up to 80 trucks (or 10,000 barrels) per day would move directly through the

center of Mitchell. If one of these trucks were to crash, the fluid would pose an immediate threat to Mitchell's groundwater supply, only 5-6 feet below the surface. Further, the trucks' route goes directly past many of Mitchell's most vulnerable populations, with the high school, elementary school, and nursing homes all being vulnerable to these events. The planning team is moderately concerned about petroleum transportation to the south of Mitchell, as there was a diesel derailment about 40 years ago. The community does not presently do any sort of drills for a hazardous materials spill, but the fire department regularly discusses response if a spill were to occur.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Mitchell and were identified as a hazard of top concern. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and negative economic impacts. According to the NCEI, there were 101 severe winter storm events in Scotts Bluff County from 1996 through September 2020, resulting in \$53,000 in property damages and \$1,000 in crop damages. Although Mitchell has not experienced a significant winter storm event recently, the planning team understands that these events are common for the planning area. The planning team expressed concern about financial resources during a year with several storms. There is also concern about residents not taking proper precautions post-storm event. A large percentage of Mitchell's population is over 65 years old and are often more vulnerable to severe winter storms. Older populations are less resistant to freezing temperatures and can have poor balance on ice.

Mitchell does not have backup generators, except for those powering the sirens. This is a concern because during a snow emergency, communications could be hampered when they are most needed. The city recently upgraded much of its snow removal equipment to better serve the community. Current snow removal resources include a road grader, snow blower with a tractor, two dump trucks, and a backhoe. These resources are sufficient for most local events, according to the planning team. Ice accumulation and high winds are also a concern for the planning team, especially regarding their impact on power lines. To address some of this risk, the city has contracted a third party to remove trees, branches, and limbs away from power lines. This is a two to three-year process and a third of the city has already been completed.

Tornadoes and High Winds

The local planning team identified tornadoes and high winds as a hazard of top concern for the city. High winds are common across the region and can cause property and tree damage and brief power outages. Tornadoes are much less common, but the impacts can be far greater. Between January 1996 and September 2020, the NCEI recorded 67 high wind events in Scotts Bluff County and four tornadoes in Mitchell. Two tornadoes hit on the same day in May 1998, with one causing \$4,000 in property damage.

The planning team is concerned about populations which do not have basements, due to the high water table. Vulnerable populations at nursing homes in Mitchell do not have safe rooms or basements to seek refuge in a tornado event. To prevent lasting impacts from a tornado in Mitchell, the community backs up its municipal records to an offsite location. The city intends to work on public awareness to educate people on where they can seek shelter during a tornado or high wind event.

High winds are also a large concern for the planning team, especially regarding their impact on power lines. To address this, the city has contracted a third party to remove trees, branches, and limbs away from power lines. This is a two to three-year process and a third of the city has already

been completed. The planning team noted that the city has also contracted Nebraska Public Power District to maintain its power lines and infrastructure, which has greatly benefited the community.

Mitigation Strategy

Continued Mitigation and Strategic Actions

MITIGATION ACTION	EMERGENCY EXERCISE: HAZARDOUS SPILL
DESCRIPTION	Utilize exercise to prepare for a potential explosion or hazardous spill. Ensure that nearby businesses and residents have appropriate plans in place.
HAZARD(S)	Hazardous Materials - Transportation
ESTIMATED COST	\$5,000
FUNDING	Fire Department Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	Not Started

MITIGATION ACTION	EMERGENCY MANAGEMENT EXERCISE
DESCRIPTION	Develop and facilitate an exercise to identify gaps in planning and to ensure that community response plans are sufficient to meet the needs of the jurisdiction.
HAZARD(S)	Flooding
ESTIMATED COST	\$2,000
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Fire Department
STATUS	Not Started. It is currently in the budget.

MITIGATION ACTION	FIRST AID TRAINING
DESCRIPTION	The City of Mitchell desires to begin first aid training for city staff, run by the fire department
HAZARD(S)	All hazards
ESTIMATED COST	Staff Time
FUNDING	Fire Department Funds
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	In Progress. Some staff have been trained.

SECTION SEVEN: CITY OF MITCHELL COMMUNITY PROFILE

MITIGATION ACTION	INFRASTRUCTURE HARDENING
DESCRIPTION	Improve electrical system, especially older utility poles
HAZARD(S)	Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$1,000,000
FUNDING	Utility Bills
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Electrical/Utilities Department
STATUS	In Progress. Poles and lines are being reviewed and replaced.

MITIGATION ACTION	MAINTAIN GOOD STANDING IN THE NFIP
DESCRIPTION	Maintain good standing with the National Flood Insurance Program (NFIP) including floodplain management practices/ requirements and regulation enforcements and updates.
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	General Fund
TIMELINE	Ongoing
PRIORITY	High
LEAD AGENCY	Floodplain Administrator
STATUS	Mitchell will continue to enforce floodplain management requirements, including regulating new construction in the Special Flood Hazard Areas.

MITIGATION ACTION	PUBLIC AWARENESS/ EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury and death. It increases knowledge on emergency procedures, facilities, conservation, and is key to preparedness. Mitchell would like to address brownfields and hazardous materials.
HAZARD(S)	Hazardous Materials – Fixed Sites
ESTIMATED COST	\$500+
FUNDING	Panhandle Area Development District
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Planning Department
STATUS	In Progress. The Panhandle Area Development District is partnering with the City of Mitchell in order to inform the public on the hazards of Brownfields which may be in their downtown area.

SECTION SEVEN: CITY OF MITCHELL COMMUNITY PROFILE

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to move effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water. Locations include 12th Ave & 12th Street, 10th St & 14th Ave, 22nd St & 17th Ave, 13th St & 14th Ave, and 14th St & 14th Ave.
HAZARD(S)	Flooding
ESTIMATED COST	\$30,000
FUNDING	Stormwater Sewer Maintenance Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Service Department
STATUS	In Progress. Staff are working with MCSchaff to map and clean existing infrastructure.

MITIGATION ACTION	TRANSPORTATION DRAINAGE IMPROVEMENTS
DESCRIPTION	Make improvements to roadways and drainage ways to prevent damage to key transportation routes. Utilize geosynthetic products for repair and mitigation of damages. Consider covering of road washouts, culvert sizing headwalls, steep banks, slides, in-road springs, roadway edge armoring, low water crossings, pothole grading, weak foundations, gravel road maintenance, ditch linings, on steep grades, erosion protection, etc. Locations include Highway 26 and 10 th Street.
HAZARD(S)	Flooding
ESTIMATED COST	\$100,000
FUNDING	State Highway Funds
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Service Department
STATUS	Not Started

Community Profile

VILLAGE OF MORRILL

**North Platte NRD
Hazard Mitigation Plan 2021**

Local Planning Team

Table MOR.1: Morrill Local Planning Team

NAME	TITLE	JURISDICTION
JANINE SCHMIDT	Clerk/Treasurer	Village of Morrill
JOHN SCHULER	Board Chair	Village of Morrill
PETE CAWIEZEL	Morrill Community Development Group Representative	Village of Morrill

Location and Geography

The Village of Morrill is located in the northwest portion of Scotts Bluff County and covers an area of 0.60 square miles. The major waterway in the area includes the North Platte River, located to the south of Morrill.

Transportation

There is one major highway that passes through Morrill, US HWY 26. According to the Nebraska Department of Transportation, the average daily traffic count for US HWY 26 is 5,565 vehicles, 455 of which are heavy commercial vehicles.⁹⁹ There is one railroad that passes through the southern portion of the village.

Demographics

Morrill's estimated population in 2019 was 758. The following figure displays the historical population trend from 1910 to 2019. This figure indicates that the population of Morrill increased dramatically from 1910 to 1920, then generally increased until 1980 and thereafter has declined. This is notable for hazard mitigation because communities with declining population may also have a higher level of unoccupied housing that is not being up kept. Furthermore, areas with declining population may be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the community which could make implementation of mitigation actions more fiscally challenging. Morrill's population accounted for about 2 percent of Scotts Bluff County's population in 2019.¹⁰⁰

⁹⁹ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

¹⁰⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure MOR.1: Village of Morrill

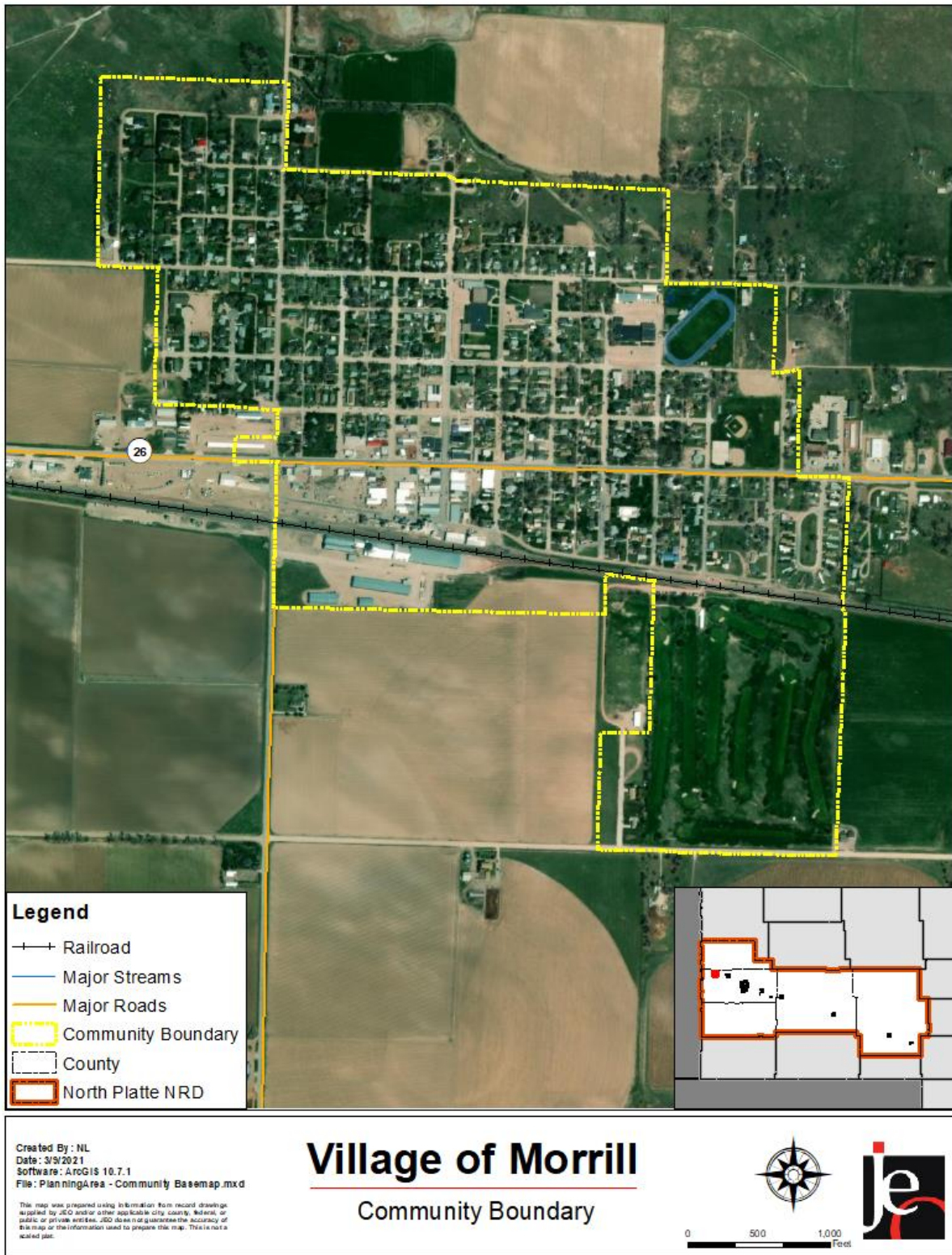
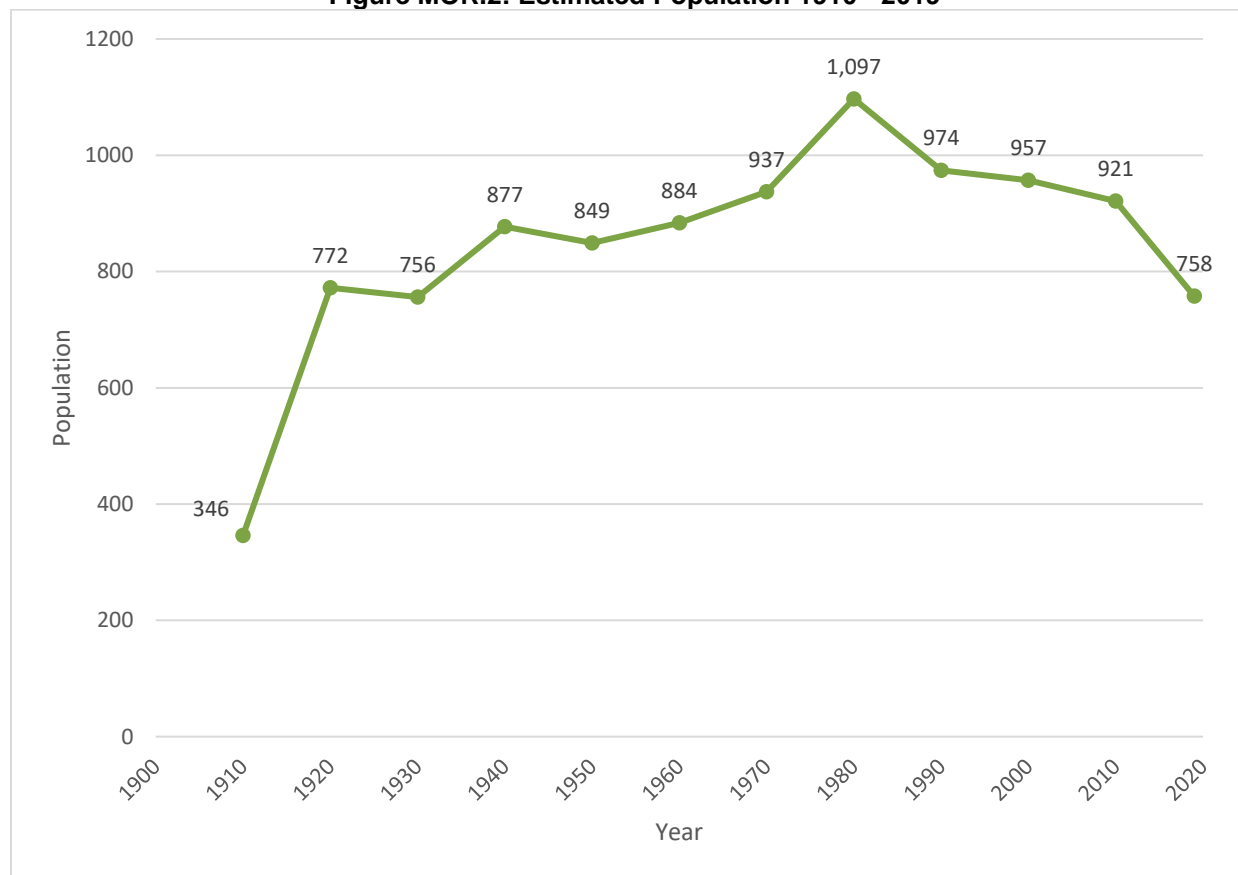


Figure MOR.2: Estimated Population 1910 - 2019

Source: U.S. Census Bureau¹⁰¹

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

- **Older.** The median age of Morrill was 50.3 years old in 2019, compared with the county average of 39.5 years. Morrill's population has grown older since 2010, when the median age was 47.3 years old. Morrill had a smaller proportion of people under 20 years old (18.8%) than the county (27.5%) in 2019.¹⁰²
- **Less ethnically diverse.** Since 2010, Morrill grew less ethnically diverse. In 2010, 10.2% of Morrill's population was non-white. By 2019, 4.9% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.¹⁰³
- **Less likely to be at the federal poverty line.** The poverty rate in Morrill (2% of families living below the federal poverty line) is lower than the county's poverty rate (10.3%) in 2019.¹⁰⁴

¹⁰¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

¹⁰² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

¹⁰³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

¹⁰⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in both Morrill and Scotts Bluff County included Educational Services and Retail Trade in 2019.¹⁰⁵
- **Lower household income.** Morrill's median household income in 2019 (\$43,523) was \$6,222 lower than the county (\$49,745).¹⁰⁶
- **More long-distance commuters.** About 35% of workers in Morrill commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 15% of workers in Morrill commuted 30 minutes or more to work, compared to about 9% of the county workers.¹⁰⁷

Major Employers

Major employers in Morrill include the Morrill Public School District, Kelly Bean Co, Westco, and Sinamco Mills. According to the planning team, many residents commute to nearby communities for work, especially Scottsbluff and Gering.

Housing

In comparison to Scotts Bluff County, Morrill's housing stock was:

- **Similar share of owner occupied.** 66.5% of occupied housing units in Morrill are owner occupied, compared with 66.9% of occupied housing in Scotts Bluff County in 2019.¹⁰⁸
- **Older housing stock.** Morrill has a larger share of housing built prior to 1970 (59.2% compared to 55.7%).¹⁰⁹
- **Fewer multifamily homes.** The predominant housing type in the village is single family detached and Morrill contains less multifamily housing with five or more units per structure than the county (4.1% compared to 6.6%). About 80% of housing in Morrill is single-family detached, compared with 77.1% of the county's housing. Morrill has a similar share of mobile and manufactured housing (5.8%) compared to the county (5.8%).¹¹⁰

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

¹⁰⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹⁰⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹⁰⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov>.

¹⁰⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

¹⁰⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

¹¹⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

Future Development Trends

In the last five years, the village has seen some development occur in the form of a new preschool being built (Tri Community Preschool), a Dollar General opening, and a couple new homes were constructed. An old building on Main Street was demolished during that time. No new housing is planned for Morrill, but an FFA complex has been proposed. Additionally, the potential renovation of an auction house is being discussed. The renovated facility would house offices, a bakery, restaurant, and possibly apartments. US Census estimates show that Morrill's population has decreased in recent years. The planning team attributes this to a lack of affordable housing.

Structural Inventory and Valuation

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

Table MOR.2: Morrill Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
449	\$34,846,441	0	-	-

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

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

Table MOR.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS
Westco Agronomy	70927 Highway 26
Simplot Grower Solutions	70715 Highway 26
Union Pacific Railroad	90624 County Road F

Critical Facilities

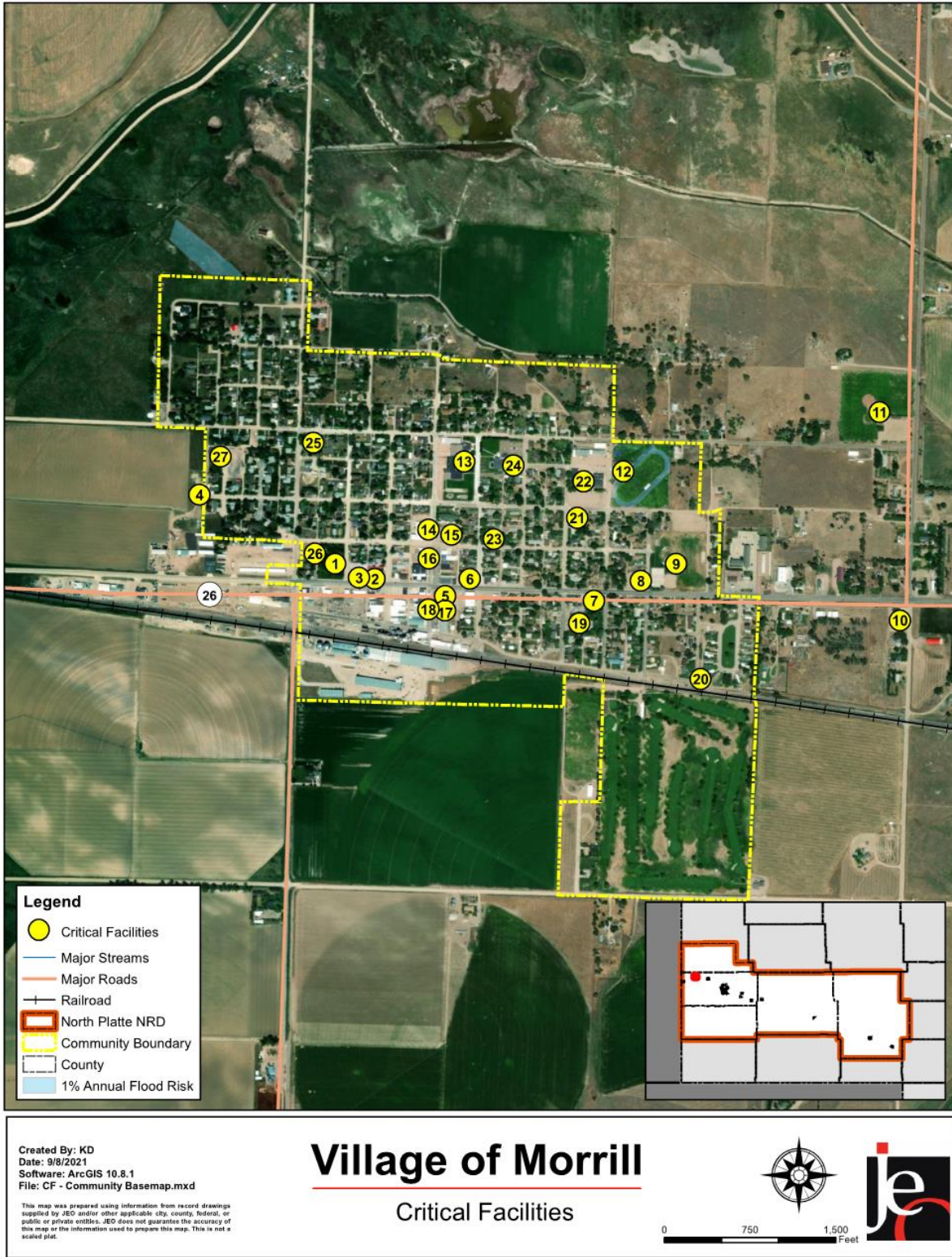
The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original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

SECTION SEVEN: VILLAGE OF MORRILL COMMUNITY PROFILE

Table MOR.4: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Park	N	N	N
2	Water Tower	N	N	N
3	Village Storage	N	N	N
4	Well	N	N	N
5	USPS	N	N	N
6	Library	Y	N	N
7	Veterans Park	N	N	N
8	St. Ann's Catholic Church	N	N	N
9	Sports Complex	N	N	N
10	Church of Christ	N	N	N
11	Sports Complex	N	N	N
12	Football Field	N	N	N
13	School	N	N	N
14	Morrill Fire Department	N	N	N
15	Communication Tower	N	N	N
16	City Building – Police Department	N	Y	N
17	American Legion	Y	N	N
18	Village Office	N	Y	N
19	Pool	N	N	N
20	Well	N	N	N
21	Sovereign Grace	N	N	N
22	Morrill High School	Y	N	N
23	First United Methodist	N	N	N
24	School Building	N	N	N
25	Morrill Manor	N	N	N
26	Substation	N	N	N
27	Trinity Lutheran	N	N	N

Figure MOR.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. Morrill has a five-member board, and the following offices.

- Clerk/Treasurer
- Attorney
- Police Chief
- Fire Chief
- Street & Alley Department
- Lights Department
- Purchasing Officer
- Engineer
- Municipal Foreman

Capability Assessment

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

Table MOR.6: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operational Plan	County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	No
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	No

SECTION SEVEN: VILLAGE OF MORRILL COMMUNITY PROFILE

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	No
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	No
	Other (if any)	No
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)	No
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	No

Table MOR.7: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The Village Clerk, Village Board, and Fire Chief are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than annually and will include the public in the review and revision process by sharing information through social media, the village website, Code Red, and board meetings.

Plan Integration

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

Annual Municipal Budget (2020-2021)

Morrill's annual budget is sufficient to pursue new capital improvements, however a large portion is already dedicated to a storm sewer replacement project. Municipal funds have increased over recent years. In the last five years the village has been awarded CDBG, NDEE, FEMA, DHHS, and USDA grants.

Building Code (2018)

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

Capital Improvements Plan (2012)

The capital improvements plan outlines large purchases and projects that the village would like to pursue. Projects identified in the plan include: stormwater projects, upsizing culverts and drainage structures, improving roadways for drainage, installing new municipal wells, upsizing water distribution pipes, burying powerlines, looping electrical distribution, installing backup generators, and constructing a new fire hall.

Comprehensive Plan (2012)

The comprehensive plan is designed to guide the future actions and growth of the village. It contains goals aimed at safe growth, limits density in areas adjacent to known hazardous areas, identifies areas that need emergency shelters, and encourage preservation of open space. It also specifically discusses tornadoes, high winds, drought, extreme heat, and severe storms. There is currently no timeline to update this plan.

Scotts Bluff County Local Emergency Operations Plan (2020)

The Village of Morrill is an annex in the Scotts Bluff County Local Emergency Operations Plan (LEOP). The LEOP establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human

services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years.

Zoning Ordinance (2012)

The village's zoning ordinance outline where and how development should occur in the future. This document contains floodplain maps, discourage development within the floodplain, prohibits the filling of wetland, includes well setback requirements, and requires more than one foot elevation above Base Flood Elevation. There are currently no plans to update the zoning ordinance.

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Drought

The local planning team identified drought as a top concern for the local community. Much of Morrill's economy is agriculture based, and drought may be detrimental to the community. Extreme drought last occurred in the region in 2012/2013, according to the NCEI. Significant drought, however, was reported in September of 2020. The community does not have a drought monitoring board or drought response plan; however, they would follow the instructions of the North Platte NRD for drought triggers and response. Morrill recently obtained a new water system, which is currently sufficient for municipal water needs. The community has worked to limit water use by word-of-mouth practices. While the village does not print anything, the village works to go door to door for water conservation awareness. The village charges water per gallon and uses water meters so people are more aware of their water use.

Extreme Heat

Morrill's top concern for extreme heat is the effect on the outdoor power supply, of which there are 100 miles of electrical lines. Typically, the highest energy demands occur during summer months when most residents will run an air conditioner, which requires a lot of energy. During an extreme heat event, locations may elect to not hold regular meetings in the interest of public safety. If this were to occur, local radio broadcasts would be utilized to notify potential attendees. Morrill is especially vulnerable to lasting impacts from extreme heat, because Morrill has a median age which is 14 years older than the state's median. Elderly adults tend to be more susceptible to high temperatures, leaving Morrill at a higher risk than other locations in the state. The Centers for Disease Control has indicated that "[Older adults] are more likely to have chronic medical conditions that may change normal body responses to heat". In an extreme heat event, the most likely first responders to a heat stroke event are the volunteer fire department or police.

Grass/Wildfire

The primary concern for the village is dry conditions with wind causing an increase in the number and intensity of grass/wildfires. The most significant wildfire was caused by the railroad and resulted in several acres being burned and several head of cattle being lost. The local fire

department is made up of 29 volunteer members. Since 2000 the fire department reported responding to 86 wildfires which burned a total of 4,740 acres. In order to reduce the spread of wildfires and minimize the damage, property owners are encouraged to have defensible space around structures.

Hazardous Materials - Fixed Sites

The village identified hazardous materials at fixed storage sites as a hazard of top concern for the community. The village is most concerned about the potential for groundwater contamination. According to the U.S. Coast Guard National Response Center, there have been two fixed site hazardous material spills in Morrill between 1990 and 2020. One spill event occurred in 1995 when an estimated 7,560 lbs. of anhydrous ammonia was released into the air. Another event occurred in 2008 when 160 gallons of diesel fuel spilled due to equipment failure. No evacuations, injuries, or fatalities were reported from either spill event.

Morrill has two nearby fertilizer distributors which contain many chemicals. According to the local planning team, many neighboring jurisdictions have similar storage facilities/distribution centers akin to those in Morrill. While there are no vulnerable populations near the chemical fixed sites, the town hall is relatively close to the facilities, and may be damaged if there were a large-scale disaster. In case of a chemical event, the first responders would be Morrill's Volunteer Fire Department, who have annual training for hazardous materials events. The local planning team indicated that businesses report dangerous materials to the fire department in case there is a spill event. It was also noted that many of Morrill's residents fully understand the liability of living near the fertilizer distributor.

Hazardous Materials - Transportation

The local planning team identified hazardous materials from a transportation spill as a top concern for the village. The primary concern is rail transportation, from the Burlington Northern Santa Fe Line, where oil is often transported through the region. According to the Pipeline and Hazardous Materials Safety Administration, there has been one transportation spill in Morrill between 1971 and 2020. The event happened in 2006 when a fuel truck hit a cow, rolled, and spilled 600 gallons of diesel fuel onto the ground. No evacuations, injuries, or fatalities occurred from this event.

The planning team noted that oil traffic through the area has been limited as of late. The team also indicated that the rail line running south of the community could cause significant impacts if a spill were to occur.

Severe Thunderstorms (including Hail)

Severe thunderstorms are common events in the planning area and were identified as a top concern for the community. Severe thunderstorms and hail can result in the loss of electricity, blocked roadways, damages to trees, and flooding. The NCEI recorded 41 severe thunderstorm events in Morrill from 1996 to September 2020. These storms resulted in \$15,250 in property damage. Hailstones from these storms have ranged from 0.75 to 4.0 inches.

The primary concerns of the community include downed power lines, downed trees, flooding in streets, high winds and hail. Concerns specifically for hail include structural damage and crop damage outside of the community, which may impact the economy within the community. The planning team indicated a significant thunderstorm event occurred on June 9, 2015, when the village endured hail measuring 0.75 inches. Crops and buildings were damaged as a result of this storm.

The community has worked to become less vulnerable to severe thunderstorms by installing surge protectors on computers with municipal records on them. Morrill also recently established a tree board and tree maintenance program. Branches that interfere with power lines are trimmed back by the electrical department when needed. Some electrical lines have also been buried in recent years. The village is also implementing a CodeRed alert system to better alert people with important and timely weather information. The community has worked to become more resilient against hail events by insuring all municipal buildings.

Severe Winter Storms

Severe winter storms are a regular part of the climate in Morrill and were identified as a hazard of top concern. Severe winter storms include blizzards, ice accumulation, extreme cold, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 101 severe winter storm events in Scotts Bluff County from 1996 through September 2020, resulting in \$53,000 in property damages and \$1,000 in crop damages.

In the past, structures have been damaged due to large snowstorms, when heavy wet snow may cause roof damages. The Village of Morrill is especially at risk due to the village's high median age, at 50.3 years old. According to FEMA's CERT Basic Training: Instructor Guide: "Elderly people account for the largest percentage of hypothermia victims. Many older Americans literally freeze to death in their own homes after being exposed to dangerously cold indoor temperatures."

To improve transportation immediately after a snow event, the community has prioritized main streets to clear after a winter storm. The village has also worked to trim tree branches near power lines and replace aging power poles. Morrill is currently working on an official snow removal plan to more efficiently clean streets after an event. The local planning team indicated that current snow removal resources are sufficient for most severe winter storm events.

Tornadoes and High Winds

The local planning team identified tornadoes and high winds as a hazard of top concern for the city. High winds are common across the region and can cause property and tree damage and brief power outages. Tornadoes are much less common, but the impacts can be far greater. Between January 1996 and September 2020, the NCEI recorded 67 high wind events in Scotts Bluff County and four tornadoes in Morrill. According to the planning team, none of these tornadoes directly hit the village. Two of the tornadoes occurred on the same day in May 1998, with one being an F2 and causing \$15,000 in property damage and \$2,000 in crop damage. No reported damages were caused by the three other tornadoes.

The primary concerns for high wind events are damage to power poles, the safety of line crews, downed power lines, structural damages, and downed trees. In the past, Morrill's critical facilities have seen damages from high winds, specifically to roofs. The homes in Morrill tend to be more vulnerable to high wind events because 30 percent of the homes in Morrill were built before 1940. Older homes tend to not be as resilient to high winds as newer homes, due to the age of building materials. As building materials age and weather the elements, they tend to become more brittle and susceptible to damage.

The local planning team indicated that in the event of a tornado or high wind event, most residents could seek refuge in their own basements. If this is not realistic for a community member, he or she may find shelter at the Morrill Community Center, fire hall, or school. In order to better prepare for a tornado event, the Morrill schools practices tornado drills, and the community sounds a monthly siren test. If the community is impacted by a tornado or high wind event, the rural fire

department would be the first responders, followed by communities which Morrill has a mutual aid agreement. The planning team noted that the village has trimmed back tree branches from power lines, replaced old power poles, and installed more underground lines. Morrill also replaced an alert siren recently, providing better coverage in the community.

Mitigation Strategy

Completed Mitigation and Strategic Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to sewer lagoons and water tower.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	The lagoon was provided with a generator. The village indicated the water tower no longer needs a backup generator.

MITIGATION ACTION	EMERGENCY EXERCISE: HAZARDOUS SPILLS
DESCRIPTION	Utilize exercise to prepare for potential explosions or hazardous spills. Ensure that nearby business and residents have appropriate plans in place. Morrill plans to work with Region 22 and the City of Mitchell
HAZARD(S)	Hazardous Materials - Fixed Sites, Hazardous Materials - Transportation
STATUS	A plan was put in place for the village, businesses, and residents to follow should a hazardous spill occur.

MITIGATION ACTION	TREE CITY USA
DESCRIPTION	Work to become a Tree City USA through the National Arbor Day Foundation. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	The village has completed the requirements and is now a member of the Tree City USA program.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
STATUS	The village conducted an inventory and provided radios to critical facilities in need.

New Mitigation and Strategic Actions

MITIGATION ACTION	COMMUNICATION UPGRADES
DESCRIPTION	Implement Code Red to communicate dangers to residents.
HAZARD(S)	All Hazards
ESTIMATED COST	\$2,000
FUNDING	Keno
TIMELINE	1 Year
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	Not Started

Continued Mitigation and Strategic Actions

MITIGATION ACTION	DRAINAGE STUDY/STORMWATER MASTER PLAN
DESCRIPTION	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/ or alleviate flooding.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000-\$100,000
FUNDING	Village sales and use tax
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Streets and Alley Department
STATUS	In 2021, the village received CDBG funds for \$435,000 to mitigate flooding.

MITIGATION ACTION	ELECTRICAL SYSTEM LOOPED DISTRIBUTION/ REDUNDANCIES
DESCRIPTION	Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event that the primary system is destroyed or fails.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$100,000
FUNDING	Village sales tax
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Lights Department
STATUS	The village is currently updating distribution services.

SECTION SEVEN: VILLAGE OF MORRILL COMMUNITY PROFILE

MITIGATION ACTION	PUBLIC AWARENESS/EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury and death. It increases knowledge on emergency procedures, facilities, conservation, and is key to preparedness
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	Village General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Police Department, Village Board
STATUS	The village continues to educate the public on hazards and emergency situations.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.
HAZARD(S)	Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. foot addition/retrofit
FUNDING	Village General Fund
TIMELINE	1 year
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	The parks have concrete bathrooms to take shelter in during a tornado or high wind event. The golf course and pond areas are still in need of shelters or safe rooms.

MITIGATION ACTION	STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to more effectively convey runoff within the village, preventing interior localized flooding. May also reduce the risk of illness/disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000- \$100,000
FUNDING	Local sales and use tax
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Streets and Alley Department
STATUS	In 2021, the village received CDBG funds for \$435,000 to mitigate flooding.

Community Profile

CITY OF SCOTTSBLUFF

North Platte NRD Hazard Mitigation Plan 2021

Local Planning Team

Table SBF.1: Scottsbluff Local Planning Team

NAME	TITLE	JURISDICTION
ANTHONY MURPHY	Fire Prevention Officer	City of Scottsbluff
LEANN SATO	Stormwater Program Specialist	City of Scottsbluff
ZACHARY GLAUBIUS	Projects and Planning Coordinator	City of Scottsbluff
TAYLOR STEPHENS	GIS Analyst	City of Scottsbluff
JORDAN DIEDRICH	Deputy Public Works Director	City of Scottsbluff

The following table describes meeting dates and times for the City of Scottsbluff planning team throughout the HMP update.

Table SBF.2: Meeting Dates and Times

DATE AND TIME	MEETING AGENDA
WEDNESDAY, MARCH 24, 2021, 2:00 PM	HMP profile overview discussion and organizing resources, identify public involvement strategies
THURSDAY, MARCH 25, 2021, 2:00 PM	HMP Work Session - CRS and integration with HMP, public involvement strategies
THURSDAY, APRIL 1, 2021 2:30 PM	HMP Work Session - Evaluating local risks and events
THURSDAY, APRIL 22, 2021, 10:00 AM,	HMP Work Session - Integration of CRS and technical data, coordinating resources
WEDNESDAY, APRIL 28, 2021, 8:45 AM	HMP Work Session - identifying possible activities
WEDNESDAY, MAY 18, 2021, 2:00 PM	HMP Work Session - Designing NPNRD HMP and CRS programming to be mutually supportive, maintenance and action plans
WEDNESDAY, JULY 14, 2021, 2:00 PM	HMP document review
THURSDAY, OCTOBER 14, 2021, 11:00 AM	HMP Public Review Open House

Public Review

Once the HMP draft was completed, a public review period was opened to allow for participants and community members at large to review the plan, provide comments, and request changes. The public review period was open from September 30, 2021, through October 21, 2021. The HMP was made available on the project website (<https://jeo.com/npnrd-hmp>) and the city's website (<http://www.scottsbluff.org>) for download.

The City of Scottsbluff notified the public of this review period through the city website, social media, and the local paper. The city also held a public meeting on Thursday, October 14. The purpose of this meeting was to share city-specific updates to the HMP and to provide the public an opportunity to speak with local officials about the plan or any requested revisions. No comments were received during the open house. Comments received during the Public Review Period were made by the local planning team and included: a typographical error, an incorrect date listed for the public review meeting, a correction to the Natural Disaster/Safety-related School Program capability, and inconsistent NFIP data. Each of these comments has been addressed by correcting the incorrect/inconsistent data.

Location and Geography

The City of Scottsbluff is located in the central portion of Scotts Bluff County and covers an area of 6.27 square miles. The major waterway in the area includes the North Platte River, which runs just south of the city.

Transportation

There are two major highways that pass near Scottsbluff, US HWY 26, and NE HWY 71. According to the Nebraska Department of Transportation, the average daily traffic count for US HWY 26 is 4,980 vehicles per day, 405 of which are heavy commercial vehicles. NE HWY 71 has a traffic count of 6,910 vehicles per day, 275 of which are heavy commercial vehicles.¹¹¹ There is one major rail corridor in Scottsbluff, the BNSF Railway. Per the local BNSF Office, an average of 35 trains passes through Scottsbluff daily with a car count of around 130 cars per train. No significant transportation events have occurred locally.

Demographics

Scottsbluff's estimated population in 2019 was 14,737. The following figure displays the historical population trend from 1910 to 2019. This figure indicates that the population of Scottsbluff has generally increased since 1910. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. Scottsbluff's population accounted for 41 percent of Scotts Bluff County's population in 2019.¹¹²

¹¹¹ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

¹¹² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure SBF.1: City of Scottsbluff

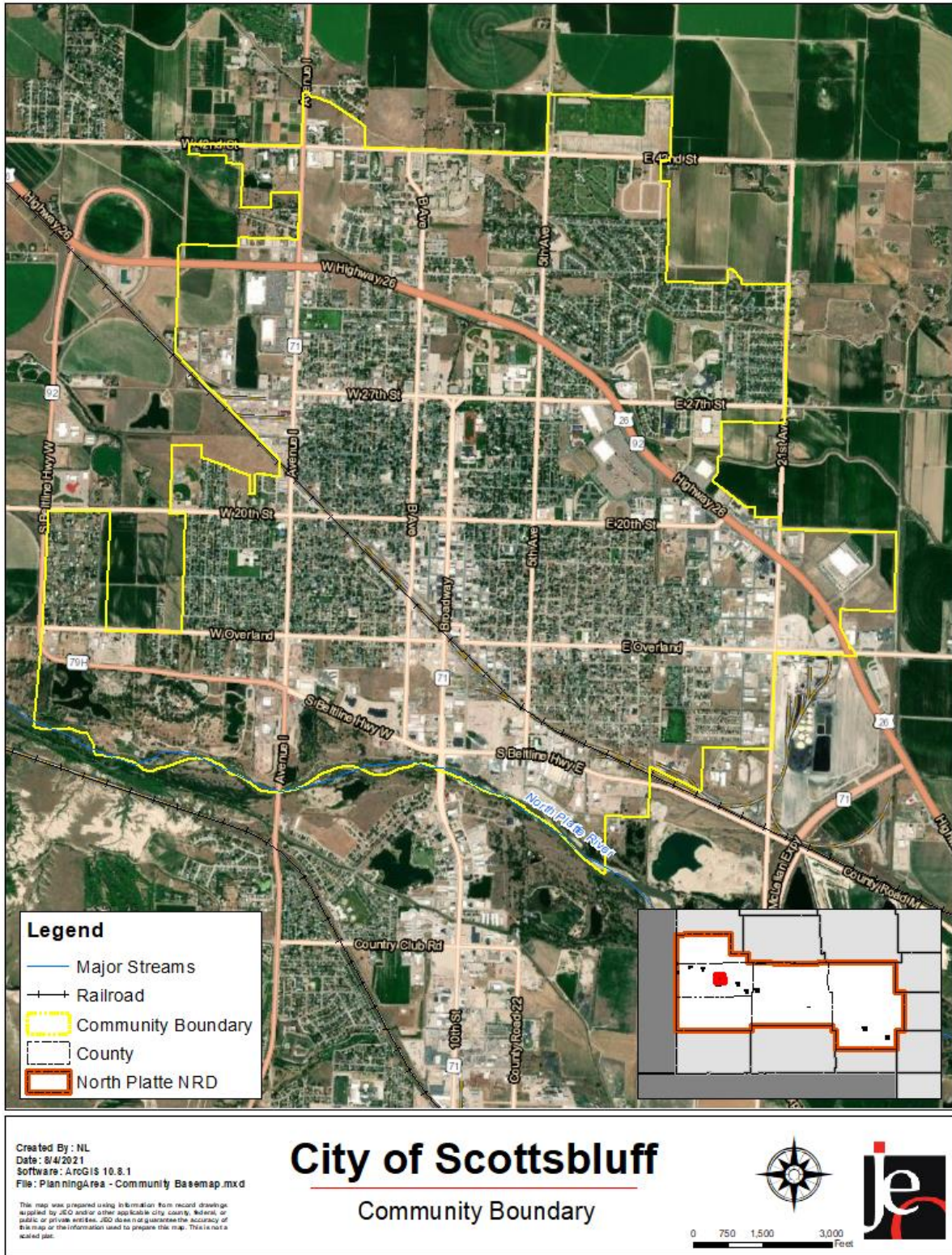


Figure SBF.2: Estimated Population 1910 - 2019

Source: U.S. Census Bureau¹¹³

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

- **Younger.** The median age of Scottsbluff was 35.3 years old in 2019, compared with the county average of 39.5 years. Scottsbluff's population has remained relatively stable since 2010, when the median age was 35.9 years old. Scottsbluff had a larger proportion of people under 20 years old (28.8%) than the county (27.5%).¹¹⁴
- **More ethnically diverse.** Since 2010, Scottsbluff grew less ethnically diverse. In 2010, 15.1% of Scottsbluff's population was non-white. By 2019, 11.8% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.¹¹⁵
- **More likely to be at the federal poverty line.** The poverty rate in Scottsbluff (14.4% of families living below the federal poverty line) is greater than the county's poverty rate (10.3%) in 2019.¹¹⁶

Employment and Economics

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

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in Scottsbluff included: Educational Services, Retail Trade, and Arts and

¹¹³ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

¹¹⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

¹¹⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

¹¹⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

Entertainment. Scotts Bluff County's employment sectors included Educational Services and Retail Trade in 2019.¹¹⁷

- **Lower household income.** Scottsbluff's median household income in 2019 (\$44,354) was about \$5,391 lower than the county (\$49,745).¹¹⁸
- **Fewer long-distance commuters.** About 80% percent of workers in Scottsbluff commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. About 5% of workers in Scottsbluff commute 30 minutes or more to work, compared to about 9% of the county workers.¹¹⁹

Major Employers

Major employers in Scottsbluff include the Regional West Medical Center, Scottsbluff Public Schools, Wal-Mart, Western Nebraska Community College, Western Sugar Cooperative, Panhandle Cooperative System, Platte Valley Bank, City of Scottsbluff, and Kelley Bean Company. An NPPD 2021 study found that 76.4% of residents are employed within 10 miles of their residence.

Housing

In comparison to Scotts Bluff County, Scottsbluff's housing stock was:

- **Less owner occupied.** 53.5% of occupied housing units in Scottsbluff are owner occupied compared with 66.9% of occupied housing in Scotts Bluff County in 2019.¹²⁰
- **Older housing stock.** Scottsbluff has a greater share of housing built prior to 1970 (61.5%) compared with the county (55.7%).¹²¹
- **More multifamily homes.** Although the predominant housing type in the city is single family detached, Scottsbluff contains more multifamily housing with five or more units per structure compared to the county (10.4% compared to 6.6%). About 70% of housing in Scottsbluff was single-family detached, compared with 77.1% of the county's housing. Scottsbluff has a smaller share of mobile and manufactured housing (3.3%) compared to the county (5.8%).¹²² There are four areas within the extra-territorial jurisdiction that are zoned for mobile homes and manufactured houses. Three are in the southeast portion of the community and one is located northwest of the community. Another non-conforming mobile home park is located in the southwest part of the city.

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

Future Development Trends

Over the past five years, a total of 10 new commercial buildings, 32 single family residences, six multi-family residences, and two mobile home residences were built within Scottsbluff and the extra-territorial jurisdiction. A total of 21 buildings were demolished. According to the 2019 American Community Survey estimates Scottsbluff's population has decreased recently but has general increased over time. The likely factor behind this is Scottsbluff's role as the economic and

¹¹⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹¹⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹¹⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov>.

¹²⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

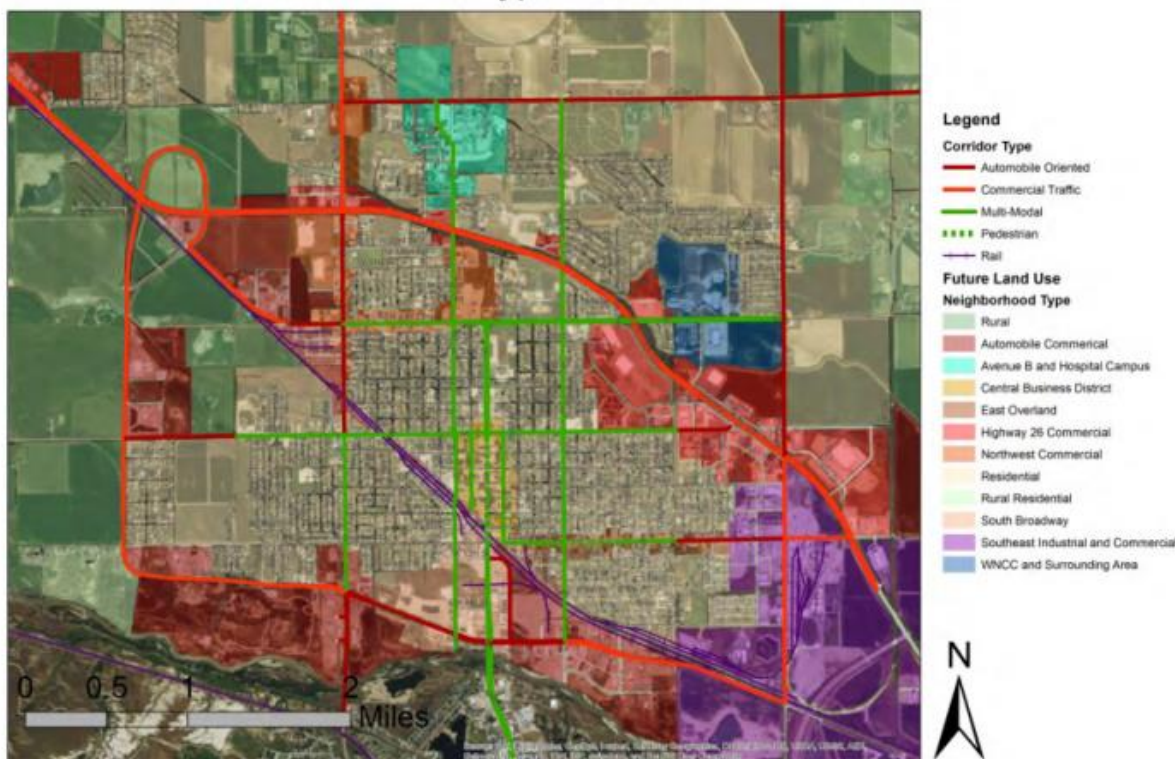
¹²¹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

¹²² United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

healthcare hub of the panhandle region. The City of Scottsbluff offers a greater amount of higher paying jobs which attract people to the community. In the next five years, there are several new housing developments being planned in the community. Current housing stock is limited for purchase and rental. Housing developments are being built in the northwest (Five Oaks) and northeast (Hilltop Estates) parts of the city. Additionally, infill development is occurring. No formal plans for new businesses have been confirmed. However, the proposed annexation of development area in the extraterritorial jurisdiction will bring approximately 14 new businesses into the corporate limits. The city is also actively targeting new businesses to start in or relocate to the community. Below is the future land use map for the city from 2016.

Figure SBF.3: 2016 Future Land Use Map

Scottsbluff Corridor Type and Future Land Use



Structural Inventory and Valuation

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

Numerous structures have been removed from the floodplain via LOMA. The City of Scottsbluff has 24 filed LOMAs with FEMA. A summary of LOMAs identified for the city can be found in the table below. A comprehensive list of available reports for the city are available online through FEMA’s Flood Map Service Center (<https://msc.fema.gov/portal/advanceSearch>).

Table SBF.3: Scottsbluff Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
5,792	\$762,071,476	378	\$60,575,630	7%

Source: County Assessor

Table SBF.4: Scottsbluff Flood Map Products

LOMA PRODUCT ID	EFFECTIVE DATE	DESCRIPTION
04-07-A277A-310206	9/8/2004	Structure removed from SFHA
05-07-0491A-310206	4/18/2005	Structure removed from SFHA
09-07-0187A-310206	4/29/2009	Structure removed from SFHA
09-07-1948A-310206	10/1/2009	Structure removed from SFHA
13-07-1666A-310206	6/6/2013	Structure removed from SFHA
13-07-1995A-310206	8/15/2013	Structure removed from SFHA
13-07-2135A-310206	9/24/2013	Structure (East Bldg.) removed from SFHA
14-07-1364A-310206	4/1/2014	Structure removed from SFHA
14-07-1766A-310206	6/19/2014	Structure (warehouse) removed from SFHA
15-07-0092A-310206	12/1/2014	Structure (residence) removed from SFHA
15-07-0966A-310206	4/7/2015	Structure (Building 1) removed from SFHA
15-07-1416A-310206	6/23/2015	Structure (commercial) removed from SFHA
15-07-1995A-310206	9/14/2015	Structure removed from SFHA
15-07-2128A-310206	9/22/2015	Structure (residence) removed from SFHA
16-07-1312A-310206	6/10/2016	Structure removed from SFHA
16-07-1750A-310206	8/3/2016	Property removed from SFHA
17-07-0608A-310206	3/27/2017	Structure removed from SFHA
17-07-1248A-310206	4/28/2017	Structure removed from SFHA
18-07-0995A-10206	2/20/2018	Property removed from SFHA
18-07-2011A-310206	10/12/2018	Structure removed from SFHA
19-07-0210A-310206	11/29/2018	Structure removed from SFHA
19-07-1440A-310206	7/3/2019	Structure removed from SFHA
20-07-0074A-310206	2/12/2020	Structure removed from SFHA
20-07-0664A-310206	3/31/2020	Structure removed from SFHA

Source: FEMA Flood Map Service Center

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 19 chemical storage sites in Scottsbluff that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table SBF.5: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS	FLOODPLAIN (Y/N)
Titan Machinery Inc	2401 W 20th St	Y
Simon Contractors Inc	1914 W Overland	Y
Contractors Materials Inc	117 S Beltline Hwy W	Y
Valley Airways Inc	250042 Robertson Rd	N
Westco	218 S Beltline Hwy E	Y

SECTION SEVEN: CITY OF SCOTTSBLUFF COMMUNITY PROFILE

FACILITY NAME	ADDRESS	FLOODPLAIN (Y/N)
Simplot Grower Solutions	1018 W 26th St	N
Western Sugar Cooperative	2100 E Overland	N
UNL Panhandle Research & Extn	4502 Avenue I	N
Panhandle Co-op Assn	1017 W 25th St	N
Regional West Medical Center	4021 Avenue B	N
Airgas USA LLC	1008 21st Ave	N
Panhandle Co-op Assn Bulk Plant	Jct 16th Ave & 7th St	N
Plaza West Service Center	401 S Beltline Hwy W	Y
CenturyLink	2802 Avenue D	N
The Home Depot Store 3210	3102 Avenue I	N
Med Trans - Air Link	4021 Avenue B	N
Guardian Flight EM 031	240851 Airport Avenue C	N
Westco Western Aviation	250094 Robertson Rd	N
Charter Communications NE26155	1204 Avenue B	N

Source: Nebraska Department of Environment and Energy¹²³

Critical Facilities

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

Table SBF.6: Critical Facilities

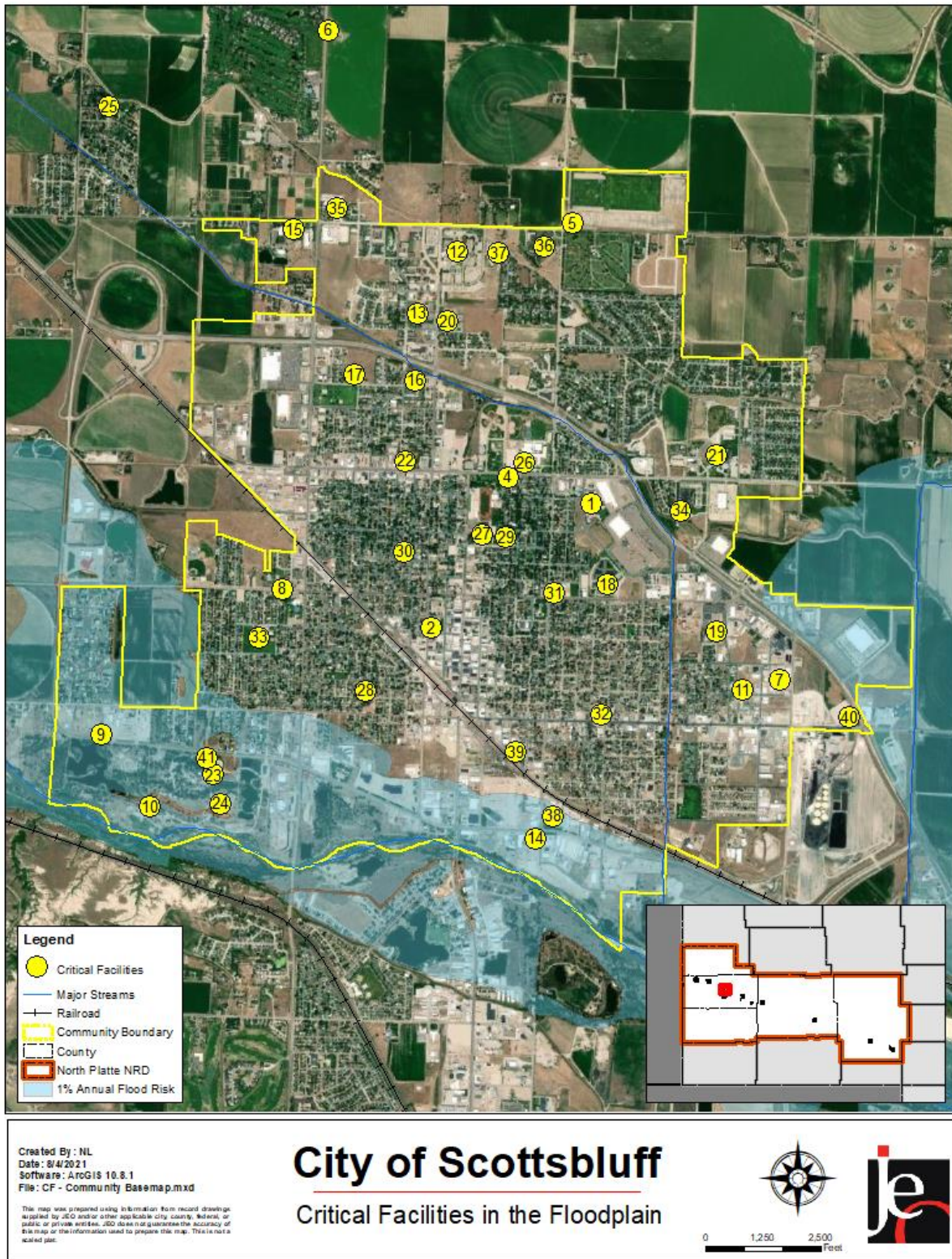
CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	City Hall	N	Y	N
2	Public Safety Building	Y	Y	N
3	Wastewater Treatment Plant	N	Y	Y
4	Water Tower (High School)	N	N	N
5	Water Tower with Comm. Repeater (Cemetery)	N	N	N
6	Water Tower (Hydropillar)	N	N	N
7	Water Tower (Sugar Factory Road)	N	N	N
8	Lift Station (20 th Street)	N	N	N
9	Lift Station (Hunt’s Acres)	N	N	Y
10	Lift Station (Trails West)	N	N	Y
11	Scottsbluff Rural Fire Department	N	N	N
12	Regional West Medical Center	Y	Y	N
13	St. Mary’s Plaza	Y	Y	N
14	Valley Ambulance	N	N	Y
15	West Nebraska Veterans Home	N	Y	N
16	Emerald Court	N	Y	N
17	Wel-Life at Scottsbluff	N	N	N
18	The Residency	N	Y	N
19	Cirrus House Apartments	N	N	N

¹²³ Nebraska Department of Environment and Energy. “Search Tier II Data.” Accessed December 2020. <https://deg-iis.ne.gov/tier2/search.faces>.

SECTION SEVEN: CITY OF SCOTTSBLUFF COMMUNITY PROFILE

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
20	Monument Care and Rehabilitation Center	N	Y	N
21	Western Nebraska Community College	Y	Y	N
22	CERT and Hospital Communications	N	Y	N
23	Lift Station (Zoo)	N	N	Y
24	Lift Station (Riverside Campground)	N	N	Y
25	Lift Station (Hilltop Development)	N	N	N
26	Scottsbluff Senior High School	Y	N	N
27	Bluff Middle School	Y	N	N
28	Community Christian Elementary School	Y	N	N
29	St. Agnes Catholic School	Y	N	N
30	Lincoln Heights Elementary School	Y	N	N
31	Longfellow Elementary School	Y	N	N
32	Roosevelt Elementary School	Y	N	N
33	Westmoor Elementary School	Y	N	N
34	Harms Center	Y	Y	N
35	ESU 13	N	N	N
36	The Village at Regional West	N	N	N
37	Air Link	N	N	N
38	Scottsbluff VA Clinic	N	N	Y
39	Public Works Yard	N	N	N
40	Essential Fuels (City Fueling Location)	N	N	N
41	Riverside Discovery Center (Zoo)	N	N	Y

Figure SBF.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. Scottsbluff has a mayor, a five-member council, and the following offices.

- Cemetery
- City Clerk
- Development Service/GIS
- Finance
- Fire
- Human Resources
- Library
- Parks and Recreation
- Police & Emergency Management
- Public Works
- Economic Development
- City Manager
- Code Enforcement
- Planning Commission

Capability Assessment

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

Table SBF.7: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		YES/NO
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operational Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	Yes
	Other (if any)	
Administrative & Technical	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes

SECTION SEVEN: CITY OF SCOTTSBLUFF COMMUNITY PROFILE

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

Table SBF.8: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the City Planner, Fire Marshall, Director and Assistant Director of Public Works, and the Stormwater Program Specialist/Floodplain Manger. The plan will be reviewed no less than annually and will include the public in the review and revision process by sharing information via social media, website updates, press releases, and public open houses.

Plan Integration

The City of Scottsbluff has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan. The 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 2018 International Building Codes with amendments made in on an as needed basis. The city noted that portions of the International Building Code excluded were: Sections 101.4, 101.4.1, 101.4.2, 101.4.3, 101.4.4, 101.4.5, 105.1.1, 105.1.2, 105.2, 107, 112, 113, 115, 3103, and Chapters 13, 27, 28 and 29.

A specific potion of the city's Municipal Code addresses some post-disaster mitigation policies in regards to damaged structures.

- **4-6-14. Standards for repair, rehabilitation, vacation, demolition.**

The following standards shall be followed in substance by the Official and the City Manager in ordering repairs, rehabilitation, vacation or demolition:

- (1) *if the cost of repairing or rehabilitating an unsafe building so that it will no longer exist in violation of the terms of this Article does not exceed fifty (50) percent of the actual appraised value of the building as shown by the records of the office of the County Assessor of Scotts Bluff County, Nebraska, it shall be ordered repaired or rehabilitated,*
- (2) *if the unsafe building is in such condition as to render it dangerous to the health, safety or general welfare of its occupants, it shall be ordered to be vacated,*
- (3) *in any case where the cost of repair or rehabilitation of the unsafe building so that it no longer will exist in violation of the terms of this Article is in excess of fifty (50) percent of the actual appraised value of the building as shown by the records of the office of the County Assessor of Scotts Bluff County, Nebraska, it shall be ordered demolished unless repaired or rehabilitated so that it no longer will exist in violation of the terms of this Article. (Ord. 3805, 2004)*

Comprehensive Plan (2016)

The 2016 Hazard Mitigation Plan was considerably integrated into the latest update of the comprehensive plan in 2016. The 2016 comprehensive plan recognized the importance of managing development in the floodplain and water conservation during times of drought.

The comprehensive plan is designed to guide the future actions of the city. It contains goals aimed at safe growth, directs development away from hazardous areas including the floodplain, encourages infill, encourages the elevation of structures located in the floodplain, and encourages the preservation of open space. The plan is amended every five years with a major update planned in 2022. Like the hazard mitigation plan, the construction of the comprehensive plan works to reinforce and build upon other plans and programs required or supported by the City including Floodplain/Community Rating System, Stormwater Management Plan (SWMP), Hazard Mitigation and Drought management.

Floodplain Ordinance, Zoning Ordinance, Subdivision Regulations

The city's floodplain ordinance, zoning ordinance, and subdivision regulations were last updated in 2015 and 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 and open space, and include well set back requirements. These documents will be updated in 2022.

The city also has a stormwater ordinance which was written and approved in 2001. The ordinance requires new developments to retain surface water volume and limit runoff from new developments to its pre-developed 5-year rate during the 25-year storm event. The city is also affected by the National Pollutant Discharge Elimination System (NPDES) Phase II requirements and municipal separate storm sewer system (MS4) requirements.

Scotts Bluff County Local Emergency Operations Plan (2020)

The City of Scottsbluff is an annex in the Scotts Bluff 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.

Stormwater Management Plan (2017)

A stormwater management plan (SWMP) describes the best practices to be implemented to minimize the discharge of pollutants into the storm drain system. The Stormwater Management Plan (SWMP) identifies hazards and mitigation possibilities. The SWMP includes regular map updates and regular inspections of outfalls and the Scottsbluff Drain. Additionally, the plan established procedures for illicit discharge detection and elimination, retention/detention requirements for new development, as well as the incorporation of green infrastructure on municipal property.

Wildcat Hills Community Wildfire Protection Plan (2021)

The Nebraska Forest Service updated the Wildcat Hills Community Wildfire Protection Plan (CWPP), which includes Scotts Bluff County. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county specific historical wildfire occurrences and impacts,

identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. This document is updated every five years.

Historical Occurrences

See the Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

Drought

Drought is common for the entire planning area, and Scottsbluff experienced an extreme drought (D3) in 2020, where the community only received eight inches of rain all year. During past drought events the city's water supply has been sufficient to meet demand. Two wells have had high nitrates in the past, but both have been taken out of service. During a severe drought or higher, the City of Scottsbluff implements a voluntary water conservation program. The city also has ordinances that cover native plantings and irrigation limits.

In an effort to educate the public on drought and drought resilient landscaping techniques, the City of Scottsbluff posts tips on social media. The city has also encouraged the planting of rain gardens or displays of native plantings on city property. In late April 2021, Scottsbluff will install a rain garden in one of the downtown public parking lots, thus having over half of the city's public parking lots served by a rain garden. Furthermore, the city has worked to remove impervious surfaces where practical to reduce unnecessary runoff. The City of Scottsbluff uses the United States Drought Monitor to monitor the current status of drought in the area. While the city does not have a drought response plan, they are a stakeholder and participant in the North Platte NRD 2017 Drought Plan.

Flooding

Flooding, both riverine and flash flooding, are a major concern for the City of Scottsbluff as the city sits at the confluence of the North Platte River, Scottsbluff Drain, and Winters Creek. The North Platte River divides the City of Scottsbluff from the City of Terrytown and City of Gering to the south. Scottsbluff Drain bisects the northern portion of the city with a drainage way which runs along Highway 26 and south along 13th Avenue to reach the river. Winters Creek is to the east between the city and the Western Nebraska Regional Airport and encompasses primarily agricultural land. As a growing community, intense rainfall or snowmelt can surpass the capabilities of the city's stormwater management system. The majority of flooding is a result of riverine flooding, however storm sewers occasionally back up onto roadways depending on water levels. The city participates in the Community Rating System (CRS) program as a way to actively manage development in flood prone areas and reduce flood insurance premiums for city residents. Areas within the floodplain of Scottsbluff include residential, commercial, recreational, industrial, and agriculturally zoned land.

As of summer 2021, only paper maps are available for Scottsbluff along the North Platte River. The current effective flood maps for the city are dated June 15, 1979. The Nebraska Department

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of Natural Resources (NeDNR) has identified the county as a Flood Awareness Area. Flood Awareness Areas are floodplain boundaries that are produced by NeDNR which can be used as “best available data” for communities involved in a current mapping project, those that do not have regulatory floodplain boundaries, or those that have outdated floodplain information. The city is not included in any Flood Risk Reports. A level 1 HAZUS analysis was used to evaluate flood risk hazard areas along the North Platte River. Specifically, the reports detail drainage issues found throughout the city and available stormwater capacity. Other reports and resources used to evaluate flood risk in the City of Scottsbluff include:

- September 30, 2018. Hydraulic modeling and Flood inundation mapping of North Platte River at Scottsbluff. U. S. Geological Survey (USGS). (Stream Gauge and Interactive Map)
- September 8, 2014. *North Platte River Floodplain Evaluation and Floodway Mitigation*, Anderson Consulting Engineers (ACE)
- January 25, 2006. *City of Scottsbluff Nebraska North Platte River Floodplain Assessment*, Anderson Consulting Engineers, INCE (ACE)
- June 2004. *Scottsbluff Drain Flood Routing and Capacity Analysis Engineering Report*, M.C. Schaff & Associates
- January 1998. *Scottsbluff Master Plan Update Supplemental Information*. Baker & Associates.
- November 12, 1997. *Scottsbluff Drain Master Plan Update*, Baker & Associates.
- 1978 *Storm Sewer Study of the Scottsbluff Drain*, M.C. Schaff & Associates
- February 1975, *Flood Plain Information Report for the North Platte River Scottsbluff, Nebraska*, Omaha District of the U.S. Army Corps of Engineers (USACE)

The Scottsbluff Drain has been a primary flood control structure of concern for the city and has undergone numerous studies to evaluate its flood protection capabilities. The drain was originally constructed to drain agricultural areas lying northwest of the city which experienced high groundwater tables and intercept runoff from irrigation or storm events. Figure 5 indicates problem areas identified by the city during the assessments listed above. There are two detention ponds in the Scottsbluff Drain drainage basin – one by the Sykes development and one within the open channel portion of Scottsbluff Drain off Highway 26. Control structures are also located at Sykes Pond and as a series of outlets on the north and south side of Highway 26 at 13th Avenue. The 2004 report *Scottsbluff Drain Flood Routing and Capacity Analysis* noted the existing drain configuration in Scottsbluff is adequate to handle the existing 10-year, 24-hour storm event without producing any significant flooding. However, as the city continues to grow the drain will continue to receive additional flows and additional projects may be needed.

The 2006 *City of Scottsbluff Nebraska North Platte River Floodplain Assessment* by Anderson Consulting identified 14 obstructions (including structures and fill) that may impact the existing 100-year water surface elevations. These obstructions indicate that the 100-year water surface elevations may be increased by as much as 1 foot in some areas as a result of encroachments in the regulatory floodway since the completion of the effective FIS. This increase may impact portions of the City of Gering, the Village of Terrytown, Scotts Bluff County, and up to 100 or more structures in the city itself.

Lastly, the 2014 *North Platte River Floodplain Evaluation and Floodway Mitigation* report by Anderson Consulting noted the following observations:

- During the 100- and 500-year flood events, a split occurs upstream of the State Highway 92 Bridge, creating the Winters Creek Canal Overflow Path (OFP). Previous studies have

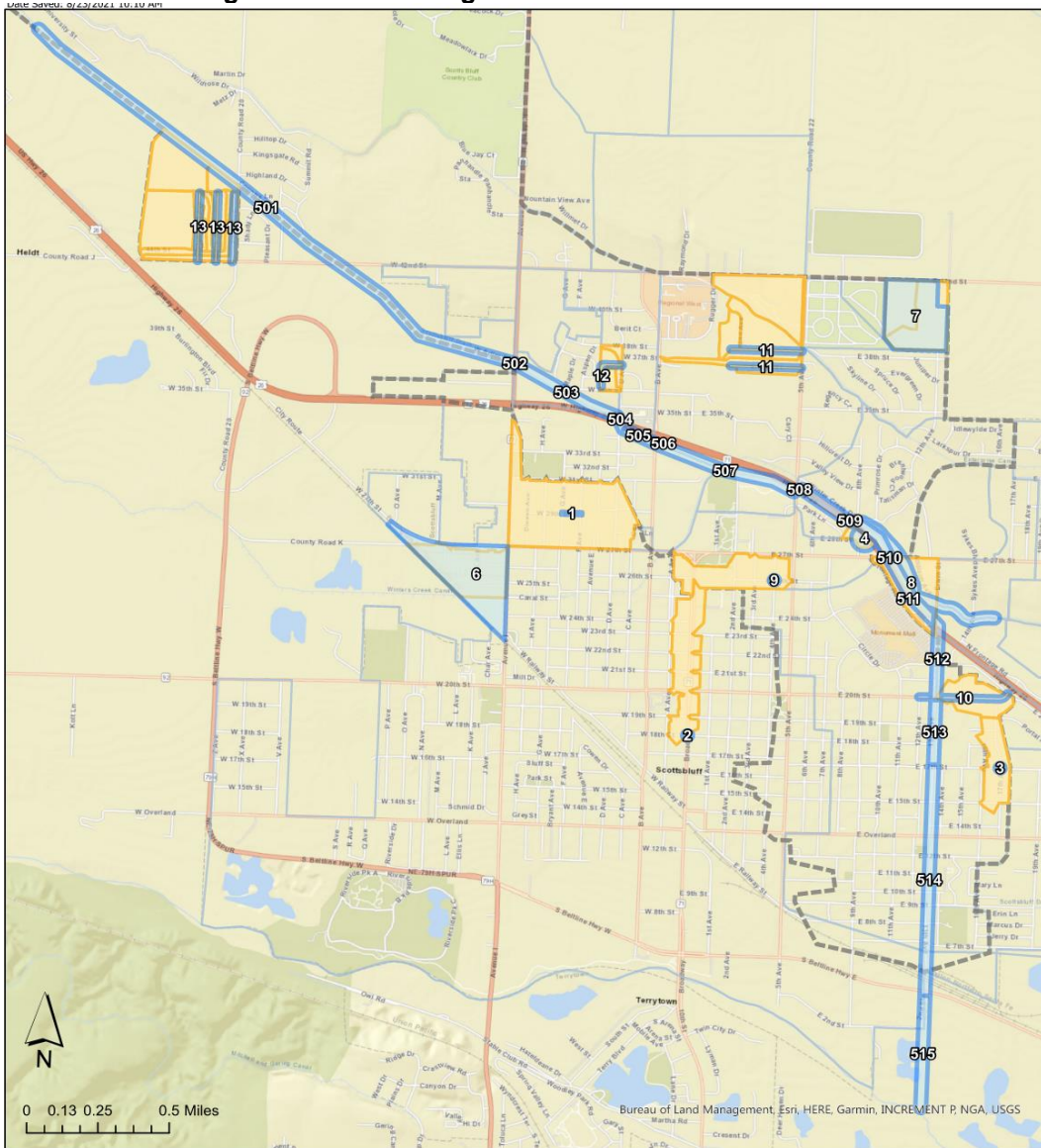
determined that Overland Drive and the Beltline Highway are the ground features that divide flooding along the Winters Creek Canal OFP from flooding associated with the main channel of the North Platte River. The Winters Creek Canal OFP converges with the main channel upstream of Avenue I. Discharges along the main channel of the North Platte River were reduced based on the Winters Creek Canal OFP.

- A one-foot floodway was developed for the main channel through the City of Scottsbluff. A one-foot floodway was not developed for the Winters Creek Canal Overflow Path. The Winters Creek Canal Overflow Path discharges were returned to the main channel during the encroached floodway run.
- The right bank floodway delineation shown on the Effective workmap (see Sheet 1A) between Cross Section 29:885000 and Cross Section 28:887000 abruptly turns back towards the main channel. It is unclear if this floodway line was delineated to follow a landscape feature such a berm or embankment, but the floodway analysis and delineation in this area should be checked for accuracy and to make sure it is consistent with FEMA's current floodway delineation criteria.
- The left bank floodway shown on the Effective workmap (see Sheet 1B) between Cross Section 22.2:892075 and Cross Section 22.4:892125 was delineated through the Avenue I road embankment even though it appears that this portion of the road embankment will not be overtopped during a 100-year event. Since the Avenue I road embankment and bridge were being constructed at the same time the effective FIS was published, it is unclear if the Effective floodway analysis and delineation properly accounted for the construction of the bridge and the road embankments in the overbanks. The floodway analysis and delineation in the vicinity of the Avenue I Bridge should be checked for accuracy and to make sure it is consistent with FEMA's current floodway criteria.
- Bridge crossings at State Highway 71/Broadway Avenue and Avenue I were incorporated into the hydraulic models for the FIS. The existing bridge crossings at 21st Avenue and the Heartland Expressway (State Highway 71 bypass) were not incorporated into the Effective models as they were constructed after the FIS had been published.
- Emergency levees were constructed by the USACE in the City of Scottsbluff, during the 1971 flooding, on the left overbank at the upstream end of the study reach. The USACE's levees are not accredited with providing 100-year protection.
- Local interests in the Village of Terrytown have constructed a levee between State Highway 71 and the Union Pacific Railroad according to the Village of Terrytown FIS. The Village of Terrytown FIS also indicates that the Terrytown levee does provide protection from flooding up to the 100-year event. The Effective Village of Terrytown FIRM panel (Panel No. 3102070001B) suggests that the levee is providing some level of protection during the 100-year event. However, the FIRM also indicates that Terrytown will be inundated by 100-year floodwaters from its unprotected east side over State Highway 71.

The report also suggested two mitigation alternatives to help bring the city's North Platte River floodplain and floodway into compliance with FEMA's and the State of Nebraska's floodplain rules and regulations. These were to flatten the slope in the southwest corner of fill embankment at Avenue I; and to remove an encroachment, regrade properties, and lower the left channel bank along Second Street to allow effective flows to be conveyed in the overbank during a 100-year event.

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Figure SBF.5: Drainage Area Problems in Scottsbluff



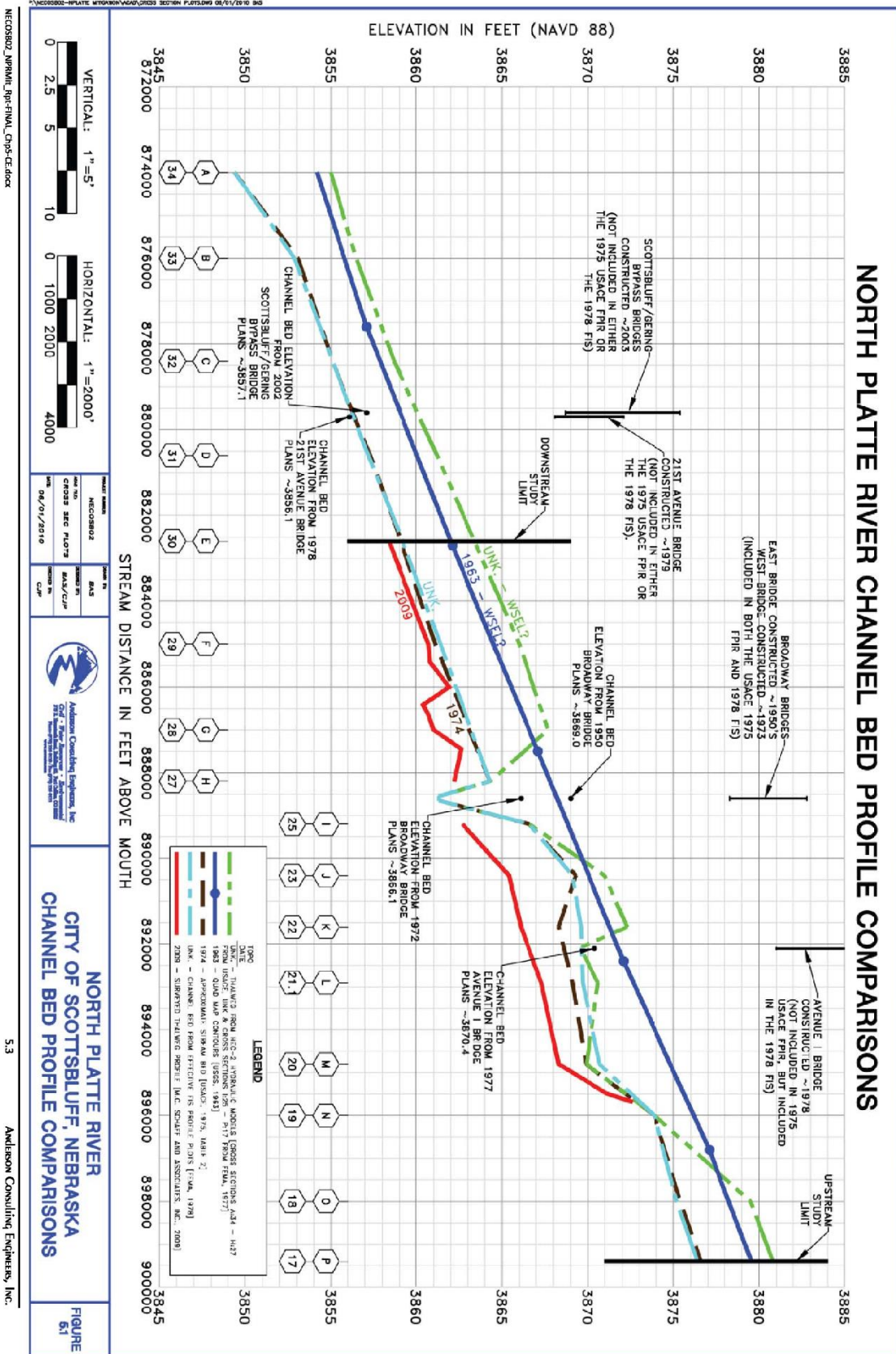
■ Problem Areas Storm Water
 Drainage SubBasin Area 05
 Drainage SubBasin Not Included
 Drainage SubBasin SubArea

MapID	Location	Problem	ProblemYear	AreaShapesF
1	Avenue F-G and 29th Street	Flooding Intersections, sits in a hole	7/21/2020	22,669
2	Broadway - 18th Street	Undersized piping and increase in impervious areas	7/21/2020	31,416
3	17th and 17th	Scottsbluff Drain under capacity	7/21/2020	31,416
4	8th Avenue and Hwy 26	Undersized piping under Highway 26	7/21/2020	191,546
5.01	Scottsbluff Drain	Undersized piping	7/21/2020	2,208,795
5.02	Scottsbluff Drain	Undersized piping	7/21/2020	30,010
5.03	Scottsbluff Drain	Undersized piping	7/21/2020	412,608
5.04	Scottsbluff Drain	Undersized piping	7/21/2020	59,207
5.05	Scottsbluff Drain	Undersized piping	7/21/2020	116,368
5.06	Scottsbluff Drain	Undersized piping	7/21/2020	25,287
5.07	Scottsbluff Drain	Undersized piping	7/21/2020	527,867
5.08	Scottsbluff Drain	Undersized piping	7/21/2020	58,747
5.09	Scottsbluff Drain	Undersized piping	7/21/2020	391,012
5.10	Scottsbluff Drain	Undersized piping	7/21/2020	34,125
5.11	Scottsbluff Drain	Undersized piping	7/21/2020	274,883
5.12	Scottsbluff Drain	Undersized piping	7/21/2020	311,925
5.13	Scottsbluff Drain	Undersized piping	7/21/2020	246,725
5.14	Scottsbluff Drain	Undersized piping	7/21/2020	885,455
5.15	Scottsbluff Drain	Undersized piping	7/21/2020	445,960
6	Simplot Area West limits near tracks	No drainage system and unpaved streets	7/21/2020	1,832,106
7	Hilltop Subdivision	Undersized detention pond	7/21/2020	1,439,657
8	Winters Creek Irrigation next to mall	Leaky concrete pipe	7/21/2020	724,744
9	4th Avenue and 26th Street	Backwater from undersized system	7/21/2020	31,416
10	East 20th Street near TEAM	Quantity issue from Scottsbluff Drain	7/21/2020	175,912
11	West end of 37th and 38th Street		7/21/2020	278,463
12	Lincoln Court and Alley running south to 36th		7/21/2020	87,803
13	Ken Dill Subdivision, North of 42nd Street including Cottonwood, Birch, Apple Avenues		7/21/2020	412,023

Scottsbluff
Storm Water
Drainage
Problem Areas



Figure SBF.6: North Platte River Channel in Scottsbluff



The city has experienced several major flood events on record. The following history of flooding in Scottsbluff is primarily taken from the NCEI Storm Events Database and the City of Scottsbluff, Nebraska Flood Insurance Study dated December 1978. No events reported any injuries or fatalities due to flooding in Scottsbluff.

- 1997 Flash Flood: Widespread flash flooding then flooding with crop, road and bridge damage. All county roads were closed from 1900 MST 6/2/97 until 0500 MST 6/3/97. Minor to heavy silt damage was recorded on 40% of county roads. This event caused \$500,000 in property damages across the county.
- 1998 Flood: A thunderstorm moved through Scottsbluff and dropped 1 to 2 inches of rainfall in the area. Urban flooding was reported by the local law enforcement agency.
- 2008 Flash Flood: Heavy rains caused some flooding of basements in about 9 homes, as well as washed out a few county roads. Severe thunderstorms produced hail, strong winds and some flash flooding over parts of the western Nebraska panhandle. This event reported \$30,000 in property damages.
- 2009 Flash Flood: Thunderstorms, some severe, produced flash flooding and a few tornadoes over parts of the southern Nebraska panhandle. Heavy rainfall washed out some county roads around Scottsbluff as well as flooded some buildings at the campus of Western Nebraska Community College. This event reported \$50,000 in property damages.
- June 2011 Flash Flood: Strong thunderstorms produced severe weather and heavy rain which led to flash flooding. Water was running fast on roads at Western Nebraska Community College. Several roads flooded and closed in and around Scottsbluff. Intersection of 5th and Overland closed due to 6 to 7 inches of water. Water 4 to 6 inches deep covering 5th Ave.
- May 2018 Flash Flood/Flood: Persistent, heavy rain producing storms moved across the western Nebraska Panhandle early in the morning of the 19th impacting portions of northern Kimball to Scotts Bluff Counties. Numerous roads across Gering in Scotts Bluff County were barricaded off to traveling vehicles due to high waters including Highway 92 and 71. Heavy rains inundated the storm drains in downtown Scottsbluff causing roadways to flood. Numerous streets across downtown Scottsbluff were covered with water due to recent heavy rainfall.
- July 2018 Flash Flood: Thunderstorms produced large hail, damaging winds, and torrential rainfall across northern and central portions of the Nebraska Panhandle. Two inches of rain in 30 minutes caused flash flooding throughout downtown Scottsbluff. Several intersections were inundated with over a foot of water.

The frequency and severity of flooding in Scottsbluff has diminished since the 1970s due to the construction of several dams, reservoirs, and other structural flood risk reduction structures. While flooding events typically occur between March and October, summertime snowpack melting typically leads to the greatest annual discharges in the river. Ice jams are also of primary concern for the city on the North Platte River during the early spring months.

According to the local planning team, the last major flooding event occurred in 1971. The NCEI did not report any records during this event. In 2019, the city experienced minor flooding events. Local events typically result in flooding in southwest Scottsbluff. The community has worked to prevent lasting impacts from flooding events by encouraging development outside of the floodplain, as well as encouraging the purchase of flood insurance. 105 properties have flood insurance as of August 2021 and the policies total \$18,975,200 in coverage. Scottsbluff has purchased flood prone properties and demolished structures on the properties. The City of

Scottsbluff is a CRS community and currently working on recertification to further help reduce and avoid flood damage to insurable property and build on the existing floodplain management protocols. Additionally in 2015, a stream gauge was installed at the Avenue I bridge which was funded by the City of Scottsbluff, City of Gering, City of Terrytown, and Scotts Bluff County.

During a flood event, Scottsbluff most frequently sees flooding in Riverside Park and the southwest quadrant of the city due to the adjacency to the North Platte River. Roadways which frequently flood are Avenue F, 17th Street, and 20th Place. Flooding is and will continue to be a hazard of top concern for the city with widespread impacts. Local vulnerabilities and potential impacts have been summarized below.

Life

Persons in the city who work, live, or play in flood risk hazard areas are at risk during flood events. Employees of businesses located within the floodplain are at risk if proper notification systems are not in place or evacuation routes are blocked. Specific concerns exist for residents who may live or work in Terrytown or Gering and commute to Scottsbluff, or vice versa. Residential areas in flood risk hazard areas put residents and their families at risk. No injuries or fatalities have been reported in the City of Scottsbluff from past flood events.

The City of Scottsbluff utilizes emergency text alerts to notify residents of severe weather events, evacuation orders, and blocked major transportation routes. Alerts are produced by Panhandle Alert (<http://www.panhandlealert.org/>) and require residents to sign up for emergency texts. The system is managed by Region 22 Emergency Management which includes Scotts Bluff County. Currently the city does not have any evacuation mapping done in the city; however, the local planning team noted many residents are familiar with the primary routes out of town (specifically highways 26, 92 and 71).

Health and Safety

Contact with flood waters can pose health and safety concerns as flood water is commonly contaminated by bacteria and/or viruses. This is of particular concern when floodwaters travel from or through heavily agricultural areas such as along Winters Creek and the North Platte River west of the city. Additionally, during flood events, injuries or threats to resident health and safety can occur when people attempt to drive through floodwaters (hidden debris or washouts). The city does not have publicly available evacuation plan; however, the city and county emergency management release information for flood specific evacuation orders via social media, the city website, and local news media.

Buildings and Building Damage

Infrastructure and property damages are a common concern for communities during flood events. Parcel data for the City of Scottsbluff was evaluated for overlap with flood risk hazard areas. Approximately 7% of improvements (structures located on parcels) are located within the floodplain.

A HAZUS analysis of the city for building counts and types of buildings damaged noted that approximately 378 buildings would sustain up to significant damage with total damage estimates ranging past \$60 million. The city has evaluated and designated specific areas in and around the city as Open Space. There are approximately 4,000 acres of floodplain within the extended jurisdictional territory (ETJ) and there are 461.5 acres of open space. The following figure identifies these areas for the city.

Repetitive Losses

According to FEMA and NeDNR as of October 2021, the City of Scottsbluff has no repetitive loss or severe repetitive loss properties. Scottsbluff participates in the NFIP program and has 105 policies in-force for \$18,975,200 as of August 2021. There have been 43 reported total loss claims for the city which have a total of \$106,888 paid out.

The Future

Flood events are likely to continue into the future and impacts will be exacerbated by climate change. Worsening climate change conditions may cause more frequent and more severe hazard type events and/or cause undue stress and pressure on flood management resources. The city has identified the need to limit development in the floodplain and all future developments must go through a permitting process.

Flooding from Dam Failure

Flooding impacts from dam failure events is unlikely as there are no dams identified directly upstream from the City of Scottsbluff. Two high hazard dams are located in the far northern reach of Scotts Bluff County, Lake Alice Upper Dam and Lake Alice Lower Dam. However, if these dams were to fail it is not likely that the city would experience negative impacts. The city does not have high concerns regarding the integrity of the dams or performance, specifically these high hazard dams as they are owned and maintained by the Bureau of Reclamation. The Scotts Bluff County LEOP noted the county could be affected by failure of the Grayrocks and Guernsey dams located in eastern Wyoming. While potential inundation areas are primarily agricultural, damage to public property and potential evacuation of portions of Scottsbluff are concerns.

Dams throughout the county, as well as their hazard level, can be viewed on the Nebraska Department of Natural Resource's Dam Inventory map (<https://dnr.nebraska.gov/dam-safety>).

Flooding from Levee Failure

Levee failure was not identified as a hazard of concern as there are no levees which directly provide flood risk reduction for the City of Scottsbluff or upstream of the city. One non-USACE owned levee system is located south of the city and provides protection to the City of Terrytown. This structure provides some protection to 284 residents, 70 buildings, and property valued at \$18.9 million. The risk data was developed by USACE and taken from the NLD – for more information visit <https://levees.sec.usace.army.mil/#/>.

Severe Thunderstorms (includes Hail)

Thunderstorms are common in the entire planning area as a whole. Recent events have affected Scottsbluff in August 2019, which resulted in baseball and golf ball sized hail. According to the local planning team, typical power outages last between two and three hours. The community has worked to mitigate the effects of lasting impacts of prolonged power outages by ensuring that all nursing homes in Scottsbluff have a backup generator. Often, severe thunderstorms include high winds, which may be hazardous with trees present.

Hail often compounds the problem of flooding in Scottsbluff because the hailstones clog storm sewers and tend to make flooding on roadways even worse. To prevent this issue from continuing, the city has started to use snowplows to clear roadways, and storm grates. Scottsbluff residents have repeatedly needed to replace asphalt shingles with rubber roofs, and tin roofing. Roof construction waste has become such an issue that the local landfill has stopped accepting shingles because they produce so much waste. To prevent lasting impacts from hail events, residents and car dealerships have installed carports and shelters to protect vehicles from future hail events.

Mitigation Strategy

Completed Mitigation and Strategic Actions

MITIGATION ACTION	IMPROVE SNOW/ICE REMOVAL PROGRAM/ SNOW FENCE
DESCRIPTION	Revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris.
HAZARD(S)	Severe Winter Storms
STATUS	Completed. The Transportation Department has purchased additional snow fences to replace existing snow fence and to install snow fences in new locations. Staff revamped the snow route map and plan adding tertiary routes to the existing primary and secondary routes. The city uses emergency snow route notifications through press releases to the media to encourage the removal of vehicles from the primary routes.

MITIGATION ACTION	PARCEL LEVEL EVALUATION OF FLOOD PRONE PROPERTIES
DESCRIPTION	Conduct a study examining parcels located in flood prone areas and identify mitigation measures that can reduce future impacts.
HAZARD(S)	Flooding
STATUS	Completed

MITIGATION ACTION	TREE INVENTORY
DESCRIPTION	Create a tree inventory to identify problem trees that lose or drop branches.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	Completed. The tree inventory of Scottsbluff has been completed and is available on the city's website via partnership with the Nebraska Forest Service.

Continued Mitigation and Strategic Actions

CRS Related Mitigation Actions

The local planning team met to discuss a wide range of possible mitigation activities that the city could include in the HMP to improve flood resiliency. As required for Activity 510 *Floodplain Management Planning* for consideration of CRS points, the discussion included activities that are currently implemented or ongoing that should be added to this HMP as well as activities that were not selected as they were either inappropriate for the community or not feasible. As part of the CRS process, the local planning team for the City of Scottsbluff identified mitigation strategies to address the six categories of mitigation actions. These actions and subsequent descriptions of each are listed below:

Categories of Floodplain Management:

- Preventative Measures
 - Community Wide Master Plan to Prioritize Flood Related Projects
 - Drainage Study/Stormwater Master Plan
 - Catch Basin Maintenance and Cleaning Program
- Property Protection
 - Community Rating System
 - Flood-prone Property Acquisition
 - Facility Floodproofing
 - Stabilize/Anchor Fertilizer, Fuel and Propane Tanks and Secure At-Risk Development
- Natural Resource Protection
 - Open Space Preservation
- Emergency Services
 - Emergency Communication
- Structural Flood Control Projects
 - Stormwater System and Drainage Improvements
- Public Information
 - Public Library Resources
 - Update Municipal Code

Continued CRS Mitigation and Strategic Actions

MITIGATION ACTION	COMMUNITY RATING SYSTEM
DESCRIPTION	Participating in the CRS - part of the NFIP - can provide a movement for the community to undertake a number of projects designed to increase the flooding mitigation efforts.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Property Protection
ESTIMATED COST	\$5,000
FUNDING	Development Services
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Development Services, Floodplain Administrator
STATUS	In Progress. The City of Scottsbluff is presently working on recertification.

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MITIGATION ACTION	COMMUNITY WIDE MASTER PLAN TO PRIORITIZE FLOOD RELATED PROJECTS
DESCRIPTION	Identify potential flooding sources and flood-vulnerable areas. Explore solutions and prioritize.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Preventative Measures
ESTIMATED COST	\$2,000
FUNDING	Emergency Management, Development Services
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Region 22 Emergency Management, Development Services, Floodplain Administrator
STATUS	Not Started. The City of Scottsbluff is awaiting the latest release of the FIRM mapping data. Once this data is received, the master plan of flood related projects will be amended.

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.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Preventative Measures
ESTIMATED COST	\$10,000-\$100,000
FUNDING	Stormwater fund, NP NRD
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Stormwater Department
STATUS	Not Started

MITIGATION ACTION	FLOOD-PRONE PROPERTY ACQUISITION
DESCRIPTION	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Property Protection
ESTIMATED COST	\$1,100,000
FUNDING	Water & Wastewater funds
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Floodplain Manager

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MITIGATION ACTION	FLOOD-PRONE PROPERTY ACQUISITION
STATUS	In Progress. Properties along North Platte River have been purchased and graded. Scottsbluff will work to continue evaluating floodplain properties and keep acquisition and demolition as a possible option for mitigation. Additionally, properties along the Scotts Bluff Drain have been purchased and demolished to increase drain capacity. The city will purchase additional properties along the drain to continue with this goal.

MITIGATION ACTION	FACILITY FLOOD PROOFING
DESCRIPTION	Explore the possibility of flood proofing for facilities which fall within 1% annual flood inundation areas.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Property Protection
ESTIMATED COST	\$1,000 - \$5,000 per facility
FUNDING	Water/Wastewater
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	(Water/Wastewater) Public Works
STATUS	Planning Stage. The city is in the process of identifying cost-efficient manners to flood proof city facilities in the floodplain.

MITIGATION ACTION	STABILIZE/ANCHOR FERTILIZER, FUEL AND PROPANE TANKS AND SECURE AT-RISK DEVELOPMENT
DESCRIPTION	Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in a tornado or high wind event. "Tie downs" can be used to anchor manufactured homes to their pads or concrete foundations
HAZARD(S)	Tornadoes and High Winds, Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Property Protection
ESTIMATED COST	\$1,000+
FUNDING	Utility Fees
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Fire Department
STATUS	Planning Stage. Due to staffing shortage, implementation has been limited. Future plans include incorporating this into the building and zoning code.

MITIGATION ACTION	STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to move effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water. Current goal focuses on expansion or daylighting of current large drainage areas, reduction of impervious areas where feasible and collaborating on private stormwater facilities to work in conjunction with the city's drainage system.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Structural Flood Control Projects
ESTIMATED COST	\$10,000 to \$100,000
FUNDING	Water/Wastewater funds, Stormwater fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Stormwater Department, Public Works
STATUS	Not Started

Continued Non-CRS Mitigation and Strategic Actions

MITIGATION ACTION	ALERT SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or the placement of new sirens.
HAZARD(S)	All hazards
ESTIMATED COST	\$120,000
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Region 22 Emergency Management
STATUS	In Progress. Existing alert sirens are being continually evaluated to ensure functionality.

MITIGATION ACTION	EMERGENCY COMMUNICATION
DESCRIPTION	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inter-operable communications to improve coordination efforts prior to and during evacuation.
HAZARD(S)	All hazards
ESTIMATED COST	\$1,000,000
FUNDING	Interlocal Agreement Funds
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 22 Emergency Management
STATUS	Planning Stage. Preliminary pricing has been obtained and all stakeholders have been meeting to develop a plan. This will affect all county-wide emergency response agencies.

SECTION SEVEN: CITY OF SCOTTSBLUFF COMMUNITY PROFILE

MITIGATION ACTION	ESTABLISH FORMAL DROUGHT RESPONSE PROTOCOLS
DESCRIPTION	Establish a response protocol for times of drought. This may include but is not limited to: lawn watering restrictions, requirements for water intensive businesses (i.e. car washes, golf courses, etc.) responses for local facilities (swimming pools) public fountains, etc.
HAZARD(S)	Drought
ESTIMATED COST	\$3,000
FUNDING	Development Services
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Stormwater/ Public Works
STATUS	Planning Stage. The city will designate staff members to monitor drought conditions and facilitate execution of the NPNRD Community Drought Plan.

MITIGATION ACTION	HAZARDOUS TREE REMOVAL
DESCRIPTION	Identify and remove hazardous limbs and/or trees.
HAZARD(S)	Severe Thunderstorm
ESTIMATED COST	\$25,000
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Streets Department, Certified Arborist
STATUS	In Progress. The Transportation Division, Sanitation Division, and Park and Recreation Department remove storm debris from right-of-ways, streets, and city owned property. The same departments will assist property owners within city limits with disposal of storm debris if the debris is brought to the curb within a certain amount of time after the storm event. Staff reports hazardous trees to code enforcement throughout the year so the property owner can be notified to remove it. Hazardous trees on city property are removed by city staff.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Assess, design, and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting.
HAZARD(S)	Tornadoes, and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. ft. addition/retrofit
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Region 22 Emergency Management
STATUS	Not Started. The effort to encourage the construction of storm shelters in highly vulnerable areas and city facilities has been renewed.

New CRS Mitigation Actions – 2021 Plan

MITIGATION ACTION	CATCH BASIN MAINTENANCE AND CLEANING PROGRAM
DESCRIPTION	The Transportation Department utilizes GIS capabilities to plan and track the regular cleaning and maintenance of catch basins. This program helps prevent the back-up of storm water in the gutters and streets by removing debris that clogs the drains and pipes. The wastewater department assists when necessary with larger equipment such as a vacuum truck or camera van.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Preventative Measures
ESTIMATED COST	\$10,000
FUNDING	Public Works Department Budget
TIMELINE	2-5 Years
PRIORITY	Medium
LEAD AGENCY	Wastewater Division and Transportation Division
STATUS	New Action. In Progress.

MITIGATION ACTION	OPEN SPACE PRESERVATION
DESCRIPTION	Expand and develop the campground located in the floodplain to maintain open space into the future.
HAZARD(S)	Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Natural Resource Protection
ESTIMATED COST	\$2 million
FUNDING	Unknown
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Public Works, Parks and Recreation
STATUS	The city will be exploring options to maintain open space at the campground in 2022.

MITIGATION ACTION	PUBLIC LIBRARY RESOURCES
DESCRIPTION	Increase publicly available documents and resources at city library for household mitigation efforts and flood risk reduction.
HAZARD(S)	Flooding, All hazards
CATEGORY OF FLOODPLAIN MANAGEMENT	Public Information
ESTIMATED COST	\$100
FUNDING	Stormwater Fund
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Public Works – Stormwater Division
STATUS	Planned for 2021-2022 fiscal year and to be implemented annually thereafter.

MITIGATION ACTION	UPDATE MUNICIPAL CODE
DESCRIPTION	Update the municipal code and notify residents of changes to flood and landscaping components
HAZARD(S)	All hazards – Flooding
CATEGORY OF FLOODPLAIN MANAGEMENT	Public Information
ESTIMATED COST	Staff Time
FUNDING	General Fund
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	City Administration
STATUS	This is a new mitigation action.

New Non-CRS Mitigation and Strategic Actions – 2021 Plan

MITIGATION ACTION	IDENTIFY FIXED-FACILITY SITES WITH HAZARDOUS MATERIALS, WORK TO PURSE CORRECTIVE ACTION IN ACCORDANCE WITH ADOPTED CODES
DESCRIPTION	The City of Scottsbluff has a number of known and unknown non-permitted hazardous materials storage sites. The project includes inspections/inspectors as a means to identify the sites to pursue remediation.
HAZARD(S)	Hazardous Materials – Fixed Site, Drought, Flooding, Severe Storms
ESTIMATED COST	\$70,000
FUNDING	Fire Department Budget
TIMELINE	2-5 Years
PRIORITY	Medium
LEAD AGENCY	Stormwater/Public Works, Fire Department
STATUS	New Action. Not Started.

Removed Mitigation and Strategic Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies
HAZARD(S)	Tornadoes and high winds, severe winter storms, severe thunderstorms
STATUS	Removed. This project is no longer needed as generators and stand-by engines are already present at some wells.

SECTION SEVEN: CITY OF SCOTTSBLUFF COMMUNITY PROFILE

MITIGATION ACTION	BURY POWER LINES AND SERVICE LINES
DESCRIPTION	Work with local Public Power Districts or electric department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities should be required to use underground construction methods where possible for future installation of power lines.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	Remove. This project is not economically feasible at this time.

MITIGATION ACTION	FIRM MAPPING
DESCRIPTION	Develop digital FIRM maps for regulatory use.
HAZARD(S)	Flooding
STATUS	Removed. This project will be completed by FEMA.

MITIGATION ACTION	NEW MUNICIPAL WELLS
DESCRIPTION	Evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
HAZARD(S)	Drought
STATUS	Removed. NPNRD will not grant permits for new wells as the area is already over appropriated.

MITIGATION ACTION	SHORT TERM RESIDENCY SHELTERS
DESCRIPTION	Design and construct short term shelters for rural residents after damage from an event. These structures would not serve as FEMA approved safe rooms. The building could also be used for things such as short-term sheltering during a high heat event for those without A/C. The building is not intended to be used for long term recovery, such as long-term displacement from floods, fires, etc. The number of shelters needed depends on the size of the building, population, proximity to users, etc.
HAZARD(S)	All hazards
STATUS	Removed. This action is handled by Region 22 Emergency Management.

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/ CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/grade stabilization improvements can serve to protect structures, increase conveyance, prevent down cutting, and provide flooding benefits more effectively.
HAZARD(S)	Flooding
STATUS	Removed. The city would like to focus on other mitigation actions.

SECTION SEVEN: CITY OF SCOTTSBLUFF COMMUNITY PROFILE

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
STATUS	Removed. Most city facilities have a weather radio. Action is not economically feasible for non-city facilities.

Community Profile

CITY OF TERRYTOWN

North Platte NRD Hazard Mitigation Plan 2021

Local Planning Team

Table TER.1: Terrytown Local Planning Team

NAME	TITLE	JURISDICTION
CHRIS PERALES	Mayor	City of Terrytown
HUGO CHAIREZ	Utility Supervisor	City of Terrytown
JENNIFER MATTERN	City Clerk	City of Terrytown
TIM NEWMAN	Emergency Management	Region 22 Emergency Management

Location and Geography

The City of Terrytown is located in the central portion of Scotts Bluff County and covers an area of 0.57 square miles. The major waterway in the area includes the North Platte River, which runs just north of Terrytown.

Transportation

There are no major highways that pass through Terrytown; however, U.S. Highway 26 and Nebraska Highways 26 and 92 are all within three miles of the city. There is one railroad that passes south of Terrytown.

Demographics

Terrytown's estimated population in 2019 was 1,195. The following figure displays the historical population trend from 1950 to 2019. This figure indicates that the population of Terrytown increased dramatically from 1960 to 1970, then steadily decreased until 2000, when it almost doubled between 2000 and 2010. The population remained about the same in 2019. This is relevant to hazard mitigation because communities with a growing population may be more prone to developing additional land and building new structures, while communities with declining populations may lack adequate funds to pursue mitigation projects. Net population growth may increase the number of people and properties vulnerable to hazards. Terrytown's population accounted for about 3 percent of Scotts Bluff County's population in 2019.¹²⁴

¹²⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Figure TER.1: City of Terrytown

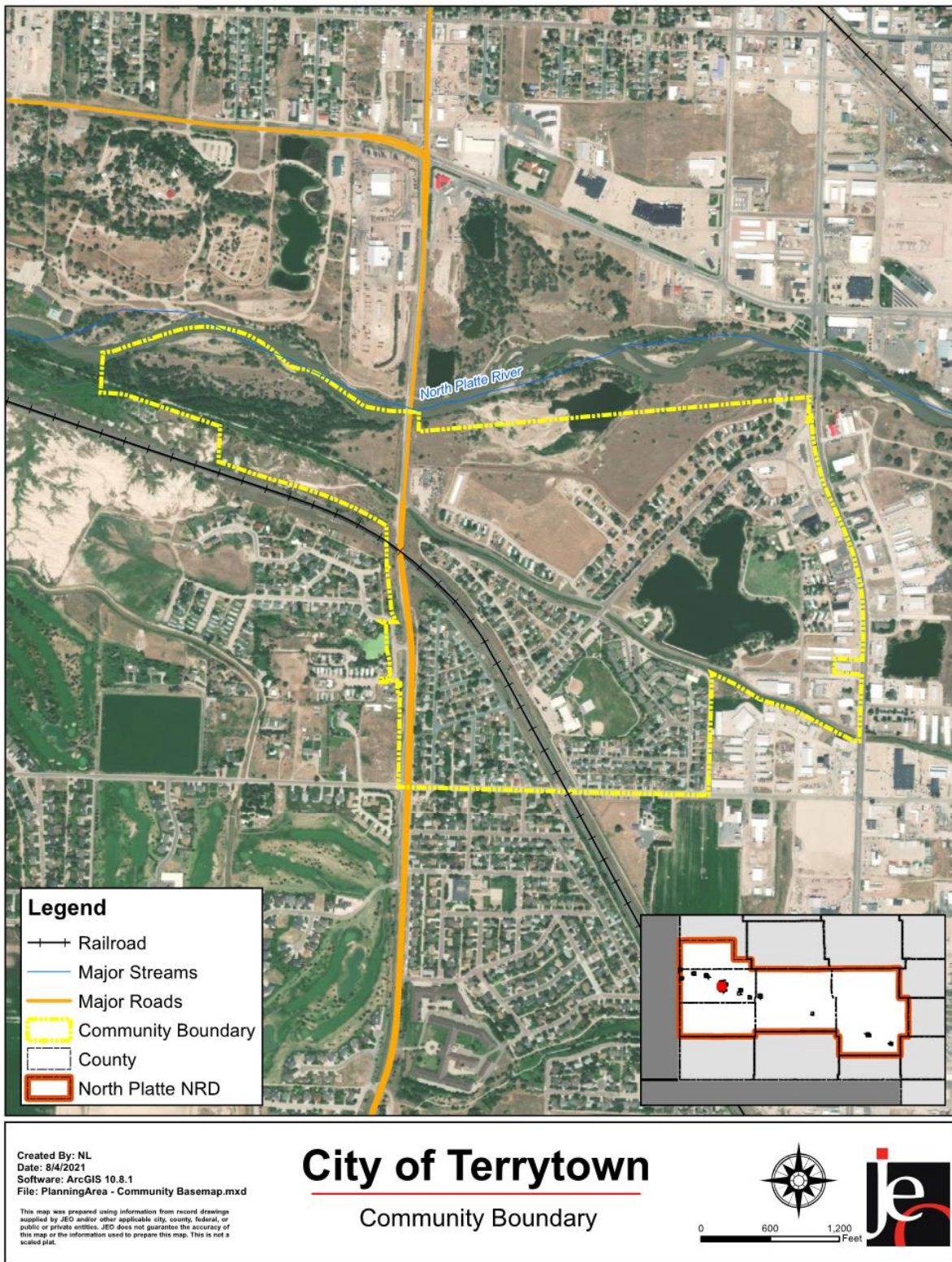


Figure TER.2: Estimated Population 1950 - 2019

Source: U.S. Census Bureau¹²⁵

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

- **Younger.** The median age of Terrytown was 32.3 years old in 2019, compared with the county average of 39.5 years. Terrytown's population has remained relatively stable since 2010, when the median age was 31.7 years old. Terrytown had a larger proportion of people under 20 years old (35.7%) than the county (27.5%).¹²⁶
- **More ethnically diverse.** Since 2010, Terrytown grew more ethnically diverse. In 2010, 10.1% of Terrytown's population was non-white. By 2019, 11.5% was non-white. During that time, the non-white population in the county decreased from 10.3% to 8.4%.¹²⁷
- **More likely to be at the federal poverty line.** The poverty rate in Terrytown (21.8% of families living below the federal poverty line) is greater than the county's poverty rate (10.3%) in 2019.¹²⁸

Employment and Economics

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

- **Different mix of industries.** Employment sectors accounting for 10% or more of employment in Terrytown included: Educational Services, Retail Trade, Construction, and

¹²⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

¹²⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

¹²⁷ United States Census Bureau. "2019 Census Bureau American Community Survey: DP05: ACS Demographic and Housing Estimates." [database file]. <https://data.census.gov>.

¹²⁸ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

Arts. Scotts Bluff County's employment sectors included Educational Services and Retail Trade in 2019.¹²⁹

- **Lower household income.** Terrytown's median household income in 2019 (\$36,875) was about \$12,870 lower than the county (\$49,745).¹³⁰
- **Fewer long-distance commuters.** About 66% percent of workers in Terrytown commuted for fewer than 15 minutes, compared with about 62% of workers in Scotts Bluff County. 6% of workers in Terrytown commuted 30 minutes or more to work, compared to about 9% of the county workers.¹³¹

Major Employers

The local planning team noted there are no major employers in the City of Terrytown; however, there are several small industries along the border along Gering and larger industries in Scottsbluff where people commute to.

Housing

In comparison to Scotts Bluff County, Terrytown's housing stock was:

- **Less owner occupied.** 60% of occupied housing units in Terrytown are owner occupied compared with 66.9% of occupied housing in Scotts Bluff County in 2019.¹³²
- **Newer housing stock.** Terrytown has a smaller share of housing built prior to 1970 (53.2%) compared with the county (55.7%).¹³³
- **Fewer multifamily homes.** The predominant housing type in the city is single family detached and Terrytown contains less multifamily housing with five or more units per structure compared to the county (4.1% compared to 6.6%). About 42% of housing in Terrytown was single-family detached, compared with 77.1% of the county's housing. Terrytown has a greater share of mobile and manufactured housing (25.7%) compared to the county (5.8%).¹³⁴ A large portion of the housing in Terrytown is mobile homes and manufactured housing. The local planning team estimated over 100 residences are mobile homes.

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

Future Development Trends

There have been no major changes in development in Terrytown in the past five years. In the next five years an old treatment plant at 17A Terry Blvd is anticipated to be demolished and an expansion is planned at the Masik Golf Carts facility. No other major developments are anticipated. Terrytown has experienced a sharp increase in population in 2000 which was attributed to annexations to the city. An additional annexation, the Bellevue Addition, has been discussed which would add an additional 250 residents to Terrytown; however, no plans have been formalized for this annexation.

¹²⁹ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹³⁰ United States Census Bureau. "2019 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." [database file]. <https://data.census.gov>.

¹³¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://data.census.gov>.

¹³² United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

¹³³ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

¹³⁴ United States Census Bureau. "2019 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." [database file]. <https://data.census.gov>.

Structural Inventory and Valuation

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

Table TER.2: Terrytown Parcel Valuation

TOTAL NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	% OF IMPROVEMENTS IN FLOODPLAIN
264	\$24,479,904	41	\$4,647,212	16%

Source: County Assessor

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are no chemical storage sites in Terrytown that contain hazardous chemicals.¹³⁵ In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Critical Facilities

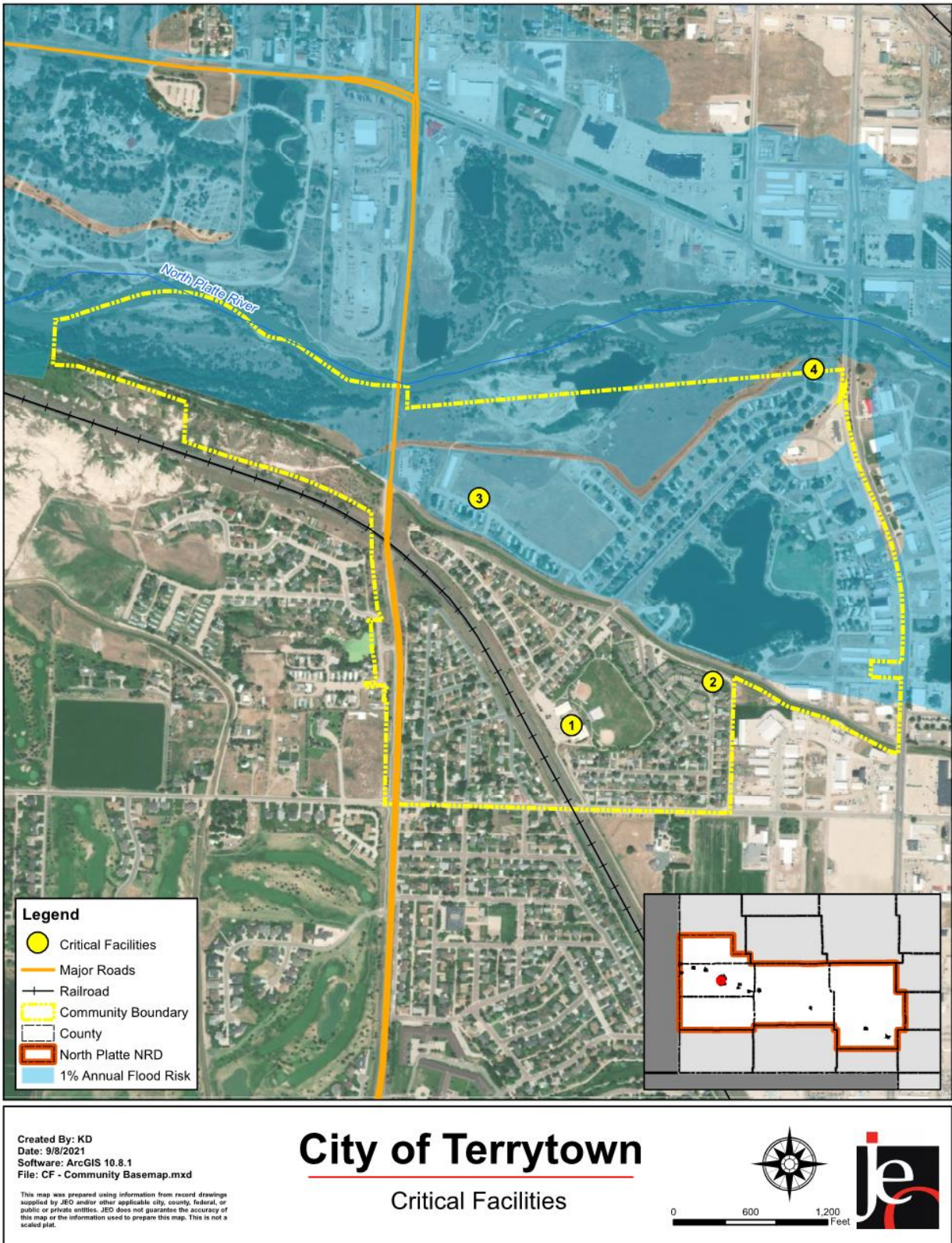
The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original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

Table TER.3: Critical Facilities

CF #	NAME	SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Carpenter Center/ City Office	Y	N	N
2	City Maintenance Shop	N	N	N
3	City Municipal Water Well	N	N	Y
4	City Sanitary Sewer Plant	N	Y	Y

¹³⁵ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2020. <https://deg-iis.ne.gov/tier2/search.faces>.

Figure TER.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. Terrytown has a mayor/chairperson, a four-member council, and the following offices.

- City Administrator/Treasurer
- Clerk
- Attorney
- Utility Superintendent
- Sewage Plant Operator
- Street Commissioner/Engineer

Capability Assessment

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

Table TER.5: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operational 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	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	No
Other (if any)		
Fiscal	Capital Improvement Plan/ 1 & 6 Year plan	Yes

SURVEY COMPONENTS/SUBCOMPONENTS		Yes/No
Capability	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
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)	

Table TER.6: Overall Capability

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Community support to implement projects	Limited
Time to devote to hazard mitigation	Limited

Plan Maintenance

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

The Mayor, City Clerk, and Emergency Manager are responsible for reviewing and updating this community profile as changes occur or after a major event. These individuals will review the plan no less than bi-annually and will include the public in review and revision process by sharing information through social media, council meetings, website updates, and letters to all residents.

Plan Integration

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

Annual Municipal Budget (2021)

Terrytown's annual budget is primarily limited to maintaining current programs and systems. At this time there are no major projects with large, dedicated funds. Municipal funds have stayed steady over recent years.

Building Code (2006)

The building code sets standards for constructed buildings and structures. The city adopted the 2006 IBC and the electrical code has been updated several times as of 2011. At this time there is no plan to update the building codes to the current IBC editions.

Capital Improvements Plan (2021)

The capital improvements plan outlines large purchases and projects that the city would like to pursue for the streets department exclusively.

Comprehensive Plan (1989)

The comprehensive plan is designed to guide the future actions and growth of the city. The plan does not specifically discuss hazards. The plan does encourage open space in hazard-prone areas. The plan noted that there is limited availability for future new development in Terrytown.

Zoning Ordinance (2020) & Floodplain Ordinance (2015)

The city's floodplain ordinance and zoning ordinance 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 elevation above Base Flood Elevation, and allows the city to implement water restrictions if needed.

Scotts Bluff County Local Emergency Operations Plan (2020)

The City of Terrytown is an annex in the Scotts Bluff 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 Scotts Bluff County community profile for historical hazard events.

Hazard Prioritization

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

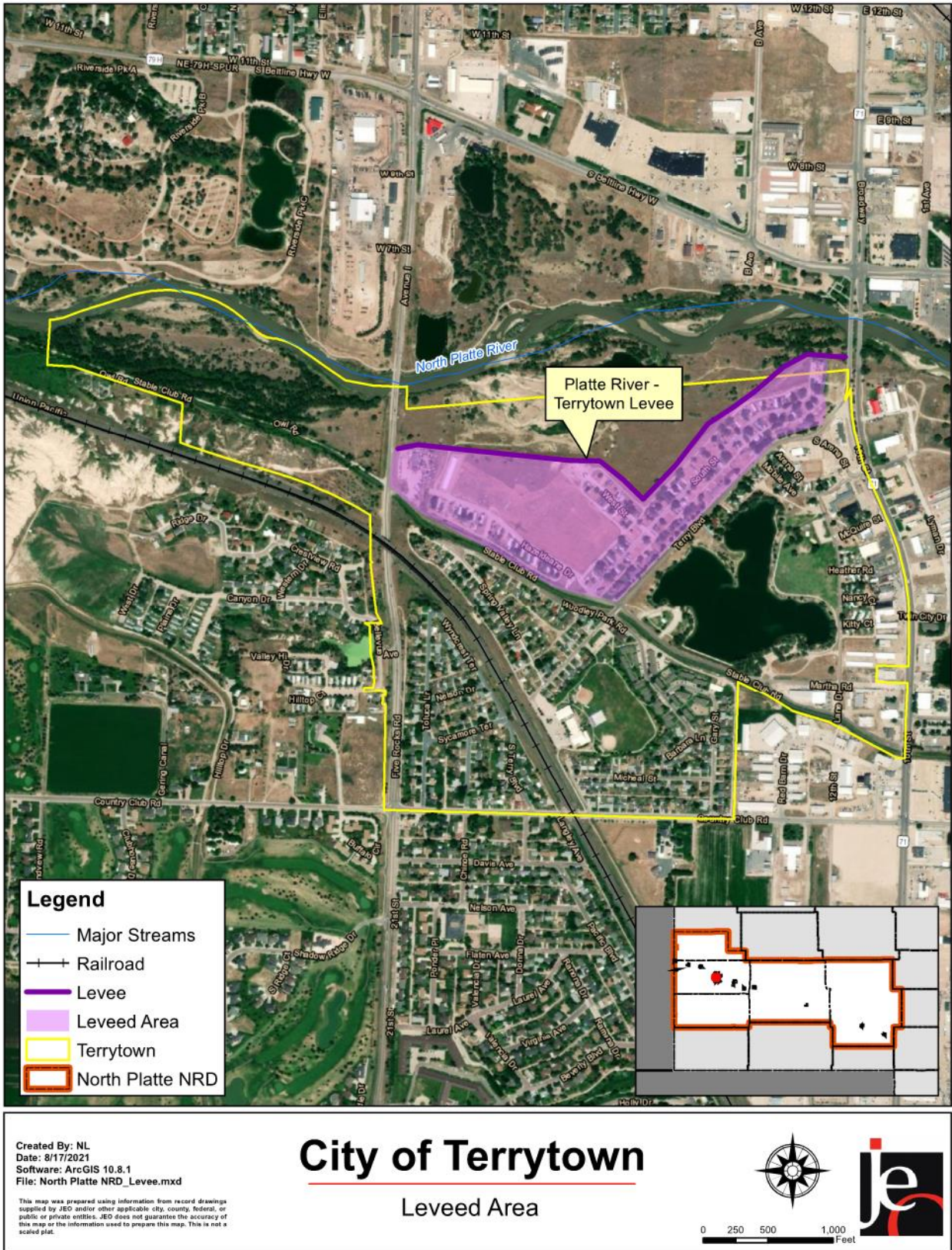
Flooding

The Terrytown local planning team indicated that the community is highly concerned about flooding events affecting their community. Most recently, significant flooding events which affected the community were flood events in 2011 and 2015, due to high water levels in the North Platte River. Fortunately, the March 2019 flooding did not impact the community. Terrytown experiences both riverine flooding and flash flooding due to the city's proximity to the North Platte River, and poor storm water drainage respectively. Typically, flooding in Terrytown occurs on the north end of the city, north of Terry Boulevard. Much of the community is within the 1% annual flood risk area, perhaps half of the land area. Many of the homes in the floodplain are mobile homes, extremely vulnerable to lasting impacts from flooding. Due to the construction materials in mobile homes, these structures are not typically very resilient to flooding events. Often, mobile home subfloors are made from particleboard/chipboard, which expands rapidly when wet, and permanently compromises the integrity of the floor. Previously, the community has seen damages to the city shop and sanitary sewer plant.

Levee Failure

There is one levee located in or near the city: the Platte River - Terrytown levee. The Platte River - Terrytown levee spans 0.76 miles in length and protects 284 residents and 70 structures. The levee is sponsored by the City of Terrytown. This levee can be seen in Figure TER.4. The area shaded in purple is the land protected by the levee and is therefore vulnerable if the levee were to fail.

Figure TER.4: Terrytown Levee



Severe Thunderstorms (includes Hail)

The Terrytown local planning team indicated that the community highly is concerned about severe thunderstorms and their impact on the community. Most recently, the community has experienced thunderstorm events in the spring and summer of 2015. The community's most acute concerns are related to lowland flooding, and property damage from significant storm events. Many of the homes in the floodplain are mobile homes, which are not as resilient to flooding events as a typical brick-and-mortar structure. Terrytown has worked to protect against lasting impacts from thunderstorm events, by installing surge protectors on computers which contain municipal records. However, certain characteristics of Terrytown make the community more vulnerable to lasting impacts from severe thunderstorms, none of the critical facilities in Terrytown contain weather radios, nor does the city have a tree board. The city is interested in putting backup power generators to serve the sanitary lift station and community center in case of a power outage.

The Terrytown local planning team indicated that the community is highly concerned about hail events affecting their community. Terrytown is most concerned about damages to structures during high wind events, this is likely due to the number of mobile homes in the community. With 147 mobile homes in the community, the potential for significant damages could occur; they are especially vulnerable to siding and roof damages. Further, mobile homes do not have protection for vehicles with garages, so many residents living in mobile homes also have significant vehicle liabilities. The local planning team has indicated that the community experiences at least one large hail event annually. Terrytown has insured all of their municipal facilities, for protection against natural hazards. A few characteristics of Terrytown leave the community vulnerable for lasting impacts from hail events, the community does not have a local tree board, to maintain city trees, and the city does not hand out information on hail resistant materials with building permits.

Tornadoes and High Winds

The Terrytown local planning team indicated that the community is highly concerned about tornadoes and their impact on the community. While Terrytown has never been hit by a tornado, tornado events are common for the planning area. The biggest concern the local planning team has, is the threat of total destruction with a tornado event. A few attributes of Terrytown make the community more vulnerable to a tornado event. For instance, the community has 147 mobile homes which are notoriously vulnerable to tornado events. Often, the thin walls and construction of manufactured homes are not nearly as resilient as brick-and-mortar structures to a tornado event. In the event of a tornado event, which would likely exhaust Terrytown's response resources, the city has signed mutual aid agreements with neighboring communities for help.

The Terrytown local planning team indicated that the community is highly concerned about high winds affecting the city. The community's concerns primarily are from damages to structures. Terrytown has a number of characteristics which make the community more vulnerable to lasting impacts from a high wind event: no tree maintenance board, and a high percentage of mobile homes in the community. Many damages from high winds are a result from dead/dying trees falling on structures and vehicles. Without a tree maintenance group, it becomes difficult to monitor the health of trees within the city, and potentially trim or remove trees and limbs which pose a threat to resident safety. Mobile homes are especially vulnerable to high wind events, especially if they are improperly tied down to the ground.

Mitigation Strategy

Completed Mitigation and Strategic Actions:

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
STATUS	All facilities in need of a weather radio currently have one.

Continued Mitigation and Strategic Actions:

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Provide a portable or stationary source of backup power to redundant power supplies
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$15,000- \$30,000
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Street Department
STATUS	This project has not yet been started.

MITIGATION ACTION	DRAINAGE STUDY/ STORMWATER MASTER PLAN
DESCRIPTION	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000-\$100,000
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Public Works
STATUS	During the Silver Jackets project, a stream gage was placed at the Avenue I bridge. The City of Terrytown participates in a cost-share agreement to keep the stream gage for monitoring of the river.

SECTION SEVEN: CITY OF TERRYTOWN COMMUNITY PROFILE

MITIGATION ACTION	FLOOD-PRONE PROPERTY ACQUISITION
DESCRIPTION	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time, \$10,000 - \$100,000
FUNDING	City General Fund, Private Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	City Council
STATUS	This activity is currently cost prohibitive for the city.

MITIGATION ACTION	FLOODPLAIN REGULATION ENFORCEMENT AND UPDATES
DESCRIPTION	Continue to enforce local floodplain regulations for structures located in the 100-year floodplain. Strict enforcement of the type of development and elevations of structures should be considered through issuance of building permits by any community or County. Continue education of building inspectors or Certified Floodplain Managers. Encourage building regulations for storm-resistance structures.
HAZARD(S)	Flooding
ESTIMATED COST	\$4,000
FUNDING	City General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Building Inspector, Floodplain Administrator
STATUS	This is an ongoing project.

MITIGATION ACTION	LEVEE/FLOODWALL CONSTRUCTION AND/OR IMPROVEMENTS
DESCRIPTION	Levees and floodwalls serve to provide flood protection to businesses and residents during a large storm event. Improvements to existing levees and floodwalls will increase flood protection.
HAZARD(S)	Flooding
ESTIMATED COST	\$500,000+
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	City Council
STATUS	This activity is currently cost prohibitive for the city.

SECTION SEVEN: CITY OF TERRYTOWN COMMUNITY PROFILE

MITIGATION ACTION	MAINTAIN GOOD STANDING IN THE NFIP
DESCRIPTION	Maintain good standing with the National Flood Insurance Program (NFIP) including floodplain management practices/ requirements and regulation enforcements and updates.
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	General Fund
TIMELINE	Ongoing
PRIORITY	Medium
LEAD AGENCY	Building Inspector, Floodplain Administrator
STATUS	Terrytown will continue to enforce floodplain management requirements, including regulating new construction in the Special Flood Hazard Areas.

MITIGATION ACTION	PUBLIC AWARENESS/EDUCATION
DESCRIPTION	Public awareness reduces the risk of property loss and damage, injury and death. It increases knowledge on emergency procedures, facilities, conservation, and is key to preparedness.
HAZARD(S)	All hazards
ESTIMATED COST	\$500+
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	City Council
STATUS	Local emergency management makes public information available about all-hazards planning. The city can develop some additional information.

MITIGATION ACTION	SAFE ROOMS
DESCRIPTION	Assess, design, and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area. Assess the adequacy of current public buildings to be used as safe rooms. Construct safe rooms in areas of greatest need, either as new construction or retrofitting.
HAZARD(S)	Tornadoes, and High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. ft. addition/retrofit
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Parks Department
STATUS	This activity is currently cost prohibitive for the city.

SECTION SEVEN: CITY OF TERRYTOWN COMMUNITY PROFILE

MITIGATION ACTION	STABILIZE/ANCHOR FERTILIZER, FUEL AND PROPANE TANKS AND SECURE AT-RISK DEVELOPMENT
DESCRIPTION	Anchor fuel tanks to prevent movement. If left unanchored, tanks could present a major threat to property and safety in a tornado or high wind event. "Tie downs" can be used to anchor manufactured homes to their pads or concrete foundations
HAZARD(S)	Tornadoes and High Winds, Flooding
ESTIMATED COST	Staff Time, \$1,000+
FUNDING	City General Fund, Private Owner Funding
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	City Council
STATUS	This project has not yet been started.

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	These improvements can serve to move effectively convey runoff within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000 to \$100,000
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Public Works
STATUS	This project has not yet been started.

MITIGATION ACTION	STREAM BANK STABILIZATION/ GRADE CONTROL STRUCTURES/ CHANNEL IMPROVEMENTS
DESCRIPTION	Stream bed/grade stabilization improvements can serve to protect structures, increase conveyance, prevent down cutting, and provide flooding benefits more effectively.
HAZARD(S)	Flooding
ESTIMATED COST	\$50,000- \$100,000
FUNDING	City General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Public Works Department
STATUS	This activity is currently cost prohibitive for the city.

SECTION SEVEN: CITY OF TERRYTOWN COMMUNITY PROFILE

MITIGATION ACTION	TREE CITY USA
DESCRIPTION	Work to become a Tree City USA through the National Arbor Day Foundation. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	\$1,000+
FUNDING	Park Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Parks Department
STATUS	This project has not yet been started.