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COUNTY PROFILE

FILLMORE COUNTY

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

Local Planning Team

Table FIL.1: Fillmore County Local Planning Team

Name	Title	Jurisdiction
Jim Dunker	Emergency Manager (retired)	Fillmore County
Jean Engle	Emergency Manager	Fillmore County

Location, Geography, & Climate

Fillmore County is located in southwest Nebraska and is bordered by York County, Seward County, Saline County, Jefferson County, Thayer County, Nuckolls County, Clay County, and Hamilton County. Geneva is the county seat.

The total area of Fillmore County is 576 square miles. Major waterways within the county include the West Fork Big Blue River, Dry Sandy Creek, Indian Creek, Little Sandy Creek, Johnson Creek, School Creek, and Turkey Creek. The county is not heavily forested, nor is located in a geographic area of the state prone to landslides. Most of Fillmore County lies in the plains topographic region, with the vast majority of the county's land characterized by agricultural fields.

Climate

The average high temperature in Fillmore County for the month of July is 87.1 degrees and the average low temperature for the month of January is 16.6 degrees. On average, Fillmore County gets 29 inches of rain and 20 inches of snowfall per year. The following table compares these climate indicators with those of the entire nine-county planning area. Climate data is helpful in determining if certain events are higher or lower than normal. For example, if the high temperatures in the month of July are running well into the 90s, high heat events may be more likely which could impact vulnerable populations.

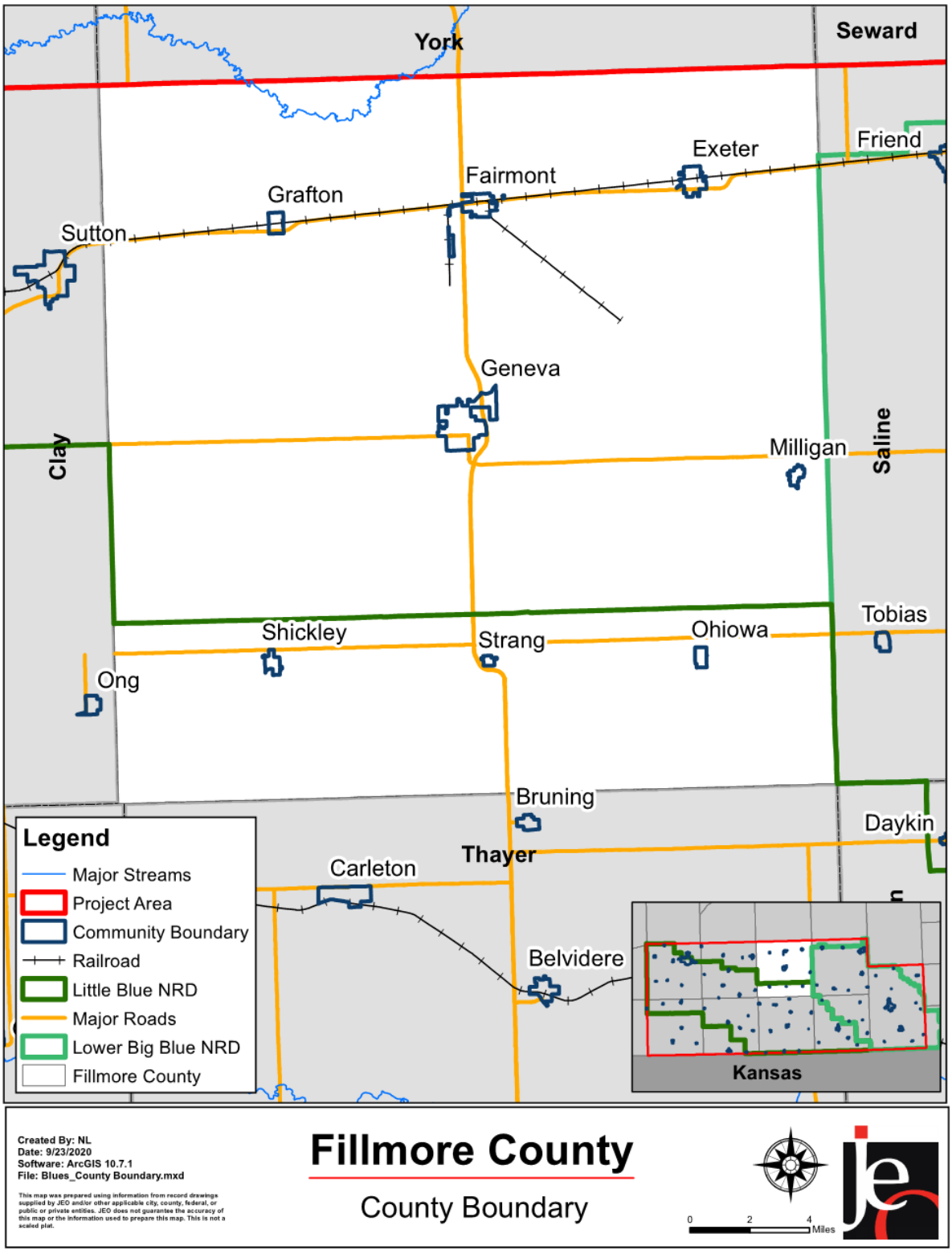
Table WEB.2: Webster County Climate Normals

	Fillmore County	Planning Area Average
July Normal High Temp	87.1°F	88.5°F
January Normal Low Temp	16.6°F	14.2°F
Annual Normal Precipitation	29.27"	29.37"
Annual Normal Snowfall	19.9"	21.63"

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

1 NOAA National Centers for Environmental Information. August 2020. "Data Tools: 1981-2010 Normals." [datafile]. https://www.ncdc.noaa.gov/cdo-web/datatools/normals.
2 High Plains Regional Climate Center. 2020. "CLIMOD." http://climod.unl.edu/.

Figure FIL.1: Fillmore County Jurisdictional Boundary



Transportation

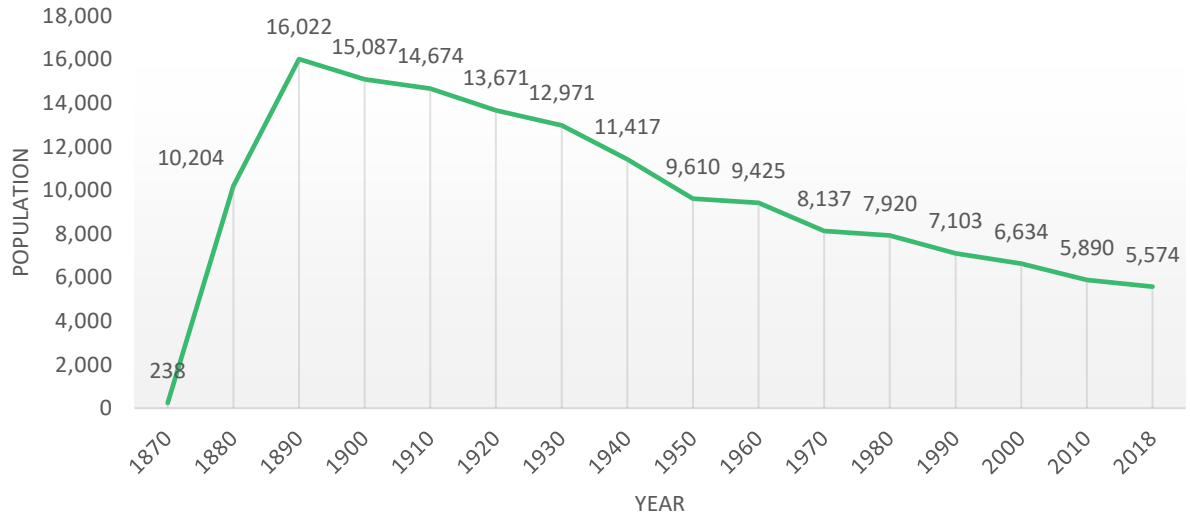
Fillmore County's major transportation corridors include U.S Route 81 (4 lane expressway), which runs north-south through Geneva and U.S. Highway 6, which runds east-west through the north part of the county. Other notable routes include Highway 74, which passes through the lower half of the county, running east-west, and Highway 41, which runs through the center of the county, running east-west. Several critical chemical facilities are located along major transportation routes including Flint Hills Ethanol by Highway 81 and Nustar pipeline and storage terminal by Geneva.

The county also has two railroads, one owned by BNSF and the other by Manning Railroad. Fairmont State Airfield (KFMZ) is located three miles south of Fairmont. The county also has a number of air landing strips dispersed throughout the county. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors as well as transportation risk areas.

Demographics

The following figure displays the historical population trends from 1870 to 2018 (estimated). This figure indicates that the population of Fillmore County has declined steadily since the late 1800s. This is notable for hazard mitigation as communities with declining population have a higher probability of unoccupied housing that is not being maintained and may be less prone to pursuing residential/commercial development, which may reduce the number of structures vulnerable to hazards in the future.

Figure FIL.2: Fillmore County Population 1870-2018



Source: U.S. Census Bureau[3]

The following table indicates the State of Nebraska has a higher percentage of people under the age of 5 and between the ages of 5 and 64 than Fillmore County. Fillmore County has a higher median age, and a significantly higher percentage of people over the age of 65. This is relevant

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

to hazard mitigation insofar as the very young and elderly populations may be at greater risk from certain hazards than others. For a more elaborate discussion of this vulnerability, please see *Section Four: Risk Assessment*.

Table FIL.2: Population by Age

Age	Fillmore County	State of Nebraska
<5	4.7%	6.9%
5-64	72.0%	78.1%
<64	23.3%	15%
Median Age	47.7	36.2

Source: U.S. Census Bureau[4]

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

Table FIL.3: Housing and Income

Age	Fillmore County	State of Nebraska
Median Household Income	$55,625	$59,116
Per Capita Income	$32,631	$31,101
Median Home Value	$79,100	$147,800
Median Rent	$596	$805

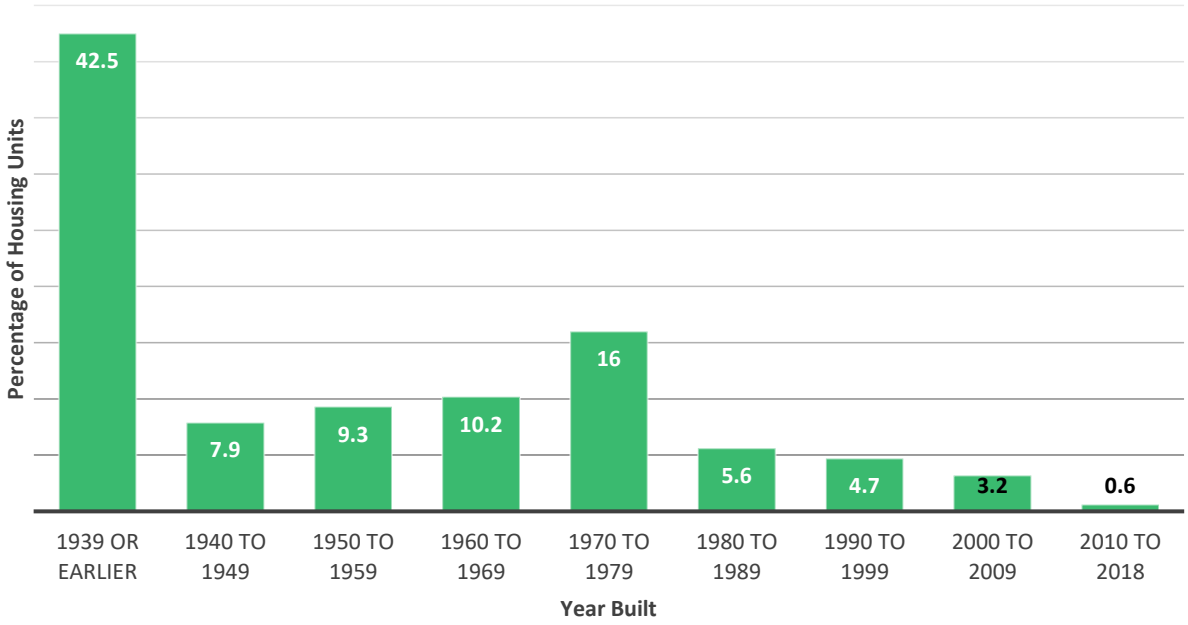
Source: U.S. Census Bureau[5,6]

The following figure indicates that the majority of the housing in Fillmore County was built prior to 1980. According to Census Bureau, the county has 2934 housing units; with 85.5 percent of those units occupied. Approximately 1.1 percent of the county's housing is classified as mobile homes and 59.7 percent of the county's housing was built before 1960. The local planning team noted there are no mobile homes located in unincorporated portions of the county.

Housing age can serve as an indicator or risk as structures built prior to state building codes being developed may be at greater risk. The State of Nebraska first adopted building codes in 1987, the state currently has adopted the 2018 International Building Code. Finally, communities with a substantial number of mobile homes may have a higher number of residents vulnerable to the impacts of high winds, tornados, and severe winter storms.

4 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
5 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]
6 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Figure FIL.3: Housing Units by Age



Source: U.S. Census Bureau[7]

Table FIL.4: Housing Units

Jurisdiction	Total Housing Units					Occupied Housing Units			
	Occupied		Vacant			Owner		Renter	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
Fillmore County	2,510	85.5%	424	14.5%		1,898	75.6%	612	24.4%
Nebraska	754,063	90.8%	76,686	9.2%		498,567	66.1%	255,496	33.9%

Source: U.S. Census Bureau[8]

Employment Factors

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

Table FIL.5: Businesses in Fillmore County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors (2012)	223	1,447	$50,079
Total for All Sectors (2016)	223	1,758	$61,129
Total for All Sectors (2018)	224	1,692	$71,030

Source: U.S. Census Bureau[9]

7 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]
8 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]
9 United States Census Bureau. 2020. "2018 County Business Patterns and Nonemployer Statistics Combined Report."

Agriculture is also important to the economic fabric of Fillmore County, and the state of Nebraska as a whole. Fillmore County's 392 farms cover over 300,000 acres of land. Both the number of farms and acres of harvested cropland have decreased since 2012. 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 FIL.6: Fillmore County Agricultural Inventory

	2012 Census	2017 Census	Percent Change
Number of Farms with Harvested Cropland	472	392	-20.4%
Acres of Harvested Cropland	328,386 acres	300,205 acres	-9.4%

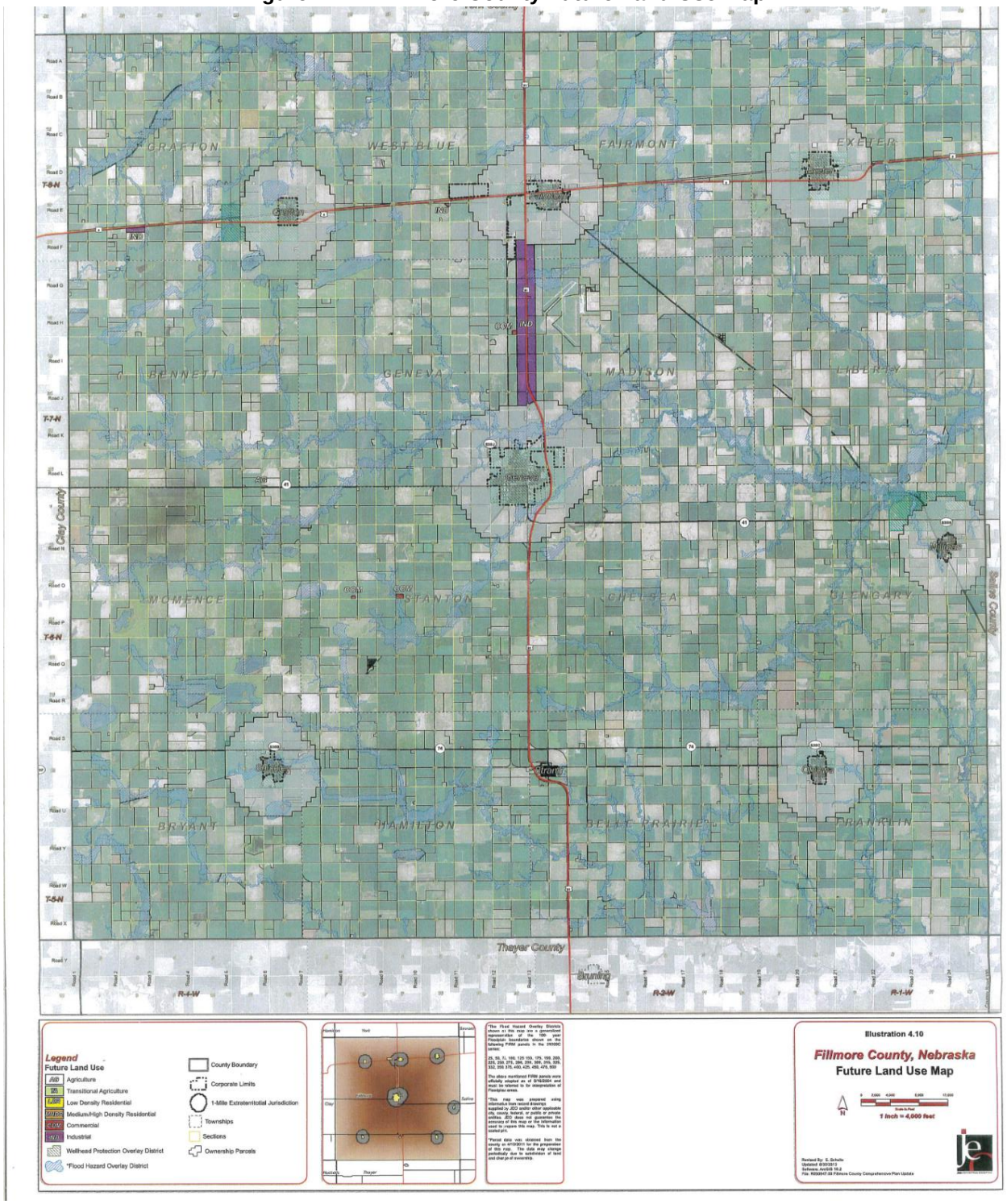
Source: USDA Census of Agriculture[10,11]

Future Development Trends

In the past five years major development in Fillmore County occurred only in incorporated areas. However, the local planning team noted no development has occurred, or is allowed, within the floodplain. The county's population is declining which the local planning team attributed to a lack of available jobs. At this time there is currently no residential or commercial development planned for the next five years.

10 United States Department of Agriculture, National Agricultural Statistics Server. 2014. "2012 Census of Agriculture – County Data."
11 United States Department of Agriculture, National Agricultural Statistics Server. 2019. "2017 Census of Agriculture – County Data."

Figure FIL.4: Fillmore County Future Land Use Map



Parcel Improvements and Valuation

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

Table FIL.7: Fillmore County Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
7,649	2,913	$259,949,565	255	9%	$28,677,310

Source: County Assessor, GIS Workshop

Table FIL.8: Fillmore County Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	08-07-1301A-310433	8/12/2008	Structure removed from SFHA
LOMA	12-07-2806A-310433	8/2/2012	Portion of property removed from SFHA
LOMA	12-07-3118A-310433	10/2/2012	Portion of property removed from SFHA
LOMA	18-07-1073A-310433	4/4/2018	Structure removed from SFHA

Source: FEMA Flood Map Service Center

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

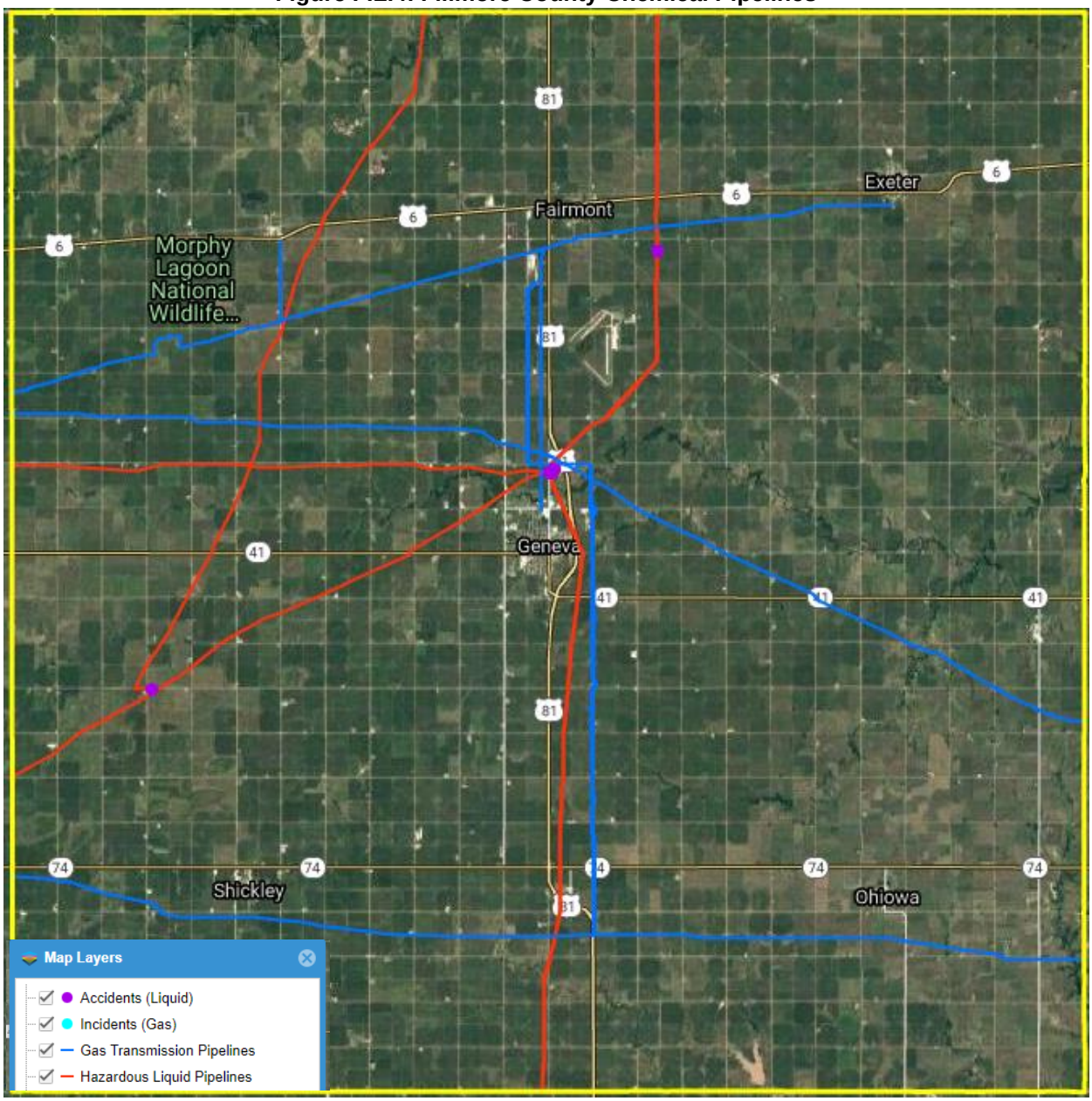
According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy in 2019, there 29 chemical storage sites throughout Fillmore County which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. Specific concerns exist for Geneva's Flint Hills Ethanol plant spills impacting Highway 81. A long term care facility, Heritage Crossing, and several schools facilities are located near chemical fixed sites and are of concern. While no major spills have occurred in the county, a waste water leak was discovered in Turkey Creek in the past. No major damages were reported. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Chemical Transportation

Hazardous chemicals, particularly agricultural based chemicals, are commonly transported through the county. The county has two railroads, one owned by BNSF and the other by Manning Railroad. The BNSF runs east-west in the northern section of the county entering from Saline County, passing through Exeter, Fairmont, and Grafton before exiting into Clay County. The Manning Railroad connects to the BNSF line with a terminal in Burress. While no major chemical spills have been reported in the county with injuries or fatalities, in the past several years a center pivot system was blown into a highway and collided with a passenger train.

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

Figure FIL.4: Fillmore County Chemical Pipelines



Critical Facilities

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

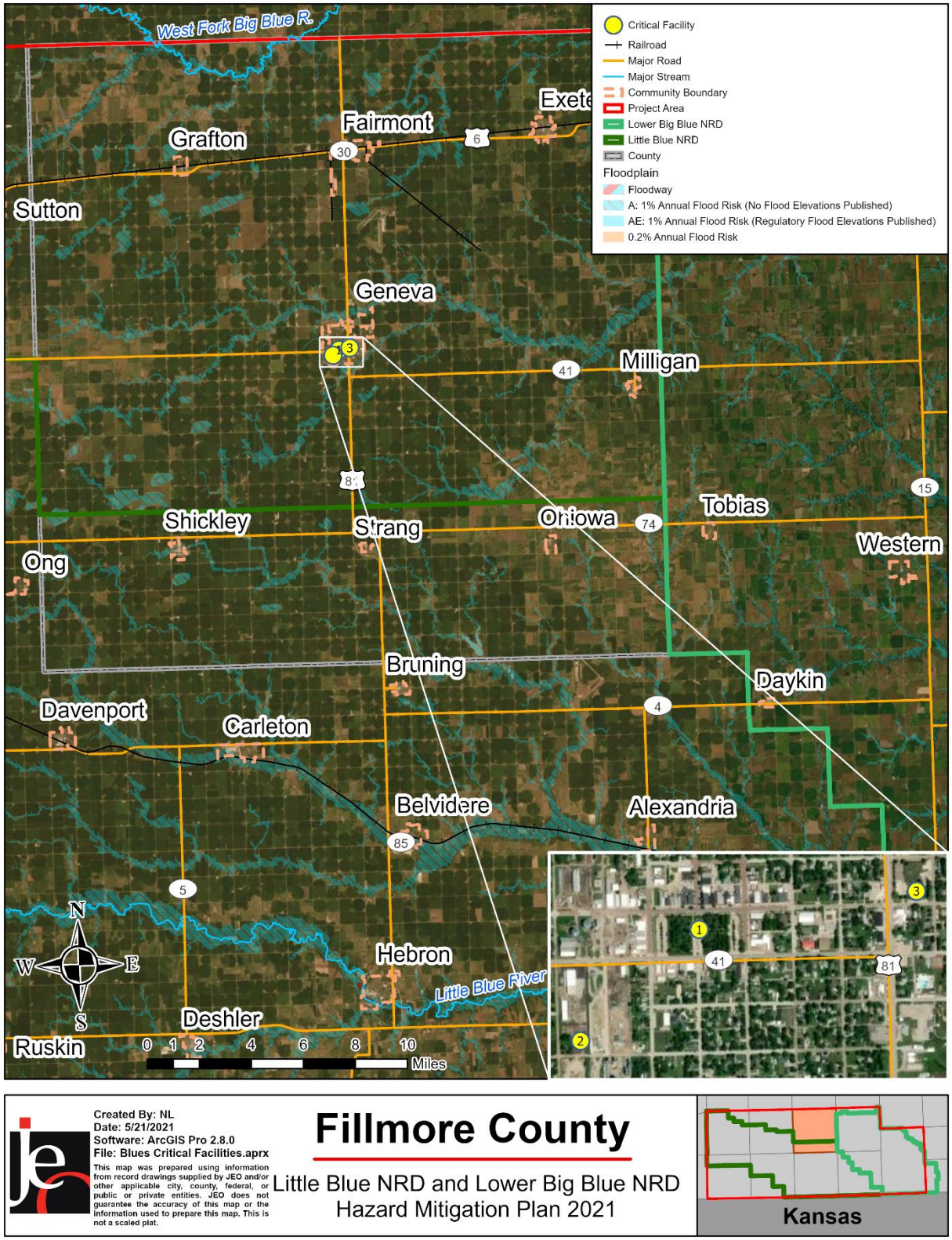
Critical facilities for Fillmore County are located primarily in the county's incorporated communities. All critical facilities for Fillmore County are located outside of the established floodplain. The National Register of Historic Places lists 15 entries within Fillmore County. These entries are spread across Fairmont, Geneva, Strang, Shickley, Milligan, and Ohiowa.

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

Table FIL.9: Fillmore County Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fillmore County Courthouse	Y	Y	N
2	Communication	Communication Tower	N	N	N
3	Safety and Security	County Office Building	N	N	N

Figure FIL.4: Fillmore County Critical Facilities



Historical Occurrences

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

Table FIL.10: Hazard Risk Assessment – Fillmore County

Hazard		Count	Property Damage	Crop Damage[3]
Agricultural Disease	Animal Disease[2]	9	13 animals	N/A
	Plant Disease[3]	22	N/A	$250,474
Dam Failure[7]		0	$0	N/A
Drought[8]		493 out of 1,504 months	$0	$30,189,872
Earthquakes[11]		0	$0	$0
Extreme Heat[9]		Avg 6 days/yr	$0	$2,361,886
Flooding[1]	Flash Flood	9	$3,160,000	$145,257
	Flood	4	$310,000	
Grass/Wildfire[4]		257	6,995 acres	$13,840
Hazardous Materials	Chemical Fixed Site Spills[5]	15	$0	N/A
	Chemical Transportation Spills[6]	8	$501	N/A
Levee Failure[12]		0	$0	N/A
Public Health Emergency[13]		~497 cases; 10 deaths	$0	N/A
Severe Thunderstorms[1] *4 injuries*	Hail	165	$4,737,000	$7,128,529
	Heavy Rain	16	$102,000	$2,981,452
	Lightning	1	$2,000	N/A
	Thunderstorm Wind	78	$12,563,000	N/A
Severe Winter Storms[1]	Blizzard	10	$25,000	$352,008
	Extreme Cold/Wind Chill	2	$0	
	Heavy Snow	3	$0	
	Ice Storm	7	$565,000	
	Winter Storm	44	$235,000	
	Winter Weather	23	$5,000	
Terrorism[10]		1	$0	N/A
Tornadoes and High Winds[1]	High Winds	19	$112,080	$1,272,777
	Tornadoes	19	$13,703,000	$354
Totals		**712**	**$35,519,581**	**$44,696,449**

1 – NCEI, Jan 1996-April 2020
2 – USDA, 2014-June 2020
3 – USDA RMA, 2000-Aug 2020
4 – NFS, 2000-2020

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

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

Table FIL.11: Fillmore County and Communities Hazard Matrix

Jurisdiction	Agricultural Animal and Plant Disease	Dam Failure	Drought & Ex Heat	Earthquakes	Flooding	Grass/ Wildfire	Hazardous Materials	Levee Failure	Public Health Emergency	Severe Thunderstorms	Severe Winter Storms	Terrorism	Tornadoes and High Winds
Fillmore County			X		X	X	X		X		X		X
Exeter					X					X	X		X
Fairmont										X	X		X
Geneva					X					X			X
Grafton							X			X	X		X
Milligan			X							X	X		X
Ohiowa					X								X
Shickley			X		X						X		X
Strang										X	X		X

Hazard Prioritization

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

Drought and Extreme Heat

Like other areas in Nebraska, Fillmore County does have periods of drought and extreme heat events. While these events have not cause injuries or deaths, the county's main concern with this hazard is heat impacts on elderly people and effects to the agricultural areas throughout the county. A large portion of the county's economy is based upon agriculture. Past drought events have caused over $30million in damages to agriculture. To mitigate this hazard, the county will continue coordinating with Public Health Solutions, which maintains a database of vulnerable populations which the county can use during high heat events. The Little Blue NRD and Upper Big Blue NRDs which cover areas of the county have water allocation restrictions and plans in place in case of prolonged water shortages.

Flooding

Fillmore County has several rivers through it including West Fork Big Blue River and Turkey Creek. The county has been afflicted by flood events in the past and primary concerns include public safety and blocked transportation routes from flooding. The most damaging flood event on record occurred in May 2005 and caused over $2,000,000 in property damages. In Fillmore County five to eight inches of rainfall were reported across the county and twelve center pivot irrigation systems were damaged.

The northwestern portion of the county has experienced regularly flooding on School Creek and West Fork Big Blue River. Past events have caused significant road damages and degradation of non-paved surfaces. These roads could be reinforced or paved in the future to prevent future damages.

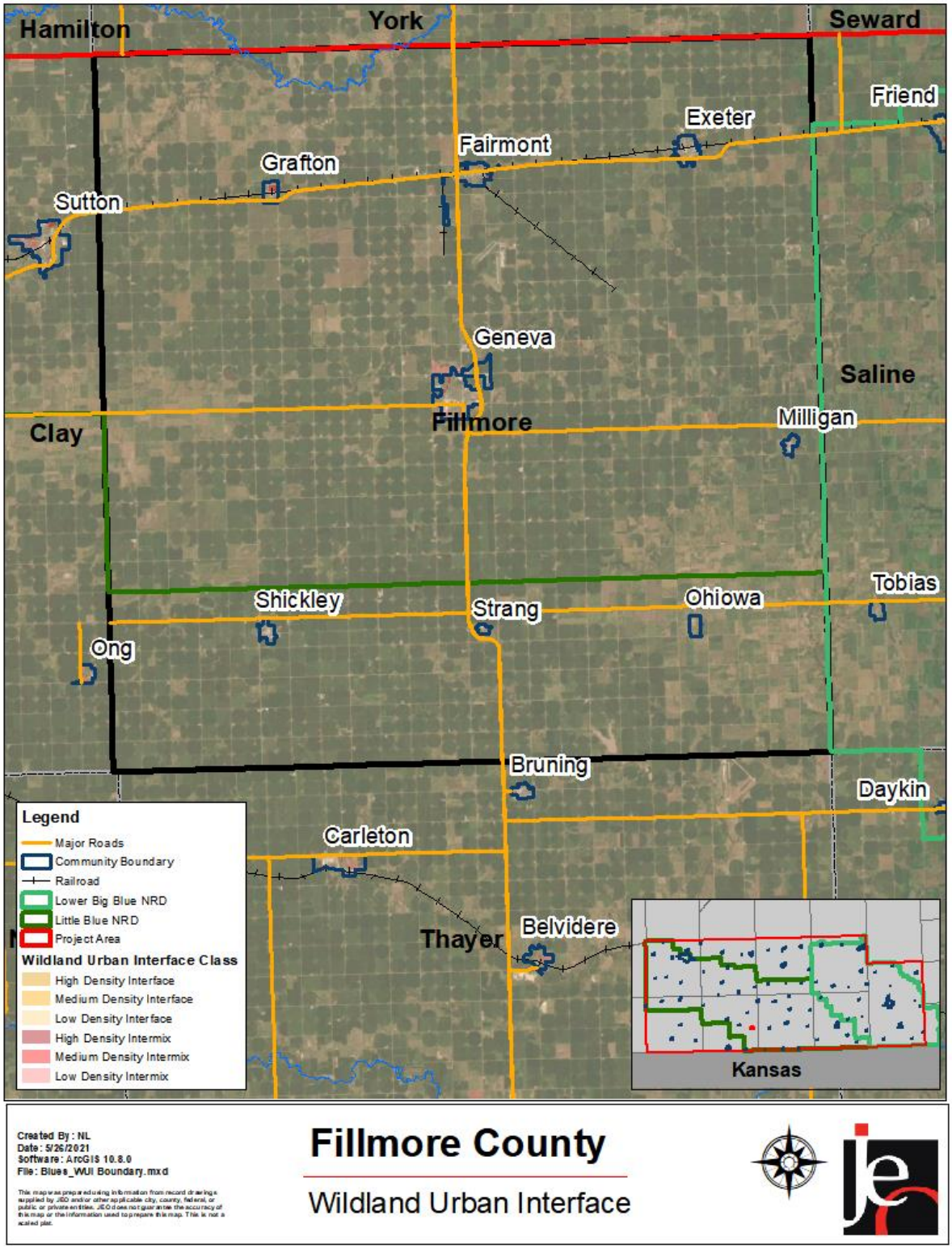
The county has updated the emergency communication system including IPAWS and Reverse 911 and the last five years. The county has also identified mitigation actions to remove flow restrictions. The county participates in the NFIP and, as of November 2020, had four policies in force for $560,000.

Grass/Wildfire

The county's main historical problem and concern for this hazard is primarily related to crop fires. Rural fire districts are entirely volunteer based and the first responders for this hazard across the county. The majority of the county is used for agriculture and the local planning team noted there are few natural barriers to contain wildfire events. Past events have caused significant damages to crops, livestock, roads, bridges, and power lines.

At the county level, the county has worked to create two “DISK” groups – which are groups of farmers that can disk a break in rural field areas to reduce the fuel for crop fires. There is one group in the west and one in the east. This program was implemented in 2012. The county would like to maintain this program and work with townships, farmers, and other partiers to do this. The county noted invasive Red Cedar trees need to be removed throughout the county and rural road ditches need to be cleared of brush and vegetation. Additionally, the county identified the need to educate farmers on equipment maintenance to prevent fire sparks. Many farms also have mobile water tanks that they move field to field for emergency fire suppression.

Figure FIL.4: Fillmore County WUI



Hazardous Materials (Transportation)

While the county has not experienced major chemical transportation spills in the past, the main concern for this hazard is with the BNSF railroad that runs through the northern part of the county. The line passes through Exeter, Fairmont, and Grafton. Another major transportation route is US Highway 81, which regularly sees semi-trucks and other automotive traffic with hazardous materials. One incident occurred during a roll over near Strang, however no chemicals were dispersed. The local planning team did note minor leaks on anhydrous ammonia trailers have occurred, but local capabilities were sufficient.

During this plan update, the county identified a project to work with state officials on developing evacuation or sheltering place educational awareness materials for communities along the BNSF rail line. The county also noted a need for additional information for commercial agriculture businesses and conducting a tabletop exercise or drill.

Public Health Emergency

Public health emergency is a new hazard evaluated in the 2021 HMP update. The development of the novel corona virus in Nebraska and Fillmore County has threatened the safety of residents. There is one hospital located in the City of Geneva. The County is served by Public Health Solutions which provided directed response and treatment. Fillmore County Emergency Management assisted as available and requested. As of November 2020, Fillmore County had reported 182 positive cases and two fatalities associated with COVID-19.

Severe Winter Storms

Severe winter storms include impacts from blizzards, extreme cold, ice accumulation, heavy snow, and winter storms. The county experiences severe winter storms annually, however the majority of storms do not cause significant damages or concerns. Top concerns for severe winter storms are power outages and snow removal. For US Highway 81, snow removal is a state priority, however, if motorist become stranded or stuck on the highway, the county is tasked with rescue and sheltering services. For county-maintained roads, the county has maintainer sheds in each village in the county. Present snow removal equipment in these areas is sufficient. The county also has snow removal priorities in place.

Tornadoes and High Winds

Tornadoes and high winds are common across the planning area and concerns exist for resident safety, blocked transportation routes, property damages, and power outages from downed power lines. On May 11, 2014, two EF3 tornadoes hit near the Village of Exeter and Grafton and an EF2 was also reported near Grafton. The NCEI reported for these events:

- *EF3 tornado near Exeter - This tornado was the second to be rated an EF3 that affected south central Nebraska, starting in far northern Fillmore County before traversing a portion of York County and passing north of Cordova in Seward County. Damage along the track in Fillmore County was widespread, including one home which was totally destroyed. All 6 occupants took shelter in the basement. Another home suffered less significant damage, but outbuildings on the same property were destroyed. Also along the path of this tornado, and to the south of the path where rear flank downdraft winds occurred, numerous irrigation pivots were overturned, power poles were broken as well as trees and grain bins either damaged or destroyed. The strongest and widest time of this tornado occurred in*

Seward County, with a peak wind estimated to be 140 MPH and a maximum width of 2,640 yards, or 1.5 miles.

- *EF2 tornado near Grafton - This tornado traveled rural areas of northern Fillmore County, bumping the York County line along the way. It touched down a few miles north-northwest of Grafton and lifted a few miles north-northeast of Fairmont. One home suffered damage when part of the roof was torn away, while another older home was pushed approximately 30 feet off of its foundation. There was widespread power pole and tree damage, with some trees containing debris from grain bins, and a number of irrigation pivots were overturned. The peak wind with this tornado was estimated to be 120 MPH. South of the main tornado track, strong rear flank downdraft winds resulted in additional power pole and irrigation pivot damage, and an outbuilding suffered damage near Highway 81 north of Fairmont.*
- *EF3 tornado near Grafton - This tornado traveled rural areas of northern Fillmore County, bumping the York County line along the way. It touched down a few miles north-northwest of Grafton and lifted a few miles north-northeast of Fairmont. One home suffered damage when part of the roof was torn away, while another older home was pushed approximately 30 feet off of its foundation. There was widespread power pole and tree damage, with some trees containing debris from grain bins, and a number of irrigation pivots were overturned. The peak wind with this tornado was estimated to be 120 MPH. South of the main tornado track, strong rear flank downdraft winds resulted in additional power pole and irrigation pivot damage, and an outbuilding suffered damage near Highway 81 north of Fairmont.*

The County has reverse 911 calls and automatic weather notification procedures. Each village has an alert siren, most of which are activated by dispatch at the county dispatch center. The sirens are owned by each village. Fillmore County Emergency Management noted sirens in Milligan, Ohiowa, Exeter, and Strang need updated. The county courthouse does not have a saferooms, but does have vaults on each floor and the hallway of the basement. The sheriff's office has a plan for their office and prisoners. Staff would go to a reinforced room, prisoners would go under their bunks.

Governance

A community's governance structure impacts its capability to implement mitigation actions. The county is governed by a seven-member board of supervisors. The county also has the following offices or departments: assessor, attorney, board of equalization, clerk, county court, district court, election commissioner, emergency management, extension office, highway department, planning commission, register of deeds, senior services, sheriff, treasurer, veterans office, waste oil collection, weed superintendent, and zoning administrator. The county also has an UNL Extension Office which assists with some projects.

Capabilities

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

Table FIL.12: Capability Assessment

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

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

Table FIL.13: Overall Capability

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

Plan Integration

Fillmore County has a Comprehensive Plan, Capital Improvements Plan, Hazard Mitigation Plan, Economic Development Plan, Local Emergency Operations Plan (LEOP), Natural Resources Protection Plan, Floodplain Management Plan, Subdivision Ordinance, Floodplain Ordinance, and Building Codes.

The county has applied for and received Emergency Management Planning Grants in the past to assist with emergency management activities. The local planning team noted the annual budget is generally limited to maintaining current facilities and systems and funds have remained relatively consistent over the past several years.

The LEOP for Fillmore County, which was updated in November 2019, is an all-hazards plan that provides a clear assignment of responsibility in case of an emergency. It includes, as annexes, EOPs for the City of Geneva, and the Villages of Exeter, Fairmont, Grafton, Milligan, Ohiowa, Shickley, and Strang.

Fillmore's zoning regulations were last update in 2013. The county's emergency manager is also the floodplain administrator. Zoning regulations for the county greatly restrict development in the floodplain. Two requests for construction agricultural storage facilities in the floodplain have come in during the past five years. Each of these structure were required to be elevated above the BFE. No residential structure have been built in the floodplain in the past five years, and no request for future development have been submitted.

Fillmore's Comprehensive plan, last updated in 2013, also contains specific language regarding floodplain development: "The County and villages should not encourage development within identified 100-year flood plains and in some instances any identified 500-year flood plain. In addition to development, locating major livestock confinements and industrial uses within these areas should also be discouraged due to the potential of pollutants, animal loss, and contamination during high water periods." No other language regarding hazard mitigation is included in the plan.

Plan Maintenance

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

Fillmore County last reviewed their section of the HMP in 2016 during the plan update. The local planning team including County Emergency Management, Planning and Zoning, and Roads Department are responsible for reviewing and updating the plan. The local planning team will review the Community Profile annually at a minimum. The public will be notified and involved in the update review process through newspaper publications and social media outreach.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	"DISK" PROGRAM
DESCRIPTION	Work with farmers, townships, and fire departments to maintain the "DISK" program to stop cropland fire fuel supply, as needed
HAZARD(S)	Grass/Wildfire
STATUS	This is an established and ongoing project.

MITIGATION ACTION	EMERGENCY COMMUNICATIONS
DESCRIPTION	Improve emergency communications
HAZARD(S)	All hazards
STATUS	The emergency alert system has been updated through IPAWS and AlertSense emergency notifications. Four sirens in communities need to be updated to remote operation/activation, but they are village responsibilities. The county will assist as requested.

MITIGATION ACTION	EVACUATION OR SHELTERING EDUCATION
DESCRIPTION	Work with the state and railroad to develop education materials for populations at risk to chemical spills from train derailments
HAZARD(S)	Hazardous Materials
STATUS	The county hired a private contractor to develop plans and share resources. A safety representative met with civic leaders and local schools to demonstrate sheltering procedures.

MITIGATION ACTION	SNOW RESCUE/REMOVAL
DESCRIPTION	Coordinate with the State to maintain safe road conditions during winter storms.
HAZARD(S)	Severe Winter Storms
STATUS	New and upgraded road graders have been purchased in the past five years.

Continued Mitigation Actions

MITIGATION ACTION	REMOVE FLOW CONSTRICTIONS
DESCRIPTION	Conduct removal of flow constrictions
HAZARD(S)	Flooding
ESTIMATED COST	$100,000
FUNDING	Tax funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Roads Dept
STATUS	This project has not yet been started. Grader ditches are the main concern and need clearing at numerous county sites.

Removed Mitigation Actions

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

MITIGATION ACTION	VULNERABLE POPULATION DATABASE
DESCRIPTION	Work with Public Health Solutions to use their database of vulnerable populations as needed
HAZARD(S)	All hazards
REASON FOR REMOVAL	This project was identified as no longer a priority for the county.

COMMUNITY PROFILE

VILLAGE OF EXETER

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

Local Planning Team

Table EXE.1: Village of Exeter Local Planning Team

Name	Title	Jurisdiction
Becky Erdkamp	Village Clerk	Village of Exeter
John Mueller	Maintenance Supervisor	Village of Exeter
Alan Michl	Board Chairman	Village of Exeter

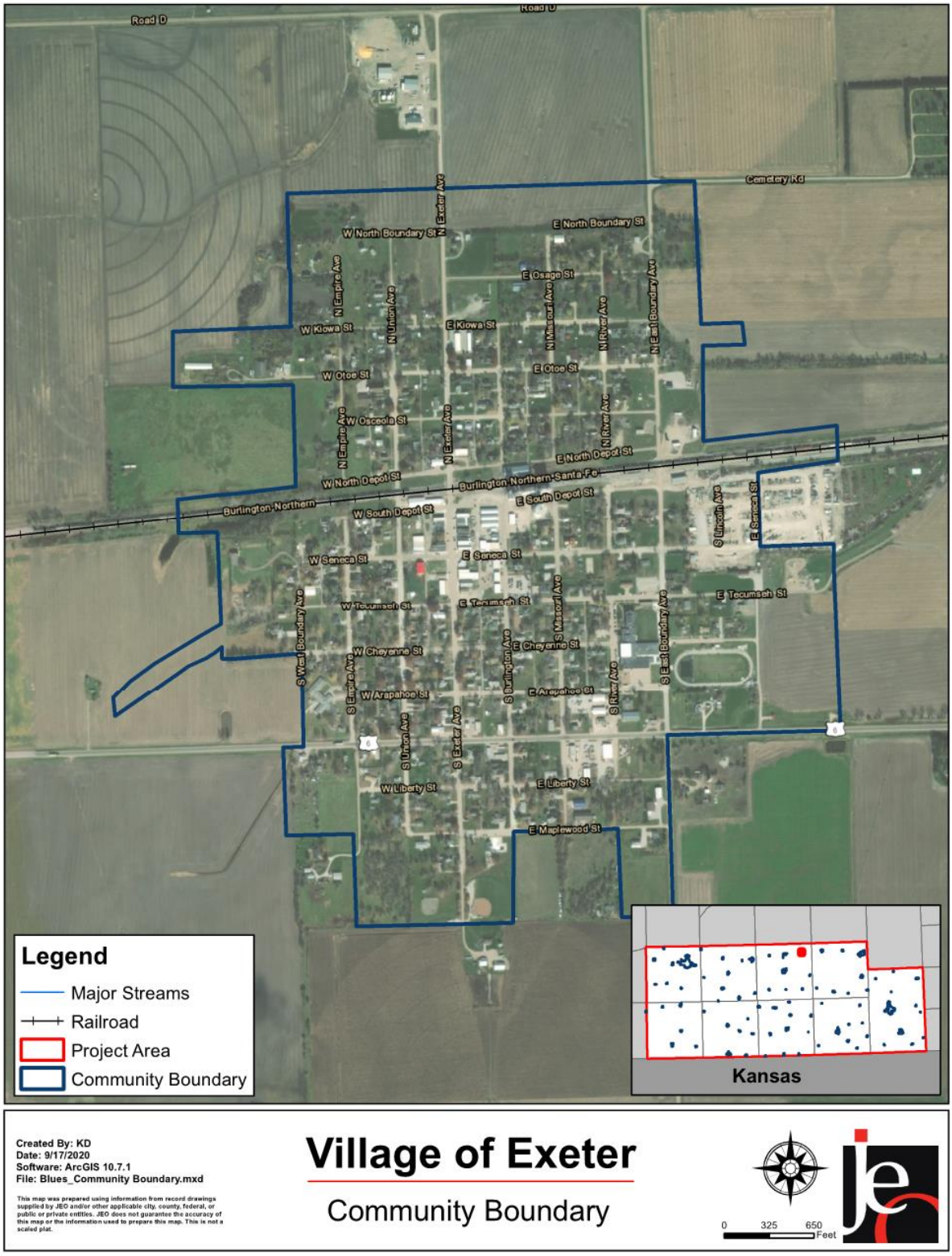
Location and Geography

The Village of Exeter is located in the north eastern portion of Fillmore County. The Village of Exeter covers an area of 0.63 square miles. There are no major waterways within the area. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Exeter's major transportation corridors include State Highway 6, which runs east-west, to the south of Exeter. NE-6 accommodates on average 2,110 vehicles per day, 320 of which are heavy commercial vehicles. Exeter has two rail lines, Burlington Northern Santa Fe line, and Amtrak, which runs on the same line. At Exeter, the BNSF runs east-west headed into Lincoln and west to Hastings. Hazardous materials including gas, fuel, anhydrous ammonia, and other agricultural chemicals are commonly transported through the village. The village has experienced two train derailments on the east edge of town in the 1980's, but no other major events have impacted the community. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

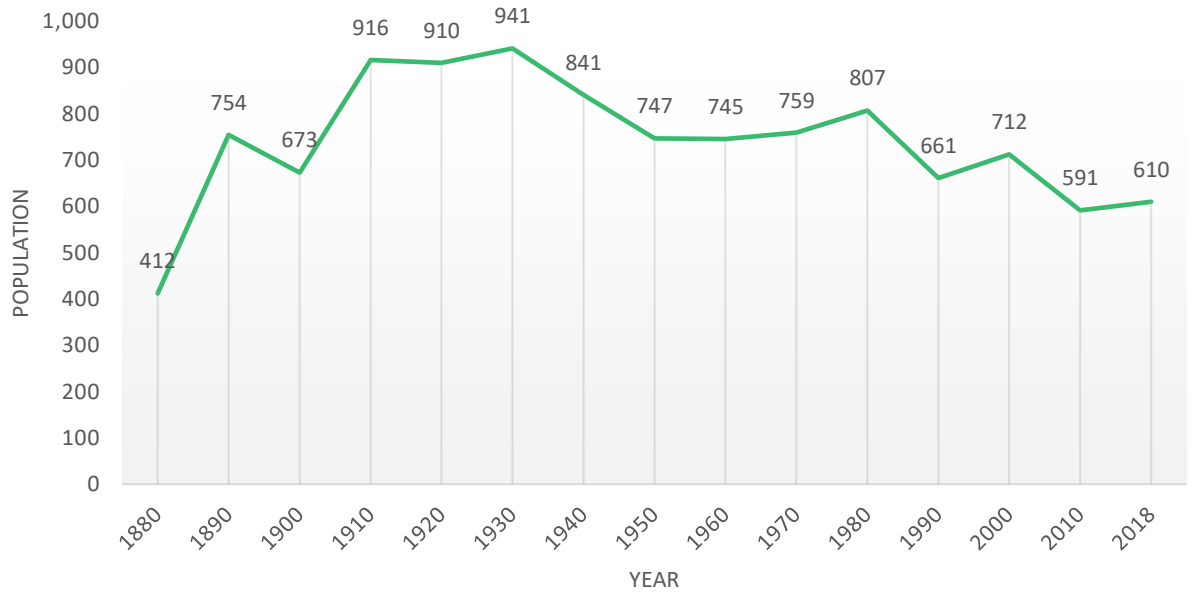
Figure EXE.1: Village of Exeter Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that the population of Exeter grew until 1930. Since the 1980s the population has fluctuated between growth and decline. 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 have larger shares of unoccupied housing or decreasing tax revenues. The village's population accounted for 11% of Fillmore County's Population in 2018.

Figure EXE.2: Exeter Population 1880-2018



Source: U.S. Census Bureau[12]

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

- **Older.** The median age of Exeter was 44.9 years old in 2018, compared with the County average of 47.7 years. Exeter's population has grown older since 2010, when the median age was 44.0 years old. Exeter had a smaller proportion of people under 20 years old (20.7%) than the County (21.3%).[13]
- **Less ethnically diverse.** Since 2010, Exeter declined in diversity. In 2010, 1% of Exeter's population was other races. By 2018 100% of Exeter's population was White, non-Hispanic. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[14]
- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Exeter (7.8%) was lower than the County (10.0%) in 2018.[15]

12 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
13 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
14 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
15 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Similar mix of industries**. Employment sectors accounting for 10% or more of employment in Exeter included Construction and Education. In comparison Fillmore County's included Agriculture and Education in 2018.[16]
- **Higher household income**. Exeter's median household income in 2018 ($57,955) was about $2,000 greater than the County ($55,625).[17]
- **Fewer long-distance commuters**. About 72.2% percent of workers in Exeter commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 15.6% of workers in Exeter commute 30 minutes or more to work, compared to about 20.8% of the County workers.[18]

Major Employers

Major employers in the village include Horizontal Boring and Tunneling, Exeter-Milligan Schools, the Farmer's Co-Op, and Generations Bank. However, some residents do commute to York or Lincoln for employment.

Housing

In comparison to Fillmore County, Exeter's housing stock was: [19]

- **More owner occupied.** About 77.4% of occupied housing units in Exeter are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Greater share of aged housing stock**. Exeter has more houses built prior to 1970 than the county (70.2% compared to 69.9%).
- **More multi-family homes**. The predominant housing type in the village is single family detached and Exeter contains fewer multifamily housing with five or more units per structure than the County (0.0% compared to 5.2%). About 95.0% of housing in Exeter was single-family detached, compared with 90.6% of the County's housing. Exeter has a larger share of mobile and manufactured housing (2.0%) compared to the County (1.1%). However, the local planning team noted only one trailer is left in town.

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.

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

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

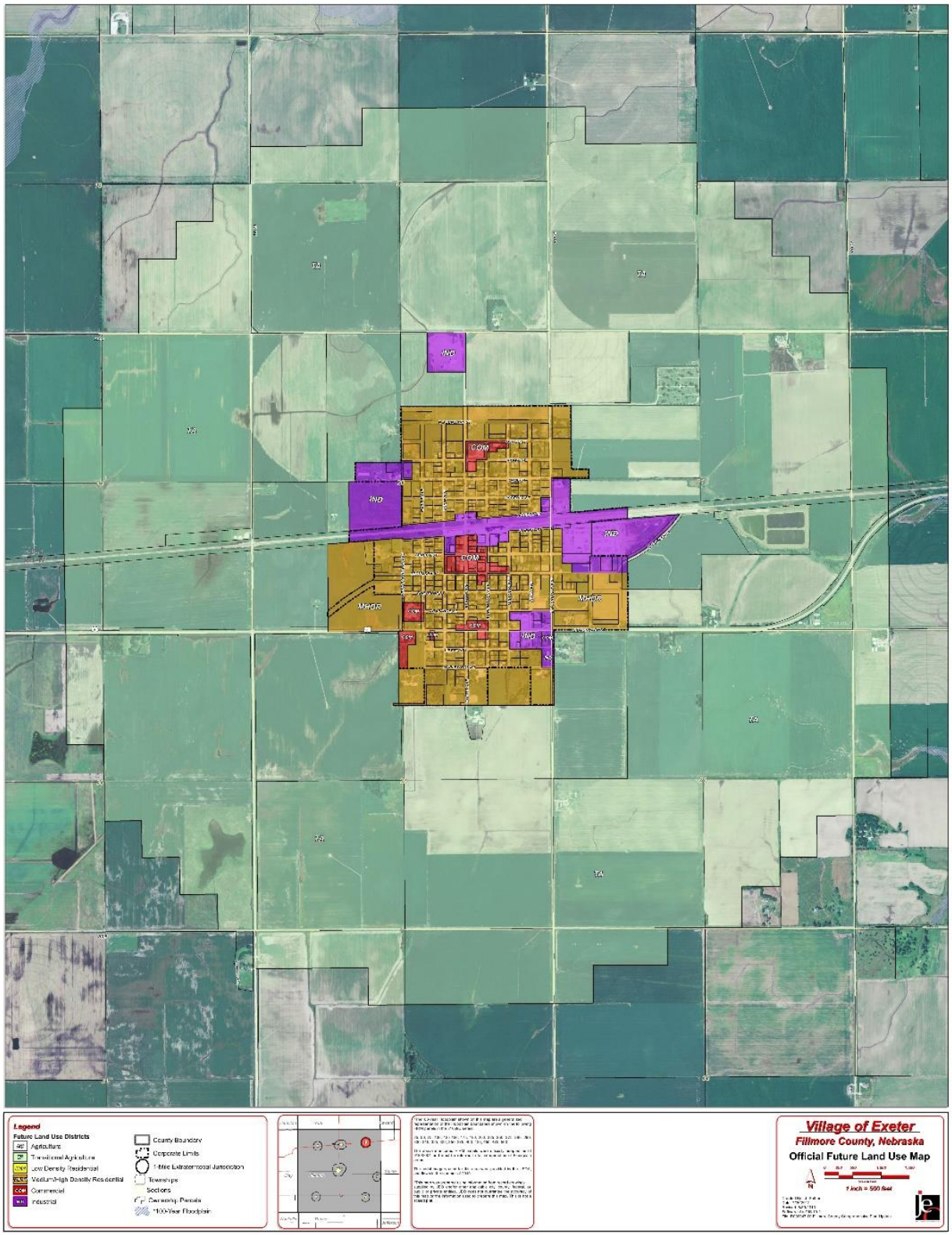
[18] United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

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

Future Development Trends

Twelve new structures have been built in Exeter since 2011: five houses, St. Stephen's Parish Hall, five sheds, and a new duplex. The village is not in a floodplain, but two of the new houses were built in high groundwater areas. One home has a basement with drain tile, and the other is built on a slab. Since 2015 two dilapidated buildings were demolished and three new houses were built by the football field. Several businesses have also opened in town: Harre Seed, a massage clinic, day care, and additional building at the fertilizer plant. Three of the new homes and the seed plant are located within a block of the municipal sewer lift station, but no additional buildings have been built in the floodplain or hazardous areas. The population of Exeter has fluctuated in the past few decades which the local planning team attributed to changes in the local agricultural farm size and family size.

Figure EXE.4: Exeter Future Land Use Map



Parcel Improvements and Valuation

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

Table EXE.2: Exeter Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
475	326	$21,886	0	0%	$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical storage sites throughout Exeter which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. The local planning team noted Burress also stores anhydrous ammonia for farm use and North Exeter Avenue turns into a county road running past the Co-Op chemical plant.

Table EXE.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Farmers Cooperative Grain	134 S Burlington Ave	N
Farmers Cooperative Bulk/Chems	919 N Exeter Dr	N

Source: Nebraska Department of Environment and Energy[20]

Critical Facilities

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

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

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

Table EXE.4: Exeter Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Food, Water, and Shelter	Exeter-Milligan Public School	Y	N	N
2	Safety and Security	City Office and Library	Y	N	N
3	Transportation	City Maintenance Building	N	N	N
4	Transportation	City Maintenance Building	N	N	N
5	Safety and Security	Fire Hall	Y	Y	N
6	Food, Water, and Shelter	Water Tower	N	N	N
7	Food, Water, and Shelter	Well House - Back up	N	N	N
8	Food, Water, and Shelter	City Senior Center	Y	N	N
9	Health and Medical	Sewer Lift Station	N	Y	N
10	Food, Water, and Shelter	Well House 1	N	Y	N
11	Food, Water, and Shelter	Well House 2	N	Y	N
12	Food, Water, and Shelter	Pool Bathhouse - Storm Shelter	Y	N	N
13	Health and Medical	Sewer Lagoons	N	N	N

Figure EXE.3: Exeter Critical Facilities

Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

While riverine or flash flooding are not major concerns for the village, the groundwater levels in the village have been rising since 1984. Many basements have been flooded in the past and have installed pumps and drainage equipment to alleviate these problems. There is a pond located ¼ mile west of town on Highway Six-North. This pond regularly overflows, most recently in the spring of 2015. The local planning team noted the pond contributes to ground water problems in the village and they would like to fill this pond to prevent future flooding. Heavy rain events can cause poor drainage due to the high-water table. The village participates in the NFIP but had no active policies in force as of November 2020.

Severe Thunderstorms

Severe thunderstorms are common in the area and include impacts from heavy rain, lightning, hail, and strong winds. A severe thunderstorm impacted the village in June of 2014. Virtually every house and vehicle sustained damages and several homes still have boarded up windows or siding missing siding as of 2021. The main concerns for these hazards pertain to providing advance warnings, preventing power outages, and providing shelters to those in need. The village has backup generators at the fire hall, well house, and sewage lift station. There is no local tree board. Weather radios are available the fire hall. A backup generator was recently installed at the fire hall.

Severe Winter Storms

Severe winter storms can include impacts from heavy snow, ice accumulation, blizzards, extreme cold, and winter storms. The main concern for this hazard involves keeping the elderly safe. Priority snow routes are the business district, school routes, with residences being done last. The Maintenance supervisor and hourly laborers are in change of snow removal. The village has a motor grader, car loader, and UTV for sidewalks. In the winter of 2011 several blizzards occurred and forced school closures. City staff spent a lot of time keeping roads open. Power outages occurred as well.

Tornadoes and High Winds

The most recent significant tornado event occurred in May 2014 when an EF3 tornado touched down near the village. Major impacts were felt in neighboring towns and rural areas and reported damages exceeded $7,500,000. Many homes, grain binds, and pivots were destroyed in the

surrounding areas near Exeter. There have been many high wind events over the years. In the past power lines have been knocked down and structural damages has been caused to buildings. Strong winds blew the roof off of the local grocery store in 1992. Tree damage occurred in May and June of 2014 which resulted in blocked streets.

Exeter's main concerns for these hazards include being able to warn people in advance, setting up a command center, and sheltering citizens. Community members seek shelter at the pool, bath house, city hall basement, and home basements. Exeter would like to partner with Exeter-Milligan Public schools to install a safe room for students.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Exeter has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five member council and the following offices: clerk/treasurer, attorney, utility superintendent, fire chief, rescue captain, sewage plant operator, and street/water/sewer commissioner.

Capabilities

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

Table EXE.5: Capability Assessment

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

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

Table EXE.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	Limited
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The local planning team noted the annual municipal budget is limited to maintaining current facilities and systems. The village's funds have increased over the past few years which may allow for additional mitigation activities.

The village does not have a comprehensive plan and utilizes the county's zoning and building code standards for development. The Zoning Ordinance for the county was last updated in March

2013 and is updated on an as needed basis. The ordinance discourages development in the floodplain or other hazardous areas.

The Local Emergency Operations Plan (LEOP) for Exeter, which was last updated in 2017, is an annex of Fillmore County's LEOP. The plan addresses hazards such as chemical releases, severe winter storms, severe thunderstorms, and tornadoes. The plan provides a clear assignment of responsibility in case of an emergency, shelter locations, and evacuation routes but does not identify any gaps related to a particular hazard.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Village Clerk, maintenance supervisor, and village board members. The local planning team will review the plan no less than annually and will include the public in the review and revision process by: updating the website, newsletters, and sharing information at village board meetings open to the public.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	BACKUP MUNICIPAL RECORDS
DESCRIPTION	Develop protocol for back-up of critical municipal records
HAZARD(S)	All hazards
STATUS	The villages computers are now backed up to the cloud, an external hard drive, and flash drives weekly.

MITIGATION ACTION	DESIGNATE SNOW ROUTES
DESCRIPTION	During winter events, the community will have designated snow routes for the community to use.
HAZARD(S)	Severe Winter Storms
STATUS	Snow routes have been designated in town and routes are evaluated each year. The village also provides salt for sidewalks in downtown areas.

MITIGATION ACTION	EDUCATIONAL PROGRAMS
DESCRIPTION	Promote educational programs
HAZARD(S)	All hazards
STATUS	The community conducts fire safety outreach through the school and other educational programs for hazards. The main focus is to keep youth safe. In the past, the city has also distributed information for mosquito abatement and black mold for flooded basements. The local police officers also do outreach programs at the school.

MITIGATION ACTION	EMERGENCY OPERATIONS CENTER
DESCRIPTION	Develop emergency operations center for the village including communications
HAZARD(S)	All hazards
STATUS	Fire hall has been identified as the EOC and a backup generator has been installed. City computers have external backups. Clerk has emergency forms kept on and off site.

MITIGATION ACTION	HAZARDOUS TREE REMOVAL
DESCRIPTION	Identify and remove hazardous limbs and/or trees.
HAZARD(S)	Drought and Extreme Heat, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	Low hanging ranches have been removed every few years by property owners and city maintenance staff. Property owners and city staff continue to remove dead trees throughout the village on an ongoing basis.

MITIGATION ACTION	IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM
DESCRIPTION	As needed, continue to revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include equipment that is needed and paving routes.
HAZARD(S)	Severe Winter Storms
STATUS	All streets are cleared within 12 hours post event and salt/ice melt is provided for downstream businesses.

MITIGATION ACTION	SURGE PROTECTORS
DESCRIPTION	Purchase and install surge protectors on sensitive equipment in critical facilities.
HAZARD(S)	Severe Thunderstorms
STATUS	Surge protectors have been installed on computers at city office and library.

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR – SCHOOL/SHELTERS
DESCRIPTION	Install a back-up power generator in school (shelter)
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$50,000
FUNDING	Bonds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Exeter Milligan Schools
STATUS	This project has not yet been started.

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Purchase a new fire truck
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	$100,000
FUNDING	Local Taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	The village is currently in the planning process to purchase this and working with the Rural Board to purchase equipment in fall 2021.

MITIGATION ACTION	IMPROVE AND REVISE SNOW/ICE REMOVAL PROGRAM OR RESOURCES
DESCRIPTION	Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event.
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	$100,000
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Maintenance, Fire Dept
STATUS	This project has not yet been started.

MITIGATION ACTION	POND FILLING
DESCRIPTION	Conduct a filling of a pond on west side of village due to basement flooding
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	$50,000
FUNDING	Taxes, Landowner cost share, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Maintenance and Village Engineer
STATUS	This project has not yet been started.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Mosquito education and reduce standing water in the village
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	N/A
FUNDING	General Funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Maintenance, Village Clerk
STATUS	This would focus on areas near the city hall and library. The village would like to print education information for this program.

MITIGATION ACTION	SAFE ROOMS/STORM SHELTERS
DESCRIPTION	Install an emergency shelter at the Exeter School.
HAZARD(S)	All hazards
ESTIMATED COST	$300,000
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Fire Dept. Village Clerk, Exeter Schools
STATUS	This project has not yet been started.

MITIGATION ACTION	SHELTER SUPPLIES
DESCRIPTION	Purchase supplies for the emergency shelter. This may include provisions, health care supplies, or short term residency supplies.
HAZARD(S)	All hazards
ESTIMATED COST	$10,000
FUNDING	Taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Fire, Maintenance, Clerk, Police.
STATUS	A generator has been placed at the fire hall. Some wool blankets were also purchased. The village needs blankets, pillows, cots, etc.

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	Conduct improvement of drainage system in southeast portion of village due to basement flooding
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	$100,000
FUNDING	Local Taxes
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Maintenance and Village Engineer
STATUS	The village is in the process of replacing culverts and digging out ditches to help with drainage of standing water.

MITIGATION ACTION	TRAIN DERAILMENT RESPONSE TRAINING
DESCRIPTION	Provide training for first responders in the event of a train derailment and related Haz. Mat. Incidents. Train first responders to properly secure and size up an incident site before railroad responders can arrive on scene.
HAZARD(S)	Hazardous Materials
ESTIMATED COST	$1,000
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Fire Dept.
STATUS	Training is an ongoing process. An exercise should be conducted in the future.

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	PANDEMIC RESPONSE PLAN
DESCRIPTION	Develop and implement a pandemic response plan for the village in response to pandemics, such as COVID-19.
HAZARD(S)	Public Health Emergency
ESTIMATED COST	Unknown
FUNDING	General funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Clerk, Rescue Culture
STATUS	This is a new mitigation action.

Removed Mitigation Actions

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

COMMUNITY PROFILE

VILLAGE OF FAIRMONT

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

Local Planning Team

Table FAI.1: Village of Fairmont Local Planning Team

Name	Title	Jurisdiction
Tyler Salmon	Village Marshall	Village of Fairmont
Linda Zuerlein	Village Clerk	Village of Fairmont
Don Moses	Board Chair	Village of Fairmont

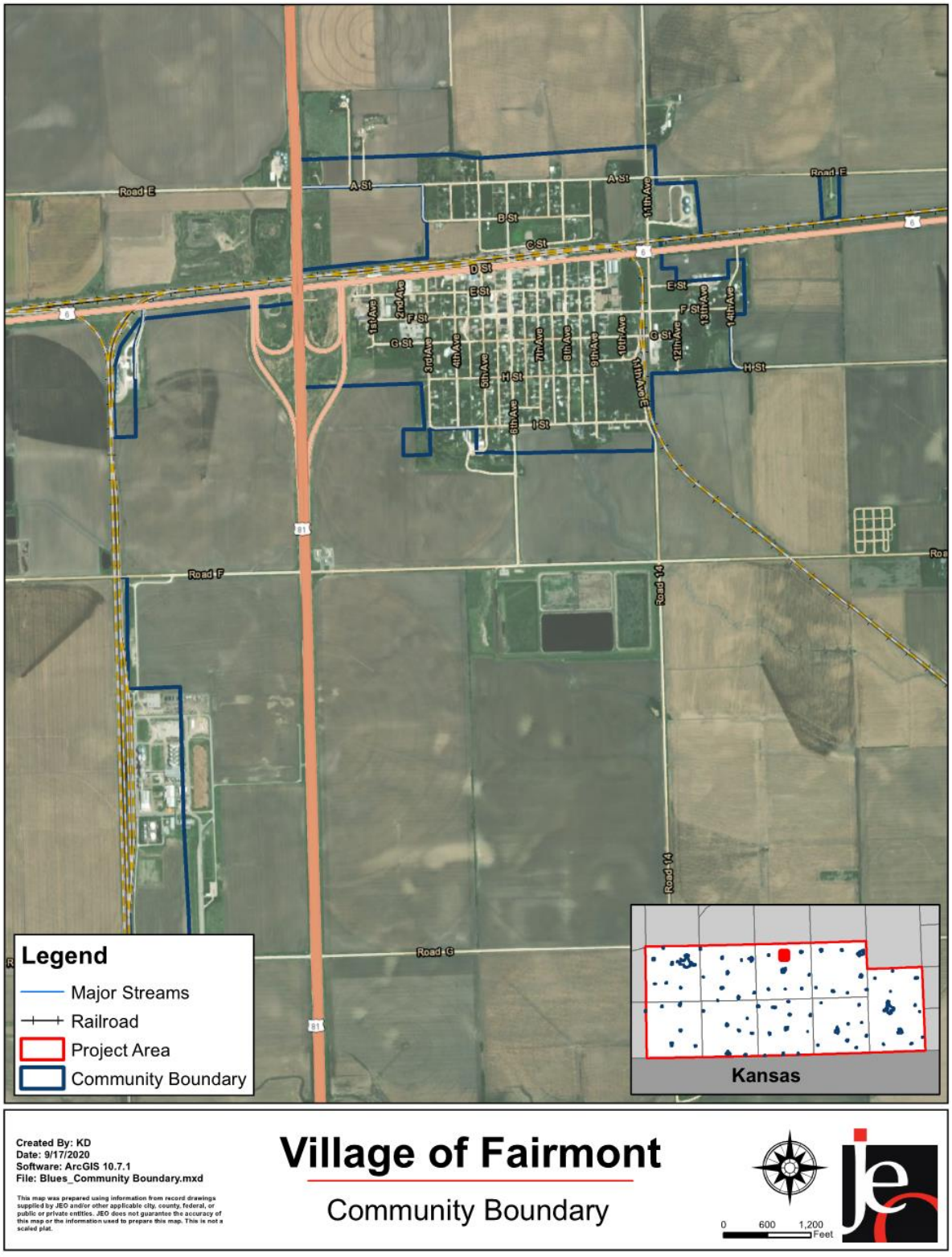
Location and Geography

The Village of Fairmont is located in the north central portion of Fillmore County. The Village of Fairmont covers an area of 0.82 square miles. There are no major waterways within the area. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Fairmont's major transportation corridors include State Highway 6, which runs east-west through Fairmont and Highway 81 which runs north-south on the west side of the village. NE-6 accommodates on average 2,060 per day, 330 of which are heavy commercial vehicles. Fairmont has two rail lines, Burlington Northern Santa Fe line, and Amtrak, which runs on the same line. At Fairmont, the BNSF runs east-west headed into Lincoln and west to Hastings. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

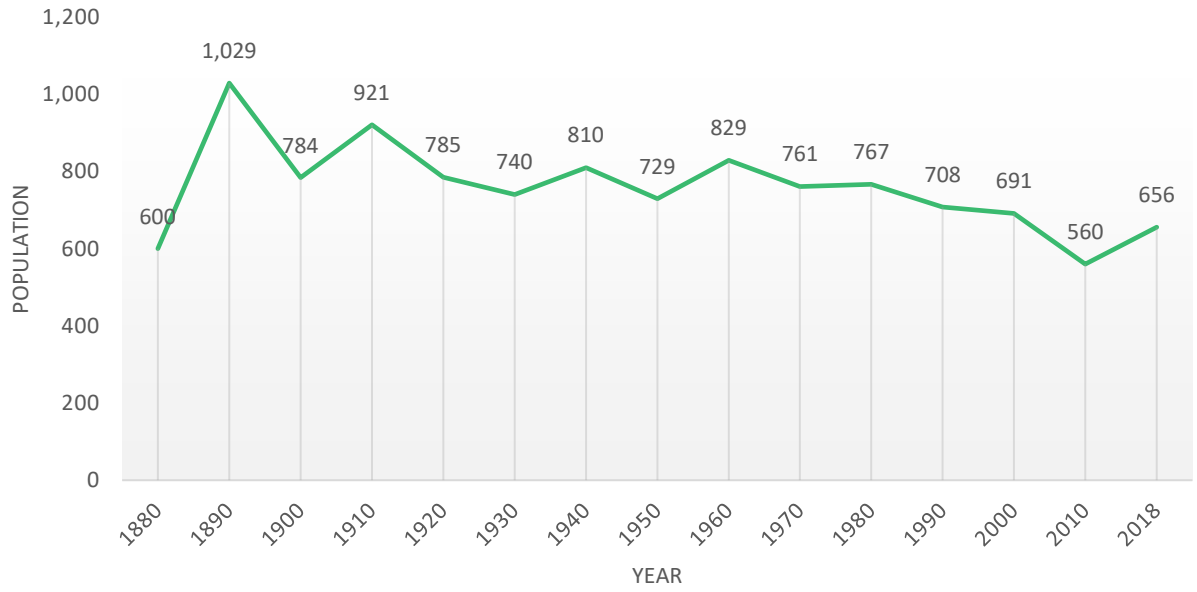
Figure FAI.1: Village of Fairmont Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that the population of Fairmont has declined between 1960 and 2010 but has seen an increase since 2010. 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 have larger shares of unoccupied housing or decreasing tax revenues. The village's population accounted for 12% of Fillmore County's Population in 2018.

Figure FAI.2: Fairmont Population 1880-2018



Source: U.S. Census Bureau[21]

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

- **Younger.** The median age of Fairmont was 44.6 years old in 2018, compared with the County average of 47.7 years. Fairmont's population has younger older since 2010, when the median age was 49.5 years old. Fairmont had a similar proportion of people under 20 years old (21.0%) as the County (21.3%).[22]
- **Less ethnically diverse.** Since 2010, Fairmont declined in diversity. In 2010, 1% of Fairmont's population was American Indian, 1% was other races, and 1% was two or more races. By 2018 only 1% of Fairmont's population was American Indian. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[23]
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Fairmont (14.5%) was higher than the County (10.0%) in 2018.[24]

21 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
22 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
23 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
24 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Similar mix of industries**. Employment sectors accounting for 10% or more of employment in Fairmont included Construction, Transportation, Education, and Public Administration. In comparison Fillmore County's included Agriculture and Education in 2018.[25]
- **Higher household income**. Fairmont's median household income in 2018 ($56,667) was about $1,000 greater than the County ($55,625).[26]
- **More long-distance commuters**. About 21% percent of workers in Fairmont commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 33.3% of workers in Fairmont commute 30 minutes or more to work, compared to about 20.8% of the County workers.[27]

Major Employers

Major employers in Fairmont include Fairview Manor, Fillmore Central Middle School, and Flint-Hills Resources.

Housing

In comparison to Fillmore County, Fairmont's housing stock was: [28]

- **More owner occupied.** About 82.7% of occupied housing units in Fairmont are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Greater share of aged housing stock**. Fairmont has more houses built prior to 1970 than the county (77.9% compared to 69.9%).
- **More multi-family homes**. The predominant housing type in the village is single family detached and Fairmont contains more multifamily housing with five or more units per structure than the County (5.4% compared to 5.2%). About 86.7% of housing in Fairmont was single-family detached, compared with 90.6% of the County's housing. Fairmont has a larger share of mobile and manufactured housing (1.5%) compared to the County (1.1%). However, the local planning team noted the village does not have any mobile home parks or manufactured 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.

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

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

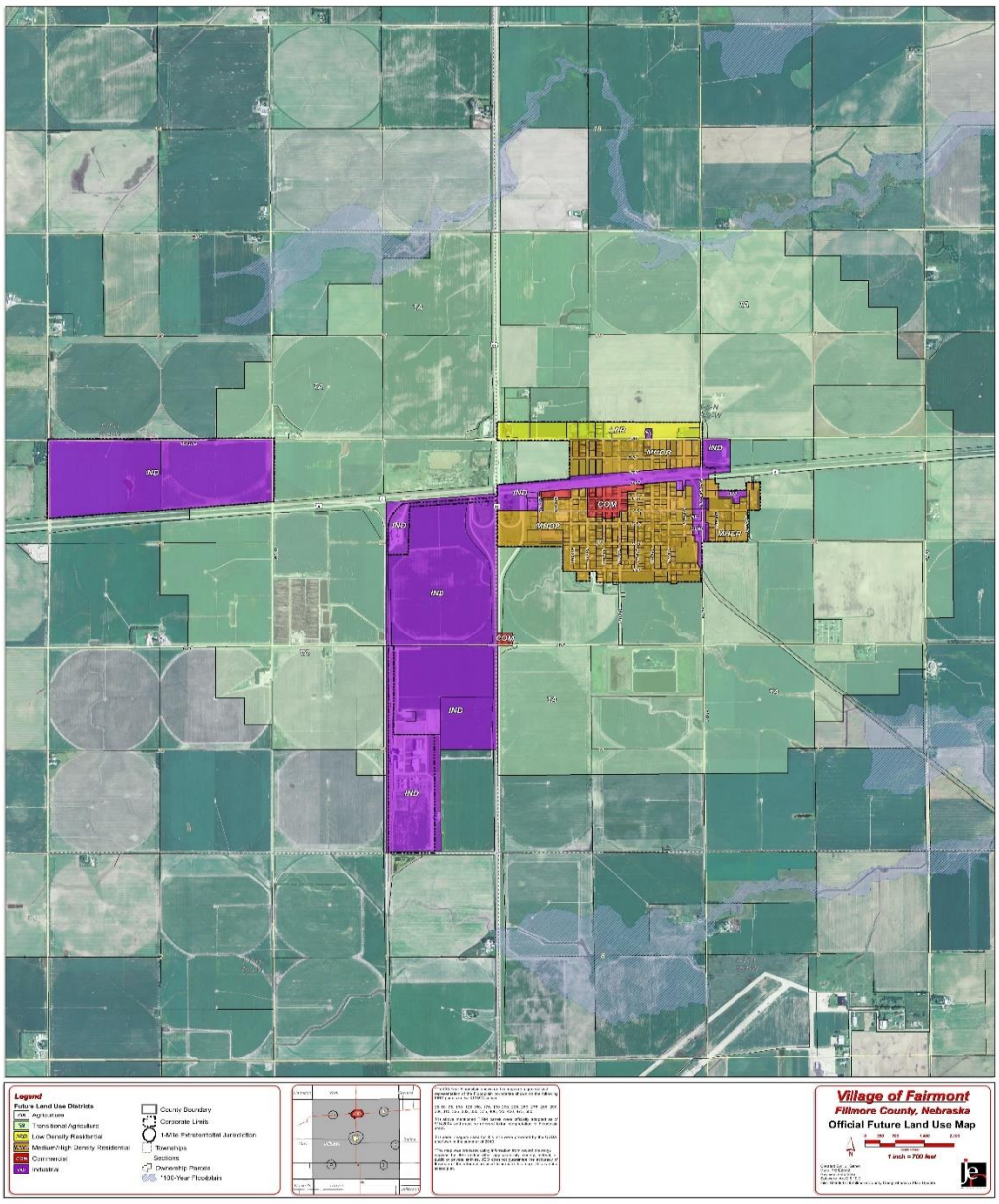
[27] United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]

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

Future Development Trends

In the past five years, a grain loading rail car shuttle facility, associated with the CPI Lansing joint venture construction, was built along the north side of Highway 6. Also, a new facility for Bill's repair shop, located at 1101 G St, Fairmont, NE, was constructed. Some other people are putting up metal buildings to store RVs. New storage facilities are also currently being constructed, along 11th avenue between F and G St. The village has installed backup generators on well house, fire bard, rescue unit building, and lift stations. The population in Fairmont has declined in the past which the local planning team attributed to an aging population and lack of available housing.

Figure FAI.3: Fairmont Future Land Use Map



Parcel Improvements and Valuation

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

Table FAI.2: Fairmont Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
441	280	$27,361	0	0%	$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites throughout Fairmont which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table FAI.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Wynne Transport Service Shop	Road I	N
Farmers Cooperative East	Highway 6 E	N
Nutrien Ag Solutions	2010 Road 11	N
Flint Hills Resources Fairmont	1214 Road G	N

Source: Nebraska Department of Environment and Energy[29]

Critical Facilities

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

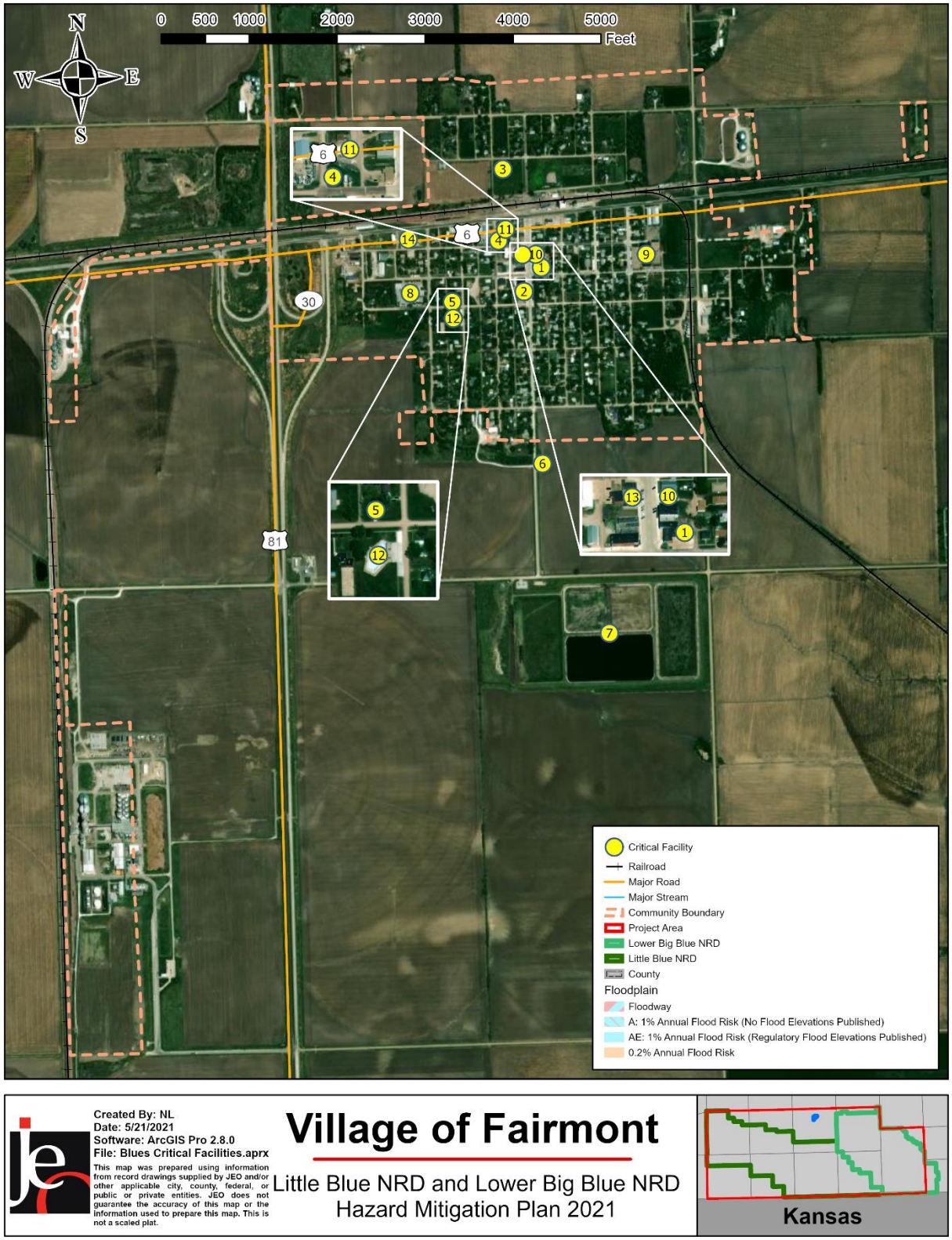
The following table and figure provide a summary of the critical facilities for the jurisdiction.

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

Table FAI.4: Fairmont Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Barn	Y	Y	N
2	Safety and Security	Village Hall	N	N	N
3	Food, Water, and Shelter	Water Tower	N	N	N
4	Food, Water, and Shelter	North Well	N	N	N
5	Food, Water, and Shelter	South Well	N	Y	N
6	Health and Medical	Sewer Lift Station	N	Y	N
7	Health and Medical	Sewage Lagoons	N	N	N
8	Health and Medical	Fairview Manor	N	Y	N
9	Food, Water, and Shelter	Fillmore Central Middle School	Y	Y	N
10	Safety and Security	Fire/Rescue Unit	N	Y	N
11	Safety and Security	Village Maintenance	N	N	N
12	Other	Swimming Pool	N	N	N
13	Food, Water, and Shelter	Fairmont Senior Center	Y	N	N
14	Transportation	Maintenance Shed	N	N	N

Figure FAI.3: Fairmont Critical Facilities



Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Severe Thunderstorms

Fairmont has experienced several incidences of powerful thunderstorm in the past decades. Severe thunderstorms include impacts from hail, heavy rain, strong winds, and lightning. Notable events include an August 22, 2007 storm with 75 mph winds that tore the roof off of a car wash and damaged many trees, and produced $250,000 in damage; a March 23, 2009 storm with 70 mph winds that snapped power poles, overturned a semi-truck, and caused $25,000 in damage; and a 71 mph gust on June 14, 2014, that was reported by a storm chaser, along with power flashes.

Loss of power is the primary concern for this hazard, including power outages for loss of water pressure. NPPD provides power to the community. The nursing home has indicated a strong desire to purchase a generator in case of a power outage event. The village contracts tree removal services. There are backup generators at the lift station, water well, mobile generator, tractor generator, and fire barn. One well in the village has a generator and one does not. The village is also in the process of burying power lines north of the railroad tracks.

Severe Winter Storms

Fairmont is prone to severe winter weather. Severe winter storms include impacts from heavy snow, ice accumulation, extreme cold, blizzards, and winter storms. The blizzard of February 1, 2015 that produced whiteout conditions and six to nine inches of snow in Fillmore County affected Fairmont, and the region experiences periodic ice storms.

Fairmont currently clears its own streets and has excellent snow removal resources. They have a skid loader, a road grader, a pay loader and a tractor with a blade. The village is concerned about power outages with this hazard. In 1976, a storm caused outages for over a week, and in some places for a month. The Village did note that because it is a small community, neighbors take care of one another during hazardous events.

Tornadoes and High Winds

Tornadoes and high winds are a risk in Fairmont, as illustrated by the May 11, 2014, 90 mph EF-1 tornado that caused $150,000 in damage in the village, and a brief F-0 touchdown on June 13, 2001. Going back to 1998, an F-2 on May 15 caused $750,000 in damage.

Loss of power is the greatest concern for this hazard. Community members can use the basement of the senior center as a safe room which holds approximately 60 people. The school would send students to the hallway, as no better alternative is available. The village has identified the need for a more handicap accessible building as a storm shelter. Fairmont has three sirens on the east side of town, at the fire hall, and at the school. There are no weather radios in town. The Village office mostly relies of the public radio out of York for weather alerts. There are no mobile homes any more in Fairmont. Fairmont regularly budgets to demolish vacant housing and to remove dilapidated structures.

Flooding

Flooding was not identified as a hazard of top concern and there are floodplain areas adjacent to the village. Fairmont participates in the NFIP but does not have any policies in force as of November 2020.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Fairmont has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five-member council and the following offices: clerk/treasurer, attorney, utilities superintendent, chief of police, fire chief, sewage plant operator, and Fillmore County Civil Defense.

Capabilities

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

Table FAI.5: Capability Assessment

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

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

Table FAI.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 Integration

In the past the Village has applied for grants in the past including CDBG housing rehabilitation grants and CCCFF grants. The local planning team noted the annual municipal budget's funds

have increased over the past few years; however, funds are currently being used to improve capital improvements and water/sewer system.

The village's comprehensive plan was developed in 2013 but did not take into consideration hazard mitigation principles. Future updates of the comprehensive plan should reference HMP principles. The village has developed a 5-year electric distribution plan and conducted a water study. Both of these plans seek to reduce the impact of power outages and flooding in the area. The village has a zoning ordinance which discourages development in the floodplain or other hazardous areas.

The Local Emergency Operations Plan (LEOP) for Fairmont, which was last updated in 2017, is an annex of Fillmore County's LEOP. The plan addresses hazards such as chemical releases, severe winter storms, severe thunderstorms, and tornadoes. This plan delegates responsibilities in the post-disaster environment but contains little discussion of hazard mitigation. The plan provides a clear assignment of responsibility in case of an emergency, shelter locations, and evacuation routes but does not identify any gaps related to a particular hazard.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Board Chairperson, Village Marshal, Utility Superintendent, and Village Clerk. The local planning team will review the plan no less than annually and will include the public in the review and revision process by sharing information on the community connections quarterly newsletter, updating the website, and social media posts.

Mitigation Strategy

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR – VILLAGE HALL
DESCRIPTION	Obtain a backup power generator for Village Hall
HAZARD(S)	All hazards
ESTIMATED COST	$50,000
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	Medium
LEAD AGENCY	Village Clerk
STATUS	This project has not yet been started.

MITIGATION ACTION	BACKUP GENERATOR – NURSING HOME
DESCRIPTION	Obtain a backup power generator for Fairview Manor nursing home
HAZARD(S)	All hazards
ESTIMATED COST	$550,000
FUNDING	Nursing Home funds, USDA, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Nursing Home, Village Clerk, Treasurer
STATUS	The village is currently exploring funding options.

MITIGATION ACTION	BURY POWER AND SERVICE LINES
DESCRIPTION	Require powerlines installed as a part of new construction to be buried
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$1M per mile
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board, Maintenance
STATUS	The village has ordered inventory and is currently waiting on contractor to begin work on north side of town.

MITIGATION ACTION	INSTALL VEHICULAR BARRIERS
DESCRIPTION	Install vehicular barriers to protect critical facilities and key infrastructure where possible.
HAZARD(S)	Hazardous Materials
ESTIMATED COST	Varies by facility
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing equipment such as overhead projectors and laptops.
HAZARD(S)	All hazards
ESTIMATED COST	$500+
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village needs to update available information on village website.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Develop an education program to inform residents of risks related to chemical releases. This could include direct outreach to residents living in the immediate vicinity of chemical storage sites.
HAZARD(S)	Hazardous Materials
ESTIMATED COST	$500+
FUNDING	Tax revenue, General Funds
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village shares information on social media and local newspaper for residential information.

MITIGATION ACTION	PROVIDE BACKUP POWER SYSTEMS AND REDUNDANCIES
DESCRIPTION	Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	Varies
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board, PPD
STATUS	This project is in process and waiting on contractor to begin.

MITIGATION ACTION	SAFE ROOM/STORM SHELTERS
DESCRIPTION	Construct a handicap accessible emergency shelter
HAZARD(S)	Severe Thunderstorms, Sever Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$250/sq ft
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village noted this activity is currently cost prohibitive but a more handicap accessible shelter is needed.

MITIGATION ACTION	SHELTER IN PLACE TRAINING
DESCRIPTION	Provide shelter in place training to facilities housing vulnerable populations (nursing homes, childcare facilities, schools, etc.).
HAZARD(S)	Hazardous Materials
ESTIMATED COST	$1,000
FUNDING	Tax revenue, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	The village is currently working on this in conjunction with the nursing home, housing authority, and school.

Removed Mitigation Actions

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

COMMUNITY PROFILE

CITY OF GENEVA

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

Local Planning Team

Table GEN.1: City of Geneva Local Planning Team

Name	Title	Jurisdiction
Kyle Svec	City Administrator	City of Geneva

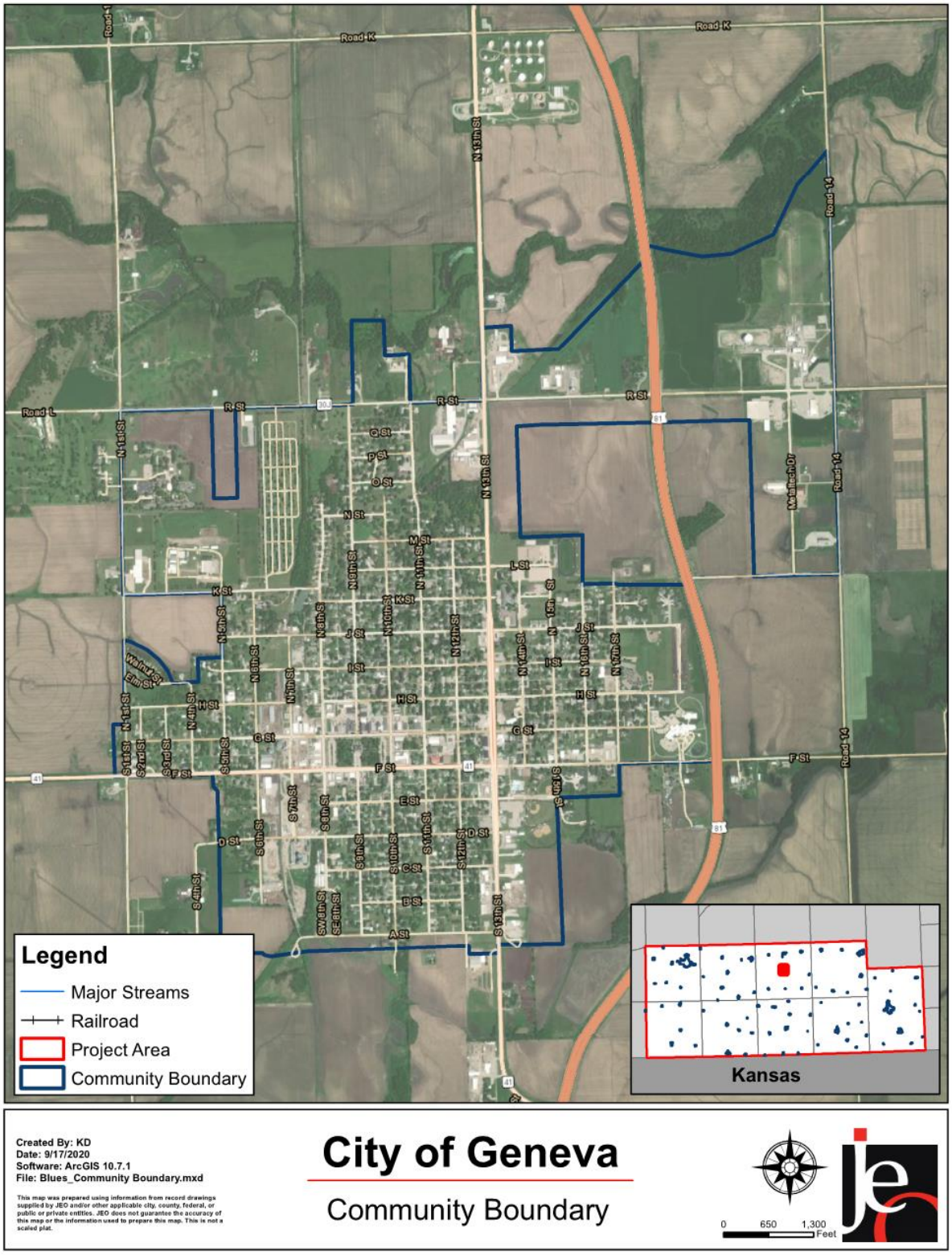
Location and Geography

The City of Geneva is located in the central portion of Fillmore County. The City of Geneva covers an area of 2.04 square miles. Major waterways within the area include Turkey Creek, which runs east to west just north of the city. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The city lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Geneva's major transportation corridors include County Road 41, which runs east-west through the center of Geneva. CR-41 accommodates on average 855 vehicles per day, 75 of which are heavy commercial vehicles. State Highway 81 runs north-south just east of Geneva. NE-81 accommodates on average 4,900 vehicles per day, 1,030 of which are heavy commercial vehicles. There are no railroads in Geneva, however hazardous chemicals are commonly transported through Geneva via highway. Critical facilities including the hospital and fire and rescue hall sit along major highways. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

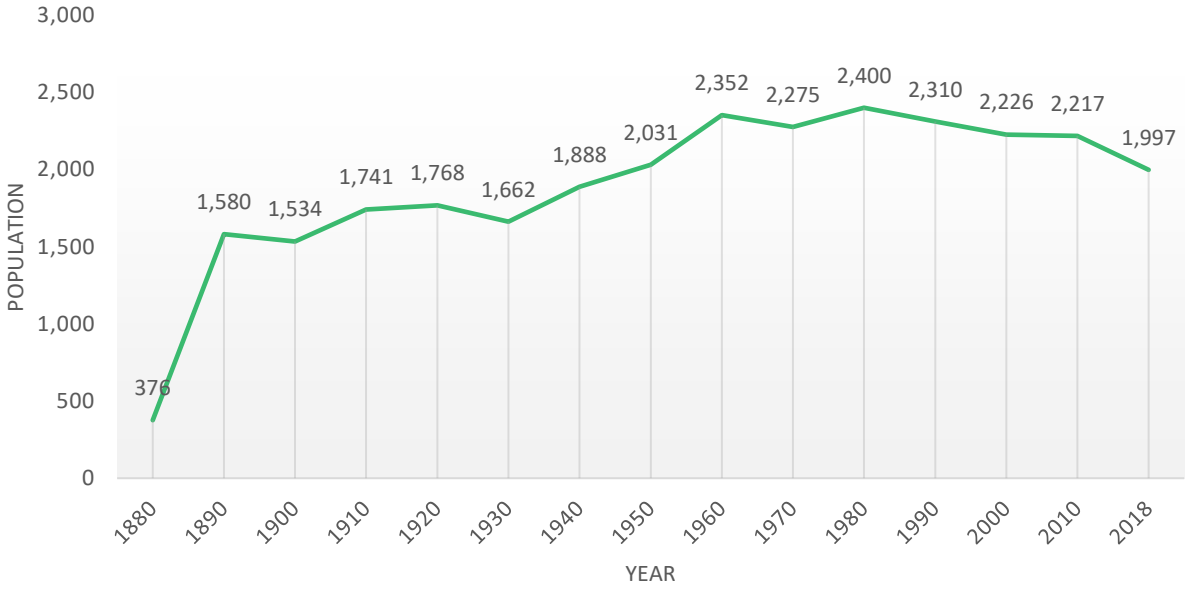
Figure GEN.1: City of Geneva Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1880 to 2018 (estimated). This figure indicates that the population of Geneva has grew between 1880 to 1980 but has declined slowly since that point. 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 have larger shares of unoccupied housing or decreasing tax revenues. The city's population accounted for 36% of Fillmore County's Population in 2018.

Figure GEN.2: Geneva Population 1880-2018



Source: U.S. Census Bureau[30]

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

- **Younger.** The median age of Geneva was 46.5 years old in 2018, compared with the County average of 47.7 years. Geneva's population has grown older since 2010, when the median age was 45.7 years old. Geneva had a larger proportion of people under 20 years old (24.5%) as the County (21.3%).[31]
- **More ethnically diverse.** Since 2010, Geneva grew in diversity. In 2010, 1% of Geneva's population was Black, 1% was American Indian, 1% other races, and 1% two or more races. By 2018 1% of Geneva's population was Black, 1% was American Indian, 1% was Asian, 1% was other races, and 2% two or more races. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[32]
- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Geneva (8.2%) was higher than the County (10.0%) in 2018.[33]

30 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
31 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
32 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
33 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Similar mix of industries**. Employment sectors accounting for 10% or more of employment in Geneva included Agriculture, Retail, and Education. In comparison Fillmore County's included Agriculture and Education in 2018.[34]
- **Lower household income**. Geneva's median household income in 2018 ($52,292) was about $3,000 less than the County ($55,625).[35]
- **More long-distance commuters**. About 40% percent of workers in Geneva commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 25% of workers in Geneva commute 30 minutes or more to work, compared to about 20.8% of the County workers.[36]

Major Employers

Major employers in the City of Geneva include the local school district and the hospital. The local planning team noted approximately 25-30% of residents commute to York, Fairmont, Shickly, Milligan, and Bruning for work.

Housing

In comparison to Fillmore County, Geneva's housing stock was: [37]

- **More owner occupied.** About 70.5% of occupied housing units in Geneva are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Similar share of aged housing stock**. Geneva had a similar share of houses built prior to 1970 as the county (68.8% compared to 69.9%).
- **More multi-family homes**. The predominant housing type in the city is single family detached and Geneva contains more multifamily housing with five or more units per structure than the County (12% compared to 5.2%). About 84.7% of housing in Geneva was single-family detached, compared with 90.6% of the County's housing. Geneva has a smaller share of mobile and manufactured housing (0%) compared to the County (1.1%).

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

Future Development Trends

In the past five years the city has built two new housing developments and some industrial growth has taken place in the city. In the next five years the city is exploring options to include more residential development areas. The city regularly reviews building codes to make them up to date and a future land use map update is currently under development. The population in Geneva has

34 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
35 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
36 United States Census Bureau. "2018 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]
37 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

declined in recent years which the local planning team attributed to low economic opportunities in the area.

Parcel Improvements and Valuation

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

Table GEN.2: Geneva Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
1,349	1,068	$111,742,155	8	1%	$4,828,960

Source: County Assessor, GIS Workshop

Table GEN.3: Geneva Flood Map Products

Type of Product	Product ID	Effective Date	Details
LOMA	08-07-0315A-310370	12/31/2007	Portion of property 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 11 chemical storage sites throughout Geneva which house hazardous materials. The local planning team also noted Chaney Chemical houses hazardous chemicals. Concerns for fixed chemical sites pertain primarily to blocked transportation routes for emergency services in case of spills. The local fire barn and some residential homes are located near the anhydrous ammonia tank storage. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table GEN.4: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Bioiberica Nebraska Inc	1660 R St	N
Plains Equipment Group	736 S 13th St	N
Geneva Terminal	1479 N 13th St	N
Aurora Co-op Elevator Company	703 G St	N
NDOT Geneva Yard	535 S 13th St	N
IPSCO Tubulars Inc	1201 R St	N
Aurora Co-op Elevator Company	Jct 7th & D Sts	N
Lichti Bros Oil Co Inc	723 S 13th St	N
Lichti Bros Oil Co Inc	Highway 41 W	N
Metal-Tech Partners	2103 R St	N
Fortigen Geneva LLC	2240 R St	N

Source: Nebraska Department of Environment and Energy[38]

Critical Facilities

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

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

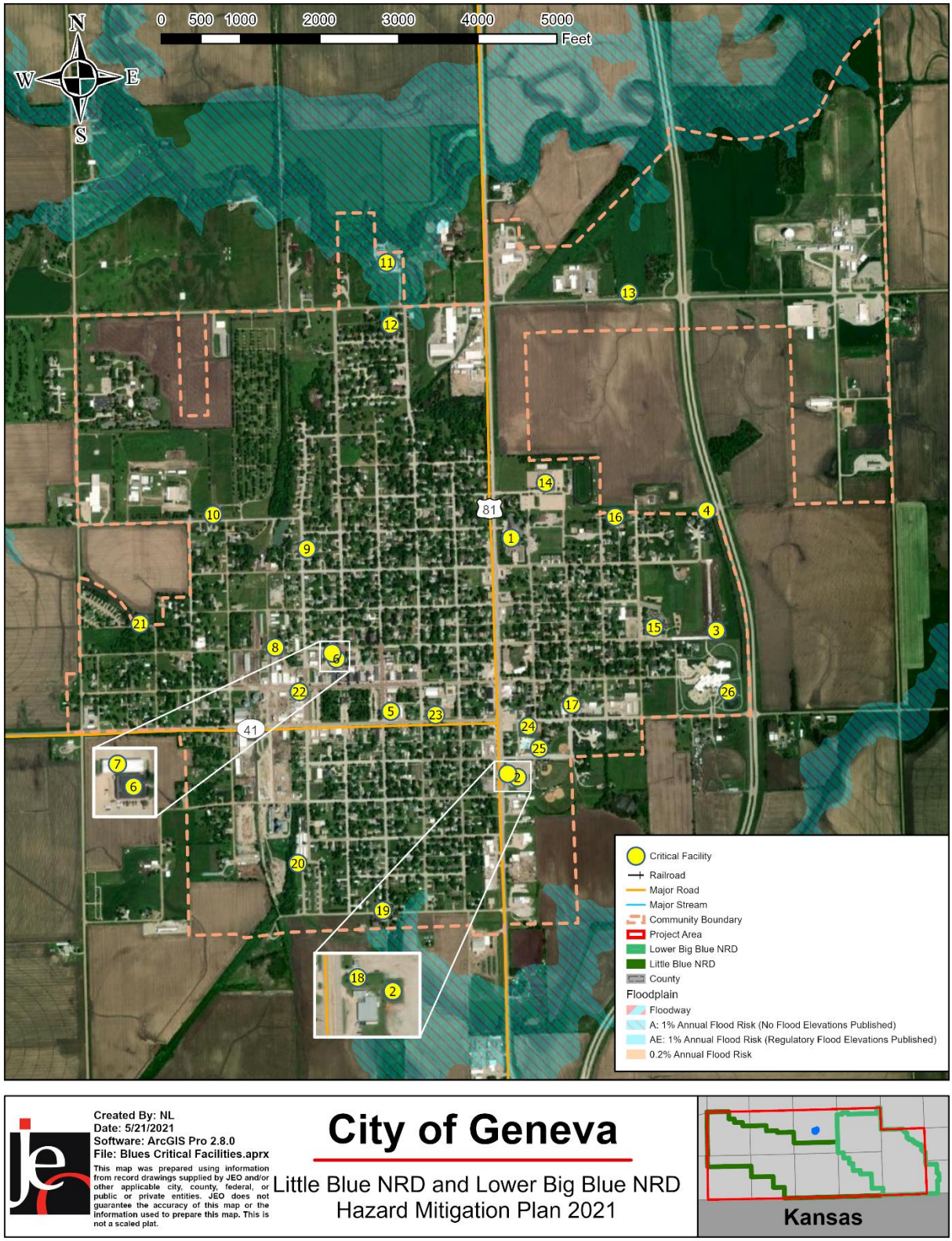
Table GEN.5: Geneva Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Health and Medical	Heritage Crossing Nursing Home	Y	N	N
2	Food, Water, and Shelter	Well 1	N	N	N
3	Food, Water, and Shelter	Well 4	N	N	N
4	Food, Water, and Shelter	Well 5	N	Y	N
5	Safety and Security	City Office	Y	Y	N
6	Other	City Theater & Rec Center	Y	N	N
7	Safety and Security	Emergency and Fire Dept.	Y	Y	N
8	Other	Over Head Building	N	N	N
9	Food, Water, and Shelter	Well 2	N	Y	N
10	Other	Cemetery Maintenance Building	N	N	N
11	Health and Medical	Waste Water Treatment Facility	Y	Y	Y
12	Food, Water, and Shelter	North Lift Station	N	Y	N
13	Health and Medical	Metal-Tech Lift Station	N	Y	N
14	Food, Water, and Shelter	High School	Y	N	N
15	Food, Water, and Shelter	Elementary School	Y	N	N
16	Food, Water, and Shelter	Water Tower	N	N	N

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

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
17	Health and Medical	Love Grove Lift Station	N	Y	N
18	Other	Park Maintenance Building	Y	N	N
19	Health and Medical	South Lift Station	N	Y	N
20	Food, Water, and Shelter	Old Well House	N	N	N
21	Health and Medical	Lift Station	N	Y	N
22	Safety and Security	Eddy's Chamber of Commerce	N	N	N
23	Health and Medical	Senior Center of Nebraska	Y	N	N
24	Other	Lions Club	Y	N	N
25	Other	Log Cabin	Y	N	N
26	Health and Medical	Hospital	Y	Y	N

Figure GEN.3: Geneva Critical Facilities



Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

Geneva identified flash and riverine flooding as a hazard of concern, particularly at the wastewater treatment plant; however, impacts are limited and typically short lived. The city has never experienced interrupted service due to flooding. The city has identified the possibly to install a berm around the facility to reduce future flood impacts. The city participates in the NFIP and has two policies in force for $377,000. There are no reported repetitive loss properties in the city.

Severe Thunderstorms

Geneva has experienced minor property damage from severe thunderstorms in the past including from lightning, hail, heavy rain, and strong winds. The main concern for future events is primarily related to property damages. Geneva has had a history of damaging hail events which have damaged many roofs and caused tree damage. Most of Geneva's buildings are metal with some metal roofs; however others are brick with asphalt shingles. A major hail storm in 2005 caused an estimated $1,500,000 in property damages, one injury, and reported hail stones up to 2.75 inches in diameter.

Geneva's uses surge protectors for critical municipal records on electronic devises. The city office, wastewater treatment facility, and well #1 all have backup generators. Most power lines are on poles above ground. Geneva does not currently have a tree board. The city removes and trims trees as identified as hazardous. The city has weather radios at critical facilities. Residents do not currently receive information regarding hail resistant building materials when they are issued building permits. Residents can use the fire station and senior center/gym as shelter locations. The fire station recently included a generator and safe room.

Tornadoes and High Winds

The main concern for high winds and tornadoes revolves around property damage and tree damage from fallen trees. There have been no specific tornado events which have impacted the city directly. Many residents have basements which can be used for shelter. The fire station has also recently been updated to include a storm shelter. Alert sirens are located through the city and the county provides emergency text alerts during hazardous events.

The city does have mutual aid agreements with surrounding governments, which could provide support if a tornado were to occur. Geneva currently has a data backup system for their municipal records. Geneva's lower level of the old school gym is the best available option for community

members to shelter from high wind events. The city has also completed a project to build a shower at the fairground which functions as a shelter. Fairgrounds have showers which can be used for a shelter, fire station has generators and safe room. City has also added more sirens

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Geneva has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a mayor and a six-member council and the following offices: city administrator, a clerk/treasurer, attorney, utilities superintendent, fire chief, wastewater treatment operator, sewer/street/water commissioner, personnel director, planning commissioner, and purchasing officer. The County Sheriff and County Emergency Management can also assist with mitigation projects.

Capabilities

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

Table GEN.6: Capability Assessment

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

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

Table GEN.7: 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	Limited
Time to Devote to Hazard Mitigation	Limited

Plan Integration

In the past the city has applied for grants to update and add tornado sirens across the city, update fire equipment, and replace fire department radios. The local planning team noted the annual municipal budget's funds have decreased over the past few years and any new capital projects would require additional bonds or grant funding.

The city's comprehensive plan was completed in 2018. The plan does discuss the steep slopes of the Turkey Creek environment as posing a hazard to the community. The plan contains future and current land use maps. This plan does not discourage development in the floodplain. No potential adverse effects to the natural environment are expected due to the implementation of the future land use plan. The city has adopted the 2018 international building codes.

The city's zoning ordinances are updated regularly. The ordinances do contain natural hazard layers and also generally discourages development in hazardous areas. This development is not prohibited in the floodway, although there is warning and declaimer of liability within the ordinance. Other limitations on floodplain development are not present. The floodplain ordinance was last updated in 2020. The ordinance meets state and federal standards. The city's subdivision regulations were last updated in 1998. The regulations encourage cluster or conservation subdivisions and allow for density transfers.

The city's stormwater management plan was last updated in 2008. The plan included education and outreach activities. The plan includes polices to regulate development in upland areas to reduce stormwater runoff. The city's economic development plan was last updated in 2008. The plan considers how economic develop may be impacted by hazards and promotes economic develop away from known hazard prone areas.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the City Administrator, Emergency Manager, City Council, and the private consultant. The local planning team will review the plan no less than annually and will include the public in the review and revision process by: updating the city website, social media posts, and sharing information at city council meetings open to the public.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	GENERATOR FOR FIRE STATION
DESCRIPTION	Obtain a back-up power generator for fire station.
HAZARD(S)	All hazards
STATUS	A generator was purchased in the last five years for the fire station.
FUNDING	Local taxes, HMGP, BRIC

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATOR - FAIRGROUNDS
DESCRIPTION	Obtain a back-up generator for fairgrounds and shower inside for shelter
HAZARD(S)	All hazards
ESTIMATED COST	$70,000
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	City Council, County Agricultural Society
STATUS	Showers have been added to the fairgrounds but a generator is still needed.

MITIGATION ACTION	BACKUP GENERATOR – SENIOR CENTER
DESCRIPTION	Obtain a back-up generator for senior center/gym (shelter)
HAZARD(S)	All hazards
ESTIMATED COST	$70,000
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	City Council, School
STATUS	This project is in process of a public vote for a new community center and gym. Once center is approved the city will evaluate generator needs.

MITIGATION ACTION	COMMUNICATION CENTER DEVELOPMENT
DESCRIPTION	Build a Communication Center for City and County
HAZARD(S)	All hazards
ESTIMATED COST	$3-$4 million
FUNDING	Local taxes, HMA, CDBC, NCCP
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	City Administration
STATUS	The action will go to a public vote in February 2021 to determine construction.

MITIGATION ACTION	INFRASTRUCTURE PROTECTION
DESCRIPTION	Construct a Flood Control Berm to Protect Wastewater Treatment Plan
HAZARD(S)	Flooding
ESTIMATED COST	$200,000
FUNDING	General Fund, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	City Council
STATUS	This project has not yet been started.

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	Conduct Improvements of drainage in select locations
HAZARD(S)	Flooding
ESTIMATED COST	$300,000
FUNDING	Local taxes
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	City Council
STATUS	This project has not yet been started. There are numerous locations over town that this would impact, most notably the area near the wastewater treatment plan.

Removed Mitigation Actions

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

MITIGATION ACTION	STORM SHELTER
DESCRIPTION	Construct a storm shelter
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
REASON FOR REMOVAL	This project was identified as no longer needed due to new showers at the fairgrounds and a new community center going to vote in 2021.

COMMUNITY PROFILE

VILLAGE OF GRAFTON

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

Local Planning Team

Table GRA.1: Village of Grafton Local Planning Team

Name	Title	Jurisdiction
Jim Baumann	Board Chairman	Village of Grafton
Don Schaldecker	Board Member	Village of Grafton
Suzanne Keenan	Clerk	Village of Grafton
Dick Fessler	Board Member	Village of Grafton
Eric Schmer	Board Member	Village of Grafton

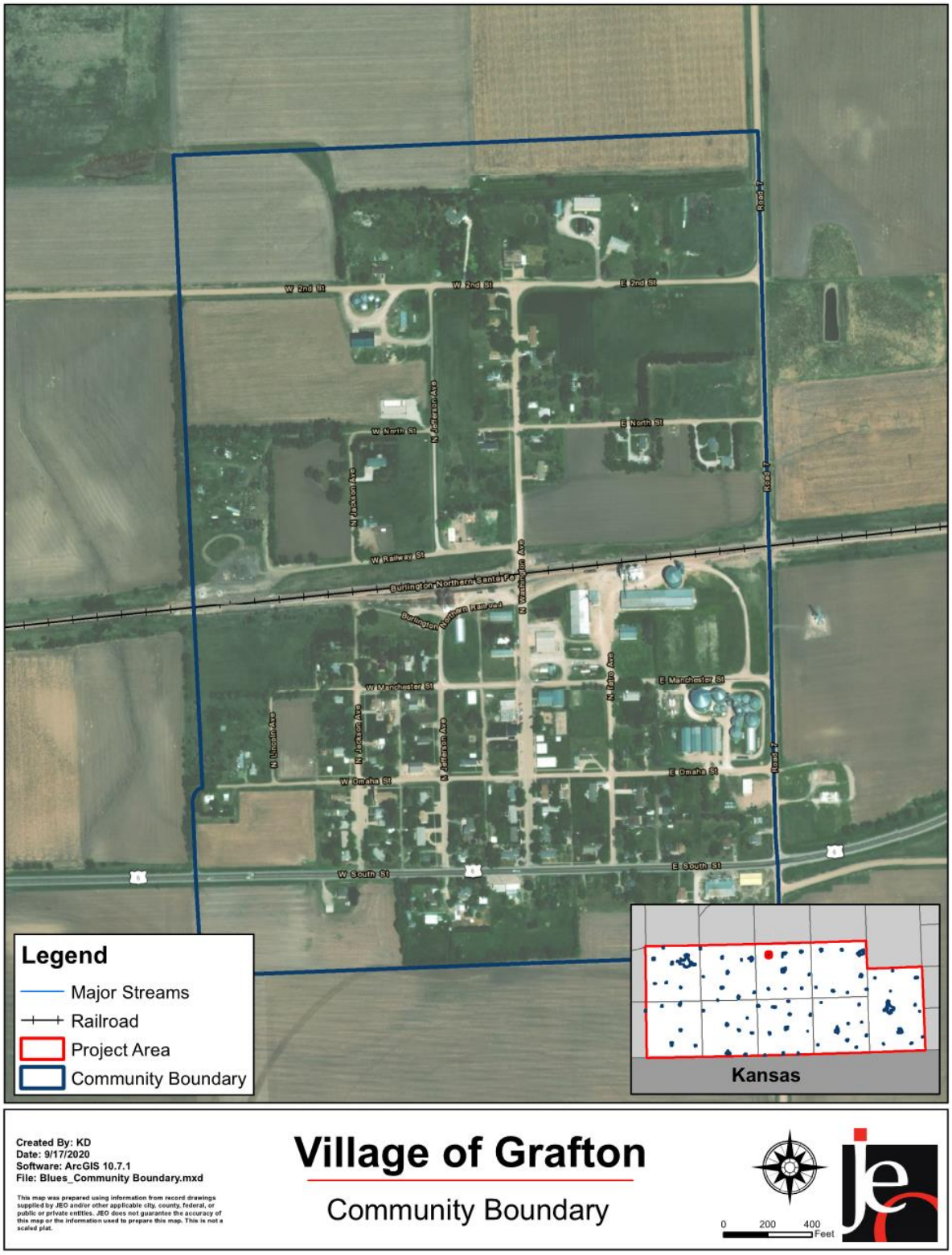
Location and Geography

The Village of Grafton is located in the north western portion of Fillmore County. The Village of Grafton covers an area of 0.35 square miles. There are no major waterways within the area, although the Marsh Hawk wetlands are located just northwest of the city. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Grafton's major transportation corridors include State Highway 6, which runs east-west to the south of Grafton. NE-6 accommodates on average 1,535 vehicles per day, 305 of which are heavy commercial vehicles. Grafton has two rail lines, Burlington Northern Santa Fe line, and Amtrak, which runs on the same line. At Grafton, the BNSF runs east-west headed into Lincoln and west to Hastings. Hazardous materials are transported along rail and highway routes, but no major events have occurred. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

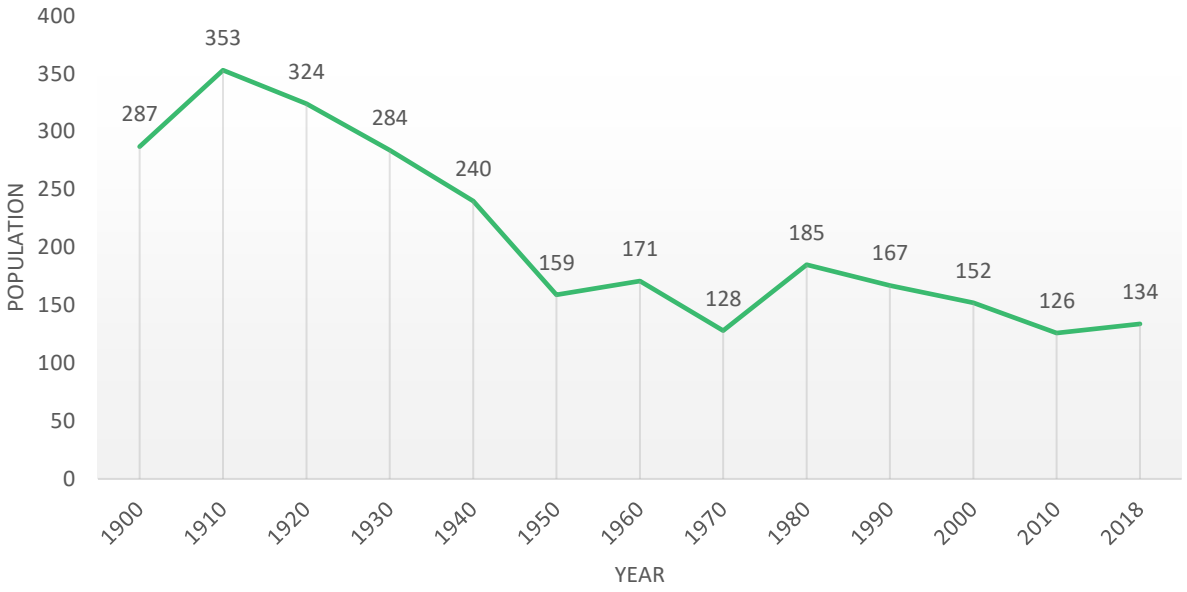
Figure GRA.1: Village of Grafton Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1990 to 2018 (estimated). This figure indicates that the population of Grafton has declined between 1910 and 1950, grew until 1980 but has experienced an additional decline since then. 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 have larger shares of unoccupied housing or decreasing tax revenues. The village's population accounted for 2% of Fillmore County's Population in 2018.

Figure GRA.2: Grafton Population 1900-2018



Source: U.S. Census Bureau[39]

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

- **Younger.** The median age of Grafton was 38.7 years old in 2018, compared with the County average of 47.7 years. Grafton's population has grown younger since 2010, when the median age was 45.3 years old. Grafton had a smaller proportion of people under 20 years old (20.9%) as the County (21.3%).[40]
- **Less ethnically diverse.** Since 2010, Grafton grew in diversity. In 2010, 1% of Grafton's population was Black. By 2018 3% of Grafton's population was Black and 1% was two or more races. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[41]
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Grafton (12.7%) was higher than the County (10.0%) in 2018.[42]

39 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
40 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
41 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
42 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Varied mix of industries**. Employment sectors accounting for 10% or more of employment in Grafton included Manufacturing, Retail, Education, and Arts and entertainment. In comparison Fillmore County's included Agriculture and Education in 2018.[43]
- **Lower household income**. Grafton's median household income in 2018 ($51,250) was about $4,000 less than the County ($55,625).[44]
- **More long-distance commuters**. About 27.2% percent of workers in Grafton commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 41.8% of workers in Grafton commute 30 minutes or more to work, compared to about 20.8% of the County workers.[45]

Major Employers

Major employers in Geneva include CPI and Heartland Bank; however, majority of working residents commute to surrounding communities for employment.

Housing

In comparison to Fillmore County, Grafton's housing stock was: [46]

- **More owner occupied.** About 95.3% of occupied housing units in Grafton are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Smaller share of aged housing stock**. Grafton has fewer houses built prior to 1970 than the county (61.1% compared to 69.9%).
- **Fewer multi-family homes**. The predominant housing type in the village is single family detached and Grafton contains few multifamily housing with five or more units per structure than the County (0% compared to 5.2%). About 88.9% of housing in Grafton was single-family detached, compared with 90.6% of the County's housing. Grafton has a larger share of mobile and manufactured housing (8.3%) compared to the County (1.1%). Mobile and manufactured homes are located primarily along north Washington Avenue.

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

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

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

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

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

Future Development Trends

In the past five years one new business opened in Grafton, an automotive repair shop off of Highway 6. No other changes have occurred in the village. The population in Grafton has declined in recent years which the local planning team has attributed to an aging population; however, current census information suggests this population may be stabilizing. No new developments are planned for the next five years.

Parcel Improvements and Valuation

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

Table GRA.2: Grafton Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
170	86	$3,612,920	0	0%	$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

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

Table GRA.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Grafton Oil Bulk Plant	E South St	N

Source: Nebraska Department of Environment and Energy[47]

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

Critical Facilities

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

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

Table GRA.4: Grafton Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Hall/ Barn	Y	N	N
2	Food, Water, and Shelter	Community Center/ Village Office	Y	N	N
3	Health and Medical	Sewage Lagoons	N	N	Y
4	Food, Water, and Shelter	Water Storage - Pressure System	N	Y	N
5	Hazardous Materials	Fuel Storage	N	N	N

Figure GRA.3: Grafton Critical Facilities

Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Hazardous Materials

While no significant chemical spills have occurred in recent years, the village is primarily concerned about transportation spills. The anhydrous ammonia tank of concern has been removed from the village. No major transportation incidents or rail derailments with chemicals transported along the BNSF railroad have occurred. There are no critical sites located near this facility or route, nor are there other storage facilities of concern.

Residents are not believed to be educated about this risk, or the appropriate response. The local fire department would be responsible for any response to such an incident and has protective gear and training. However, the local planning team noted the fire department is located ½ block from the BNSF track and additional volunteers to respond to the local incidents.

Severe Thunderstorms

Severe thunderstorms can produce severe-criteria wind (50 knots or 58 mph), heavy rain, lighting, and hail. The NCEI officially reported 14 hail events and eight thunderstorm wind events which have impacted the Village of Grafton. Altogether these storms caused over $603,000 in property damages. The village experienced significant hail of 2.75 inches in diameter in 2004. The NCEI reported this event as: "*One of the worst severe weather outbreaks in recent years struck south-central Nebraska the afternoon and evening of May 22. No less than 17 different tornadoes rolled across south-central Nebraska. Dozens of homes were damaged and a few completely destroyed. Over 250 center irrigation pivots were damaged or destroyed in south-central Nebraska alone. Large hail and strong straight-line winds of up to 80 mph also wreaked havoc on the region. Several million dollars in property damage was reported. Hundreds of power poles were snapped resulting in dozens of miles of downed electrical line.*"

The village is concerned about structural damage, downed trees, and power outages caused by these storms. A backup generator has been installed on one community well. The village needs a backup generator for the fire hall, village office, one well, and community center. Additionally the village noted poor stormwater drainage at the city park contributes to localized flooding on community roads. The village identified the need to evaluate and improve drainage in this area.

Severe Winter Storms

Fillmore County and the village have experienced many severe winter storms in recent years. Severe winter storms include impacts from heavy snow, ice accumulation, extreme cold, winter

storms, and blizzards. Past events have caused whiteout conditions in the village and blocked major transportation routes. Primary concerns for severe winter storms include loss of power and blocked roads. There are no designated snow routes in town. The village owns a tractor and village pickup which each have snow blades. The tractor also has a bucket to move large amounts of snow. The local planning team noted the village needs a new blade.

Tornadoes and High Winds

The Grafton area has experienced damaging tornados, most recently and significantly on May 11, 2014, when a series of three tornados, rated EF-3, EF-2, and EF-0, caused at least $5 million in property damage within a few miles of town. Property damage is the village's main worry from this hazard. Critical facilities within the village have not been damaged by a tornado in recent years.

The city does not have a community safe room, so residents must rely on their own or a neighbor's basement or storm shelter for safety. The village does not backup its electronic municipal records. Fillmore County does offer text alerts for severe weather. The village does not offer emergency preparedness outreach in the community. The village has mutual aid agreements in place with Fillmore County, Fairmont, and Sutton.

Flooding

While flooding was not identified as a hazard of top concern, a floodplain area is identified to the northwest of town at the Marsh Hawk Wildlife Management Area. Flooding here would not likely impact community facilities. The village does not participate in the NFIP and there are no reported repetitive loss properties in the village.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Grafton has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five member council and the following offices: clerk/treasurer, attorney, fire chief, sewage plant operator, water commissioner, and street superintendent. Fillmore County Emergency Management may also provide assistance when pursuing hazard mitigation actions.

Capabilities

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

Table GRA.5: Capability Assessment

Survey Components		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	*No*
	Capital Improvements Plan	*No*
	Economic Development Plan	*No*
	Local Emergency Operational Plan	*County*

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

Table GRA.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	Limited
Time to Devote to Hazard Mitigation	Moderate

Plan Integration

The LEOP for the village is an annex to the Fillmore County plan. The LEOP was last updated in 2016, and addresses flooding, mass vaccinations, agricultural disease, terrorism, debris management, and hazardous materials release. Debris management and terrorism are the hazards of highest concern in the plan. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard.

The local planning team noted the annual municipal budget's funds have decreased in the past few years. At this time, there is little room in the budget for additional projects. The village follows all County or State required building codes and zoning requirements. No other planning mechanisms were identified which incorporate hazard mitigation goals and objectives.

Plan Maintenance

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

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

Mitigation Strategy

Continued Mitigation Actions

MITIGATION ACTION	BACKUP GENERATORS
DESCRIPTION	Obtain backup power generators for fire department, shelter location, and the two community wells.
HAZARD(S)	All hazards
ESTIMATED COST	$50,000 each
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	Generator has been installed on one well. One additional generator is needed for the other well, fire hall, and shelter.

MITIGATION ACTION	PUBLIC EDUCATION AND OUTREACH
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing equipment such as overhead projectors and laptops.
HAZARD(S)	All hazards
ESTIMATED COST	$500
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	SAFE ROOMS/STORM SHELTERS
DESCRIPTION	Install a safe room at the village offices
HAZARD(S)	All hazards
ESTIMATED COST	$200-$250/sq ft
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Maintenance
STATUS	This project has not yet been started.

MITIGATION ACTION	STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	Conduct drainage evaluation at the City Park. Improve drainage at City Park
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	$100,000
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Maintenance
STATUS	This project has not yet been started.

COMMUNITY PROFILE

VILLAGE OF MILLIGAN

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

Local Planning Team

Table MIL.1: Village of Milligan Local Planning Team

Name	Title	Jurisdiction
Eric W. Milton	Chairman of the Board	Village of Milligan
Vicky Thompson	Village Clerk/Treasurer	Village of Milligan
John Zelenka	Maintenance Personnel	Village of Milligan

Location and Geography

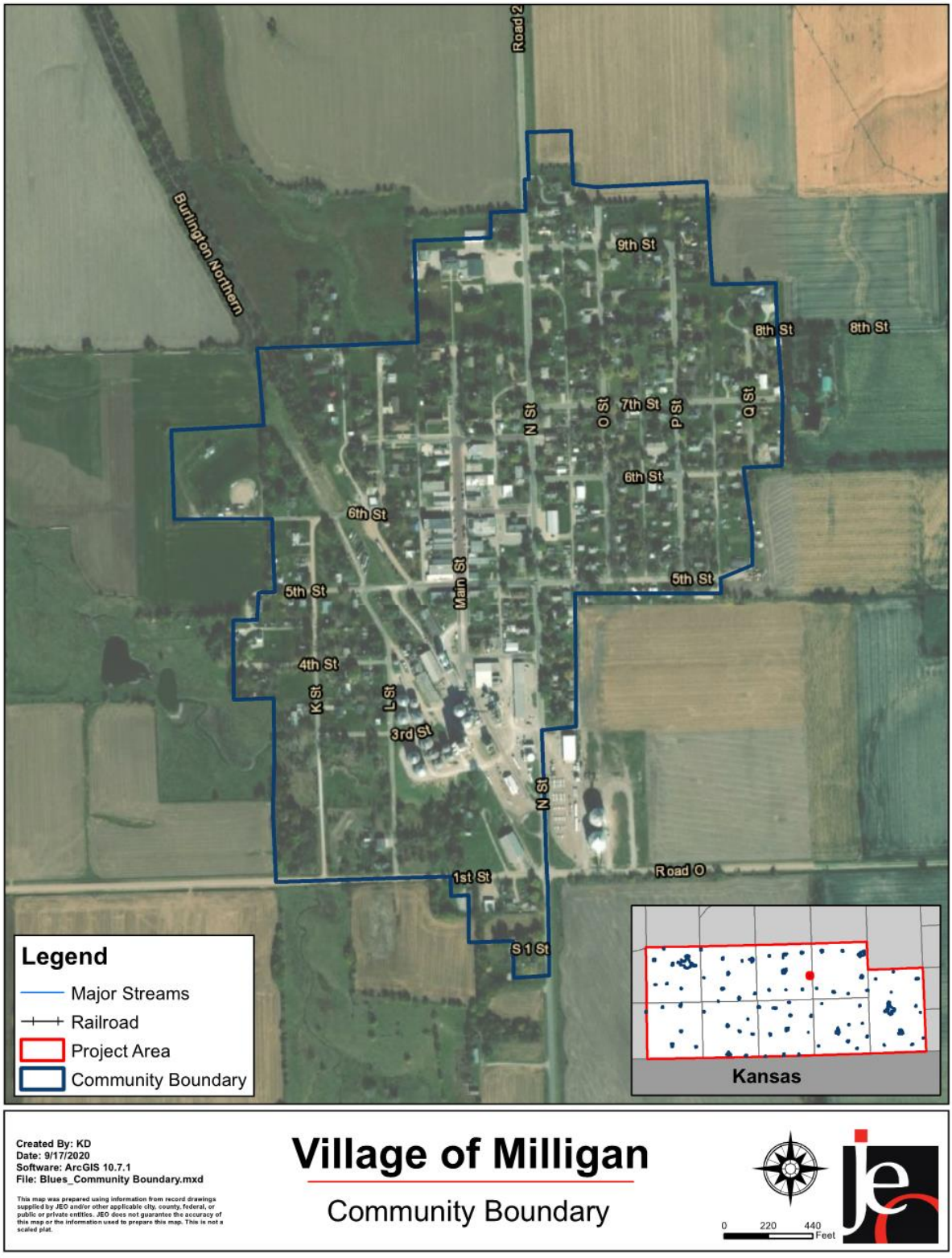
The Village of Milligan is located in the east central portion of Fillmore County and covers an area of 0.25 square miles. There are no major waterways within the area. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Milligan's major transportation corridors include Nebraska Highway Spur 30H/County Road 24 which runs north-south through the village, and County Road O which runs along the southern border. Milligan does not have any rail lines. Farmer's Cooperative transports chemicals using N Street (Road 24) and Road O. They transport common chemicals used for spraying and fertilizing fields, fuel, and other unknown substances. No significant transportation events or spills have occurred locally that the planning team is aware of.

Some critical facilities are located along main transportation routes. Water wells are located a quarter mile north of the village on County Road 24. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

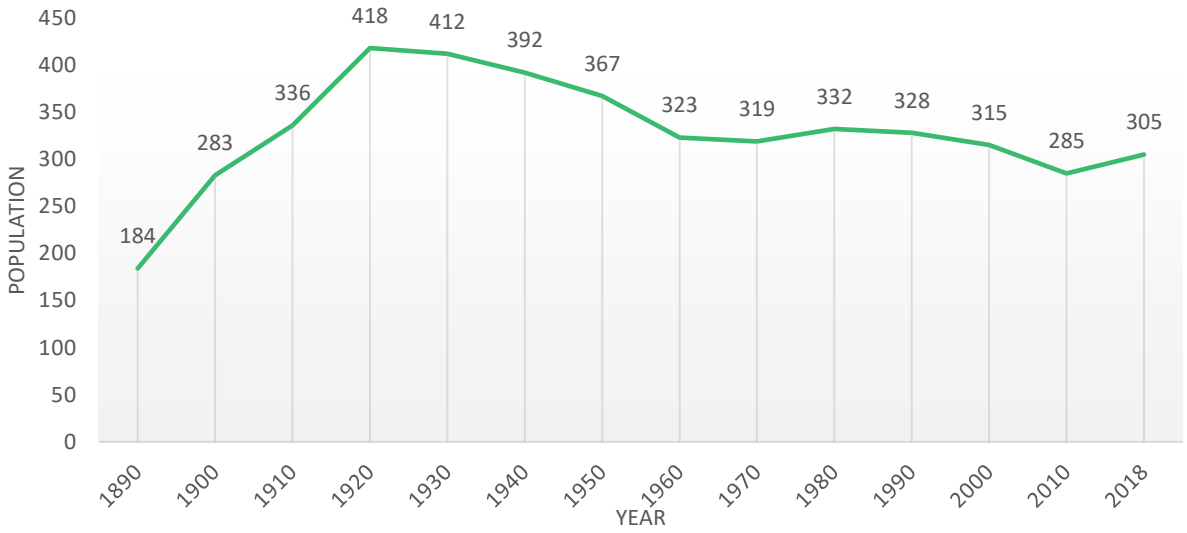
Figure MIL.1: Village of Milligan Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2018 (estimated). This figure indicates that the population of Milligan increased dramatically until 1920. It experienced a gradual decline between 1920 and 1970, then again from 1980-2010. However, the census estimates indicate that population may have stabilized or increased slightly since then. 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 have larger shares of unoccupied housing or decreasing tax revenues. The village's estimated population accounted for 5 percent of Fillmore County's total population in 2018.

Figure MIL.2: Milligan Population 1890-2018



Source: U.S. Census Bureau[48]

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

- **Older.** The median age of Milligan was 48.8 years old in 2018, compared with the county average of 47.7 years. Milligan's population has grown younger since 2010, when the median age was 50.7 years old. Milligan had a greater proportion of people under 20 years old (23.9%) than the county (21.3%).[49]
- **Less ethnically diverse.** Since 2010, Milligan declined in diversity. In 2010, 2% of Milligan's population was two or more races. By 2018 1% of the population was two or more races and 99% was White, non-Hispanic. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[50]
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Milligan (24.9%) was higher than the county (10.0%) in 2018.[51]

48 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
49 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
50 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
51 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Different mix of industries**. Employment sectors accounting for 10% or more of employment in Milligan included Manufacturing, Education, and Agriculture. In comparison Fillmore County's included Agriculture and Education in 2018.[52]
- **Lower household income**. Milligan's median household income in 2018 ($33,750) was about $22,000 less than the county ($55,625).[53]
- **More long-distance commuters**. About 50% percent of workers in Milligan commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 22.4% of workers in Milligan commute 30 minutes or more to work, compared to about 20.8% of the county workers.[54]

Major Employers

Major employers in the community include Farmer's Cooperative, Kassik Milling Company, Exeter-Milligan School District, Farmer's and Merchant's Bank, and Milligan Insurance Agency. While many residents work within the community, some residents commute to Geneva, York, Exeter, Lincoln, Crete, and Hebron.

Housing

In comparison to Fillmore County, Milligan's housing stock was: [55]

- **More owner occupied.** About 77.3% of occupied housing units in Milligan are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Greater share of aged housing stock**. Milligan has more houses built prior to 1970 than the county (71.8% compared to 69.9%).
- **More multi-family homes**. The predominant housing type in the village is single family detached and Milligan contains more multifamily housing with five or more units per structure than the county (6.9% compared to 5.2%). About 85.1% of housing in Milligan was single-family detached, compared with 90.6% of the county's housing. Milligan has a larger share of mobile and manufactured housing (8.0%) compared to the county (1.1%). The local planning team notes there is one mobile home currently in Milligan.

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.

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

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

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

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

Future Development Trends

Over the past five years , one new home was built while two older homes were destroyed during a fire and ultimately demolished. No new structures developed in the floodplain or other hazardous areas. As noted in the demographics section, Milligan's population has stabilized or increased slightly. There are no new housing, businesses or industry developments planned for the next five years.

Parcel Improvements and Valuation

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

Table MIL.2: Milligan Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
241	166	$7,732,140	1	1%	$65,830

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is one chemical storage site in Milligan which houses hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. Road 24 is at risk if spills occurred. Primary concerns exist for highways and neighboring businesses which would be impacted in case of chemical spill. No critical facilities or vulnerable populations are located near fixed chemical sites and no chemical spill events have occurred locally.

Table MIL.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Farmer's Cooperative	307 N St	N

Source: Nebraska Department of Environment and Energy[56]

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

Critical Facilities

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

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

Table MIL.4: Milligan Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Food, Water, and Shelter	Water Tower	N	N	N
2	Health and Medical	North East Lift Station	N	Y	N
3	Health and Medical	Lagoon	N	N	N
4	Safety and Security	Village Office	N	N	N
5	Food, Water, and Shelter	Exeter-Milligan School	Y	N	N
6	Food, Water, and Shelter	Milligan Auditorium	Y	N	N
7	Food, Water, and Shelter	North & South Wells*	N	Y	N

*Note the north and south wells are not mapped.

Figure MIL.3: Milligan Critical Facilities

Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Drought and Extreme Heat

Per the National Centers for Environmental Information, the planning area spent about one third of years 1895 to 2020 in drought, with 11 percent in severe or extreme drought. Fillmore County has experienced one extreme heat event since 2016. According to the U.S. Drought Monitor, July 2013 ended 14 months of moderate to extreme drought in South Central Nebraska, the most notable drought since the 1950s. The main concerns for Milligan in drought are ensuring economic stability for the local agriculture industry, as well as drinking water quality and availability. The village obtains water from municipal wells, which pump water into a water tower; however well supplies have not experienced low levels which have impacted the village. . Extreme heat is a concern because of public health and safety in addition to decreased agricultural yield. The village can impose watering restrictions if needed but additional water supplies would need to be trucked in if water supplies were depleted. The village does not have a separate drought monitoring board.

Severe Thunderstorms

Severe thunderstorms are frequent occurrences in Fillmore County, and Milligan is prone to these storms. The village's main concerns about severe thunderstorms are power outages and structural damage. Storms of this magnitude also damage crops for local farmers. According to the National Centers for Environmental Information**,** the last documented severe thunderstorm in Milligan occurred on June 30, 2018, causing a large tree to fall on a home and resulting in $35,000 of property damage. On May 11, 2018, a group of severe storms with winds up to 70 mph but did not result in any losses in Milligan. Additionally, while a hailstorm in October 2013 did not result in property damage to Milligan, the caused $65,000 in damage throughout the county. Local municipal records are protected by surge protectors and backed up off site daily.

Severe Winter Storms

Milligan is prone to severe winter weather and the region also experiences periodic ice storms. Severe winter storms can include impacts from heavy snow, extreme cold, blizzards, ice accumulation and winter storms. The village's main concern from this hazard is road blockages, which could impede the provision of emergency services, and utility damage. No critical facilities in the village have been damaged by a severe winter storm. The village does utilize snow fences in town. To mitigate this hazard, the village plans to obtain backup power generators for critical facilities.

Tornadoes and High Winds

Tornadoes and high winds commonly occur across the planning area. While a storm shelter at the local school is available to staff and students there are no other community shelters in the village. The Milligan Auditorium may be available as a shelter location in the case of storm events. Sirens in town are sufficient to reach all residents. High winds are a concern to utilities and community structures. The county does have mutual aid agreement with all neighboring jurisdictions, should additional disaster response personal be necessary. While there haven't been damages in the past, climatology indicates that the region is at risk of property damages, downed power lines and power failure, among other disruptions caused by tornadoes.

Flooding

Flooding was not identified as a hazard of top concern for the village. Floodplain areas are located west of the community and overlap some parcels on the southwest part of town. The village does not participate in the NFIP.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Milligan has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five member board and the following offices: clerk/treasurer, attorney, fire chief, utility superintendent, and sewer/street/water commissioner.

Capabilities

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

Table MIL.5: Capability Assessment

Survey Components		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes (County)
	Capital Improvements Plan	No
	Economic Development Plan	No
	Local Emergency Operational Plan	Yes
	Floodplain Ordinance	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Building Codes	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	No

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

Table MIL.6: Overall Capability

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

Plan Integration

Over the last five years, the village has applied for security grants, and was awarded a grant for well controls and generators at both wells. Municipal funds are limited to maintaining current facilities and systems. Funds have mostly stayed the same but will likely increase after the sales tax initiative was passed in October 2020. A large portion of funds are dedicated to street improvement on N St and repainting the interior of the water tower in the next four years.

The Village has a Comprehensive Plan and Zoning Ordinance which were last updated in 2013. The Comprehensive Plan address floodplains, wetlands, severe storms, and first responders reaching developed areas. The Comprehensive Plan is aimed at safe growth principles and is anticipated to be updated every ten years. The village uses the county and state building codes.

The Local Emergency Operations Plan (LEOP) for Fairmont, which was last updated in 2017, is an annex of Fillmore County's LEOP. The plan addresses hazards such as chemical releases, severe winter storms, severe thunderstorms, and tornadoes. This plan delegates responsibilities in the post-disaster environment but contains little discussion of hazard mitigation. The plan provides a clear assignment of responsibility in case of an emergency, shelter locations, and evacuation routes but does not identify any gaps related to a particular hazard.

Plan Maintenance

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

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

Mitigation Strategy

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	WATER TOWER IMPROVEMENTS
DESCRIPTION	Recoat the interior of the water tower
HAZARD(S)	All hazards
ESTIMATED COST	$40,000
FUNDING	Sales tax
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

COMMUNITY PROFILE

VILLAGE OF OHIOWA

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

Local Planning Team

Table OHI.1: Village of Ohiowa Local Planning Team

Name	Title	Jurisdiction
Gary Bulin	Board Chairman	Village of Ohiowa

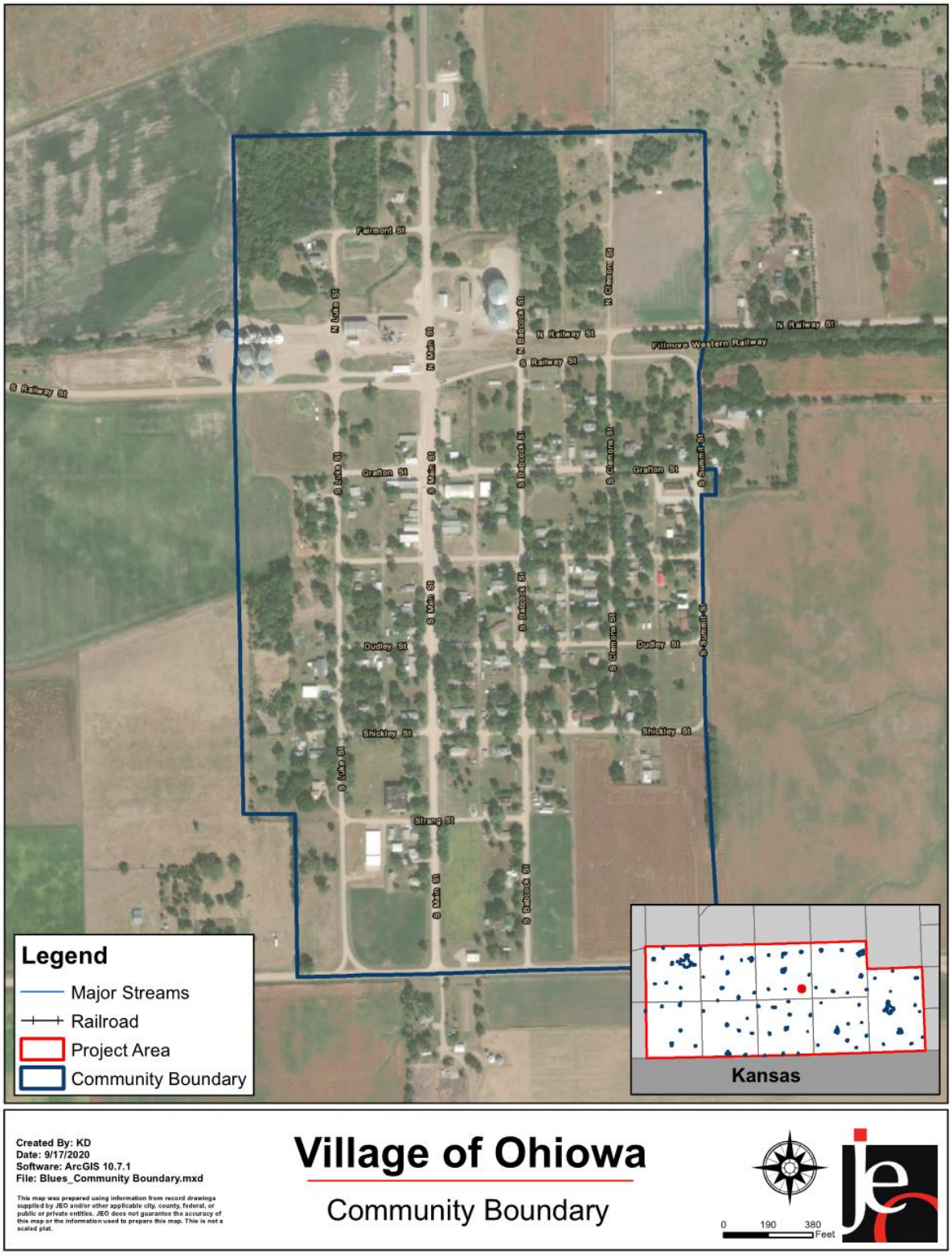
Location and Geography

The Village of Ohiowa is located in the south eastern portion of Fillmore County. The Village of Ohiowa covers an area of 0.25 square miles. There are no major waterways within the area. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Ohiowa's major transportation corridors include spur 30C runs north-south and connects Ohiowa to CR-74 to the north. S30C accommodates on average 385 vehicles per day, 40 of which are heavy commercial vehicles. Ohiowa does not have any rail lines. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

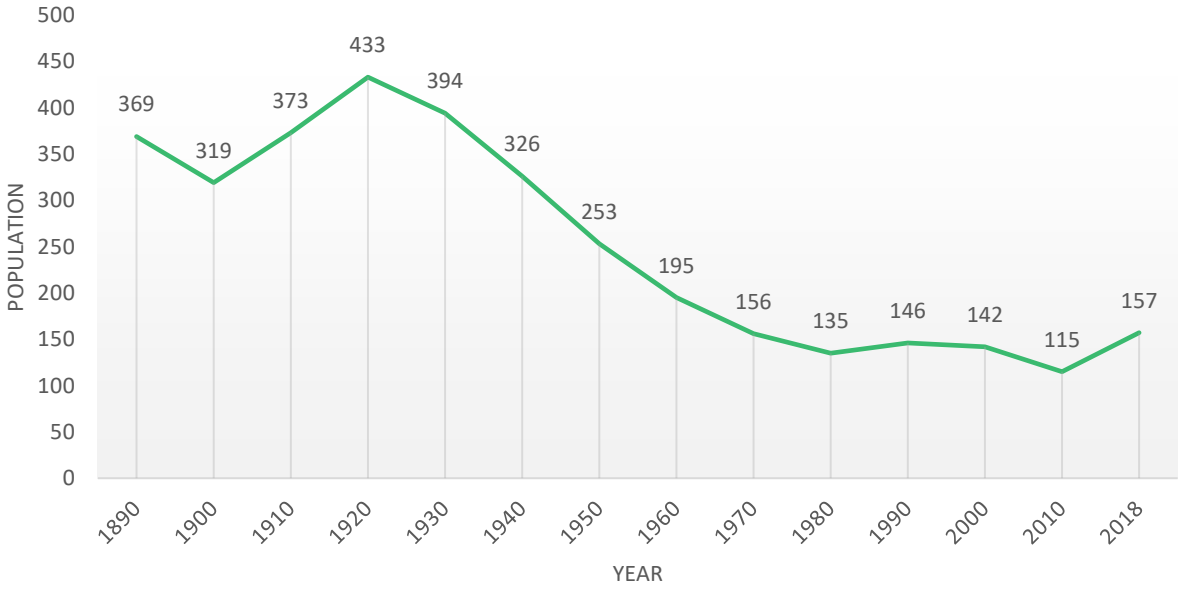
Figure OHI.1: Village of Ohiowa Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2018 (estimated). This figure indicates that the population of Ohiowa has declined between 1920 and 2010, with an increase since 2010. 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 have larger shares of unoccupied housing or decreasing tax revenues. The village's population accounted for approximately 3% of Fillmore County's population in 2018.

Figure OHI.2: Ohiowa Population 1890-2018



Source: U.S. Census Bureau[57]

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

- **Younger.** The median age of Ohiowa was 35.5 years old in 2018, compared with the County average of 47.7 years. Ohiowa's population has younger older since 2010, when the median age was 39.5 years old. Ohiowa had a smaller proportion of people under 20 years old (20.4%) as the County (21.3%).[58]
- **Less ethnically diverse.** Since 2010, Ohiowa declined in diversity. In 2010, 1% of Ohiowa's population was American Indian, 1% was other races, and 1% two or more races. By 2018 5% of Ohiowa's population was American Indian. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[59]
- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Ohiowa (7.6%) was lower than the County (10.0%) in 2018.[60]

57 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
58 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
59 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
60 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Similar mix of industries**. Employment sectors accounting for 10% or more of employment in Ohiowa included Agriculture, Retail, and Education. In comparison Fillmore County's included Agriculture and Education in 2018.[61]
- **Lower household income**. Ohiowa's median household income in 2018 ($34,000) was about $22,000 less than the County ($55,625).[62]
- **Fewer long-distance commuters**. About 18.2% percent of workers in Ohiowa commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 13.6% of workers in Ohiowa commute 30 minutes or more to work, compared to about 20.8% of the County workers.[63]

Major Employers

The Farmers Co-op is the largest employer in the village; however, the majority of residents commute to the surrounding communities for work.

Housing

In comparison to Fillmore County, Ohiowa's housing stock was: [64]

- **More owner occupied.** About 87.5% of occupied housing units in Ohiowa are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Larger share of aged housing stock**. Ohiowa has more houses built prior to 1970 than the county (87.2% compared to 69.9%).
- **Fewer multi-family homes**. The predominant housing type in the village is single family detached and Ohiowa contains few multifamily housing with five or more units per structure than the County (0% compared to 5.2%). About 99% of housing in Ohiowa was single-family detached, compared with 90.6% of the County's housing. Ohiowa has a smaller share of mobile and manufactured housing (0%) compared to the County (1.1%).

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

The local planning team noted no changes occurred in the past five years in the village. No new developments are planned in the next five years. The population in Ohiowa has declined in past decades which the local planning team attributed to an aging population and lack of young families in town.

61 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
62 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
63 United States Census Bureau. "2018 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]
64 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

Parcel Improvements and Valuation

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

Table OHI.2: Ohiowa Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
172	72	$1,184,705	0	0%	$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

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

Table OHI.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Farmers Cooperative Anhydrous	N Main St	

Source: Nebraska Department of Environment and Energy[65]

Critical Facilities

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

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

Table OHI.4: Ohiowa Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Hall	N	N	N
2	Food, Water, and Shelter	Community Auditorium	Y	N	N
3	Safety and Security	Village Office	N	N	N
4	Health and Medical	Village Lagoon	N	N	N

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

Figure OHI.3: Ohiowa Critical Facilities

Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Flooding

In 1983 11 inches of rain fell in the southern part of the county. In Ohiowa, the water overtopped the northern part of Main St, and carried out a pickup truck 50 yards downstream. Since then, lesser rains have also overtopped the road. The community is most concerned about flash flooding, especially in the northern section of the community. Ohiowa currently does not have an identified special flood hazard area, thus they have opted to not participate in the NFIP to date. New flood mapping efforts should be considered through NeDNR.

Tornadoes and High Winds

Ohiowa indicated that high winds and tornadoes have impacted the village. A tornado struck just north of town in 1968 and in 1984 a tornado did major damage to farms just south of town. As part of the May 22, 2004 tornado complex, a pair of F-1 tornadoes were reported near Ohiowa. The two-mile tract included a pair of tornadoes which were reported just northeast of the old Bruning Airfield. The first tornado traveled north and struck one farmstead and dislodged the house from its foundation. The owner of the property withstood the first tornado, only to see the second tornado pass just southeast of his house. The second tornado hit another farmstead just to the east and damaged several outbuildings.

The only location for community members seeking shelter is the town auditorium. Numerous homes also have basement available. The community indicated that the current siren can only be activated by switch at the fire hall and that a newer model which would allow county activation is needed.

Governance

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

Capabilities

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

Table OHI.5: Capability Assessment

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

Survey Components		Yes/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 OHI.6: Overall Capability

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

Plan Integration

The local planning team noted the annual municipal budget's are limited to maintaining current facilities and systems and have remained relatively the same over the past several years. Any new projects would require additional grant funding to implement.

The Local Emergency Operations Plan (LEOP) for Ohiowa, which was last updated in 2019, is an annex of Fillmore County's LEOP. The plan addresses hazards such as chemical releases, severe winter storms, severe thunderstorms, and tornadoes. The plan provides a clear assignment of responsibility in case of an emergency, shelter locations, and evacuation routes but does not identify any gaps related to a particular hazard.

The village follows all county and state required building codes and zoning requirements. No other planning mechanisms were identified for the Village of Ohiowa which integrate hazard mitigation goals and objectives.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Clerk and the village

board. The local planning team will review the plan no less than annually and will include the public in the review and revision process by sending letters to all residents.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	DIG NEW WELL
DESCRIPTION	Dig a new well south of town
HAZARD(S)	Drought and Extreme Heat, Grass/Wildfire
STATUS	A new well was dug to supply water for the village.

MITIGATION ACTION	ELECTRICAL SYSTEM LOOPED DISTRIBUTION / REDUNDANCIES
DESCRIPTION	Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
STATUS	Electrical equipment was updated.

MITIGATION ACTION	GENERATOR FOR AUDITORIUM (SHELTER)
DESCRIPTION	Obtain a back-up generator for auditorium (shelter)
HAZARD(S)	All hazards
STATUS	A new generator was purchased for the auditorium.

MITIGATION ACTION	GENERATOR AT CITY WATER WELL
DESCRIPTION	Replace current back-up power generator at City Water Well
HAZARD(S)	All hazards
STATUS	A generator was installed at one village well.

MITIGATION ACTION	RURAL WATER DISTRICT AND WATER SYSTEM UPDATES
DESCRIPTION	Upgrade water district infrastructure to decrease likelihood of damages and improve water system for emergency uses.
HAZARD(S)	Drought and Extreme Heat
STATUS	Improvements have been made to local well.

MITIGATION ACTION	WATER SYSTEM IMPROVEMENTS
DESCRIPTION	Water system improvements to include additional fire hydrants/increase supply and pressure. High pressure is needed in the event of an emergency to effectively fight fires and also to meet increasing demands.
HAZARD(S)	Drought and Extreme Heat, Flooding, Severe Thunderstorms
STATUS	Water system equipment was upgraded.

Continued Mitigation 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	$15,000+
FUNDING	General funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	EMERGENCY COMMUNICATIONS
DESCRIPTION	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications.
HAZARD(S)	All hazards
ESTIMATED COST	$1,000+, Staff Time
FUNDING	General funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	INTERIOR DITCHES AND CULVERT IMPROVEMENTS
DESCRIPTION	Renovate main street culvert and improve the drainage system for the village.
HAZARD(S)	Flooding, Severe Thunderstorms
ESTIMATED COST	$250,000
FUNDING	General funds, HMA
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	PROTECT AND IMPROVE ROADS AND BRIDGES
DESCRIPTION	Replace the bridge (culvert) on the north end of Main St
HAZARD(S)	Flooding
ESTIMATED COST	$500,000
FUNDING	General Funds, HMGP
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This would apply to the bridge (culvert) on the north end of Main St.

MITIGATION ACTION	SAFE ROOMS/STORM SHELTERS
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$200-$250/sq ft
FUNDING	General Funds, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

Removed Mitigation Actions

MITIGATION ACTION	GROUNDWATER / IRRIGATION / WATER CONSERVATION MANAGEMENT PLAN AND PRACTICES
DESCRIPTION	Develop and implement a plan/ best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought. Identify water saving irrigation projects, such as sprinkler systems with soil moisture sensors. Potential restrictions on water could include limitation on lawn watering, car washing, farm irrigation restrictions, or water sold to outside sources. Implement BMPs through water conservation practices such as changes in irrigation management, education on no-till agriculture and use of xeriscaping in communities.
HAZARD(S)	Drought and Extreme Heat
REASON FOR REMOVAL	This project was identified as no longer a priority for the village.

MITIGATION ACTION	MUNICIPAL WATER SUPPLY
DESCRIPTION	Establish a system/process for monitoring municipal water supplies. This could include, but is not limited to: establishing timeframes for measuring well depths and increasing stream flow monitoring.
HAZARD(S)	Drought and Extreme Heat
REASON FOR REMOVAL	This project was identified as no longer a priority for the village.

MITIGATION ACTION	WATER CONSERVATION AWARENESS PROGRAM
DESCRIPTION	Improve and/or develop a program to conserve water use by citizens during elongated periods of drought. Potential restrictions on water could include limitations on lawn watering, car washing, or water sold to outside sources. Work with DNR on farm irrigation restrictions.
HAZARD(S)	Drought and Extreme Heat
STATUS	This project was identified as no longer a priority for the village.

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
HAZARD(S)	All hazards
REASON FOR REMOVAL	This was identified as no longer a need for the village as most residents have cell phones.

COMMUNITY PROFILE

VILLAGE OF SHICKLEY

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

Local Planning Team

Table SHI.1: Village of Shickley Local Planning Team

Name	Title	Jurisdiction
Brock Domeier	Board Chairman	Village of Shickley
Merle Erb	Board Trustee	Village of Shickley
Wade Walters	Board Treasurer	Village of Shickley
Bart Brinkman	Board Trustee	Village of Shickley
Jennifer Griffith	Clerk	Village of Shickley
Jessica Bruguera	Board Trustee	Village of Shickley

Location and Geography

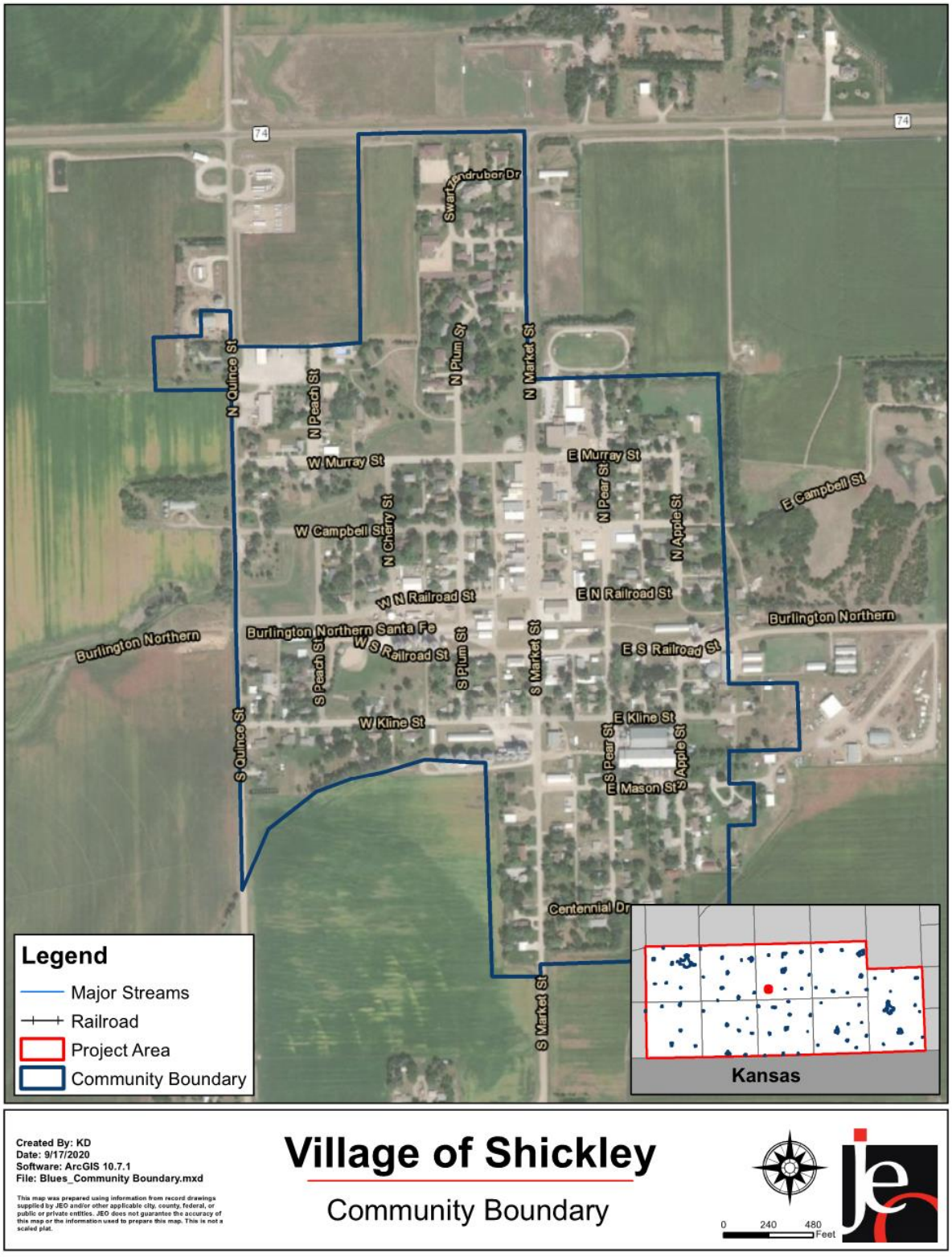
The Village of Shickley is located in the southwestern portion of Fillmore County and covers an area of 0.3 square miles. Dry Sandy Creek is located to the southeast, putting the north half of the village in the floodplain. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Shickley's major transportation corridors include County Road 74 runs east-west, just north of Shickley. CR-74 accommodates on average 650 vehicles per day, 125 of which are heavy commercial vehicles. Spur 30B runs north-south and connects Shickley to CR-75. S30B accommodates on average 810 vehicles per day, 80 of which are heavy commercial vehicles. Another road of concern is Quince Street or Road 6, which runs north and south out of town.

Fuel and agricultural chemicals are regularly transported on all routes, but it is unknown what type and amount. Shickley does not have any rail lines. No significant transportation spills have occurred locally, but all critical facilities are along at least one of these routes. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

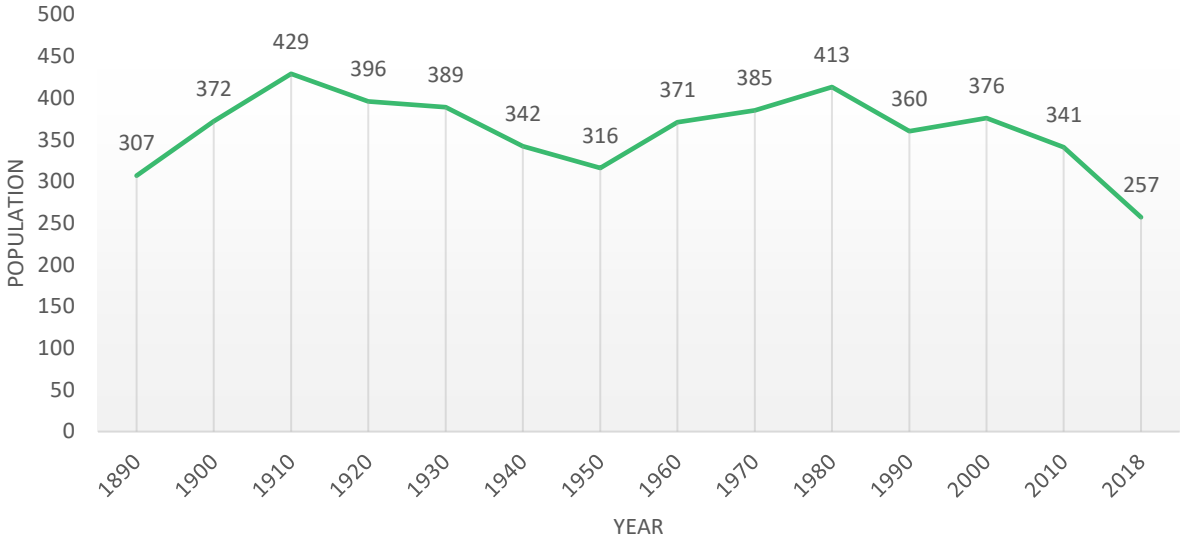
Figure SHI.1: Village of Shickley Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2018 (estimated). This figure indicates that the population of Shickley has declined between 2000 to 2018. This is notable for hazard mitigation because communities with a declining population may also have a higher level of unoccupied housing 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. The village's population accounted for approximately 5% of Fillmore County's Population in 2018.

Figure SHI.2: Shickley Population 1890-2018



Source: U.S. Census Bureau[66]

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

- **Older.** The median age of Shickley was 48.8 years old in 2018, compared with the County average of 47.7 years. Shickley's population has grown older since 2010, when the median age was 45.9 years old. Shickley had a smaller proportion of people under 20 years old (17.1%) as the County (21.3%).[67]
- **Less ethnically diverse.** Since 2010, Shickley grew in diversity. In 2010, 1% of Shickley's population was two or more races. By 2018 4% of Shickley's population was other races. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[68]
- **More likely to be at the federal poverty line.** The poverty rate of all persons in Shickley (17.5%) was higher than the County (10.0%) in 2018.[69]

66 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
67 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
68 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
69 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Similar mix of industries**. Employment sectors accounting for 10% or more of employment in Shickley included Agriculture, Retail, Finance, and Education. In comparison Fillmore County's included Agriculture and Education in 2018.[70]
- **Lower household income**. Shickley's median household income in 2018 ($50,750) was about $5,000 less than the County ($55,625).[71]
- **More long-distance commuters**. About 51.4% percent of workers in Shickley commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 34.8% of workers in Shickley commute 30 minutes or more to work, compared to about 20.8% of the County workers.[72]

Major Employers

Shickley's major employers are Shickley School, Lichti Oil, Norder Ag, Alf's Well Drilling, Carlson Irrigation, and Shickley Grain. Approximately 50 percent of residents commute to nearby Geneva and Hebron for work.

Housing

In comparison to Fillmore County, Shickley's housing stock was: [73]

- **More owner occupied.** About 81.0% of occupied housing units in Shickley are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Smaller share of aged housing stock**. Shickley has fewer houses built prior to 1970 than the county (60.7% compared to 69.9%).
- **Fewer multi-family homes**. The predominant housing type in the village is single family detached and Shickley contains few multifamily housing with five or more units per structure than the County (0% compared to 5.2%). About 87.3% of housing in Shickley was single-family detached, compared with 90.6% of the County's housing. Shickley has a smaller share of mobile and manufactured housing (~0%) compared to the County (1.1%). There is one mobile home within the community as noted by the local planning team.

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

70 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
71 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
72 United States Census Bureau. "2018 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]
73 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

Future Development Trends

No new structures have been built in Shickley since 2016. The population in Shickley has declined in recent years, which was attributed to an aging population. The planning team indicated there were no planned road improvement projects or new housing and business development. A portion of the north side of Shickley is located within the floodplain, and while no additional development is planned at this time, any future development planning efforts will take this into consideration by following the community's floodplain ordinance.

Parcel Improvements and Valuation

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

Table SHI.2: Shickley Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
299	196	$14,239,500	12	6%	$951,420

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites throughout Shickley which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. The planning team indicated no critical facilities were located near chemical fixed sites, with no vulnerable populations nearby. No spills from chemical fixed sites have occurred locally.

Table SHI.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
HT Chemical	512 Quince	N
Norder Supply Inc	511 NE-74	N
Shickley Grain Co Inc	N Quince St	N
Lichti Bros Oil Co Inc Bulk	Jct Road 6 & Highway 74	N

Source: Nebraska Department of Environment and Energy[74]

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

Critical Facilities

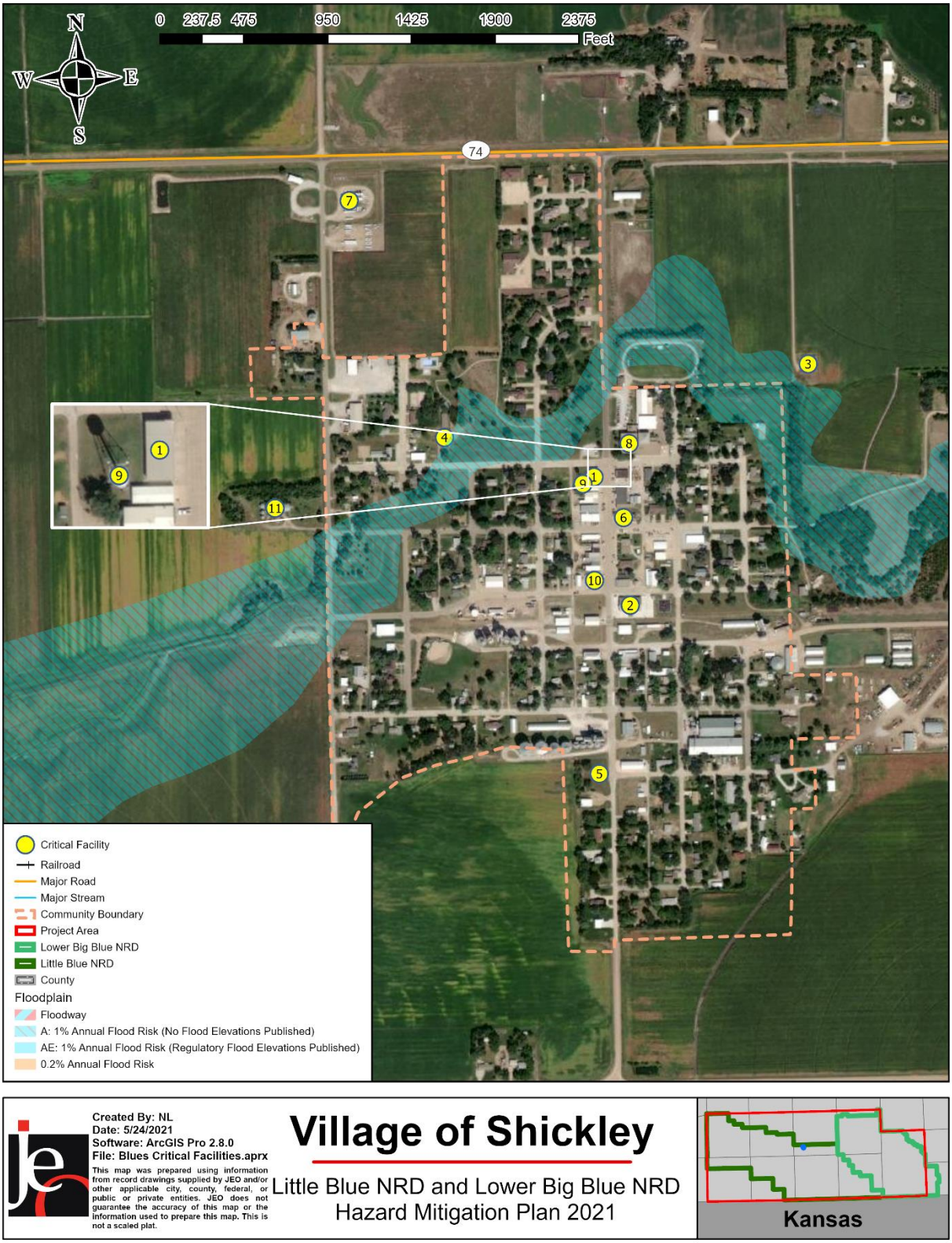
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

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

Table SHI.4: Shickley Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Fire Department	Y	N	N
2	Food, Water, and Shelter	Community Building 2013	Y	N	N
3	Health and Medical	Sewer Treatment Plant	N	Y	Y
4	Food, Water, and Shelter	Well – Westside Park	N	N	Y
5	Food, Water, and Shelter	Well – South	N	N	N
6	Hazardous Materials	Gas Station Fuel Tanks	N	N	N
7	Hazardous Materials	Fuel Storage	N	N	N
8	Food, Water, and Shelter	Shickley Public School	Y	N	N
9	Food, Water, and Shelter	Water Tower	N	N	N
10	Food, Water, and Shelter	Grocery Store	N	N	N
11	Food, Water, and Shelter	Well – Quince St	N	Y	N

Figure SHI.3: Shickley Critical Facilities



Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Drought and Extreme Heat

Per the National Centers for Environmental Information, the planning area spent about one third of years 1895 to 2020 in drought, with 11 percent in severe or extreme drought. Fillmore County has experienced one extreme heat event since 2016. The main concerns for Shickley in drought are ensuring economic stability for the local agriculture industry, as well as drinking water quality and availability. The village obtains water from municipal wells, which pump water into a water tower. Extreme heat is a concern because of public health and safety in addition to decreased agricultural yield.

To mitigate a drought, the village board can impose watering restrictions, if needed. The village does not have a separate drought monitoring board and the local planning team noted the current water supplies are sufficient. The mitigation strategy for drought includes the establishment of monitoring drought conditions and corresponding drought response protocols.

Flooding

Southeast Nebraska saw heavy rains and flooding in May 2020, damaging roads nearby and requiring a family to be rescued by airboat. Shickley also reported flooding in May 2013 and June 2015. No roads or critical facilities were damaged in any of these events. The village is primarily concerned with flash flooding. A rainfall rate of about two inches an hour, or five inches within several hours is sufficient to precipitate such flooding. Areas most prone to flooding are an area within a block of the creek that enters the village from the west, passes through a football field, and exits through the east end of the village. Homes are generally not impacted by flooding in Shickley, though 10 to 12 inches of rain could possibly reach them.

The planning team indicated the potential risk for property damage and infrastructure were the main reasons flooding is a top concern. Currently, the village is working on a creek bed drainage project to reduce risk. Shickley is a member of the NFIP, and as of November 2020, there are two policies-in-force. Two loss claims have been submitted for a total amount paid of $25,000. It is not known when these claims were submitted.

Severe Winter Storms

Shickley is prone to severe winter weather and the region also experiences periodic ice storms. The village's main concern from this hazard is road blockages, which could impede the provision

of emergency services, and utility damage. No critical facilities in the village have been damaged by a severe winter storm.

In terms of mitigation, about 10 percent of the village's power lines are buried. There is no designated snow route in the village, but a loader/dozer, skid lander, and snowplow on a pickup are used to clear the street as soon as possible. The village contracts with Erb Plumbing for snow removal services, and these resources are reported to be sufficient. Snow fences are used at the water treatment plant, well houses, and by streets that experience issues with blowing snow, such as by the ball field. Currently, the village plans to rebuild utilities to improve response to this hazard.

Tornadoes and High Winds

The Shickley area has experienced four tornados in the past 15 years, including a 105 mph, EF-1 event on May 2, 2012, that caused $100,000 in damage just outside of town; F-0 and F-3 tornados on September 22, 2001 the stronger of which caused extensive crop damage near town; and a brief F-0 touchdown on June 11, 2000 that caused no substantial damage. No tornados have occurred since the 2016 update. Concerns about tornados in the village include possible housing damage, damage to the municipal water supply, and damage to ambulances, utilities and fire trucks. No critical facilities within the village itself have been damaged by high winds or tornadoes in recent years.

The city has a backup system to protect municipal records. There is a community center with a safe room, and the public school also serves as a shelter. Fillmore County emergency management provides the village with text alerts via the Code Red system, and the school undergoes periodic tornado drills. Shickley maintains mutual aid agreements with fire departments in neighboring towns, and with the county fire department. Currently, the city is rebuilding utilities to reduce risk to this hazard.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Shickley has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a five member trustee board and the following offices: clerk, treasurer, attorney, fire chief, water operator, sewage plant operator, two sewage commissioners, two street commissioners, two water commissioners, two electric commissioners, and two park & burn site commissioners.

Capabilities

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

Table SHI.5: Capability Assessment

Survey Components		Yes/No
	Comprehensive Plan	No

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

Table SHI.6: Overall Capability

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

Plan Integration

In the last five years, the village has applied for grants from the Little Blue NRD, LARM Safety Grant, and the Shickley Community Foundation. Municipal funds are limited to maintaining current facilities and systems. A large portion of funds are currently dedicated to rebuilding electric utility infrastructure. The amount of municipal funds has increased over recent years.

The Zoning Ordinance was last updated in 2013. The ordinance does not discourage development in hazard areas. It does not contain natural hazard layers, nor prohibit development within, or filling of wetlands, floodways, or floodplains. (The village reports that it has a couple of floodplain areas.) The ordinance does not discourage development in the wildland-urban interface, which is a zone of transition between unoccupied land and human development that is most susceptible to wildfire impacts. The ordinance does account for population changes when considering future land uses and does not have zones that limit the density of developments in the floodplain. There are no requirements that floodplains be kept as open space, and there are no rezoning procedures that limit changes that allow greater intensity or density in natural hazard impact areas.

The Floodplain Ordinance has not been updated in many years, the village reports. The regulations meet minimum federal and state requirements. The village has not adopted more stringent ordinances to reduce risk further. The ordinance does not prohibit development within, or filling of wetlands, floodways, and floodplains.

The LEOP, which was last updated in 2016, addresses flooding, mass vaccinations, agricultural disease, terrorism, debris management, and hazardous materials release. Debris management and terrorism are the hazards of highest concern in the plan. The plan provides a clear assignment of responsibility in case of an emergency and does not identify any gaps related to a particular hazard. The village board members, village clerk, and local emergency responders (fire departments and EMTs) are familiar with the EOP.

Plan Maintenance

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

The community profile was last reviewed by the local planning team in 2016. This planning team is made of the Village Clerk, Board of Trustees, Chairman, and Treasurer, who will review the profile annually in board meetings. The public will be notified of the plan review and revision process through sharing of information at board meetings open to the public.

Mitigation Strategy

Completed Mitigation Actions

MITIGATION ACTION	FLOODPLAIN REGULATIONS
DESCRIPTION	Continue to enforce local floodplain regulations for structures located in the 1-percent 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.
HAZARD(S)	Flooding
STATUS	These regulations are established by the county and followed by the village.

MITIGATION ACTION	SNOW FENCES
DESCRIPTION	Construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closure.
HAZARD(S)	Severe Winter Storms
STATUS	Snow fences have been installed at the water treatment plant, well houses, and local streets at risk.

Continued Mitigation Actions

MITIGATION ACTION	ASSESS VULNERABILITY AND DEVELOP 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 and Extreme Heat
ESTIMATED COST	$2,500+
FUNDING	Taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This project has not yet been started.

MITIGATION ACTION	BURY POWER AND SERVICE LINES
DESCRIPTION	Require powerlines installed as a part of new construction to be buried.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$2M per mile
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
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, ATV's, water tanks/trucks, snow removal equipment, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.
HAZARD(S)	All hazards
ESTIMATED COST	Varies by need
FUNDING	Local taxes, General Fund, HMGP
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Fire Department
STATUS	This project has not yet been started.

MITIGATION ACTION	DAM/LEVEE/FLOODWALL CONSTRUCTION AND 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 should be designed to FEMA standards to provide 1-percent flood protection providing additional flood insurance benefits.
HAZARD(S)	Flooding
ESTIMATED COST	Varies
FUNDING	Local taxes, HMGP, BRIC, FMA
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Village Board, Landowners
STATUS	This project has not yet been started.

MITIGATION ACTION	FLOODPLAIN EARLY ALERT SYSTEM
DESCRIPTION	Update equipment, ensure equipment is in a secure location, and install additional gauges.
HAZARD(S)	Flooding
ESTIMATED COST	Varies
FUNDING	Local taxes, HMGP, BRIC, FMA
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board, EMA
STATUS	This project has not yet been started.

MITIGATION ACTION	PROVIDE BACKUP POWER SYSTEMS AND REDUNDANCIES
DESCRIPTION	Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails. Rebuild or make improvements to the existing downtown electric line.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$70,000
FUNDING	Electric rates and taxes, HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Electric Commissioners
STATUS	This project has not yet been started. This is needed in the downtown business district.

MITIGATION ACTION	STORM SHELTER IDENTIFICATION
DESCRIPTION	Identify any existing private or public storm shelters.
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$0, Staff Time
FUNDING	Local taxes, HMGP
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Village Board
STATUS	This project has not yet been 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)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	$50 per unit
FUNDING	Local taxes, HMGP, BRIC
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Fire Department
STATUS	This project has not yet been started.

Removed Mitigation Actions

MITIGATION ACTION	ESTABLISH DROUGHT MONITOR CONDITIONS
DESCRIPTION	Jurisdiction can establish specific drought monitoring protocols. These protocols will serve as triggers for implementing drought response actions.
HAZARD(S)	Drought and Extreme Heat
REASON FOR REMOVAL	This project was identified as redundant and is covered under "Drought Response Protocols".

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

COMMUNITY PROFILE

VILLAGE OF STRANG

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

Local Planning Team

Table STG.1: Village of Strang Local Planning Team

Name	Title	Jurisdiction
LoNeal Beck	Mayor	Village of Strang

Location and Geography

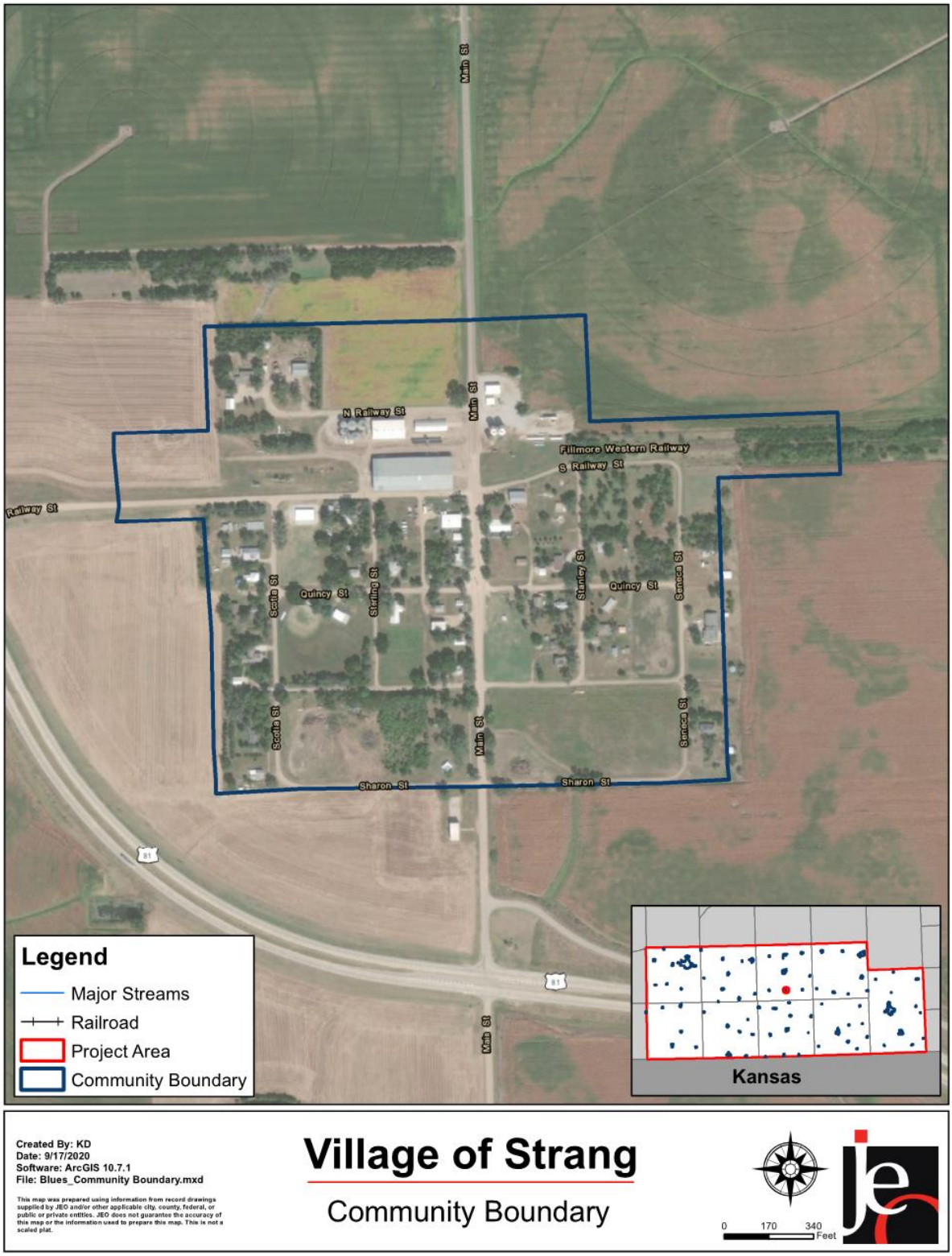
The Village of Strang is located in the south central portion of Fillmore County. The Village of Strang covers an area of 0.1 square miles. There are no major waterways within the area. The area is not heavily forested, nor is it located in a geographic area of the state prone to landslides. The village lies in the plains topographic region and is surrounded by agricultural fields.

Transportation

Strang's major transportation corridors include County Road 30D which runs north-south through the village and connects to Highway 81 to the south. Highway 81 runs along the west side of the village and accommodates 5,670 vehicles annually, 1,480 of which are heavy vehicles. Strang does not have any rail lines. This information is important to hazard mitigation plans as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Chemicals are regularly transported along Highway 81. The most recent spill was on January 16, 2006 where a Conoco truck and trailer fell over, puncturing a tank of isohexenes and resulting in a spillage. No details were reported about if this impacted the village. No critical facilities are located along transportation routes.

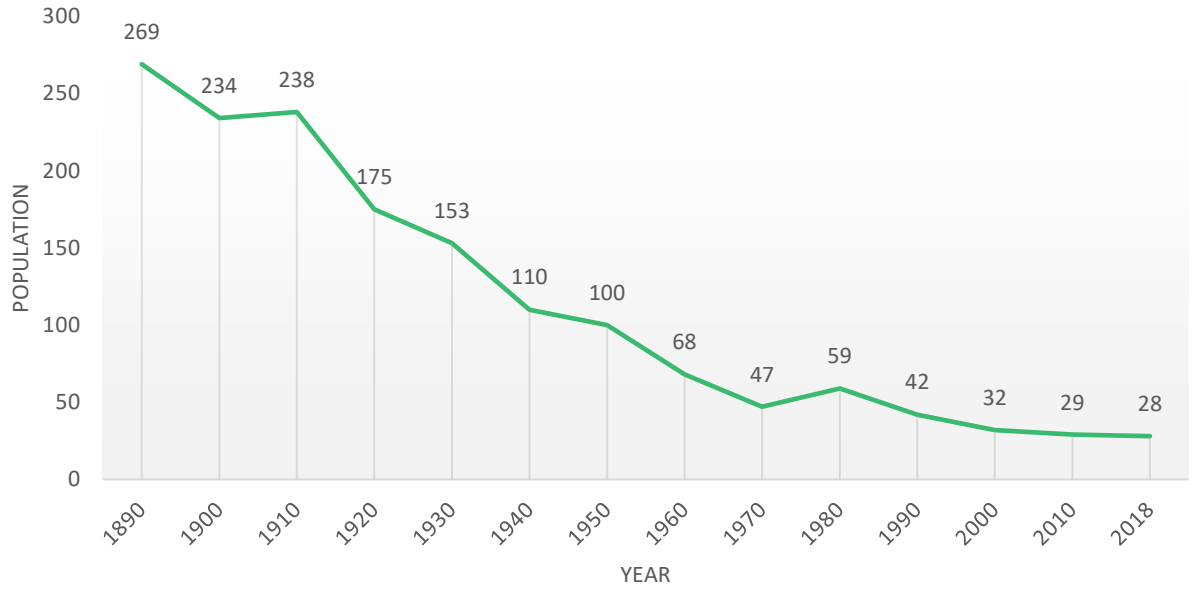
Figure STG.1: Village of Strang Jurisdictional Boundary



Demographics

The following figure displays the historical population trend from 1890 to 2018 (estimated). This figure indicates that the population of Strang has declined since the 1910s This is relevant to hazard mitigation because communities with declining populations may have larger shares of unoccupied housing or decreasing tax revenues. The village's population accounted for 1% of Fillmore County's Population in 2018.

Figure STG.2: Strang Population 1890-2018



Source: U.S. Census Bureau[75]

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

- **Younger.** The median age of Strang was 29.8 years old in 2018, compared with the County average of 47.7 years. Strang's population has grown older since 2010, when the median age was 30.9 years old. Strang had a larger proportion of people under 20 years old (32.1%) as the County (21.3%).[76]
- **Less ethnically diverse.** Between 2010 and 2018 Strang's population was 100% White, non-Hispanic. During that time, Fillmore County had: 1% Black, 0% to 1% American Indian, 1% other races and 1% two or more races from 2010 to 2018 respectively.[77]
- **Less likely to be at the federal poverty line.** The poverty rate of all persons in Strang (0%) was lower than the County (10.0%) in 2018.[78]

75 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
76 United States Census Bureau. "2018 American Fact Finder: S0101: Age and Sex." [database file]
77 United States Census Bureau. "2018 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]
78 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]

Employment and Economics

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

- **Varying mix of industries**. Employment sectors accounting for 10% or more of employment in Strang included Retail, Education, and Arts. In comparison Fillmore County's included Agriculture and Education in 2018.[79]
- **Lower household income**. Strang's median household income in 2018 ($43,750) was about $8,000 less than the County ($55,625).[80]
- **Fewer long-distance commuters**. About 76.2% percent of workers in Strang commuted for fewer than 15 minutes, compared with about 55.6% of workers in Fillmore County. About 16% of workers in Strang commute 30 minutes or more to work, compared to about 20.8% of the County workers.[81]

Major Employers

Major employers in the community include Bubba's Anytime, Precision Ag, and Gibson Construction. Approximately 33 percent of residents (10 of 30) commute to other communities for work such as Geneva.

Housing

In comparison to Fillmore County, Strang's housing stock was: [82]

- **Less owner occupied.** About 63.6% of occupied housing units in Strang are owner occupied compared with 75.6% of occupied housing in Fillmore County in 2018.
- **Larger share of aged housing stock**. Strang has more houses built prior to 1970 than the county (84.6% compared to 69.9%).
- **Fewer multi-family homes**. The predominant housing type in the village is single family detached and Strang contains few multifamily housing with five or more units per structure than the County (0% compared to 5.2%). About 100% of housing in Strang was single-family detached, compared with 90.6% of the County's housing. Strang has a smaller share of mobile and manufactured housing (0%) compared to the County (1.1%). There are only two mobile homes in 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.

79 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
80 United States Census Bureau. "2018 American Fact Finder: DP03: Selected Economic Characteristics." [database file]
81 United States Census Bureau. "2018 American Fact Finder: s0802: Means of Transportation to Work by Selected Characteristics." [database file]
82 United States Census Bureau. "2018 American Fact Finder: DP04: Selected Housing Characteristics." [database file]

Future Development Trends

No housing or business development has begun over the past five years. According to the census data, Strang's population is declining. The planning team indicated this was due to an aging population. No new housing, new businesses or industry developments are planned for the next five years.

Parcel Improvements and Valuation

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

Table STG.2: Strang Parcel Valuation

Number of Parcels	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Percent of Improvements in Floodplain	Value of Improvements in Floodplain
78	23	$717,015	0	0%	$0

Source: County Assessor, GIS Workshop

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites throughout Strang which house hazardous materials. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident. There have not been any spills from fixed chemical sites since 1996, so few concerns exist for the village.

Table STG.3: Chemical Storage Fixed Sites

Facility Name	Address	Located in Floodplain?
Norder Supply Inc	401 Main St	N
NDOT Strang Yard	Jct Highways 81 & 74	N
Overland Ready Mixed Concrete	46 S Railway St	N
Precision Ag Products	736 S 13th St	N

Source: Nebraska Department of Environment and Energy[83]

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

Critical Facilities

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

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

Table STG.4: Strang Critical Facilities

CF #	Type of Lifeline	Name	Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Safety and Security	Village Office (4H Hall)	N	N	N
2	Safety and Security	Town Outdoor Warning Siren	N	N	N
3	Other	Strang Museum	N	N	N

Figure STG.3: Strang Critical Facilities

Historical Occurrences

See the Fillmore County community profile for historical hazard events.

Hazard Prioritization

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

Severe Thunderstorms

Severe thunderstorms were identified as a top concern for the village. The combination of heavy rain, high winds, lightning, and hail can often cause significant impacts to the community. While no NCEI documented severe thunderstorm events have occurred in Strang from 1996 to September 2019, heavy rainfall and flash flooding is a concern. The village has experienced severe thunderstorm impacts in the past including significant hail damage to the 4H hall and city office roof. High winds also damaged the outdoor electrical connects at the office. All community buildings have lightning rods but do not have backup generators. The county provides emergency alerts through AlertSense for the village. The village has identified the need to install a remote operated outdoor siren warning system.

Severe Winter Storms

Severe winter storms are a natural and regular occurrence for the region, which can cause significant impacts, and were identified as a top concern for the community. Severe winter storms While NCEI data did not show any severe winter storm events in Strang from 1996 to September 2019, heavy ice and snow is a regional concern. The local planning team noted past severe winter storms, specifically blizzards and high winds have closed all village streets in the past and knocked out power. Surrounding farmers have volunteer their time and services to help remove snow in town and two local residents have skid loaders for snow removal. The village identified the need to purchase a road maintainer/grader or tractor with loader and rear blade.

Tornadoes and High Winds

Tornadoes and high wind events have impacted the village in the past. According to NCEI data, there have been 19 high wind events in Fillmore County from 1996 to September 2019. The most recent tornado event was on June 24, 2018 in which a weak tornado occurred with a maximum wind speed of 65 mph and caused damages throughout Fillmore County. The tornado was a land spout in nature and was one of four to occur within a few miles of Fairmont, which is 16 miles away from Strang. The highest rated tornado since 1996 occurred in Grafton, 22 miles away from Strang, and was an EF-3 on May 11, 2014. Peak winds were estimated to be 150 mph and crossed over to multiple counties, causing $1,500,000 in property damage.

The local planning team noted hazardous trees are located north of the museum which should be removed. The village has experienced high winds in the past which have caused tree damage

and electrical service disruptions. Most residents do not have basements to use as shelter locations and there are no designated shelter locations in town.

Flooding

Flooding was not identified as a hazard of top concern for the village. Floodplain areas are only located east of town but no buildings or parcels within the village are located in the floodplain. The village does not participate in the NFIP.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Strang has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The village has a 5 member council.

Capabilities

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

Table STG.5: Capability Assessment

Survey Components		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	*No*
	Capital Improvements Plan	*No*
	Economic Development Plan	*No*
	Local Emergency Operational Plan	*Yes (County)*
	Floodplain Ordinance	*No*
	Zoning Ordinance	*No*
	Subdivision Regulation/Ordinance	*No*
	Building Codes	*No*
	Floodplain Management Plan	*No*
	Storm Water Management Plan	*No*
	National Flood Insurance Program	*No*
	Community Rating System	*No*
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*
Fiscal Capability	1 & 6 Year Plan	*Yes*
	Applied for grants in the past	*No*
	Awarded a grant in the past	*No*

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

Table STG.6: Overall Capability

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

Plan Integration

The planning team indicated the village has not applied for any grants in the past five years and that municipal funds are limited to maintaining current facilities and systems. No specific projects were included. No planning mechanisms were identified for the village which employed hazard mitigation principals.

The Local Emergency Operations Plan (LEOP) for Strang, which was last updated in 2017, is an annex of Fillmore County's LEOP. The plan addresses hazards such as chemical releases, severe winter storms, severe thunderstorms, and tornadoes. This plan delegates responsibilities in the post-disaster environment but contains little discussion of hazard mitigation. The plan provides a clear assignment of responsibility in case of an emergency, shelter locations, and evacuation routes but does not identify any gaps related to a particular hazard.

The village follows all county and state required building codes and zoning requirements. No other planning mechanisms were identified for the Village of Strang which integrate hazard mitigation goals and objectives.

Plan Maintenance

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

The Village of Strang is a new participant in the HMP planning process. The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the village board and village clerk. The team will review the plan annually and share information with the public by sending letters.

Mitigation Strategy

New Mitigation Actions – 2021 Plan

MITIGATION ACTION	CIVIL SERVICE IMPROVEMENTS
DESCRIPTION	Purchase a road maintainer/grader or tractor with loader and rear blade
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
ESTIMATED COST	Varies
FUNDING	Tax funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

MITIGATION ACTION	HAZARDOUS TREE REMOVAL
DESCRIPTION	Remove hazardous trees in town, specifically spreading Eastern Red Cedar trees
HAZARD(S)	All hazards
ESTIMATED COST	$2,500
FUNDING	Tax funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.

MITIGATION ACTION	INTERIOR DITCH AND CULVERT IMPROVEMENTS
DESCRIPTION	Clear out, deepen, and improve drainage ditches and culverts throughout town. Ditches need to be regraded and culverts need cleaned out.
HAZARD(S)	Flooding
ESTIMATED COST	$15,000
FUNDING	Tax funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Village Board
STATUS	This is a new mitigation action.