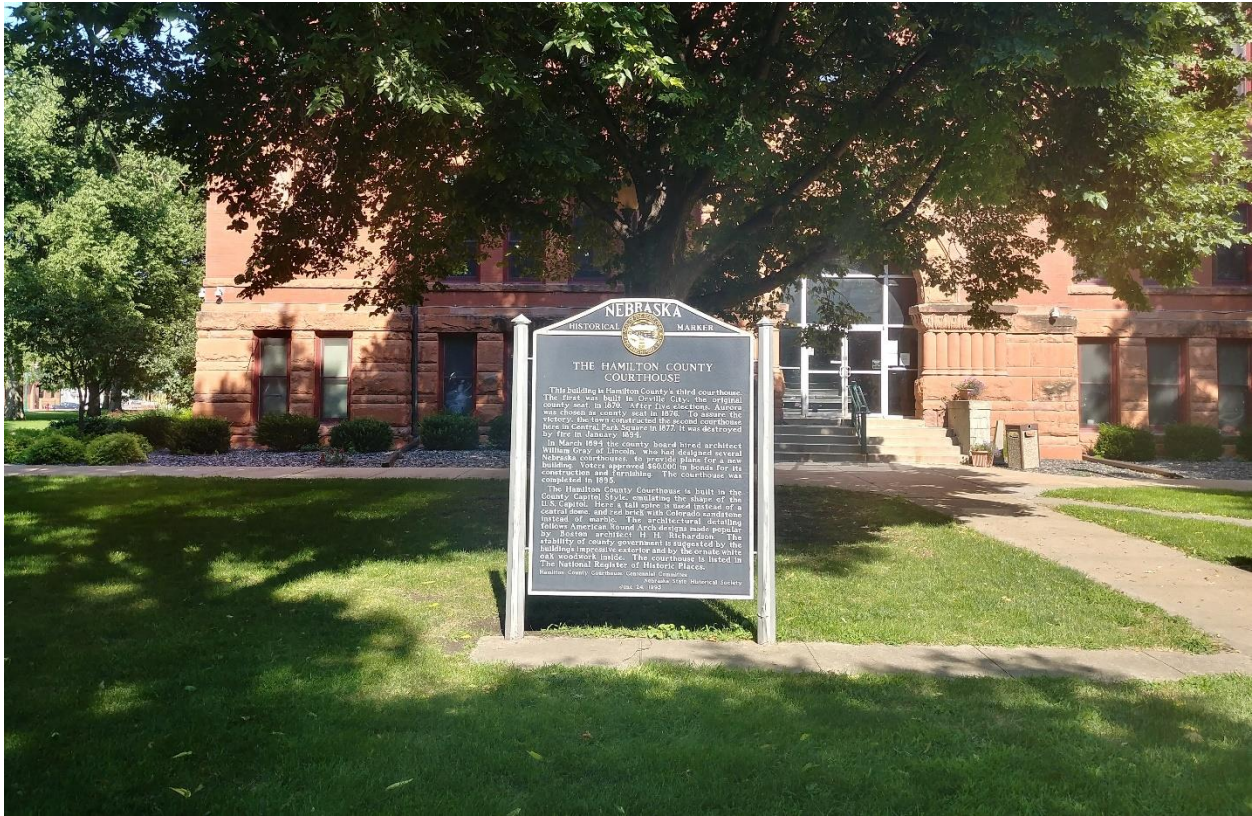


COMMUNITY PROFILE

HAMILTON COUNTY



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

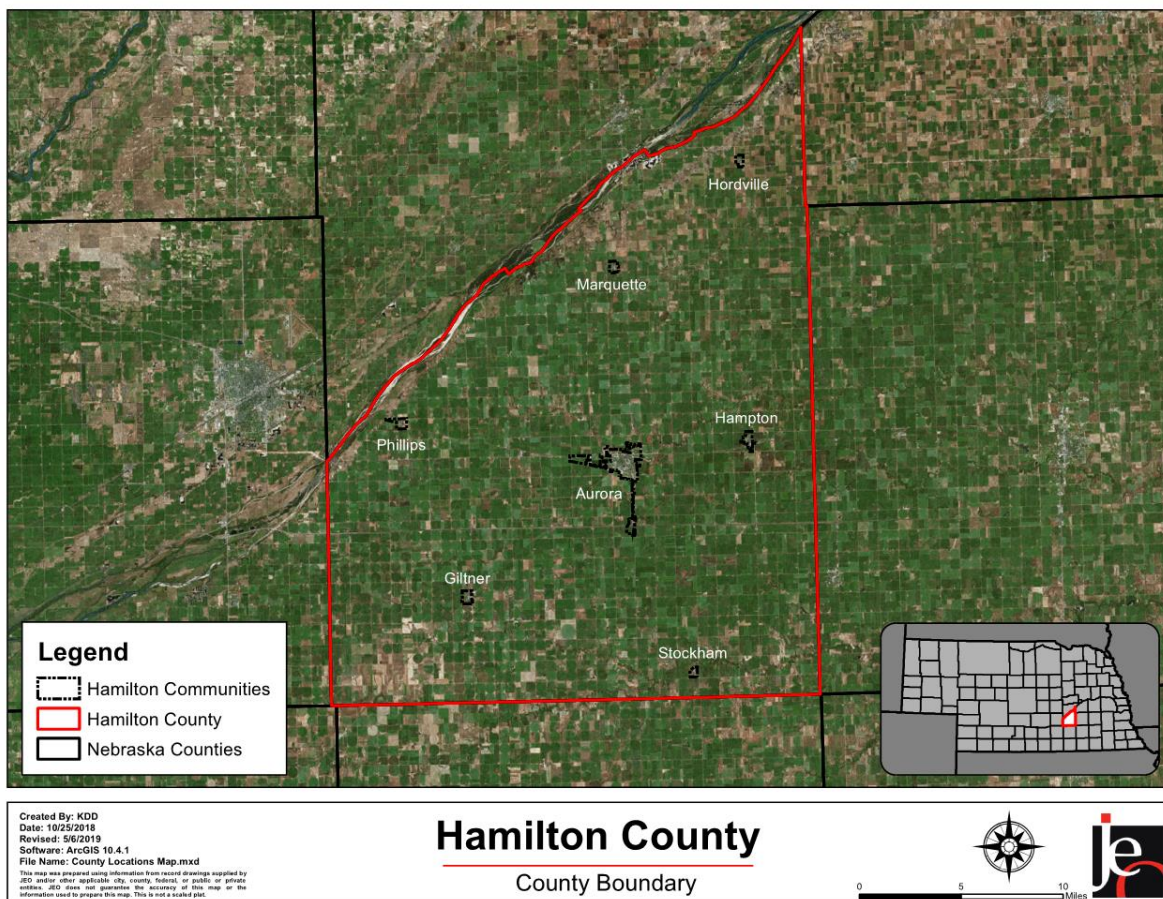
Table HCO.1: Hamilton County Local Planning Team

Name	Title	Jurisdiction
Kirt Smith	Emergency Manager	Hamilton County
K.C. Pawling	Highway Superintendent	Hamilton County
Rich Nelson	County Commissioner	Hamilton County
Scott Stuhr	Administrative Manager	Hamilton County

Location and Geography

Hamilton County is located in east central Nebraska and is bordered by York, Polk, Clay, Hall, and Merrick Counties. The total area of Hamilton County is 547 square miles. Major waterways within the county include the Platte River, West Fork Big Blue River, Bergen Reservoir, and Pioneers Trail Lake. Most of Hamilton County lies in the plains topographic region¹, with the vast majority of the county’s land characterized by agricultural fields.

Figure HCO.1: County Boundary



Climate

For Hamilton County, the normal high temperature for the month of July is 86.3°F and the normal low temperature for the month of January is 14.1°F. On average, Hamilton County receives 30.96 inches of rain and 27.5 inches of snow per year. The table below compares climate indicators with those of the entire state. Climate data is helpful in determining if certain events are higher or lower than normal. For example, if the high temperatures in the month of July are running well into the 90s, high heat events may be more likely, which could impact vulnerable populations.

Table HCO.2: Climate Indicators

	Hamilton County	State of Nebraska
July Normal High Temp	86.3°F	87.4°F
January Normal Low Temp	14.1°F	13.8°F
Annual Normal Precipitation	30.96"	23.8"
Annual Normal Snowfall	27.5"	25.9"

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

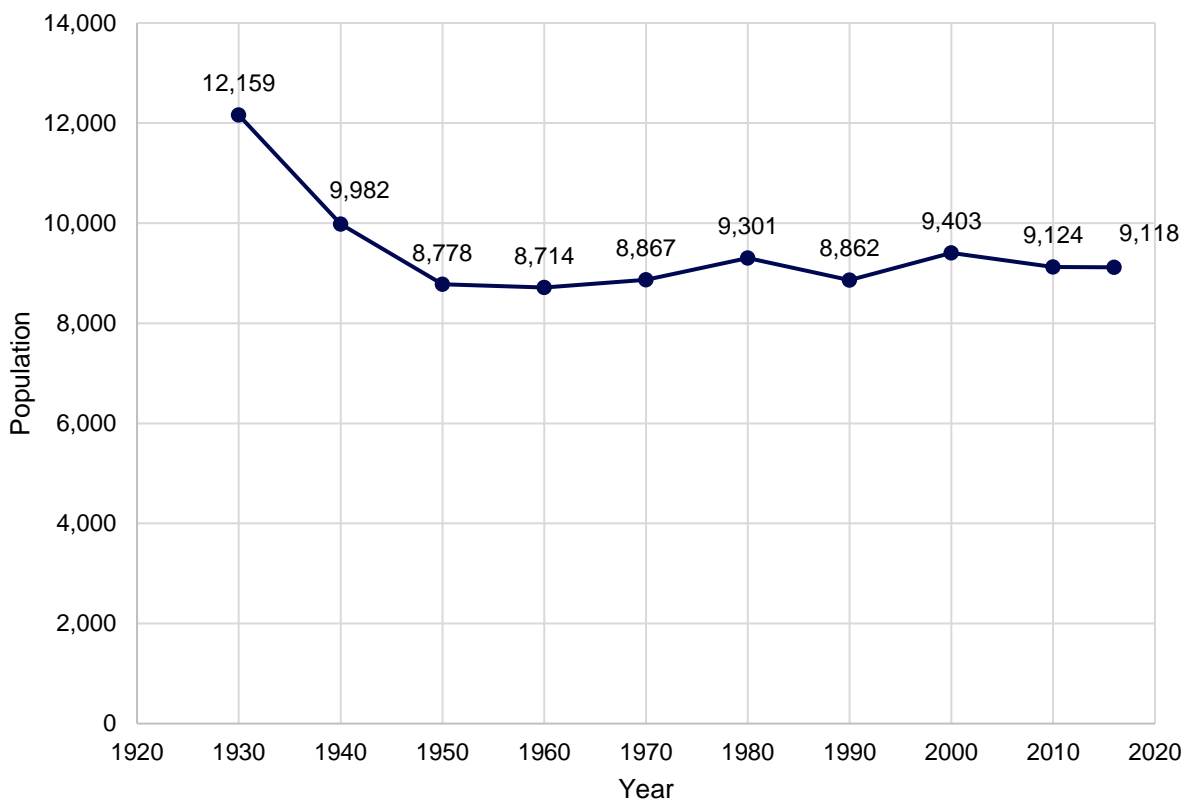
Transportation

Hamilton County's major transportation corridors include Interstate 80, U.S. Highway 34, Nebraska Highway 14, Nebraska Highway 2, Nebraska Highway 66, one Nebraska Central Railroad Company rail line, and two Burlington Northern rail lines. The county also has two airports dispersed throughout the county. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the county, as well as areas more at risk to transportation incidents. Interstate 80, Highway 34, and Highway 14 all carry a large amount of traffic as well as large amounts of chemicals. Several multi-vehicle accidents and minor chemical spills have occurred along these routes. The railway has also experienced coal train derailments in the county. There are several community and county critical facilities that are located near these major transportation routes.

Demographics

The following figure displays the historical population trend from 1930 to 2016. This figure indicates that the population of Hamilton County has been decreasing since 2000. This is notable for hazard mitigation because communities with a decreasing population may also have a higher level of unoccupied housing that is not being kept up. Furthermore, areas with decreasing population will be less prone to pursuing residential/commercial development in their areas, which may decrease the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the county which could make implementation of mitigation actions less fiscally feasible.

Figure HCO.2: Population 1930 – 2016



Source: U.S. Census Bureau^{iv}

The following table indicates the State of Nebraska has a higher percentage of people under the age of 5. Hamilton County has a higher percentage of people over the age of 64. This is relevant 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 HCO.3: Population by Age

Age	Hamilton County	State of Nebraska
<5	5.5%	6.9%
5-64	76.7%	78.7%
>64	17.9%	14.5%
Median	42.5	36.2

Source: U.S. Census Bureau^v

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

Table HCO.4: Housing and Income

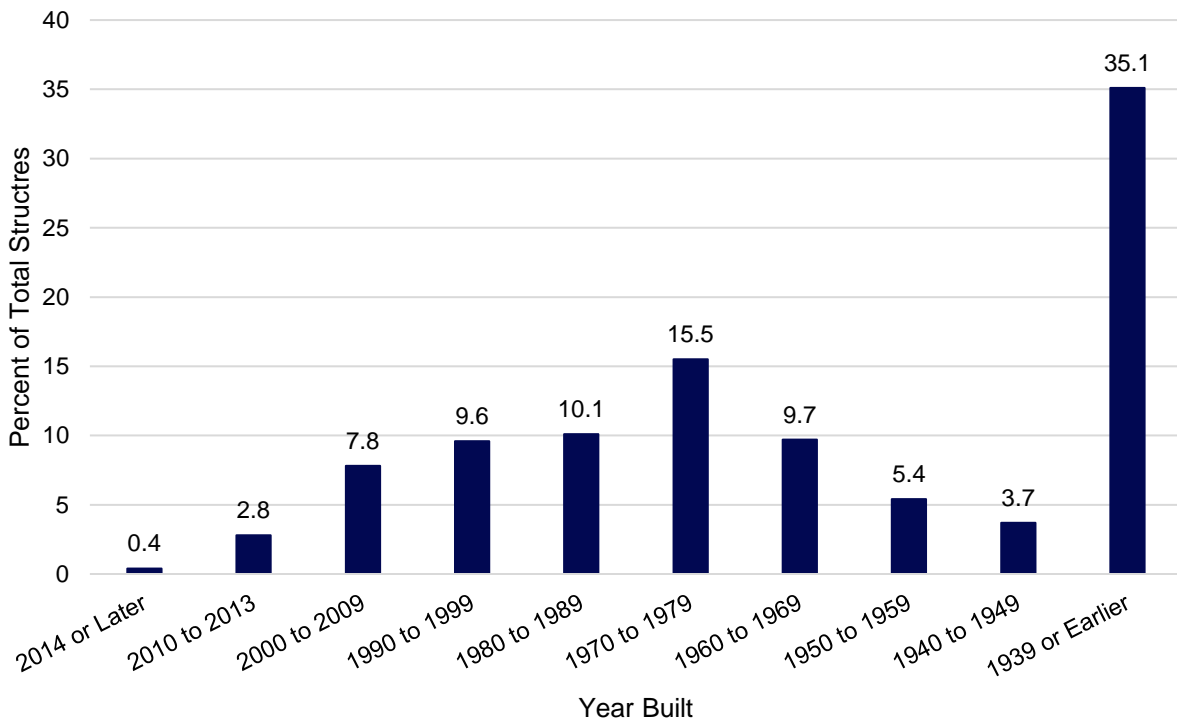
	Hamilton County	State of Nebraska
Median Household Income	\$59,760	\$54,384
Per Capita Income	\$31,565	\$28,596
Median Home Value	\$123,200	\$137,300
Median Rent	\$651	\$745

Source: U.S. Census Bureau^{vi, vii}

The following figure indicates that the majority of housing in Hamilton County was built prior to 1939 (35.1%). According to 2011-2016 ACS 5-year estimates, the county has 4,037 housing units with 91.8% of those units occupied. There are approximately 194 mobile homes in the county. The current Flood Insurance Rate Map (FIRM) was developed in 1992. Housing age can serve as an indicator of risk as structures built prior to state building codes may be at greater risk. Finally, residents that live in mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms. There are no mobile home parks located in unincorporated areas of the county.

Figure HCO.3: Housing Units by Year Built

Hamilton County



Source: Source: U.S. Census Bureau^{viii}

Table HCO.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Hamilton County	3,705	91.8%	332	9.2%	2,994	80.8%	711	19.2%
Nebraska	741,581	91.0%	73,425	9.0%	487,806	66.0%	251,775	34.0%

Source: U.S. Census Bureau^x

Major Employers

According to 2016 Business Patterns Census Data, Hamilton County had 311 business establishments. The following table presents the number of establishments, number of paid employees, and the annual pay role in thousands of dollars. This information is relevant to hazard mitigation insofar as it indicates the diversification of industry. 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 HCO.6: Business in Hamilton County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors	311	2,820	112,797

Source: U.S Census Bureau^x

Agriculture is also important to the economic fabric of Hamilton County, and the state of Nebraska as a whole. Hamilton County’s 572 farms cover 304,395 acres of land. 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 HCO.7: Hamilton County Agricultural Inventory

Hamilton County Agricultural Inventory	
Number of Farms	572
Land in Farms	304,395

Source: USDA 2012 Census of Agriculture^{xi}

Future Development Trends

In the last five years, two new housing subdivisions have been approved adding 93 more buildable lots in the County Zoning jurisdiction. About 80 new homes have been built along with expansion of several businesses. No houses were built in the floodplain and eight non-occupied structures were placed in the floodplain. No new roads were added during this period. According to the 2016 American Community Survey, Hamilton County has slightly decreased in population since 2000. However, the local planning team indicated that 2018 project population has increased by 1.8%. No new housing developments, businesses, or industry is planned for the next five years.

Structural Inventory and Valuation

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

Table HCO.8: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
6,910	\$604,596,309	\$87,496	1,170	\$115,317,320

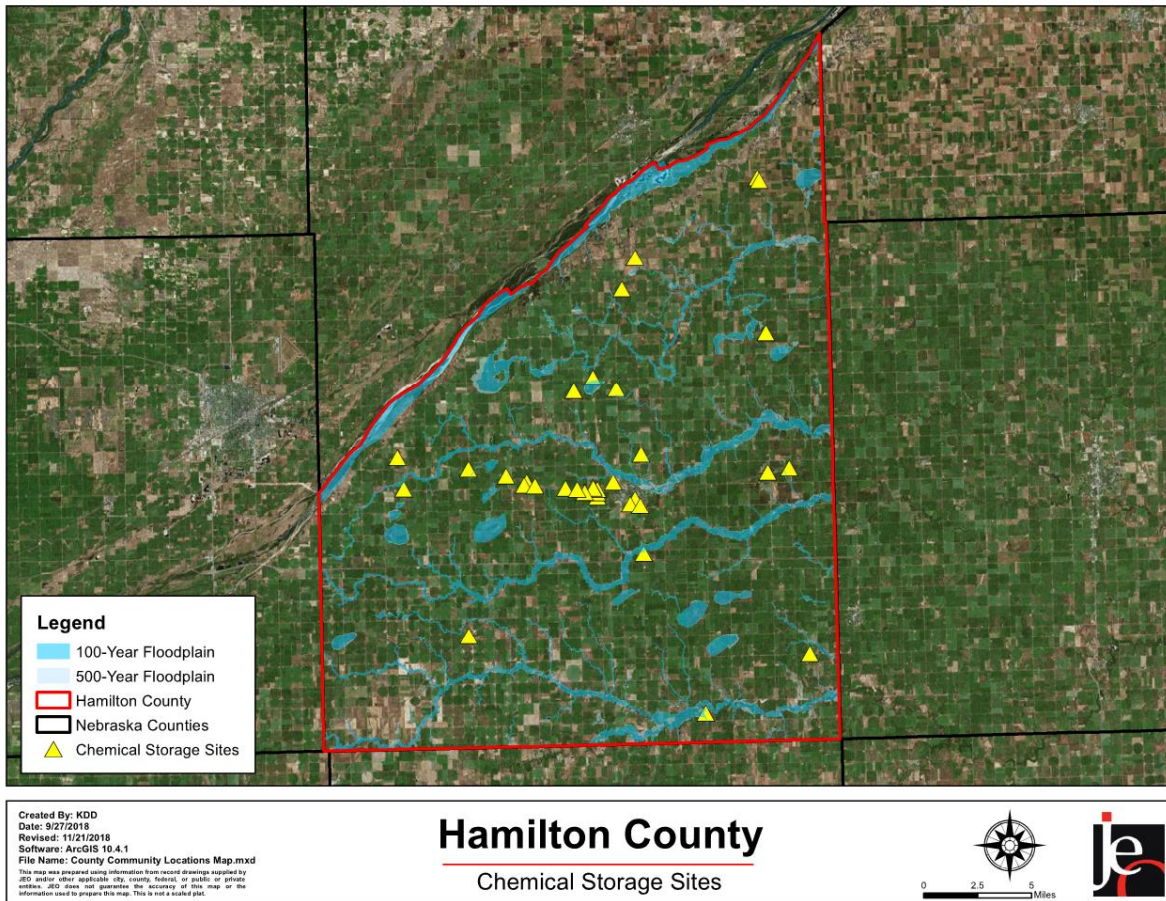
Source: GIS Workshop/Hamilton County Assessor^{xii}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are a total of 35 chemical storage sites in Hamilton County. There are no chemical storage sites located in the floodplain. For a description and map of the other chemical sites located in incorporated areas, please see the jurisdiction’s participant section.

Figure HCO.4: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy, 2018^{xiii}

*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

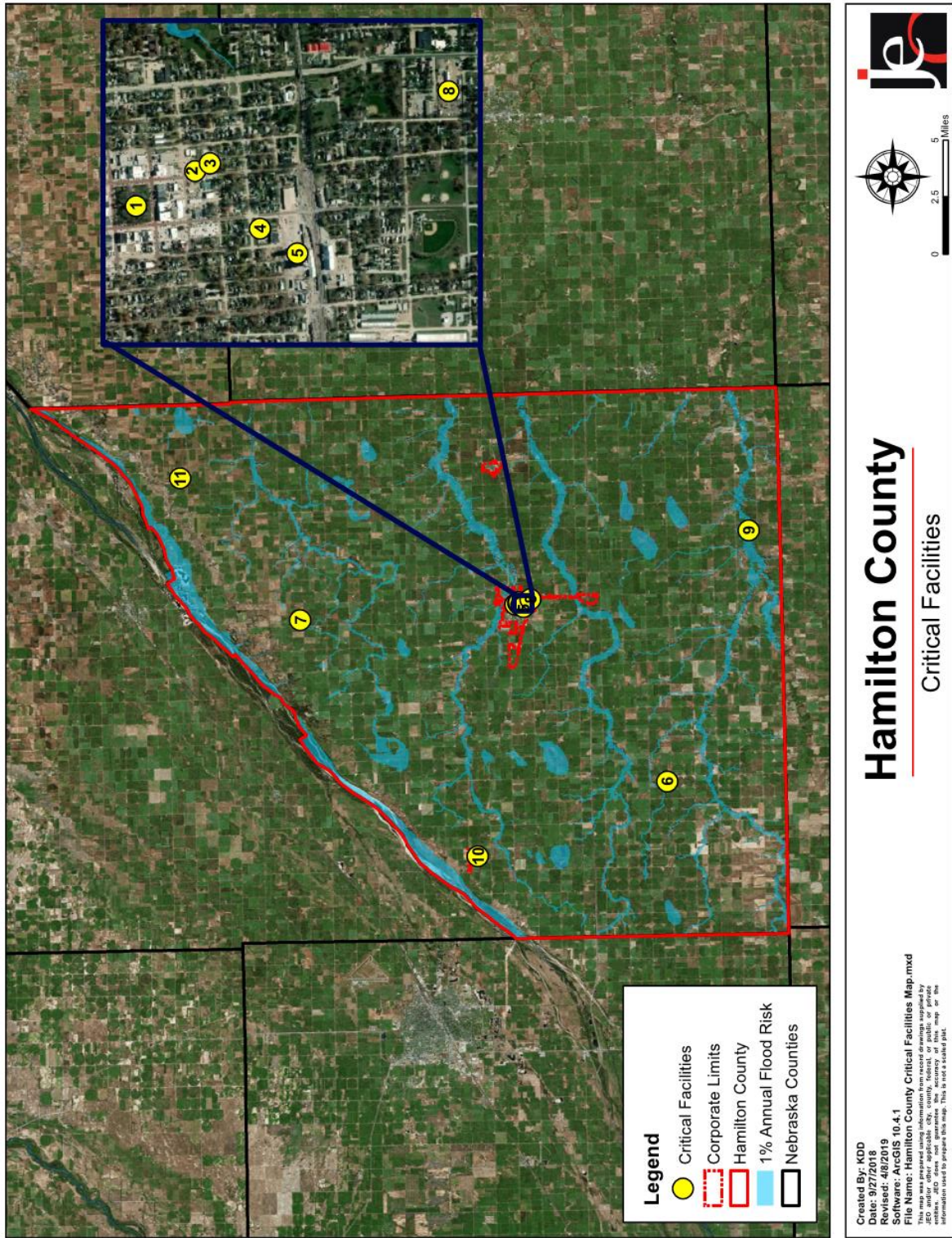
Critical Facilities

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

Table HCO.9: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	County Courthouse	N	N	N
2	County EMS	N	Y	N
3	County EMA	N	Y	N
4	County Law Enforcement Center / Communications Tower	N	Y	N
5	NRIN Communications Dishes	N	N	N
6	County Road Equipment Shop Giltner	N	N	N
7	County Road Equipment Shop Marquette	N	N	N
8	County Road Equipment Main Shop	N	N	N
9	County Road Equipment Shop Stockham	N	N	N
10	County Road Equipment Shop Phillips	N	N	N
11	County Road Equipment Shop Hordville	N	N	N

Figure HCO.5: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the county. The property damages from the NCEI Storm Events Database (January 1996 – December 2017) 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 are from the USDA Risk Management Agency (RMA) between 2000 and 2017.

Table HCO.10: Severe Weather Events

Hazard Type		Count	Property Damage	Crop Damage ²
Agricultural Disease	Animal disease ⁹	8	9 Animals Affected	N/A
	Plant disease ²	12	N/A	\$62,625
Chemical Spills – Fixed Sites ⁴ <i>1 injury</i>		24	\$0	N/A
Chemical Spills – Transportation ⁶		27	\$18,670	N/A
Dam Failure ⁵		0	\$0	N/A
Drought ¹⁰		412/1,485 months	N/A	\$13,813,000
Earthquake ⁷		0	\$0	N/A
Extreme Heat ⁸		Avg. 4 days/yr.	N/A	\$3,440,142
Flooding ¹	Flash Flood	11	\$2,290,000	\$120,553
	Flood	4	\$260,000	
Grass/Wildfires ³ <i>4 injuries, 1 fatality</i>		247	\$0	\$23,778 ³
Hail ¹		134	\$3,582,000	\$14,205,303
High Winds ¹		22	\$264,000	\$1,657,315
Levee Failure ¹¹		0	N/A	N/A
Severe Thunderstorms ¹	Thunderstorm Wind <i>5 injuries</i>	64	\$3,642,500	N/A
	Heavy Rain	29	\$100,000	\$1,919,873
	Lightning <i>1 injury</i>	3	\$40,000	N/A
Severe Winter Storms ¹	Blizzard	7	\$25,000	\$219,297
	Extreme Cold/Wind Chill	2	\$0	
	Heavy Snow	2	\$0	
	Ice Storm	8	\$4,095,000	
	Winter Storm	43	\$335,000	
	Winter Weather	14	\$210,000	
Tornadoes ¹		20	\$4,210,000	\$158,785
Total		681	\$19,072,170	\$35,620,671

N/A: Data not available

1 - NCEI (January 1996 to December 2017)

2 - USDA RMA (2000-2017)

3 - NFS (2000-Dec 2017)

4 - U.S. Coast Guard NRC (1990-Jan 2018)

5 - Stanford NPDP (1911-2016)

6 - PHMSA (1971-Jan 2018)

- 7 - USGS (1872-2018)
- 8 – High Plains Regional Climate Center (1901-2018)
- 9 - NDA (2014-2017)
- 10 - NCDC (1895-Sept 2018)
- 11- United States Army Corps of Engineers (2010)

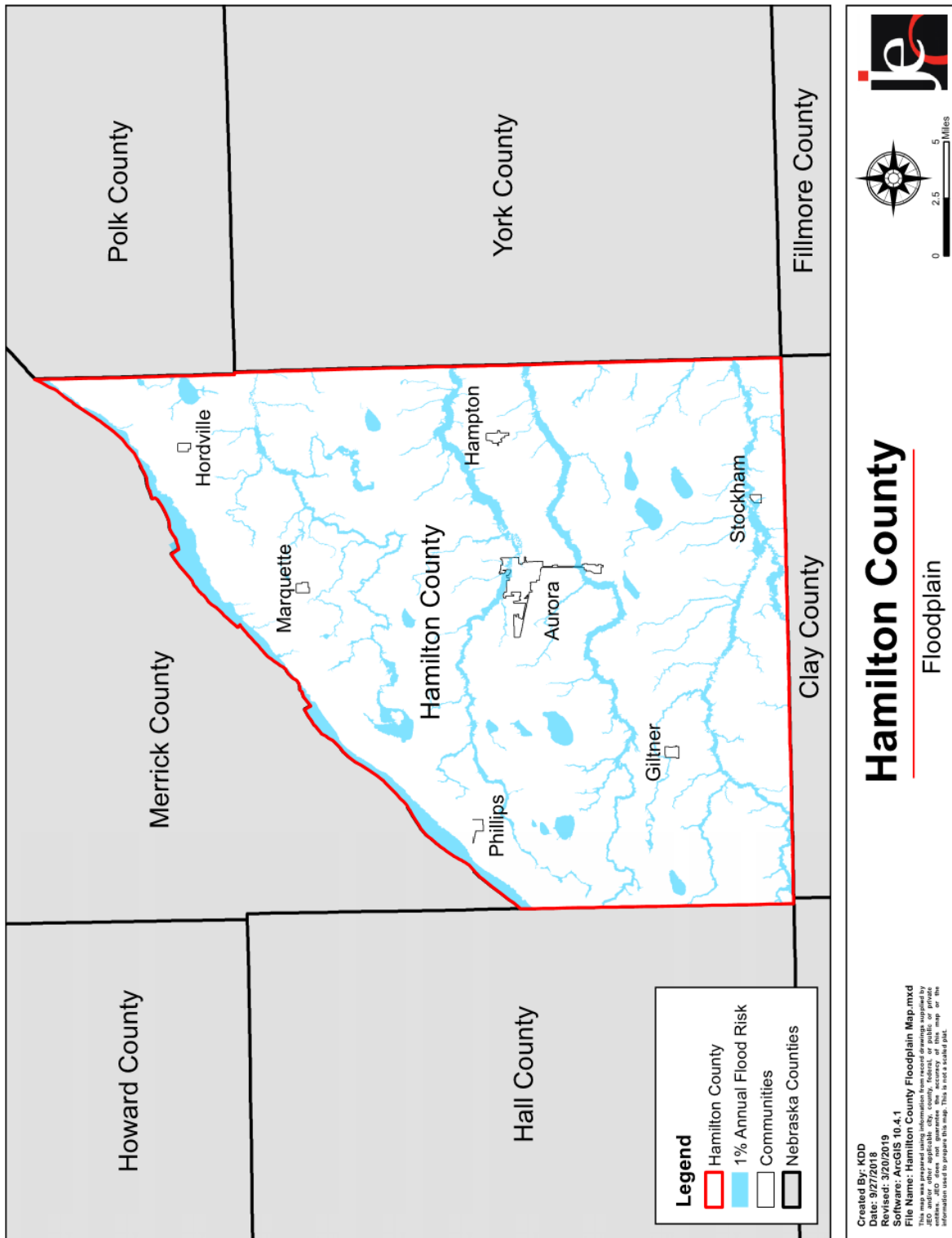
County Hazard Prioritization

For more information regarding these area wide hazards, please see *Section Four: Risk Assessment*. The following discussion provides county-specific information, reported in Hamilton County Risk Assessment Summary, relevant to each hazard. Only hazards identified either as a concern to the county by the local planning team or based on the occurrence and risk of the hazard to the county are discussed in detail below.

Flooding

Flooding in the county is most likely to occur along the northern border along the Platte River and in the southern part of the county along the west fork of the Big Blue River. Other bodies of water of concern are the Little Blue River and Lincoln Creek. NCEI data shows that Hamilton County has experienced 15 flood events since 1996. The most damaging event occurred countywide in 2005, when a flash flood caused approximately \$2,000,000 in property damage. The local planning team identified some more recent large flooding events. A heavy rain event occurred in June of 2015, ice jam flooding occurred in January of 2016 around the Highway 34 and the Hall County line, and a heavy rain event caused flooding in August of 2017. During the spring 2019 flooding, Hamilton County experienced county road damage and sandbagging around a private lake located along the Platte River. The preliminary 100-year floodplain is show in Figure HCO.6 The local planning team indicated that no county critical facilities have been damaged due to flooding. Currently, the county planning and zoning department is encouraging all the incorporated communities to participate in NFIP.

Figure HCO.6: Hamilton County 100-Year Floodplain



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

High Winds

The primary concern for the county regarding high winds is damage to power lines and crop damage. NCEI data shows that high wind events have occurred 22 times since 1996. On December 25, 2016 a high wind event caused approximately \$1,000,000 in property damage across the county. The local planning team also identified May 2008 as a significant event. This event damaged both the county ambulance building and county courthouse. It was reported by the local planning team that Hamilton County utilizes a back-up system for county records. While Hamilton County does not have a county safe room, the County Emergency Management offers emergency text alerts. In addition, the county offers public outreach activities including public education talks, a severe weather poster contest, storm spotter class, and social media alerts and information.

Severe Thunderstorms

NCEI data shows that Hamilton County has experienced 96 severe thunderstorm events since 1996. The largest event occurred in June 3, 2014 when a thunderstorm with winds of 70 mph caused \$1,000,000 in property damage around the Village of Marquette. The local planning team is primarily concerned with public safety, power loss, wind damage, and hail damage from severe thunderstorm events. Historically, several critical facilities have experienced wind damage and power outages due to thunderstorms. If power loss were to occur, the county jail, 911 dispatch, county ambulance building, and emergency management building all have backup power generators. The county courthouse and county roads department currently are in need of a backup power generator.

Severe Winter Storms

The local planning team identified severe winter storms as a top hazard for the county. NCEI data shows that 76 severe winter storm events have occurred since 1996. The local planning team is concerned with public safety, prolonged power outages, loss of commerce, and delayed emergency response due to poor road conditions. Hamilton County does not have officially designated snow routes, but the local planning team indicated that high-volume traffic roads are cleared first. The county roads department is in charge of removing snow on county roads, while the state roads department is in charge of snow removal on the state highways and interstate 80.

Tornadoes

Past tornadic events have damaged the roof and windows of the county courthouse and the roof and doors of the county ambulance building. The local planning team indicated that the county does not have warning sirens as those are in the city and villages. In the event of a disaster the county has mutual aid agreements with Grand Island, Polk County, Central City, and Adams County. In addition, all of the fire departments in the county have mutual aid with each other and also with surrounding departments not in the county.

Governance

A community's governance structure impacts its capability to implement mitigation actions. Hamilton County is governed by a five member board of commissioners. The county also has the following offices and departments:

- County Clerk
- County Assessor

- County Attorney
- County Treasurer
- Emergency Management
- Highway Superintendent
- Planning and Zoning Superintendent
- Sheriff's Department
- Extension – UNL
- County Court
- Clerk District Court
- GIS
- VSO
- Weed Superintendent
- Surveyor

Capability Assessment

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

Table HCO.11: Capability Assessment

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

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

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Limited
Does your community have the staff/expertise to implement projects?	Moderate
Does your community have the community support to implement projects?	Moderate
Does your community staff have the time to devote to hazard mitigation?	Moderate

Plan Integration

The county Comprehensive Plan and Zoning Ordinance have not been updated since 1973. To this point the principles of hazard mitigation have not been a part of the plans. At this time, the comprehensive plan is in the process of being updated and will be adopted by the end of 2019. Once the current hazard mitigation plan is completed, the County Planning Department will review and incorporate items as needed.

The county last updated the Emergency Operations Plan in 2017 and is required to be updated every five years. In the plan hazards of greatest concern are addressed, specific responsibilities are assigned, evacuation routes are identified, vulnerable flooding routes are identified, and shelter locations are given. Emergency responders and community officials are all familiar with the plan. No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

Completed Mitigation Actions

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed in June of 2018. The project was funded by a Homeland Security grant and county budget.

Mitigation Action	Weather Radar System Program
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes, High Winds
Status	Completed in 2010 by the County Emergency Management.

Ongoing and New Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters. Generators are needed for the county roads department, courthouse, and ambulance department.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$25,000 per generator
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	County Roads Department
Status	In Progress. The ambulance department generator was completed.

Mitigation Action	Bridge Replacement
Description	Replace structurally deficient, functionally obsolete, fracture critical bridges on nationally classified minor collector roads. The county has experienced bridge failures during high water events. Bridges are located 635 feet north of intersections of roads 2 and W.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$1,000,000
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Highway Department
Status	New Action, Not Started

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional, or updating existing, emergency response equipment. Ex: 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. The county would like to replace the current 1964 snow blower and replace with a new model. The county is also in need have a new snow plow.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$170,000
Funding	County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Highway Department
Status	Not Started

Mitigation Action	Continuity Plans
Description	Develop continuity plans for critical community services.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	County Emergency Management, Local City and Village Boards
Status	In Progress. A Continuity of Operations Plan has been started for the county.

Mitigation Action	Education about Continuity Plans
Description	Educate local businesses on the value of continuity planning.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management, Business Associations
Status	In Progress. The county emergency management has done this for several years with Economic Development Area staff.

Mitigation Action	Emergency Communication
Description	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications. Provide equipment such as satellite telephones and radios. Update radio and add repeaters to the north and south end of the county.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$10,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Emergency Management, Highway Department
Status	Not Started

Mitigation Action	Fire Wise Defensible Space
Description	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train land owners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.
Hazard(s) Addressed	Grass/Wildfires
Estimated Cost	\$20,000
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management, Fire Departments, Planning/Zoning
Status	Not Started

Mitigation Action	First Aid Training
Description	Promote first aid training for all residents
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management, Local Fire Departments
Status	In Progress. The county teaches first aid and CPR classes throughout the year whenever requested.

Mitigation Action	Floodplain Mapping / Remapping
Description	Update of existing floodplain maps for communities/counties that participate in the NFIP.
Hazard(s) Addressed	Flooding
Estimated Cost	\$30,000 to \$100,000
Funding	County General Fund
Timeline	1 Year
Priority	High
Lead Agency	Nebraska Department of Natural Resources
Status	In Progress. The county's floodplain map will be updated by the end of 2019.

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events and major flooding.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Flooding
Estimated Cost	\$2,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Local City and Villages, County Emergency Management
Status	Planning Stage

Mitigation Action	Improve Snow / Ice Removal Program
Description	Purchase equipment for ice removal on paved county roads. This would include sanders, material handling equipment, and facilities to store ice removal material.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$200,000
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Highway Department
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
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) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$40,000/mile
Funding	County General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Highway Department, County Emergency Management, County Power Companies
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management
Status	In Progress. Some public education has been done but more is needed.

Mitigation Action	Road Paving
Description	The county currently has nine miles of emergency response routes that are not currently paved. Three miles of paving needed on Road K and six miles on Road 6.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$9,000,000
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Highway Department
Status	New Action, Not Started

Mitigation Action	Shelter In-Place Training/Education
Description	Ensure that all critical facilities, businesses, and residents located near major transportation corridors and near fixed site chemical facilities are aware of how to safely shelter in place in the event of a chemical incident. This action will be done using public education and training.
Hazard(s) Addressed	Chemical Spills – Fixed Site, Chemical Spills – Transportation
Estimated Cost	\$1,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management, Local Fire Departments
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas. Safe rooms would be for the county roads department, cities, and villages.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms
Estimated Cost	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City or Villages, County Roads Department
Status	Not Started

Mitigation Action	Training for Response to Train Derailment
Description	Provide training for first responders in the event of a train derailment and related hazmat incident.
Hazard(s) Addressed	Chemical Spills - Transportation
Estimated Cost	\$1,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Local Fire Departments, County Emergency Management
Status	In Progress. The county emergency management has done some trainings with BNSF.

Mitigation Action	Vehicular Barriers
Description	Install vehicular barriers to protect critical facilities and key infrastructure at public sites. The county would like to double the number of barriers that they currently have.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$10,000
Funding	CDBG, County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Law Enforcement, Highway Department
Status	Not Started

Mitigation Action	Vulnerable Population Database
Description	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them.
Hazard(s) Addressed	All Hazards
Estimated Cost	N/A
Funding	County General Fund
Timeline	5+ Years
Priority	High
Lead Agency	County Emergency Management
Status	In Progress The county is currently working with the state on this action.

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed. Most schools and medical facilities in the county have them. The county would like to get them in all public locations.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$50/radio
Funding	County General Fund, Foundation Donations
Timeline	2-5 Years
Priority	High
Lead Agency	County Emergency Management
Status	In Progress. Currently conducting inventory of weather radios.

Removed Mitigation Actions

Mitigation Action	Alert Sirens
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team decided to remove this mitigation action. This action would be better implemented at the village or city level.

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This mitigation action was removed by the local planning team because this mitigation action is already being done with the Local Emergency Operations Plan (LEOP). These plans are required to be updated every three years.

Mitigation Action	Drainage Improvements
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

Mitigation Action	Floodplain Management
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

Mitigation Action	Floodplain Regulation Enforcements and Updates
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

Mitigation Action	Low Impact Development Practices
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

Mitigation Action	Maintain Good Standing with National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed because it is not a true mitigation action. Hamilton County will continue to maintain good standing with NFIP.

Mitigation Action	No Adverse Impact Adoption
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

Mitigation Action	Promote Higher Codes/Standards
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team decided to remove this mitigation action. This action would be better implemented at the village or city level.

Mitigation Action	Snow Fences
Hazard(s) Addressed	Severe Winter Storms
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

Mitigation Action	Stormwater System and Drainage Improvements
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. This mitigation action would be better implemented by local or state departments.

ⁱ Center for Applied Rural Innovation. "Topographic Regions Map of Nebraska." 2001. <http://digitalcommons.unl.edu/caripubs/62>.
ⁱⁱ National Centers for Environmental Information. "1981-2010 U.S. Climate Normals." Accessed November 2018. <https://www.ncdc.noaa.gov/cdo-web/datatools>.
ⁱⁱⁱ High Plains Regional Climate Center. "Monthly Climate Normals 1981-2010". Accessed November 2018. <http://climod.unl.edu/>.
^{iv} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov>.
^v United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov>.
^{vi} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov>.
^{vii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov>.
^{viii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov>.
^{ix} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov>.

^x United States Census Bureau. "American Fact Finder: Geography Area Series County Business Patterns 2015 Business Patterns." [database file].

<https://factfinder.census.gov>.

^{xi} United States Department of Agriculture, National Agricultural Statistics Server. 2012. "2012 Census of Agriculture – County Data."

<https://www.agcensus.usda.gov/Publications/2012/>.

^{xii} Hamilton County Assessors. Personal Correspondence, February 2019.

^{xiii} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

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COMMUNITY PROFILE

CITY OF AURORA



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

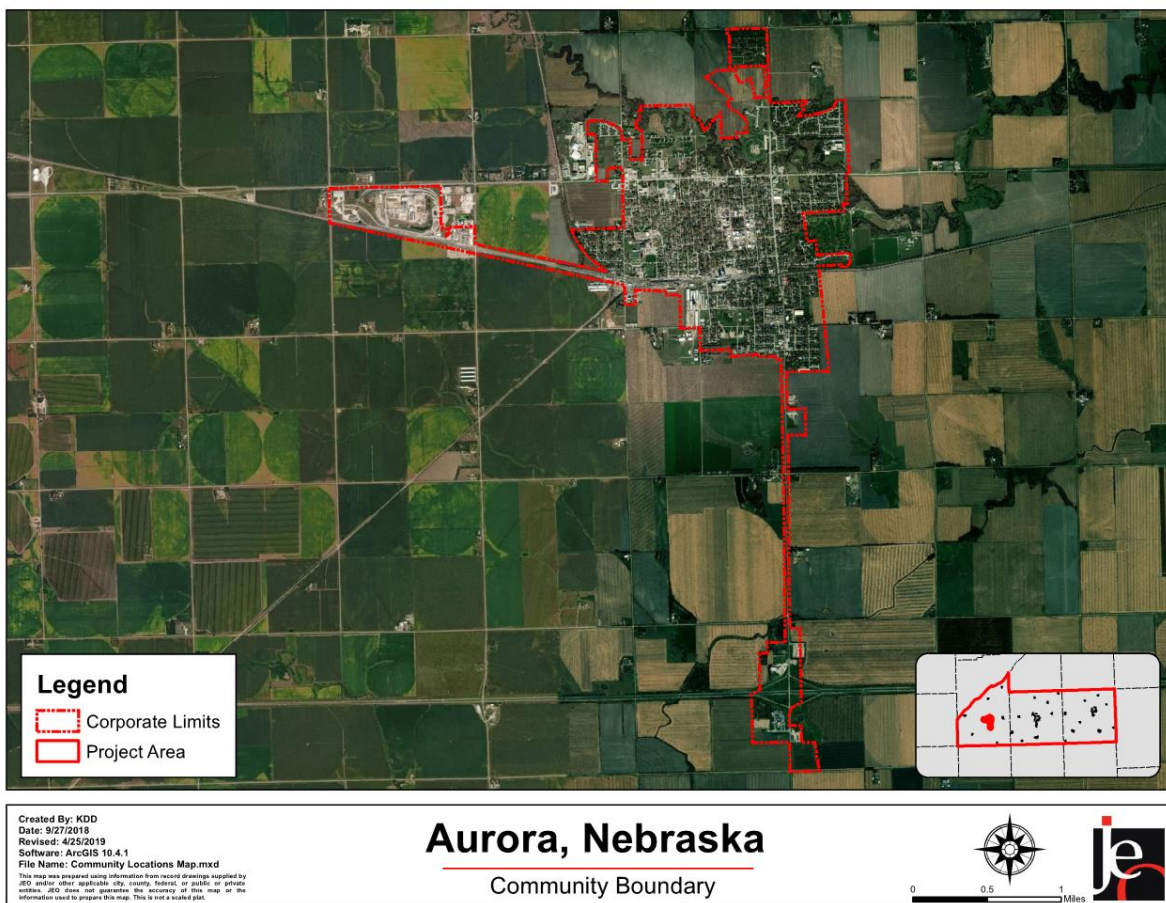
Table AUR.1: Aurora Local Planning Team

Name	Title	Jurisdiction
Adam Darbro	Utilities Superintendent	City of Aurora
Tom Cox	Fire Chief	City of Aurora
Diane Keller	Administrator	Memorial Community Health

Location and Geography

The City of Aurora is located in the center portion of Hamilton County and covers an area of 2.91 square miles. Pioneer Trails Recreation Area is located directly northeast of Aurora.

Figure AUR.1: Community Boundary



Transportation

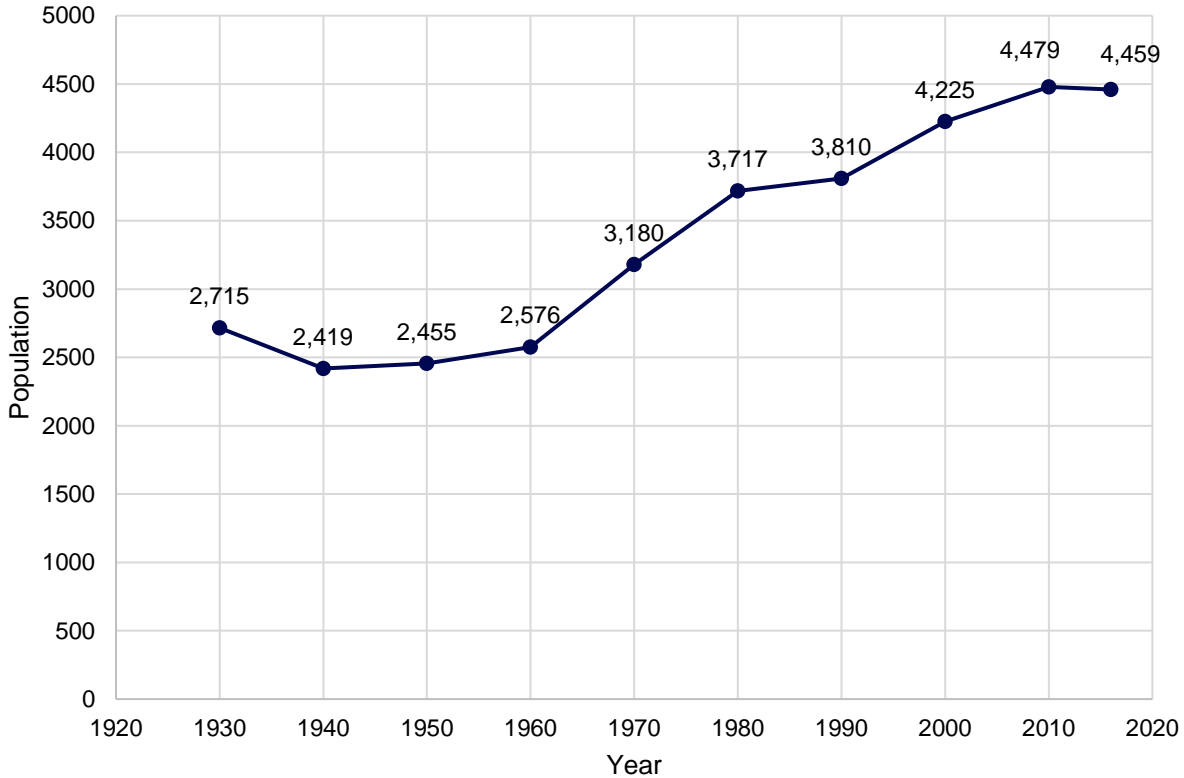
Aurora’s major transportation corridors include U.S Highway 34 with 5,850 vehicles a day, Nebraska Highway 14 with 3,350 vehicles a day, and Interstate 80 with 22,270 vehicles a day.^{xiv} Aurora has two rail lines, both of which are Burlington Northern lines. One of the rail lines runs through the south side of Aurora and meets the other rail line on the southwest side of the community. The rail lines carry large amounts of ethanol from the Pacific Ethanol plant located on the west side of the city. Aurora has two airports, the Aurora Municipal Airport located to the north of the city and the Memorial Hospital Heliport located on the north side of the city. Transportation

information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Demographics

Aurora’s population grew from about 4,225 people in 2000 to 4,459 people in 2016, an average annual increase of 0.35%. This is important because the population growth means more tax revenue to the city. Aurora’s population accounted for 48.9% of Hamilton County’s population in 2016.^{xv}

Figure AUR.2: Population 1930 - 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- Similarly aged.** The median age of Aurora and Hamilton County were both 42.5 years old in 2016. Aurora’s population grew older since 2010, when the median age was 40.4 years old. Aurora had a slightly larger proportion of people under 20 years old (27.1%) than the county (26.9%).^{xvi}
- Less ethnically diverse.** In 2010, 2.4% of Aurora’s population was Hispanic or Latino. The Hispanic population in the county was 2.0%. By 2016, Aurora became less ethnically diverse, with 1.6% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 3.0%.^{xvii}
- More likely to be below the federal poverty line.** The poverty rate in Aurora (11.1% of families living below the federal poverty line) was higher than the county’s poverty rate (7.9%) in 2016.^{xviii}

Employment and Economics

The Aurora economic base is a mixture of educational and manufacturing uses. In comparison to Hamilton County, Aurora's economy had:

- **Similar mix of industries.** Aurora's major employment sectors, accounting for 10% or more of employment each, were: educational services and health care/social assistance and manufacturing.^{xix}
- **Lower household income.** Aurora's median household income in 2016 (\$58,567) was about \$1,200 lower than the county (\$59,760).^{xx}
- **Fewer long-distance commuters.** About 64.5% percent of workers in Aurora commuted for fewer than 15 minutes, compared with about 59.8% of workers in Hamilton County. About 16.5% of workers in Aurora commute 30 minutes or more to work, compared to about 17.9% of the county workers.^{xxi}

Major Employers

Major employers within Aurora include the Aurora Co-op, Hamilton Communications, the ethanol plant, and Proctor and Gamble. A small percentage of residents commute to Grand Island for employment, but most residents have employment within the city.

Housing

In comparison to Hamilton County, Aurora's housing stock was:

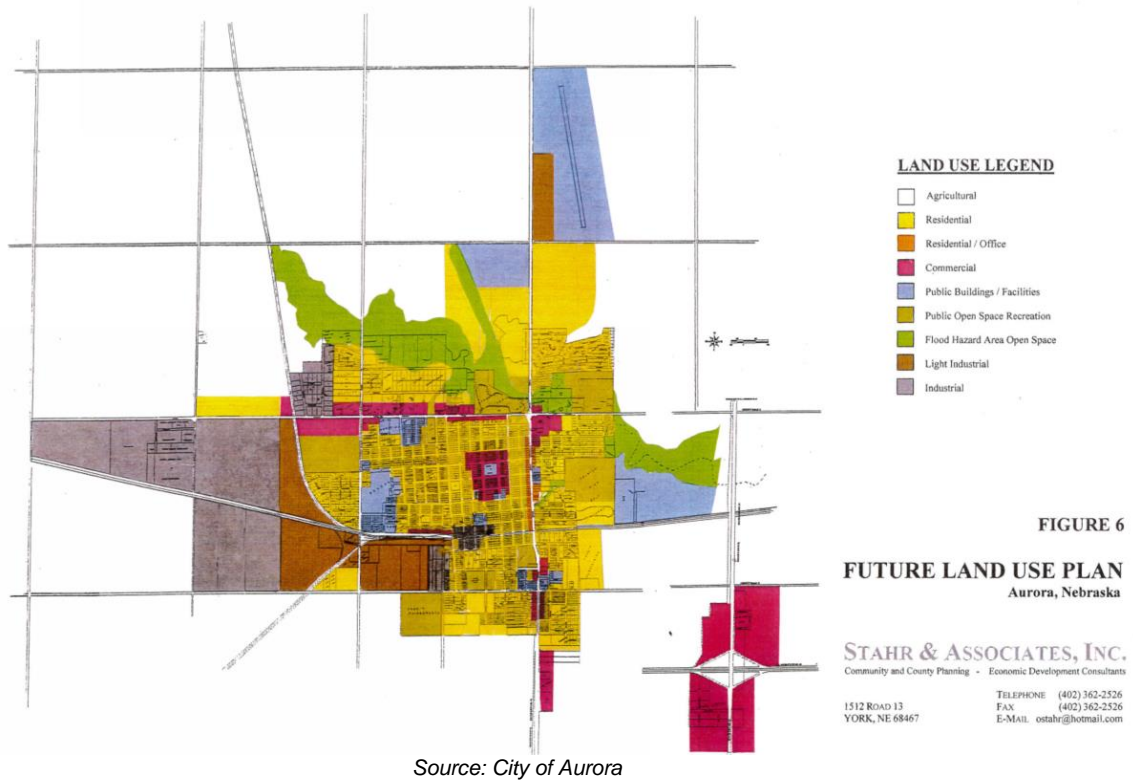
- **More renter-occupied.** About 21.6% of occupied housing units in Aurora are renter occupied compared with 19.2% of occupied housing in Hamilton County.^{xxii}
- **Older.** Aurora had a larger share of housing built prior to 1970 than the county (56.5% compared to 53.9%).^{xxiii}
- **More multifamily.** Although the predominant housing type in the city is single family detached, Aurora contains more multifamily housing with five or more units per structure compared to the county (6.2% compared to 3.4%). About 82.8% of housing in Aurora was single-family detached, compared with 88.1% of the county's housing. Aurora has a smaller share of mobile and manufactured housing (4.1%) compared to the county (4.8%).^{xxiv} Mobile homes are located along the southern and eastern side of the city.

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

Future Development Trends

In the last five years, new single-family subdivisions were built on the west and north side of the city and several dilapidated houses were torn down. A new nursing home was also built on the west side of the city. According to the latest American Community Survey estimates, Aurora's population has experienced growth. An increasing population may result in an increasing tax base, which may make implementing mitigation actions more feasible. The local planning team indicated the growth may be due to the school system, employers, a small-town feel, and the community facilities. In the next five years, growth is expected to the west and a bank will open a new branch.

Figure AUR.3: Future Land Use Map



Structural Inventory and Valuation

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

Table AUR.2: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
2,732	\$238,413,072	\$87,267	80	\$9,905,045

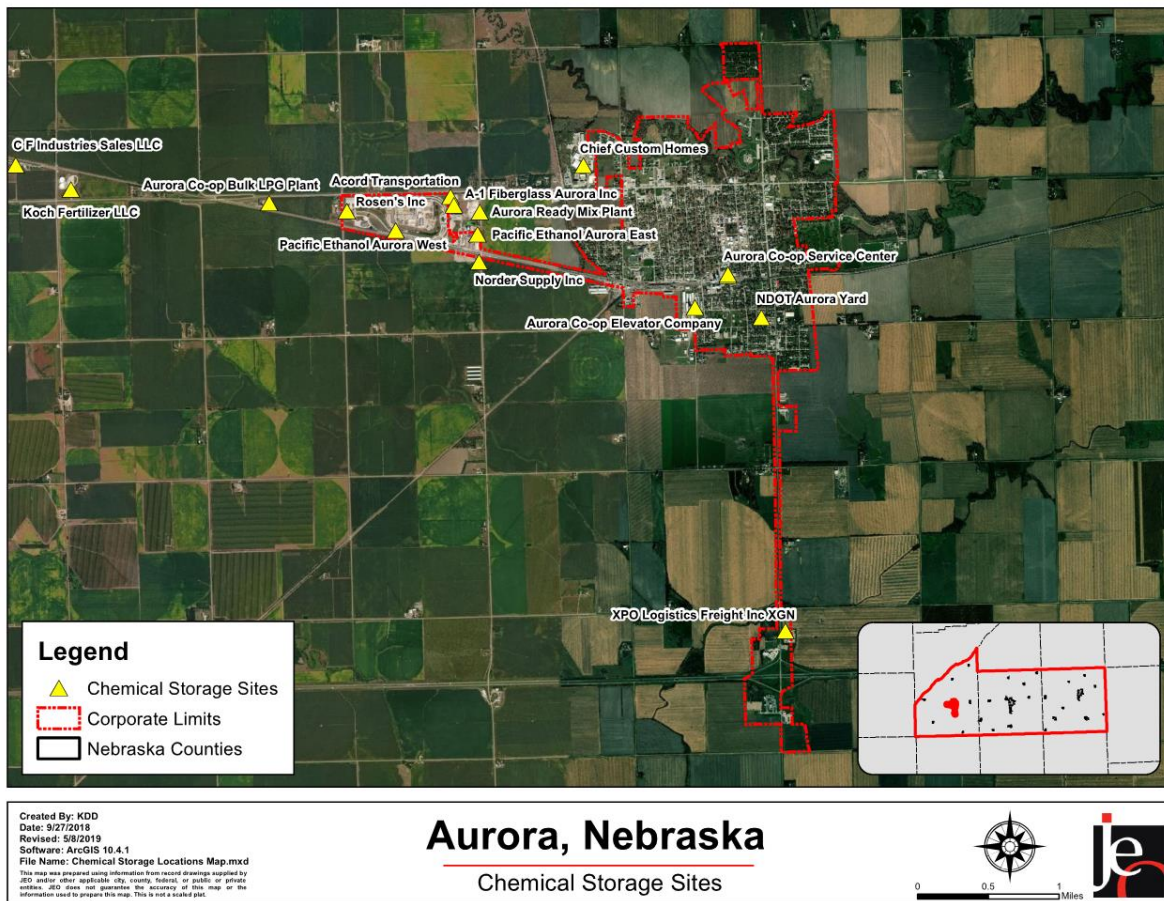
Source: Nebraska Department of Revenue, Property Assessment Division^{xxv}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are a total of 16 chemical storage sites in Aurora. The map below shows the name and location of the sites.

Figure AUR.4: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy^{xxvi}

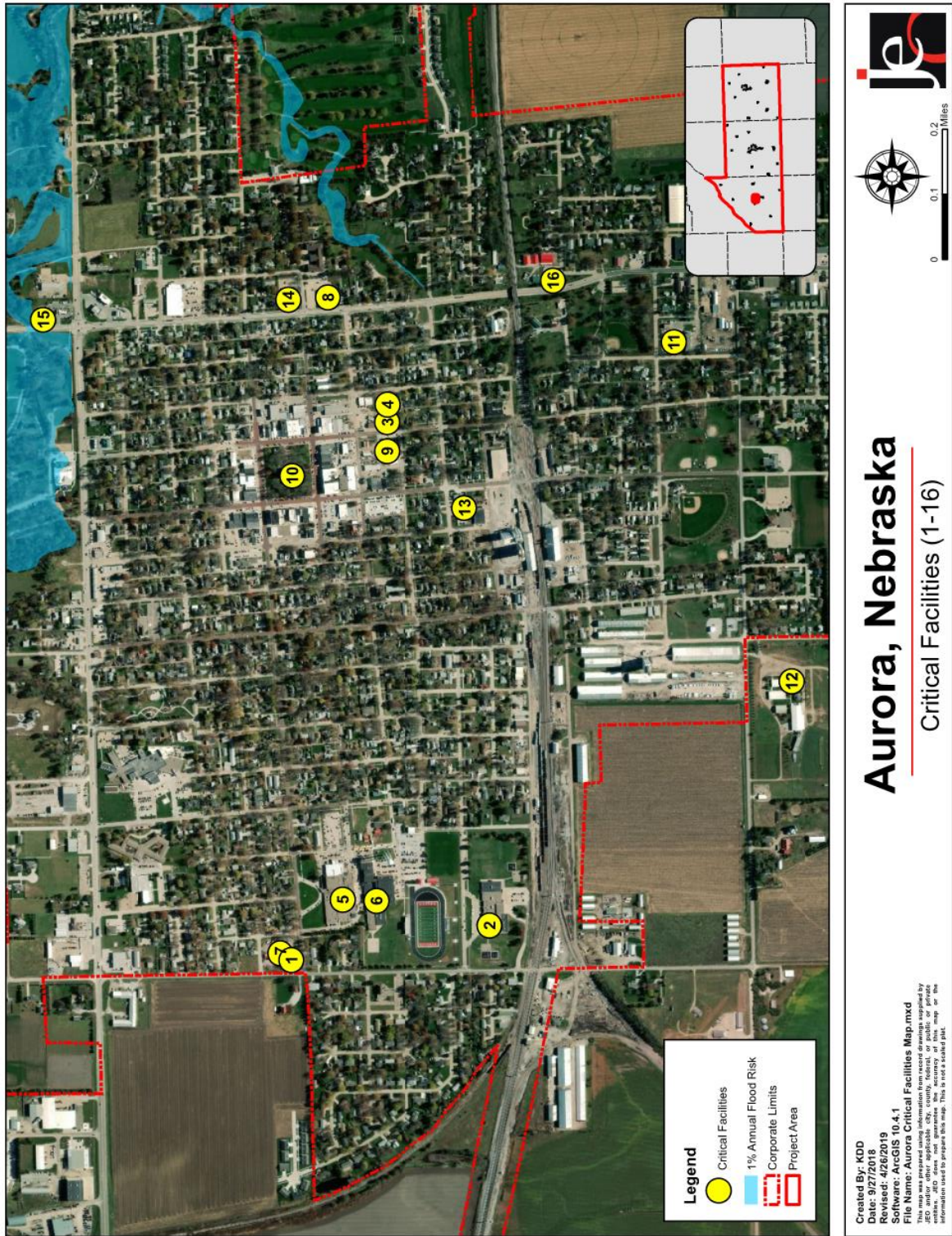
Critical Facilities

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. 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 AUR.3: Critical Facilities

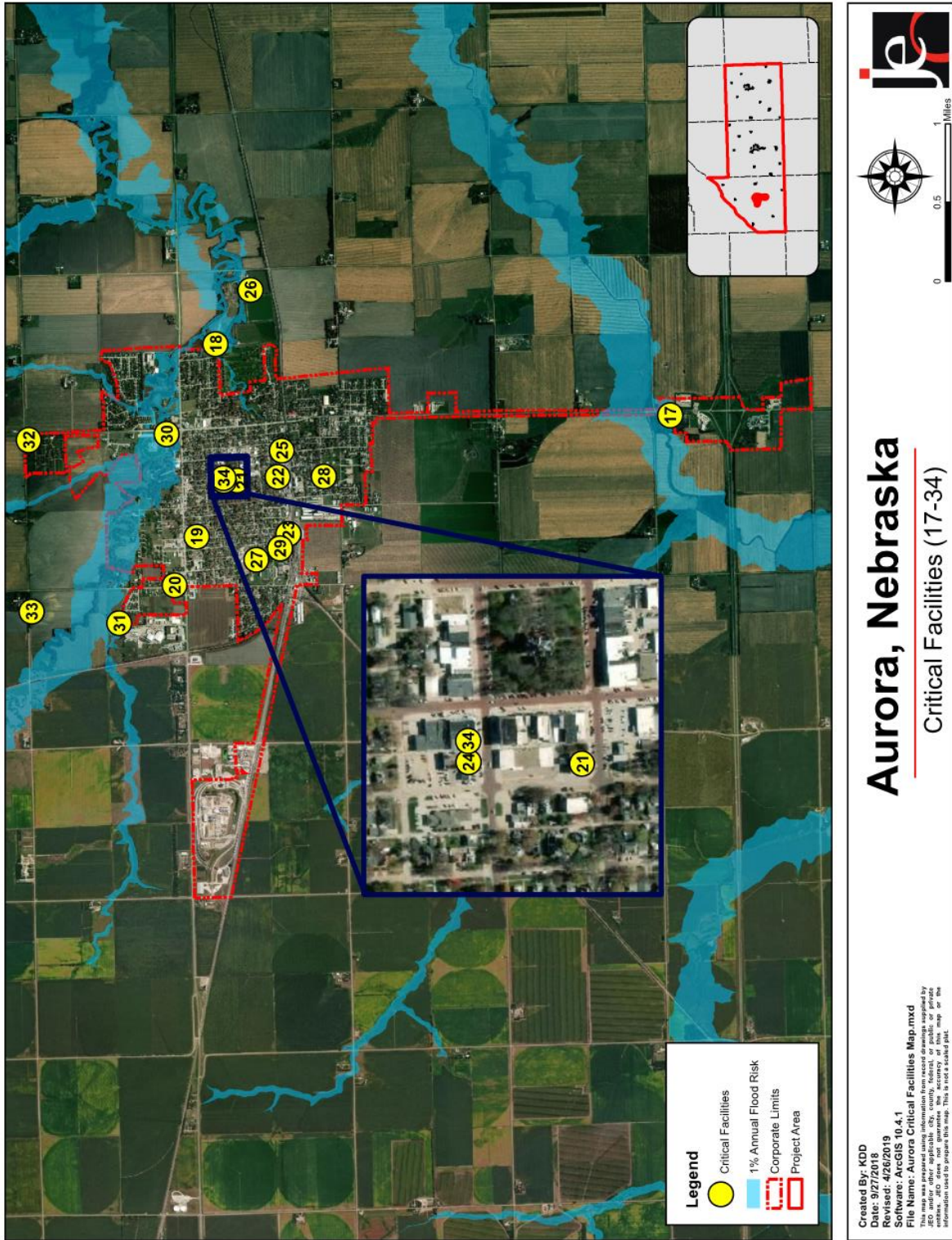
CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Aurora Ascend School	N	N	N
2	Aurora Elementary School	Y	N	N
3	Aurora Fire Department	N	Y	N
4	Aurora Fire Department Annex	N	N	N
5	Aurora High School	Y	Y	N
6	Aurora Middle School	Y	N	N
7	Aurora School Bus Barn	N	N	N
8	Bremer Community Center	N	N	N
9	City Hall	N	N	N
10	Court House	N	N	N
11	Department of Roads	N	N	N
12	Hamilton County Fairgrounds	Y	N	N
13	Law Enforcement Facility	N	Y	N
14	Library	N	N	N
15	Lift Station #1	N	Y	N
16	Lift Station #2	N	N	N
17	Lift Station #3	N	Y	N
18	Main Waste Water Lift Station	N	N	N
19	Memorial Hospital	N	Y	N
20	NPPD Substation	N	N	N
21	Post Office	N	N	N
22	Public Works Shop	N	Y	N
23	Public Works Storage Facility	N	N	N
24	Senior Center	Y	N	N
25	Tech Center	N	N	N
26	Wastewater Treatment Plant	N	Y	N
27	Water Tower	N	N	N
28	Well #1	N	N	N
29	Well #2	N	N	N
30	Well #3	N	N	Y
31	Well #4	N	N	N
32	Well #5	N	N	N
33	Well #6	N	N	N
34	Youth Center	N	N	N

Figure AUR.5: Critical Facilities (1-16)



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Figure AUR.6: Critical Facilities (17-34)



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Chemical Spills – Fixed Site

Both the local planning team and local stakeholder group identified fixed site chemical spills as a top hazard to the community. The local planning team was primarily concerned with contamination of ground water, while the local stakeholder group was primarily concerned with the influx of injuries and decontamination of exposed individuals. The Aurora hospital does have a decontamination shower in the emergency room, however, the capacity is limited. A large exposure event may be difficult for the community given the available resources. Aurora contains 16 Tier II chemical facilities, some of which are located near critical facilities.

Chemical Spills - Transportation

Both the local planning team and local stakeholder group identified transportation chemical spills as a top hazard to the community. Highway 34 runs directly by the Aurora hospital which cares for a large number of vulnerable individuals. Both ethanol and anhydrous ammonia are regularly transported along this highway. If an anhydrous spill were to occur, depending on wind conditions, the hospital may need to be evacuated. The hospital recently held a table top exercise with emergency medical services, fire, and the health department to test evacuation plans. The Aurora Elementary School is also located next to railroad tracks where chemicals are regularly transported. There has been one derailment that has occurred, although the spill did get cleaned up quickly, the possibility of another derailment always exists.

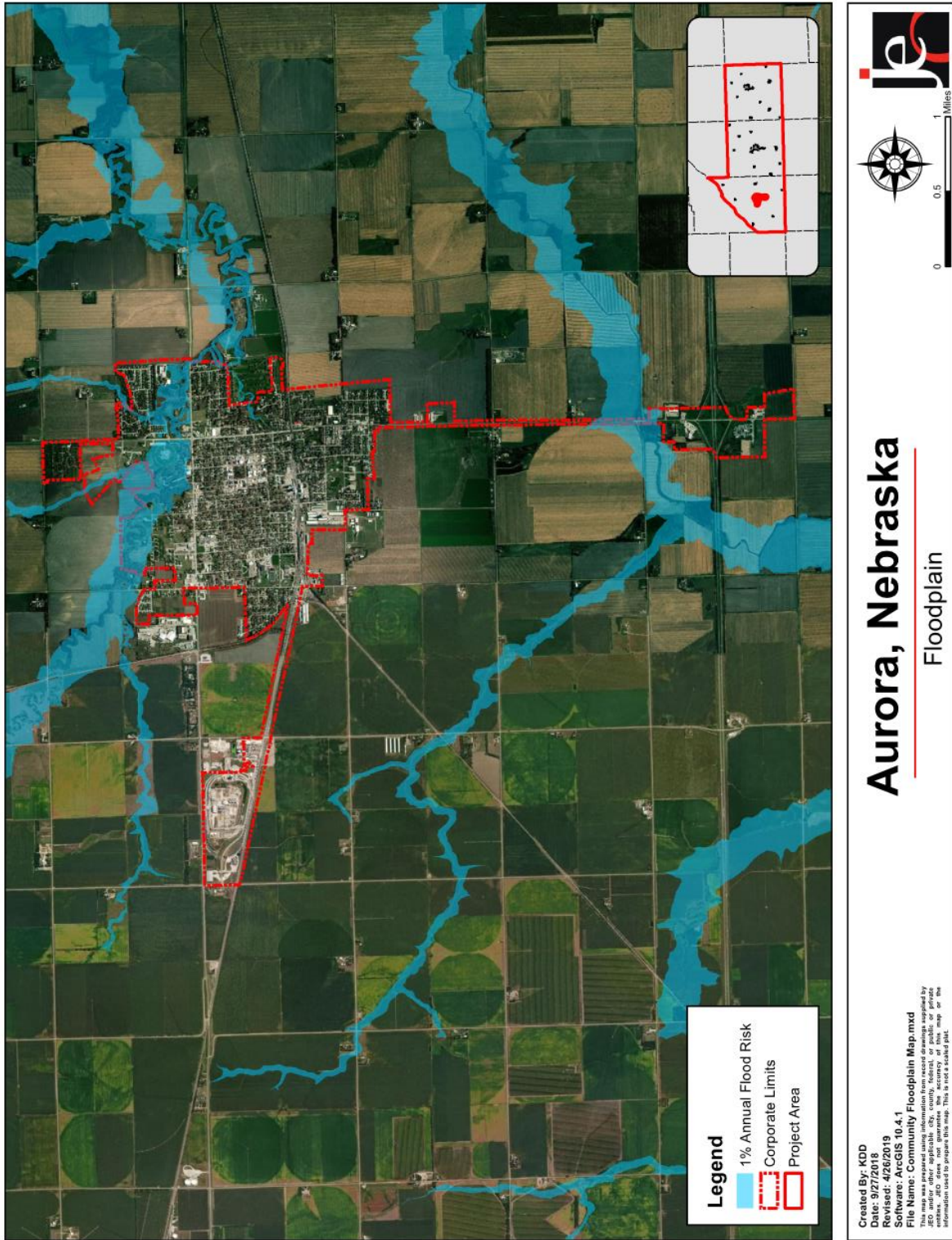
Drought

The local planning team identified drought as a top hazard to the community. The local water service does have some redundancy and the city has added six new wells in the past five years. Drought is generally a regional event, with impacts from a single drought event impacting multiple communities, counties, and even states. Aurora, Hamilton County, Nebraska, and most of the Midwest experienced a severe drought for most of 2012. There were no specific impacts reported for the city.

Flooding

NCEI data shows that Aurora has experienced two flash flood events since 1996. Those two events have caused \$35,000 in property damages. The local planning team is primarily concerned with residences being built in flood hazard areas. Figure AUR.7 shows the flood hazard map for the City of Aurora. The area at most risk of flooding is the northern portion of the city. The City of Aurora does participate in the National Flood Insurance Program. There are currently five policies in-force with a coverage of \$365,200. Aurora has 12 loss claims with a total payment of \$76,402. The city does not participate in the Community Rating System.

Figure AUR.7: Aurora Floodplain Map



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Severe Thunderstorms

Both the local planning team and the local stakeholder group identified severe thunderstorms as a top hazard for the community. The primary concern for severe thunderstorms is loss of power, wind damage, and water damage. The City of Aurora has already taken steps to reduce their risks to this hazard by using surge protectors and weather radios in its critical facilities. In addition to these preventive measures, the City of Aurora conducts local educational programs, such as Fire Prevention, DARE, Preparedness, First Aide, CPR, and Severe Weather Awareness Week. The Aurora hospital does have backup power generators should a loss of power occur.

Severe Winter Storms

Both the local planning team and the local stakeholder group identified severe winter storms as a top hazard for the community. The primary concern for severe winter storms is loss of power, communications, and transportation routes being closed. There are some demographic populations that are vulnerable to this hazard in Aurora. Community members and families below the poverty line are also at a higher risk related to severe winter storms, as they may lack resources needed to sustain themselves through a severe winter storm. According to the 2016 American Community Survey, approximately 11.1 percent of families were at or below the poverty line. The City of Aurora has designated snow routes and finds their snow removal equipment sufficient.

Tornadoes

Both the local planning team and local stakeholder group identified tornadoes as a top hazard for the community. NCEI data shows that Aurora has experienced two tornado events since 1996. The first event occurred 1999, when an F1 tornado caused \$300,000 in property damage. The second tornado occurred in 2003 when an F0 tornado caused \$30,000 in property damage. The city does have warning sirens, however, the local stakeholder group indicated that the hospital, nursing home, and assisted living cannot hear them. They rely on weather radios and the Hamilton County Alert System.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Aurora has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Aurora has six city council members and the following offices that may help implement mitigation actions.

- Clerk/Treasurer
- Mayor
- Planning Commission
- Zoning Administrator / Floodplain Manager
- Police Department
- City Administrator
- City Attorney
- Streets Department
- Parks Superintendent
- Water and Sewer Department
- Volunteer Fire Department

Capability Assessment

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

Table AUR.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
<i>Planning & Regulatory Capability</i>	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operational Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	-
<i>Administrative & Technical Capability</i>	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)	-
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
Other (if any)	-	
<i>Education &</i>	Local citizen groups or non-profit organizations focused on environmental protection, emergency	Yes

Survey Components/Subcomponents		Yes/No
<i>Outreach Capability</i>	preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	High
Does your community have the staff/expertise to implement projects?	High
Does your community have the community support to implement projects?	High
Does your community staff have the time to devote to hazard mitigation?	Moderate

Plan Integration

The City of Aurora has not updated the comprehensive plan since 2010, therefore there has been little inclusion of the hazard mitigation plan to this point. Flooding is addressed in the plan by directing development away from the floodplain and encouraging the evaluation of structures. The plan also encourages strengthening historic structures and preservation of open space in hazard-prone areas. The comprehensive plan will likely be updated by the end of 2020.

The Local Emergency Operations Plan (LEOP) was last updated in 2017 and is an annex to the Hamilton County Plan. The LEOP addresses hazards of greatest concern, identifies scenarios that would require evacuation, sheltering locations, and routes vulnerable to flooding. The local planning team indicated that all offices and departments within Aurora are familiar with the plan.

The Wellhead Protection Plan for Aurora was completed in 2016. Areas with groundwater contamination include a superfund site and leaking storage tanks around the city. The plan currently includes well setback requirements and water conservation plan. The local planning team indicated that there are decommissioned/abandoned well around the community that need to be sealed.

2010 zoning codes for the city currently prevent constructing new buildings in the floodway but do allow for construction in floodplain areas. Codes are in compliance with the state of Nebraska minimum standards for construction within the floodplain. Any new buildings must have a minimum of one-foot freeboard under the lowest floor of the structure. The codes also limit population density in the floodplain. Zoning codes will be updated in 2020 during the comprehensive plan update.

The Capital Improvement Program was last updated in 2010 and is planned to be updated in 2020. The plan includes projects for stormwater drainage, transportation routes, bridge

improvements, new municipal wells, water distribution upsizing, installing water meters, backup generators, a new fire hall, and improvements to critical facilities. No other examples of integration were identified. Other than those specified, there are currently no plans to further integrate current or future planning mechanisms.

Mitigation Strategy

Ongoing and New Mitigation Actions

Mitigation Action	Acquire Identification Resource
Description	Acquire Geographic Information System (GIS) to relocate municipal infrastructure (water and sewer lines). Acquire LiDAR imagery for the entire jurisdiction to assist in floodplain mapping and structure designs.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$2,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	Not Started. New Action

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where needed.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Fire Department
Status	Currently evaluating alert sirens.

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$90,000 to \$110,000 per generator
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Fire Department, Public Works Department, Aurora Public Schools
Status	The fire department, emergency operation center, public works, and some wells have back-up power generators. Currently identifying locations in need of a generator.

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire trucks, ATV's, water tanks/truck, 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) Addressed	All Hazards
Estimated Cost	Varies depending on what equipment is needed
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Department
Status	Not Started

Mitigation Action	Community Rating System (CRS)
Description	Join the CRS.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Floodplain Administrator
Status	Not Started

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Description	Create or update Comprehensive City Disaster and Emergency Response Plan.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$6,000+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	City Administration, Hamilton County EMA
Status	Not Started

Mitigation Action	Continuity Plans
Description	Develop continuity plans for critical community services.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	City Administration, Hamilton County EMA
Status	Not Started

Mitigation Action	Drainage Study / Stormwater Master Plan
Description	Drainage studies can be conducted to identify and prioritize improvements to address site specific localized flooding/drainage problems.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000 to \$100,000+
Funding	CDBG, General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Public Works
Status	Not Started

Mitigation Action	Education about Continuity Plans
Description	Educate local businesses on the value of continuity planning.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City Administration, Hamilton County EMA, Chamber of Commerce
Status	Not Started

Mitigation Action	Emergency Communication
Description	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications. Provide equipment such as satellite telephones and radios.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City Administration, Hamilton County EMA
Status	Not Started

Mitigation Action	Enhanced Codes
Description	Promote the use of higher codes and standards, such as the Fortified for Safer Living Standard.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Year
Priority	Low
Lead Agency	Zoning and Planning Department, Fire Department
Status	Not Started

Mitigation Action	Fire Wise Defensible Space
Description	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train land owners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	\$20,000
Funding	NFS, USFS, National Fire Plan, General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Department, Zoning and Planning Department
Status	Not Started

Mitigation Action	First Aid Training
Description	Promote first aid training for all residents.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	1 Year
Priority	Low
Lead Agency	EMS
Status	Not Started

Mitigation Action	Flood-Prone Property Acquisition
Description	Encourage flood-prone property owners to voluntarily relinquish/sell that property to the City.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by property
Funding	General Fund, FMA, HMGP
Timeline	2-5 Years
Priority	Low
Lead Agency	Floodplain Administrator
Status	Not Started

Mitigation Action	Floodplain Mapping / Remapping
Description	Update of existing floodplain maps for communities/counties that participate in the NFIP.
Hazard(s) Addressed	Flooding
Estimated Cost	\$30,000 to \$100,000
Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Floodplain Administrator, FEMA, NDNR
Status	In Progress. The county's floodplain is currently being remapped. This project should be completed by the end of 2019.

Mitigation Action	Formal Evacuation Plan
Description	Develop an evacuation plan to be prepared for any disaster that would require an evacuation.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
Estimated Cost	\$2,000+
Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Law Enforcement, City Administration
Status	Not Started

Mitigation Action	Hazardous Tree Removal
Description	Identify and remove hazardous limbs and/or trees.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Hail
Estimated Cost	\$50 per tree
Funding	Public Works Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	In Progress. The City removes hazardous trees as they are identified.

Mitigation Action	Improve Snow / Ice Removal Program
Description	Continue to revise and improve the snow and ice removal program for streets.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$20,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Public Works Department
Status	Ongoing. Local officials review snow removal procedures annually or following significant events.

Mitigation Action	Low Impact Development Practices
Description	Utilize Low Impact Development practices and Green Infrastructure to reduce flood risk.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Zoning and Planning Department
Status	Not Started.

Mitigation Action	New Municipal Well
Description	Provide a safe backup water supply for the community; replace existing wells affected by drought, increase of demand in water, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	\$350,000 to \$450,000
Funding	CDBG, State Revolving Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Public Works Department
Status	In Progress. The city has added six new wells in the last five years.

Mitigation Action	No Adverse Impact Adoption
Description	Adopt a No Adverse Impact approach to floodplain management.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Zoning and Planning Department
Status	Not Started

Mitigation Action	Parcel Level Evaluation of Floodprone Properties
Description	Conduct a study examining parcels located in floodprone areas and identify mitigation measures that can reduce future impacts.
Hazard(s) Addressed	Flooding
Estimated Cost	\$25,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Public Works
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Jurisdictions can update/improve water distribution system. This may include but is not limited to: identifying and replacing leaky pipes, assisting homeowners in identifying inefficiencies, and transitioning to smart irrigation systems.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$15,000+ varies by need and project
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Public Works
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Public Works Department, Hamilton County EMA, Aurora Public Schools
Status	Not Started

Mitigation Action	Shelter in Place Training/Education
Description	Ensure that all critical facilities, businesses, and residents located near major transportation corridors and near fixed site chemical facilities are aware of how to safely shelter in place in the event of a chemical incident.
Hazard(s) Addressed	Fixed Chemical Spills, Transportation Chemical Spills
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	1 Year
Priority	Low
Lead Agency	Emergency Management Agency
Status	Not Started

Mitigation Action	Static Detectors
Description	Deploying a static detector at outdoor events can warn of approaching, fast moving storms and associated lightening, thus helping officials to respond appropriately.
Hazard(s) Addressed	Severe Thunderstorms
Estimated Cost	\$1,000
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Public Works Department, Fire Department
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms
Estimated Cost	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	City Administration, Hamilton County EMA Aurora Public Schools
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements, such as pipe upsizing and additional inlets, installation of retention and detention facilities can be implemented to decrease runoff rates while also decrease the need for other stormwater system improvements. Deepen drainage ditches and clean out culverts.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000+
Funding	CDBG
Timeline	5+ Years
Priority	High
Lead Agency	Public Works
Status	Not Started

Mitigation Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description	Stabilize banks along streams and rivers. This may include, but is not limited to: reducing bank slope, addition of riprap, installation of erosion control materials/fabrics.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000+, varies by scope
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	Not Started. New Action

Mitigation Action	Tree City USA – Tree Maintenance Program
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Drought
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administration
Status	In Progress. Schools, fire departments, and public works all have and will maintain education programs.

Mitigation Action	Tree Inventory
Description	Tree inventory to identify problem trees that lose or drop branches.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Hail
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	Not Started. New Action

Mitigation Action	Vehicular Barriers
Description	Install Vehicular Barriers to protect critical facilities and key infrastructure where possible.
Hazard(s) Addressed	Terrorism / Civil Disorder
Estimated Cost	\$500 - \$25,000
Funding	General Fund
Timeline	1 Year
Priority	Low
Lead Agency	Law Enforcement
Status	Not Started

Mitigation Action	Vulnerable Population Database
Description	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Emergency Management Agency, Fire Department
Status	Not Started

Mitigation Action	Warning Systems
Description	Improve city cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911, emergency text messaging warning system, etc.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$5,000+
Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Dispatch, Emergency Management Agency
Status	Not Started

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$50/radio
Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Emergency Management Agency, Aurora Public Schools
Status	In Progress. Many critical facilities are equipped with weather radios. Aurora will need to complete an inventory of facilities still needing weather radios to complete this project.

Removed Mitigation Actions

Mitigation Action	Floodplain Regulation Enforcements and Updates
Hazard(s) Addressed	Flooding
Status	This mitigation action was removed because it is not a true mitigation action. The city will continue to enforce all local floodplain regulations.

Mitigation Action	Maintain Good Standing with National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Status	This mitigation action was removed because it is not a true mitigation action. The city will continue to maintain good standing with NFIP.

Mitigation Action	Floodplain Management
Hazard(s) Addressed	Flooding
Status	This mitigation action was removed because it is part of their regular maintenance program. The city will continue to manage the floodplain and maintain in good standing with NFIP.

^{xiv} Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>

^{xv} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

^{xvi} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xvii} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xviii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xix} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xx} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxi} United States Census Bureau. "American Fact Finder: S0804: Means of Transportation to Work by Selected Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxiii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxiv} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxv} County Assessor. Personal correspondence, February 2019.

^{xxvi} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

COMMUNITY PROFILE

VILLAGE OF GILTNER



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

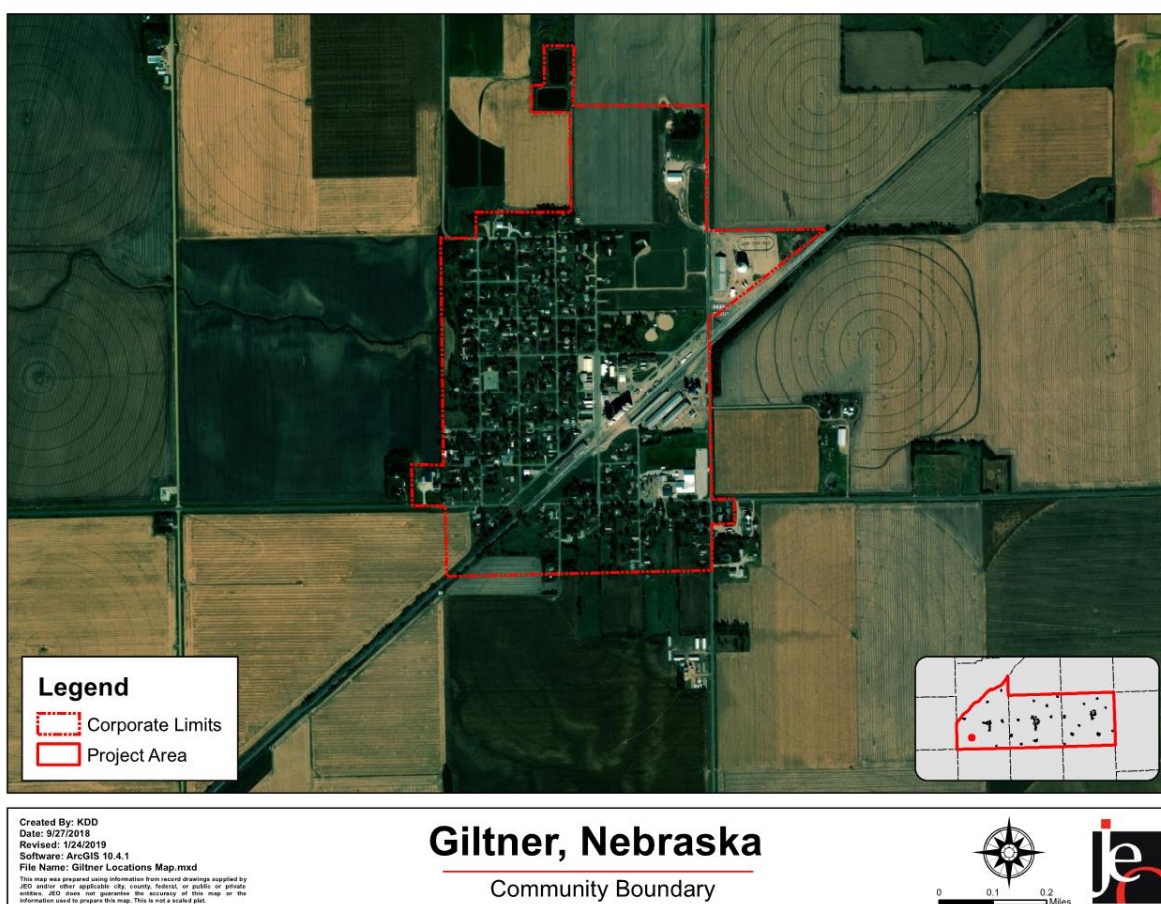
Table GLT.1: Giltner Local Planning Team

Name	Title	Jurisdiction
Joan Eastman	Clerk	Village of Giltner
Board of Trustees	Board of Trustees	Village of Giltner
Colin Cates	Utility Superintendent	Village of Giltner

Location and Geography

The Village of Giltner is located in the southwest corner of Hamilton County and covers an area of 250 acres. The Hinrichs Reservoir is located two miles northeast of Giltner.

Figure GLT.1: Community Boundary



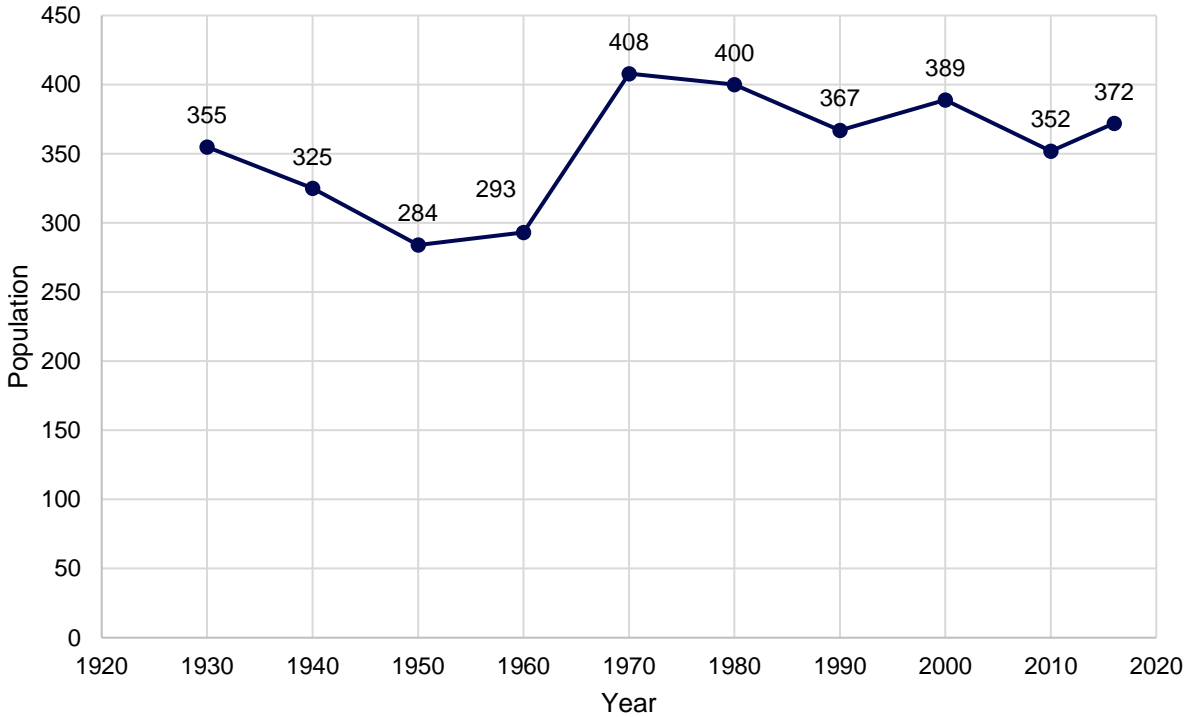
Transportation

Giltner’s major transportation corridor includes Nebraska Highway S-41B which has 805 vehicles a day.^{xxvii} Giltner has one rail line, owned by Burlington Northern. The rail line runs diagonally northeast through the middle of the village. Giltner does not have any airports located within or near the village. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Demographics

Giltner’s population declined from 389 people in 2000 to about 372 people in 2016, an average annual decrease of 0.27%. This is important because the population decline means less tax revenue and a higher level of unoccupied housing. Giltner’s population accounted for 4.1% of Hamilton County’s population in 2016.^{xxviii}

Figure GLT.2: Population 1930 – 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- Younger.** The median age of Giltner was 39.7 years old in 2016, compared with the county average of 42.5. Giltner’s population grew younger since 2010, when the median age was 40.0 years old. Giltner had a larger proportion of people under 20 years old (30.4%) than the county (26.9%).^{xxix}
- Less ethnically diverse.** In 2010, 0.3% of Giltner’s population was Hispanic or Latino. The Hispanic population in the county was 2.0%. By 2016, Giltner became more ethnically diverse, with 2.4% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 3.0%.^{xxx}
- Less likely to be below the federal poverty line.** The poverty rate in Giltner (4.7% of families living below the federal poverty line) was lower than the county’s poverty rate (7.9%) in 2016.^{xxxi}

Employment and Economics

The Giltner economic base is a mixture of manufacturing, educational, and entertainment uses. In comparison to Hamilton County, Giltner's economy had:

- **Different mix of industries.** Giltner's major employment sectors, accounting for 10% or more of employment each, were: manufacturing, educational services and health care/social assistance, and arts, entertainment, recreation, accommodation, and food services.^{xxxii}
- **Lower household income.** Giltner's median household income in 2016 (\$56,250) was about \$3,500 lower than the county (\$59,760).^{xxxiii}
- **Fewer long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Giltner include CPI Cooperative Producers, Inc. and Giltner Public School. A large percentage of residents commute to Grand Island and Hastings.

Housing

In comparison to Hamilton County, Giltner's housing stock was:

- **Less renter-occupied.** About 8.3% of occupied housing units in Giltner are renter occupied compared with 19.2% of occupied housing in Hamilton County.^{xxxiv}
- **Younger.** Giltner had a smaller share of housing built prior to 1970 than the county (50.3% compared to 53.9%).^{xxxv}
- **Less multifamily.** The predominant housing type in the village is single family detached, Giltner contains less multifamily housing with five or more units per structure compared to the county (0% compared to 3.4%). About 92.1% of housing in Giltner was single-family detached, compared with 88.1% of the county's housing. Giltner has a larger share of mobile and manufactured housing (7.9%) compared to the county (4.8%).^{xxxvi}

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

Future Development Trends

In the last five years, new houses were built in the Parkside Subdivision. No new businesses or industry was built. According to the latest American Community Survey estimates, Giltner's population has experienced a slight increase since 2010. A growing population may result in an increasing tax base, which may make implementing mitigation actions more feasible. The local planning team indicated that the slight growth was due to jobs being available. For the next five years, no housing developments, businesses, or industry is planned at this time.

Structural Inventory and Valuation

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

Table GLT.2: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
299	\$16,144,645	\$53,995	11	\$620,700

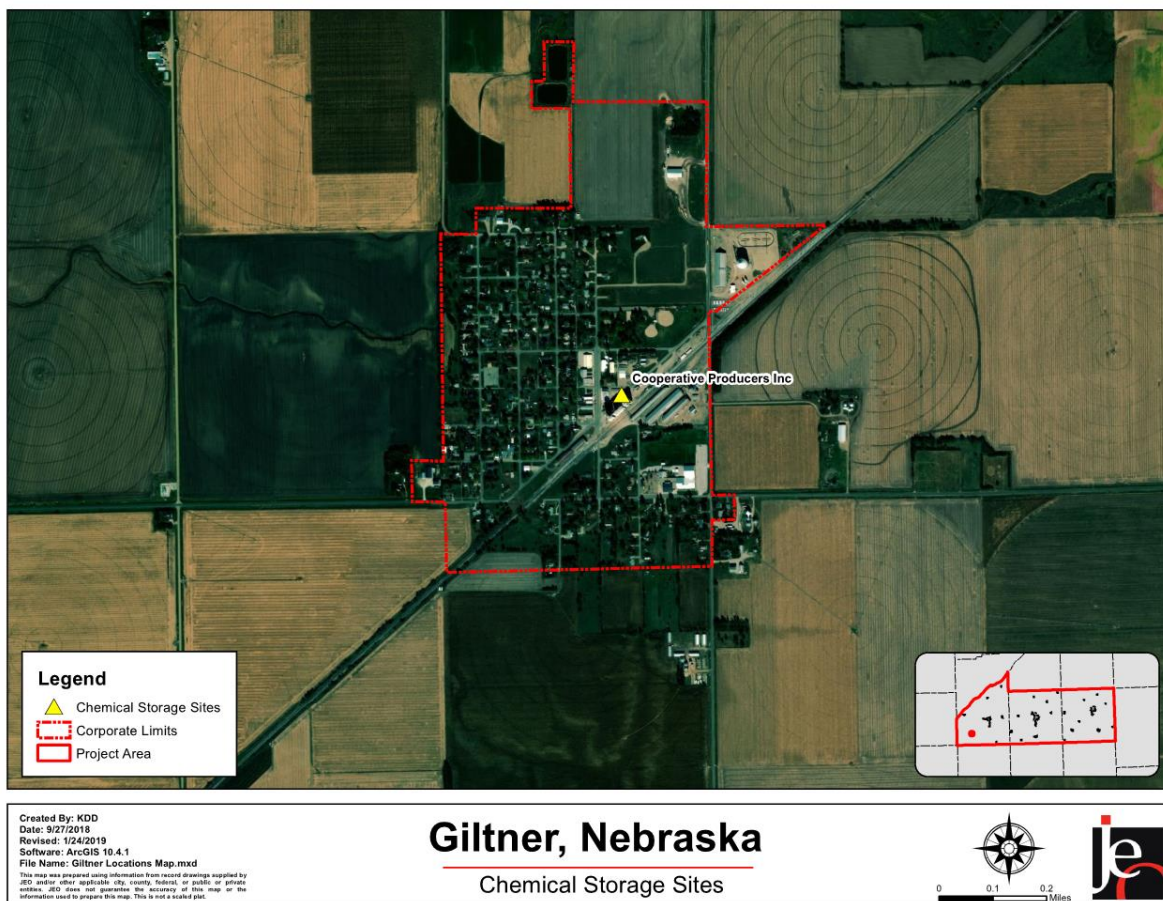
Source: Nebraska Department of Revenue, Property Assessment Division^{xxxvii}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is a total of one chemical storage site in Giltner. The map below shows the name and location of the site.

Figure GLT.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy^{xxxviii}

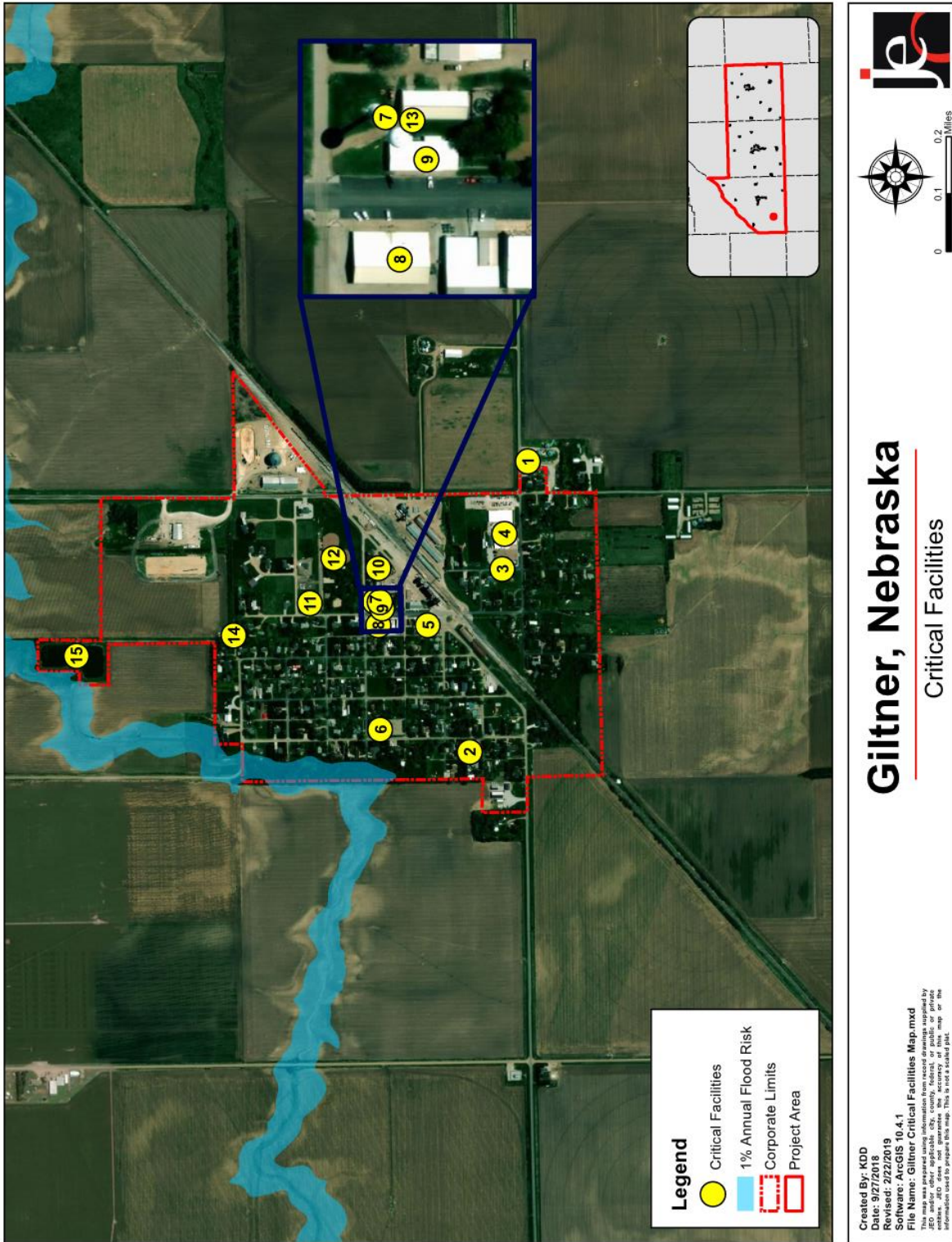
Critical Facilities

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. 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 GLT.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Well	N	N	N
2	St. Joseph Catholic Church	N	N	N
3	Sewage Life Station	N	N	N
4	Giltner Public School	N	N	N
5	Fire Department	N	N	N
6	United Methodist Church	N	N	N
7	Water Tower	N	N	N
8	Community Center/Village Office	N	N	N
9	Village Shop	N	N	N
10	County Sheds	N	N	N
11	Well/Generator	N	Y	N
12	Village Park/Public Restrooms	N	N	N
13	Well House	N	N	N
14	Sewage Lift Station	N	N	N
15	Wastewater Lagoons	N	N	N

Figure GLT.4: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Hail

NCEI data indicates that the Village of Giltner has experienced 34 hail events between 1996 and 2017. These events have caused approximately \$1,475,000 in property damages with one event in 2016 causing \$1,000,000 in property damage. As noted earlier and as indicated by previous damages, this hazard can cause significant damage to critical facilities, businesses, residential properties, and crops. Based on historic records hail has an annual occurrence probability of 100 percent.

High Winds

The local planning team identified high winds as a top hazard for the community. High winds can damage roofs as well as knock down tree limbs and utility lines. NCEI classifies high winds as "zonal" in nature meaning data is collected on a county level. Hamilton County has experienced 22 high wind events with the largest reaching 66 knots in 2016. Wind speeds that high can cause widespread damage and cause mobile homes to turn over. Unfortunately, it is not known whether Giltner experienced these wind speeds.

Severe Thunderstorms

NCEI data indicates that the Village of Giltner has experienced 12 severe thunderstorm events between 1996 and 2017. These events have caused \$625,000 in property damages, with one event in 2008 causing \$250,000 in property damage. Giltner utilizes the TV station and cell phone alerts for emergency messaging. In addition, Giltner has a county-wide mutual aid agreement if additional support were necessary during an emergency, and an evacuation plan has been established if needed during any severe storm event.

Severe Winter Storms

The local planning team identified severe winter storms as a top hazard for the community. Severe winter storms can cause damage to a community by hindering transportation, knocking down tree limbs and utility lines, and structurally damaging buildings. The village is responsible for clearing roads and indicated that they have sufficient snow removal equipment. In addition, Giltner utilizes a snow fence to help reduce the risk of snow covered roads. The community lift-station and water well are equipped with power back-up generators should a power loss occur. The village indicated that they would like a backup generator at the community center.

Tornadoes

The local planning team identified tornadoes as a top hazard for the community. The primary concern for the planning team is large scale damage to residential and community buildings. Although they have a lower probability of occurring, tornadoes can cause high amounts of property and crop damage. The Village of Giltner has experienced four tornadoes since 1996, all of which were EF0 and did not cause any property damage.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Giltner has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Giltner has five village board members and the following offices that may help implement mitigation actions.

- Clerk/Treasurer
- Village Attorney
- Electric/Water & Sewer/Garbage Department
- Planning Commission
- Volunteer Fire Department

Capability Assessment

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

Table GLT.4: Capability Assessment

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

Survey Components/Subcomponents		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	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
<i>Education & Outreach Capability</i>	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 – Red Cross
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes, first aid training provided to residents through Red Cross
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	Yes: county-wide mutual aid agreement

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Limited
Does your community have the staff/expertise to implement projects?	Limited
Does your community have the community support to implement projects?	Limited
Does your community staff have the time to devote to hazard mitigation?	Limited

Plan Integration

Giltner participates in planning and zoning with the county. This allows Giltner to have codes and plans that might otherwise be cost prohibitive to develop. The comprehensive plan and zoning ordinance representing Giltner was recently updated in 2018/2019. The village also has a wellhead protection plan updated in 2004, emergency operations plan updated in 2017, capital improvement program, building code, subdivision regulations, stormwater management regulations, and a floodplain ordinance.

The comprehensive plan for the village does discuss natural hazards, however, it does not require any specific actions. In future updates the village plans on adding measures addressing floodplain and other hazard areas. The village has its own emergency operations plan. This plan assigns specific responsibilities to individuals during an emergency, identifies sheltering locations, and shows critical evacuation routes. The village does have a capital improvements plan; however, the amount of municipal funds has stayed the same over recent years. In the plan it outlines

projects pertaining to regular maintenance of drainage structures, upgrading and maintaining the storm sewer system, and stalling water meters for residential structures. The village’s Wellhead Protection Plan includes well setback requirements and has signs in place to alert community members. No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

Ongoing and New Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000 - \$30,000 per generator
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Emergency Management Agency
Status	Planning Stage

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and training by providing additional or updating existing emergency response equipment and training workshops. This could include fire trucks, ATV’s, water tanks/truck, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies depending on what equipment is needed
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department
Status	Ongoing

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Description	Update comprehensive village disaster and emergency response plan.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$6,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low-Medium
Lead Agency	Village Board
Status	Not Started

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

Mitigation Action	Improve Snow / Ice Removal Program
Description	Improve snow routes and snow/ice removal procedures. Improvements should address plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$20,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Public Works
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Work with local Public Power District to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures/infrastructure to be less vulnerable to storm events.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$70,000/mile
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Local Public Power District
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Emergency Management Agency
Status	Hazard mitigation information will be incorporated into the existing public education program.

Mitigation Action	Training for Response to Train Derailment
Description	Provide training for first responders in the event of a train derailment and related hazmat incident.
Hazard(s) Addressed	Chemical Spills – Transportation
Estimated Cost	\$1,000 +
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department, Emergency Management Agency
Status	Not Started

^{xxxvii} Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>

^{xxxviii} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

^{xxxix} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xxxix} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xxxxi} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxxxi} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxxxii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxxxiv} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxxxiv} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxxxvi} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xxxxvii} County Assessor. Personal correspondence, February 2019.

^{xxxxviii} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

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COMMUNITY PROFILE

VILLAGE OF HAMPTON



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

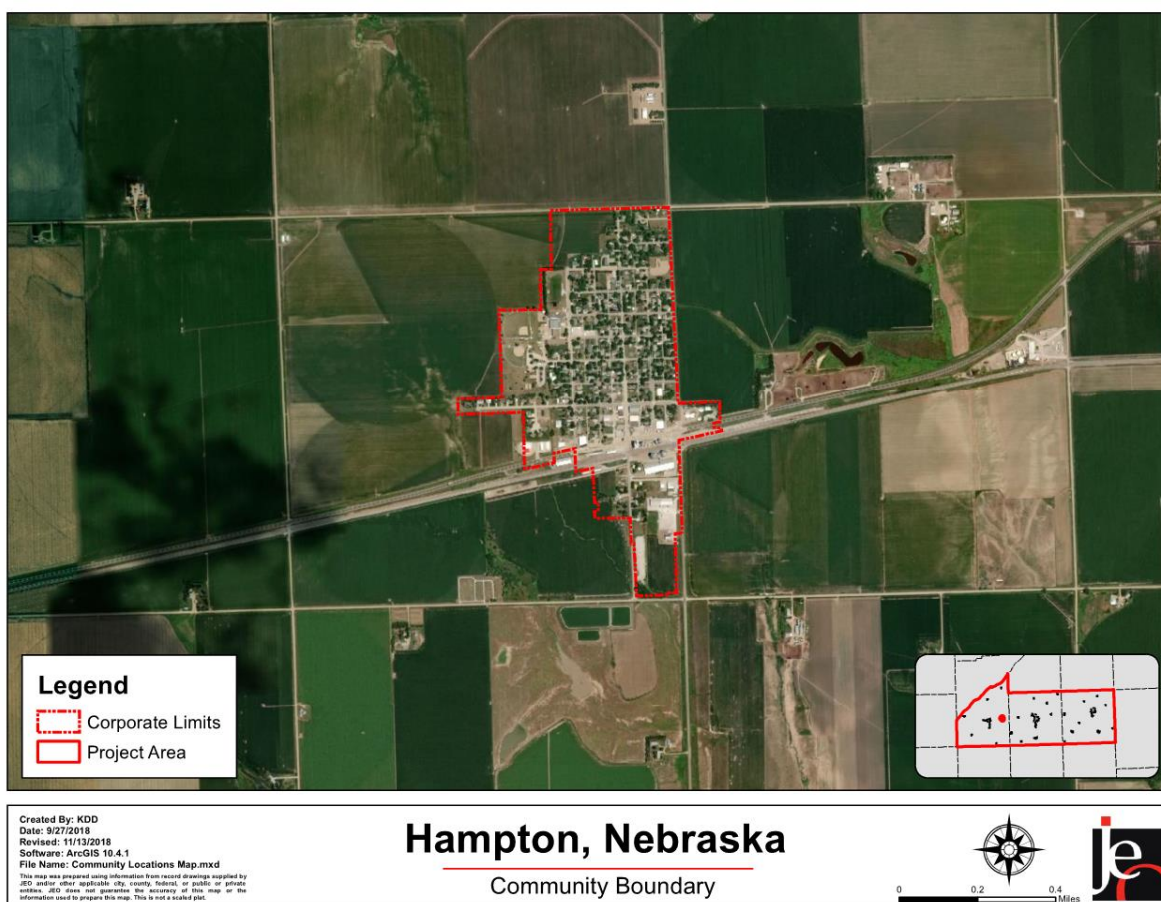
Table HPT.1: Hampton Local Planning Team

Name	Title	Jurisdiction
Susan Dallegge	Village Clerk	Village of Hampton

Location and Geography

The Village of Hampton is located in the east central portion of Hamilton County and covers an area of 224 acres.

Figure HPT.1: Community Boundary



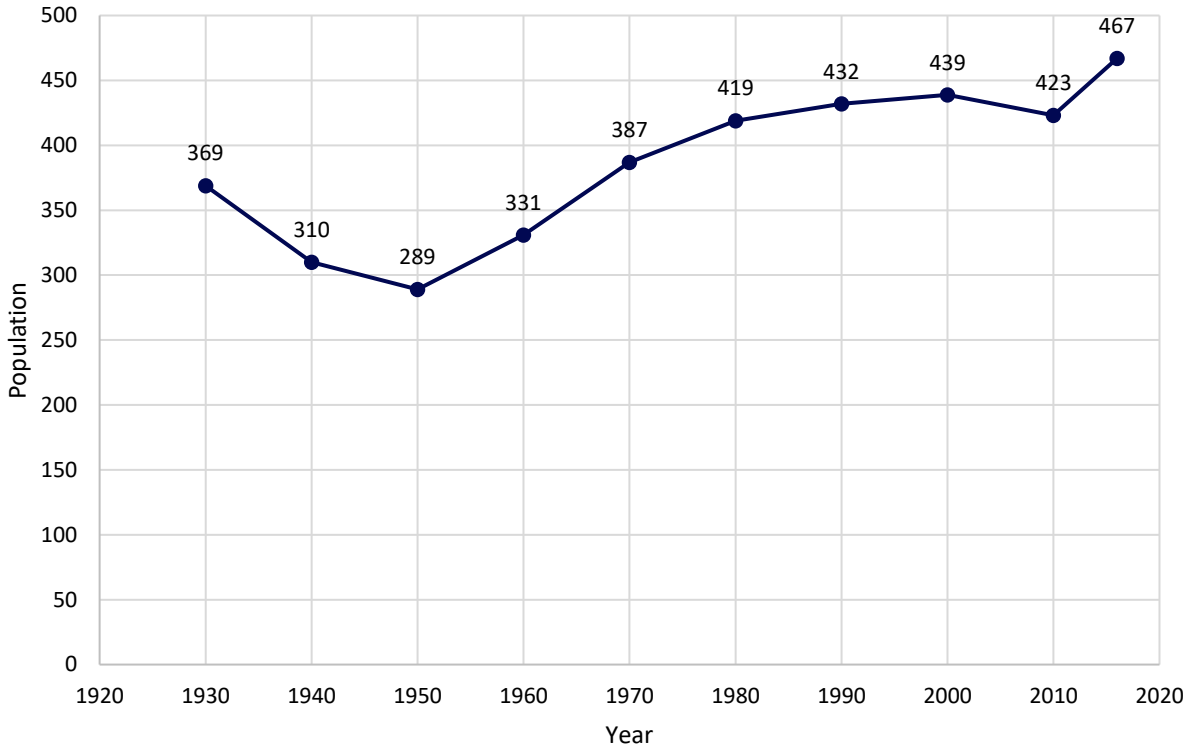
Transportation

Hampton’s major transportation corridor includes U.S Highway 34 with 1,925 vehicles a day and Nebraska Highway L-41D with 460 vehicles a day.^{xxxix} Hampton has one rail line, which is a Burlington Northern line. The rail line runs through the south side of Hampton. The Village of Hampton does not have any airports within or near the community boundaries. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents. The local planning team indicated that Anhydrous Ammonia is regularly transported along Highway 34 and L-41D.

Demographics

Hampton’s population grew from 439 people in 2000 to about 467 people in 2016, an average annual increase of 0.40%. This is important because the population growth means more tax revenue to the community. Hampton’s population accounted for 5.12% of Hamilton County’s population in 2016.^{xi}

Figure HPT.2: Population 1930 - 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- **Younger.** The median age of Hampton was 35.7 years old in 2016, compared with the county average of 42.5 years. Hampton’s population grew younger since 2010, when the median age was 45.5 years old. Hampton had a slightly smaller proportion of people under 20 years old (24.1%) than the county (26.9%).^{xii}
- **Less ethnically diverse.** In 2010, 1.89% of Hampton’s population was Hispanic or Latino. The Hispanic population in the county was 2.0%. By 2016, Hampton became less ethnically diverse, with 0.2% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 3.0%.^{xiii}
- **Less likely to be below the federal poverty line.** The poverty rate in Hampton (1.4% of families living below the federal poverty line) was lower than the county’s poverty rate (7.9%) in 2016.^{xiiii}

Employment and Economics

The Hampton economic base is a mixture of agriculture, manufacturing, retail trade and educational services. In comparison to Hamilton County, Hampton's economy had:

- **Similar mix of industries.** Hampton's major employment sectors, accounting for 10% or more of employment each, were: agriculture, forestry, fishing and hunting, and mining; manufacturing; educational services and health care/social assistance; and retail trade.^{xliv}
- **Lower household income.** Hampton's median household income in 2016 (\$56,429) was about \$3,300 lower than the county (\$59,760).^{xlv}
- **Fewer long-distance commuters.** About 77.9% percent of workers in Hampton commuted for fewer than 15 minutes, compared with about 59.8% of workers in Hamilton county. About 1.0% of workers in Hampton commute 30 minutes or more to work, compared to about 17.9% of the county workers.^{xlvi}

Major Employers

Major employers within Hampton include Hampton Public School, Hampton Lutheran School, Danish Oak, Pleasant Hill Grains, and Central Valley Ag. A large percentage of residents commute to Grand Island, York, and Aurora for employment.

Housing

In comparison to Hamilton County, Hampton's housing stock was:

- **Less renter-occupied.** About 14.1% of occupied housing units in Hampton are renter occupied compared with 19.2% of occupied housing in Hamilton County.^{xlvii}
- **Older.** Hampton has a larger share of housing built prior to 1970 than the county (65.6% compared to 53.9%).^{xlviii}
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Hampton contains less multifamily housing with five or more units per structure compared to the county (0.0% compared to 3.4%). About 96.7% of housing in Hampton was single-family detached, compared with 88.1% of the county's housing. Hampton has a smaller share of mobile and manufactured housing (0.0%) compared to the county (4.8%).^{xlix}

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

Future Development Trends

In the last five years, Hampton Public Schools added an addition to the high school, tying it to the elementary building. The school also added a 2nd gym and remodel the elementary school. During that time the community had an abatement program and two houses were demolished. According to the latest American Community Survey estimates, Hampton's population has experienced a growth since 2010. The local planning team indicated the growth was due to quality housing and younger families moving in. In the next five years, the community is in discussion to purchase land to the west and north of existing boundary for additional housing. No new businesses or industry is planned at this time.

Structural Inventory and Valuation

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

Table HPT.2: Structural Inventory/Parcel Improvements

NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	MEAN VALUE OF IMPROVEMENTS PER PARCEL	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN
347	\$18,620,495	\$57,661	0	\$0

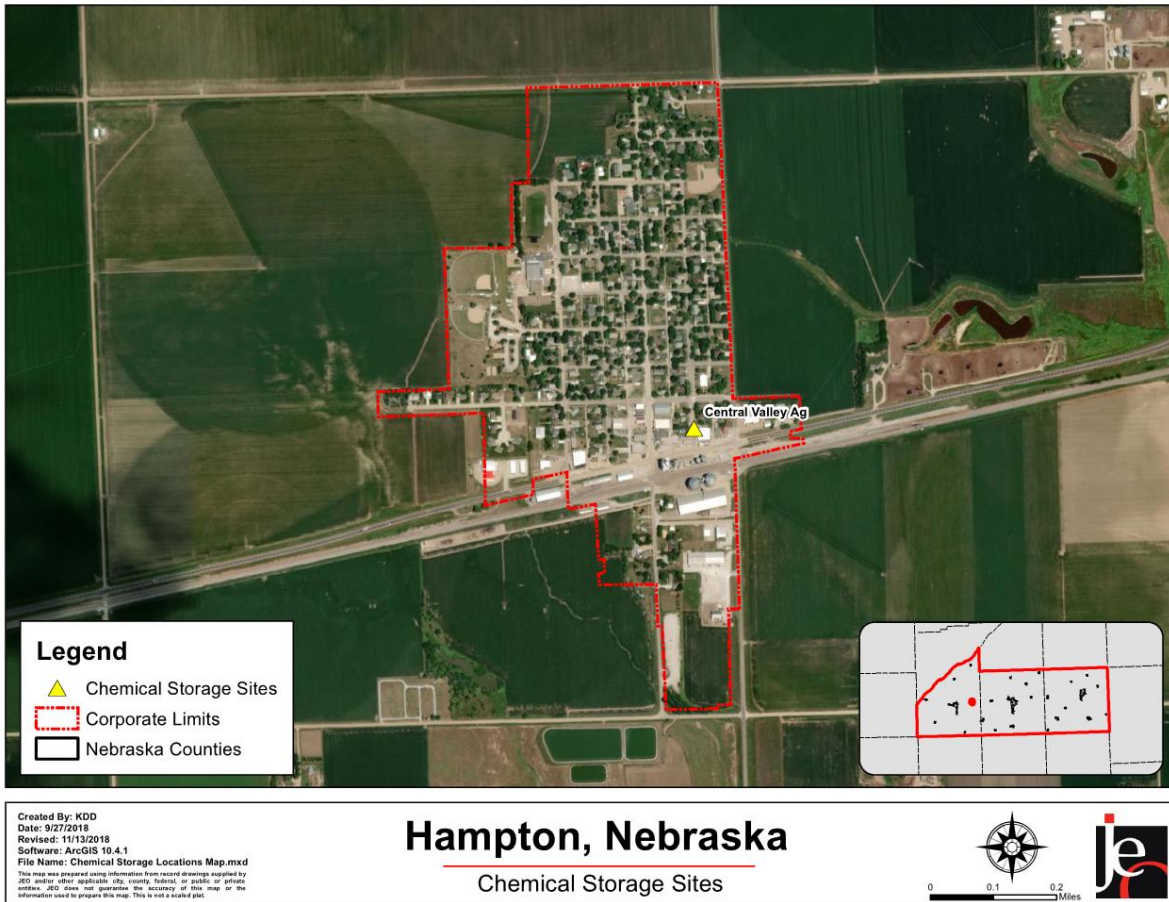
Source: Nebraska Department of Revenue, Property Assessment Divisionⁱ

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is a total of one chemical storage site in Hampton. The map below shows the name and location of the site.

Figure HPT.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energyⁱⁱ

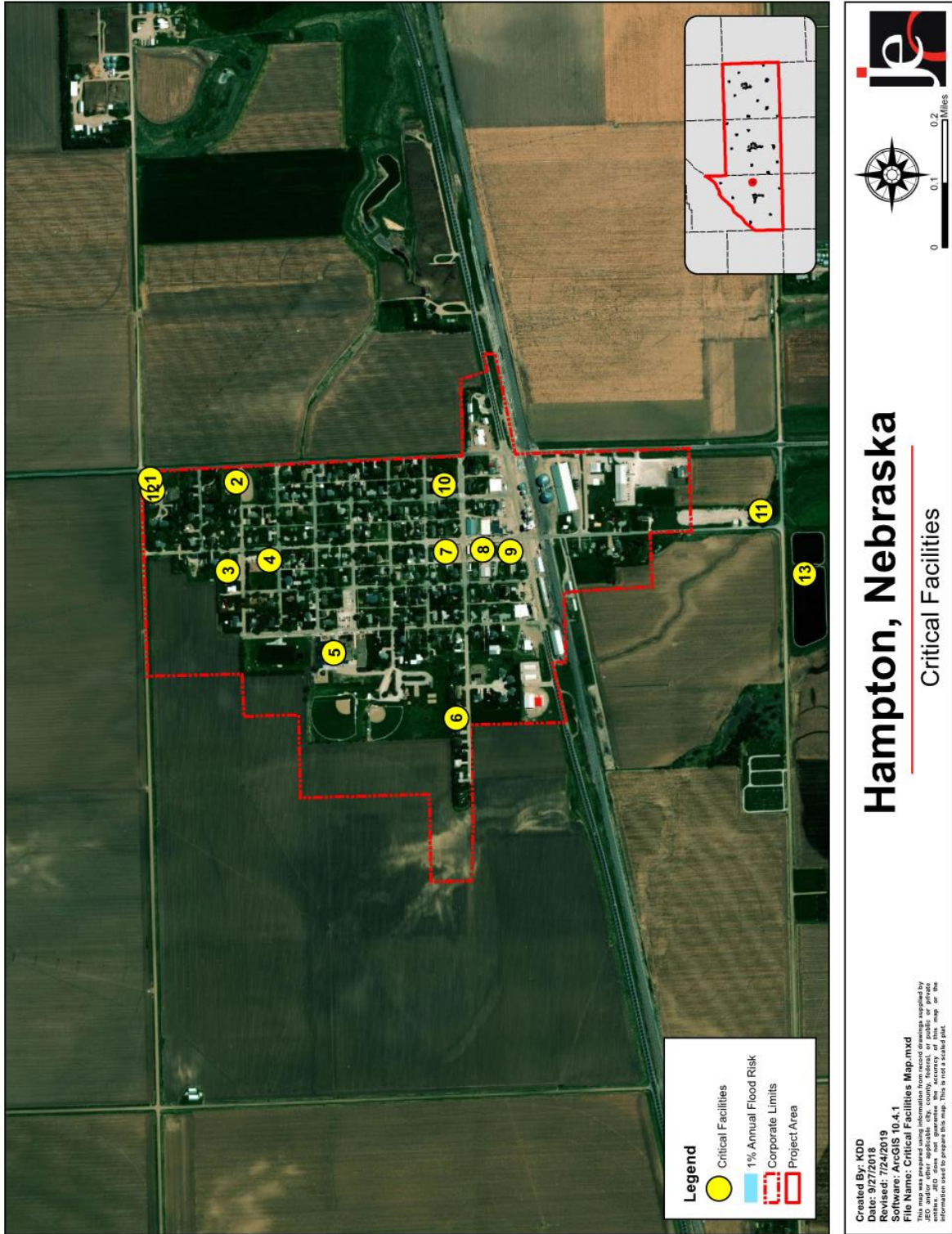
Critical Facilities

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. 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 HPT.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Sub Station	N	N	N
2	United Lutheran Church	N	N	N
3	Saint Peters Lutheran Church	N	N	N
4	Lutheran School	N	N	N
5	Hampton Public Schools	N	N	N
6	B Street Well	N	N	N
7	N 3 rd Street Well	N	N	N
8	City Hall	N	N	N
9	Fire Department	N	Y	N
10	City Auditorium	Y	N	N
11	Lift Station	N	Y	N
12	Water Tower	N	N	N
13	Wastewater Lagoons	N	N	N

Figure HPT.4: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Hail

NCEI data shows that Hampton has experienced four hail events since 1996. A hail event in 2011 caused \$25,000 in property damage. The local planning team indicated that the primary concern regarding hail is damage to public property. The critical facilities in Hampton are at high vulnerability to damage as none are fitted with hail resistant building materials. If a critical facility were to get damaged, the community does have all of the facilities insured. Currently the community does not have a local tree board to identify dangerous trees and does not provide residents information regarding hail resistant building materials. However, the community would like to become a Tree City USA participant and provide educational materials to residents.

High Winds

The local planning team identified high winds as a top hazard for the community. No critical facilities have been damaged due to high winds in the past, however high winds are an annual occurrence across the county. NCEI data shows that Hamilton County has had 22 high wind events since 1997. The primary concern with high winds is downed power lines from fallen trees/limbs. Hampton does have municipal records data backed up incase of a power outage event. The village also has back up power generators at the fire hall, lift station, and well.

Severe Thunderstorms

The local planning team identified severe thunderstorms as a top hazard for the community. The primary concern regarding severe thunderstorms is loss of power from downed power lines and tree damage. Hampton does not have a designated community safe room, however, there are options available for residents seeking safe shelter. The basement of the fire hall can hold people and the new gym at the public school has locker rooms that are reinforced for protection. Only a small percentage of power lines in Hampton are buried. This leaves the village more vulnerable to loss of power from fallen trees and limbs. The community did report having weather radios in critical facilities.

Severe Winter Storms

The local planning team identified severe winter storms as a top hazard for the community. Significant past events include heavy snow in December of 2009 and January 2010. These events caused major snow drifts due to gusting winds. The community had to hire additional help to remove the snow off the streets. The local planning team is primarily concerned with losing power and having the resources (personnel and equipment) to handle a large heavy snow event. The village has sufficient resources including a snow plow and two backhoes to handle most snow falls, however larger snow events might overwhelm the resources available. Hampton does use snow fences to help keep snow off certain streets but would like additional fences installed in other areas.

Tornadoes

NCEI data shows that Hampton has experienced two tornado events since 1996. The first tornado occurred in 2011 and was a category EF2. This tornado caused \$2,500,000 in property damage. The second tornado occurred in 2014 and was smaller at EF1. This tornado caused \$500,00 in property damage. Hampton does have a warning siren which covers all areas of the community. The siren is able to be activated by the local fire department. The county emergency management also issues text alerts for severe storm events.

Governance

A community’s governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Hampton has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Hampton has five village board members and the following offices that may help implement mitigation actions.

- Clerk/Treasurer
- Utility Superintendent
- Street Superintendent
- Fire Chief
- Street/Water Commissioner
- Engineer

Capability Assessment

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

Table HPT.4: Capability Assessment

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

Survey Components/Subcomponents		Yes/No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	County
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
<i>Fiscal Capability</i>	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	Yes
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
<i>Education & Outreach Capability</i>	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 – Fire Safety
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Limited
Does your community have the staff/expertise to implement projects?	Limited
Does your community have the community support to implement projects?	Moderate
Does your community staff have the time to devote to hazard mitigation?	Limited

Plan Integration

Hampton participates in comprehensive planning and subdivision regulations with the county. This allows Hampton to have codes and plans that might otherwise be cost prohibitive to develop. The comprehensive plan representing Hampton has not been updated since the 2009 hazard mitigation plan was developed so there are no changes related to how hazard mitigation has been incorporated into that document. The comprehensive plan and subdivision regulations are

currently in the process of being updated and will be completed by the end of 2019. The updated plan will likely address flooding issues and identify areas that need emergency shelters.

The local emergency operations plan (LEOP) is an annex to the county’s plan and was last updated in 2015. The plan addresses hazards of greatest concern, assigns specific responsibilities to individuals, and identifies sheltering locations. The local planning team indicated that the Hampton Fire Department, Clerk’s Office, and Utility Superintendent’s Office are all familiar with the LEOP. The plan is currently in the process of being updated and should be completed by the end of 2019.

Hampton updates its Capital Improvement Program on a yearly basis. Projects that are included in the plan include: stormwater projects, upsizing culverts and drainage structures, upgrading the storm sewer system, installing water meters at residential structures, updating the electrical distribution system, and burying power lines.

In addition to the other updates, the community is also in the process of updating the zoning ordinance, floodplain regulations, and stormwater management plan. These updates will be completed in 2019/2020. No other examples of plan integration were identified. Other than specified, there are currently no plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Replace alert siren at Hampton Lutheran School.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to the City Auditorium.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms, Flooding
Estimated Cost	\$15,000 - \$30,000 per generator
Funding	CDBG Funds
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire trucks, ATV's, water tanks/truck, 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) Addressed	All Hazards
Estimated Cost	Varies depending on what equipment is needed
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Description	Update Comprehensive Village Disaster and Emergency Response Plan
Hazard(s) Addressed	All Hazards
Estimated Cost	\$6,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Continuity Plans
Description	Develop continuity plans for critical community services.
Hazard(s) Addressed	All Hazards
Estimated Cost	N/A
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Drainage Study / Stormwater Master Plan
Description	Drainage studies can be conducted to identify and prioritize improvements to address site specific localized flooding/drainage problems. Stormwater master plans can be conducted to perform a community wide evaluation.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000 to \$100,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Education about Continuity Plan
Description	Educate local businesses on the value of continuity planning.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Emergency Communication
Description	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications. Provide equipment such as satellite telephones and radios.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Emergency Signage
Description	Place signs around community and vulnerable areas to warn of potential hazards with an indication of storm shelter locations, evacuation routes or safest places to be during an event.
Hazard(s) Addressed	All Hazards
Estimated Cost	N/A
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Enhanced Codes
Description	Promote the use of higher codes and standards, such as the Fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits. Provide information related to hail resistant building materials to individuals constructing new buildings.
Hazard(s) Addressed	Hail, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Enroll in the National Flood Insurance Program (NFIP)
Description	Participate in the National Flood Insurance Program (NFIP). The village plans to start the process to enroll in fall of 2019.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	First Aid Training
Description	Promote first aid training for all residents.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board & Fire Department
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events and major flooding.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Flooding
Estimated Cost	\$2,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Groundwater/Irrigation/Water Conservation Management Plan and Practices
Description	Establish a plan to reduce total consumption of groundwater resources by irrigators of agricultural land across the district.
Hazard(s) Addressed	Drought
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Improve Snow/Ice Removal Program
Description	Continue to revise and improve the snow and ice removal program for streets.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$20,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Currently identifying opportunities for improvement.

Mitigation Action	New Municipal Well
Description	Provide a safe backup water supply for the community; replace existing wells affected by drought, increase of demand in water, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	\$350,00 to \$450,000
Funding	CDBG Funds & USDA loan
Timeline	2-5 Years
Priority	Medium
Lead Agency	Water Department & City Engineer
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Work with local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures/infrastructure to be less vulnerable to storm events. 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) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$70,000/mile
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Rural Water District and Water System Upgrades
Description	Upgrade rural water district infrastructure to decrease likelihood of damages and improve water system for emergency uses.
Hazard(s) Addressed	Drought
Estimated Cost	\$20,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Shelter In-Place Training/Education
Description	Ensure that all critical facilities, businesses, and residents located near major transportation corridors and near fixed site chemical facilities are aware of how to safely shelter in place in the event of a chemical incident.
Hazard(s) Addressed	Chemical Spills
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Snow Fences
Description	Construct snow fences to protect main transportation routes from excessive snow drifting and road closure.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Street Department
Status	Not Started

Mitigation Action	Source Water Contingency Plan
Description	Evaluate and locate new sources of groundwater to ensure adequate supplies to support the existing community and any additional growth which may occur.
Hazard(s) Addressed	Drought, Wildfire
Estimated Cost	\$5,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Static Detectors
Description	Deploying a static detector at outdoor events can warn of approaching, fast moving storms and associated lightening, thus helping officials to respond appropriately. This project will be located at the West City Park.
Hazard(s) Addressed	Severe Thunderstorms
Estimated Cost	\$1,000
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms
Estimated Cost	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements, such as pipe upsizing and additional inlets, installation of retention and detention facilities can be implemented to decrease runoff rates while also decrease the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000+
Funding	CDBG Funds
Timeline	1-2 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Training for Response to Train Derailment
Description	Provide training for first responders in the event of a train derailment and related hazmat incident.
Hazard(s) Addressed	Chemical Spills (Transportation)
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Fire Department
Status	Not Started

Mitigation Action	Tree City USA – Tree Maintenance Program
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Vehicular Barriers
Description	Install vehicular barriers to protect critical facilities and key infrastructure where possible.
Hazard(s) Addressed	Terrorism/Civil Disorder
Estimated Cost	\$500 - \$25,000
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Vulnerable Population Database
Description	Develop a database of where vulnerable populations are located and the organizations which help support them.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Department, Village Board
Status	Not Started

Mitigation Action	Weather Radar System Program
Description	Provide information from weather radar like the motion, type of precipitation, location, and a forecast of movement would be provided.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes, High Winds
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$50 per radio
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Windbreaks
Description	Installation of windbreaks and/or living snow fences to increase water storage capacity in soil and reduce blowing snow.
Hazard(s) Addressed	High Winds, Severe Winter Storms
Estimated Cost	\$2,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Removed Mitigation Actions

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this action as it is already taken care of by Mid State TV in Aurora.

^{xxxxix} Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>

^{xi} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

^{xii} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xiii} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xiiii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xv} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xvi} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xvii} United States Census Bureau. "American Fact Finder: S0804: Means of Transportation to Work by Selected Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xviii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xix} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

ⁱ County Assessor. Personal correspondence, February 2019.

ⁱⁱ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

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COMMUNITY PROFILE

VILLAGE OF HORDVILLE



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

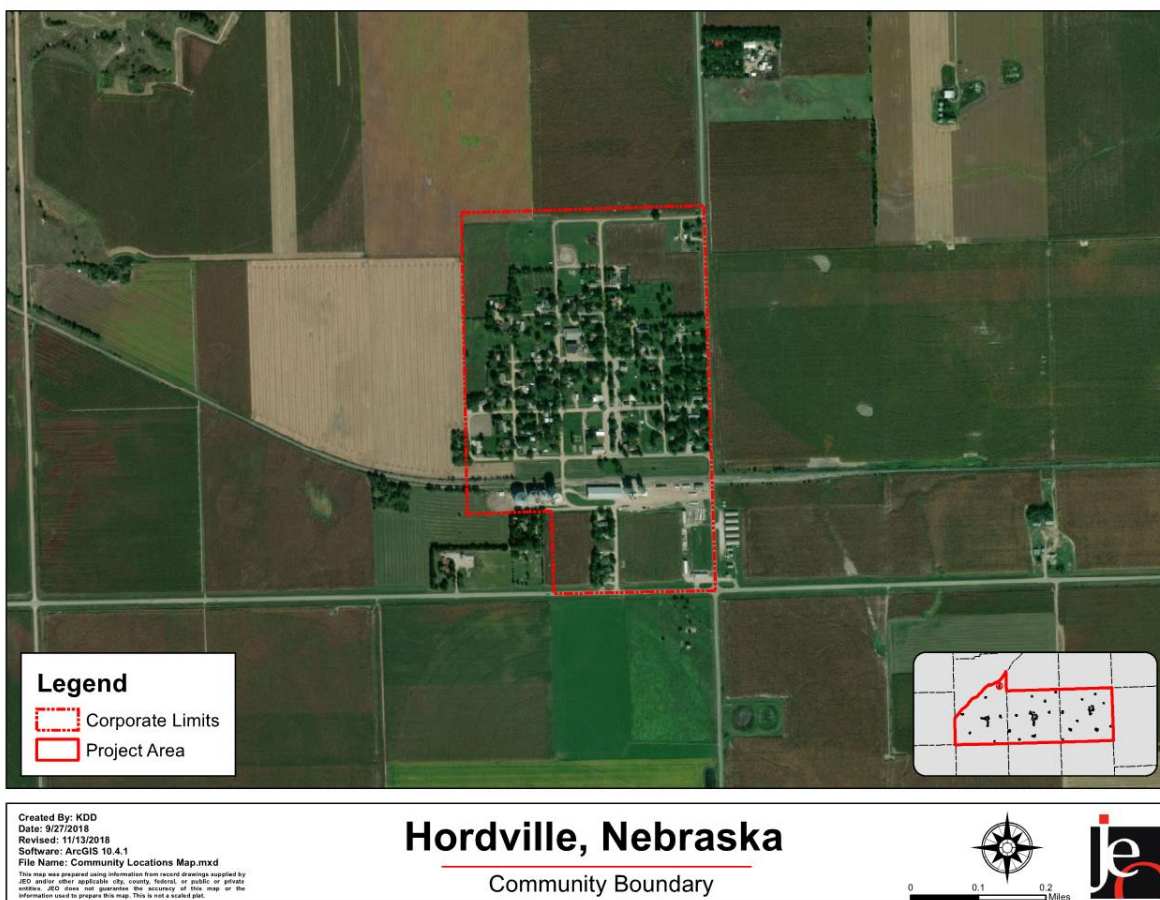
Table HDV.1: Hordville Local Planning Team

Name	Title	Jurisdiction
Scott Simonsen	Village Clerk	Village of Hordville

Location and Geography

The Village of Hordville is located in the northeast corner of Hamilton County and covers an area of 173 acres. The Platte River is located five miles west and north of Hordville.

Figure HDV.1: Community Boundary



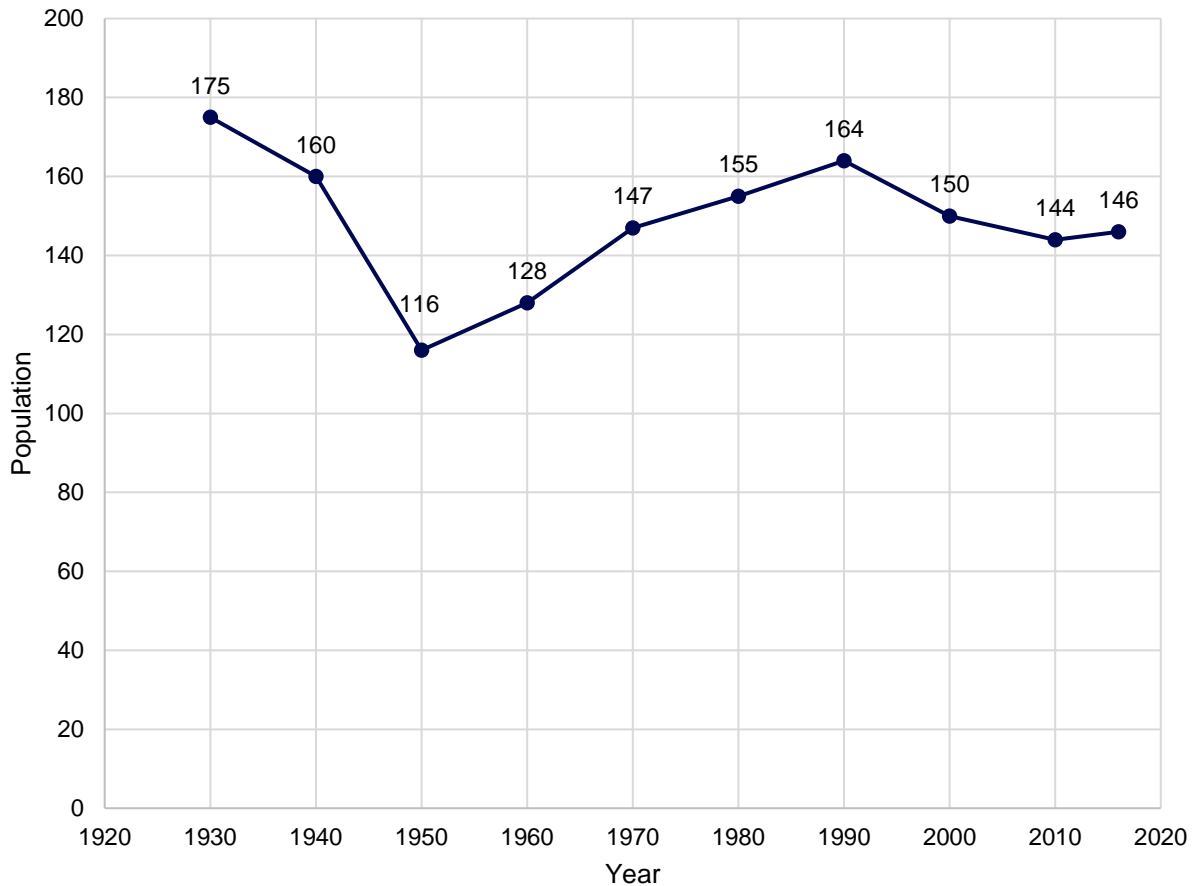
Transportation

Hordville’s major transportation corridor includes Nebraska Highway 66, which has 1,230 vehicles a day.^{lii} Hordville has one rail line, owned by Nebraska Central Railroad Company, which runs east west through the southern part of the community. Hordville does not have any airports located within or near the village. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents. The local planning team indicated that the rail line transports ethanol on a regular basis.

Demographics

Hordville's population declined from 150 people in 2000 to about 146 people in 2016, an average annual decrease of 0.17%. This is important because the population decline means less tax revenue and a higher level of unoccupied housing. Hordville's population accounted for 1.6% of Hamilton County's population in 2016.^{liii}

Figure HDV.2: Population 1930 - 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- **Slightly older.** The median age of Hordville was 43.7 years old in 2016, compared with the county average of 42.5. Hordville's population grew slightly younger since 2010, when the median age was 44.0 years old. Hordville had a slightly smaller proportion of people under 20 years old (26.0%) than the county (26.9%).^{liv}
- **Much less ethnically diverse.** In 2016, 0.0% of Hordville's population was Hispanic or Latino. The Hispanic population in the county was 3.0%.^{lv}
- **Much less likely to be below the federal poverty line.** The poverty rate in Hordville (0.0% of families living below the federal poverty line) was much lower than the county's poverty rate (7.9%) in 2016.^{lvi}

Employment and Economics

The Hordville economic base is a mixture of manufacturing and educational uses. In comparison to Hamilton County, Hordville's economy had:

- **Similar mix of industries.** Hordville's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; educational services and health care/social assistance; agriculture forestry, fishing and hunting, and mining; finance and insurance, and real estate and rental and leasing; and arts, entertainment, recreation, accommodation, and food services.^{lvii}
- **Much lower household income.** Hordville's median household income in 2016 (\$45,938) was about \$13,800 lower than the county (\$59,760).^{lviii}
- **More long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Hordville include First State Bank and Central Valley Ag. A large percentage of residents commute to Aurora, Central City, Columbus, and York for employment.

Housing

In comparison to Hamilton County, Hordville's housing stock was:

- **Less renter-occupied.** According to the local planning team 12% of occupied housing units in Hordville are renter occupied compared with 19.2% of occupied housing in Hamilton County.^{lix}
- **Much older.** Hordville had a larger share of housing built prior to 1970 than the county (65.3% compared to 53.9%).^{lx}
- **More multifamily.** The predominant housing type in the village is single family detached, Hordville contains more multifamily housing with five or more units per structure compared to the county (4.2% compared to 3.4%). About 81.9% of housing in Hordville was single-family detached, compared with 88.1% of the county's housing. According to the local planning team Hordville has a smaller share of mobile and manufactured housing (0% compared to the county (4.8%).^{lxi}

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. Hordville does not have any mobile homes within its boundaries.

Future Development Trends

In the last five years, a new bar was built, but no new housing was constructed during that time period. According to the latest American Community Survey estimates, Hampton's population has had a slight decline since 2010. A declining population may result in a shrinking tax base, which may make implementing mitigation actions more difficult. Over the next five years, a family is planning on building a new house on the north side of the community. No new businesses or industry is planned at this time.

Structural Inventory and Valuation

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

Table HDV.2: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
102	\$3,021,925	\$29,627	0	\$0

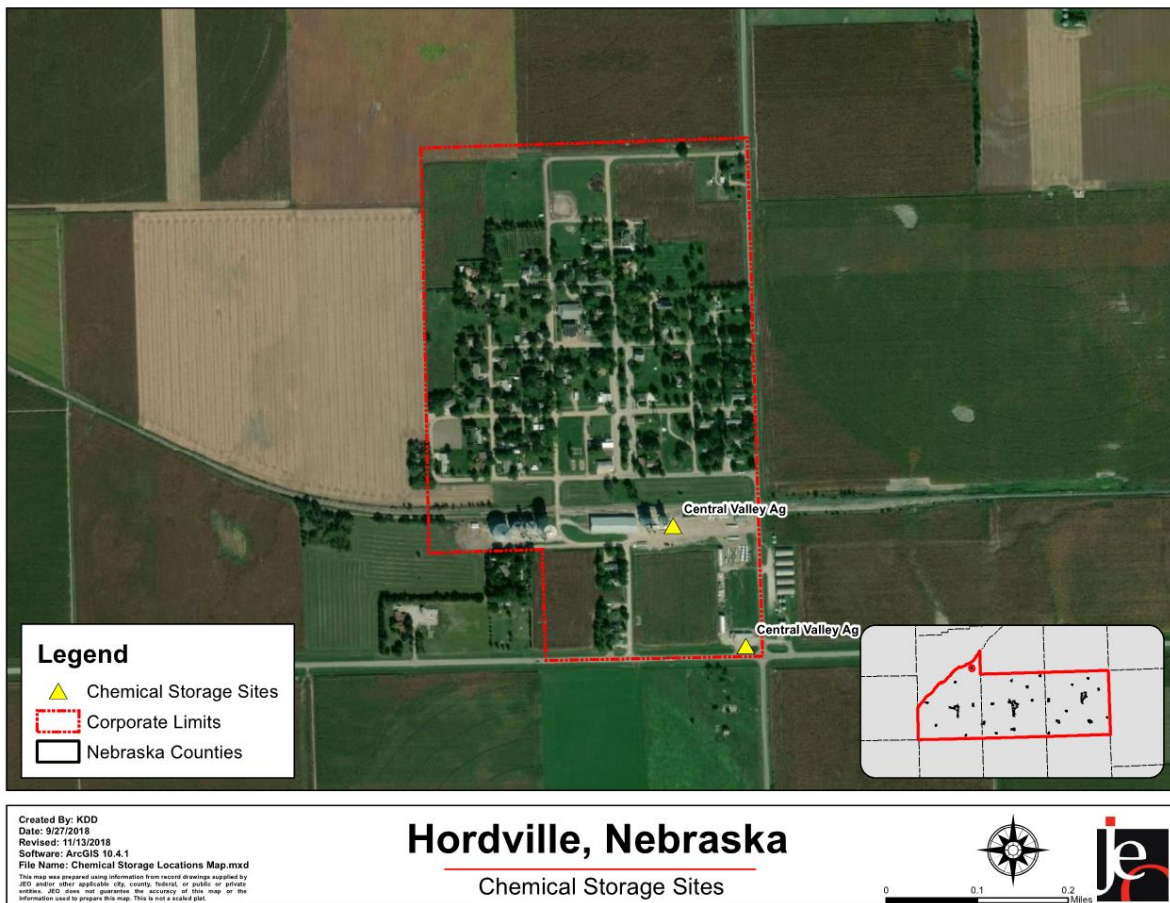
Source: Nebraska Department of Revenue, Property Assessment Division^{lxii}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are a total of two chemical storage site in Hordville. The map below shows the name and location of the sites.

Figure HDV.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy^{lxiii}

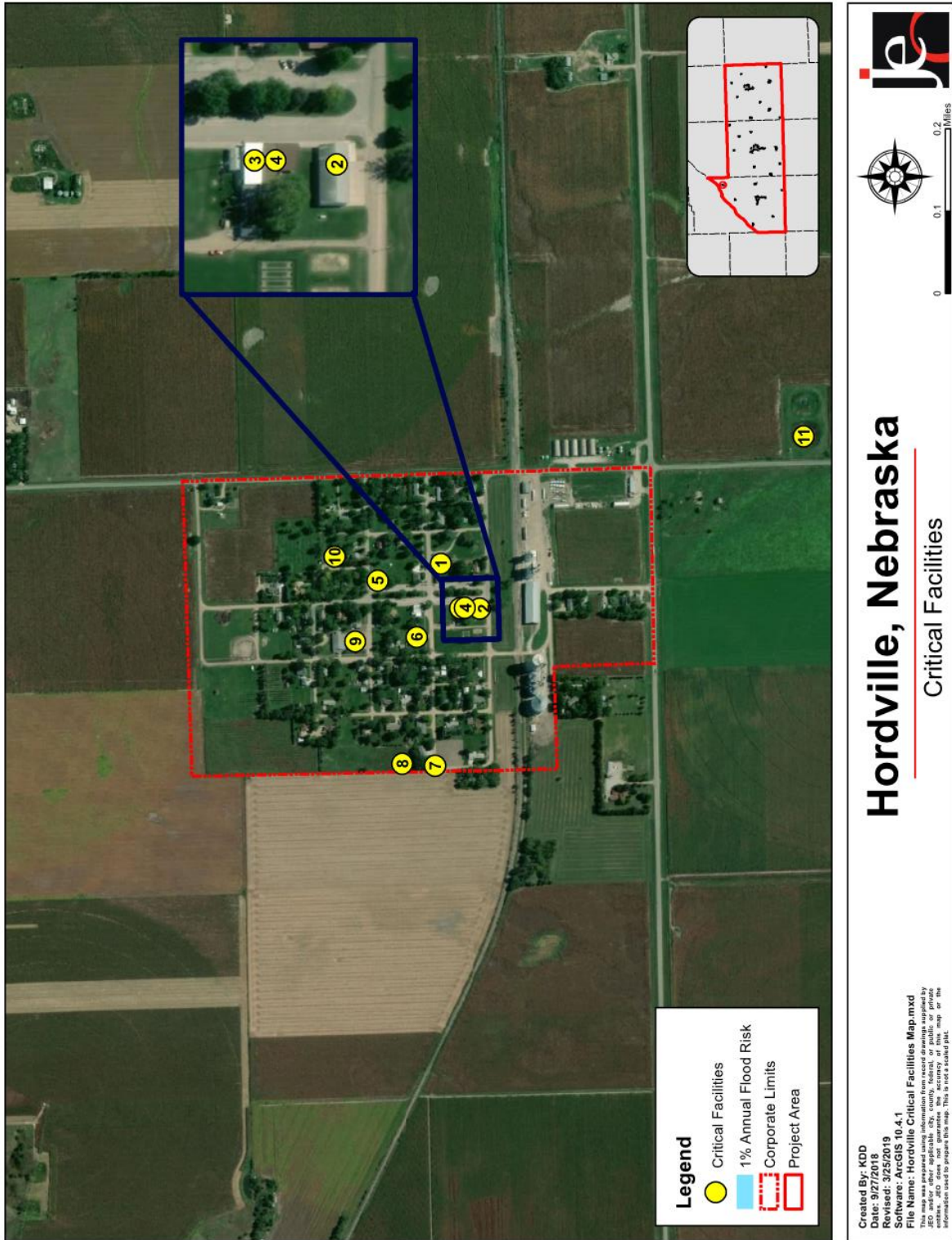
Critical Facilities

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. 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 HDV.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Water Tower	N	N	N
2	Fire Barn	N	N	N
3	Post Office	N	N	N
4	Village Hall	N	N	N
5	Church	N	N	N
6	Grader Storage	N	N	N
7	Well House and Well	N	Y	N
8	Well	N	N	N
9	Gym	N	N	N
10	Fridhem Lutheran Church	N	N	N
11	Sewage Lagoon	N	N	N

Figure HDV.3: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Agricultural Animal & Plant Disease

The primary concern related to agricultural disease is the impact that it could have on the surrounding agricultural community and the local economy. The agricultural sector is a major employer in the community with approximately 10 percent of residents working in that sector. The RMA does not publish data by community, rather it is published by county. Between 2000 and 2017, Hamilton County experienced 12 plant diseases which resulted in \$62,625 in damages. Unfortunately, it is not known whether those damages occurred near the village.

Drought

Drought is generally a regional event, with impacts from a single drought event impacting multiple communities, counties, and even states. Hordville, Hamilton County, Nebraska, and most of the Midwest experienced a severe drought for most of 2012. There were no specific impacts reported for Hordville. For the community, a relatively large percentage (approximately 10 percent) of the workforce relies on agriculturally based income, so impacts would be felt across the community. Issues with drinking water are a large concern for the community during a drought event. The village has identified several mitigation actions to help increase resiliency to drought.

Winter Storms

In 2006 the village experienced a major loss of power from an ice storm. NCEI data records severe winter storms as "zonal" events meaning there is not a specific record of what communities were impacted. According to the NCEI, severe winter storms occurred an average of 3.5 times a year for Hamilton County. The local planning team indicated that the village has routed power from north to south. The county handles the snow removal for the community. Typically, this is sufficient, however, a large snow event may cause prolonged road closures as county has a large area to cover. The village also has 65% of its housing built prior to 1970. Older housing is more likely to be damaged from a severe winter storm event.

Tornadoes

NCEI data shows that Hordville has experienced one tornado since 1996. The F1 tornado occurred in 2001 and did not cause any property damage. The village maintains two off-site repositories for securing municipal back-up information in the event that the village records are lost or damaged. The local planning team also indicated that approximately 90% of houses have basements. The warning siren for the village has a generator which is tied to the well. Back-up power generators for the fire barn are still needed, but the lift stations do have back-up generators. The village purchased weather-radios a few years ago for its critical facilities.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Hordville has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Hordville has five village board members and the following offices that may help implement mitigation actions.

- Clerk
- Treasurer
- Village Attorney
- Fire Chief
- Water Commission
- Parks and Recreation Department
- Street Commissioner

Capability Assessment

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

Table HDV.4: Capability Assessment

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

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

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Moderate
Does your community have the staff/expertise to implement projects?	Moderate
Does your community have the community support to implement projects?	High
Does your community staff have the time to devote to hazard mitigation?	Moderate

Plan Integration

Hordville participates in comprehensive planning and zoning with the county. This allows Hordville to have codes and plans that might otherwise be cost prohibitive to develop. Hordville also collaborates with the county for building codes, zoning ordinances, and the local emergency operations plan (LEOP). The village’s comprehensive plan, building codes, and zoning ordinances are currently in the process of being updated by the county.

The comprehensive plan and zoning ordinance direct new development to the north side of Hordville which is away from the major chemical storage sites on the south side of the village. The LEOP was last updated in 2018 and is required to be updated every three years. The plan addresses hazards of greatest concern and assigns specific responsibilities to individuals in the community. It also identifies critical evacuation routes for the village. The building code does not require many additional mitigation elements but does require the use of fire-resistant building materials. It also does not restrict the use of additional mitigation elements like raingardens or hail resistant building materials. No other examples of plan integration were identified. There are currently no other plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

Completed Mitigation Actions

Mitigation Action	Emergency Communication
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed in the last few years. Currently they have the ability to contact residents via email and phone if an event occurs. The community will reevaluate in the future if the need arises.

Mitigation Action	Weather Radios
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed in 2016. Radios were purchased when the National Weather Service (NWS) did their presentation.

Ongoing and New Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to the village fire hall.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000 - \$30,000 per generator
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Department
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events and major flooding.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Flooding
Estimated Cost	\$2,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board and County Emergency Management
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	The water main infrastructure on Main Street needs to be replaced with plastic piping. The plan is to update the infrastructure when the asphalt is replaced.
Hazard(s) Addressed	Drought
Estimated Cost	\$30,000 - \$40,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types. The village board has the NWS come in and give a presentation to the community.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	In Progress. The community has a current public education program that will continue to incorporate hazard mitigation.

Mitigation Action	Training for Response to Train Derailment
Description	Provide training for first responders in the event of a train derailment and related hazmat incident.
Hazard(s) Addressed	Chemical Spills – Transportation
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Department
Status	Not Started

Mitigation Action	Wellhead Protection Plan
Description	Work with rural water to create a wellhead protection plant to prevent contamination of water supplies in the area.
Hazard(s) Addressed	Drought
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	New Action. Not Started

Removed Mitigation Actions

Mitigation Action	Continuity Plans
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. The community determined that this action was no longer needed. If the need arises the community will reevaluate this action.

Mitigation Action	Education about Continuity Plans
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. The community determined that this action was no longer needed. If the need arises the community will reevaluate this action.

Mitigation Action	Enroll in the National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team chose to remove this mitigation action. The village is not in the floodplain, so they will not be pursuing enrollment at this time. If the floodplain changes, or localized flooding becomes an issue, the community will reevaluate this mitigation action.

Mitigation Action	Irrigation / Groundwater Management Plan
Hazard(s) Addressed	Drought
Reason for Removal	This mitigation action was removed by the local planning team because the village does not have the ability to do this. This action would need to be led by the Upper Big Blue NRD.

Mitigation Action	Rural Water District and Water System Upgrades
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team chose to remove this mitigation action. This mitigation action was not feasible, and a more accurate mitigation action will replace this.

ⁱⁱ Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>

ⁱⁱⁱ United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

^{iv} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{lv} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

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^{lix} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lx} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxi} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxii} County Assessor. Personal correspondence, February 2019.

^{lxiii} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

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COMMUNITY PROFILE

VILLAGE OF MARQUETTE



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

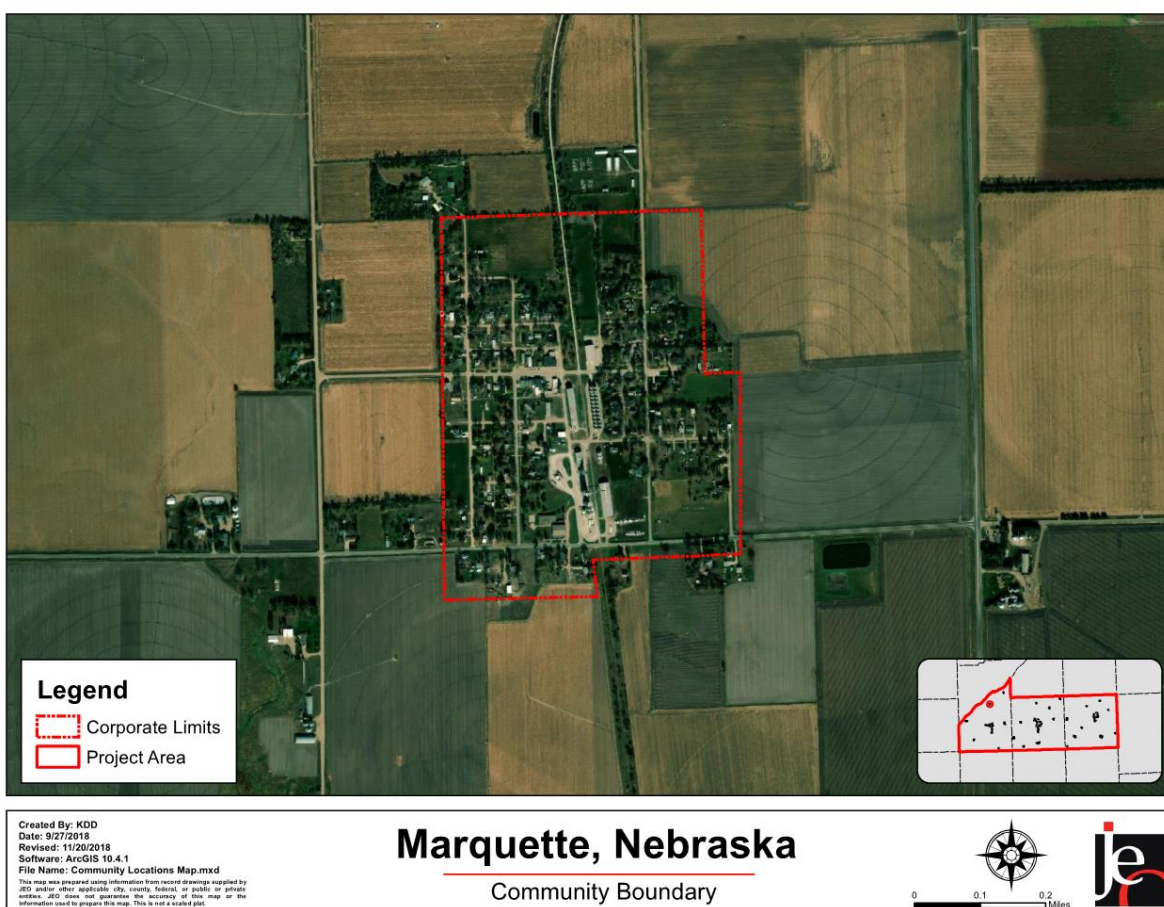
Table MAR.1: Marquette Local Planning Team

Name	Title	Jurisdiction
Ruby Skidmore	Board Member	Village of Marquette
DJ Frauendorfer	Marquette Fire Department	Village of Marquette
Sam Anderson	Marquette Fire Rural Board	Village of Marquette

Location and Geography

The Village of Marquette is located in the north central portion of Hamilton County and covers an area of 134 acres. The Platte River is located six miles north of Marquette.

Figure MAR.1: Community Boundary



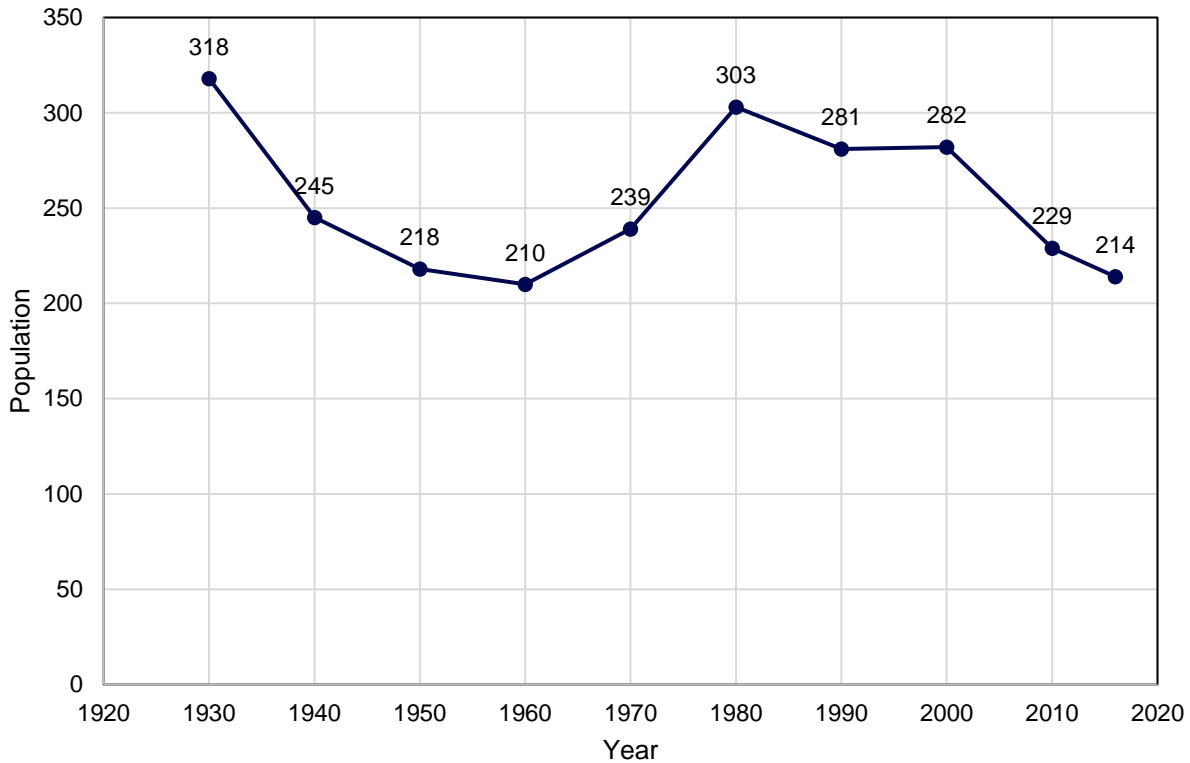
Transportation

Marquette’s major transportation corridor includes Nebraska Highway S-41C which has 695 vehicles a day.^{lxiv} Marquette does not have any rail lines or airports located within or near the village. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents. The local planning team indicated that fuel is regularly transported along Highway Street, Carnahan Street, and Cox Avenue.

Demographics

Marquette's population declined from 282 people in 2000 to about 214 people in 2016, an average annual decrease of 1.51%. This is important because the population decline means less tax revenue and a higher level of unoccupied housing. Marquette's population accounted for 2.35% of Hamilton County's population in 2016.^{lxv}

Figure MAR.2: Population 1930 – 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- **Younger.** The median age of Marquette was 40.3 years old in 2016, compared with the county average of 42.5. Marquette's population grew younger since 2010, when the median age was 41.3 years old. Marquette had a larger proportion of people under 20 years old (28.9%) than the county (26.9%).^{lxvi}
- **Less ethnically diverse.** In 2010, 2.6% of Marquette's population was Hispanic or Latino. The Hispanic population in the county was 2.0%. By 2016, Marquette became less ethnically diverse, with 0.9% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 3.0%.^{lxvii}
- **Less likely to be below the federal poverty line.** The poverty rate in Marquette (6.9% of families living below the federal poverty line) was lower than the county's poverty rate (7.9%) in 2016.^{lxviii}

Employment and Economics

The Marquette economic base is a mixture of manufacturing and retail trade uses. In comparison to Hamilton County, Marquette's economy had:

- **Different mix of industries.** Marquette's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; construction; retail trade; transportation and warehousing, and utilities; educational services, and health care and social assistance; and arts, entertainment, and recreation, and accommodation and food services.^{lxi}
- **Lower household income.** Marquette's median household income in 2016 (\$41,250) was about \$18,500 lower than the county (\$59,760).^{lxx}
- **More long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Marquette include the U.S. Post Office, Aurora Cooperative, Don't Care Bar and Grill, and Cornerstone Bank. A large percentage of residents commute to Grand Island, Aurora, Central City, and York.

Housing

In comparison to Hamilton County, Marquette's housing stock was:

- **More renter-occupied.** About 25.0% of occupied housing units in Marquette are renter occupied compared with 19.2% of occupied housing in Hamilton County.^{lxxi}
- **Older.** Marquette had a larger share of housing built prior to 1970 than the county (76.4% compared to 53.9%).^{lxxii}
- **Less multifamily.** The predominant housing type in the village is single family detached, Marquette contains less multifamily housing with five or more units per structure compared to the county (0% compared to 3.4%). About 93.5% of housing in Marquette was single-family detached, compared with 88.1% of the county's housing. Marquette has a larger share of mobile and manufactured housing (6.5%) compared to the county (4.8%).^{lxxiii}

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

Future Development Trends

In the last five years, one new home has been constructed and two vacant homes were demolished. According to the latest American Community Survey estimates, Marquette's population has experienced a slight decline since 2010. A declining population may result in a shrinking tax base, which may make implementing mitigation actions more difficult. The local planning team indicated that this was primarily due to not having a school located within the community and a lack of jobs. For the next five years, no housing, businesses, or industry is planned at this time.

Structural Inventory and Valuation

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

Table MAR.2: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
292	\$6,250,615	\$21,406	0	\$0

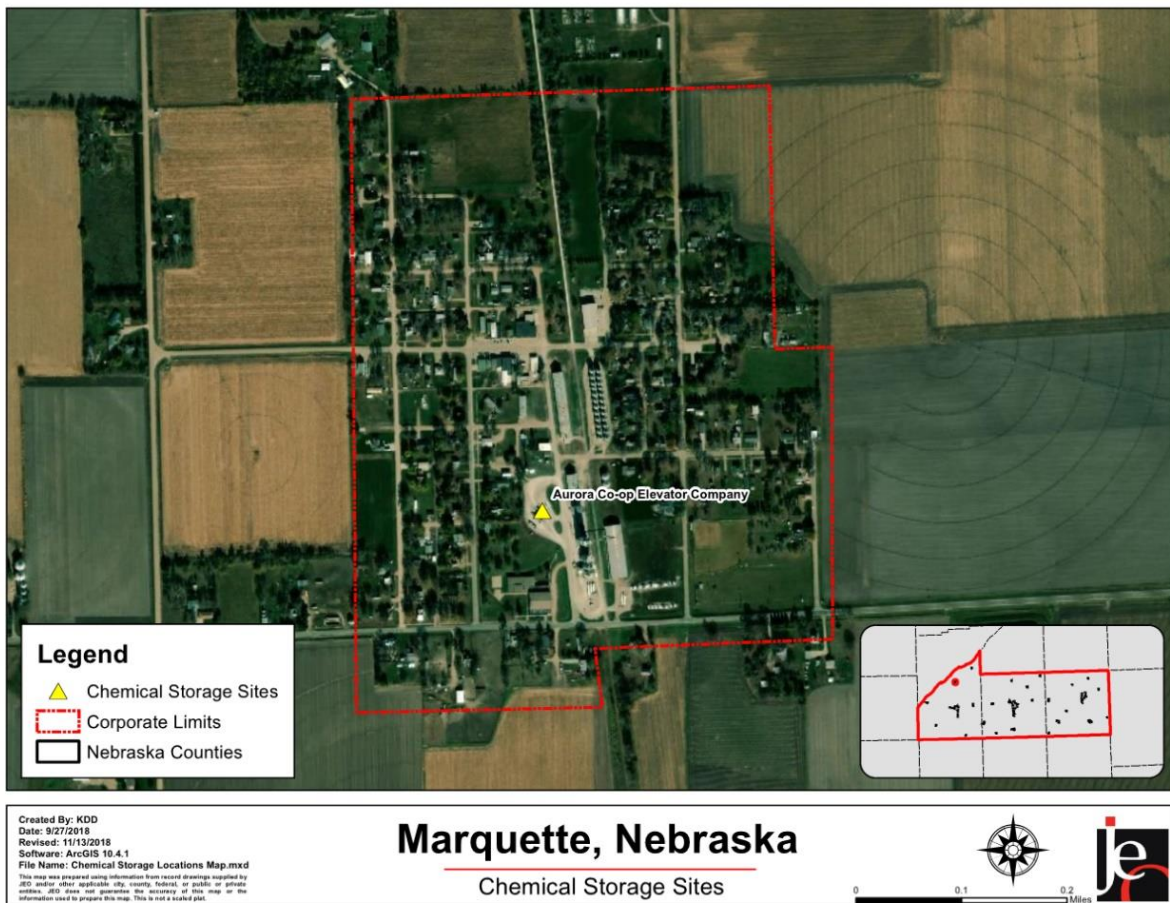
Source: Nebraska Department of Revenue, Property Assessment Division^{lxv}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is a total of one chemical storage site in Marquette. The map below shows the name and location of the site.

Figure MAR.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy^{lxvi}

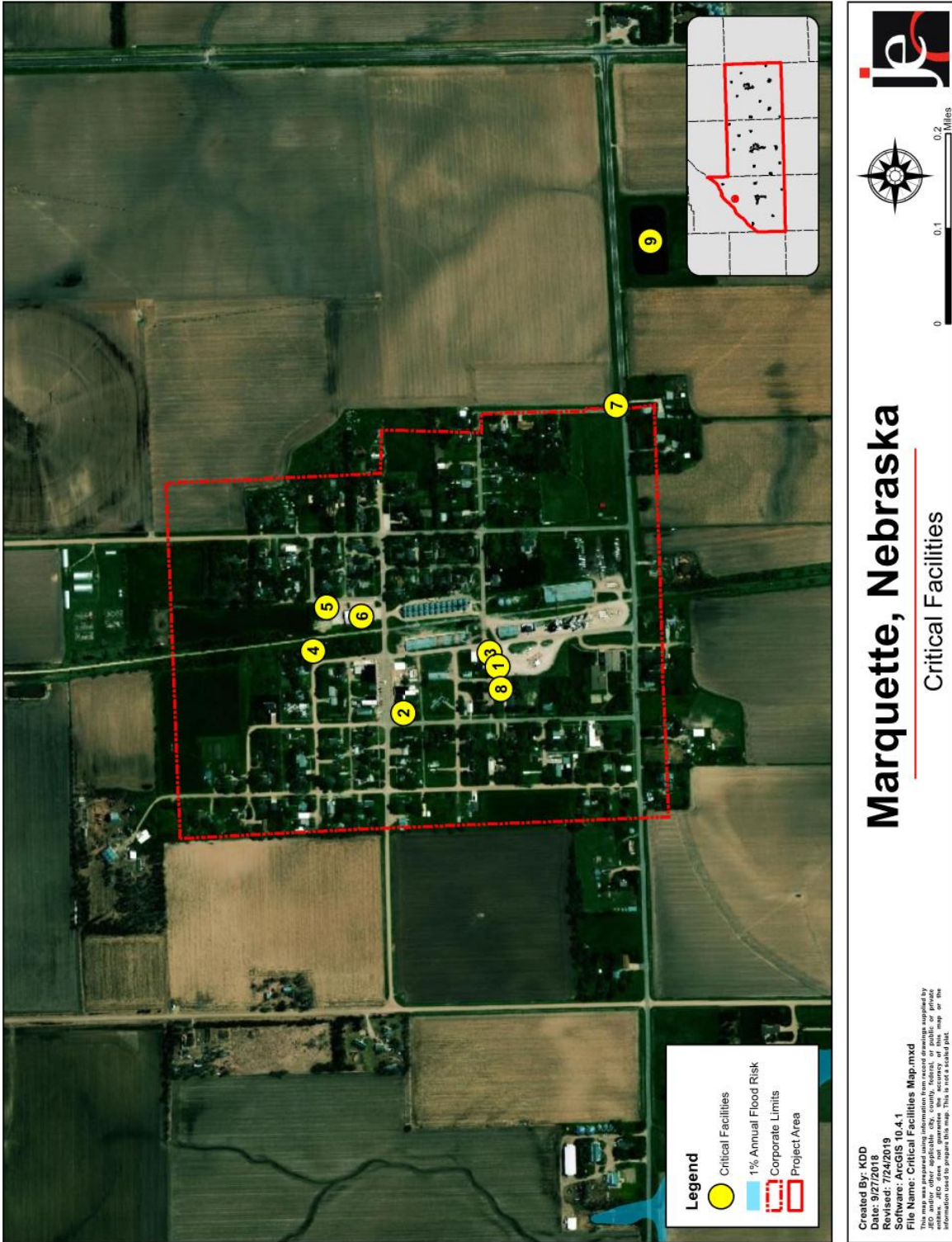
Critical Facilities

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. 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 MAR.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Water Tower	N	N	N
2	Maintenance Shop	N	N	N
3	Water Well #1	N	Y	N
4	Water Well #2	N	Y	N
5	Water Well #3	N	Y	N
6	Fire Department / Community Center	N	N	N
7	Sewer Lift Station	N	Y	N
8	County Shop	N	N	N
9	Wastewater Lagoon	N	N	N

Figure MAR.4: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Drought

The primary concern for the community as it relates to drought is running out of drinking water. The fire department also indicated that a drought event could also lead to a lack of water for fire prevention/fighting. The village has two wells that run alternately at a depth of 175 feet. Water supervisors check the well level and every home and business has a water meter to track water consumption. The local planning team indicated that the wells drop to a low level unless there is above average rainfall. Once the wells drop to a low level, the village is able to place water usage restrictions for lawns and car washing. This has occurred during past drought events. Most village residents are aware of water conservation and do what is necessary to limit use. The community does not have a drought monitoring board but does have a drought response plan. In the event of a prolonged drought where the village water supply is extremely low, water will be trucked in for household uses.

Extreme Heat

The local planning team identified extreme heat as a top hazard for the community. They are primarily concerned with the heat and high humidity effecting older residents. Marquette experiences several of high heat and high humidity days every year. Past events have caused power outages due to the increased demand from irrigation wells and residential home usage. Should a power outage occur, the fire department and neighbors are all available to check on vulnerable individuals in order to help them in any way possible. The community hall can serve as a cooling center for community members; however, the building does not have a backup power source should a power outage occur.

Grass/Wildfires

The Marquette Fire Department of 15 members has responded to 33 grass/wildfires since 2000. These fires have burned a total of 147 acres of land. The local planning team indicated that none of these fires were significant enough to consider an evacuation of the village. The primary concerns related to grass/wildfires are dead trees in shelter belts close to homes, stacks of hay bales, and access to properties along the river. Property owners are not required to have defensible space around structures, however the fire department does educate land owners on what should be done. Typically, this does not result in any changes being made.

Hail

NCEI data indicates that Marquette has experienced 16 hail events since 1996. Those 16 events have caused \$640,000 in property damages. The largest loss event happened in June of 2014 when 1.00-inch hail caused \$500,000 in property damage. Another large event occurred May 1st, 2018 when hail damaged 75% of housing, trees, and vehicles in the community. The local planning team indicated that the primary concern with hail is the wide variety of damage that it can cause. Homes, cars, equipment, and crops can all be damaged by a large hail event. If a hail event should damage a critical facility, the village does have insurance policies to help minimize the impact. Residents do not receive information regarding hail resistant building materials with

building permits and the village is not able to provide the information as building permits are issued in the City of Aurora.

High Winds

The local planning team identified high winds as a top hazard to the community. Several high wind events have damaged buildings, roofs, crops, and trees. The village well houses have also had the window and roof damaged due to past high winds. The village does perform educational outreach activities which include notices of siren warnings and posters in facilities around the community.

Severe Thunderstorms

The village's primary concern related to severe thunderstorms is the potential loss of power and damage from falling trees. The village does have a storm shelter located in the Fire Barn/Community Hall; however, it does not have a backup generator. This means that there would be no heat or light source if power were to go out. Storm tracking would also become very difficult for emergency responders. The community wells do have backup generators should power go out. According to the local planning team, only two homes have buried power lines with the rest being above ground. The power company removes many hazardous trees in the village; however, there are still several trees which need to be removed.

Severe Winter Storms

The local planning team indicated that severe winter storms were a top hazard for the community. NCEI data shows that Hamilton County has experienced 61 severe winter storm events since 1996. Based on historical records, severe winter storms, have an annual probability of 100 percent. In order to remove snow, the village has tractor with a blade which the village maintenance person uses. In mild snows, these resources are sufficient but in large snow events it is not. Marquette does not use snow fences and does not plan to use them in the future. In the past the village did have snow fences but quite using them several years ago as they caused more problems than they solved.

Tornadoes

NCEI data indicates that Marquette has experienced four tornado events since 1996. Three of the tornadoes occurred in one day and caused \$440,000 in property damage. In addition to these four events, the local planning team indicated that additional tornadoes occurred in rural areas nearby, in 2003 and 2004. One of those events destroyed a mobile home which was located one mile east of Marquette. The village does have a warning siren which is located on the new water tower. The siren is battery operated and can be activated by the sheriff's office, fire chief, the village, or by remote control. The village also has a certified tornado shelter in the Community Hall/Fire Department Building. The community posts siren warnings and severe weather warnings in all the water bills. They also host a "open house" which provides educational materials to community members at the beginning of spring.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Marquette has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Marquette has five village board members and the following offices that may help implement mitigation actions.

- Clerk/Treasurer
- Attorney

- Utility Superintendent
- Engineer
- Fire Chief
- Water Commissioner
- Street Superintendent
- Planning Commission

Capability Assessment

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

Table MAR.4: Capability Assessment

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

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

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Limited
Does your community have the staff/expertise to implement projects?	Limited
Does your community have the community support to implement projects?	Limited
Does your community staff have the time to devote to hazard mitigation?	Limited

Plan Integration

Marquette participates in planning and zoning with the county. This allows Marquette to have codes and plans that might otherwise be cost prohibitive to develop. The comprehensive plan representing Marquette has not been updated since the 2015 hazard mitigation plan was developed so there are no changes related to how hazard mitigation has been incorporated into that document. Currently the county is updating the comprehensive plan and zoning ordinance for the Village of Marquette. The update is expected to be completed by the end of 2019.

Other plans which Marquette has is an Emergency Operations Plan last updated in 2008, a Wellhead Protection plan updated in 2016, and a Stormwater Management Plan updated in 2015. The village is also currently developing a Capital Improvements Program. The Emergency Operations Plan identifies hazards of greatest concern, assigns individual responsibilities, identifies evacuation routes, and identifies sheltering locations. Both the clerk’s office and fire department are familiar with the plan. No other examples of plan integration were identified. There are currently no other plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine which sirens should be replaced, or to inform the placement of new sirens.
Hazard(s) Addressed	Tornadoes, Severe Thunderstorms, High Winds
Estimated Cost	\$15,000+
Funding	Fire Department Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Rural Fire Department, Hamilton County EMA
Status	Not Started. New Action

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000 - \$30,000 per generator
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board and Fire Department
Status	In process of obtaining generator for the Village Hall / Fire Department.

Mitigation Action	Backup Municipal Records
Description	Develop protocol for backup of critical municipal records.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$100+ for External Hard Drive
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Clerk
Status	Not Started. New Action

Mitigation Action	Best Management Practices (BMP's)
Description	Implement BMPs to reduce water consumption and use (high water use to low water use) through water conservation practices such as education and use of xeriscaping.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
Status	In Progress. Currently utilizing public education program to encourage BMPs.

Mitigation Action	Civil Service Improvements
Description	Improve emergency rescue and response equipment and facilities by providing additional or updating existing emergency response equipment. This could include fire trucks, ATV's, water tanks/truck, 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) Addressed	All Hazards
Estimated Cost	Varies
Funding	Local Bond
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Not Started

Mitigation Action	Construct Cooling Stations
Description	Develop or designate cooling stations for community members. Work with the public to maintain a list of sites available for public use during extreme heat events. These sites should be available 24 hours per day or be made available after normal business hours.
Hazard(s) Addressed	Extreme Heat
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. New Action

Mitigation Action	Enroll in the National Flood Insurance Program (NFIP)
Description	Participate in the National Flood Insurance Program (NFIP).
Hazard(s) Addressed	Flooding
Estimated Cost	N/A
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, County Planning and Zoning
Status	In Progress. The village board voted to participate in NFIP but have not applied yet. The village is waiting until the county floodplain has been mapped, which should be completed by the fall of 2019.

Mitigation Action	Emergency Communication
Description	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. New Action

Mitigation Action	Establish Formal Drought Response Protocols
Description	Establish a response protocol for times of drought. This may include, but is not limited to: lawn watering restrictions, requirements for water intensive businesses (i.e. car washes, golf courses, etc.), responses for local facilities (swimming pools, public fountains, etc.).
Hazard(s) Addressed	Drought
Estimated Cost	\$2,500+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Water Commissioner, Village Clerk
Status	In Progress. Currently identifying appropriate drought protocol.

Mitigation Action	Event Cancellation
Description	Develop event cancellation notification procedures during extreme heat events.
Hazard(s) Addressed	Extreme Heat
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started. New Action

Mitigation Action	Fire Wise Defensible Space
Description	Work with the Nebraska Forest Service and US Forest Service to become a Fire Wise Communities/USA participant. Develop a Community Wildfire Protection Plan. Train land owners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	\$20,000
Funding	Rural Fire Board Funds
Timeline	2-5 Years
Priority	Medium
Lead Agency	Marquette Rural Fire
Status	In Progress. Working with NFS to establish requirements.

Mitigation Action	Improve 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) Addressed	Severe Winter Storms
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board / Public Works Commissioner
Status	Not Started. New Action

Mitigation Action	Intergovernmental Support
Description	Support other local governmental entities, such as fire departments, schools, and townships in the identification and pursuit of mitigation actions. Establish mutual aid agreements with neighboring jurisdictions.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Not Started. New Action

Mitigation Action	Monitor 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) Addressed	Drought
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Water Commissioner, Village Clerk
Status	Not Started. New Action

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Jurisdictions can update/improve water distribution system. This may include but is not limited to: identifying and replacing leaky pipes, assisting homeowners in identifying inefficiencies, and transitioning to smart irrigations systems. 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) Addressed	Drought, Tornadoes, Severe Thunderstorms, High Winds, Severe Winter Storms, Hail
Estimated Cost	\$50,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Water Commissioner, Village Clerk
Status	Not Started. New Action

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types. Work to develop and distribute educational materials related to drought and drought impacts. 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. Implement a tornado safety program.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund, Private Entity Donations, Local Gas Company
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Black Hills Energy
Status	In Progress. Currently working to incorporate mitigation into current Village and private entity educational programs

Mitigation Action	Source Water Contingency Plan
Description	Evaluate and locate new sources of groundwater.
Hazard(s) Addressed	Drought, Wildfire
Estimated Cost	\$5,000+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Establish a community safe room or safe areas for residents living in vulnerable structures/locations. Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Tornadoes, Severe Thunderstorms, High Wind
Estimated Cost	\$200-250 per Square Foot
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Not Started. New Action

Mitigation Action	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements, such as pipe upsizing and additional inlets, installation of retention and detention facilities can be implemented to decrease runoff rates while also decrease the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000 - \$100,000+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
Status	In Progress. Identifying areas in need of drainage improvements in and around the community.

Mitigation Action	Surge Protectors
Description	Purchase and install surge protectors on sensitive equipment in critical facilities.
Hazard(s) Addressed	High Winds, Severe Thunderstorms, Tornadoes, Severe Winter Storms, Hail
Estimated Cost	\$25 per Unit
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Not Started. New Action

Mitigation Action	Tree City USA – Tree Maintenance Program
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Estimated Cost	\$1,000+
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Marquette Improvement Committee
Status	Not Started.

Mitigation Action	Update Comprehensive Plan
Description	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$10,000+
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	Not Started. New Action

Section Seven | Village of Marquette Community Profile

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- ^{lxiv} Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>
- ^{lxv} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.
- ^{lxvi} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.
- ^{lxvii} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.
- ^{lxviii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.
- ^{lxix} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.
- ^{lxx} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.
- ^{lxxi} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.
- ^{lxxii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.
- ^{lxxiii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.
- ^{lxxiv} County Assessor. Personal correspondence, February 2019.
- ^{lxxv} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

COMMUNITY PROFILE

VILLAGE OF PHILLIPS



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

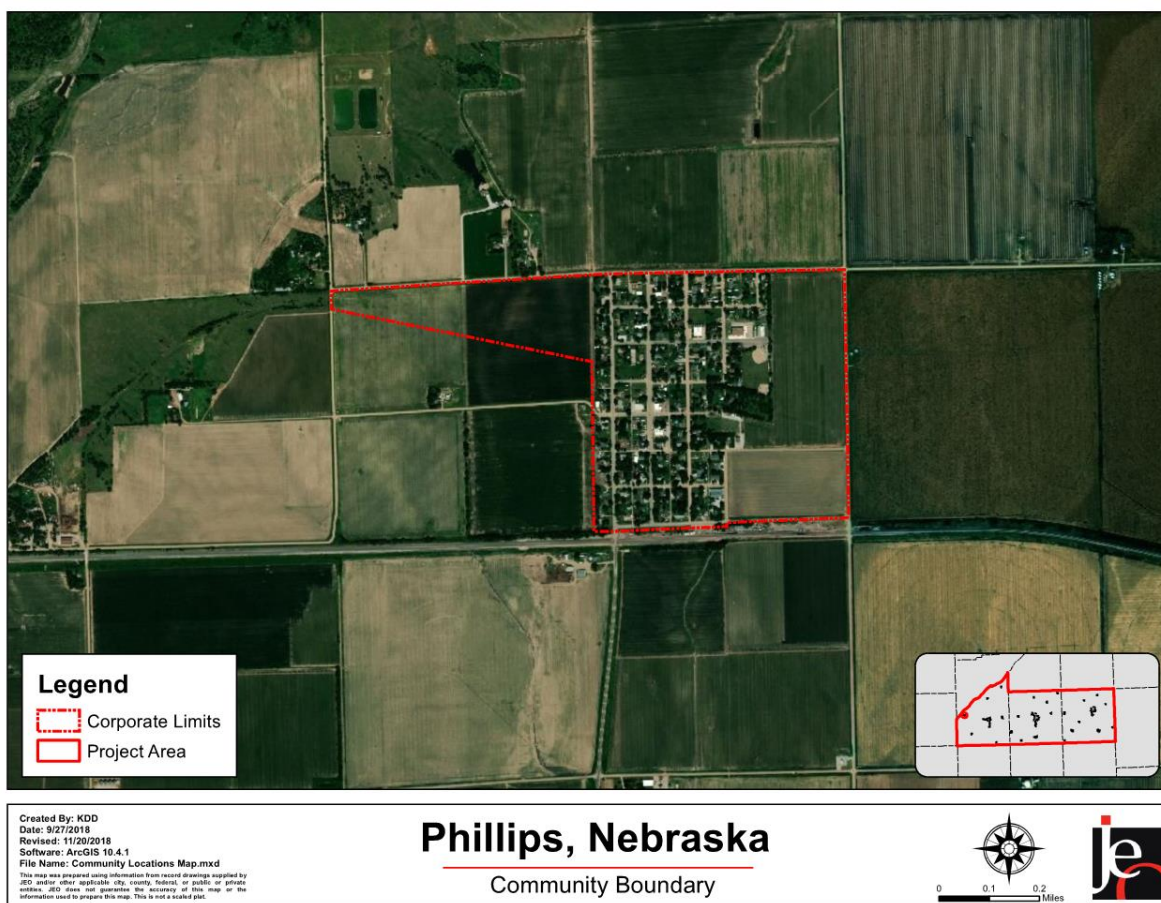
Table PHL.1: Phillips Local Planning Team

Name	Title	Jurisdiction
Jim Crawford	Village Chairperson	Village of Phillips
Cathie Walker	Village Clerk	Village of Phillips

Location and Geography

The Village of Phillips is located in the west central edge of Hamilton County and covers an area of 185 acres. The Platte River is located three miles from Phillips.

Figure PHL.1: Community Boundary



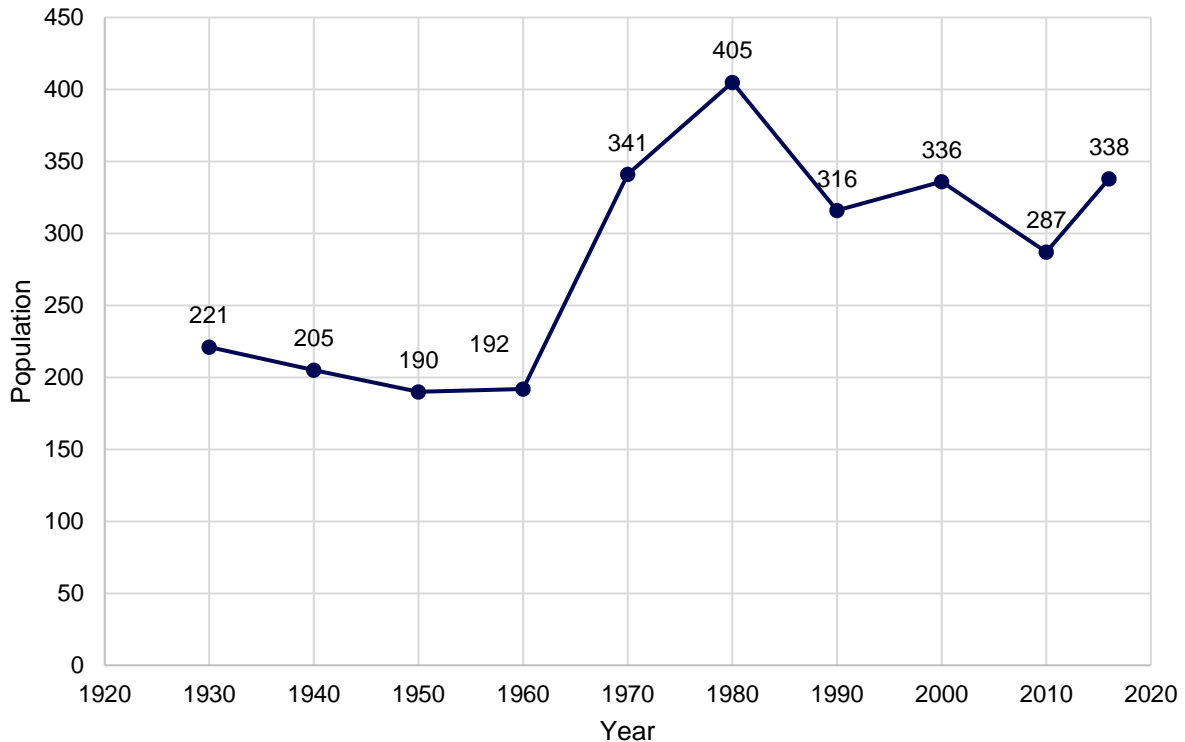
Transportation

Phillips's major transportation corridor includes Nebraska Highway S-41A which has 705 vehicles a day.^{lxvii} Phillips has one rail line, owned by Burlington Northern. The rail line runs east west through the southern edge of the village. Phillips does not have any airports located within or near the village. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents. The local planning team indicated that Nebraska Highway S-41A, 8th Street, and W. 15 Road are the transportation routes of most concern. Anhydrous Ammonia, fertilizers, and various farm chemicals are regularly transported along those routes.

Demographics

Phillips's population grew from 336 people in 2000 to about 338 people in 2016, an average annual increase of 0.04%. This is important because the population increase means increasing tax revenue and a lower level of unoccupied housing. Phillips's population accounted for 3.71% of Hamilton County's population in 2016.^{lxxvii}

Figure PHL.2: Population 1930 - 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- **Younger.** The median age of Phillips was 40.7 years old in 2016, compared with the county average of 42.5. Phillips's population grew younger since 2010, when the median age was 41.3 years old. Phillips had a larger proportion of people under 20 years old (32.3%) than the county (26.9%).^{lxxviii}
- **More ethnically diverse.** In 2010, 2.8% of Phillips's population was Hispanic or Latino. The Hispanic population in the county was 2.0%. By 2016, Phillips became more ethnically diverse, with 5.0% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 3.0%.^{lxxix}
- **More likely to be below the federal poverty line.** The poverty rate in Phillips (8.0% of families living below the federal poverty line) was slightly higher than the county's poverty rate (7.9%) in 2016.^{lxxx}

Employment and Economics

The Phillips economic base is a mixture of manufacturing and retail uses. In comparison to Hamilton County, Phillips's economy had:

- **Different mix of industries.** Phillips's major employment sectors, accounting for 10% or more of employment each, were: Manufacturing; Retail Trade; Transportation and Warehousing, and Utilities; and Educational Services, and Health Care and Social Assistance.^{lxxxix}
- **Lower household income.** Phillips's median household income in 2016 (\$44,844) was about \$14,900 lower than the county (\$59,760).^{lxxxii}
- **More long-distance commuters.** The local planning team indicated that a large percentage of residents commute.

Major Employers

Major employers within Phillips include Syngenta and Truly Nolen Pest and Termite Control. A large percentage of residents commute to Grand Island and Aurora for work.

Housing

In comparison to Hamilton County, Phillips's housing stock was:

- **Less renter-occupied.** About 11.4% of occupied housing units in Phillips are renter occupied compared with 19.2% of occupied housing in Hamilton county.^{lxxxiii}
- **Younger.** Phillips had a smaller share of housing built prior to 1970 than the county (44.0% compared to 53.9%).^{lxxxiv}
- **Less multifamily.** The predominant housing type in the village is single family detached, Phillips contains less multifamily housing with five or more units per structure compared to the county (0% compared to 3.4%). About 64.5% of housing in Phillips was single-family detached, compared with 88.1% of the county's housing. Phillips has a much larger share of mobile and manufactured housing (34.8%) compared to the county (4.8%).^{lxxxv}

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

Future Development Trends

In the last five years, ten new houses have been constructed and one house has been demolished. In addition, a new memorial hall and business were built. According to the latest American Community Survey estimates, Phillip's population has experienced an increase since 2010. An increasing population may result in a growing tax base, which may make implementing mitigation actions easier. The local planning team indicated that the growth was primarily due to lower taxes and people leaving Grand Island. Over the next five years, 25-40 new houses are planned on the east side of the village. No new businesses or industry is planned.

Structural Inventory and Valuation

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

Table PHL.2: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
238	\$8,362,640	\$35,137	0	\$0

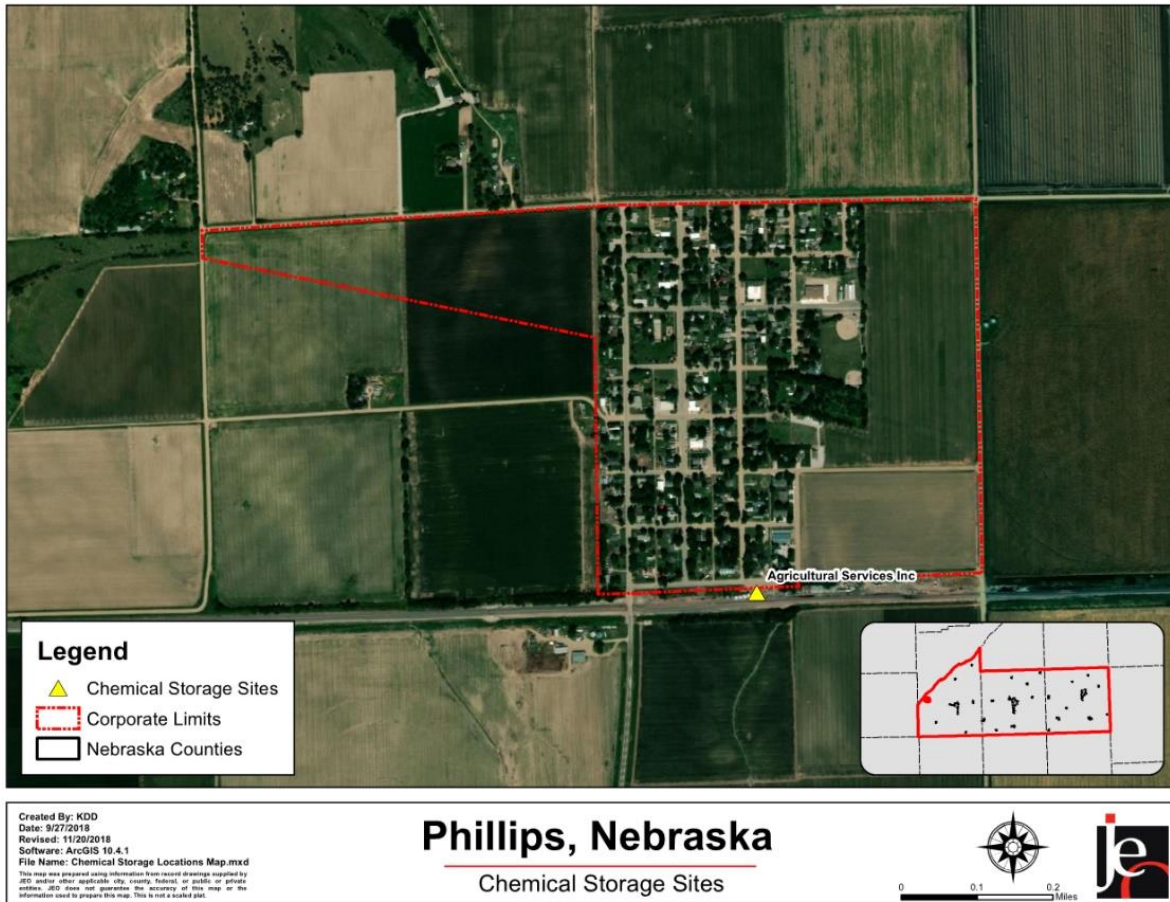
Source: Nebraska Department of Revenue, Property Assessment Division^{xxxvi}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is a total of one chemical storage site in Phillips. The map below shows the name and location of the site.

Figure PHL.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy^{xxxvii}

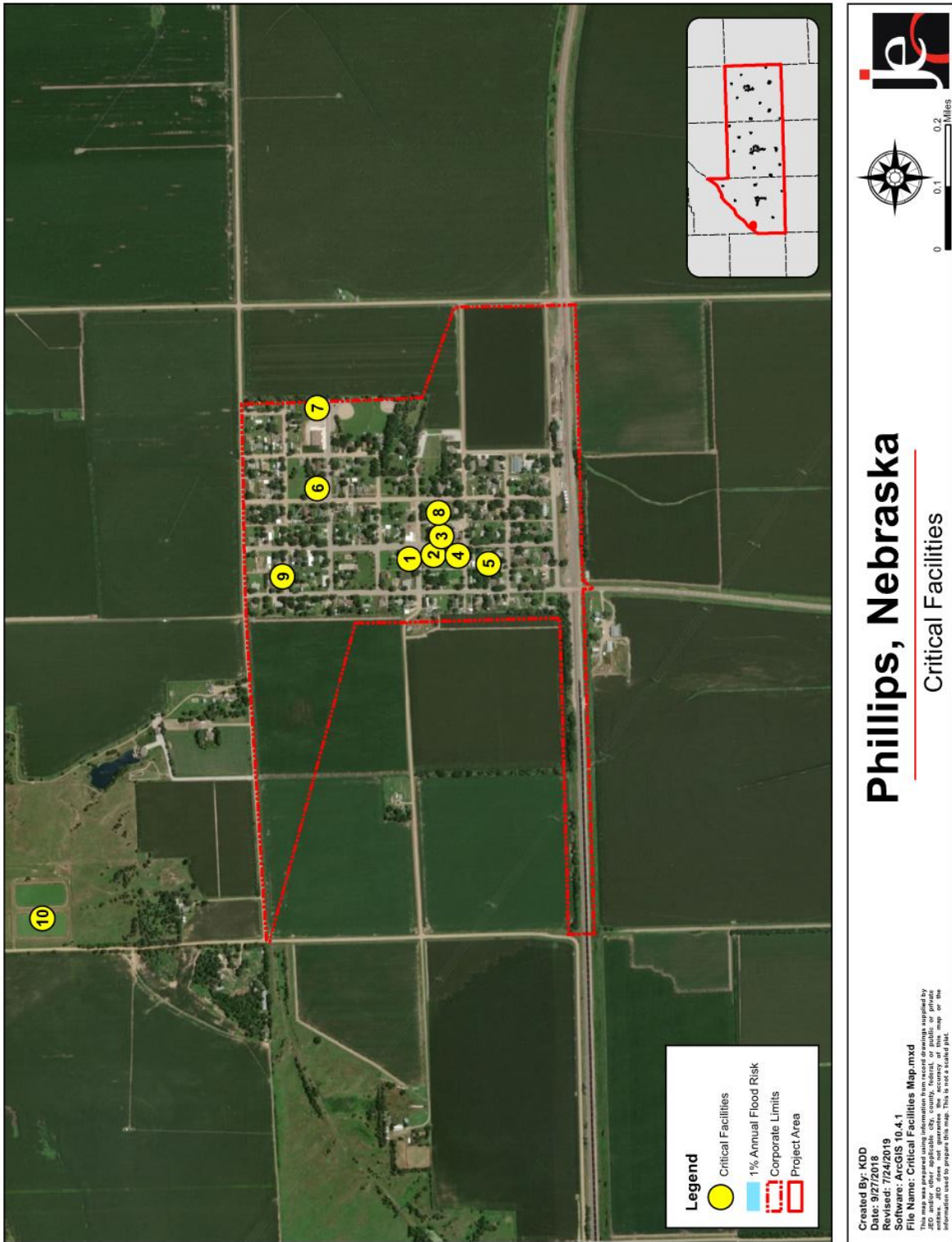
Critical Facilities

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. 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 PHL.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	City Hall / Fire Department	Y	N	N
2	Post Office	N	N	N
3	Stonemason Lodge	N	N	N
4	Maintenance Building	N	N	N
5	Water Tower	N	N	N
6	United Methodist Church	N	N	N
7	Community Center	N	N	N
8	Well #1	N	Y	N
9	Well #2	N	N	N
10	Wastewater Lagoon	N	N	N

Figure PHL.4: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Chemical Spills – Fixed Site

Phillips contains one large chemical storage site which is located on the south side of the community. This site contains a bulk Anhydrous Ammonia tank. The local planning team indicated that small off gassing has occurred in the past, but no large spills have occurred. Several of the village's critical facilities and many residential houses are located a few blocks from the storage tank. If a large spill were to occur, the village does not have an evacuation plan in place. The village maintenance person and fire department would likely be the first to respond.

Hail

NCEI data since 1996 shows that Phillips has experienced 15 hail events causing an estimated \$360,000 in property damage. The most damaging event occurred in 2005 when 1.75-inch hail caused \$150,000 in damages. The village is also heavily reliant on agriculture and hail storms pose high potential damages to crops. Hail can also damage critical facilities which can be very costly if not properly insured.

High Winds

The primary concern regarding high wind events is loss of power and damage to structures. The village has all overhead power lines, which are at high risk of power loss due fallen trees/limbs and downed power line poles. One of the village wells has a backup generator, but no other buildings in the community have backup generators. The village would like to add a backup generator to city hall. If needed, mutual aid agreements are in place with the nearby communities of Giltner, Aurora, and Marquette.

Severe Thunderstorms

The local planning team indicated that severe thunderstorms are the most common occurrence for the community. In 1997 Phillips experienced a thunderstorm wind event where 80 mph winds caused an estimated \$100,000 in property damages. There are no storm shelters in the community, but residents can go to the city hall for shelter if needed. The village has one alert siren, however the local planning team indicated that it is very old and is in need of updating. No weather radios were reported at critical facilities.

Severe Winter Storms

After a large snow event, the local planning team indicated that the main north and south streets are designated snow routes. The village handles the snow removal and has a dump truck with a blade and a tractor. Typically, this equipment can handle most severe winter storm events. However, in 2008 an ice storm and heavy snow forced the village to have to rent a plow for snow/ice removal. The local planning team also indicated that several local residents and farmers are willing to loan the village removal equipment if needed.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Phillips has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Phillips has five village board members and the following offices that may help implement mitigation actions.

- Clerk/Treasurer
- Attorney
- Fire Chief
- Village Maintenance
- Parks and Recreation Department
- Planning Commission
- Engineer

Capability Assessment

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

Table PHL.4: Capability Assessment

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

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

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Limited
Does your community have the staff/expertise to implement projects?	Moderate
Does your community have the community support to implement projects?	High
Does your community staff have the time to devote to hazard mitigation?	Moderate

Plan Integration

Phillips participates in planning and zoning with the county. This allows Phillips to have codes and plans that might otherwise be cost prohibitive to develop. The comprehensive plan representing Phillips has not been updated since the 2009 hazard mitigation plan was developed so there are no changes related to how hazard mitigation has been incorporated into that document. At this time there is no planned update for the comprehensive plan. Phillips also collaborates with the county for building codes and zoning ordinances. Building codes are sufficient for the hazards that occur with regularity.

The village's Local Emergency Operations Plan (LEOP) is an annex to the 2017 Hamilton County plan. The LEOP discusses hazards of greatest concern, assigns specific responsibilities, identifies evacuation routes, and lists shelter locations. This plan is updated on a regular basis as determined by Hamilton County Emergency Management. No other examples of plan integration

were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

Completed Mitigation Actions

Mitigation Action	New Municipal Well
Hazard(s) Addressed	Drought
Status	Completed in 2017 by the water tower.

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine if sirens should be replaced or upgraded. Install new sirens where needed.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000+
Funding	Water Fund, Street Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Planning Stage

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters. The village would like to add a backup generator for the city hall and wastewater lagoon.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds, Hail, Tornadoes
Estimated Cost	\$3,500+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Village Maintenance
Status	Identifying generator needs for city hall and wastewater lagoon.

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	Water Fund, Street Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Not Started

Section Seven | Village of Phillips Community Profile

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas. The village maintenance building is the most likely option at this point.
Hazard(s) Addressed	Tornadoes, Severe Thunderstorms, High Winds
Estimated Cost	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
Funding	Water Fund, Street Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Undersized systems can contribute to localized flooding. Stormwater system improvements, such as pipe upsizing and additional inlets, installation of retention and detention facilities can be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Problem areas include 5 th and East Street intersection, down to 4 th Street and east to 8 th Street; 6 th and East Street intersection; and 7 th and East Street intersection.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000+
Funding	Water Fund, Street Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Maintenance
Status	Currently evaluating strategies to improve drainage in problem areas.

Mitigation Action	Tree and Refuse Disposal Site
Description	Locate and enclose a new site for safe tree/refuse disposal area for village residents.
Hazard(s) Addressed	Wildfire, Severe Thunderstorms, High Winds, Tornadoes, Hail, Severe Winter Storms
Estimated Cost	Depends on location
Funding	Water Fund, Street Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Village Maintenance, Planning Commission
Status	Not Started

Mitigation Action	Tree City USA – Tree Maintenance Program
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Hail
Estimated Cost	\$1,000+
Funding	Water Fund, Street Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Village Maintenance
Status	Not Started

Removed Mitigation Actions

Mitigation Action	Participate in the National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	This action was removed by the local planning team as there is no local support for this action. The village is not in the floodplain and has not experienced flooding issues in the past other than localized nuisance flooding. If circumstances change and flooding becomes an issue, the planning team will reevaluate this action.

Mitigation Action	Static Detectors
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Hail
Reason for Removal	The local planning team removed this mitigation action because there are several other alert systems available. Individuals can use their phones or emergency text alerts from the county.

^{lxxxvi} Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>

^{lxxxvii} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

^{lxxxviii} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{lxxxix} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{lxxx} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxxxii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxxxiii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxxxiv} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxxxv} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{lxxxvi} County Assessor. Personal correspondence, February 2019.

^{lxxxvii} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.

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COMMUNITY PROFILE

VILLAGE OF STOCKHAM



Upper Big Blue Natural Resources District Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

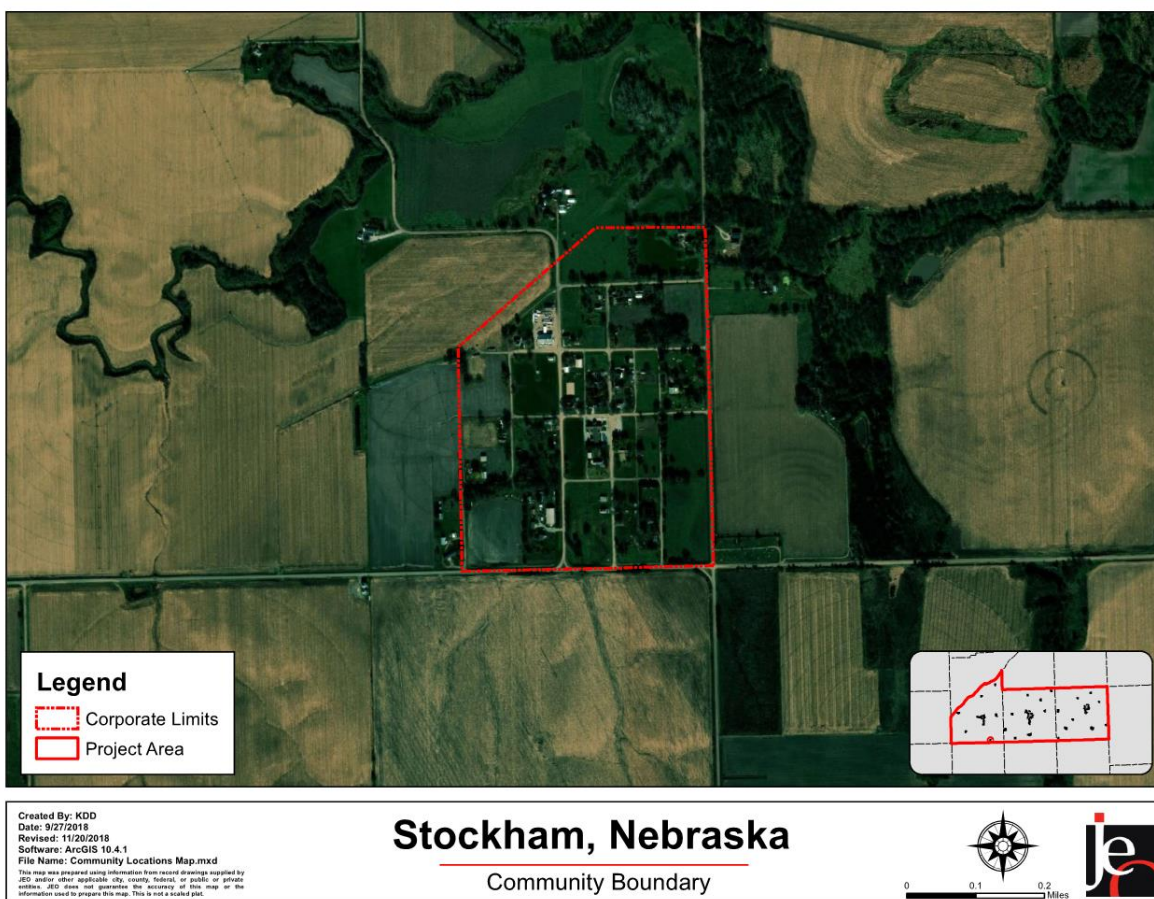
Table SKM.1: Stockham Local Planning Team

Name	Title	Jurisdiction
Berdon Kliewer	Board Chairman	Village of Stockham

Location and Geography

The Village of Stockham is located in the southeast portion of Hamilton County and covers an area of 109 acres. The west fork of the Big Blue River is located just north of Stockham and the Rainwater Basin Wildlife Management District is located three miles to the west.

Figure SKM.1: Community Boundary



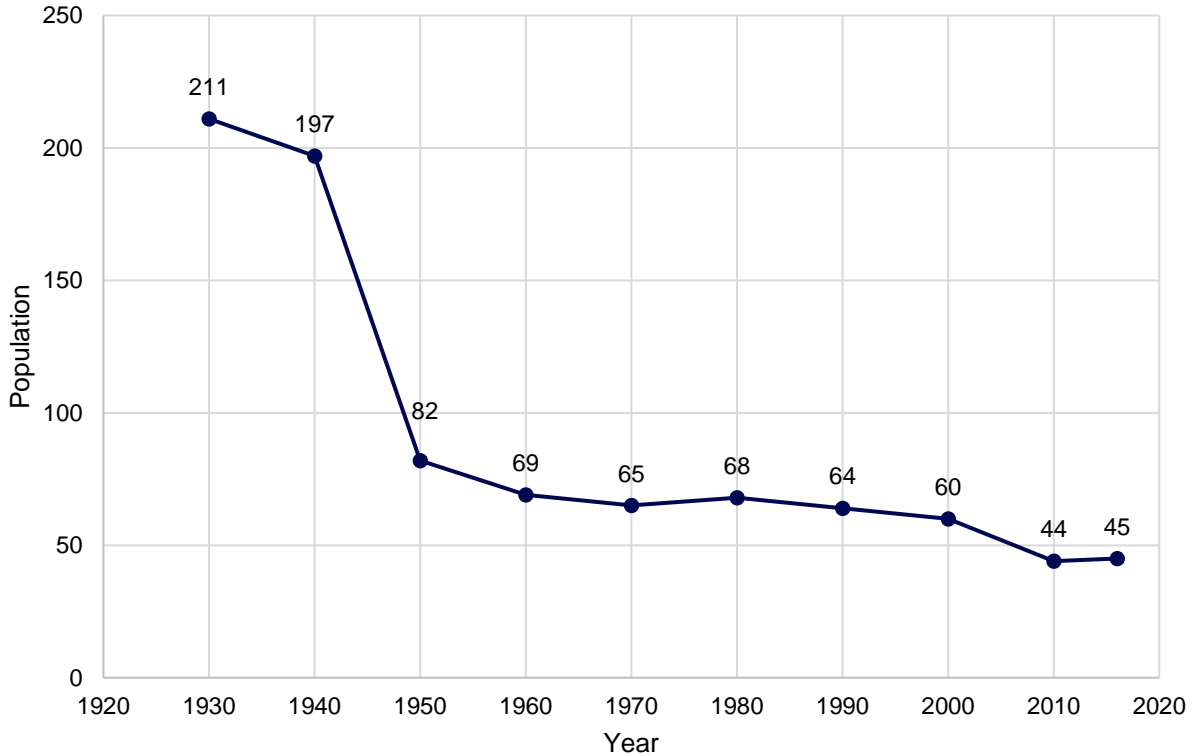
Transportation

Stockham’s major transportation corridor includes County Road T and County Road 2. Average vehicle numbers per day is not known for these county roads.^{lxxxviii} Stockham does not have any rail lines or airports located within or near the village. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents. The local planning team indicated that farm chemicals and Anhydrous Ammonia are sometimes transported along County Road 2.

Demographics

Stockham’s population declined from 60 people in 2000 to about 45 people in 2016, an average annual decrease of 1.56%. This is important because the population decline means less tax revenue and a higher level of unoccupied housing. Stockham’s population accounted for 0.49% of Hamilton County’s population in 2016.^{lxxxix}

Figure SKM.2: Population 1930 - 2016



Source: U.S. Census Bureau
 *2016 Population from American Community Survey

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

- **Older.** The median age of Stockham was 56.8 years old in 2016, compared with the county average of 42.5. Stockham’s population grew older since 2010, when the median age was 52.0 years old. Stockham had a smaller proportion of people under 20 years old (17.8%) than the county (26.9%).^{xc}
- **Less ethnically diverse.** In 2016, 0.0% of Stockham’s population was Hispanic or Latino. The Hispanic population in the county was 3.0%.^{xcii}
- **Less likely to be below the federal poverty line.** The poverty rate in Stockham (0.0% of families living below the federal poverty line) was lower than the county’s poverty rate (7.9%) in 2016.^{xciii}

Employment and Economics

The Stockham economic base is a mixture of manufacturing and educational uses. In comparison to Hamilton County, Stockham's economy had:

- **Different mix of industries.** Stockham's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; retail trade; finance and insurance, and real estate and rental and leasing; and educational services and health care and social assistance.^{xciii}
- **Higher household income.** Stockham's median household income in 2016 (\$92,750) was about \$32,900 higher than the county (\$59,760).^{xciv}
- **More long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major Employers within Stockham include Central Valley Ag and Held Construction. A large percentage of residents commute to Aurora for employment.

Housing

In comparison to Hamilton County, Stockham's housing stock was:

- **Less renter-occupied.** About 6.7% of occupied housing units in Stockham are renter occupied compared with 19.2% of occupied housing in Hamilton County.^{xcv}
- **Older.** Stockham had a larger share of housing built prior to 1970 than the county (73.4% compared to 53.9%).^{xcvi}
- **Less multifamily.** The predominant housing type in the village is single family detached, Stockham contains less multifamily housing with five or more units per structure compared to the county (0% compared to 3.4%). About 100% of housing in Stockham was single-family detached, compared with 88.1% of the county's housing. Stockham has a smaller share of mobile and manufactured housing (0.0%) compared to the county (4.8%).^{xcvii}

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, tornados, and severe winter storms. Stockham does not have any mobile homes within the community.

Future Development Trends

In the last five years, there has been no changes in housing, businesses, or industry. According to the latest American Community Survey estimates, Stockham's population has experienced a very slight increase. In the next five years, no housing, businesses or industry is planned.

Structural Inventory and Valuation

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

Table SKM.2: Structural Inventory/Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
38	\$1,162,175	\$30,584	9	\$241,275

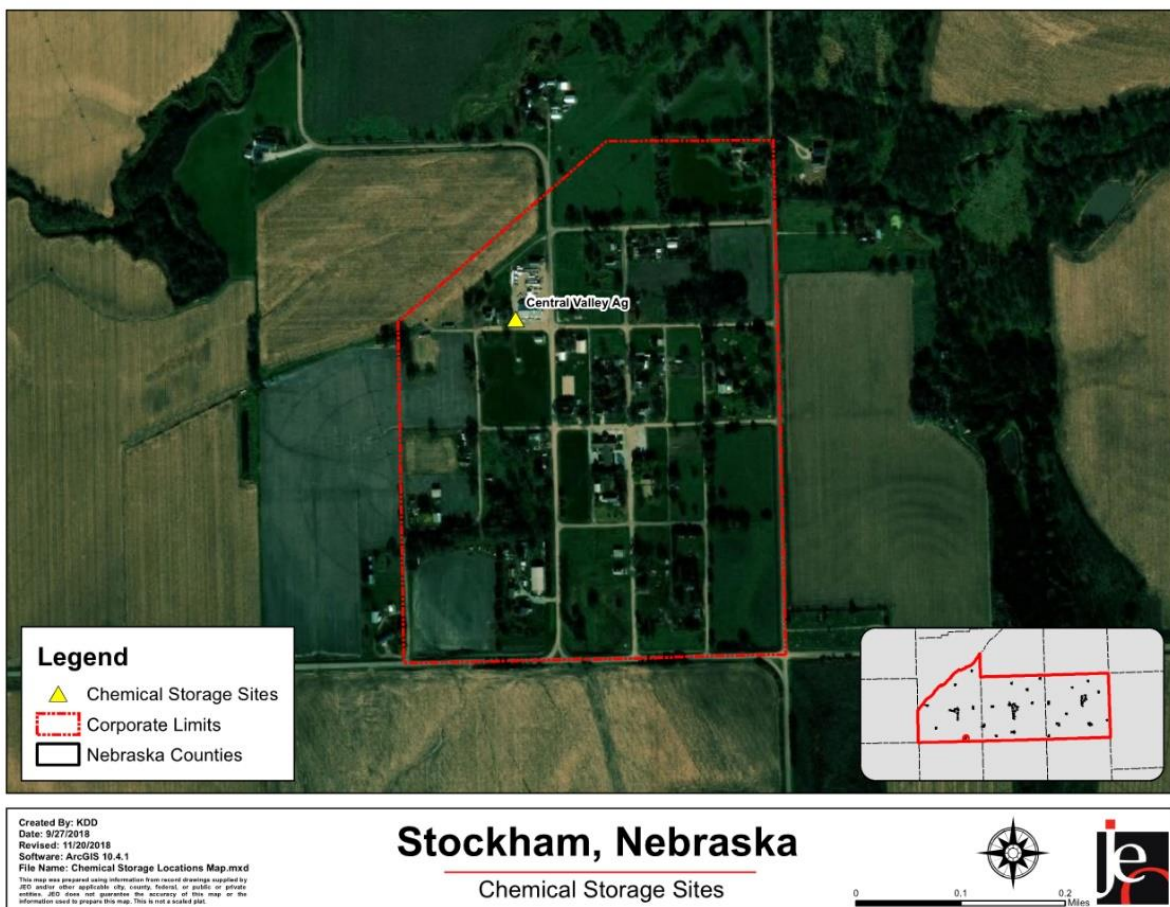
Source: Nebraska Department of Revenue, Property Assessment Division^{xviii}

Critical Infrastructure/Key Resources

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there is a total of one chemical storage site in Stockham. The map below shows the name and location of the site.

Figure SKM.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy^{xvix}

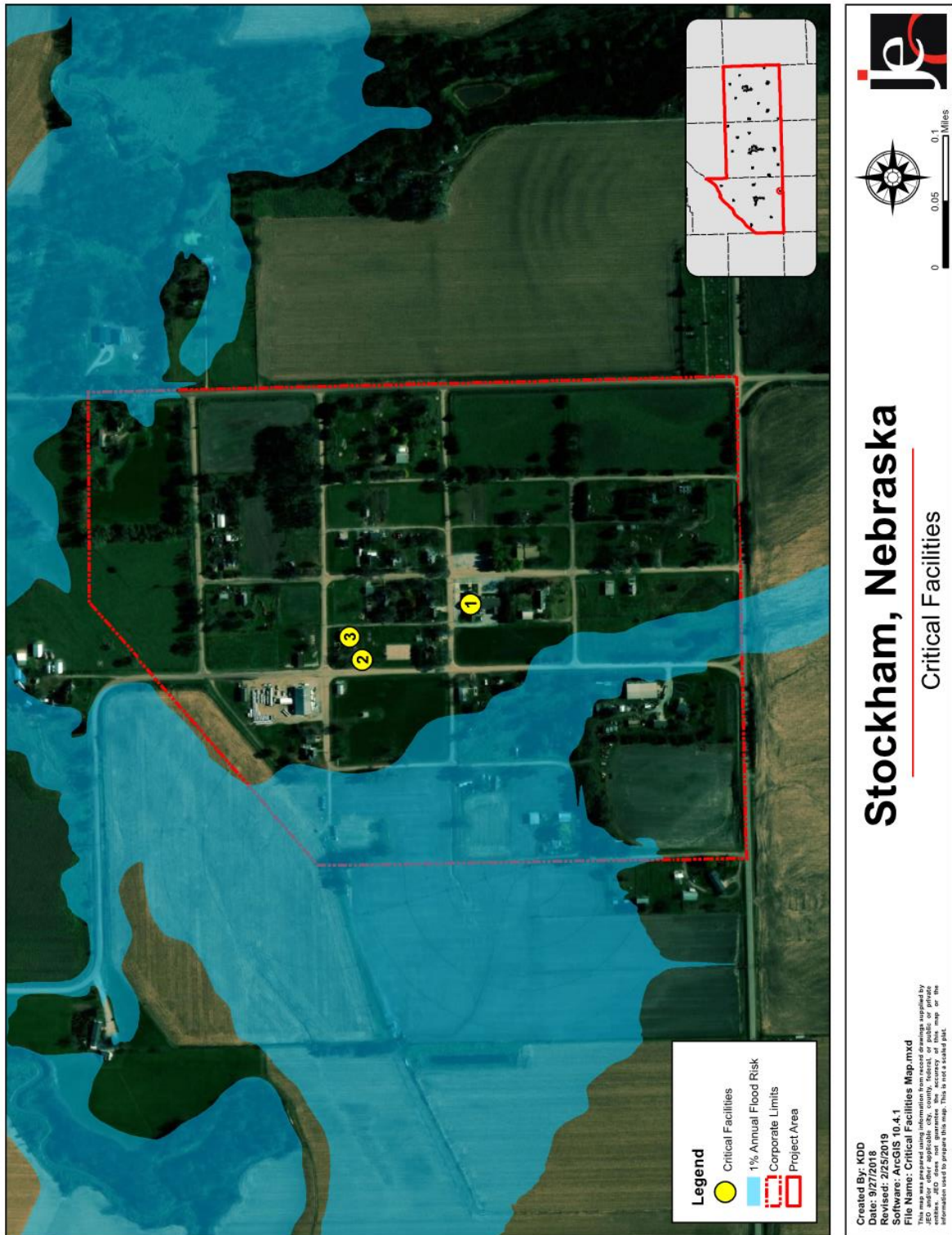
Critical Facilities

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. 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 SKM.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Stockham Community Church	N	N	N
2	Park Building / Siren	N	N	N
3	Village Hall	N	N	N

Figure SKM.4: Critical Facilities



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Historical Occurrences

See the Hamilton County community profile for historical hazard events.

Hazard Prioritization

For an in-depth discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

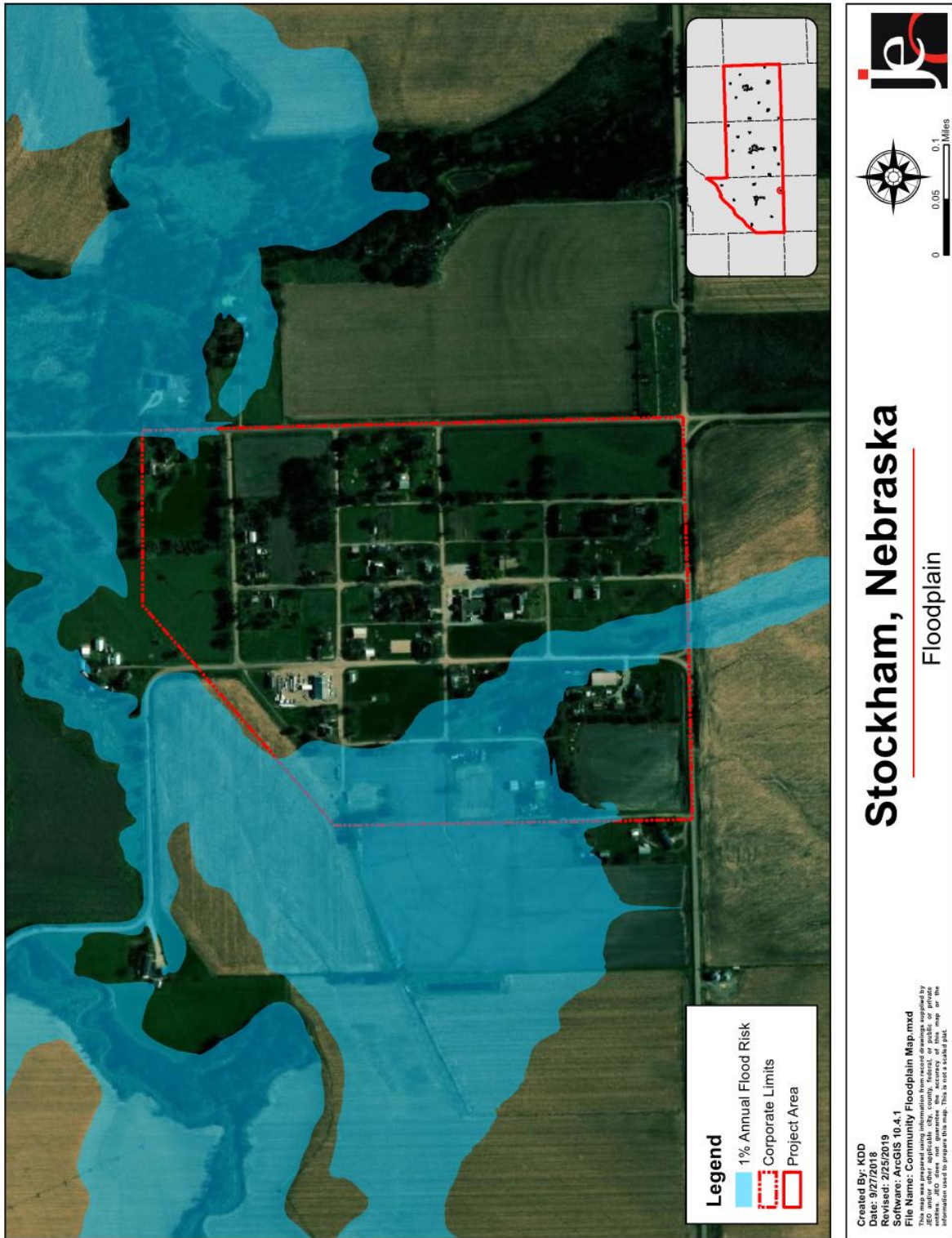
Chemical Spills – Fixed Site

There have been no historic records of spills, but the risk is still there. There is one large chemical storage site in the community, Central Valley Ag. The site contains bulk agricultural chemicals and Anhydrous Ammonia. If an anhydrous spill were to occur and wind conditions were right, the entire village may need to be evacuated. The planning team indicated that the fire department would respond to any major spill and that most residents know what to do if a large spill occurred.

Flooding

Flooding in the community primarily comes from a draw that runs through the middle of the village. The capacity of the draw is not large enough to handle the capacity of a large rain event. This causes streets to flood, especially along Main Street and Williams Street. Flooding typically does not affect local residences. During the March 2019 floods, the local planning team indicated that the village only experienced minor street flooding and plugged culverts. No homes or businesses were damaged. Part of the village is also located in the 100-year floodplain as shown in Figure SKM.5. The floodplain is primarily located on the western edge and south-central portion of the village. Stockham does not participate in the National Flood Insurance Program (NFIP).

Figure SKM.5: Stockham Floodplain



*Note: Floodplain is based off preliminary FIRM maps. Final effective FIRM maps are currently being produced.

Hail

The local planning team is primarily concerned with damage to roofs and windows. NCEI data shows that Stockham has experienced 18 hail events since 1996. These events have resulted in an estimated \$222,000 in property damage. The largest damage event occurred in June of 1997 when 1.5-inch sized hail caused \$125,000 in property damage. As indicated by the previous estimates, this hazard can cause significant damage to critical facilities, businesses, residential properties, and crops. Much of the housing in Stockham is older with 73% built prior to 1970. These homes are more vulnerable to hail damage as they are less likely to be built with hail resistant materials.

High Winds

NCEI data classifies high winds as “zonal” in nature, which means that only county information is given. There were 22 recorded high wind events in Hamilton County, which lead to \$1,259,000 in property damages. Unfortunately, there is no way to know the specific damages that occurred in Stockham. High winds can cause power loss from fallen trees and limbs. The planning team indicated that property owners take care of the trees on their property and there are very few hazardous trees that need to be removed. The community would still like to become a Tree City USA participant.

Severe Thunderstorms

NCEI data shows that Stockham experienced two major thunderstorm wind events since 1996. These two events resulted in \$75,000 in property damages. The community does not have a certified storm shelter, but the church does open if people need a place to go for shelter. The local planning team indicated that there are no buried power lines in the community, but power loss has not been a large issue. The community has experienced power losses in the past, however it has never been for more than a day. The village does not have surge protection at its critical facilities and is considering an installation of weather radios at the church.

Severe Winter Storms

Severe winter storms are considered by NCEI to be “zonal” in nature, which means that only county information is given. Hamilton County has experienced 76 severe winter events since 1996. These events have caused approximately \$4,665,000 in property damage. However, there is no way to know how much of that damage occurred in Stockham. Stockham indicated having sufficient snow removal equipment as there is an inter-local agreement with Hamilton County to provide snow removal services during winter storm events. None of the critical facilities or shelter areas have back up power generators. However, local farms can bring in a portable generator to the church for heat and water.

Tornadoes

The local planning team indicated that several tornadoes have occurred two to three miles outside the community, but none have occurred within the village. The community does not have a certified storm shelter, but the village would like to have one in their park. In the event of a tornado, most houses have basements and those that don't could use the church as a shelter. The community does have one tornado siren which can be set off by the county sheriff. The planning team indicated that the tornado siren is an older model and is not very loud or powerful. There may be some areas in the community that the siren cannot be heard unless a person is outside. The community is considering the need to purchase an upgraded tornado siren.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Stockham has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Stockham has five village board members and the following offices that may help implement mitigation actions.

- Clerk/Treasurer
- Volunteer Fire Department
- Board Chairman

Capability Assessment

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

Table SKM.4: Capability Assessment

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

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

Overall Capability	Limited/Moderate/High
Does your community have the financial resources needed to implement mitigation projects?	Limited
Does your community have the staff/expertise to implement projects?	Limited
Does your community have the community support to implement projects?	Moderate
Does your community staff have the time to devote to hazard mitigation?	Limited

Plan Integration

Stockham participates in comprehensive planning and zoning with the county. This allows Stockham to have codes and plans that might otherwise be cost prohibitive to develop. The comprehensive plan representing Stockham has not been updated since the 2009 hazard mitigation plan was developed so there are no changes related to how hazard mitigation has been incorporated into that document. At this time the comprehensive plan and zoning is being updated by the county. Updates will likely be completed by 2020.

Stockham also collaborates with the county for building codes. Building codes are sufficient for the hazards that occur with regularity. When building codes are revisited in the future the community may consider encouraging the use of building materials that will help reduce structural damages as well as some non-structural impacts resulting from natural hazards. There are no additional plans to further integrate the hazard mitigation plan at this time.

Mitigation Strategy

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Currently the village would like to upgrade their existing siren.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000+
Funding	General Fund, Nonprofit Organization Donations
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power for the Stockham Community Church.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$15,000 - \$30,000 per generator
Funding	General Fund, Nonprofit Organization Donation
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Develop an evacuation plan to be prepared for any disaster that would require evacuation.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$2,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. In addition, educate citizens on erosion control and water conservation methods. Educate residents on response and rescue plans for all hazard types.
Hazard(s) Addressed	All Hazards
Estimated Cost	\$500+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct fully supplied storm shelters and safe rooms in highly vulnerable areas. Currently, the village is looking at the possibility of having a safe room in the park.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	\$200-\$300/sf stand alone; \$150-\$200/sf addition/retrofit
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Improve stormwater pipes and inlets by replacing undersized systems with larger pipes and additional inlets. Retention and detention facilities may also be implemented. Improvements will primarily be for the intersection at Main Street and Williams Street.
Hazard(s) Addressed	Flooding
Estimated Cost	\$100,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Tree City USA – Tree Maintenance Programs
Description	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limited potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Estimated Cost	\$200+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Weather Radios
Description	Provide a new weather radio at the Stockham Community Church.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	\$50
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Removed Mitigation Actions

Mitigation Action	Enroll in the National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this action. There has been previous discussion within the village about joining NFIP and the residents were not interested. The village will not allow new homes to be constructed in the floodplain.

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This mitigation action was removed because the village is capable of implementing this action at this time. The village will continue to work with the county to improve their warning systems.

^{lxxxviii} Nebraska Department of Roads. "Traffic Flow Map of the State Highways: State of Nebraska." [map]. Scale 1"= 20 miles. State of Nebraska: Department of Roads, 2015. <http://www.roads.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf>

^{lxxxix} United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

^{xc} United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

^{xcii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xciii} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xciv} United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xcv} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xcvi} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xcvii} United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

^{xcviii} County Assessor. Personal correspondence, February 2019.

^{xcix} Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. <https://deq-iis.ne.gov/tier2/tier2Download.html>.