COMMUNITY PROFILE

SEWARD COUNTY

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

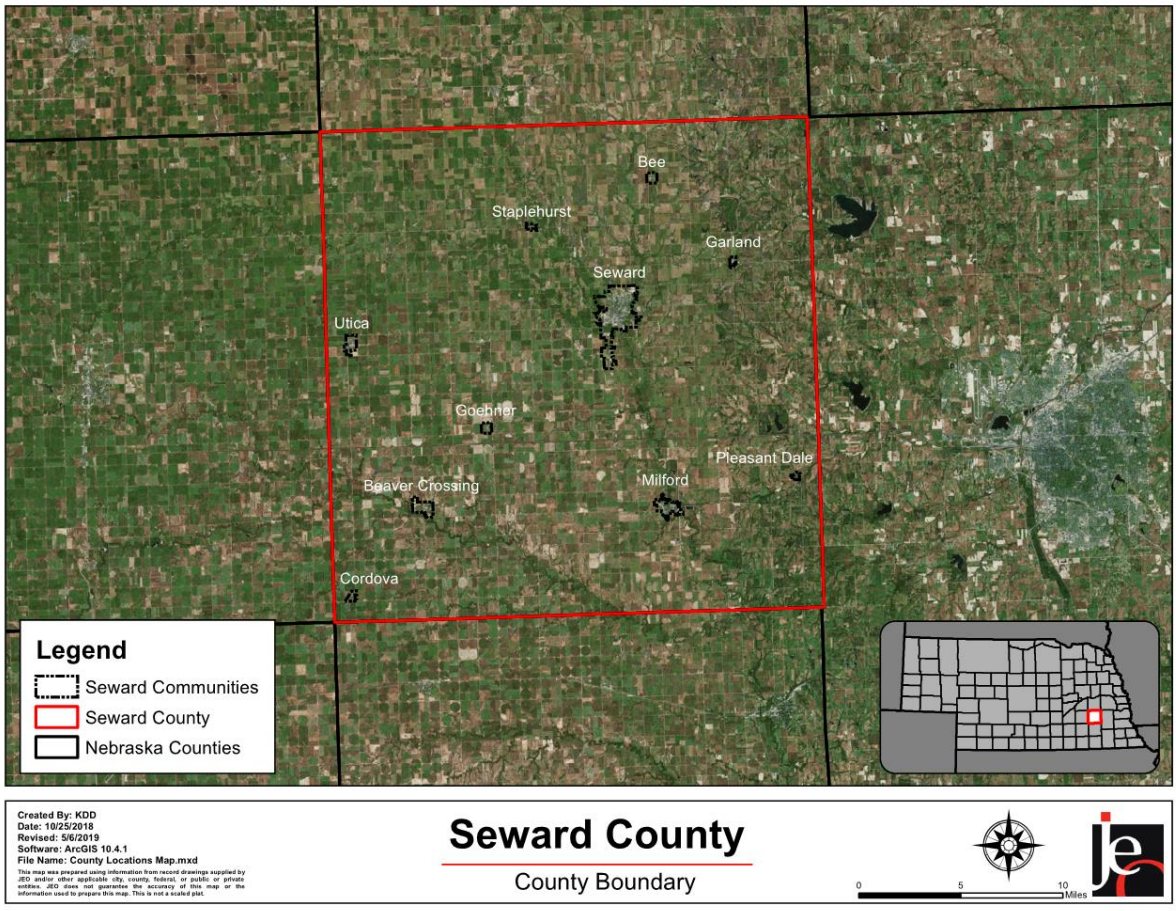
Table SCO.1: Seward County Local Planning Team

Name	Title	Jurisdiction
Gary Petersen	Seward/York County Emergency Manager	Seward County
Casey Keim	Highway Superintendent	Seward County

Location and Geography

Seward County is located in east central Nebraska and is bordered by York, Butler, Lancaster and Saline counties. The total area of Seward County is 576 square miles. Major waterways within the county include Twin Lakes, Indian Creek, Lincoln Creek, Big Weedy Creek, Plum Creek, Wolf Creek, South Branch Middle Creek, Middle Oak Creek, and Big Blue River. Most of Seward County lies in the plains topographic region[i], with the vast majority of the county's land characterized by agricultural fields.

Figure SCO.1: County Boundary



Climate

For Seward County, the normal high temperature for the month of July is 87.2°F and the normal low temperature for the month of January is 12.0°F. On average, Seward County receives 28.21 inches of rain and 21.2 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 be more likely, which could impact vulnerable populations.

Table SCO.2: Climate Indicators

	Seward County	State of Nebraska
July Normal High Temp	87.2°F	87.4°F
January Normal Low Temp	12.0°F	13.8°F
Annual Normal Precipitation	28.21”	23.8”
Annual Normal Snowfall	21.2”	25.9”

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

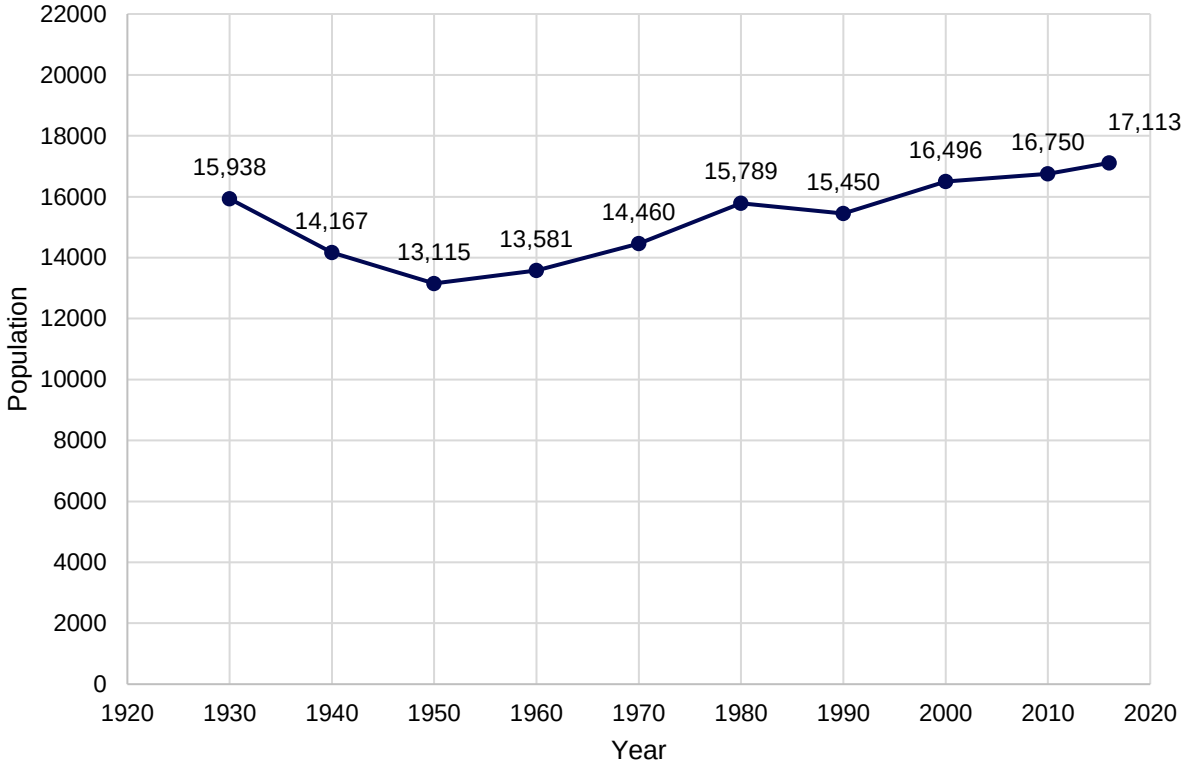
Transportation

Seward County’s major transportation corridors include Interstate 80, U.S. Highway 34, U.S. Highway 6, Nebraska Highway 15, and two Burlington Northern rail lines. The county also has 5 airports or heliports dispersed throughout the county. This information is important to hazard mitigation plans insofar as is suggests possible evacuation corridors in the county, as well as areas more at risk to transportation incidents. Interstate 80, Highway 34, Highway 6, and Highway 15 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. 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 Seward County has been increasing since 2000. This is notable for hazard mitigation because communities with an increasing population may also have a lower level of unoccupied housing that is not being kept up. Furthermore, areas with increasing population will be more prone to pursuing residential/commercial development in their areas, which may increase the number of structures vulnerable to hazards in the future. Increasing populations can also represent increasing tax revenue for the county which could make implementation of mitigation actions more fiscally feasible.

Figure SCO.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. Seward 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 SCO.3: Population by Age

Age	Seward County	State of Nebraska
<5	6.2%	6.9%
5-64	77.1%	78.7%
>64	16.7%	14.5%
Median	38.1	36.2

Source: U.S. Census Bureau[v]

The following table indicates that median household income is higher than the State of Nebraska, but the per capita income is slightly lower when compared to the state. Median home values are higher 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 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.

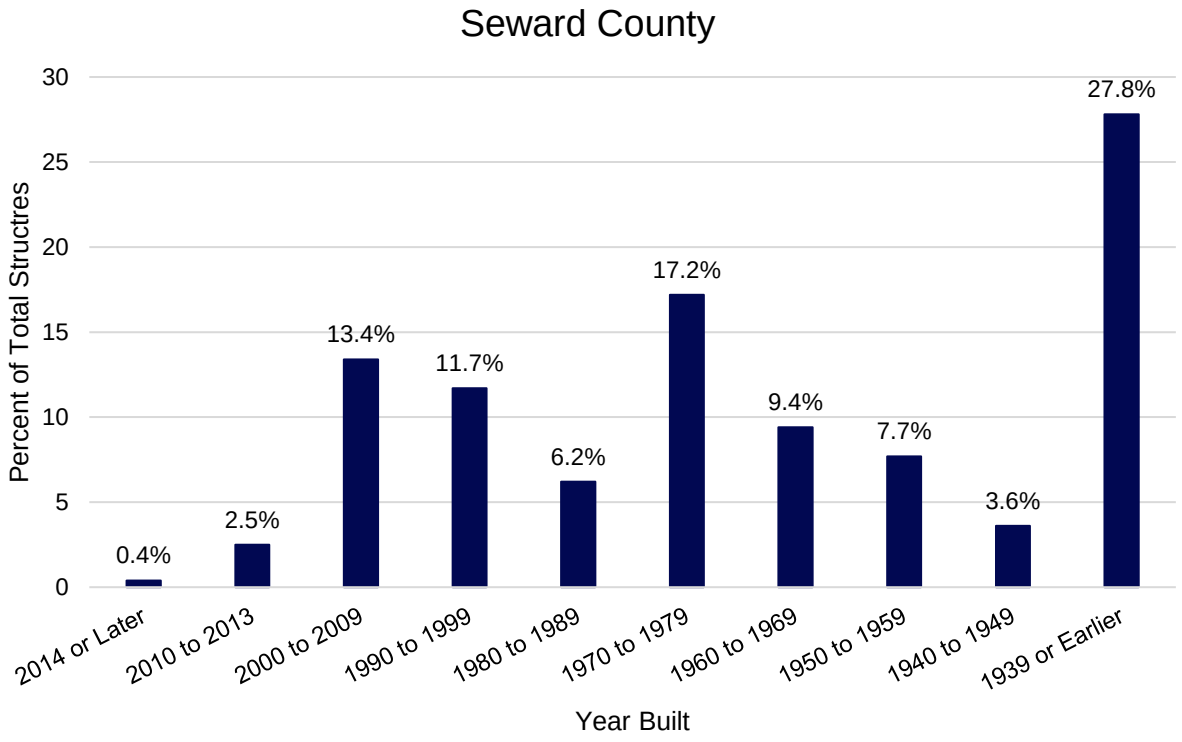
Table SCO.4: Housing and Income

	Seward County	State of Nebraska
Median Household Income	$61,563	$54,384
Per Capita Income	$28,491	$28,596
Median Home Value	$154,200	$137,300
Median Rent	$710	$745

Source: U.S. Census Bureau[vi]

The following figure indicates that the majority of housing in Seward County was built prior to 1939 (27.8%). According to 2011-2016 ACS 5-year estimates, the county has 6,993 housing units with 90.8% of those units occupied. There are approximately 222 mobile homes in the county. The current Flood Insurance Rate Map (FIRM) was developed in March 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, tornados, and severe winter storms. There are no mobile home parks located in unincorporated areas of the county.

Figure SCO.3: Housing Units by Year Built



Source: Source: U.S. Census Bureau[vii]

Table SCO.5: Housing Units

Jurisdiction	Total Housing Units					Occupied Housing Units			
	Occupied		Vacant			Owner		Renter	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
Seward County	6,348	90.8%	645	9.2%		4,579	72.1%	1,769	27.9%
Nebraska	741,581	91.0%	73,425	9.0%		487,806	66.0%	251,775	34.0%

Source: U.S. Census Bureau[viii],[ix]

Major Employers

According to 2016 Business Patterns Census Data, Seward County had 463 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 SCO.6: Business in Seward County

	Total Businesses	Number of Paid Employees	Annual Payroll (in thousands)
Total for All Sectors	463	5,669	190,503

Source: U.S Census Bureau[x]

Agriculture is also important to the economic fabric of Seward County, and the State of Nebraska as a whole. Seward County's 992 farms cover 354,857 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 SCO.7: Seward County Agricultural Inventory

Seward County Agricultural Inventory	
Number of Farms	992
Land in Farms	354,857

Source: USDA 2012 Census of Agriculture[xi]

Future Development Trends

In the last five years, single family housing and the agricultural sector have grown across the county. Agricultural growth has come from chicken farms being built. No new roads or infrastructure has gone in during this time. All of the development that occurred in the county was outside of the floodplain. According to the 2016 American Community Survey, Seward County has increased in population since 1990. A growing population may result in an increasing tax base, which may make implementing mitigation actions easier. In the next five years, the City of Seward is likely to have three different housing developments. In addition, the county is likely to experience additional confined feeding operations.

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 SCO.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
9,287	$1,040,401,195	$112,028	1,415	$123,958,347

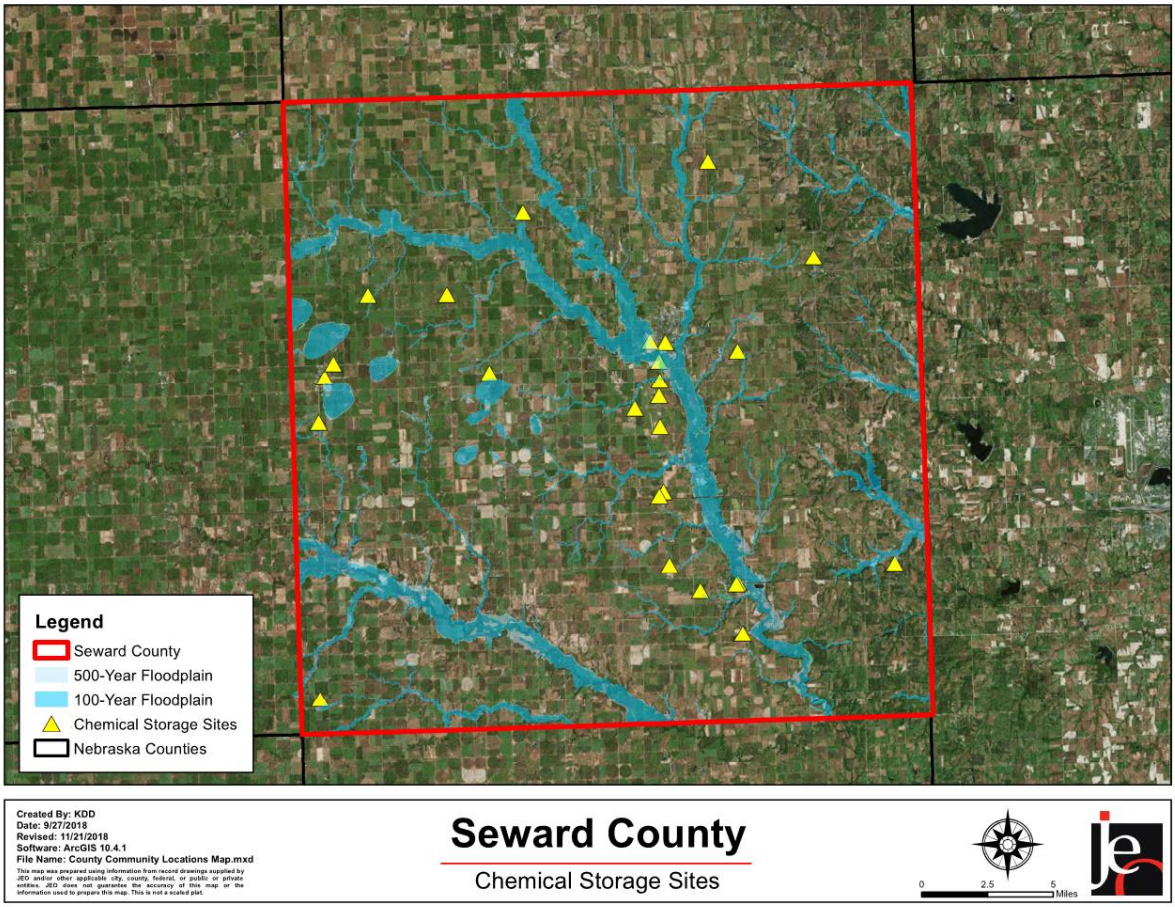
Source: GIS Workshop/Seward County Assessor[xii]

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 27 chemical storage sites in Seward County. One chemical storage site is located in the 500-year floodplain. For a description and map of the other chemical sites located in incorporated areas, please see the jurisdiction's participant section.

Figure SCO.4: Chemical Storage Fixed 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.

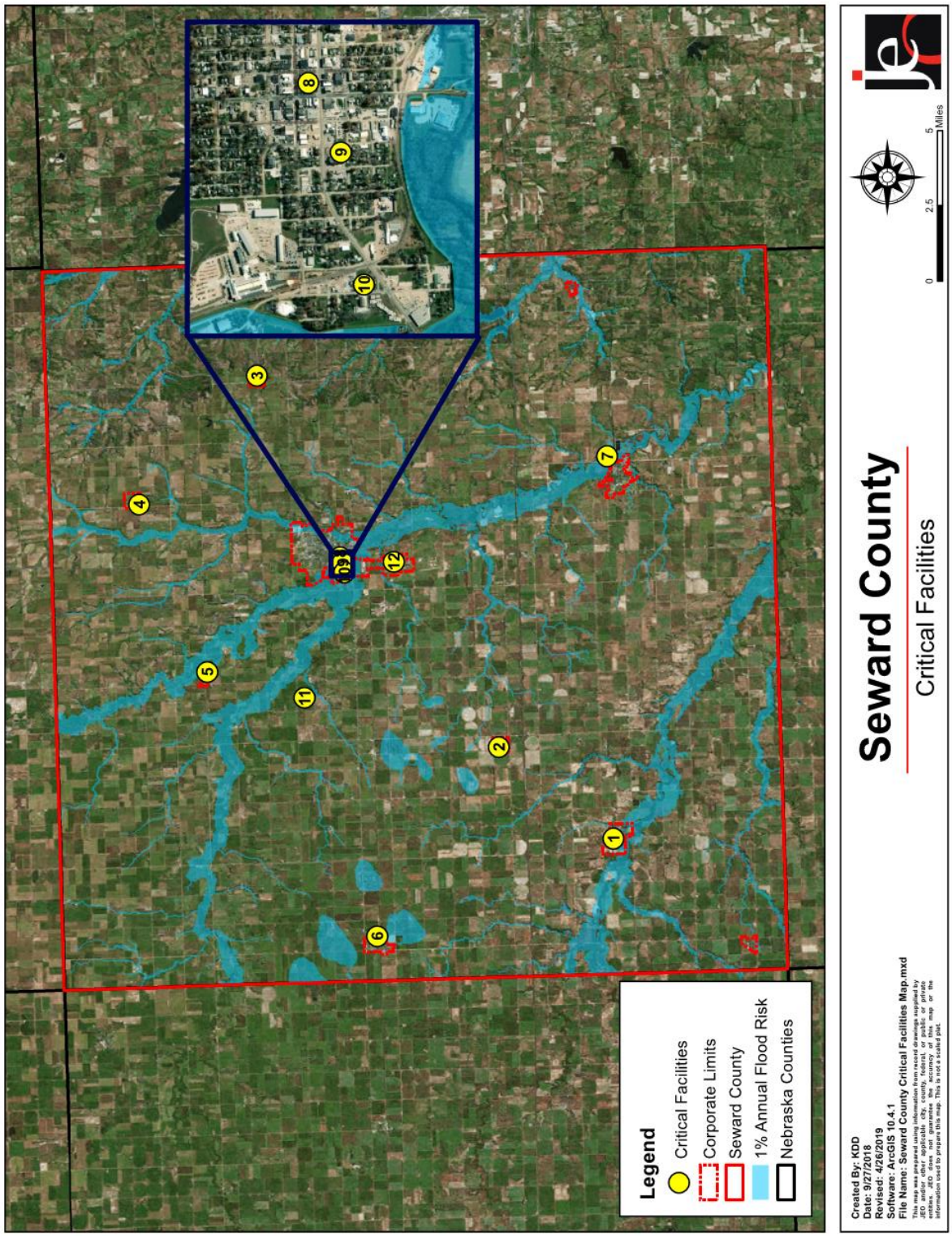
Critical Facilities

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 SCO.9: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	County Road Equipment Shop Beaver Crossing	N	Y	N
2	County Road Equipment Shop Goehner	N	Y	N
3	County Road Equipment Shop Garland	N	Y	N
4	County Road Equipment Shop Bee	N	Y	N
5	County Road Equipment Shop Staplehurst	N	Y	N
6	County Road Equipment Shop Utica	N	Y	N
7	County Road Equipment Shop Milford	N	Y	Y
8	County Courthouse	N	Y	N
9	County Sheriff's Office	N	Y	N
10	County Road Equipment Main Shop	N	Y	N
11	Seward County Road Equipment Shop	N	Y	N
12	NPPD Service Center	N	Y	N

Figure SCO.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 SCO.10: Severe Weather Events

Hazard Type		Count	Property Damage	Crop Damage[2]
Agricultural Disease	Animal disease[9]	8	15 Affected Animals	N/A
	Plant disease[2]	8	N/A	$631,060
Chemical Spills – Fixed Sites[4]		5	$0	N/A
Chemical Spills – Transportation[6]		4	$1,827,000	N/A
Dam Failure[5]		0	$0	N/A
Drought[10]		412/1,485 months	N/A	$29,272,000
Earthquake[7]		0	$0	N/A
Extreme Heat[8]		Avg. 5 days/yr.	N/A	$3,753,863
Flooding[1]	Flash Flood	4	$15,000	$318,640
	Flood	18	$452,000	
Grass/Wildfires[3] *1 injury*		170	$150,000	$4,297[3]
Hail[1]		123	$0	$3,846,526
High Winds[1] *5 injuries*		20	$0	$1,743,064
Levee Failure[11]		0	N/A	N/A
Severe Thunderstorms[1]	Thunderstorm Wind	67	$16,000	N/A
	Heavy Rain	0	$0	$4,418,118
	Lightning	3	$257,000	N/A
Severe Winter Storms[1]	Blizzard	7	$0	$183,125
	Extreme Cold/Wind Chill	4	$0	
	Heavy Snow	5	$2,000,000	
	Ice Storm	5	$0	
	Winter Storm	36	$0	
	Winter Weather	10	$0	
Tornadoes[1]		14	$3,401,000	$4,252
Total		**511**	**$8,118,000**	**$44,174,945**

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 (HPRCC) (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 Seward 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.

Chemical Spills – Transportation

The county has experienced four transportation chemical spills since 1971. The largest of which occurred in in the City of Milford when a train derailment in 1999 released 109,000 gallons of fuel oil and caused $1,827,000 in damages primarily to the rail cars and rail line. In addition to rail lines, the county also has Interstate 80 and three state highways which run across the county. All of these transportation routes carry a large amount of traffic and bulk/hazardous chemicals. If a large spill were to occur, traffic throughout the county may be impacted, as well as any neighboring residences, businesses, and jurisdictions. State patrol would likely be the first to respond.

Flooding

In March of 2019, Seward County along with many other counties in central and eastern Nebraska experienced a significant flood event. For Seward County, the floods damaged the fairgrounds, county roads, and individual homes. An exact amount of damages is not yet known, as many individuals and departments are still in the recovery process. In addition to this flood event, NCEI data since 1997 shows that Seward County has experienced 22 flooding events resulting in over $300,000 in property damages. Figure SCO.6 shows the 100-year floodplain for the county. Of the ten incorporated communities in Seward County, three participate in the NFIP. The county also participates in NFIP and currently has 12 policies in force with a coverage of $1,451,000.

Figure SCO.6: Seward County Floodplain

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

High Winds

The primary concern regarding high winds is damage to critical facilities, residences, and businesses. NCEI data shows that Seward County has experienced 20 high wind events since 1997 resulting in five injuries. The local planning team indicated that the county does not own any public safe rooms, however, individual communities may have public safe rooms available. In addition, all of the incorporated communities in the county have a warning siren. High winds may also cause power loss from downed power lines and trees. Power loss is likely to be localized in nature and most likely will not cover the entire area.

Severe Winter Storms

NCEI data shows that Seward County has experienced 67 severe winter storm events since 1997 resulting in $2,000,000 in property damage. All of the property damage occurred from one heavy snow event in October of 1997. Severe winter storms are most likely to cause transportation issues across the county. The state roads department is in charge of clearing the interstate and state highways. The county roads department removes snow from county roads and prioritizes removal of high traffic roads first. If a severe winter storm event were to close the interstate, most individuals would be sent to the City of Seward.

Governance

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

- County Clerk
- County Assessor
- County Attorney
- County Treasurer
- Emergency Management
- Highway Superintendent
- Planning and Zoning
- Sheriff's Department
- County Court
- Surveyor
- Weed Superintendent

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 SCO.11: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operational Plan	Yes
	Floodplain Management Plan	Yes

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

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?	Moderate
Does your community staff have the time to devote to hazard mitigation?	Moderate

Plan Integration

Seward County has a Comprehensive Plan, Zoning Ordinance, and Subdivision Regulations which were all most recently updated in 2007. Because of the age of the comprehensive plan, it does not discuss many natural hazards, but it does discuss the floodplain. The plan directs development away from the floodplain/dam inundation areas, encourages preservation of open space in hazard-prone areas, and encourages the strengthening of historic structures. The Zoning Ordinance contains similar language in regard to the floodplain. The ordinance prohibits development within the floodway, discourages development in the floodplain, and encourages maintaining open space. The Subdivision Regulations does not discuss hazards, but it does allow waivers for the clustering of developments.

The Local Emergency Operations Plan (LEOP) was last updated in 2019. It is sent to all communities and fire departments in Seward County. The plan addresses hazards of greatest concern, assigns specific responsibilities, identifies scenarios tat would require evacuation, identifies critical evacuation routes, and provides the location of all shelters.

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	Backup Generators
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	This project was completed between 2011-2014. Backup generators were purchased for the Milford, Beaver Crossing, Utica, Staplehurst, Bee, Garland, Seward, and Goehner county road shops.

Mitigation Action	Snow Fences
Hazard(s) Addressed	Severe Winter Storms
Status	Completed. The County Road Department constructs snow fences as needed on a yearly basis.

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed. The county has updated there warning systems over the past five years.

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sires which should be replaced or placement of new sirens.
Hazard(s) Addressed	All Hazards
Estimated Cost	$15,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	County Emergency Management
Status	In Progress. Currently evaluating alert sirens throughout the county.

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.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000+
Funding	CDBG, County General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Planning and Zoning
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events/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	Medium
Lead Agency	County Emergency Management
Status	Not Started

Mitigation Action	Grade Control Structures
Description	Stream bed degradation has occurred along many rivers and creeks. Grade control structures including sheet-pile weirs, rock weirs, ponds, road dams, etc. can be implemented to maintain the channel bed. Stream bed/grade stabilization can protect structures, prevent down cutting and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	$50,000 to $100,000 per site
Funding	County General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Public Works, UBB NRD
Status	Ongoing. Structures are installed as needed and when problems are identified.

Mitigation Action	Preservation of Open Space
Description	Preserve natural and beneficial functions of floodplain land through measures such as: retaining natural vegetation, restoring streambeds; and preserving open space in the floodplain.
Hazard(s) Addressed	Flooding
Estimated Cost	N/A
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Floodplain Administrator, County Planning and Zoning Commission
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Distribute maps and environmental education through activities such as outreach projects to 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 water conservation methods, shelter in-place training, first aid, continuity planning, rain gardens, green roofs, and other minor mitigation measures.
Hazard(s) Addressed	All Hazards
Estimated Cost	$0 - $500+
Funding	County General Fund
Timeline	5+ Years
Priority	High
Lead Agency	County Emergency Management
Status	Ongoing

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) 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	High
Lead Agency	County Emergency Management
Status	In Progress. County Emergency Management received a FEMA grant for a residential safe room project. The county is looking into doing a similar project in the future.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Conduct a preliminary drainage assessment and/or design bridge improvements to reduce and/or alleviate flooding. Bridges typically serve as flow restrictions along streams and rivers. Cleanouts and reshaping channel segments at bridge crossings can increase conveyance, reducing the potential for flooding. Replacing or modifying of bridges and other flow restrictions may be necessary to eliminate flooding threats and damages.
Hazard(s) Addressed	Flooding
Estimated Cost	$30,000 per site
Funding	County General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	County Public Works
Status	Ongoing. Drainage improvements are currently pursued as stormwater and drainage issues are identified.

Mitigation Action	Stream Bank Stabilization /Grade Control Structures / Channel Improvements
Description	Stream bank degradation has occurred along many rivers and creeks. Implement stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. to reestablish the channel banks. Channel stabilization can protect structures, increase conveyance and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	$50,000+
Funding	County General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	County Public Works, UBB NRD
Status	Ongoing. Projects are typically addressed as needed and when problems are identified.

Mitigation Action	Vehicular Barriers
Description	Install vehicular barriers to protect critical facilities and key infrastructure where possible.
Hazard(s) Addressed	All Hazards
Estimated Cost	$2,000+
Funding	County General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Engineer, County Planning and Zoning
Status	In Progress. The county is constantly replacing barricades at the Beaver County Road Shop and Main Seward County Road Shop.

Removed Mitigation Actions

Mitigation Action	All-Terrain Vehicles
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning. The county determined that the current vehicles are sufficient. If the situation changes in the future, this action will be readdressed.

Mitigation Action	Best Management Practices (BMP's)
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team removed this mitigation action. This action would be better implemented by the UBBNRD, as they are tasked with water related planning.

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this action because these local emergency operations plans are required to be updated on an annual basis.

Mitigation Action	Drainage Study / Stormwater Master Plan
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this action because it would be better implemented by local communities. The county will assist in these projects if possible.

Mitigation Action	Electrical System Looped Distribution / Redundancies
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This action was removed by the local planning team because it would be primarily done by SPPD. The county will continue to collaborate with SPPD.

Mitigation Action	Elevate Pad Mounted Transformers and Switch Gear
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this action because it would be primarily done by SPPD. The county will continue to collaborate with SPPD to identify potential transformers and switch gear to elevate.

Mitigation Action	Emergency Communication
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this action because it is something that is constantly being done. When a possible improvement is found, solutions are analyzed and selected.

Mitigation Action	Flood Impact Reduction
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. The team determined that adopting a no adverse impact to floodplain management would not be possible because it would be unpopular across the county.

Mitigation Action	Floodplain Mapping / Remapping
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team. Floodplain mapping is currently occurring; however, the county is not involved in his process. Floodplain mapping should be completed by FEMA by the end of 2019.

Mitigation Action	Floodplain Regulations
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed because it is not a true mitigation action. The county will continue to enforce floodplain regulations.

Mitigation Action	Higher Building Standards
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed because a larger building standards action was created.

Mitigation Action	Irrigation / Groundwater Management Plan
Hazard(s) Addressed	Drought
Reason for Removal	This action was removed by the local planning team because it would be better implemented by the UBBNRD. The county does not have the authority to implement this type of plan.

Mitigation Action	Levee Improvements
Hazard(s) Addressed	Flooding, Levee Failure
Reason for Removal	The local planning team removed this mitigation action. The City of Seward is leading this effort and the county will not be involved. Currently the levee in the City of Seward is undergoing a reevaluation.

Mitigation Action	Low Impact Development Practices
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. The team determined that low impact development practices would not be possible because it would be unpopular across the county.

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. The county will continue to participate in NFIP and support local communities in maintain good standing with NFIP.

Mitigation Action	New Municipal Well
Hazard(s) Addressed	Drought
Reason for Removal	This mitigation action was removed by the local planning team. County officials determined that they would not be involved in this process as it is typically done by local communities.

Mitigation Action	Power and Service Lines
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This action was removed by the local planning team because it would be primarily done by the Seward Public Power District (SPPD). The county will continue to collaborate with SPPD to identify vulnerable lines.

Mitigation Action	Protection of Vulnerable Populations
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. The county has very little control over where populations are located. The county will identify areas where this can be accomplished.

Mitigation Action	Public Awareness
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed because a larger inclusive public awareness/training mitigation action was made.

Mitigation Action	Public Awareness / Continuity Planning
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed because a larger inclusive public awareness/training mitigation action was made.

Mitigation Action	Public Awareness / First Aid Training
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed because a larger inclusive public awareness/training mitigation action was made.

Mitigation Action	Rescue / Snow Removal
Hazard(s) Addressed	Severe Winter Storms
Reason for Removal	The local planning team removed this mitigation action. Snow removal policy is updated each year in September.

Mitigation Action	Rural Water District and Water System Upgrades
Hazard(s) Addressed	Drought
Reason for Removal	This mitigation action was removed by the local planning team. The UBBNRD would the entity that would handle this action as they are tasked with handling water related issues.

Mitigation Action	Shelter In-Place Training/Education
Hazard(s) Addressed	Fixed and Transportation Chemical Spills
Reason for Removal	The local planning team removed this mitigation action. This action will be included in a larger education mitigation action.

Mitigation Action	Source Water Contingency Plan
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team removed this mitigation action. This action would be better implemented by local communities. The county will assist in these projects where possible.

Mitigation Action	Trailer Park Safe Rooms
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team has decided that this mitigation action could be removed because it was captured in a different mitigation action.

Mitigation Action	Tree City USA – Tree Maintenance Program
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Reason for Removal	This mitigation action was removed by the local planning team because local communities would be better at implementing this action.

Mitigation Action	Windbreaks
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team roved this mitigation action because the county roads department must maintain a clear horizontal zone in the right of way. Private land owners or the NRD would need to implement this mitigation action.

[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] Seward 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*.

COMMUNITY PROFILE

VILLAGE OF BEAVER CROSSING

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

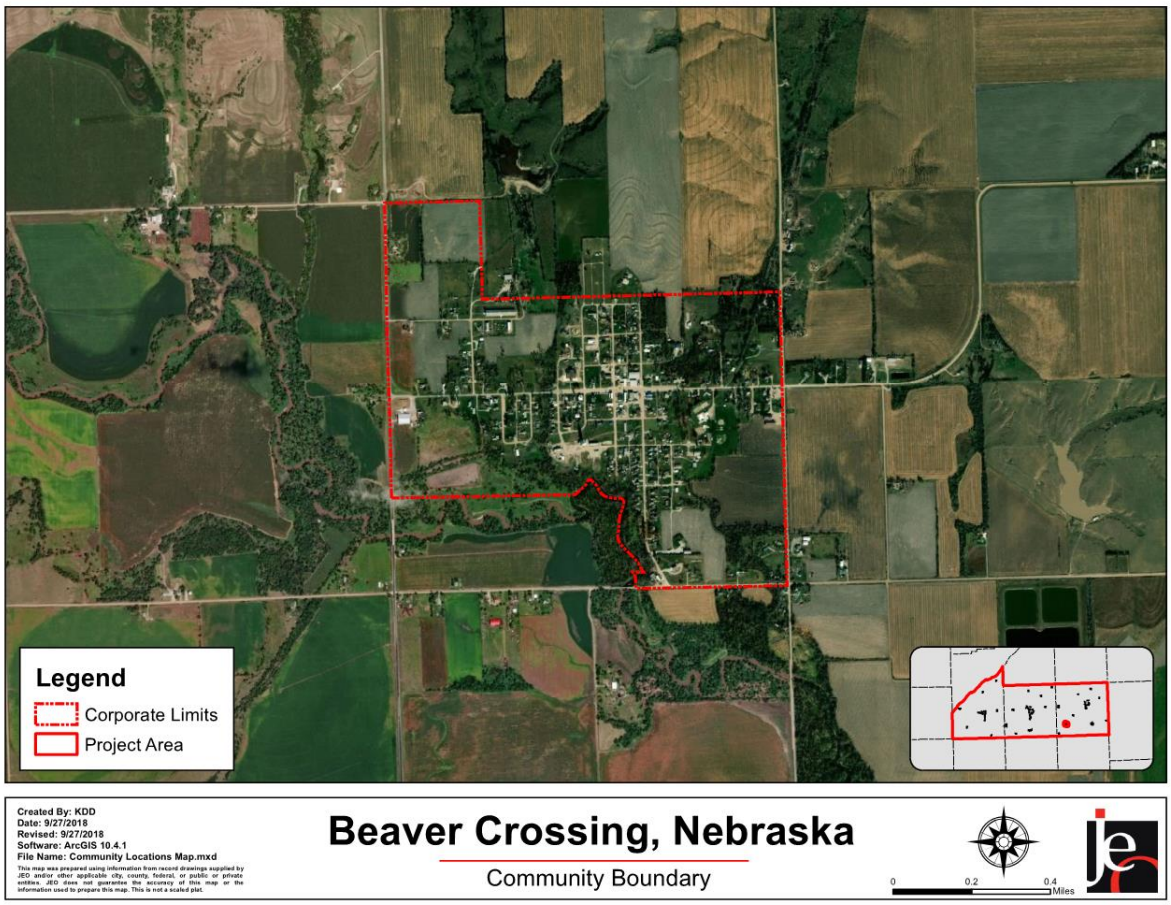
Table BVC.1: Beaver Crossing Local Planning Team

Name	Title	Jurisdiction
Jerry Zieg	Chairman Village Board	Village of Beaver Crossing

Location and Geography

The Village of Beaver Crossing is located in the southwest portion of Seward County and covers an area of 429 acres. Indian Creek is located to the west and south of Beaver Crossing.

Figure BVC.1: Community Boundary



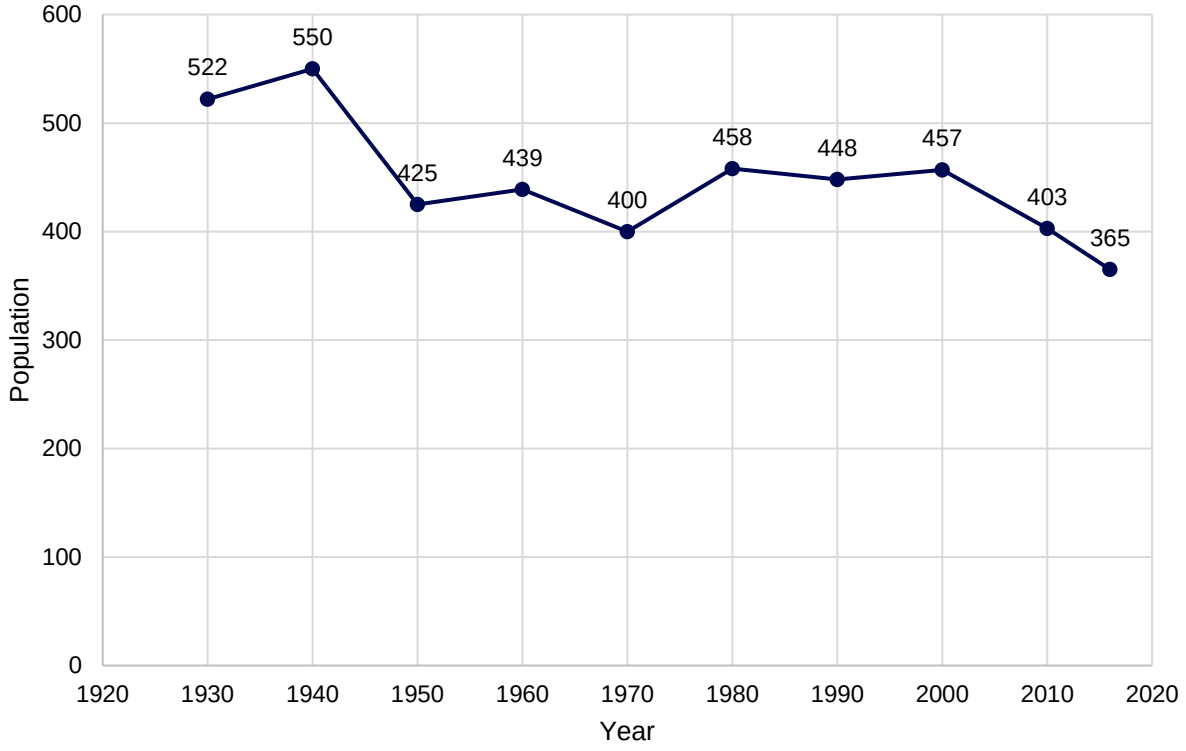
Transportation

Beaver Crossing's major transportation corridor includes Nebraska Highway L-80E with 1,540 vehicles a day.[xiv] Beaver Crossing does not have any rail lines running through the community. Beaver Crossing also does not have any airports within or near village 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 the transportation routes of most concern were Dimery Street and Main Street.

Demographics

Beaver Crossing's population declined from about 457 people in 2000 to 365 people in 2016, an average annual decrease of 1.26%. This is important because the population decline means a decreasing tax revenue. Beaver Crossing's population accounted for 2.13% of Seward County's population in 2016.[xv]

Figure BVC.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, Beaver Crossing's population was:

- **Older.** The median age of Beaver Crossing was 51.7 years old in 2016, compared with the county average of 38.1 years. Beaver Crossing's population grew older since 2010, when the median age was 47.1 years old. Beaver Crossing had a much smaller proportion of people under 20 years old (21.0%) than the county (28.2%).[xvi]
- **Less ethnically diverse**. In 2010, 1.0% of Beaver Crossing's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Beaver Crossing became less ethnically diverse, with 0.0% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[xvii]
- **Less likely to be below the federal poverty line.** The poverty rate in Beaver Crossing (1.0% of families living below the federal poverty line) was lower than the county's poverty rate (4.7%) in 2016.[xviii]

Employment and Economics

The Beaver Crossing economic base is a mixture of educational, retail trade and manufacturing uses. In comparison to Seward County, Beaver Crossing's economy had:

- **Different mix of industries.** Beaver Crossing's major employment sectors, accounting for 10% or more of employment each, were: retail trade; transportation, warehousing, and utilities; educational services and health care/social assistance; and manufacturing.[xix]
- **Lower household income.** Beaver Crossing's median household income in 2016 ($52,625) was about $9,000 lower than the county ($61,563).[xx]
- **More long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities for employment.

Major Employers

Major employers within Beaver Crossing include Farmers and Merchants Bank, Beaver Corner Bar and Restaurant, and Beaver Hardware and Supply. A large percentage of residents commute to Seward, York, and Milford for employment.

Housing

In comparison to Seward County, Beaver Crossing's housing stock was:

- **Less renter-occupied**. About 17.4% of occupied housing units in Beaver Crossing are renter occupied compared with 27.9% of occupied housing in Seward County.[xxi]
- **Older.** Beaver Crossing had a much larger share of housing built prior to 1970 than the county (72.6% compared to 48.5%).[xxii]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Beaver Crossing contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 89.1% of housing in Beaver Crossing was single-family detached, compared with 80.8% of the county's housing. Beaver Crossing has a larger share of mobile and manufactured housing (10.4%) compared to the county (3.2%).[xxiii]

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, a number of houses have completed renovations and improvements since they were affected by a tornado in 2014. According to the latest American Community Survey estimates, Beaver Crossing's population has experienced a slight decline since 2010. The local planning team indicated that the decline could be due to an increase in rental properties. Over the next five years, new housing developments are planned along the north side of Beaver Crossing. New businesses and industry are also 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 BVC.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
265	$15,040,786	$56,758	62	$3,261,624

Source: Nebraska Department of Revenue, Property Assessment Division[xxiv]

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 no chemical storage sites in Beaver Crossing.

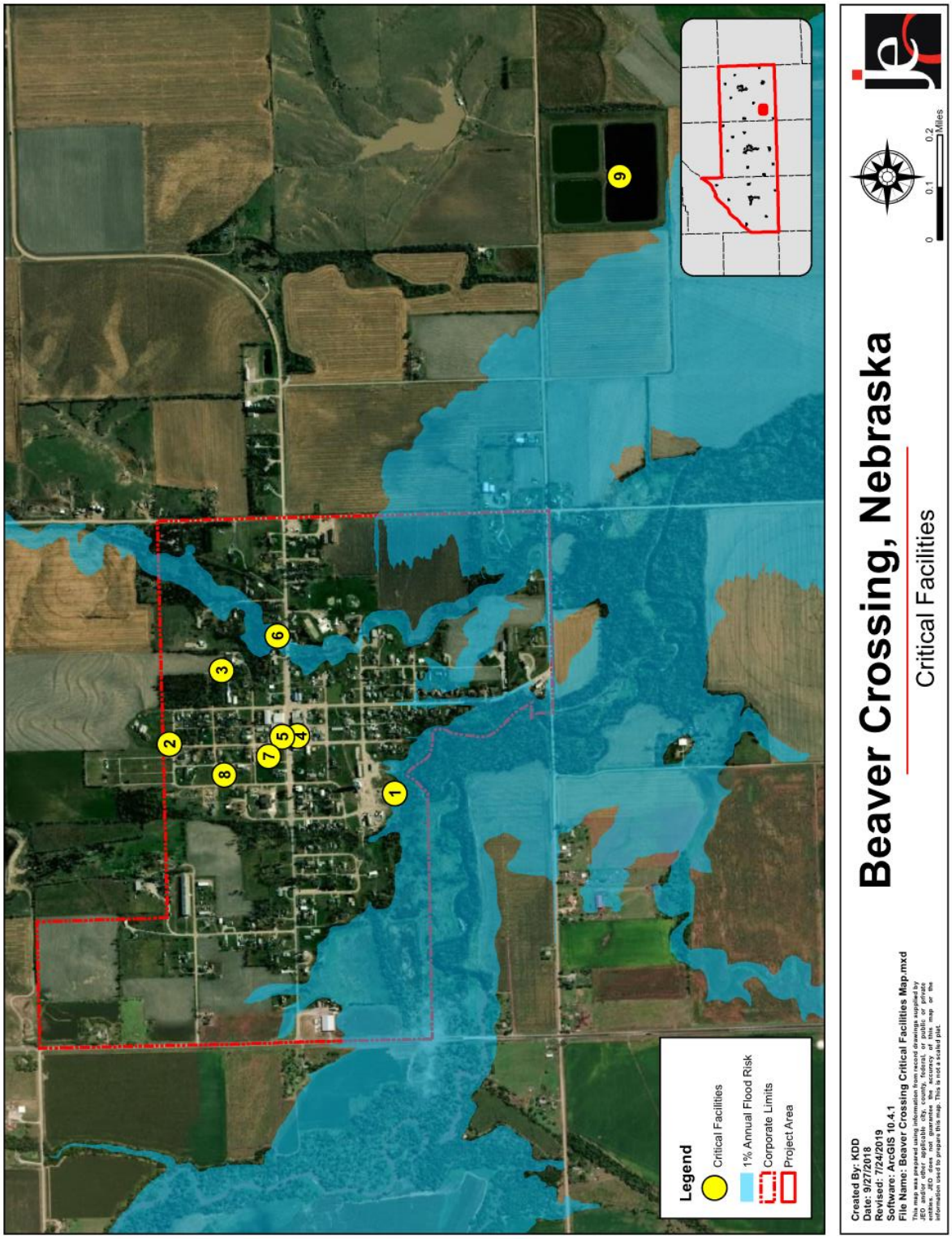
Critical Facilities

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 BVC.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Lift Station	N	Y	N
2	Water Tower	N	N	N
3	Well	N	Y	N
4	Fire Department	N	Y	N
5	City Office	N	N	N
6	Village Park	N	N	Y
7	United Methodist Church	N	N	N
8	County Shop	N	N	N
9	Wastewater Lagoons	N	N	N

Figure BVC.3: Critical Facilities



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

Historical Occurrences

See the Seward County community profile for historical hazard events.

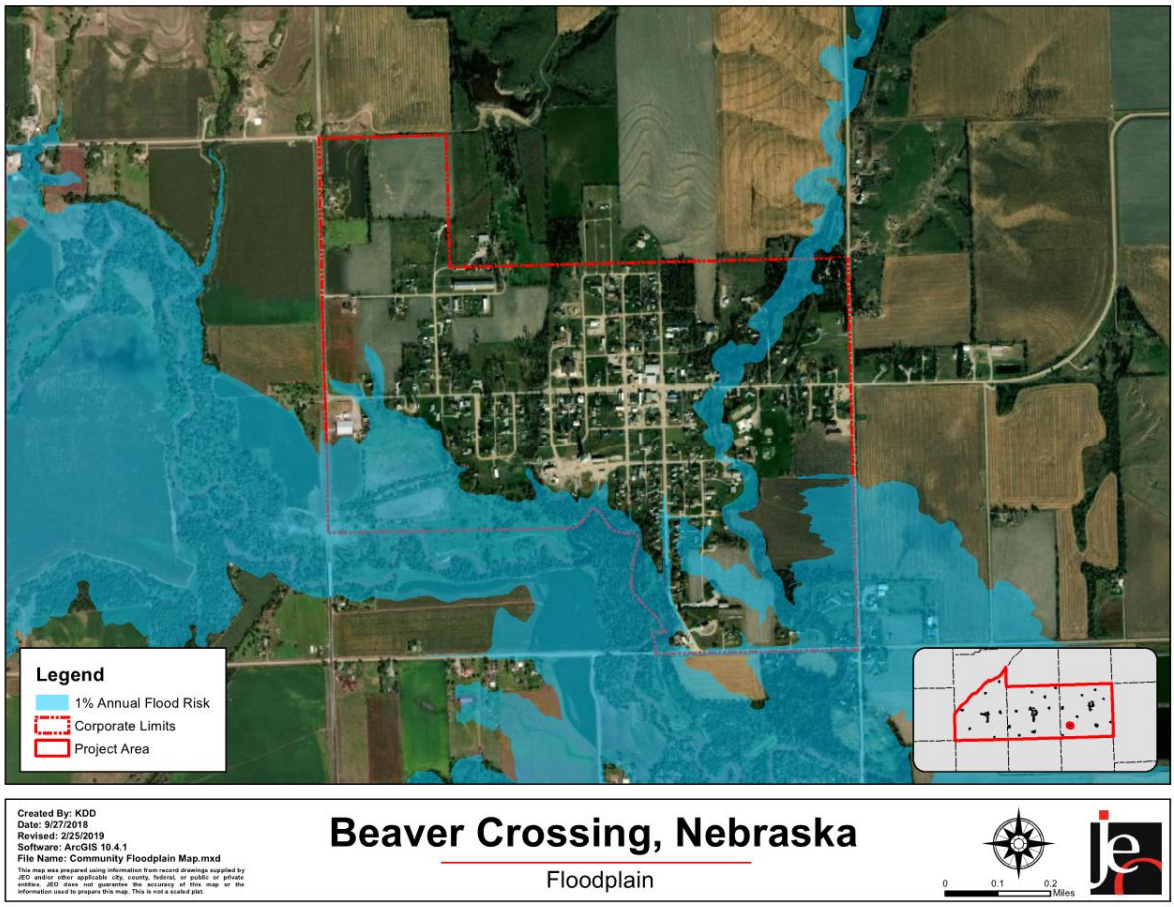
Hazard Prioritization

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.

Flooding

The local planning team is primarily concerned with both flash flooding and riverine flooding. There have not been any significant flooding events within the village, however Figure BVC.4 shows that parts of the community are located within the 100-year floodplain. The village participates in the NFIP program and has one policy in-force covering $96,400.

Figure BVC.4: Preliminary Floodplain Map



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

Severe Thunderstorms

NCEI data indicates that Beaver Crossing has experienced two thunderstorm wind events since 1996. One event had 80 mph wind gusts, which can down trees and cause damage to buildings. The local planning team also identified a severe thunderstorm event in May of 2018 which impacted park safety. Should a severe thunderstorm event occur, municipal records are protected with surge protects on electronic devices so that important documents are not lost.

Severe Winter Storms

Roads becoming impassible, leaving motorists stranded is the primary concern for the local planning team regarding severe winter storms. In 2009 this occurred when heavy snow and high winds caused drifting snow to close all the roads within and around the village. Severe winter storms can also cause power outages and the village has at higher risk of this occurring as none of the power lines are buried.

Tornadoes

NCEI data indicates that Beaver Crossing has experienced two tornado events since 1996. Both events occurred in May of 2014 and had a magnitude of EF0 and EF2. The local planning team indicated that houses and trees sustained property damage, but no critical facilities were damaged by the tornadoes. The community does have a warning siren which reaches to all areas of the community. The warning siren can by activated by the county sheriff or at the local level.

Governance

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

- Clerk/Treasurer
- Utility Superintendent
- Attorney
- Fire Chief
- Planning Commission
- Zoning Administrator
- 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 BVC.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes – 2005
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operational Plan	Yes

Survey Components/Subcomponents		Yes/No
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes – 2005
	Subdivision Regulation/Ordinance	Yes – 2005
	Floodplain Ordinance	No
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	Yes
	Applied for grants in the past	No
	Awarded a grant in the past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	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?	Limited

Plan Integration

The Village of Beaver Crossing has a comprehensive plan, zoning ordinance, and subdivision regulations which were all updated in 2005. Due to the age of the plans, they contain little discussion of hazards or hazard mitigation other than the floodplain. The village's Local Emergency Operations Plan (LEOP) is an annex to the 2019 Seward County plan. The LEOP discusses hazards of greatest concern, assigns specific responsibilities, identifies evacuation routes, and lists shelter locations. 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	Backup Generators
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed in 2016 at the Sewer Lift Station and Fire Hall

Mitigation Action	Floodplain Mapping / Remapping
Hazard(s) Addressed	Flooding
Status	Completed in 2018 for the county.

Ongoing and New Mitigation Actions

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 changes in irrigation management, education on no-till agriculture, and use of xeriscaping in communities.
Hazard(s) Addressed	Drought
Estimated Cost	Staff time, $500 - $5,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	In Progress. The Village currently implements BMPs as opportunities are identified.

Mitigation Action	Community Rating System (CRS)
Description	Participate in the CRS, part of the NFIP, to provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Can help reduce flood insurance premiums.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	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	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$6,000+
Funding	General Fund
Timeline	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.
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	Fire Department, Seward County Emergency Management
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	5+ Years
Priority	Medium
Lead Agency	Fire Department, Seward Emergency Management
Status	In Progress. Village currently promotes first aid and will identify opportunities to expand those efforts.

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events / 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, Seward County Emergency Management
Status	Not started

Mitigation Action	Improve Snow / Ice Removal Program
Description	Revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include updating the emergency routes, acquiring equipment that is needed, paving routes, and ordinances as necessary. Improve capabilities to rescue those stranded in blizzards.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$20,000+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
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	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Distribute maps and environmental education through activities such as outreach projects to 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 water conservation methods.
Hazard(s) Addressed	All Hazards
Estimated Cost	$0 - $500+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing

Mitigation Action	Snow Fences
Description	Construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closure.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$30,000 to $100,000
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board, FEMA
Status	In Progress

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) 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	Medium
Lead Agency	Village Board, Seward County Emergency Management
Status	Not Started. Identified a new addition for fire department and city hall as appropriate locations.

Mitigation Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description	Stream bank degradation has occurred along many rivers and creeks. Implement stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. to reestablish the channel banks. Channel stabilization can protect structures, increase conveyance and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	$50,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Tree City USA – Tree Maintenance Program
Description	Begin working towards attaining Tree City USA designation.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Estimated Cost	$0 – $1,000+
Funding	Donations, General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Community Betterment Committee
Status	Not started

Removed Mitigation Actions

Mitigation Action	Alert Sirens
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this action was no longer necessary. The village already has an alert siren which covers all residents. An additional siren would not increase coverage.

Mitigation Action	All-Terrain Vehicles
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this action was no longer necessary. If additional equipment was needed, the village has a volunteer supply of vehicles.

Mitigation Action	Floodplain Regulations
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team determined that this action was no longer necessary as continuing to enforce regulations is not a mitigation action. The village will continue to enforce floodplain regulations.

Mitigation Action	National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team determined that this action was no longer necessary as maintaining good standing is not a mitigation action. The village will continue to participate in the NFIP.

Mitigation Action	Vulnerable Population Database
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this action was no longer necessary. The village already has a good idea on where vulnerable populations are located. The team will continue to monitor this and reevaluate as needed.

[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: DP04: Selected Housing 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] *County Assessor. Personal correspondence, February 2019.*

COMMUNITY PROFILE

VILLAGE OF BEE

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

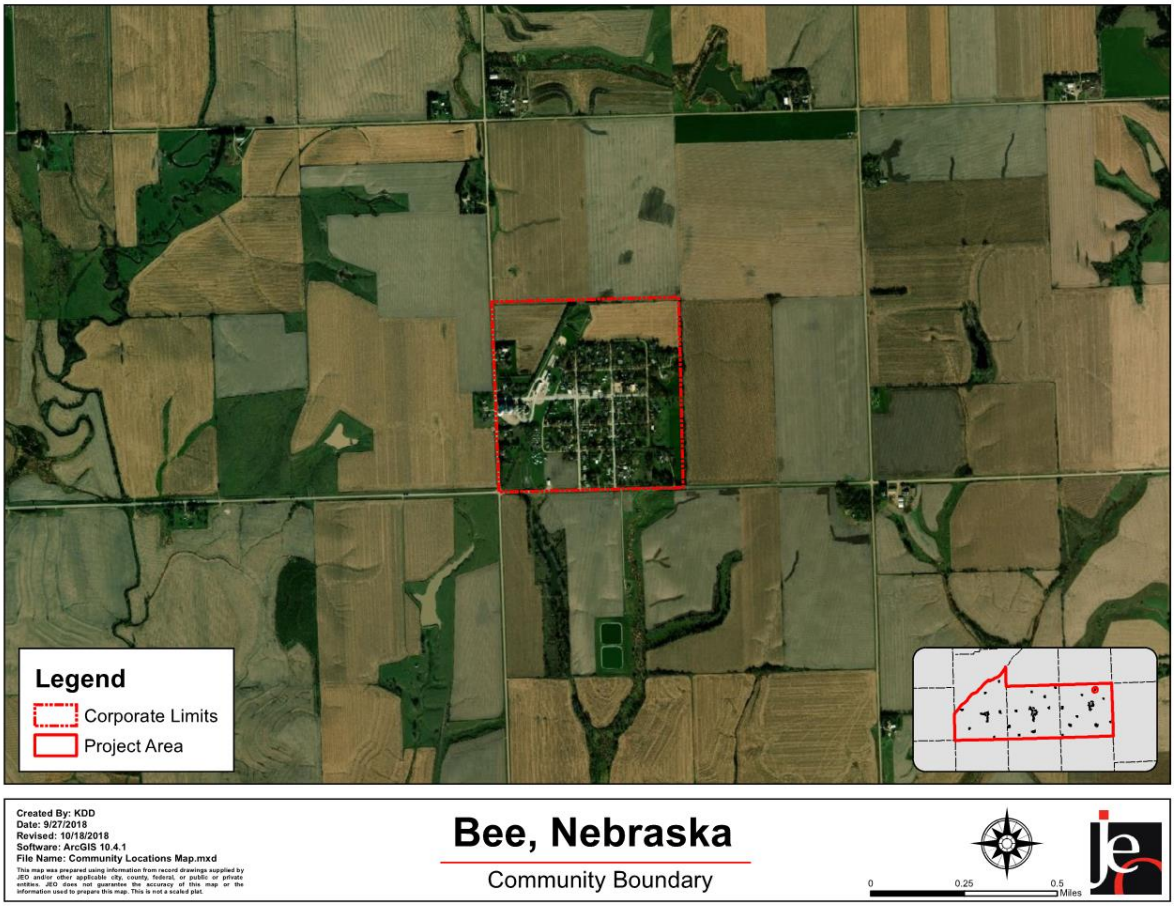
Table BEE.1: Bee Local Planning Team

Name	Title	Jurisdiction
Resa Lavicky	Village Clerk	Village of Bee
Donald Corner	Water Operator	Village of Bee
Sherri Slack	Trustee	Village of Bee

Location and Geography

The Village of Bee is located in the northeast portion of Seward County and covers an area of 160 acres. Plum Creek is located one mile west of Bee and Oak Glen State Wildlife Management Area is located four miles to the southeast.

Figure BEE.1: Community Boundary



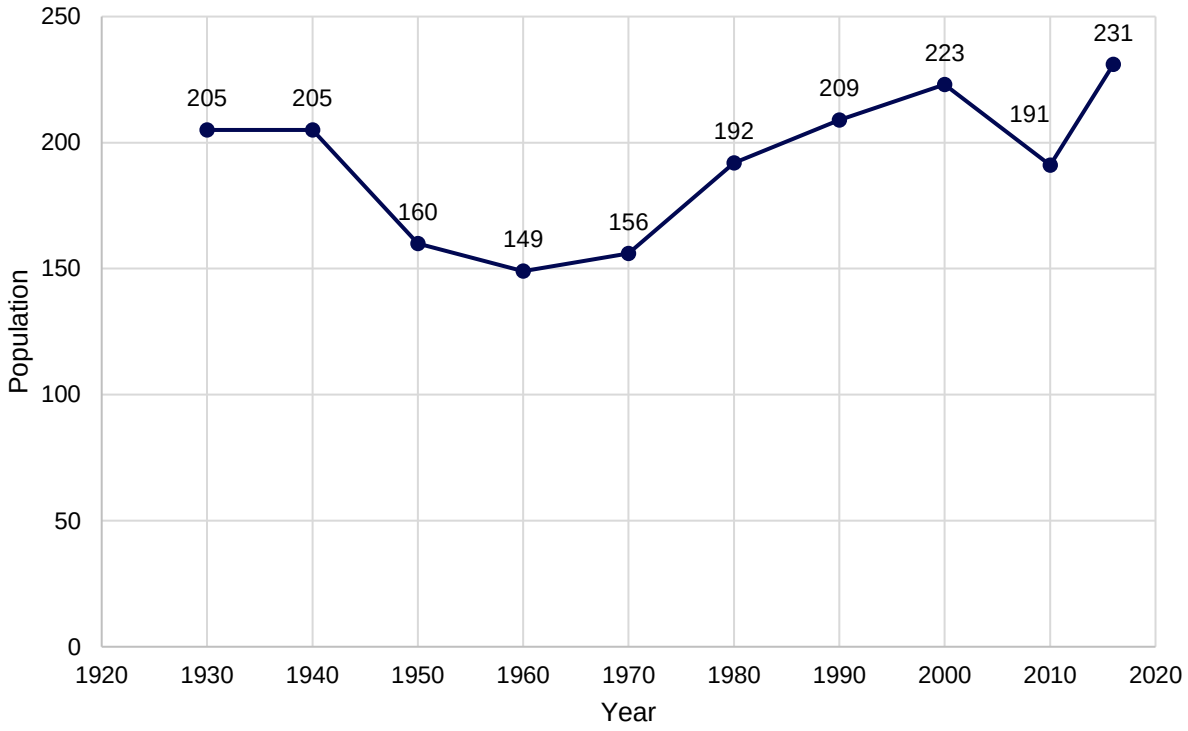
Transportation

Bee's major transportation corridor includes Nebraska Highway S-80B with 435 vehicles a day.[xxv] Bee does not have any rail lines running through the community or airports within or near village 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 chemicals such as anhydrous ammonia are regularly transported along Highway S-80B.

Demographics

Bee's population grew from about 223 people in 2000 to 231 people in 2016, an average annual increase of 0.22%. This is important because the population increase means additional tax revenue and expanded housing. Bee's population accounted for 1.35% of Seward County's population in 2016.[xxvi]

Figure BEE.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, Bee's population was:

- **Older.** The median age of Bee was 49.0 years old in 2016, compared with the county average of 38.1 years. Bee's population grew older since 2010, when the median age was 42.8 years old. Bee had a smaller proportion of people under 20 years old (23.4%) than the county (28.2%).[xxvii]
- **Less ethnically diverse**. In 2010, 3.1% of Bee's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Bee became less ethnically diverse, with 0.0% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[xxviii]
- **More likely to be below the federal poverty line.** The poverty rate in Bee (8.8% of families living below the federal poverty line) was higher than the county's poverty rate (4.7%) in 2016.[xxix]

Employment and Economics

The Bee economic base is a mixture of manufacturing, transportation, and public administration uses. In comparison to Seward County, Bee's economy had:

- **Similar mix of industries.** Bee's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; transportation and warehousing, and utilities; and public administration.[xxx]
- **Lower household income.** Bee's median household income in 2016 ($31,125) was about $30,400 lower than the county ($61,563).[xxxi]
- **More long-distance commuters.** The local planning indicated that a large percentage of residents commute to other communities.

Major Employers

The Village of Bee does not have any major employers in the community. The village does have a Co-op but none of the employees are residents of the community. A large percentage of residents commute to Seward, David City, and Lincoln for employment.

Housing

In comparison to Seward County, Bee's housing stock was:

- **Less renter-occupied**. About 6.8% of occupied housing units in Bee are renter occupied compared with 27.9% of occupied housing in Seward County.[xxxii]
- **Older.** Bee had a much larger share of housing built prior to 1970 than the county (83.8% compared to 48.5%).[xxxiii]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Bee contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 98.5% of housing in Bee was single-family detached, compared with 80.8% of the county's housing. Bee has a smaller share of mobile and manufactured housing (1.5%) compared to the county (3.2%).[xxxiv]

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. Bee currently has one mobile home.

Future Development Trends

In the last five years seven new houses and no businesses have been built. A house did burn down during that time. According to the latest American Community Survey estimates, Bee's population has experienced an increase since 2010. An increasing population may result in an increasing tax base, which may make implementing mitigation actions easier. The local planning team indicated that this could be due to housing being sold to younger families with children. There is one house that is being planned to be built in the next five years, but no 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 BEE.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
169	$7,573,799	$44,815	0	$0

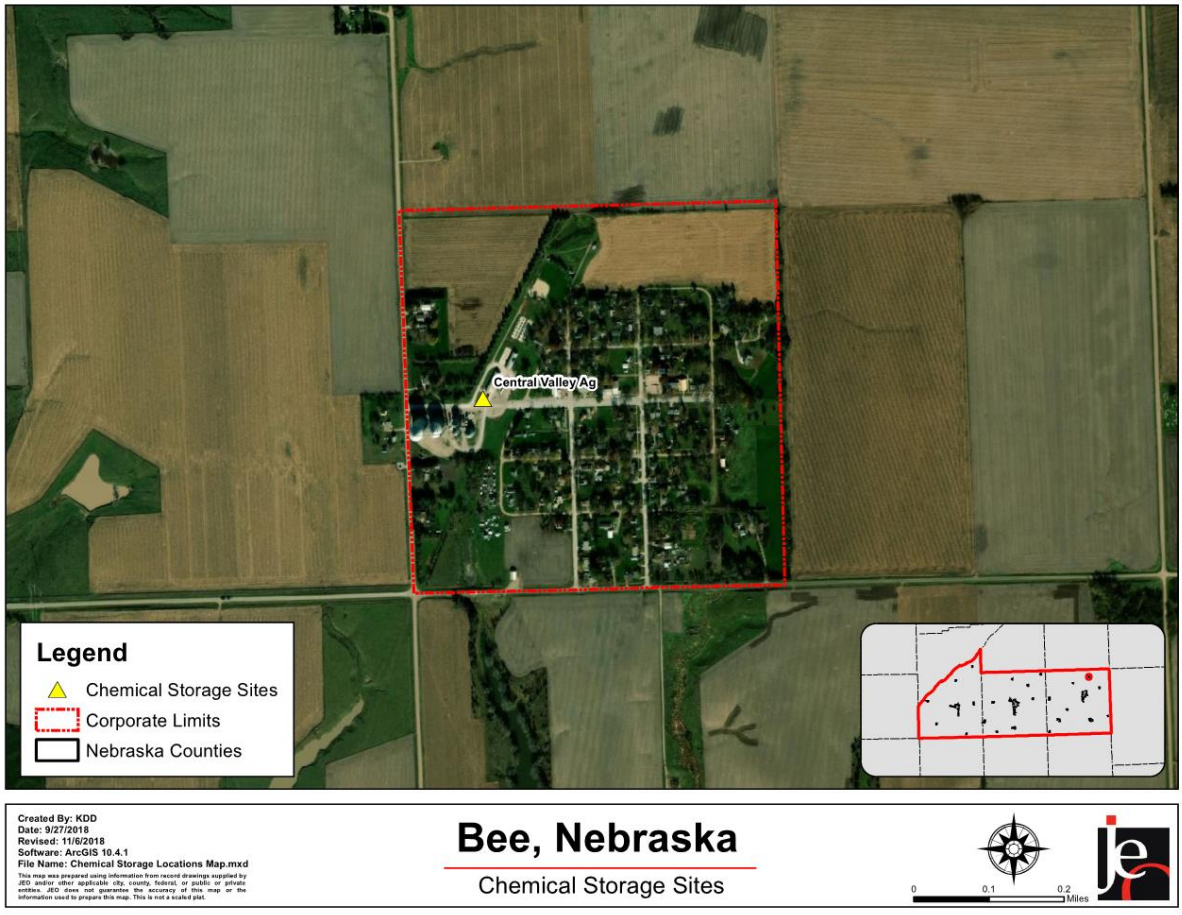
Source: Nebraska Department of Revenue, Property Assessment Division[xxxv]

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 sites in Bee. The map below shows the name and location of the site.

Figure BEE.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy[xxxvi]

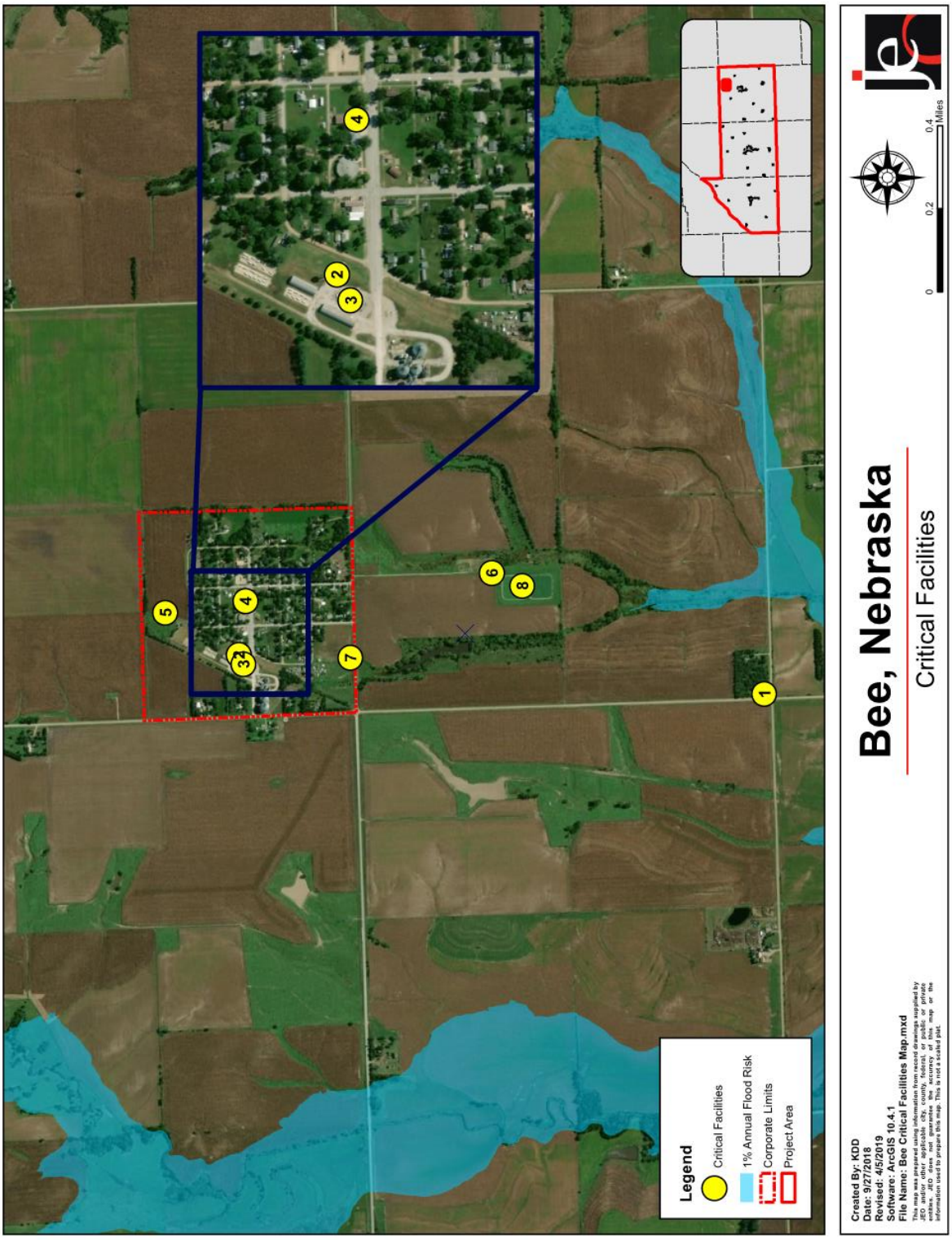
Critical Facilities

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 BEE.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Seward County PPD Bee Substation	N	N	N
2	Water Tower	N	N	N
3	Central Valley Ag	N	N	N
4	Village Hall and Fire Station	Y	N	N
5	Village Well	N	N	N
6	Lift Station	N	N	N
7	Seward County Road Equipment Shop Bee	N	N	N
8	Wastewater Lagoons	N	N	N

Figure BEE.4: Critical Facilities



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

Historical Occurrences

See the Seward 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.

Grass/Wildfires

One major factor which increases the vulnerability to grass/wildfires for Bee is the age of structures within the community. As previously stated 83 percent of the housing units in Bee were constructed prior to 1980 and are primarily wood built structures. If grass/wildfires were to occur within Bee, much of the housing stock and structures throughout the village could be lost. Bee is surrounded by agricultural lands mostly used for crops, in a grass/wildfire event the fire could spread rapidly. The Fire Department is located in the community; however, all the employees have other full-time jobs. This could impact the response time to a fire.

Hail

NCEI data shows that Bee has experienced four hail events since 1996. The local planning team indicated that the roof of the village ballroom had to be recently replaced due to hail damage. Many residences within the village have an increased vulnerability due to their age. Older homes are less likely to be built with hail resistant materials and could sustain more damage during a large hail event.

Severe Thunderstorms

The local planning team identified severe thunderstorms as a top hazard to the community. The primary concern with severe thunderstorms is loss of power due to power surges and downed limbs/trees. All powerlines within Bee are located above ground which presents a higher risk of losing power from falling limbs. Currently the village files are not backed up, but they are going through an online backup. Bee also has an aging population with a median age of 49 years. Blocked roadways present life safety concerns to aging populations as it may be difficult to reach those needing medical attention.

Severe Winter Storms

The largest concern for the community with severe winter storms is power loss and subsequent loss of heat. The community does have a ballroom where people could go for shelter; however, it does not have a backup generator for heat should the entire village lose power. The power lines within Bee are also very old and power loss is a common occurrence during snow and thunderstorms. For transportation issues due to snow, Bee does have a truck with a snow plow on it. The local planning team indicated that this is typically all that is needed; however, additional resources would be needed should a larger snow storm occur.

Tornadoes

NCEI data since 1996 shows that Bee has not experienced a tornado event. This lack of events does not mean that no risk exists. Seward County has experienced 14 tornadoes during that same time period. Most houses in the community contain basements should a tornado occur. The village also has a ballroom with a basement that can hold residents if needed. However, space is limited, and the ballroom would not be able to hold everybody. The village is discussing the

possibility of adding a certified storm shelter to the fire station if the building gets expanded. The village does contain one tornado siren which reaches the entire community.

Governance

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

- Clerk/Treasurer
- Attorney
- Fire Chief
- Water/Sewer Commissioner
- Engineer
- Maintenance 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 BEE.4: Capability Assessment

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

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

Plan Integration

The Village of Bee has a comprehensive plan, zoning ordinance, building code, and drainage study which were all last updated in 2004. In addition, the village has an emergency operation plan last updated in 2019 and a wellhead protection plan last updated in 2008.

The Comprehensive Plan and Zoning Ordinance do not directly discuss natural hazards; however, they do direct development away from the floodplain and chemical storage facilities. In future updates the village would like to also direct development away from dam inundation areas and major transportation routes. The village will also discuss emergency shelters and participation in the National Flood Insurance Program (NFIP) in future updates. The Local Emergency Operations Plan is part of Seward County's plan and will be updated by the end of 2020. In the plan, hazards

of greatest concern are discussed as well as assigned specific individual responsibilities. However, the responsibilities are out dated and will updated in the next plan. The village's Wellhead Protection Plan includes well setback requirements and includes a water conservation plan in times of drought. 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	Drainage Study / Stormwater Master Plan
Hazard(s) Addressed	Flooding
Status	Completed in October 2014.

Mitigation Action	New Municipal Well
Hazard(s) Addressed	Drought
Status	Completed

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	All Hazards
Estimated Cost	$15,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department
Status	New Action, Not Started

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

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	1 Year
Priority	High
Lead Agency	Village Board
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.
Hazard(s) Addressed	All Hazards
Estimated Cost	Varies by project
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	New Action, Not Started

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	1 Year
Priority	High
Lead Agency	Village Board
Status	Not started

Mitigation Action	Continuity Plans
Description	Develop continuity plans for critical community services. Encourage businesses to do the same.
Hazard(s) Addressed	All Hazards
Estimated Cost	$5,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New Action, Not Started

Mitigation Action	Emergency Operations
Description	Identify and establish an Emergency Operations Center.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Fire Department
Status	New Action, Not Started

Mitigation Action	Fire Prevention Program: Planning and Training
Description	Participate in the Nebraska Forest Service Wildland Fire Protection Program which provides services in wildfire suppression training, equipment, pre-suppression planning, wildfire preventions, and aerial fire suppression.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	$100 per person
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Fire Department
Status	New Action, Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas. The village is considering adding a safe room when the fire department building is remodeled.
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	Fire Department, Village Board
Status	Planning Stage. Identifying appropriate locations for shelters.

Mitigation Action	Stormwater System and Drainage Improvements
Description	Bee utilizes stormwater systems comprising of ditches and culverts to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. These improvements can serve to more effectively convey runoff within villages, preventing interior localized flooding.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 to $50,000
Funding	Maintenance Street Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Maintenance Department
Status	In Progress. The village has put in one culvert so far and is currently identifying additional locations.

Mitigation Action	Tree City USA – Tree Maintenance Program
Description	Begin working towards attaining Tree City USA designation.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Estimated Cost	$0 - $1,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
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	$2,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department
Status	New Action, Not Started

Removed Mitigation Actions

Mitigation Action	Power and Service Lines
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this action because it would be better as an NPPD action. The village does not have much power to do this.

[xxv] *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*
[xxvi] *United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.*
[xxvii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[xxviii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[xxix] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[xxx] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[xxxi] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[xxxii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[xxxiii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[xxxiv] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[xxxv] *County Assessor. Personal correspondence, February 2019.*
[xxxvi] *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 CORDOVA

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

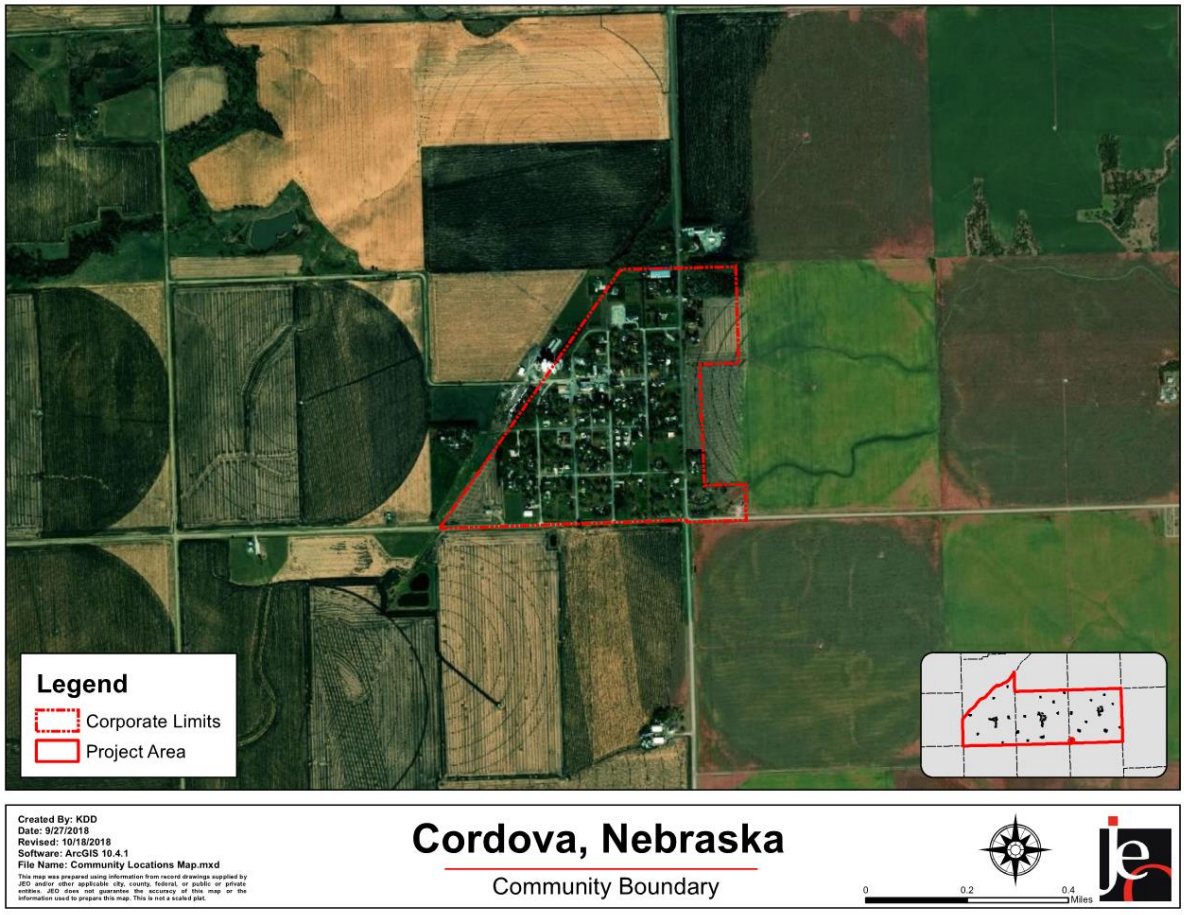
Table CDV.1: Cordova Local Planning Team

Name	Title	Jurisdiction
Margie Johnson	Village Clerk	Village of Cordova

Location and Geography

The Village of Cordova is located in the southwest corner of Seward County and covers an area of 160 acres.

Figure CDV.1: Community Boundary



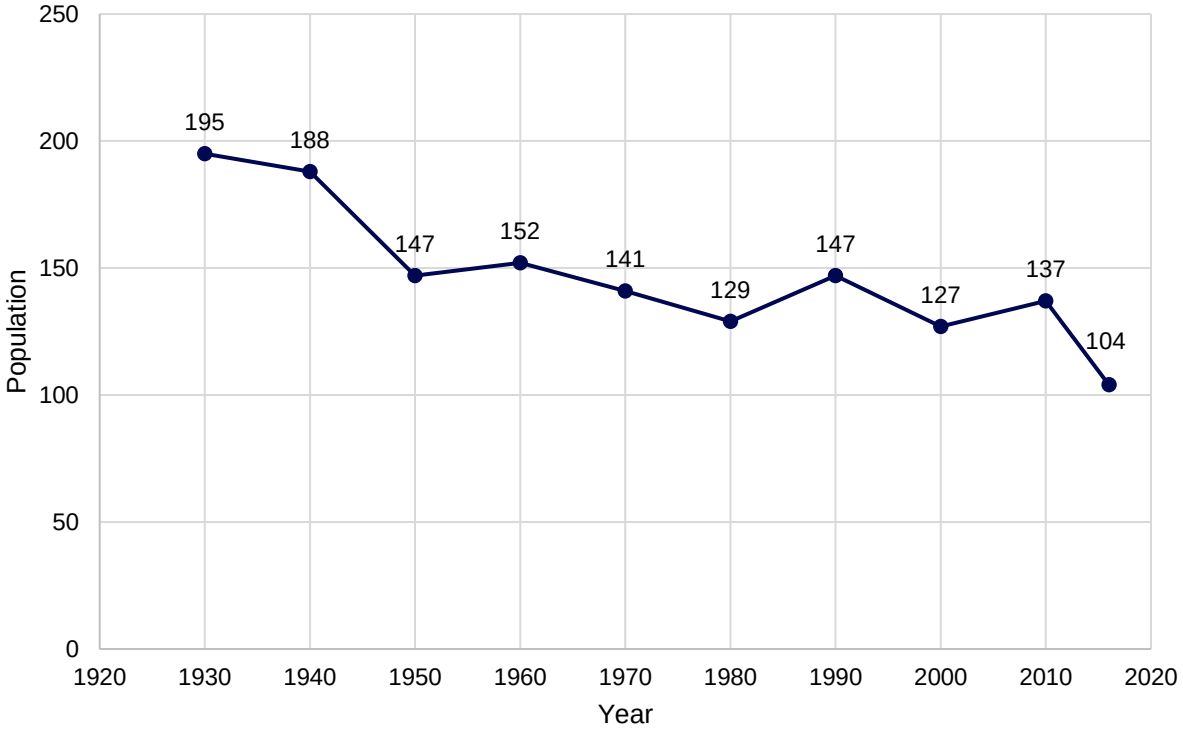
Transportation

Cordova's major transportation corridor includes Nebraska Highway L-80G with 305 vehicles a day.[xxxvii] Cordova does not have any rail lines running through the community or airports within or near village 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 propane is regularly transported to the Farmer's Cooperative, but no other chemicals are regularly transported along transportation routes.

Demographics

Cordova's population declined from about 127 people in 2000 to 104 people in 2016, an average annual decrease of 1.13%. The local planning team indicated that the population decline may not be as great as the census estimated. The village currently estimated that the population was around 127 people. This is important because population decline means a decreasing tax revenue and a higher number of unoccupied housing. Cordova's population accounted for 0.61% of Seward County's population in 2016.[xxxviii]

Figure CDV.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, Cordova's population was:

- **Similarly Aged.** The median age of Cordova was 38.0 years old in 2016, compared with the county average of 38.1 years. Cordova's population grew younger since 2010, when the median age was 44.3 years old. Cordova had a larger proportion of people under 20 years old (33.7%) than the county (28.2%).[xxxix]
- **Less ethnically diverse**. In 2010, 1.46% of Cordova's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Cordova became slightly less ethnically diverse, with 1.0% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[xl]
- **As likely to be below the federal poverty line.** The poverty rate in Cordova (4.8% of families living below the federal poverty line) was slightly higher than the county's poverty rate (4.7%) in 2016.[xli]

Employment and Economics

The Cordova economic base is a mixture of agriculture, retail trade, and educational uses. In comparison to Seward County, Cordova's economy had:

- **Different mix of industries.** Cordova's major employment sectors, accounting for 10% or more of employment each, were: Agriculture, forestry, fishing and hunting, and mining; Retail trade; Professional, scientific, and management, and administrative and waste management services; and Educational services, and health care and social assistance.[xlii]
- **Lower household income.** Cordova's median household income in 2016 ($49,688) was about $11,800 lower than the county ($61,563).[xliii]
- **More long-distance commuters.** The local planning indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Cordova include Farmers Cooperative and Cordova Locker. A large percentage of residents commute to the City of York, Village of Utica, and the City of Lincoln for employment.

Housing

In comparison to Seward County, Cordova's housing stock was:

- **Less renter-occupied**. About 2.4% of occupied housing units in Cordova are renter occupied compared with 27.9% of occupied housing in Seward County.[xliv]
- **Older.** Cordova had a much larger share of housing built prior to 1970 than the county (72.4% compared to 48.5%).[xlv]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Cordova contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 85.5% of housing in Cordova was single-family detached, compared with 80.8% of the county's housing. Cordova has a much larger share of mobile and manufactured housing (14.5%) compared to the county (3.2%).[xlvi]

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

Future Development Trends

In the last five years, the village has added one new business which is a gun shop and had two houses burn down due to house fires. One of the houses was an abandoned structure. No new housing has been built during this time. According to the 2016 American Community Survey estimates, Cordova's population has declined since 2010. A declining population may result in a decreasing tax base, which may make implementing mitigation actions more difficult. However, the local planning team indicated that younger families were moving to the area, so the population may increase over the next decade. Over the next five years, there is a plan to demolish an old home and possibly build a new home. 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 CDV.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
106	$5,068,857	$47,819	9	$301,727

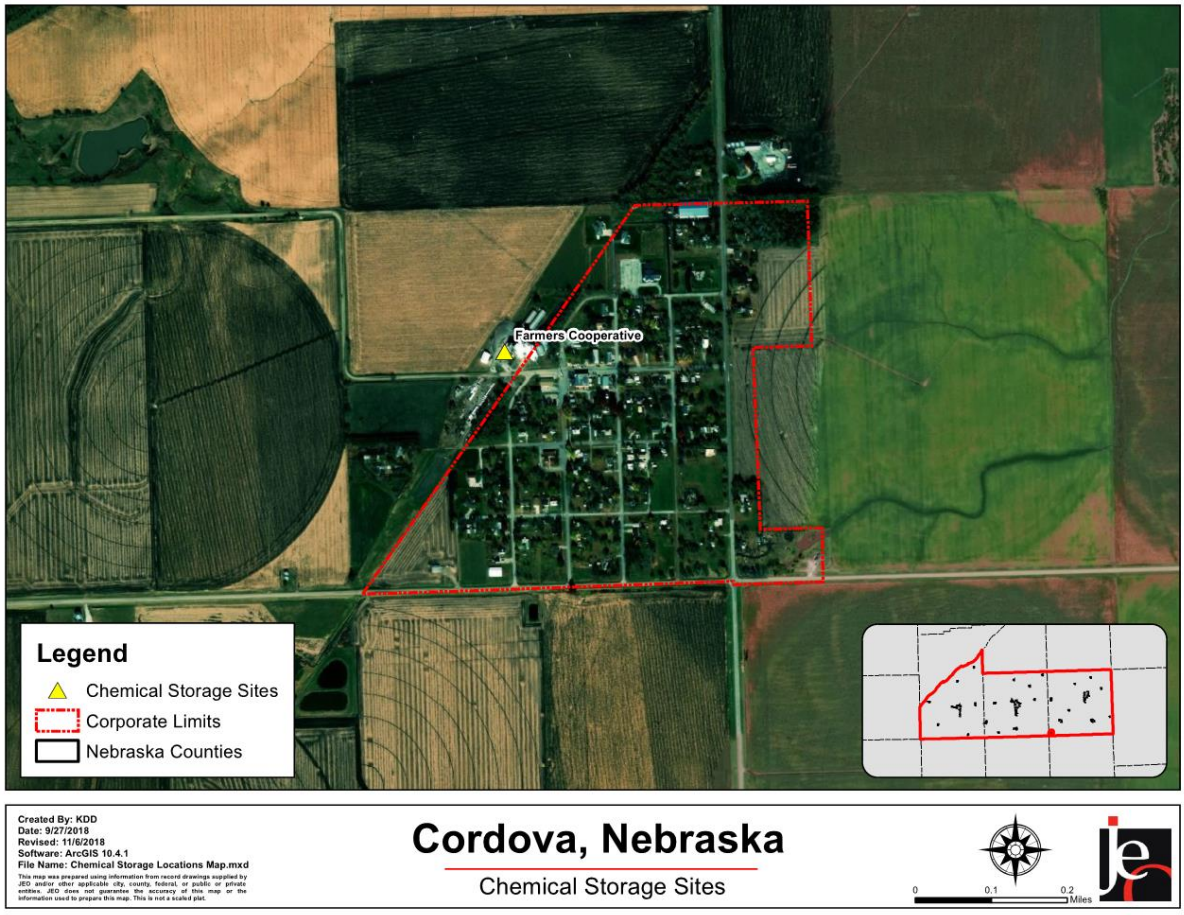
Source: Nebraska Department of Revenue, Property Assessment Division[xlvii]

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 sites in Cordova. The map below shows the name and location of the site.

Figure CDV.3: Chemical Storage Fixed Sites



Source: Nebraska Department of Environment and Energy[xlviii]

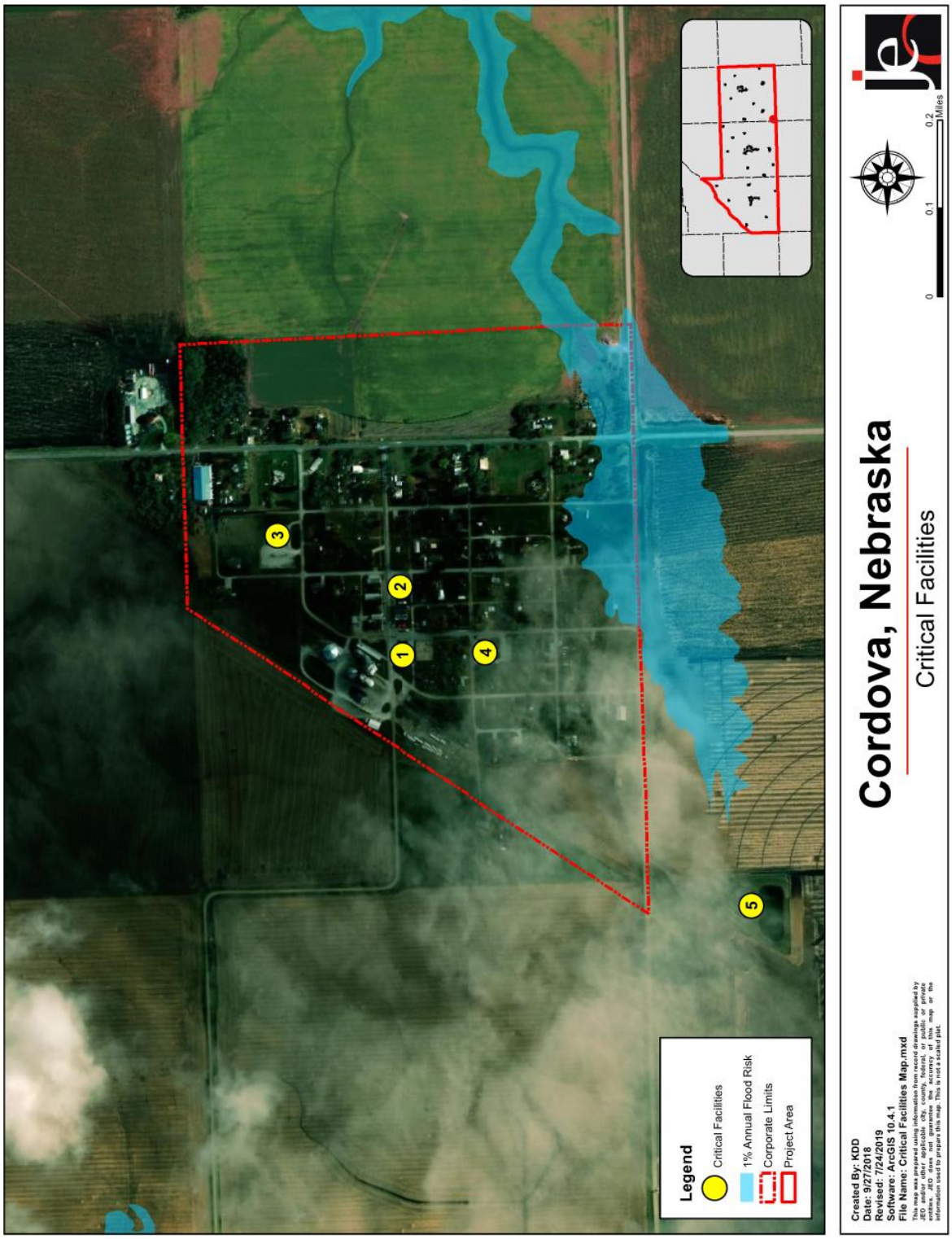
Critical Facilities

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 CDV.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Community Building	N	N	N
2	Fire Department	N	N	N
3	St. John's Lutheran Church	N	N	N
4	Trinity Evangelical Lutheran Church	N	N	N
5	Wastewater Lagoons	N	N	N

Figure CDV.4: Critical Facilities



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

Historical Occurrences

See the Seward 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

The primary concern related to hail is damage to trees and buildings throughout the planning area. NCEI data indicates that Cordova has experienced two hail events since 1997. The largest event occurred in 2014 when 1.75-inch hail covered the ground. The village is in the process of identifying dangerous and damaged trees for removal. Recently damage trees were removed and replaced from the local park. The local planning team mentioned that the village regularly holds meetings with residents to discuss what to do during different hazard events.

High Winds

The local planning team indicated that high winds have caused power loss in the past due to downed lines and trees. In addition, some roads became impassible for a time due the limbs and live power lines lying in the street. Recently the village has removed damaged trees in the park from the 2014 tornado and replaced them with new trees. 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 Seward County has experienced 20 high wind events since 1997.

Severe Thunderstorms

In 2014 Cordova experienced a thunderstorm wind event which reached wind speeds of 103.57. This event occurred during the same storm as an EF3 and EF1 tornado. The local planning did not indicate that any other damaging thunderstorms had occurred in the area. Severe thunderstorms can cause a wide range of damage from power loss to roof and tree damage. The village does not have a certified storm shelter, but the community center is used as community shelter during severe events. Should power loss occur, none of the critical facilities have a backup generator available. The local planning team indicated that the fire department does storm spotting in the event of severe weather and that the county offers cell phone notification.

Severe Winter Storms

NCEI data records severe winter storms as "zonal" events meaning there is not a specific record of what communities are impacted. The planning team for Cordova did not report any major sever winter storms impacting the community. The village has a tractor with a blade which is used to remove snow. In addition, the village can borrow a local back loader for larger snow events. The planning team indicated that for most events the current equipment is sufficient.

Tornadoes

In 2014 the Village of Cordova experienced an EF3 and EF1 tornado which caused $2,400,000 in property damage. The local planning team indicated that several homes were destroyed, and many other buildings had roof and window damage. The village does have a warning siren in the village which is activated in Seward. The community does not have a certified storm shelter, but the local planning team indicated that a majority of the houses do have basements or crawlspaces where residents can find shelter.

Governance

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

- Clerk
- Treasurer
- Chief of Police
- Fire Chief
- 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 CDV.4: Capability Assessment

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

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

Plan Integration

The local emergency operations plan (LEOP) was last updated in 2019 and is an annexation to Seward County's plan. The LEOP addresses hazards of greatest concern, assigns specific responsibilities, identifies scenarios that would require evacuation, and lists sheltering locations. There are plans to update the LEOP and the village will work with Seward County Emergency Management to provide the needed information. No other examples of plan integration were identified. There are currently no plans to further integrate existing or future planning mechanisms.

Mitigation Strategy

New Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to critical facilities.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$15,000 - $30,000 per generator
Funding	Village General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started, New Action

[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/.*
[xl] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[xli] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[xlii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[xliii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[xliv] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[xlv] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[xlvi] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[xlvii] *County Assessor. Personal correspondence, February 2019.*
[xlviii] *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 GARLAND

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

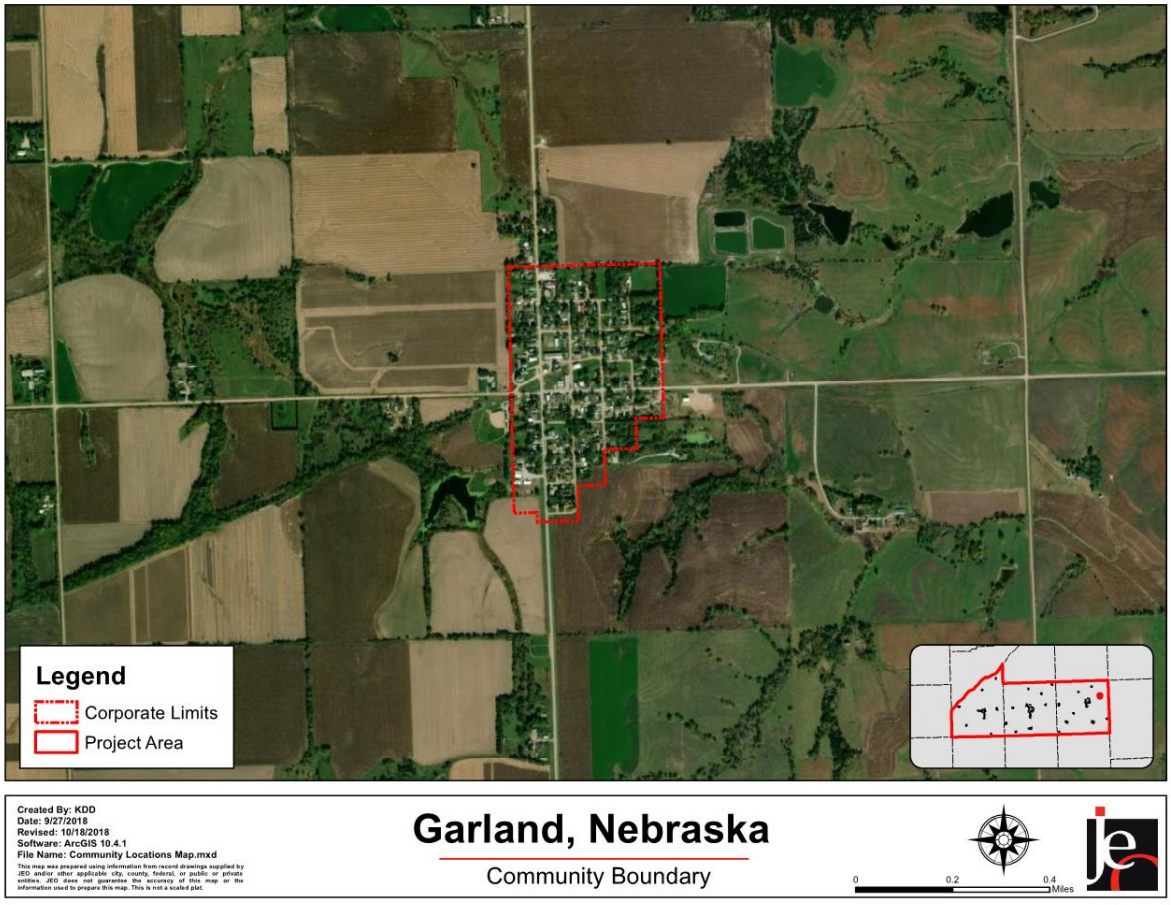
Table GLD.1: Garland Local Planning Team

Name	Title	Jurisdiction
Chris Ulrich	Board Trustee	Village of Garland

Location and Geography

The Village of Garland is located in the northeast portion of Seward County and covers an area of 109 acres. Branched Oak State Recreation Area, Oak Glen State Wildlife Management Area, and Bur Oak State Wildlife Management Area are all within six miles of Garland.

Figure GLD.1: Community Boundary



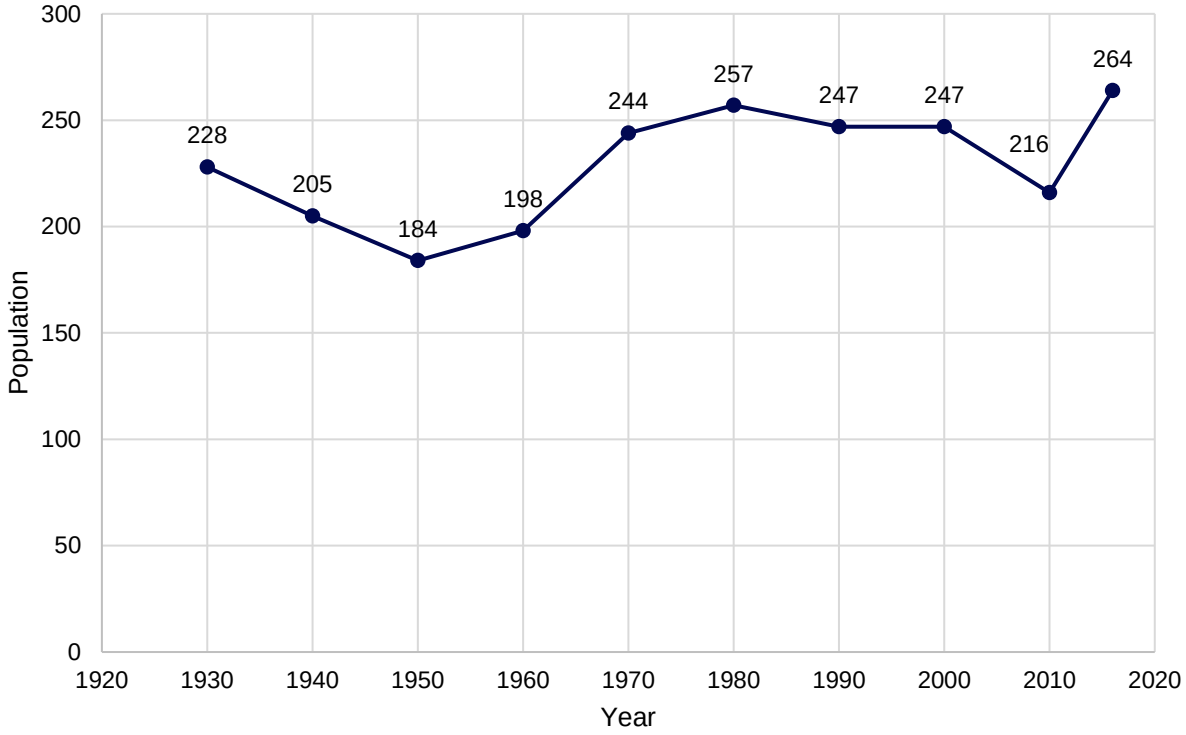
Transportation

Garland's major transportation corridor includes Nebraska Highway S-80D with 750 vehicles a day.[xlix] The highway experiences many more vehicles during the summer months. Garland does not have any rail lines running through the community or airports within or near village 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. Transportation routes of most concern for the community include the highway, Frazier Street, and 4th Street. The local planning team indicated that chemicals are not regularly transported along these local routes.

Demographics

Garland's population grew from about 247 people in 2000 to 264 people in 2016, an average annual increase of 0.43%. This is important because the population growth means a larger tax revenue. Garland's population accounted for 1.54% of Seward County's population in 2016.[l]

Figure GLD.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, Garland's population was:

- **Older.** The median age of Garland was 40.6 years old in 2016, compared with the county average of 38.1 years. Garland's population grew younger since 2010, when the median age was 43.0 years old. Garland had a slightly smaller proportion of people under 20 years old (26.9%) than the county (28.2%).[li]
- **Less ethnically diverse**. In 2010, 0.0% of Garland's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Garland became more ethnically diverse, with 0.8% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[lii]
- **More likely to be below the federal poverty line.** The poverty rate in Garland (10.4% of families living below the federal poverty line) was much higher than the county's poverty rate (4.7%) in 2016.[liii]

Employment and Economics

The Garland economic base is a mixture of manufacturing, retail trade, transportation, and educational uses. In comparison to Seward County, Garland's economy had:

- **Similar mix of industries.** Garland'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.[liv]
- **Lower household income.** Garland's median household income in 2016 ($44,821) was about $16,700 lower than the county ($61,563).[lv]
- **Fewer long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Garland include Outlaw Steakhouse and the Corner Bar. A large percentage of residents commute to the City of Seward and City of Lincoln for employment.

Housing

In comparison to Seward County, Garland's housing stock was:

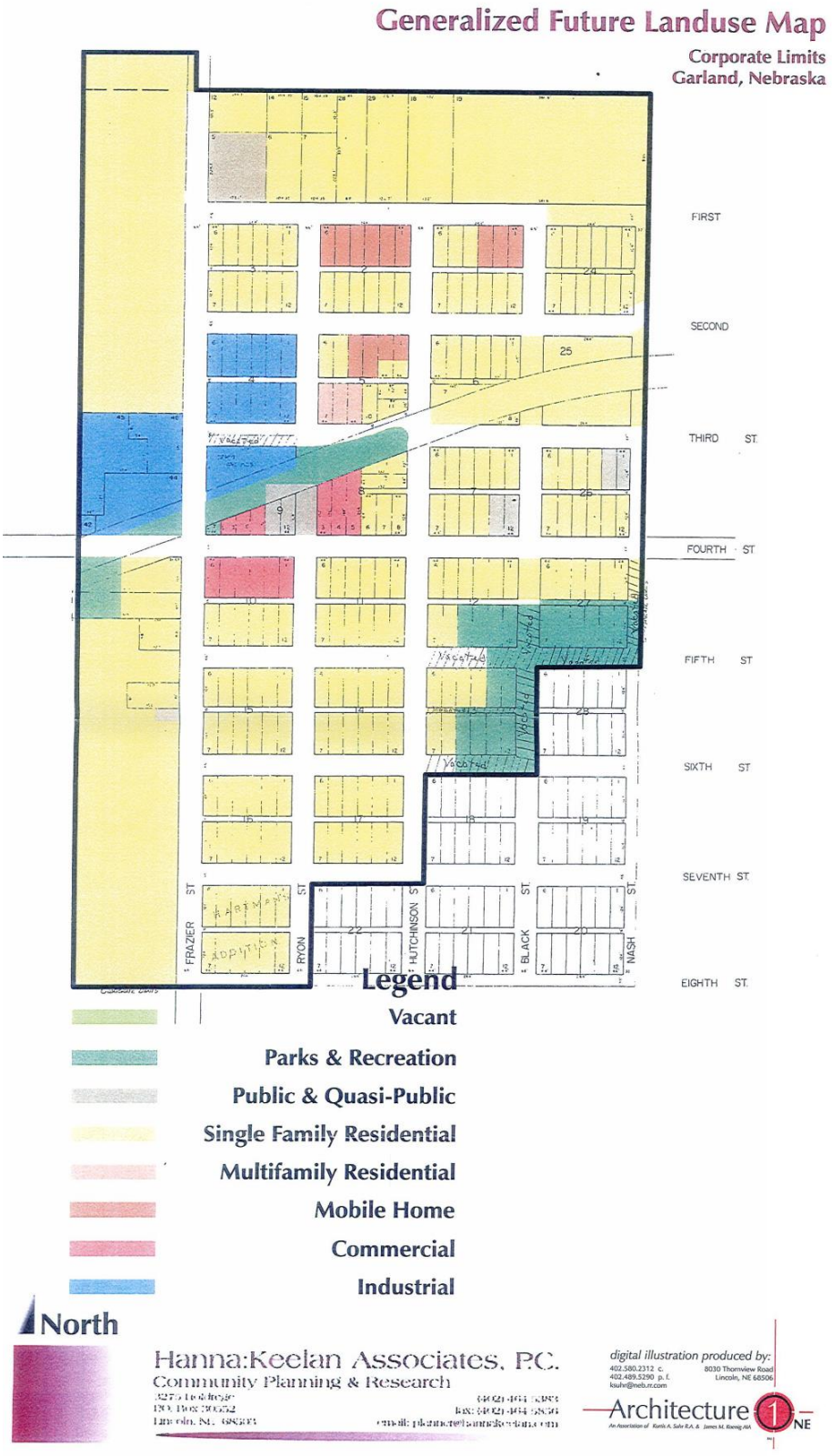
- **Less renter-occupied**. About 14.0% of occupied housing units in Garland are renter occupied compared with 27.9% of occupied housing in Seward County.[lvi]
- **Older.** Garland had a much larger share of housing built prior to 1970 than the county (64.6% compared to 48.5%).[lvii]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Garland contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 85.3% of housing in Garland was single-family detached, compared with 80.8% of the county's housing. Garland has a larger share of mobile and manufactured housing (12.9%) compared to the county (3.2%).[lviii]

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. Garland contains approximately eight mobile homes located on the north side of the village.

Future Development Trends

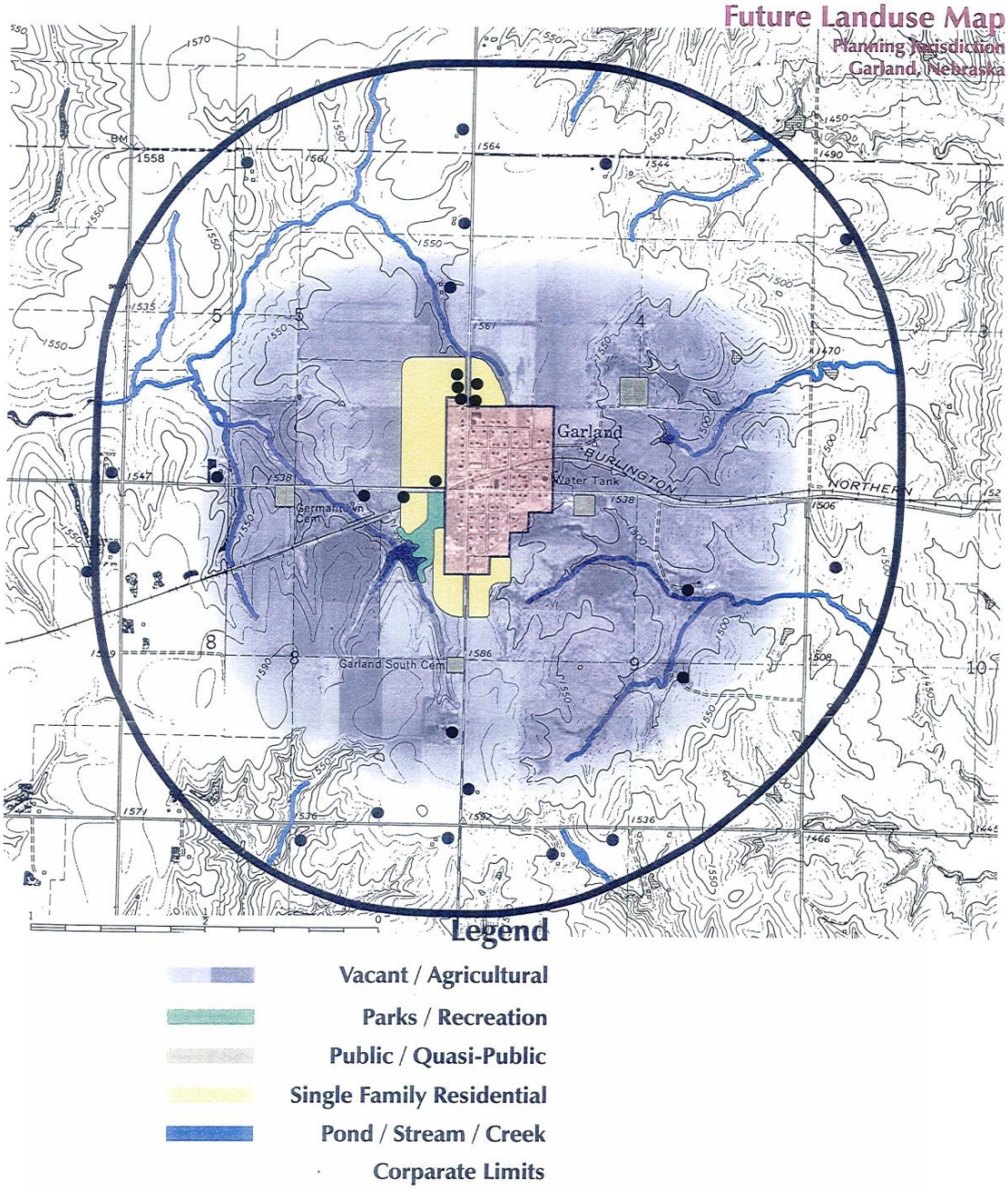
In the last five years, the village demolished an abandoned/hazardous home. No housing or new businesses were built. According to the latest American Community Survey estimates, Garland's population has grown since 2010. A growing population may result in an increasing tax base, which may make implementing mitigation actions more feasible. The local planning team indicated that the growth is due to the proximity to both Seward and Lincoln and that it is a great place for families to raise kids. Over the next five years, no new housing, industry, or businesses are planned.

Figure GLD.3: Future Land Use Map Corporate Limits



Source: Village of Garland

Figure GLD.4: Future Land Use Map Planning Jurisdiction



Source: Village of Garland

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 GLD.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
178	$8,292,603	$46,588	0	$0

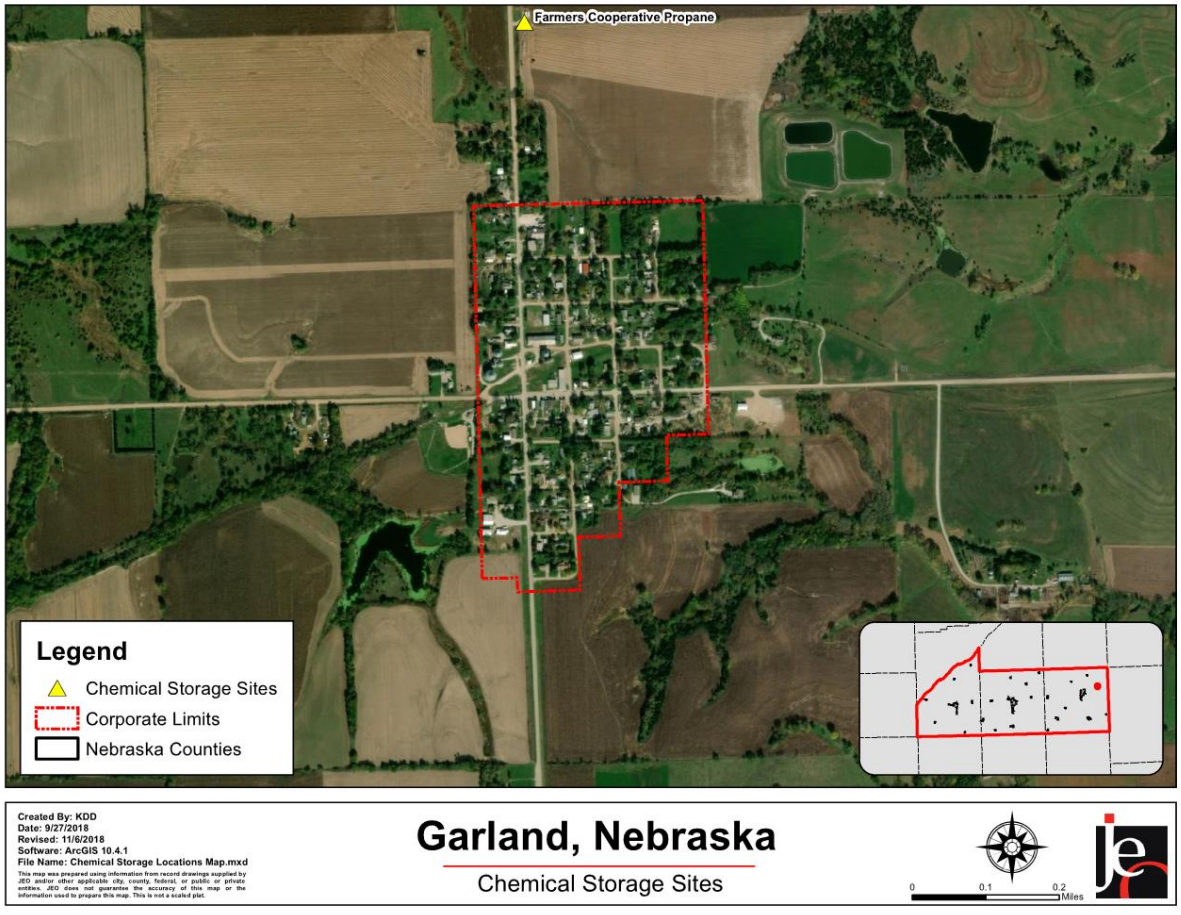
Source: Nebraska Department of Revenue, Property Assessment Division[lix]

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 sites near Garland. The map below shows the name and location of the site.

Figure GLD.5: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy[lx]

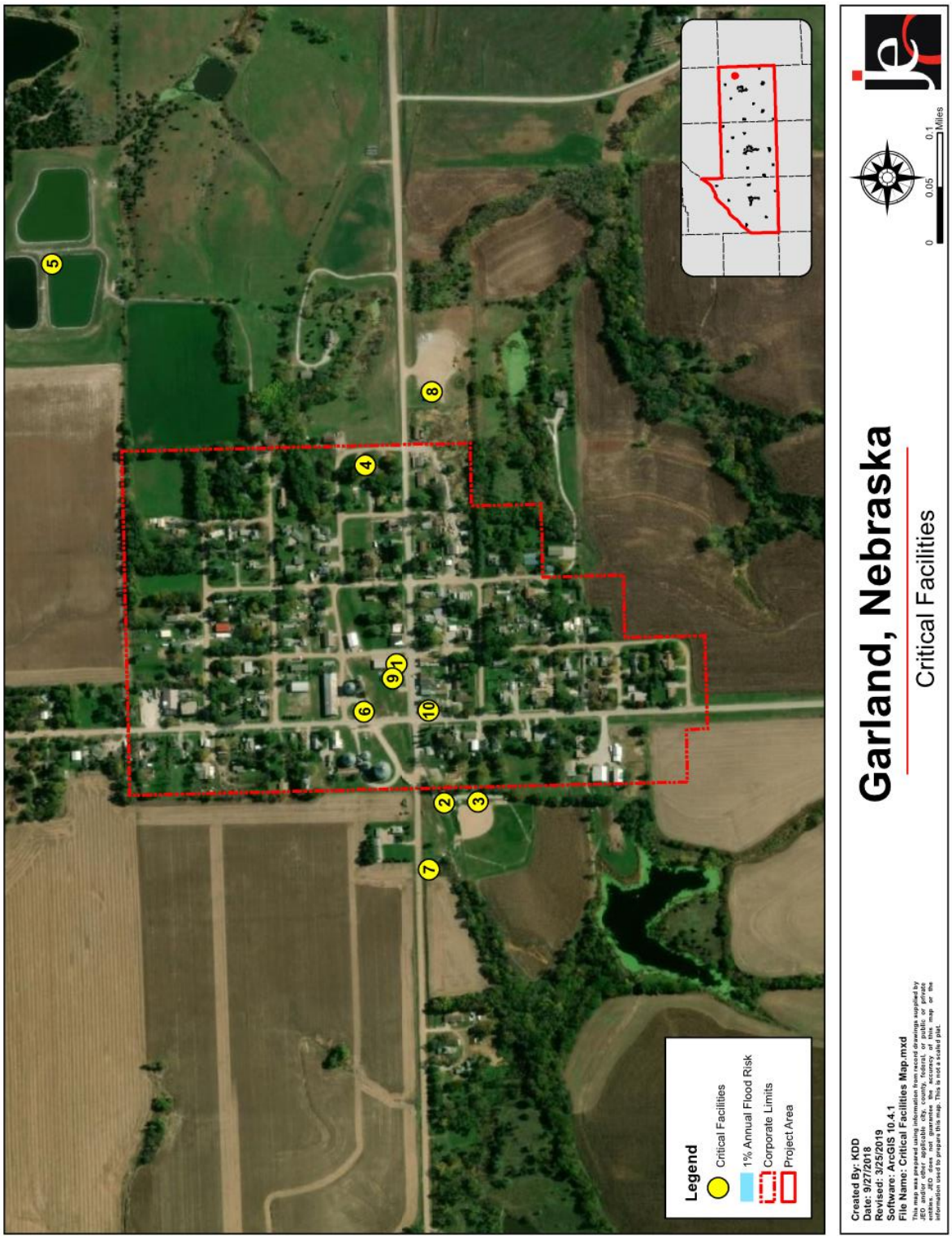
Critical Facilities

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 GLD.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Fire Barn	Y	Y	N
2	Well House East	N	N	N
3	Well House West	N	Y	N
4	Water Tower & Associated Building	N	N	N
5	Wastewater Lagoons	N	N	N
6	United Farmer's COOP Gas Station	N	N	N
7	Seward County PPD Garland Substation	N	N	N
8	Seward County Road Equipment Shop	N	N	N
9	Legion Hall	Y	N	N
10	Bank	Y	N	N

Figure GLD.6: Critical Facilities



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

Historical Occurrences

See the Seward 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

Drought is generally a regional event, with impacts from a single drought event impacting multiple communities, counties, and even states. Garland, Seward County, Nebraska, and most of the Midwest experienced a severe drought for most of 2012. There were no specific impacts reported for Garland. For the community a relatively small percentage (approximately 1.5 percent) of the workforce relies on agriculturally based income so impacts will likely be felt in other areas. Issues with drinking water and irrigation are the greatest concerns for the community during a drought event.

Grass/Wildfire

The local planning team identified grass/wildfire as a top hazard for the community. The Garland Fire Department responded to 20 grass/wildfires between 2000 and 2017. These fires resulted in 1,668 acres being burned. According to the USGS LANDFIRE database, the village and surrounding area are located in the mean fire interval of 0-5 years. This value shows how often fires occur under natural conditions and is the highest category in the mean fire interval.

Severe Thunderstorms

NCEI data shows that Garland has experienced two thunderstorm wind events since 1996. Neither event resulted in property damage. Specific characteristics of Garland which result in this increased level of vulnerability include an older housing stock and an aging population. The average age of Garland is 40.6 and 18.3% of the population is age 65 or older. Severe thunderstorms can cause blocked roadways and power loss from high winds and fallen trees/limbs. Blocked roadways present life safety concerns that may be more prevalent with older populations needing immediate medical attention resulting from injuries or the loss of medical devices resulting from prolonged power outages.

Severe Winter Storms

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 three times a year for Seward County. There are some demographics that result in higher levels of vulnerability for the Village of Garland. Community members and families below the poverty line are at higher risk related to severe winter storms. Families and community members at or below the poverty line may lack resources needed to sustain themselves through a major severe winter storm. The 2016 American Community Survey shows that 10.4 of families in Garland are at or below the poverty line. The village also has 64% 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 Garland has not experienced a tornado event. However, this does not mean that no risk occurs. Seward County as experienced 14 tornado events since 1996. It should be noted that a large-scale tornado (F3 or great) could impact the entire community and result in

significant losses to most or all structures within the community. A local example of this was the 2004 tornado which struck Hallam, Nebraska (approximately 45 miles southeast). Most of Hallam was destroyed as a result on the F4 which struck the community. These results could realistically occur in Garland. The community indicated that it does have an alert siren but would like either a new or upgraded siren.

Governance

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

- Clerk/Treasurer
- Attorney
- Fire Chief
- Sewer/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 GLD.4: Capability Assessment

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

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

Plan Integration

Garland's Comprehensive Plan, Zoning Ordinance, and Subdivision Regulations were all last updated in 2004. The Comprehensive Plan contains goals aimed at safe growth and directs development away from the floodplain, chemical storage facilities, and major transportation routes. The other planning mechanisms do not contain principles of hazard mitigation, but the village will look to include them in future updates. Currently there is no timeline to update any of the planning documents.

The village is part of a Wellhead Protection Plan which was developed in 2017. The plan outlines the boundary of the wellhead protection district and contains requirements for well setback distances. The local planning team indicated that there are decommissioned/abandoned wells within the district that need to be properly sealed. 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	All-Terrain Vehicles
Hazard(s) Addressed	All Hazards
Status	Completed. The village recently purchased a new John Deere Gator.

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sires which should be replaced or placement of new sirens.
Hazard(s) Addressed	All Hazards
Estimated Cost	$15,000+
Funding	General Fund
Timeline	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	$2,000+
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.
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 and Fire Department
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.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events.
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	Improve Snow / Ice Removal Program
Description	Revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include updating the emergency routes, acquiring equipment that is needed, paving routes, and ordinances as necessary. Improve capabilities to rescue those stranded in blizzards.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$20,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
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	5+ Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable 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	Medium
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Weather Radios
Description	Conduct an inventory of weather radios at critical facilities and provide new radios as needed.
Hazard(s) Addressed	All Hazards
Estimated Cost	$50/per radio
Funding	General Fund
Timeline	1 Year
Priority	Low
Lead Agency	Village Board
Status	Not Started

Removed Mitigation Actions

Mitigation Action	Community Rating System (CRS)
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team has chosen to remove this mitigation action. The village is not located in the 100-year floodplain and historically has not seen flooding issues. If the floodplain changes, then the planning team will reevaluate this mitigation action.

Mitigation Action	Elevate Pad Mounted Transformers and Switch Gear
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team has chosen to remove this mitigation action as the items are already pole mounted. All new transformers and switch gear will be elevated.

Mitigation Action	Evaluate and Improve Building Standards
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team has chosen to remove this mitigation action because of the lack of new construction. The village does not anticipate any new construction in the next five years. If new construction is foreseen, then the community will reevaluate this mitigation action.

Mitigation Action	Hail Resistant Roofing
Hazard(s) Addressed	Hail, Severe Thunderstorms
Reason for Removal	The local planning team has chosen to remove this mitigation action because of the lack of new construction. The village does not anticipate any new construction in the next five years. If any new construction does occur, hail resistant roofing would be installed.

Mitigation Action	Public Awareness / Conservation
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. The community did not feel it was necessary to distribute information materials. Most of the education can be done on the village website and social media accounts.

Mitigation Action	Public Awareness / First Aid Training
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team has chosen to remove this mitigation action because the community has the Garland Volunteer Fire Department to handle any first aid issues.

Mitigation Action	Snow Fences
Hazard(s) Addressed	Severe Winter Storms
Reason for Removal	The local planning team has chosen to remove this mitigation action. The community did not see a need for snow fences at this time. Road close due to snow drifting has not been an issue in the past.

Mitigation Action	Trailer Park Safe Rooms
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation was removed by the local planning team because there is not a true trailer park in the village. The mobile homes in the village are not all located near each other. In addition, there is no place close to the trailers to build a safe room structure.

Mitigation Action	Tree City USA – Tree Maintenance Program
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Thunderstorms
Reason for Removal	This mitigation action was removed by the local planning team because hazardous trees are not an issue in the community. The village uses a company to remove hazardous trees/limbs.

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms
Reason for Removal	The local planning team has chosen to remove this mitigation action. The village already has a tornado siren and would rather put their limited funding towards upgrading that.

[xlix] *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*

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

[li] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*

[lii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*

[liii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*

[liv] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*

[lv] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*

[lvi] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*

[lvii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*

[lviii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*

[lix] *County Assessor. Personal correspondence, February 2019.*

[lx] *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 GOEHNER

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

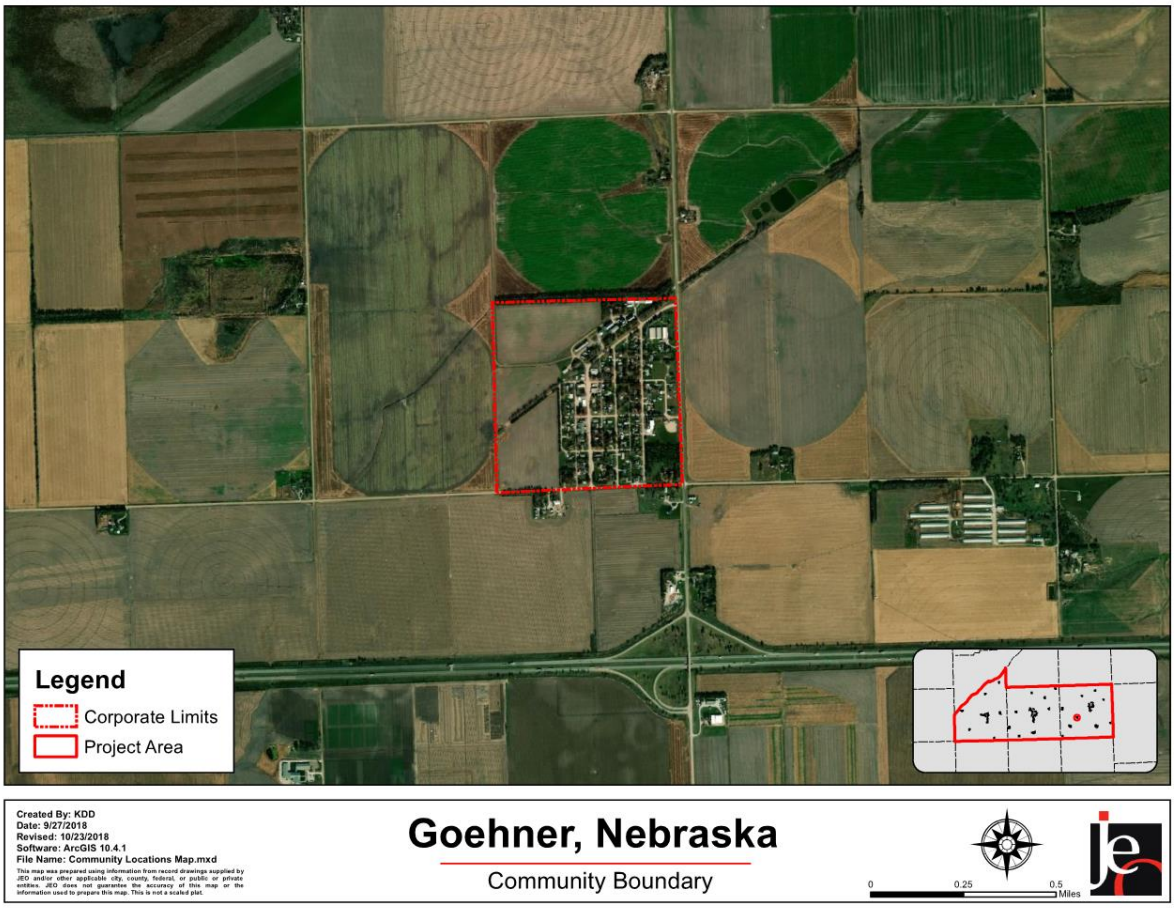
Table GON.1: Goehner Local Planning Team

Name	Title	Jurisdiction
Jamie Knisley	Fire Department & Village Board Member	Village of Goehner
Alex Dodson	Village Board Member	Village of Goehner

Location and Geography

The Village of Goehner is located in the central portion of Seward County and covers an area of 109 acres.

Figure GON.1: Community Boundary



Transportation

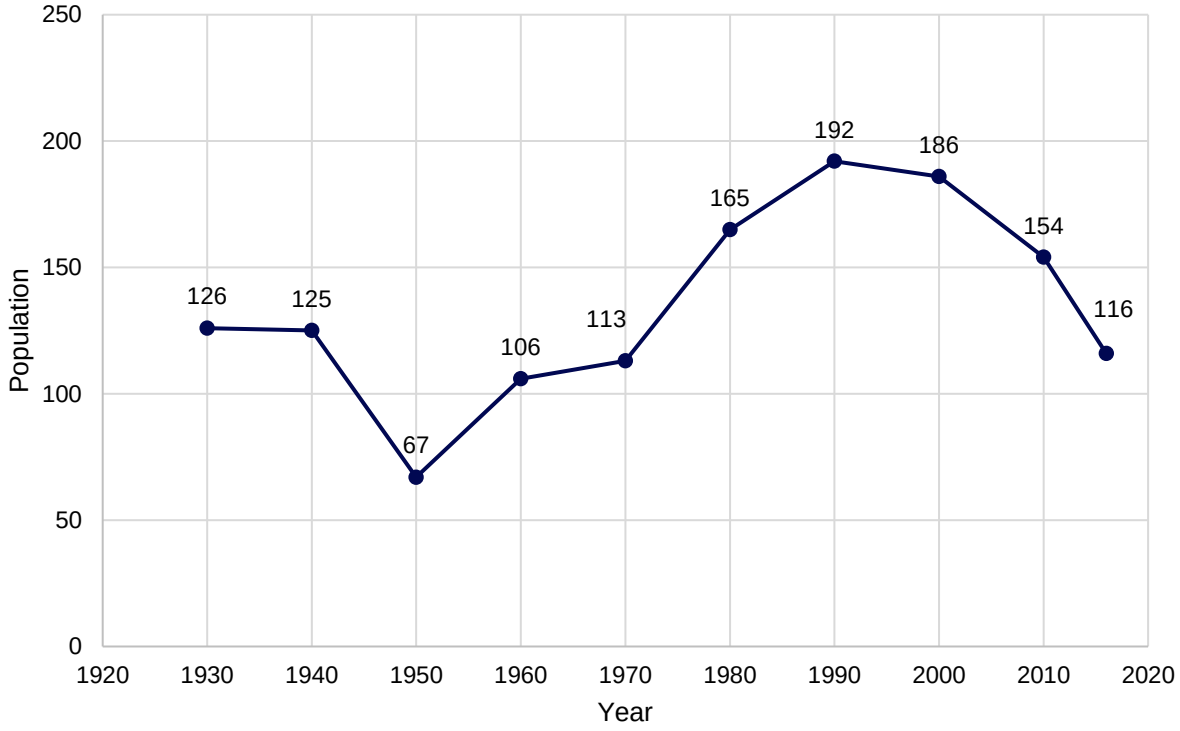
Goehner's major transportation corridor includes Nebraska Highway L-80G with 690 vehicles a day. The village is also located one mile from Interstate 80 with 25,778 vehicles a day.[lxi] The village is also located one mile from Interstate 80 with 25,778 vehicles a day. Goehner does not have any rail lines running through the community or airports within or near village 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 chemicals are regularly transported along Interstate 80 and accidents regularly occur.

Demographics

Goehner's population declined from about 186 people in 2000 to 116 people in 2016, an average annual decrease of 2.35%. This is important because the population decline means a decreasing tax revenue and the potential for unoccupied housing. Goehner's population accounted for 0.68% of Seward County's population in 2016.[lxii]

Figure GON.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, Goehner's population was:

- **Older.** The median age of Goehner was 50.8 years old in 2016, compared with the county average of 38.1 years. Goehner's population grew older since 2010, when the median age was 43.0 years old. Goehner had a much smaller proportion of people under 20 years old (19.8%) than the county (28.2%).[lxiii]
- **More ethnically diverse**. In 2010, 5.2% of Goehner's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Goehner became more ethnically diverse, with 6.9% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[lxiv]
- **More likely to be below the federal poverty line.** The poverty rate in Goehner (14.7% of families living below the federal poverty line) was much higher than the county's poverty rate (4.7%) in 2016.[lxv]

Employment and Economics

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

- **Different mix of industries.** Goehner's major employment sectors, accounting for 10% or more of employment each, were: agriculture, forestry, fishing and hunting, and mining; Manufacturing; retail trade; transportation and warehousing, and utilities; and educational services, and health care and social assistance.[lxvi]
- **Higher household income.** Goehner's median household income in 2016 ($65,750) was about $4,000 higher than the county ($61,563).[lxvii]
- **More long-distance commuters.** The planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Goehner include BASF and the Chez Bubba Café. A large percentage of residents commute to Lincoln, Seward, and Milford.

Housing

In comparison to Seward County, Goehner's housing stock was:

- **Less renter-occupied**. About 20.8% of occupied housing units in Goehner are renter occupied compared with 27.9% of occupied housing in Seward County.[lxviii]
- **Older.** Goehner had a much larger share of housing built prior to 1970 than the county (70.7% compared to 48.5%).[lxix]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Goehner contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 91.4% of housing in Goehner was single-family detached, compared with 80.8% of the county's housing. Goehner has a much smaller share of mobile and manufactured housing (0.0%) compared to the county (3.2%).[lxx] Goehner does not have any mobile homes located within the community.

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

Future Development Trends

In the last five years, a new church and a few new houses have been built. According to the latest American Community Survey estimates, Goehner's population is declining and has been declining since 1990. A declining population may result in a shrinking tax base, which may make implementing mitigation actions more difficult. Because of this, the local planning team indicated that no new housing developments, businesses, or industries are planned over the next five years.

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 GON.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
107	$7,852,108	$73,384	0	$0

Source: Nebraska Department of Revenue, Property Assessment Division[lxxi]

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 no chemical storage sites in Goehner.

Critical Facilities

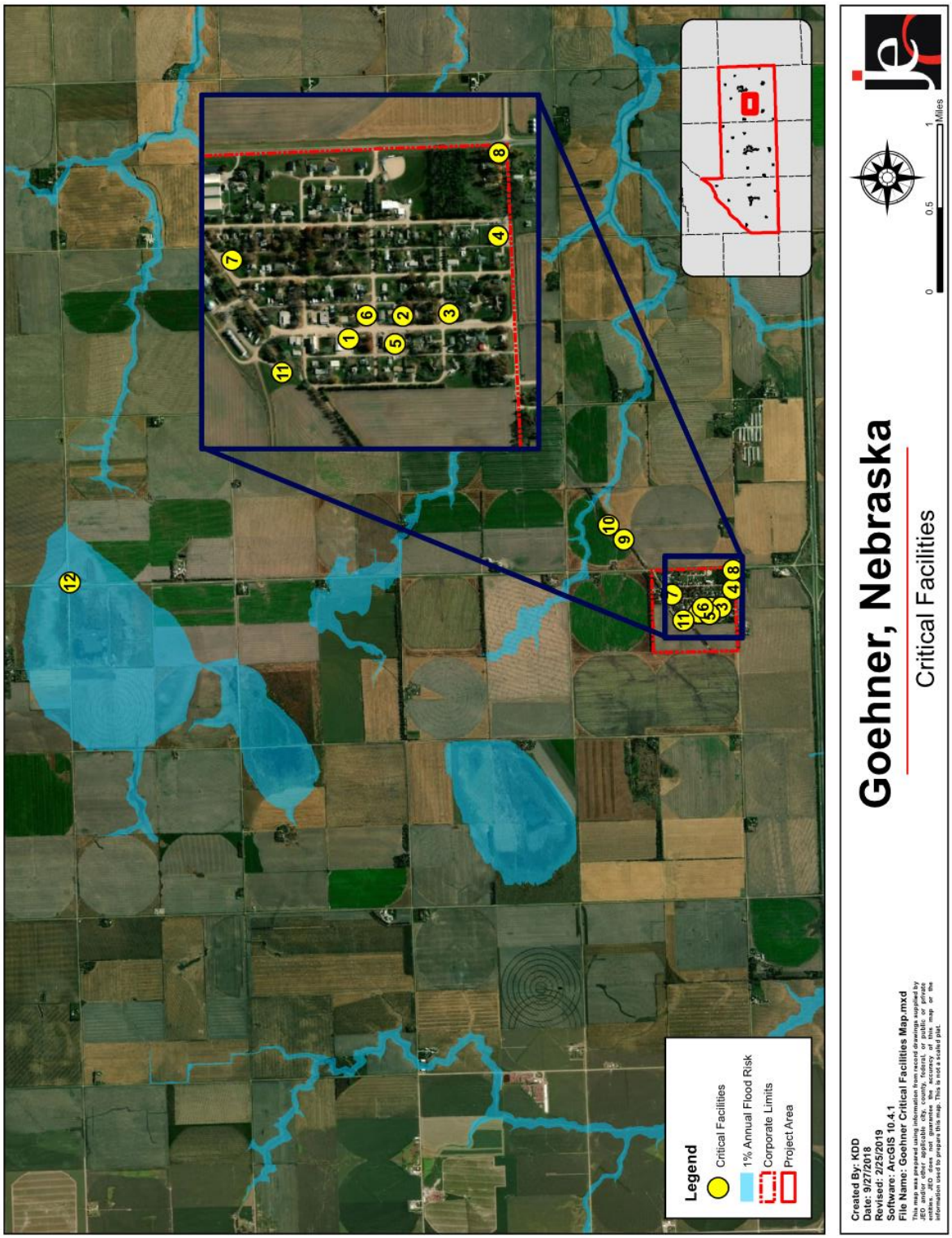
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster. Critical facilities were identified during the original planning process and updated 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 GON.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Village Fire Station and Safe House	N	Y	N
2	Village Office	N	N	N
3	Holy Cross Lutheran Church	N	N	N
4	U.C.C Church	N	N	N
5	Great Plans Community Church	N	N	N
6	South Pump House and Siren	N	Y*	N
7	North Pump House	N	Y*	N
8	Lift Station - South	N	Y*	N
9	Lift Station – North	N	Y*	N
10	Village Lagoon	N	Y*	N
11	Seward County Road Shop	N	Y	N
12	Sub Station	N	N	Y

**Portable generator can be used if needed at these locations.*

Figure GON.3: Critical Facilities



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

Historical Occurrences

See the Seward 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 planning team for Goehner identified agricultural animal and plant disease as a top threat for the community because of the impact it would have on local farmers surrounding the village. Animals of concern for the community include cows, turkeys, chickens, and pigs. Agriculture is a major employment sector for the village and a local disease outbreak on either plants or animals would have a large economic impact on the community and surrounding area.

Flooding

Flooding in Goehner is limited to periodical flash flooding during heavy rain events. Flash flooding in Goehner is primarily due to poor stormwater drainage. During heavy rain events, water can inundate the stormwater system causing water to back up into buildings and residences. The village does not participate in the NFIP, which means that residents are not eligible for flood insurance. Without flood insurance, residents must pay for any damages out of pocket should flooding impact their property. Flooding impacts all areas of the community equally, as the village does not have any low-lying areas. There is no mapped flood hazard area within the corporate limits.

Hail

The planning team expressed that the primary concern regarding hail was damage to both public and private property. Since 1996, seven hail events have been reported as impacting the village. Although no property or cop damage were reported, the potential for damage still exists. None of the village critical facilities are identified as being fitted with hail resistant building materials. If a large sized hail event were to occur within the community, potential damages could be very costly. The village does have its critical facilities insured in case damages from hail do occur. The Village of Goehner also has a large portion of housing built prior to 1970. These houses are less likely to have hail resistant building materials. If they are not properly insured, then the potential damage cost to residents could be very high.

Severe Thunderstorms

In 1996, lightning in Goehner caused $250,000 in property damage and in 2012 a thunderstorm wind event caused $3,000 in property damage. The older housing stock and an aging population makes the village more vulnerable to severe thunderstorms. The primary concern for severe thunderstorms as identified by the planning team is power loss due to downed trees from high winds. The village has 10% of power lines buried, which leaves 90% vulnerable to high winds and downed trees. The village also indicated that there are many trees located near power lines which need to be removed.

Severe Winter Storms

One of the concerns regarding severe winter storms is blocked roads for transportation purposes. In December 2011, roads within the community were blocked by 5-foot snow drifts. The community had to hire local farmers to dig out and haul away the massive amounts of snow. The

community typically has the resources to handle snow removal, however, large snow events have caused the village to hire local farmers to help remove snow. There are three main roads out of Goehner and if those were to become blocked, transporting injured individuals may become an issue. The other main concern identified by the planning team is power loss for critical facilities and vulnerable patients. Severe winter storms have not caused historical structural damage; however, power outages have occurred in the past. With an aging population, power outages and subsequent loss of heat could become an issue.

Tornadoes

NCEI data shows that there have been two reported tornadoes impacting the Village of Goehner. Both tornadoes were EF 0 and caused minor wind damage to critical facilities. The community does have a warning siren which was installed less than five years ago. The community does not have any safe rooms. Should a tornado occur within the village, residents could seek shelter in basements or the local café freezer. In the event of a disaster, Goehner does have mutual aid agreements with other Seward County area fire departments, Seward County Roads, and the State of Nebraska.

Governance

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

- Clerk/Treasurer
- Utility Superintendent
- Attorney
- Fire Chief
- Sewer Commissioner
- Street Commissioner
- 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 GON.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes

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

Plan Integration

The comprehensive plan for Goehner was last updated in 2014. The local planning team indicated that the goals in the comprehensive plan are consistent with those in the hazard mitigation plan. The plan contains goals aimed at safe growth/infill development, directs development away from the floodplain, chemical storage facilities, and major transportation routes, and limits density in hazardous areas. There is no timeline to update the comprehensive plan, but the village would like to add storm shelters and additional floodplain information in future updates.

The village zoning ordinance was last updated in 2017 and subdivision regulations were updated in 2004. Both contain similar language regarding hazards as the comprehensive plan. The building code is updated on a yearly basis and is based on the 2003 International Building Code. The village is also located in a wellhead protection area. The local planning team indicated that there are signs in place to alert residents of the location of the area. In addition, the village has ordinances in place for well setback requirements. 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	Alert Sirens
Hazard(s) Addressed	All Hazards
Status	The project is completed. The village replaced the alert siren within the past five years.

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Hazard(s) Addressed	All Hazards
Status	The village updates this plan every other year and turns it into the county emergency manager.

Mitigation Action	Floodplain Mapping / Remapping
Hazard(s) Addressed	Flooding
Status	The county is currently remapping the floodplain. Maps will be completed in 2019.

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 to $30,000 per generator
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
Status	Currently identifying locations in need of generator.

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.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	New Municipal Well
Description	Evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$350,000 to $450,000
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Work with Seward Public Power District to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$70,000/mile
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Distribute maps and environmental education through activities such as outreach projects to 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 water conservation methods.
Hazard(s) Addressed	All Hazards
Estimated Cost	$0 to $500 +
Funding	General Fund
Timeline	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	5+ Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Storm Shelter/ Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) 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	Low
Lead Agency	Village Board
Status	Low

Mitigation Action	Stormwater System and Drainage Improvements
Description	Goehner utilizes stormwater systems comprising of ditches and culverts to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. These improvements can serve to more effectively convey runoff within villages, preventing interior localized flooding.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 to $50,000
Funding	Taxes
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
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	$500+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Removed Mitigation Actions

Mitigation Action	All-Terrain Vehicles
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action is no longer necessary because the village has many residents in the community own all-terrain vehicles and would be willing to help or loan the vehicles for use by the village.

Mitigation Action	Best Management Practices (BMP's)
Hazard(s) Addressed	Drought
Reason for Removal	The Village of Goehner does not see drought as a top hazard for the community. The village already has adequate supplies of source water and does not anticipate growth to the point where this will become an issue. Should major population growth occur, this action will be re-evaluated.

Mitigation Action	Community Rating System (CRS)
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team not see this mitigation action as a priority. The village plans to first focus on becoming a participant with NFIP. Once that is complete, the community will re-evaluate the need to participate in CRS.

Mitigation Action	Continuity Plans
Hazard(s) Addressed	All Hazards
Reason for Removal	The community feels that this mitigation action would not be cost effective. The local planning team will continue to re-evaluate this mitigation action.

Mitigation Action	Drainage Study / Stormwater Master Plan
Hazard(s) Addressed	Flooding
Reason for Removal	The planning team indicated that this mitigation action was no longer necessary as the community is already aware of the areas that have drainage issues. If there is significant expansion or changes the community will re-evaluate this mitigation action.

Mitigation Action	Electrical System Looped Distribution / Redundancies
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The village determined this action was no longer needed because it already has a redundant electrical system. Currently the village receives electricity from two different sources.

Mitigation Action	Emergency Communication
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team determined that this action would not be cost effective. The community does not see communication between agencies and residents is not an issue. The potential improvement in communication is not worth the cost of creating an action plan.

Mitigation Action	Evaluate and Improve Building Standards
Hazard(s) Addressed	Flooding
Reason for Removal	The village does not contain structures which house a high proportion of vulnerable populations. Existing building standards provide the protection that is needed from most hazards.

Mitigation Action	Floodplain Management
Hazard(s) Addressed	Flooding
Reason for Removal	The village determined that this action was not feasible because the community currently does not have any mapped floodplain within its community boundary.

Mitigation Action	Floodplain Protection
Hazard(s) Addressed	Flooding
Reason for Removal	The Village of Goehner does not have any floodplain hazard areas within its community boundary. The community will continue to monitor any future changes in the floodplain.

Mitigation Action	Floodplain Regulations
Hazard(s) Addressed	Flooding
Reason for Removal	The village determined that this action was not feasible because the community currently does not have any mapped floodplain within its community boundary.

Mitigation Action	Flood-Prone Property Acquisition
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action is not feasible as the Village of Goehner does not contain any properties which are located within the floodplain.

Mitigation Action	Grade Control Structures
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action is not feasible due the village not having any rivers or creeks within its community boundary. If the village expands to include creeks or rivers, then this action strategy will be re-evaluated.

Mitigation Action	Hail Resistant Roofing
Hazard(s) Addressed	Severe Thunderstorms
Reason for Removal	The village does not see hail has a major risk to the community. Most individuals and businesses have insurance should a hail event occur.

Mitigation Action	Irrigation / Groundwater Management Plan
Hazard(s) Addressed	Drought
Reason for Removal	The Village of Goehner does not see drought as a top hazard for the community. The village already has adequate supplies of source water and does not anticipate growth to the point where this will become an issue. Should major population growth occur, this action will be re-evaluated.

Mitigation Action	Low Impact Development Practices
Hazard(s) Addressed	Flooding
Reason for Removal	The village determined that this mitigation action was no longer feasible at this time. They will continue to re-evaluate the need for low impact development practices in the future.

Mitigation Action	Maintain Good Standing with National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action is not possible as the community was never a participant with NFIP. The village will work to become a participant with NFIP.

Mitigation Action	Protection of Vulnerable Populations
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team thought other mitigation actions would better protect vulnerable populations. The village is small enough that no specific facilities house vulnerable populations and all areas of the village are equally vulnerable to hazards.

Mitigation Action	Public Awareness
Hazard(s) Addressed	All Hazards
Reason for Removal	The village determined that this mitigation action was not necessary. The village only contains one business and communication throughout the community is good, so public awareness regarding rain gardens, green roofs, and other mitigation measures is not an issue.

Mitigation Action	Public Awareness / Continuity Planning
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this action was not necessary as the village only contains one business. Should additional businesses locate to Goehner, the planning team will re-evaluate this action strategy.

Mitigation Action	Public Awareness / First Aid Training
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this action was no longer necessary. The volunteer fire department has individuals who have received this training so first aid training is not needed for all residents.

Mitigation Action	Remove Flow Restrictions
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action is not feasible due the village not having any bridges or rivers within its community boundary. Should bridges be added in the future, the planning team will re-evaluate the need for this action.

Mitigation Action	Rescue / Snow Removal
Hazard(s) Addressed	Severe Winter Storms
Reason for Removal	The village already has the necessary equipment to remove snow from roadways and does not see the village expanding to the point where additional capabilities will be needed.

Mitigation Action	Rural Evacuation Plan
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms, Flooding
Reason for Removal	This mitigation action is no longer necessary because the volunteer fire department has had training on evacuating residents. If the village grows in population, then the planning team will re-evaluate this mitigation action.

Mitigation Action	Shelter In-Place Training/Education
Hazard(s) Addressed	Chemical Spills – Fixed Site, Chemical Spills – Transportation
Reason for Removal	The local planning team determined this mitigation action was not necessary because the Village of Goehner does not contain any nearby fixed chemical facilities and all transportation routes are far enough away that chemical incidents should not affect the residents.

Mitigation Action	Snow Fences
Hazard(s) Addressed	Severe Winter Storms
Reason for Removal	The village determined that this mitigation action was no longer needed. They will continue to re-evaluate the need for snow fences along major transportation routes in the future.

Mitigation Action	Source Water Contingency Plan
Hazard(s) Addressed	Drought
Reason for Removal	The Village of Goehner does not see drought as a top hazard for the community. The village already has adequate supplies of source water and does not anticipate growth to the point where this will become an issue. Should major population growth occur, this action will be re-evaluated.

Mitigation Action	Stream Bank Stabilization
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action is not feasible due the village not having any rivers or creeks within its community boundary. If the village expands to include creeks or rivers, than this action strategy will be re-evaluated.

Mitigation Action	Trailer Park Safe Rooms
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action is not feasible due to the village not having any trailer parks within its community boundary. If a trailer park were to be built in the community, the planning team will re-evaluate the need for this action.

Mitigation Action	Tree City USA - Tree Maintenance Program
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Reason for Removal	The local planning team determined that this mitigation action was not a priority. The community would rather pursue other actions at this time. The planning team will re-evaluate this mitigation action as necessary.

Mitigation Action	Vehicular Barriers
Hazard(s) Addressed	All Hazards
Reason for Removal	The community determined that this action was not cost effective. The risk of critical facilities being severely damaged from vehicles is very low and there have been no historical events of civil disorder or terrorism.

Mitigation Action	Warning Systems
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this action is not feasible as cable tv is not available within the village. Should it become available to residents, the planning team will re-asses this action.

Mitigation Action	Weather Radios
Hazard(s) Addressed	All Hazards
Reason for Removal	The village determined that this mitigation action was no longer necessary. They will continue to re-evaluate the need for weather radios at critical facilities in the future.

[lxi] *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*
[lxii] *United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.*
[lxiii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[lxiv] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[lxv] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[lxvi] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[lxvii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[lxviii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[lxix] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[lxx] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[lxxi] *County Assessor. Personal correspondence, February 2019.*

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COMMUNITY PROFILE

CITY OF MILFORD

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

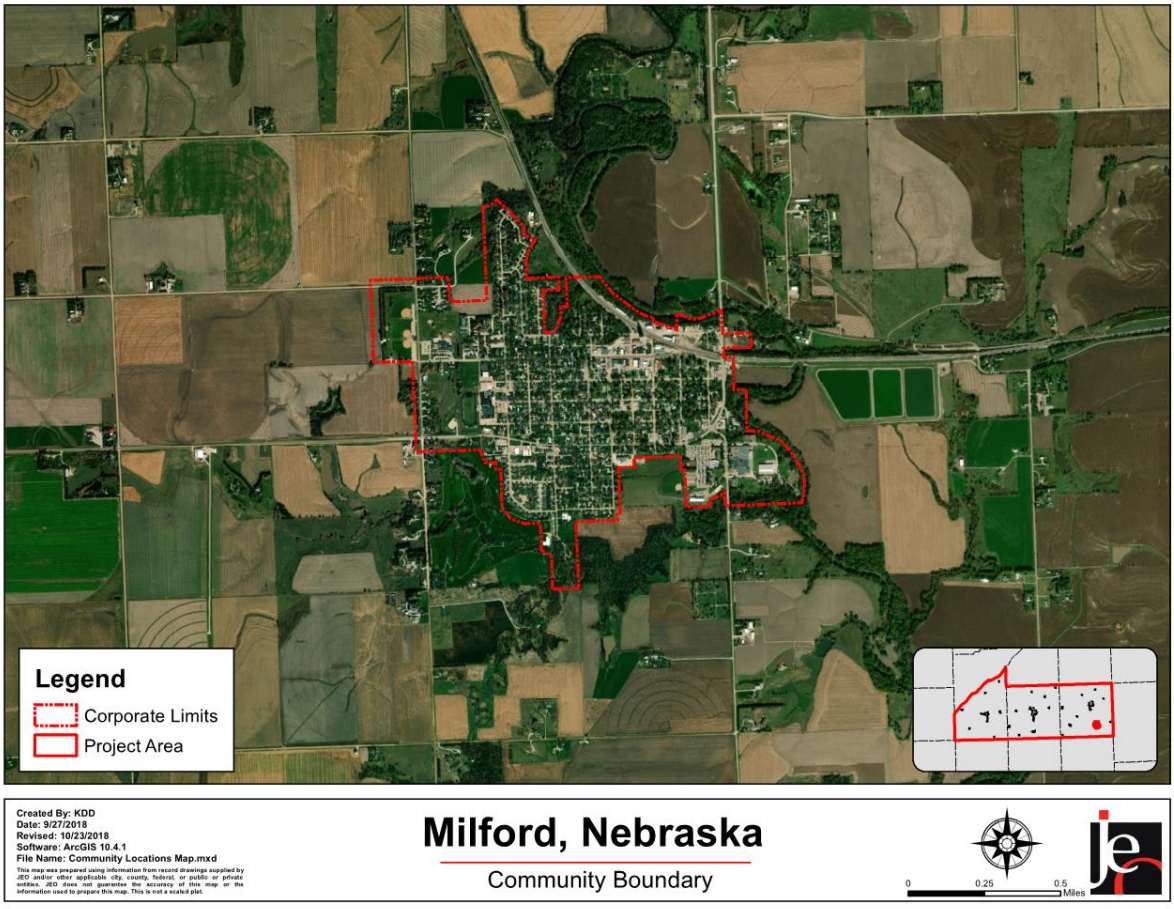
Table MIL.1: Milford Local Planning Team

Name	Title	Jurisdiction
Gary TeSelle	Utility Superintendent	City of Milford
Patrick Kelley	Mayor	City of Milford

Location and Geography

The City of Milford is located in the southeast portion of Seward County and covers an area of 505 acres. The Big Blue River is located on the east side of Milford.

Figure MIL.1: Community Boundary



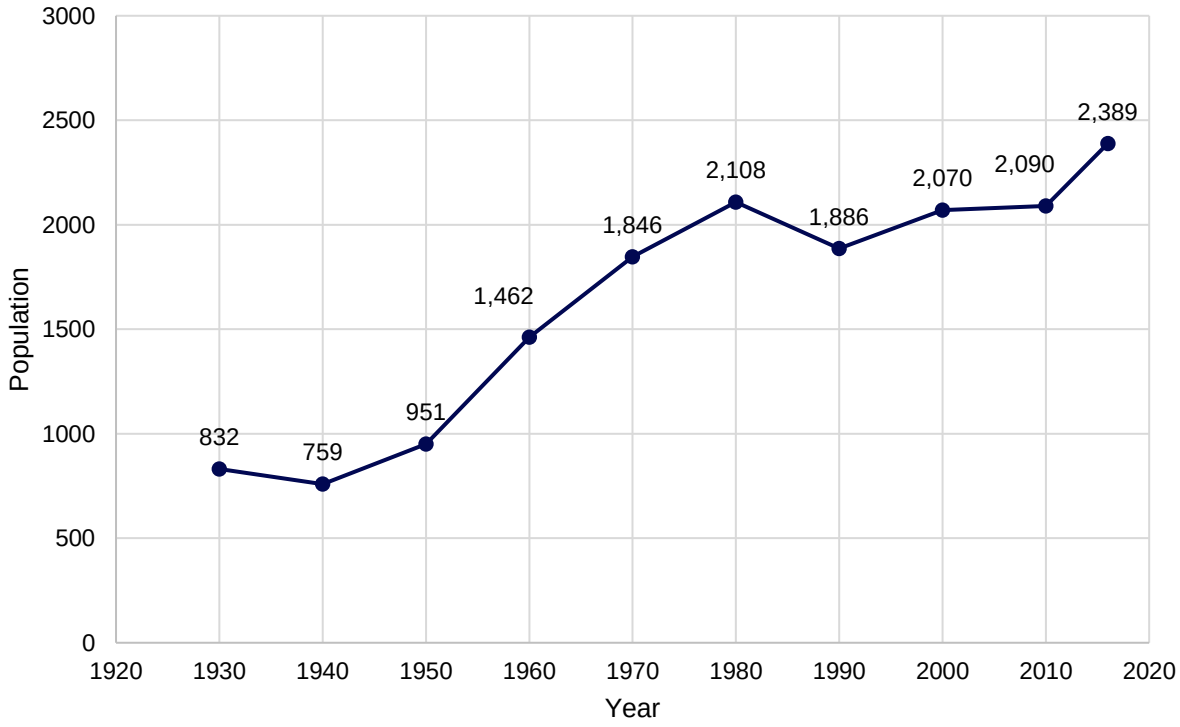
Transportation

Milford's major transportation corridor includes Nebraska Highway 6 with 3,052 vehicles a day.[lxxii] Milford has two Burlington Northern rail line running through the northeast corner of the community. Milford has one airport, Roth Airport, located less than one mile east 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

Milford's population grew from about 2070 people in 2000 to 2389 people in 2016, an average annual increase of 0.96%. This is important because the population growth means an increasing tax revenue. Milford's population accounted for 13.96% of Seward County's population in 2016.[lxxiii]

Figure MIL.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, Milford's population was:

- **Younger.** The median age of Milford was 29.4 years old in 2016, compared with the county average of 38.1 years. Milford's population grew younger since 2010, when the median age was 31.7 years old. Milford had a larger proportion of people under 20 years old (34.0%) than the county (28.2%).[lxxiv]
- **Less ethnically diverse**. In 2010, 1.6% of Milford's population was Hispanic or Latino. The Hispanic population in the county was also 1.6%. By 2016, Milford became more ethnically diverse, with 2.1% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[lxxv]
- **More likely to be below the federal poverty line.** The poverty rate in Milford (5.8% of families living below the federal poverty line) was higher than the county's poverty rate (4.7%) in 2016.[lxxvi]

Employment and Economics

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

- **Similar mix of industries.** Milford's major employment sectors, accounting for 10% or more of employment each, was educational services, and health care and social assistance.[lxxvii]
- **Lower household income.** Milford's median household income in 2016 ($46,583) was about $15,000 lower than the county ($61,563).[lxxviii]
- **More long-distance commuters.** About 52.7% of workers in Milford commuted for fewer than 15 minutes, compared with about 49.8% of workers in Seward County. About 27.5% of workers in Milford commute 30 minutes or more to work, compared to about 24.6% of the county workers.[lxxix]

Major Employers

Major employers within Milford include Southeast Community College and Milford Public Schools. A large percentage of residents commute to Seward, Lincoln, and Crete for employment.

Housing

In comparison to Seward County, Milford's housing stock was:

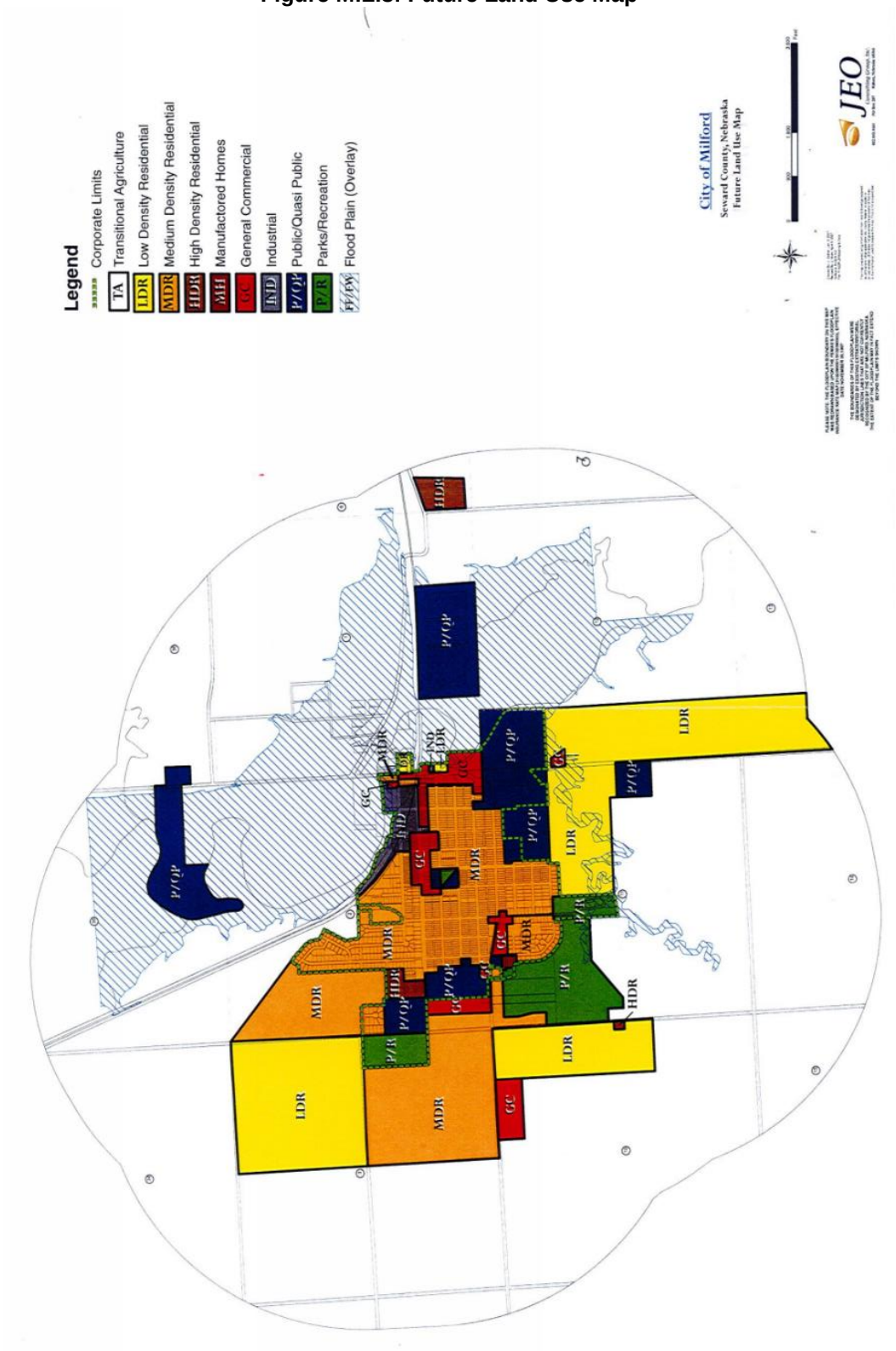
- **More renter-occupied**. About 37.6% of occupied housing units in Milford are renter occupied compared with 27.9% of occupied housing in Seward County.[lxxx]
- **Younger.** Milford had a slightly smaller share of housing built prior to 1970 than the county (46.5% compared to 48.5%).[lxxxi]
- **More multifamily.** Although the predominant housing type in the city is single family detached, Milford contains more multifamily housing with five or more units per structure compared to the county (11.6% compared to 6.9%). About 65.6% of housing in Milford was single-family detached, compared with 80.8% of the county's housing. Milford has a smaller share of mobile and manufactured housing (2.9%) compared to the county (3.2%).[lxxxii] Mobile homes are located along the east edge 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 contains approximately 10-15 mobile homes.

Future Development Trends

In the last five years, Milford has not added new or demolished any housing or businesses. According to the latest American Community Survey estimates, Milford's population has experienced population growth since 2010. An increasing population may result in a growing tax base, which may make implementing mitigation actions more feasible. The local planning team indicated that this was primarily due to the local schools and the quality of life in Milford. In the next five years, new housing developments are planned on the north side of the community. In addition, a new city hall/police building is planned on being built. No new businesses or industry is planned.

Figure MIL.3: Future Land Use Map



Source: City of Milford

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 MIL.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
730	$89,603,807	$122,745	9	$737,915

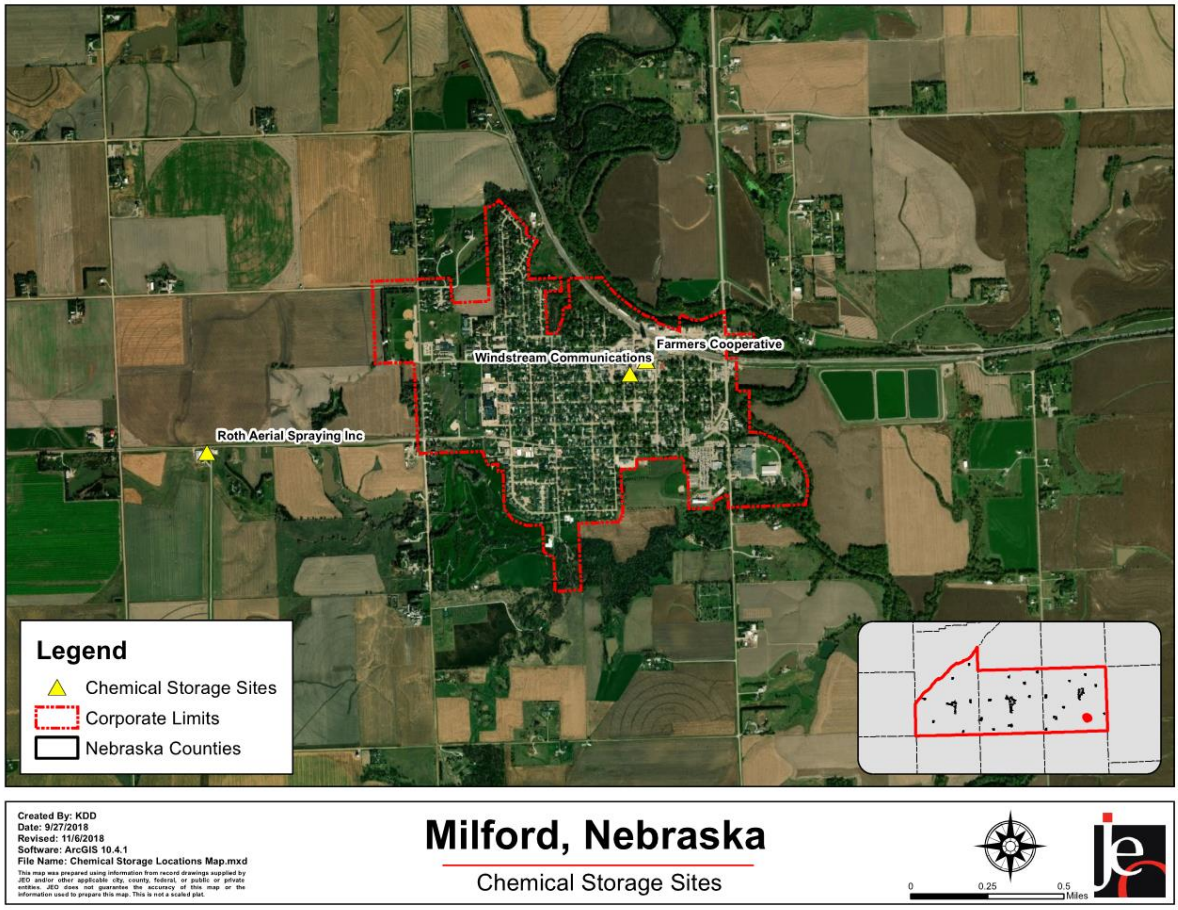
Source: Nebraska Department of Revenue, Property Assessment Division[lxxxiii]

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 three chemical storage sites in Milford. The map below shows the name and location of the sites.

Figure MIL.4: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy[lxxxiv]

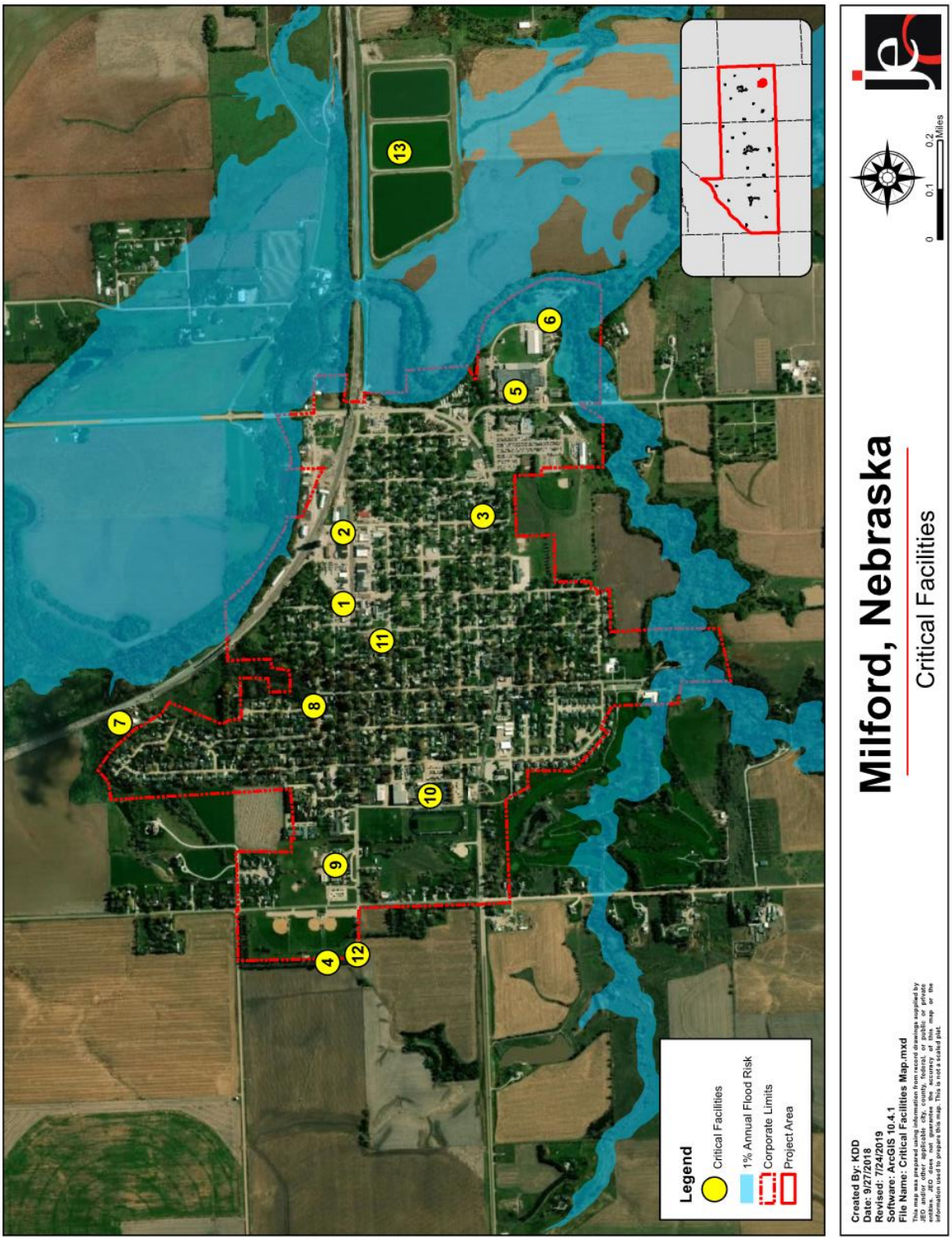
Critical Facilities

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 MIL.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Fire Station	N	Y	N
2	Site of Future City Hall and Police Station	N	N	N
3	City Maintenance Shop	N	N	N
4	City Water Tower	N	N	N
5	Southeast Community College	Y	N	N
6	Pump Station Sanitary Sewer	N	N	Y
7	Lift Station Sanitary Sewer	N	N	N
8	Lift Station #2 Sanitary Sewer	N	N	N
9	Milford Public Elementary School	N	N	N
10	Milford Public High School	N	N	N
11	Milford Medical Center	N	N	N
12	City Well	N	Y	N
13	Wastewater Lagoons	N	N	N

Figure MIL.5: Critical Facilities



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

Historical Occurrences

See the Seward 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 – Transportation

The primary concern related to transportation chemical spills is train wrecks from one of the two Burlington Northern tracks. In 1999 a large derailment spilled approximately 109,000 liquid gallons of fuel oil. The spill and derailment did not result in any injuries or fatalities but did cause $1,827,000 in damages. In addition, several different types of chemicals are regularly transported along Highway 6 and County Road 238. There is a landfill located near the community and hazardous waste is regularly transported to the site. The local planning team indicated that the critical facilities of Southeast Community College, City Maintenance Shop, and City Wells are located along main transportation routes. If a chemical spill were to occur, it could potentially impact the groundwater and cause evacuations.

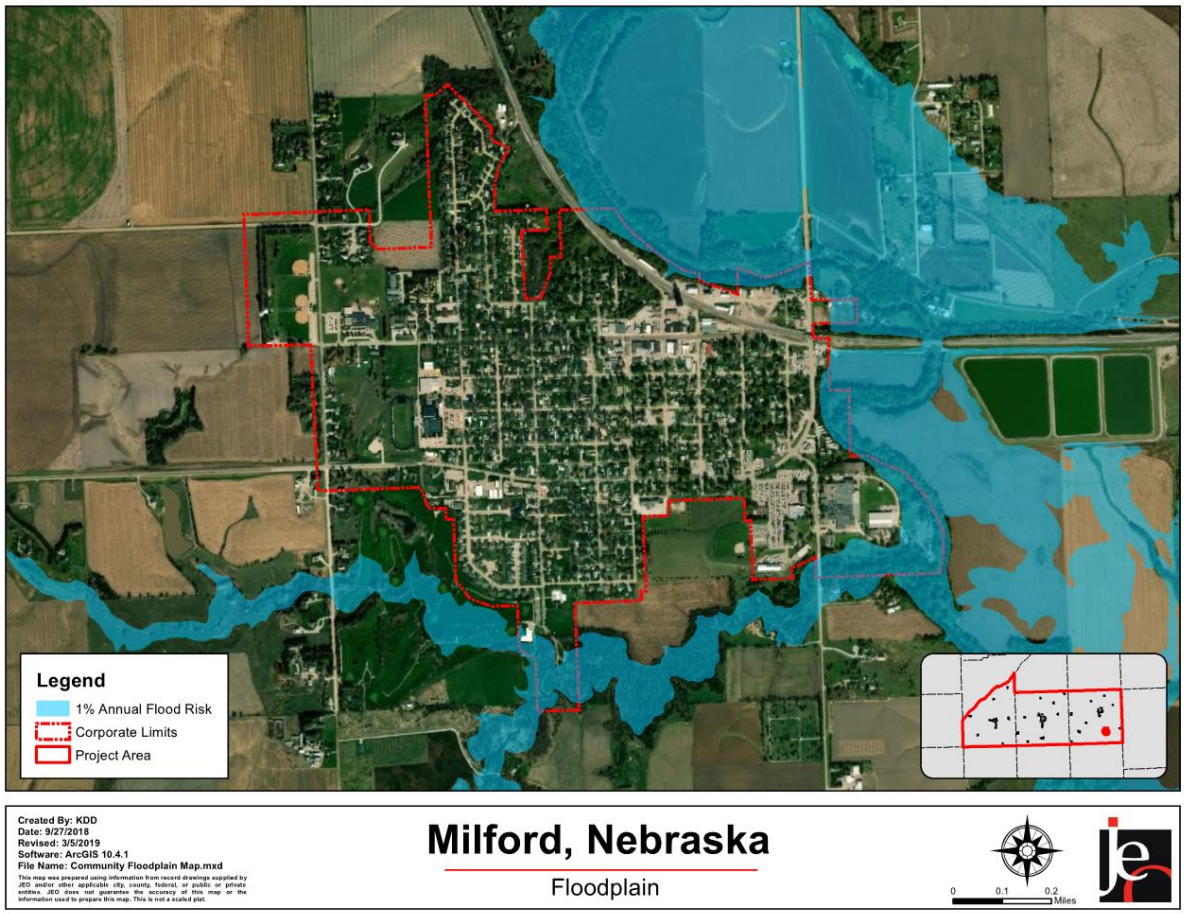
Drought

Drought is generally a regional event, with impacts from a single drought event impacting multiple communities, counties, and even states. Milford, Seward County, Nebraska, and most of the Midwest experienced a severe drought from most of 2012. The local planning team indicated that the impacts from this drought was road degradation and low water level in wells. For the community a relatively small percent (4.3) of the workforce is in industries directly related to agriculture, this is below the average for Seward County and the State as a whole. The primary concern related to drought is a lack of drinking water for the community. The city recently put in a new municipal well to increase the amount of water available to the community. The community does have a water conservation program, where yard watering is restricted. This program is implemented during drought or low water events.

Flooding

NCEI data shows that Milford has experienced one flood event since 1996. This event occurred in 2008 and caused $25,000 in property damage. The local planning team also indicated that significant flood events occurred in the 1960s. The city is primarily concerned with riverine flooding and poor drainage. Valley View Edition and Bellwood Edition within the city experience poor stormwater draining. Figure MIL.6 shows the preliminary floodplain for the City of Milford. The floodplain in Seward County is currently being updated and will likely be completed in 2020. The city is a participant of NFIP but not CRS. There are two policies in-force covering $276,500.

Figure MIL.6: Floodplain



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

Severe Thunderstorms

The primary concern for the community for severe thunderstorms is tree damage and loss of power. NCEI data shows that Milford has experienced 13 severe thunderstorm events since 1996. Two events caused property damages. A lightning event in 1996 caused $5,000 in damages and a thunderstorm wind event in 2006 caused $8,000 in property damage. Past events have caused loss of power at critical facilities. In the event of a power loss, the water tower, main city well, and fire station all have backup power generators. In addition, the city has a portable generator which can be moved to different locations as needed. The local planning team indicated that municipal records are protected with surge protectors and the fire station has a weather radio.

Tornadoes

NCEI data shows that Milford has experienced two tornado events since 1996. In 1996 an F0 tornado caused $1,000 in property damage and in 2002 an F0 tornado did not cause any property damage. The city does have a warning siren which is activated through Seward Dispatch. The local planning team indicated that all areas of the city are able to hear the warning siren. There are several safe rooms located throughout the community. Linden Village has four safe rooms, Southeast Community College has four safe rooms, the Fire Station has one room, and both the High School and Elementary School have one safe room. Other options for residents seeking

safe shelter are basements. In the event of a disaster Milford has Mutual Aid Agreements with the City of Seward, Village of Beaver Crossing, and the Village of Pleasant Dale.

Governance

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

- Mayor
- Clerk/Treasurer
- Utility Superintendent
- Attorney
- Fire Chief
- Sewer Commissioner
- Street Commissioner
- Water Commissioner
- Parks and Recreation Department
- Building Official
- Police Commissioner
- Planning and Zoning Commission
- Economic Development Director
- Engineer
- Police Chief

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 MIL.4: Capability Assessment

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

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

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?	Limited
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 Milford has several plans and regulations in place which address hazard mitigation. The Comprehensive Plan, Zoning Ordinance, and Subdivision Regulations were all most recently updated in 2007. The city also has an Emergency Operations Plan last updated in 2019, Building Code last updated in 2015, Floodplain Regulations last updated in 2011, and a Wellhead Protection Plan.

The city's comprehensive plan directs the building official to enforce all provisions of the hazard mitigation. Although the plan does not directly discuss natural hazards, it does direct development away from the floodplain, chemical storage facilities and major transportation routes. There is no timeline for updating the comprehensive plan, however, the local planning team indicate that hazard mitigation plan will be used during the update.

The Zoning Ordinance discourages development in the floodplain by requiring new construction to be more than one-foot above Base Flood Elevation. It also limits population density in the floodplain.

In 2015 the Milford adopted the International Building Code. This code includes several mitigation strategies including: requiring defensible space around structures, requiring the use of fire-resistant building materials, requiring a safe room in multiple dwelling unit buildings, and requiring mechanical systems to be elevated for structures in the floodplain. Finally, the city has a Wellhead Protection Plan which includes well setback requirements and a water conservation plan during times of drought.

The City of Milford completed a Flood Mitigation Study in 2002. This study includes projects that address drainage, runoff, and erosion issues in the city. One of the mitigation strategies of the hazard mitigation plan is to implement the projects identified in this study.

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 2018.

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed in the last five years through the county.

Ongoing and New Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to the wellhouse and sewer lift stations.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$15,000 - $30,000 per generator
Funding	Water or Sewer Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Maintenance Superintendent
Status	Not Started

Mitigation Action	Best Management Practices (BMP's)
Description	Implement BMPs to reduce water consumption and use (high water uses to low water uses) through water conservation practices such as changes in irrigation management, education on no-till agriculture, and use of xeriscaping in communities.
Hazard(s) Addressed	Drought
Estimated Cost	$500 - $2,000+
Funding	Water or Sewer Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Water and Sewer Department
Status	Not Started

Mitigation Action	Community Rating System (CRS)
Description	Participate in the CRS, part of the NFIP, to provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Can help reduce flood insurance premiums.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Council
Status	Not Started

Mitigation Action	Continuity Plans
Description	Develop continuity plans for critical community services.
Hazard(s) Addressed	All Hazards
Estimated Cost	$2,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	City Council
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 stormwater evaluation, identifying multiple problem areas, and potentially multiple drainage improvements for each.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 - $100,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Streets Department
Status	In Progress

Mitigation Action	Education About Continuity Planning
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	Medium
Lead Agency	City Council, County Emergency Management
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.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000+
Funding	Affordable Housing Grant
Timeline	1 Year
Priority	Medium
Lead Agency	Building Inspector, Housing Committee
Status	Planning Stage

Mitigation Action	Floodplain Mapping / Remapping
Description	Many communities may have outdated floodplain maps, or no floodplain map. Floodplain mapping efforts can be updated for communities/counties that participate in the NFIP. Improved data and analysis methods will provide more accurate floodplain delineations, allowing communities to better identify their flood threats. The entire county is currently in the process of updating floodplain maps.
Hazard(s) Addressed	Flooding
Estimated Cost	$30,000 - $100,000
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	City Council
Status	In Progress

Mitigation Action	Low Impact Development Practices
Description	Utilize Lowe Impact Development practices and Green Infrastructure to reduce flood risk. The city will focus on areas which have poor drainage.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by project
Funding	General Fund, NRD
Timeline	5+ Years
Priority	Low
Lead Agency	Streets Department
Status	Not Started

Mitigation Action	Milford Flood Hazard Mitigation Study
Description	Implement projects as listed in the 2002 Flood Mitigation Study. Projects include but are not limited to addressing drainage and runoff issues behind homes (west side) on F Street, Valley View area, drainage along Hwy 6 crossing at 5th and D Street, erosion issues around the storm sewer including train tracks at Park Ave and Walnut St, storm sewer inlet issues under Walnut Street, and drainage issues along both sides of Welch Park Rd. The city is currently working on F Street and Valley View. The Highway 6 and 5th and D project is completed.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by project
Funding	General Fund, Bonds
Timeline	5+ Years
Priority	Medium
Lead Agency	Streets Department
Status	In Progress

Mitigation Action	Protection of Vulnerable Populations
Description	Ensure that facilities which will house vulnerable populations are placed in the least vulnerable areas of the community. The city will coordinate with emergency management regarding shelter locations and their needs.
Hazard(s) Addressed	All Hazards
Estimated Cost	N/A
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Fire Department, County Emergency Management
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct a safe room in the new city hall on 1st Street and Walnut.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Thunderstorms
Estimated Cost	$200-$300/sf stand alone; $150-$200/sf addition/retrofit
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	City Council
Status	In Progress

Mitigation Action	Stormwater System and Drainage Improvements
Description	Smaller communities may utilize stormwater systems comprising of ditches and culverts to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. These improvements can serve to more effectively convey runoff within villages, preventing interior localized flooding. The city is currently working with JEO to identify drainage issues throughout the city.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000 - $50,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Streets Department
Status	Planning Stage / In Progress

Removed Mitigation Actions

Mitigation Action	Alert Sirens
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team chose to remove this mitigation action because it has a contract to annually inspect alert sirens. If the inspection determines that a new alert siren is needed, then this mitigation action will be reevaluated.

Mitigation Action	All-Terrain Vehicles
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined this mitigation action was no longer needed. The community determined that the current number of vehicles was adequate for hazard response.

Mitigation Action	Emergency Communication
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This mitigation action was removed by the local planning team. The community determined that communication between agencies was already working very well.

Mitigation Action	Floodplain Management
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team chose to remove this mitigation action. The action is no longer needed as other actions will be taken that will have a larger impact on the city.

Mitigation Action	Floodplain Regulations
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed because it is not a true mitigation action. The city currently enforces floodplain regulations and will continue to enforce the regulations in the future.

Mitigation Action	Flood-Prone Property Acquisition
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team. The action is not needed as there are no repetitive loss properties located within the city.

Mitigation Action	Grade Control Structures
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team. Stream bed erosion/degradation is not a large issue in the city. The planning team will reevaluate this action as needed.

Mitigation Action	Hail Resistant Roofing
Hazard(s) Addressed	Hail, Severe Thunderstorms
Reason for Removal	The local planning team chose to remove this mitigation action. The city does and will continue to build to the latest building codes.

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. The city will continue to participate and maintain in good standing with NFIP.

Mitigation Action	Preservation of Open Space
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by local planning team. The building inspector meets with the floodplain management individuals. This action is no longer needed.

Mitigation Action	Public Awareness
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team because this action would be completed better through another identified action.

Mitigation Action	Public Awareness / First Aid Training
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined this mitigation action was no longer needed. The community did not see this to be a priority at this time. If priorities change, this mitigation action will be reevaluated.

Mitigation Action	Remove Flow Restrictions
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team because flow restrictions are not an issue when it comes to flooding in the community. The local planning team will reevaluate in the future if conditions change.

Mitigation Action	Shelter In-Place Training/Education
Hazard(s) Addressed	Chemical Spills – Fixed Site
Reason for Removal	The local planning team chose to remove this mitigation action. This action is no longer needed, and the city will continue to work with local residents to ensure they are educated on this event.

Mitigation Action	Source Water Contingency Plan
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team removed this mitigation action because it is no longer needed. With the new well, the city's drinking water supply is greatly improved.

Mitigation Action	Stream Bank Stabilization
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team has removed this mitigation action because Milford has not historically had issues with erosion. The city will reevaluate if the need arises.

Mitigation Action	Trailer Park Safe Rooms
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. The mobile homes in the community are too spread apart for safe rooms to be effective or cost effective at this time. If additional mobile homes are added to the community this action will be reevaluated.

Mitigation Action	Vehicular Barriers
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning chose to remove this mitigation action because it is no longer needed. There are other mitigation actions that the city would like to pursue in place of this action.

Mitigation Action	Vulnerable Population Database
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team determined that this mitigation action was no longer needed. The community is already aware of where its vulnerable populations are located.

Mitigation Action	Weather Radios
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. This action is no longer needed because other mitigation actions would provide better results.

[lxxii] *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
[lxxiii] *United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file].* https://factfinder.census.gov/.
[lxxiv] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file].* https://factfinder.census.gov/.
[lxxv] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file].* https://factfinder.census.gov/.
[lxxvi] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file].* https://factfinder.census.gov/.
[lxxvii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file].* https://factfinder.census.gov/.
[lxxviii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file].* https://factfinder.census.gov/.
[lxxix] *United States Census Bureau. "American Fact Finder: S0804: Means of Transportation to Work by Selected Characteristics." [database file].* https://factfinder.census.gov/.
[lxxx] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file].* https://factfinder.census.gov/.
[lxxxi] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file].* https://factfinder.census.gov/.
[lxxxii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file].* https://factfinder.census.gov/.
[lxxxiii] *County Assessor. Personal correspondence, February 2019.*
[lxxxiv] *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 PLEASANT DALE

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

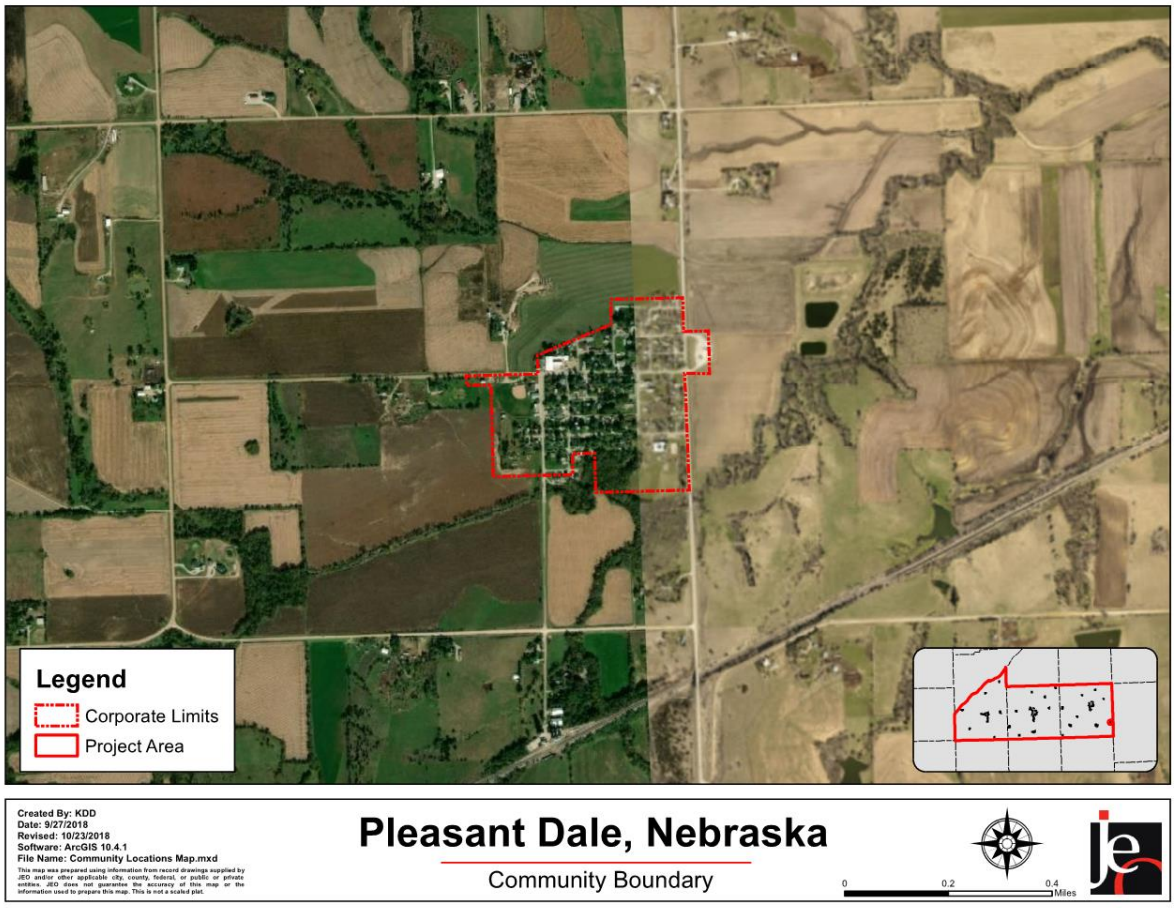
Table PLD.1: Pleasant Dale Local Planning Team

Name	Title	Jurisdiction
Leroy Trese	Village Board	Village of Pleasant Dale

Location and Geography

The Village of Pleasant Dale is located in the eastern portion of Seward County and covers an area of 70 acres. Culver Creek is located along the southern border of Pleasant Dale. Pawnee State Recreation Area, Conestoga Lake State Recreation Area and Twin Lakes State Wildlife Management Area are all located within five miles of Pleasant Dale. Pleasant Dale is located ten miles directly east of the City of Lincoln.

Figure PLD.1: Community Boundary



Transportation

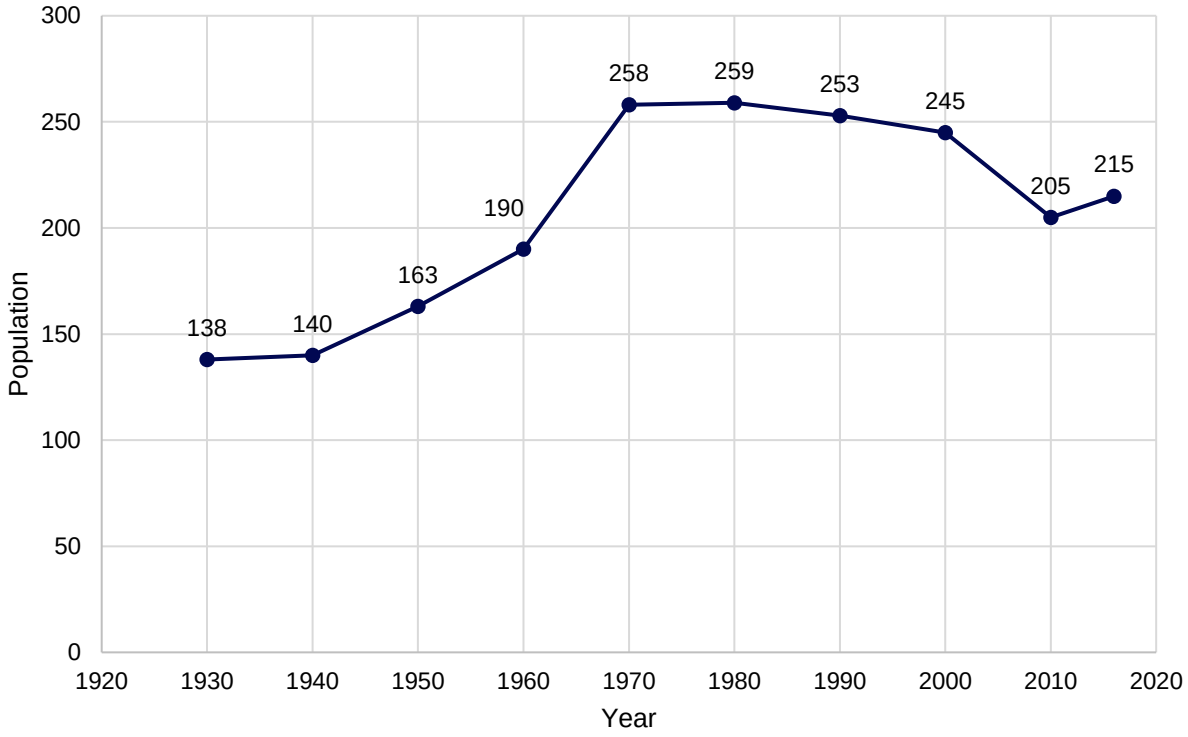
Pleasant Dale's major transportation corridor includes Nebraska Highway 103 with 2,825 vehicles a day.[lxxxv] Pleasant Dale has one Burlington Northern rail line which is located to the south of the community. Pleasant Dale does not have any airports within or near village boundaries. Transportation 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 Highway 103, West Pleasant Dale Road, and 159th Street

were the transportation routes of most concern. Both farm chemicals and Anhydrous Ammonia are regularly transported on these roads.

Demographics

Pleasant Dale's population declined from about 245 people in 2000 to 215 people in 2016, an average annual decrease of 0.77%. This is important because the population decline means a decreasing tax revenue and the potential for unoccupied housing. Pleasant Dale's population accounted for 1.26% of Seward County's population in 2016.[lxxxvi]

Figure PLD.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, Pleasant Dale's population was:

- **Older.** The median age of Pleasant Dale was 39.6 years old in 2016, compared with the county average of 38.1 years. Pleasant Dale's population grew younger since 2010, when the median age was 41.3 years old. Pleasant Dale had a much smaller proportion of people under 20 years old (20.9%) than the county (28.2%).[lxxxvii]
- **Less ethnically diverse**. In 2010, 1.0% of Pleasant Dale's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Pleasant Dale became less ethnically diverse, with 0.0% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[lxxxviii]
- **More likely to be below the federal poverty line.** The poverty rate in Pleasant Dale (6.1% of families living below the federal poverty line) was higher than the county's poverty rate (4.7%) in 2016.[lxxxix]

Employment and Economics

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

- **Different mix of industries.** Pleasant Dale's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; transportation and warehousing, and utilities; finance and insurance, and real estate and rental and leasing; and educational services, and health care and social assistance.[xc]
- **Similar household income.** Pleasant Dale's median household income in 2016 ($61,458) was similar to the county ($61,563).[xci]
- **More long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Pleasant Dale include T & S Services, Pleasant Dale Lumber Yard, the local restaurant and tavern, and the post office. A large percentage of residents commute to Lincoln, Seward, and Milford for employment.

Housing

In comparison to Seward County, Pleasant Dale's housing stock was:

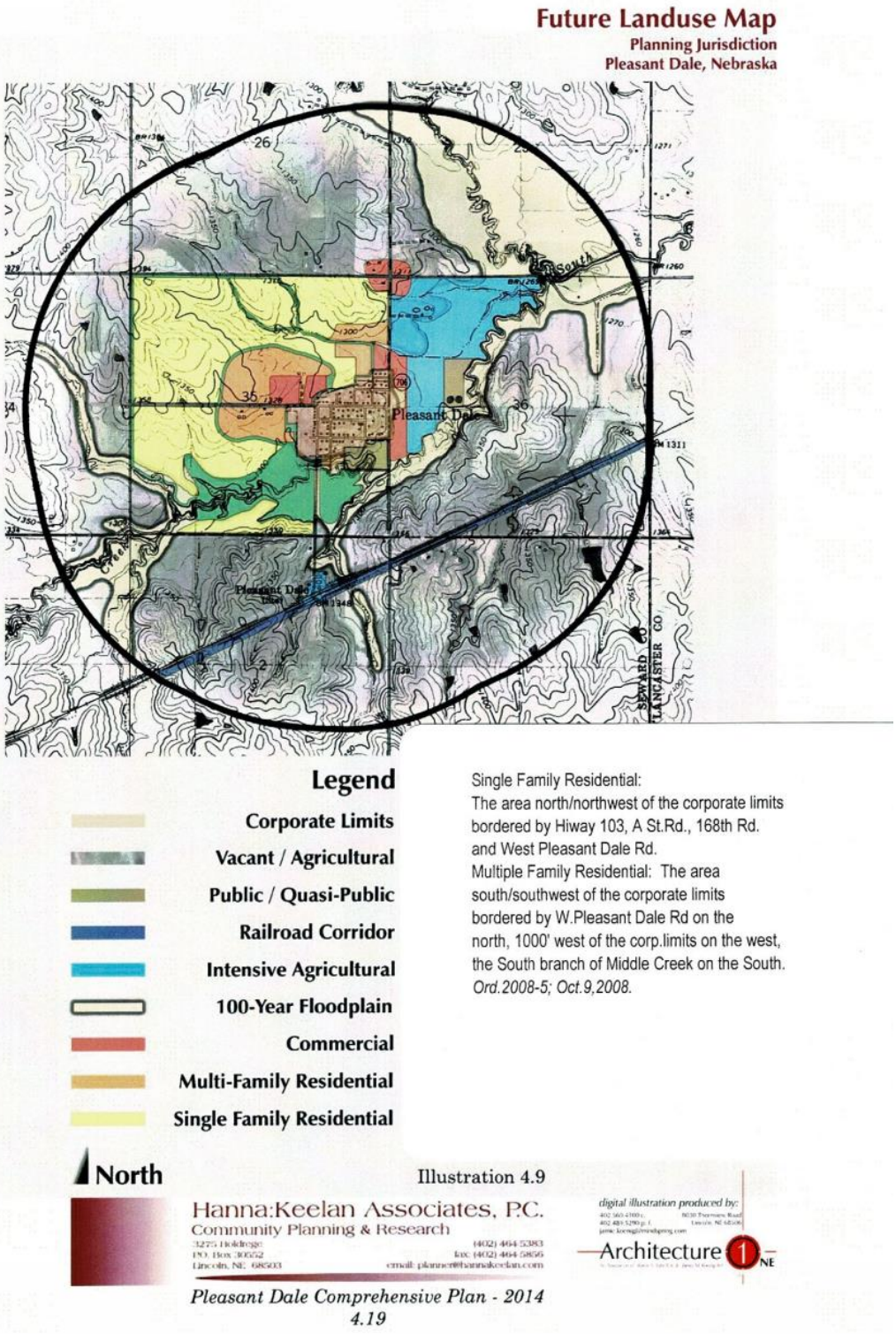
- **Less renter-occupied**. About 23.2% of occupied housing units in Pleasant Dale are renter occupied compared with 27.9% of occupied housing in Seward County.[xcii]
- **Older.** Pleasant Dale had a larger share of housing built prior to 1970 than the county (64.4% compared to 48.5%).[xciii]
- **Similar amount of multifamily.** Although the predominant housing type in the village is single family detached, Pleasant Dale contains similar multifamily housing with five or more units per structure compared to the county (7.0% compared to 6.9%). About 80.0% of housing in Pleasant Dale was single-family detached, compared with 80.8% of the county's housing. Pleasant Dale has a larger share of mobile and manufactured housing (5.2%) compared to the county (3.2%).[xciv]

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

Future Development Trends

In the last five years, one house has been demolished and a new house was built in its place. No businesses or industry was built. According to the latest American Community Survey estimates, Pleasant Dale's population has experienced a slight decline since 2010. The local planning team indicated that this could be due to not having a school located within the community. In the next five years, no new housing, businesses, or industry is planned.

Figure PLD.3: Future Land Use Map



Source: Village of Pleasant Dale

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 PLD.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
163	$9,663,047	$59,282	2	$168,727

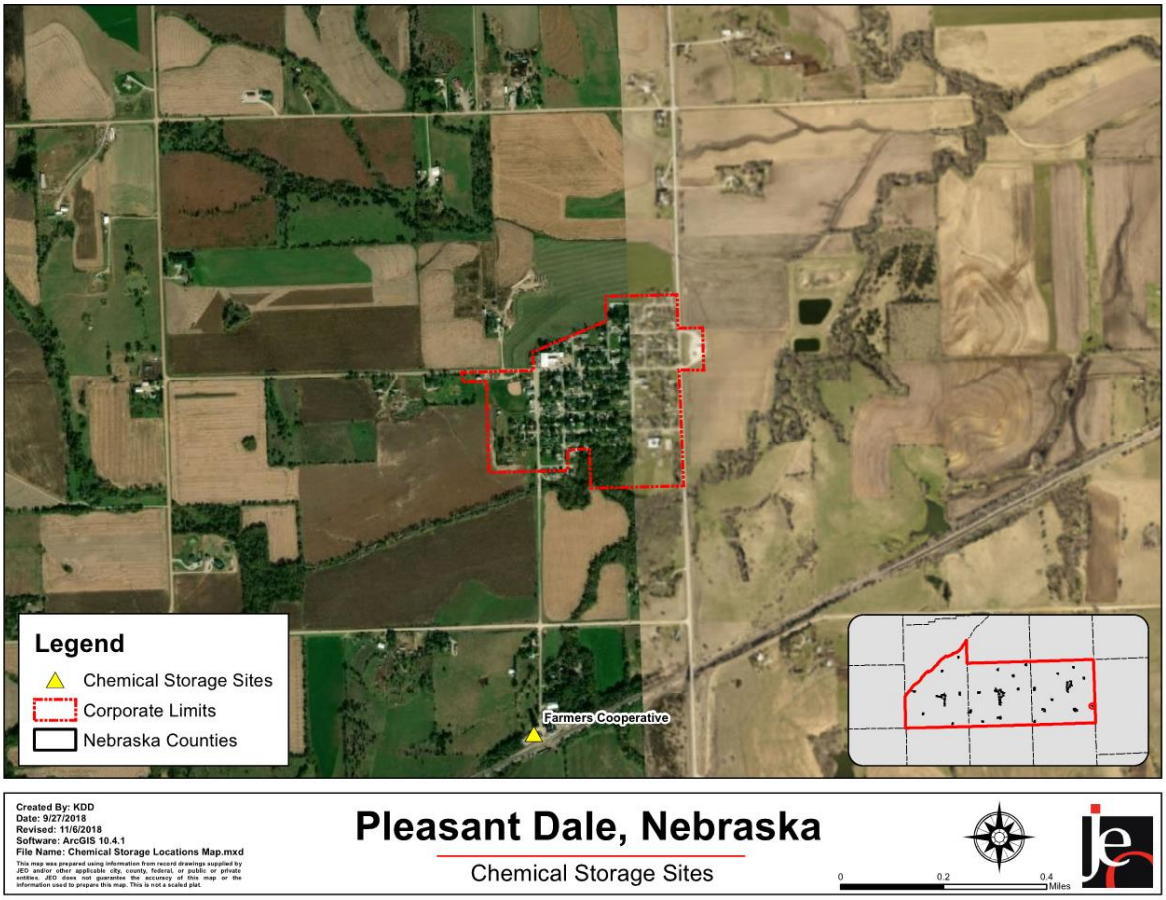
Source: Nebraska Department of Revenue, Property Assessment Division[xcv]

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 one chemical storage site near Pleasant Dale. The map below shows the name and location of the site.

Figure PLD.4: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy[xcvi]

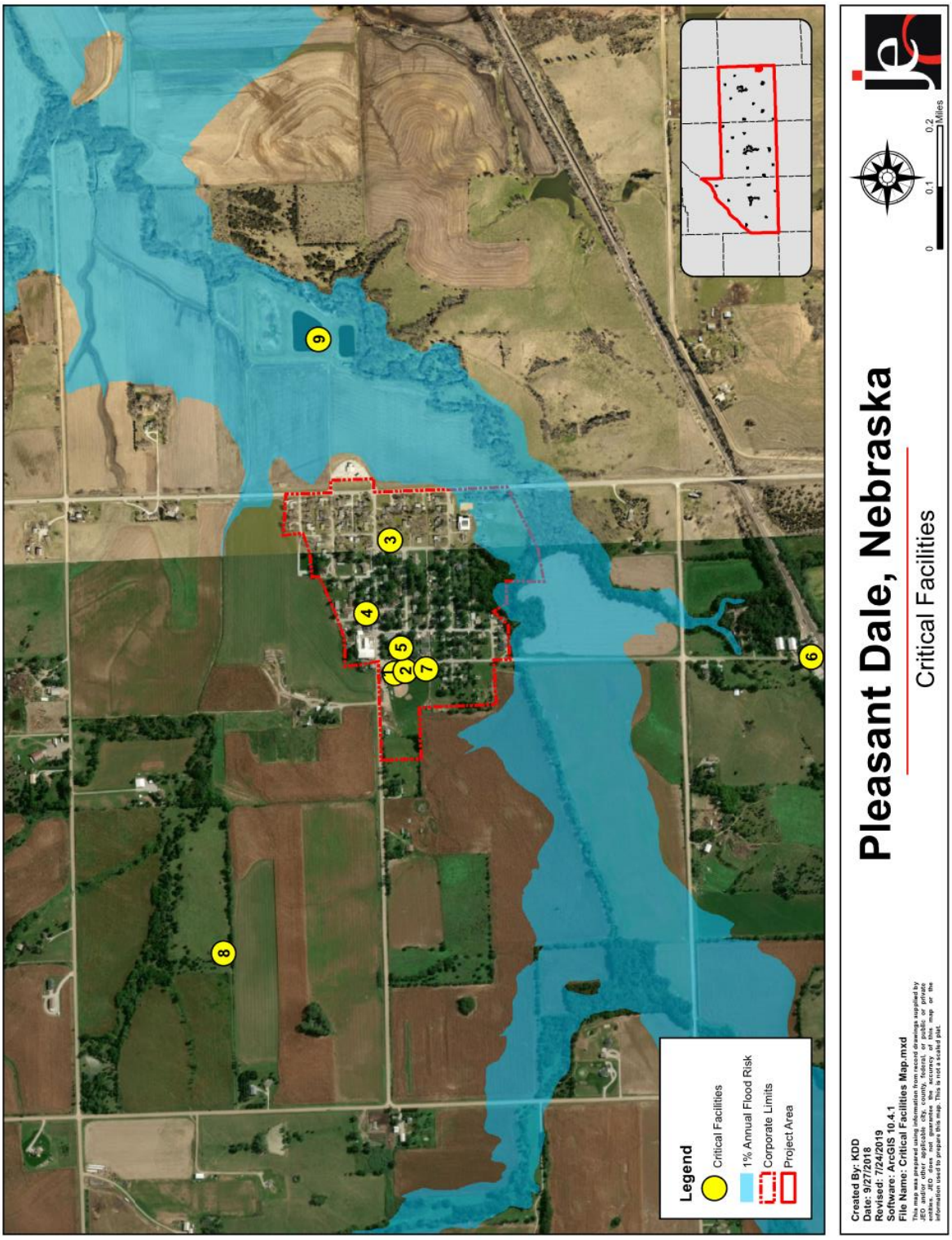
Critical Facilities

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 PLD.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Community Hall & Fire Department	N	N	N
2	American Legion	Y	N	N
3	Lutheran Church	N	N	N
4	Methodist Church	Y	N	N
5	City Well #1	N	N	N
6	Farmer's Cooperative	N	N	N
7	Post Office	N	N	N
8	City Well #2	N	Y	N
9	Wastewater Lagoon	N	N	Y

Figure PLD.5: Critical Facilities



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

Historical Occurrences

See the Seward 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 Pleasant Dale has experienced 13 hail events since 1996. The local planning team indicated that the community has experienced large hail events the past two years. During these events, an estimated 90% of roofs were damaged. Pleasant Dale has a large percentage of housing built prior to 1970. These houses are more vulnerable to hail damage as they are less likely to be built with hail resistant materials.

High Winds

Past high wind events have caused damage to the fire department/community building. High winds can cause loss of power and can impact transportation routes due to downed trees/limbs. The Village of Pleasant Dale only has a few buried power lines, which means it is at high risk of power loss from falling limbs. Pleasant Dale also has a declining population which could lead to increased vacant housing. This housing has a high risk of being damaged if maintenance and upkeep is not being taken care of.

Severe Thunderstorms

The local planning team identified severe thunderstorms as a top hazard for the community. The village does not have a designated storm shelter but does have several buildings that can hold people in the event of a severe thunderstorm. The community building, American legion building, and both churches would be able to hold individuals if needed. However, none of those buildings have generators so loss of power could be an issue.

Severe Winter Storms

NCEI data records severe winter storms as "zonal" events meaning there is not a specific record of what communities are impacted. The planning team for Pleasant Dale reported that in December 2009, there was a two-week period of heavy snow storms and blizzard conditions that resulted in the loss of power for the entire community for 8 to 12 hours. The village water well also lost power and there was no water resource for the village at that time. Loss of heat could also be an issue for the community. Pleasant Dale has a slightly older age population when compared to the rest of the county. Older individuals can be more affected during a loss of power or heat event. The local planning team indicated that snow removal resources are sufficient for most sized snows. The village has a tractor, snow plow, and several bob cats that are used to remove snow. They also indicated that local farmers would be able to assist in snow removal if needed.

Tornadoes

NCEI data shows that one tornado event occurred in the community in 2012. The tornado was magnitude EF1 and did not cause any property damage. The local planning team also noted that three other tornadoes have occurred less than one mile away from Pleasant Dale. The community does not have a designated tornado shelter. There is one tornado siren in the village which can be activated by Seward County.

Governance

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

- Clerk/Treasurer
- Attorney
- Fire Chief
- Fire Commissioner
- Street Commissioner
- Parks and Recreation Department
- Building Commissioner
- Planning and Zoning Board
- Tree Board
- Health Board

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 PLD.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes – 2004
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes – 2004
	Subdivision Regulation/Ordinance	Yes – 2004
	Floodplain Ordinance	No
	Building Codes	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	No
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No

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

The Village of Pleasant Dale has several plans and regulations which apply the principles of hazard mitigation. Both the Comprehensive Plan and Subdivision Regulations were last updated in 2004. The Local Emergency Operations Plan (LEOP) was updated in 2019 and the Zoning Ordinance was last updated in 2018. The village's Building Code was updated in 2012 and the Wellhead Protection Plan was updated in 2010. The local planning team indicated that a floodplain ordinance will be in place in the near future.

The Comprehensive Plan does not directly discuss natural hazards; however, it does direct development away from the floodplain, dam inundation areas, chemical storage facilities, and

major transportation routes. It also identifies areas that need emergency shelters and preservation of open space in hazard-prone areas. There is currently no timeline to update the comprehensive plan.

The village's LEOP is an annex of the Seward County LEOP and is required to be updated every couple of years. The LEOP includes hazards of greatest concern, individual responsibilities, evacuation routes, sheltering locations and opportunities for mitigation following a disaster. The local fire department and village board are both familiar with the plan.

The Zoning Ordinance contains several hazard mitigation principles including: requiring new construction to be more than one-foot above Base Flood Elevation, limiting density in the floodplain, and identifying floodplain areas as parks or open space. The building code specifically mentions wind, hail, and flooding. It requires mechanical systems to be elevated for structures in the floodplain, encourages the use of hail resistant building materials, requires the use of fire-resistant building materials, requires a safe room in multi-dwelling units, and requires defensible space around structures. Finally, the Wellhead Protection Plan includes well setback requirements, sets decommissioning standards, and includes a water conservation 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	Continuity Plans
Hazard(s) Addressed	All Hazards
Status	Completed in 2017.

Mitigation Action	Drainage Improvements
Hazard(s) Addressed	Flooding
Status	Completed in 2018 with an NRD grant.

Mitigation Action	Evaluate and Improve Building Standards
Hazard(s) Addressed	Flooding
Status	Completed in 2018 when the village adopted a new property maintenance code. In the past five years the village also adopted the international building code.

Ongoing and New Mitigation Actions

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to the Community Hall and Fire Department building.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$15,000 to $30,000 per generator
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board and Fire Department
Status	Not Started

Mitigation Action	Community Rating System (CRS)
Description	Participate in the CRS, part of the NFIP, to provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts. Can help reduce flood insurance premiums.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	Planning Stage

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	Medium
Lead Agency	Village Board and Fire Department
Status	Not Started

Mitigation Action	Floodplain Mapping / Remapping
Description	Many communities may have outdated floodplain maps, or no floodplain map. Floodplain mapping efforts can be updated for communities/counties that participate in the NFIP. Improved data and analysis methods will provide more accurate floodplain delineations, allowing communities to better identify their flood threats.
Hazard(s) Addressed	Flooding
Estimated Cost	$30,000 to $100,000
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	In Progress

Mitigation Action	New Municipal Well
Description	Evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$350,000 to $450,000
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Work with Seward Public Power District to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines.
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 and Seward Public Power District
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) 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	Medium
Lead Agency	Village Board and Fire Department
Status	Not Started

Removed Mitigation Actions

Mitigation Action	Best Management Practices (BMP's)
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team determined that this action was no longer needed. The community already has a plan in place for limiting water use and at this time BMP's are not needed.

Mitigation Action	Drainage Study / Stormwater Master Plan
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this action because the drainage improvements completed with the NRD grant fixed a lot of the drainage issues in the community. If drainage issues arise in the future the community will reevaluate the need for this action.

Mitigation Action	Floodplain Regulations
Hazard(s) Addressed	Flooding
Reason for Removal	This action was removed as continuing to enforce regulations is not a true mitigation action. The village will continue to enforce all floodplain regulations.

Mitigation Action	Maintain Good Standing with National Flood Insurance Program (NFIP)
Hazard(s) Addressed	Flooding
Reason for Removal	This action was removed as the village was never part of NFIP, so it cannot maintain good standing. The village is looking into joining the National Flood Insurance Program.

Mitigation Action	Public Awareness
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed because there has not been interest from residents or businesses regarding minor mitigation measures. It is also beyond the capabilities of many residents.

Mitigation Action	Public Awareness / Continuity Planning
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed because there are only two businesses in the community. If additional businesses come to the community, this mitigation action will be reevaluated.

Mitigation Action	Vulnerable Population Database
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team removed this action because Pleasant Dale is a small village and vulnerable populations are already known. Should major growth occur the community will revisit this action.

[lxxxv] *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*

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

[lxxxvii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [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: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*

[xc] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*

[xci] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*

[xcii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*

[xciii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*

[xciv] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*

[xcv] *County Assessor. Personal correspondence, February 2019.*

[xcvi] *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 SEWARD

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

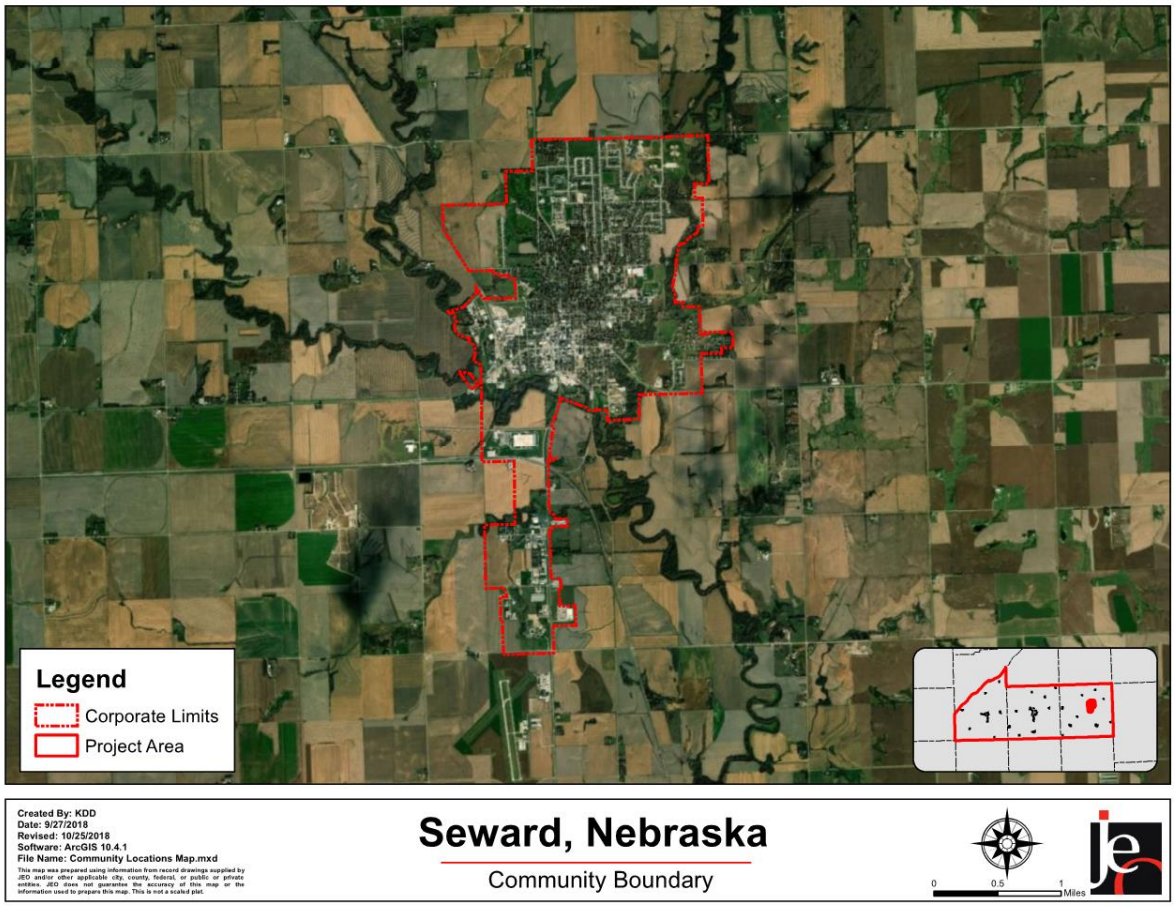
Table SWD.1: Seward Local Planning Team

Name	Title	Jurisdiction
Jake Vasa	City Engineer	City of Seward
Ed Gonzalez	Building and Zoning, Code Enforcement Director	City of Seward
Matt Stryson	Plant Engineer	Hughes Brothers Inc.
Cheryl Runyan	Administrator	Crestview Care Center

Location and Geography

The City of Seward is located in the central portion of Seward County and covers an area of 4.31 square miles. The Big Blue River is located to the west and south of Seward. Bur Oak State Wildlife Management Area is located six miles to the east of the City of Seward.

Figure SWD.1: Community Boundary



Transportation

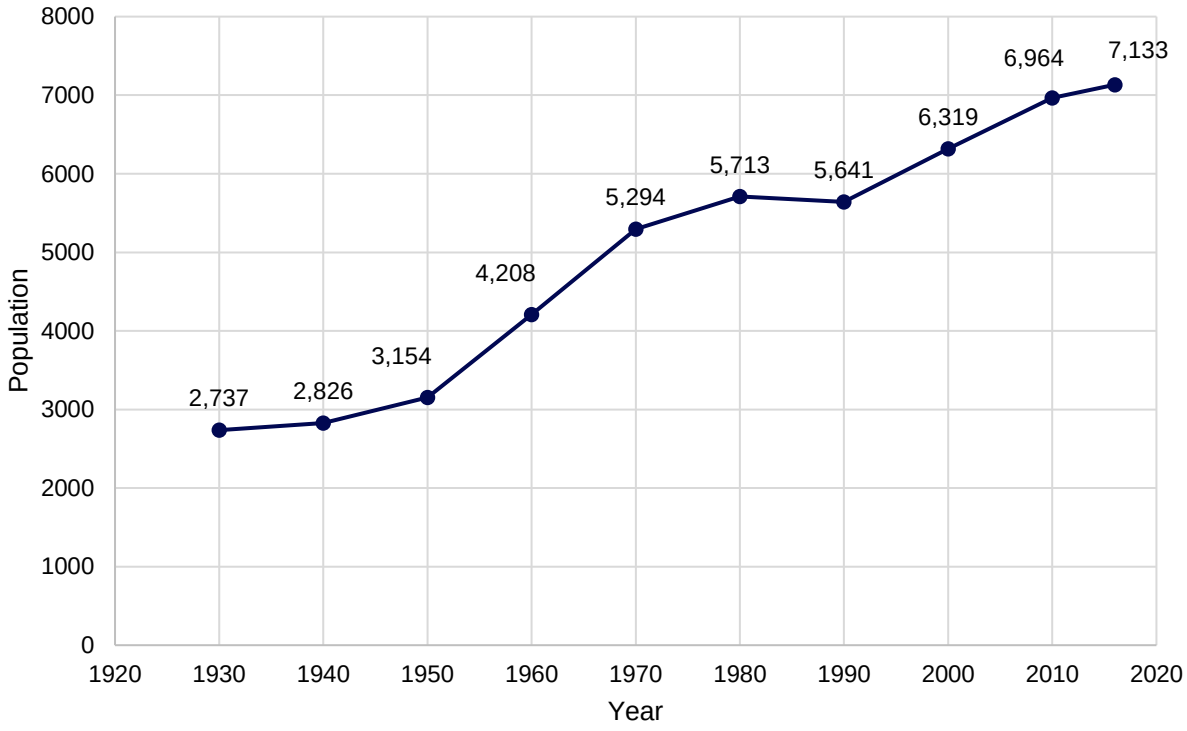
The City of Seward's major transportation corridor includes Nebraska Highway 34 with 3,370 vehicles a day and Nebraska Highway 15 with 4,120 vehicles a day.[xcvii] Seward has two Burlington Northern rail lines running through the west and south sides of the community. The City of Seward contains three airports: Krutz Airport, Seward Memorial Hospital Heliport, and the Seward

Municipal Airport. The airports are located to the south and on the east end 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. The local planning team indicated that Highway 34 and Highway 15 are the routes of most concern for the community as they regularly transport Anhydrous Ammonia. In March 2019, Highway 34 as closed due to flooding in the area.

Demographics

The City of Seward's population grew from about 6,319 people in 2000 to 7,133 people in 2016, an average annual increase of 0.81%. This is important because the population growth means an increasing tax revenue for the city. The City of Seward's population accounted for 41.68% of Seward County's population in 2016.[xcviii]

Figure SWD.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, the City of Seward's population was:

- **Younger.** The median age of the City of Seward was 33.1 years old in 2016, compared with the county average of 38.1 years. The city's population grew older since 2010, when the median age was 32.4 years old. The City of Seward had a slightly smaller proportion of people under 20 years old (27.8%) than the county (28.2%).[xcix]
- **More ethnically diverse**. In 2010, 1.9% of the city's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, the City of Seward became more ethnically diverse, with 2.5% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[c]

- **Less likely to be below the federal poverty line.** The poverty rate in the City of Seward (4.3% of families living below the federal poverty line) was lower than the county's poverty rate (4.7%) in 2016.[ci]

Employment and Economics

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

- **Similar mix of industries.** The City of Seward's major employment sectors, accounting for 10% or more of employment each, were: Retail trade; Educational Services and Health Care/Social Assistance; and Manufacturing.[cii]
- **Similar household income.** The City of Seward's median household income in 2016 ($61,338) was similar to the county ($61,563).[ciii]
- **Fewer long-distance commuters.** About 54.3% of workers in the city commuted for fewer than 15 minutes, compared with about 49.8% of workers in Seward County. About 22.1% of workers in the City of Seward commute 30 minutes or more to work, compared to about 24.6% of the county workers.[civ]

Major Employers

Major employers within the City of Seward include Hughes Brothers Inc, Tenneco, Concordia University, and Memorial Hospital. Many residents work within the city, but there is a significant percentage that commutes to the City of Lincoln for employment. There is also a new factory that has broken ground. Scoular will manufacture pet food ingredients and will create 100 new jobs for the area.

Housing

In comparison to Seward County, the City of Seward's housing stock was:

- **More renter-occupied**. About 35.1% of occupied housing units in the city are renter occupied compared with 27.9% of occupied housing in Seward County.[cv]
- **Younger.** The City of Seward has a smaller share of housing built prior to 1970 than the county (41.8% compared to 48.5%).[cvi]
- **More multifamily.** Although the predominant housing type in the city is single family detached, the City of Seward contains much more multifamily housing with five or more units per structure compared to the county (13.5% compared to 6.9%). About 69.4% of housing in city was single-family detached, compared with 80.8% of the county's housing. The City of Seward has a smaller share of mobile and manufactured housing (2.4%) compared to the county (3.2%).[cvii] Mobile homes are located along the southern edge 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 does have a mobile home park located on the south end of the community.

Future Development Trends

In the last five years, there have been over 140 residential lots added and a new factory. In addition, the city has implemented a new property maintenance enforcement code. According to the 2016 American Community Survey estimates, the City of Seward's population has been increasing since 1990. An increasing population may result in a growing tax base, which may make implanting mitigation actions more feasible. The local planning team indicated this growth was due to a high quality of life, a good education system, and available jobs. Over the next five years additional housing developments and businesses are 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 SWD.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
2,550	$392,595,466	$153,959	29	$13,477,171

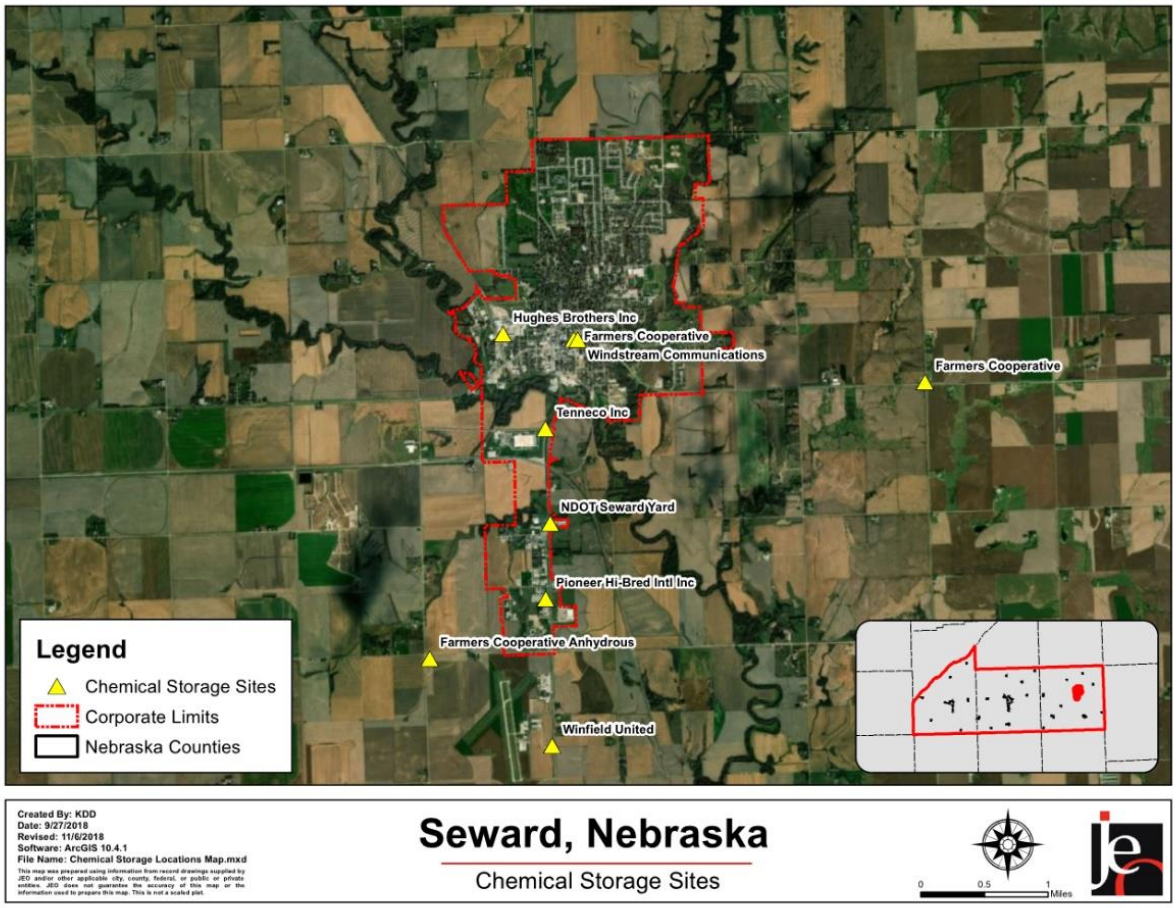
Source: Nebraska Department of Revenue, Property Assessment Division[cviii]

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 nine storage sites in the City of Seward. The map below shows the name and location of the sites.

Figure SWD.3: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy[cix]

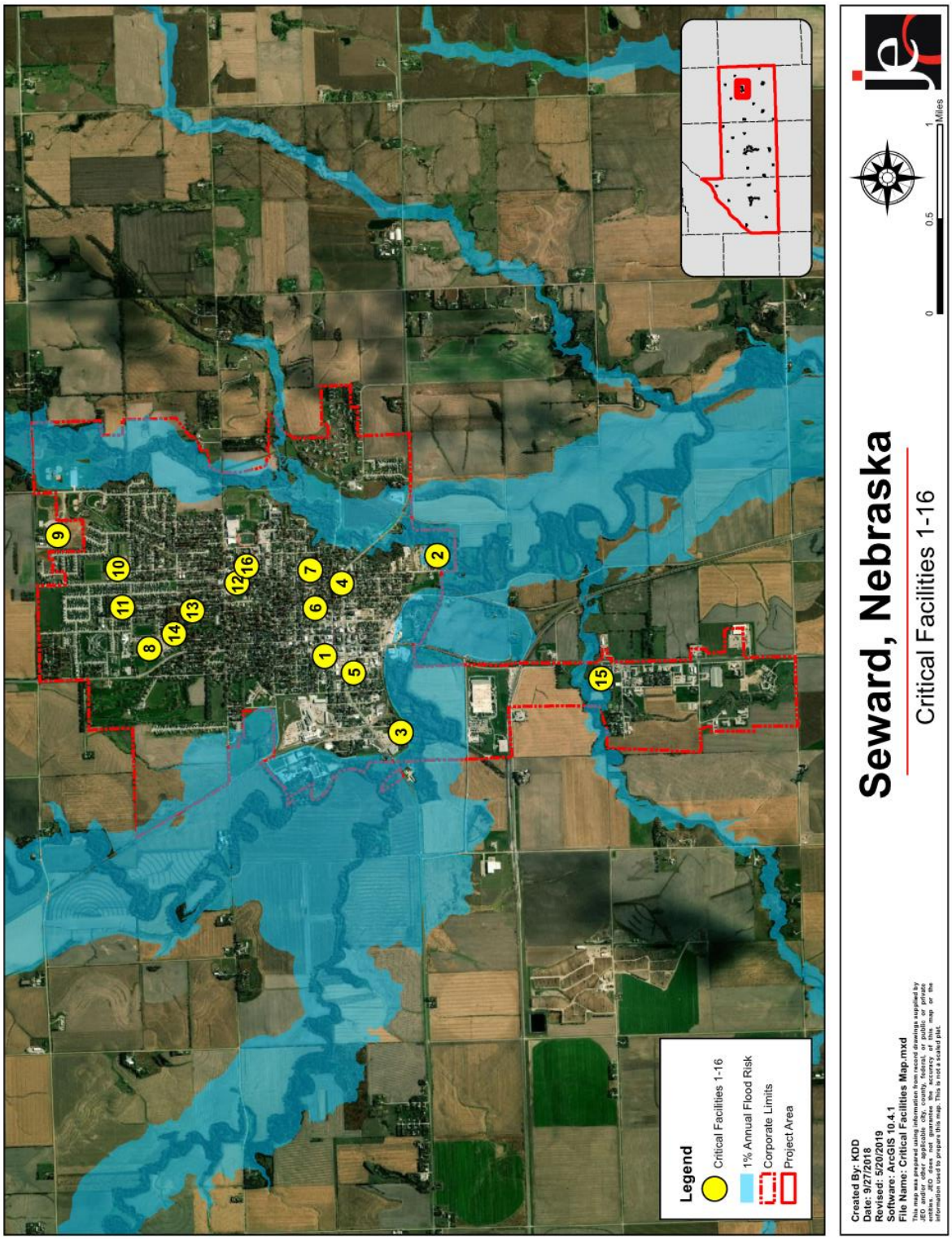
Critical Facilities

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 SWD.3: Critical Facilities

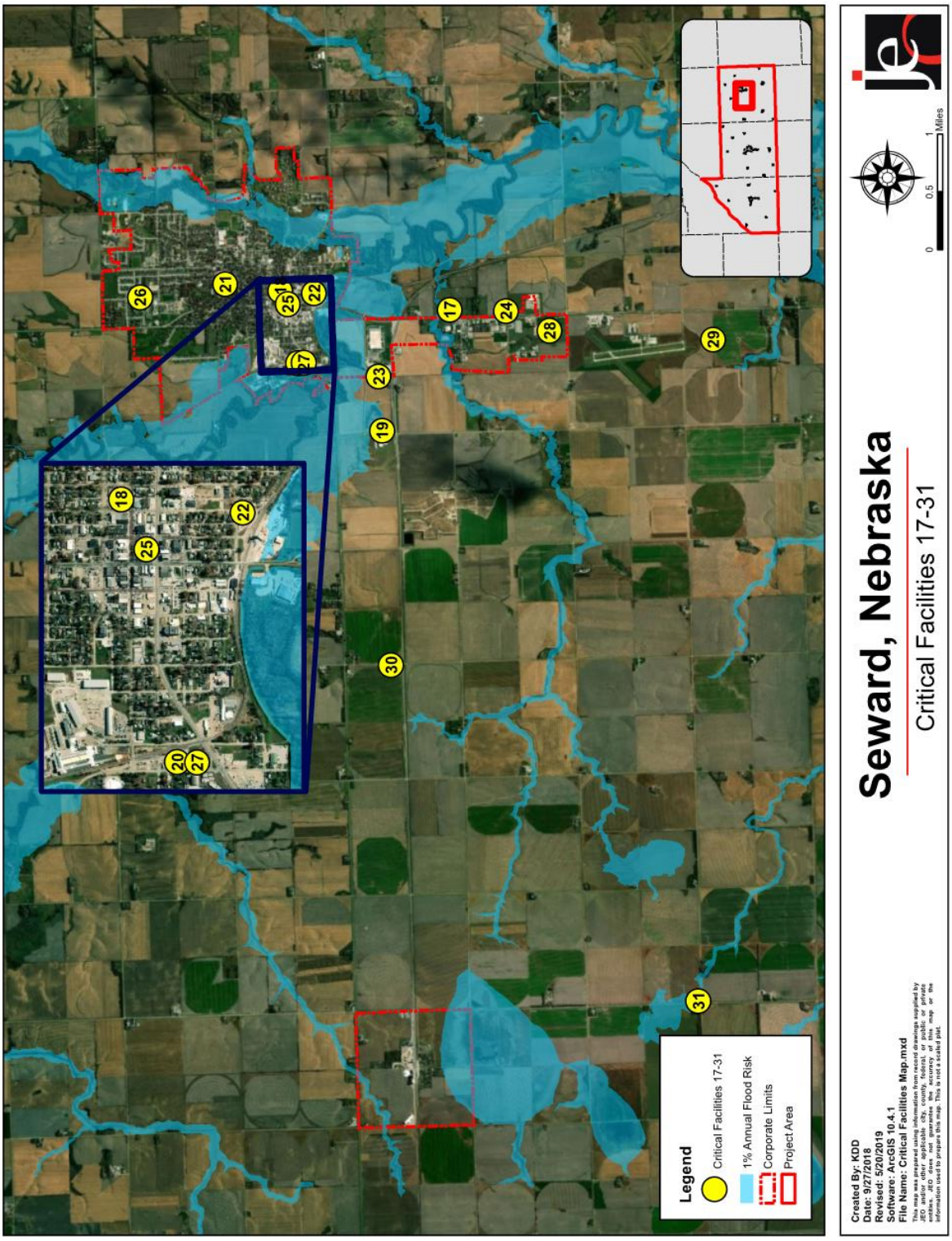
CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Municipal Building	N	N	N
2	Water/Waste Water Treatment Plant	N	N	Y
3	Electric Department Shop	N	N	N
4	Seward Police Department	N	N	N
5	Justice Center	N	N	N
6	Fire & Rescue	N	N	N
7	Memorial Hospital	N	N	N
8	Seward High School	Y	N	N
9	Seward Middle School	Y	N	N
10	Seward Elementary School	Y	N	N
11	St. Vincent DePaul Church	Y	N	N
12	St. John Lutheran Church	N	N	N
13	Faith Lutheran Church	N	N	N
14	United Methodist Church	N	N	N
15	Evangelical Free Church	Y	N	N
16	Campus Center – Concordia	N	N	N
17	Nebraska Roads Department – Seward Yard	N	N	N
18	Windstream Communications	N	N	N
19	City of Seward Lift Station	N	N	N
20	South 14th Electrical Substation	N	N	N
21	2nd Street Substation	N	N	N
22	Ash Street Substation	N	N	N
23	Walker Substation	N	N	N
24	Nebraska Public Power District Seward City Substation	N	N	N
25	Seward County Courthouse	N	N	N
26	Water Tower Substation	N	N	N
27	Seward County Road Equipment Shop	N	N	N
28	St. Gregory The Great Seminary	N	N	N
29	Water Wells #1 (3 Wells)	N	N	N
30	Water Wells #2 (4 Wells)	N	N	N
31	Water Wells #3 (2 Wells)	N	N	Y

Figure SWD.4: Critical Facilities 1-16



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

Figure SWD.5: Critical Facilities 17-31



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

Historical Occurrences

See the Seward 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

The local stakeholder group identified fixed site chemical spills as a top hazard for the community. The city contains nine Tier II chemical storage facilities, which most being located in the central and southern parts of the city. According to the US Coast Guard National Response Center, the city has experienced three fixed site chemical spills since 1990. The largest spill released 1000 gallons of Pentachlorophenol with fuel oil. There are several critical facilities located near fixed site chemical storage facilities.

Chemical Spills – Transportation

The local stakeholder group identified transportation spills as a top hazard for the city. Highway 15 and Highway 34 both run through the middle of the city. These routes typically carry a large variety of agricultural chemicals, fertilizers, ethanol, and diesel on a consistent basis. In addition, there are natural gas pipelines (one of which is located in the floodplain northeast of the city) and two rail lines which run through the community. There are several critical facilities located along these chemical transportation routes including the Seward High School, city hall, and the waste water treatment plant. If a large spill were to occur, an evacuation of these critical facilities and other nearby buildings may be necessary.

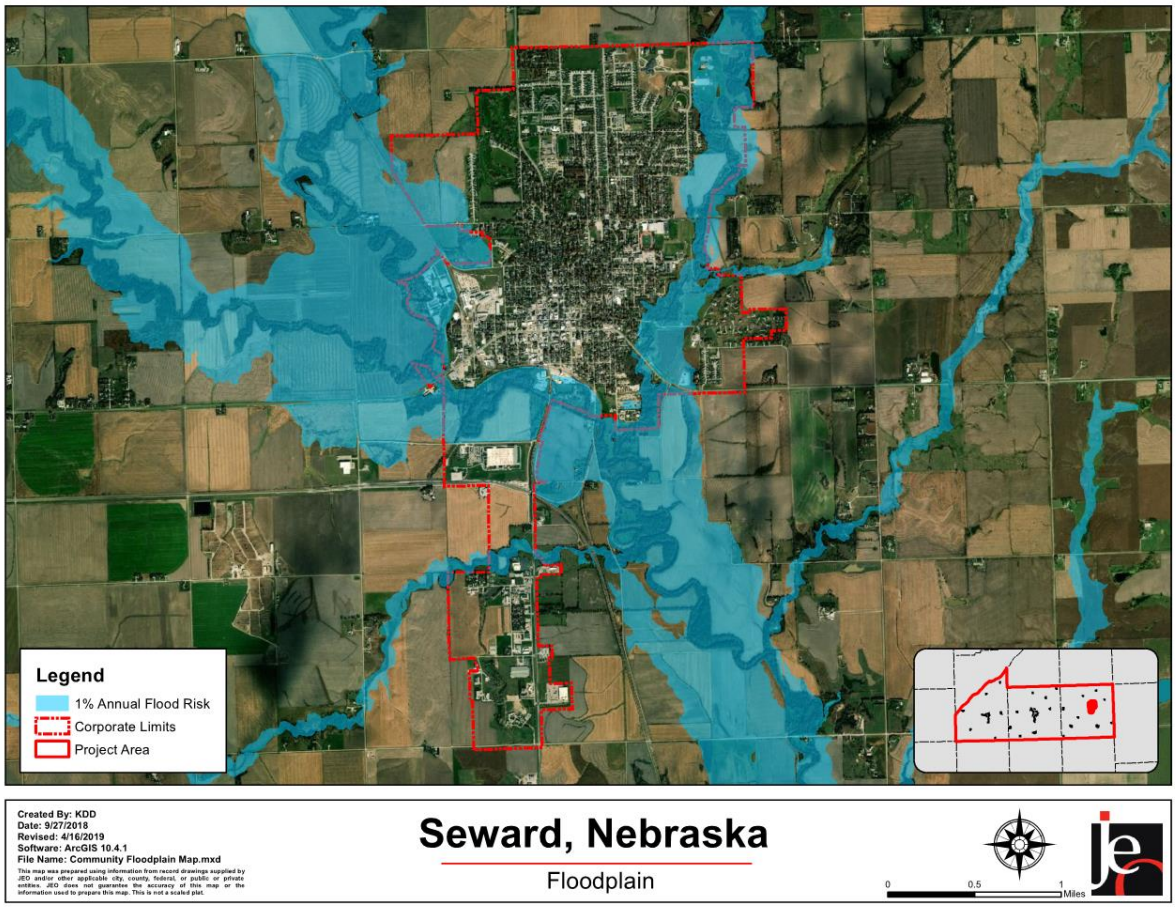
Drought

The local stakeholder group identified drought as a top hazard for the city. Drought is generally a regional event, with impacts from a single drought event impacting multiple communities, counties, and even states. The City of Seward, Seward County, Nebraska, and most of the Midwest experienced a severe drought for most of 2012. During the past drought events, the city has imposed water restrictions to compensate for low well levels.

Flooding

The local planning team and local stakeholder group identified flooding as a top hazard for the city. Much of the city is located within the 100-year floodplain (Figure SWD.6). In addition, there is localized flooding in the Augusta and Hillcrest Areas due to poor drainage. The local planning team identified both of those areas as needing upstream detention. NCEI data shows that Seward has experienced five flood events since 1996. Those events have caused approximately $7,000 in property damages. The local planning team indicated that most of the damages came from flooded basements.

Figure SWD.6: Floodplain



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

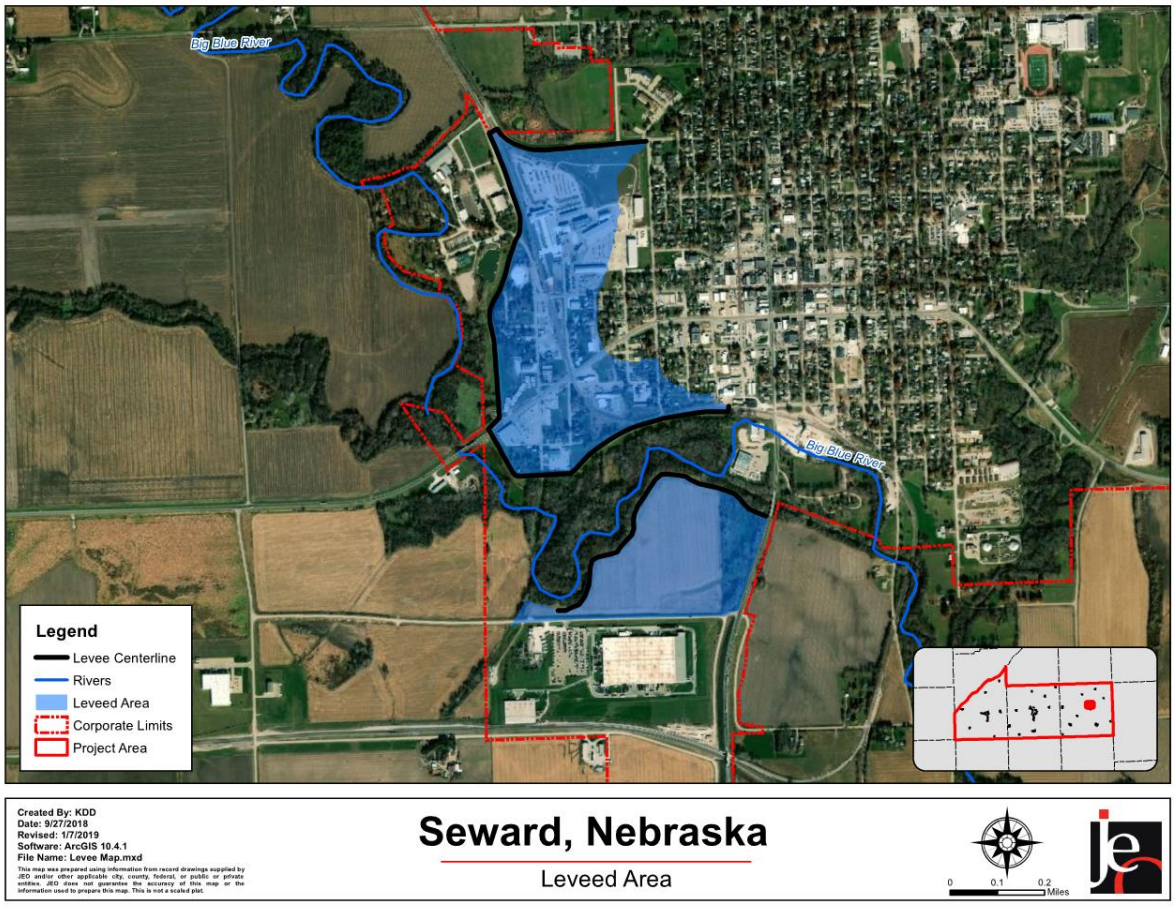
Hail

The local stakeholder group identified hail as a top hazard for the city. NCEI data shows that the city of Seward has experienced 15 hail events since 1996. The largest hail events occurred on June 22nd, 2009 when 2.25-inch hail fell on the city and the surrounding area. Newer housing is more likely to be built with hail resistant materials. The city has a high percentage of housing built after 1970 than Seward County. Hail may cause power outage from downed trees and limbs. Seward is a participant of Tree-City USA, which means they have a local tree board and have a tree care ordinance to remove hazardous trees.

Levee Failure

The local planning team and stakeholder group identified levee failure as a top hazard for the city. The city contains one federal levee with two branches. The north branch levee has an approximate 100-year level of protection. The south branch has an unknown level of protection, but it is estimated that it would be less than 100-year flood level. Currently, the north branch is undergoing a reevaluation. According to the USACE's national Levee Database there are approximately 334 people, 69 structures, and $21,830,000 of property value at risk should a levee failure occur. Figure SWD.7 shows the leveed area within the City of Seward. The local planning team indicated that there has been no known record of levee failure in the past.

Figure SWD.7: Leveed Area



Severe Winter Storms

NCEI records severe winter storms as "zonal" events meaning there is not a specific record of what communities were impacted, rather they are recorded on a county level. Seward County has experienced 67 severe winter storm events since 1996. The local planning team indicated that in 2014 the city experienced a large heavy snow event which caused 12' drifts in some areas. Typically, the snow removal resources within the city is adequate for what is needed. Low income families and elderly individuals may be more vulnerable during severe winter storm events. The city has a lower percentage of families living below the poverty line than the rest of the county and median age is lower.

Tornadoes

Both the local planning team and local stakeholder group identified tornadoes as a top hazard for the city. NCEI data shows that the City of Seward has experienced one tornado event since 1996. That event was a magnitude F0 and did not cause any property damage. This lack of high magnitude tornadoes and damage does not mean there is no risk. Seward County has experienced 14 tornadoes since 1996. If a large-scale tornado (F3 or great) were to impact the community, a significant loss of structures could occur. The local planning team indicated that there was no known certified tornado shelter within the city, however, the civic center is the city's designated tornado shelter. In addition, the retirement homes and most houses within the

community do not have basements. The city does contain warning sirens which can be activated in the city.

Governance

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

- Mayor
- City Administrator
- Clerk
- Treasurer
- Attorney
- Chief of Police
- Street/Transportation Superintendent
- Fire Chief
- Water/Wastewater Director
- Electric and Power Resource Director
- Parks and Recreation Department
- GIS Director
- Building and Inspection Department
- Public Works Department
- Community Redevelopment Authority
- Planning Commission
- Tree Board
- Zoning Board of Adjustment

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 SWD.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes

Survey Components/Subcomponents		Yes/No
	Community Rating System	No
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	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
	Electric Service Fees	Yes
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	Yes
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	-

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

The comprehensive plan for the city was last updated in 2018. There are very few hazard topics discussed other than flooding. The plan contains goals aimed at safe growth, directs development away from the floodplain, directs development away from major transportation routes, encourages infill and clustering development, and encourages strengthening historic structures.

Seward's zoning ordinance, building code, and subdivision regulations were all updated in 2018. The zoning ordinance discusses the floodplain by prohibiting development within the floodway, discouraging development in the floodplain, identifying floodplain areas as open space, and limiting population density in the floodplain. The subdivision regulations provide for conservation/cluster subdivisions in order to conserve environmental resources. The building code encourages the use of fire-resistant building materials.

The city's Local Emergency Operations Plan (LEOP) was last updated in 2019 and is an annexation to Seward County's plan. The LEOP addresses hazards of greatest concern, assigns specific responsibilities, identifies scenarios that would require evacuation, and lists sheltering locations.

In addition to the plans listed above, the City of Seward also has Wellhead Protection Plan which was developed in 2009. 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	All-Terrain Vehicles
Description	Supply a limited number of ATVs to be used during disaster situations.
Hazard(s) Addressed	All Hazards
Estimated Cost	$5,000 to $15,000
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Fire and Rescue
Status	Not Started

Mitigation Action	Comprehensive City/Village Disaster and Emergency Response Plan
Description	Update the Comprehensive City Disaster and Emergency Response Plan.
Hazard(s) Addressed	All Hazards
Estimated Cost	$6,000+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	City of Seward Building and Inspection Department
Status	Ongoing

Mitigation Action	Emergency Preparedness Plan
Description	Create an Emergency Preparedness Plan for the levee.
Hazard(s) Addressed	Levee Failure
Estimated Cost	$26,000
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	City of Seward Building and Inspection Department
Status	In Progress

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.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City of Seward Building and Inspection
Status	No Started

Mitigation Action	First Aid Training
Description	Promote first aid training for all residents.
Hazard(s) Addressed	All Hazards
Estimated Cost	$500+
Funding	Local Budget
Timeline	5+ Years
Priority	High
Lead Agency	City of Seward Fire and Rescue
Status	Not Started

Mitigation Action	Flood-Prone Property Acquisition
Description	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority. One possible area for acquisition is along Plum Creek.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies on the number of properties.
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Public Works, City of Seward Building and Inspection Department
Status	Not Started, New Action

Mitigation Action	Floodplain Management
Description	Preserve natural and beneficial functions of floodplain land through measures such as: retaining natural vegetation, restoring streambeds; and preserving open space in the floodplain.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Parks Department
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate rural residents during storm events/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	Seward County Emergency Management, City of Seward
Status	Not Started

Mitigation Action	Groundwater/Irrigation/Water Conservation Management Plan and Practices
Description	Rules and regulations are in place to manage groundwater consumption and quality by groundwater users District wide, providing information regarding means and methods in achieving the goal including cost/ share assistance.
Hazard(s) Addressed	Drought
Estimated Cost	$80,000
Funding	General Fund, UBB NRD
Timeline	5+ Years
Priority	High
Lead Agency	City of Seward, UBB NRD
Status	In Progress

Mitigation Action	Improve Snow / Ice Removal Program
Description	Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$20,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Public Works, City of Seward Fire and Rescue
Status	Not Started

Mitigation Action	Install Hail Resistant Roofing
Description	Encourage the use of hail resistant roofing for any new construction.
Hazard(s) Addressed	Hail, Severe Thunderstorms
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Building and Inspection Department
Status	Not Started

Mitigation Action	Levee/Floodwall Construction and/or Improvements
Description	Levees serve to provide flood protection to businesses and residents during large storm events. Improve existing levees to increase flood protection. If possible, the levee may be designed to FEMA standards to provide 100-year flood protection providing additional flood insurance benefits. Upgrade the existing interior pump house.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,700,000
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	City of Seward Public Works
Status	In Progress

Mitigation Action	New Municipal Well
Description	Evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$350,000 - $450,000
Funding	CDBG, General Fund
Timeline	1 Year
Priority	High
Lead Agency	City of Seward Water/Wastewater Department
Status	In Progress

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	2-5 Years
Priority	Medium
Lead Agency	City of Seward City Administrator
Status	Not Started

Mitigation Action	Power, Service, Electrical, and Water Distribution Lines
Description	Work with Seward Public Power District to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$70,000/mile
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	City of Seward Electric Department
Status	Ongoing

Mitigation Action	Protection of Vulnerable Populations
Description	Ensure that facilities which will house vulnerable populations are placed in the least vulnerable areas of the community.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Building and Inspection Department
Status	Not Started

Mitigation Action	Public Awareness/Education
Description	Distribute maps and environmental education through activities such as outreach projects to 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 water conservation methods. Educate the public and business owners regarding rain gardens, green roofs, and other minor mitigation measures.
Hazard(s) Addressed	All Hazards
Estimated Cost	$0 - $500+
Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	City of Seward Fire and Rescue, City of Seward Police, Seward Public Schools
Status	Ongoing

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	CDBG, General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	UBB NRD, City of Seward
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 – Fixed Site, Chemical Spills – Transportation
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward Fire and Rescue, City of Seward Public Works
Status	Not Started

Mitigation Action	Snow Fences
Description	Construct snow fences to protect main transportation routes and critical facilities from excessive snow drifting and road closure.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$1,000+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City of Seward Public Works
Status	Ongoing

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) 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	Medium
Lead Agency	Seward Public Schools, City of Seward
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Larger communities generally utilize underground stormwater systems comprising of pipes and inlets to convey runoff. Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Improvements will likely be focused on the Augusta and Hillcrest areas.
Hazard(s) Addressed	Flooding
Estimated Cost	$150,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Seward 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	All Hazards
Estimated Cost	$2,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City of Seward City Administrator
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	All Hazards
Estimated Cost	$50/per radio
Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City of Seward Administrator, Seward Public Schools
Status	Not Started

[xcvii] *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*
[xcviii] *United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.*
[xcix] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[c] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[ci] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[cii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[ciii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[civ] *United States Census Bureau. "American Fact Finder: S0804: Means of Transportation to Work by Selected Characteristics." [database file]. https://factfinder.census.gov/.*
[cv] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cvi] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cvii] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cviii] *County Assessor. Personal correspondence, February 2019.*
[cix] *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 STAPLEHURST

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

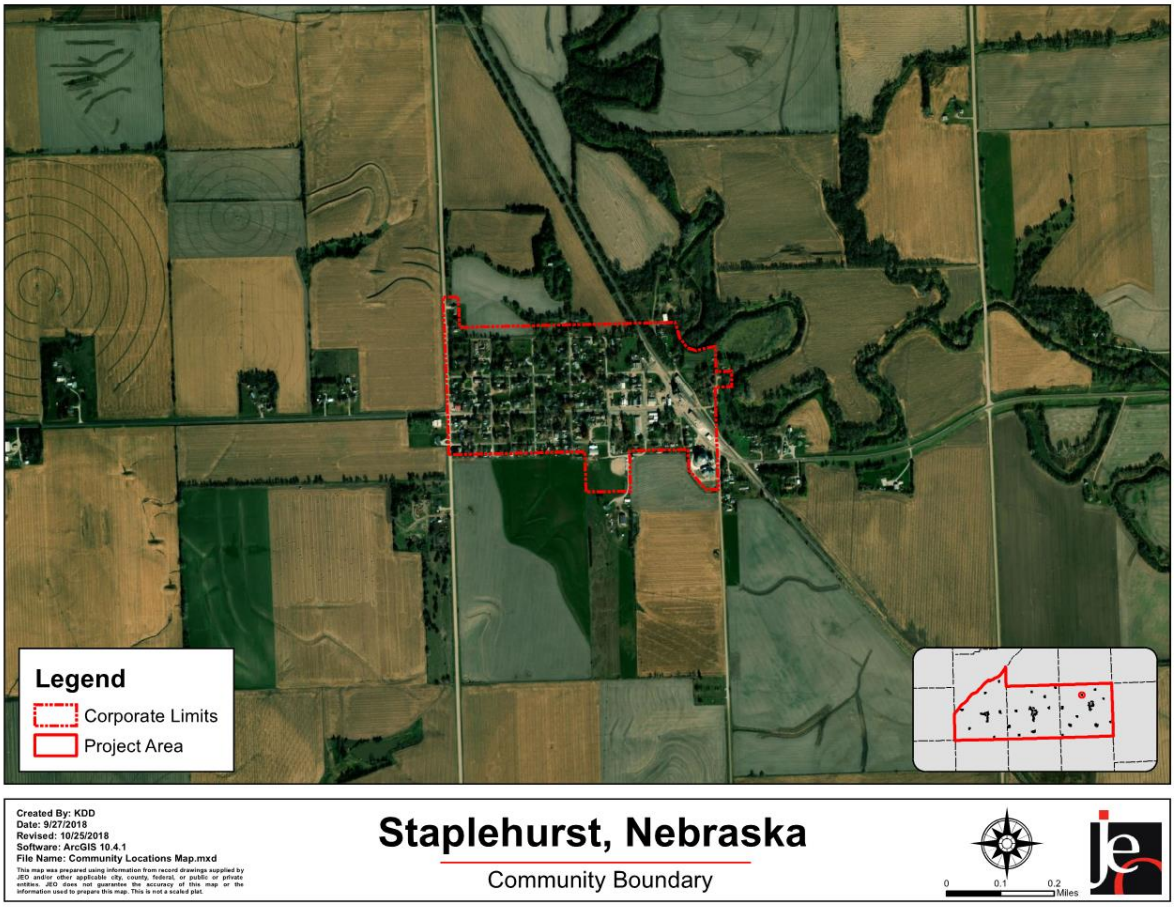
Table STP.1: Staplehurst Local Planning Team

Name	Title	Jurisdiction
Sharon Reinmiller	Village Clerk	Village of Staplehurst

Location and Geography

The Village of Staplehurst is located in the north central portion of Seward County and covers an area of 83 acres. The Big Blue River runs along the east edge of Staplehurst.

Figure STP.1: Community Boundary



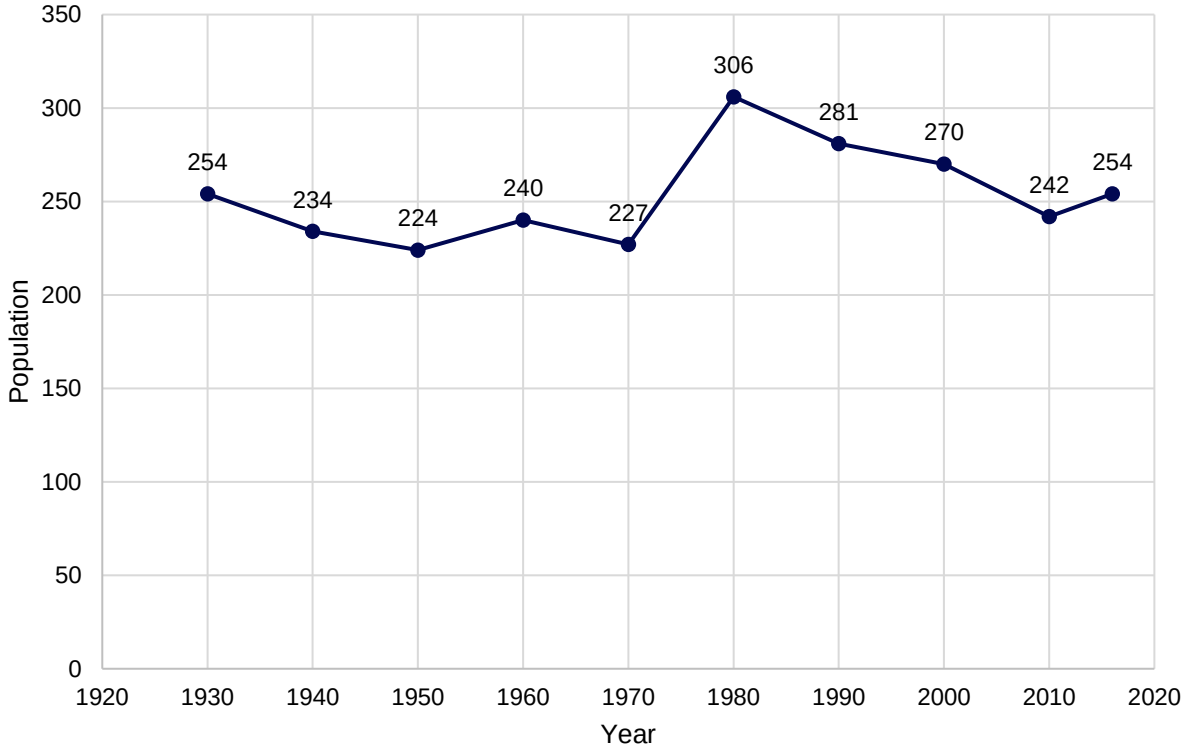
Transportation

Staplehurst's major transportation corridor includes Nebraska Highway S-80C with 820 vehicles a day.[cx] Staplehurst has one Burlington Norther rail line running through the east side of the community. Staplehurst does not have any airports within or near village 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.

Demographics

Staplehurst's population declined from 270 people in 2000 to 254 people in 2016, an average annual decrease of 0.37%. This is important because the population decline means a decreasing tax revenue and the possibility of unoccupied housing. Staplehurst's population accounted for 1.48% of Seward County's population in 2016.[cxi]

Figure STP.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, Staplehurst's population was:

- **Older.** The median age of Staplehurst was 38.4 years old in 2016, compared with the county average of 38.1 years. Staplehurst's population grew younger since 2010, when the median age was 40.0 years old. Staplehurst had a slightly larger proportion of people under 20 years old (29.9%) than the county (28.2%).[cxii]
- **Less ethnically diverse**. In 2010, 0.8% of Staplehurst's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Staplehurst became more ethnically diverse, with 1.2% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[cxiii]
- **More likely to be below the federal poverty line.** The poverty rate in Staplehurst (15.3% of families living below the federal poverty line) was lower than the county's poverty rate (4.7%) in 2016.[cxiv]

Employment and Economics

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

- **Different mix of industries.** Staplehurst's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; construction; retail trade; educational services, and health care and social assistance.[cxv]
- **Lower household income.** Staplehurst's median household income in 2016 ($50,833) was about $10,700 lower than the county ($61,563).[cxvi]
- **Fewer long-distance commuters.** The local planning team indicated that a large percentage of residents commute to other communities.

Major Employers

Major employers within Staplehurst include the Lutheran school, Cross Creek Animal Health Center, U.S. Postal Service, and The R. Bar. A large percentage of residents commute to the City of Seward and the City of Lincoln.

Housing

In comparison to Seward County, Staplehurst's housing stock was:

- **More renter-occupied**. About 29.4% of occupied housing units in Staplehurst are renter occupied compared with 27.9% of occupied housing in Seward County.[cxvii]
- **Older.** Staplehurst had a much larger share of housing built prior to 1970 than the county (70.6% compared to 48.5%).[cxviii]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Staplehurst contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 94.1% of housing in Staplehurst was single-family detached, compared with 80.8% of the county's housing. Staplehurst has a larger share of mobile and manufactured housing (5.9%) compared to the county (3.2%).[cxix]

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, there has not been any new housing developments, businesses, or industries. According to the latest American Community Survey estimates, Staplehurst's population has been declining since 1980. A declining population may result in a shrinking tax base, which may make implementing mitigation actions more difficult. The local planning team indicated that no new housing, businesses, or industries are planned for the next five years.

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 STP.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
140	$7,835,856	$55,970	1	$41,098

Source: Nebraska Department of Revenue, Property Assessment Division[cxx]

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 no storage sites in Staplehurst.

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 STP.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Village Hall	N	N	N
2	Water Tower	N	Y	N
3	Waste Water Treatment	N	N	N
4	Village Fire Hall	N	N	N
5	Seward County PPD Staplehurst Rural Substation	N	N	N
6	Seward County Road Equipment Shop at Staplehurst	N	N	N

Figure STP.3: Critical Facilities

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

Historical Occurrences

See the Seward 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

Drought is generally a regional event, with impacts from a single drought event impacting multiple communities, counties, and even states. Staplehurst, Seward County, Nebraska, and most of the Midwest experienced a severe drought from most of 2012. There were no specific impacts reported for Staplehurst, however the village has implemented water restrictions for droughts in the past. Currently the village is evaluating potential sources for an additional water well. A site has not been selected as water quality concerns continue to be an issue at several potential sites. The local planning team indicated that the community does have a water management plan.

Flooding

The Village of Staplehurst is primarily concerned with flooding impacting their wastewater treatment plant. The plant is located very near the Big Blue River and has been threatened in the past. The local planning team also indicated that the drainage system in the village could be upsized as it is undersized and can backup after a large rain event.

Severe Thunderstorms

The primary concern for the village related to severe thunderstorms is damage to structures and buildings. The local planning team indicated that during one thunderstorm the water tower was hit by lightning and the village had to replace the pump. There is one siren in the village which is activated by the sheriff and the fire department does text alerts for severe weather. The village does not have any community safe rooms, so most people must use basements or the community hall for shelter.

Severe Winter Storms

NCEI data records severe winter storms as "zonal" events meaning there is not a specific record of what communities are impacted. Rather the events are recorded on a county wide scale. NCEI data shows that Seward County experienced 67 severe winter storm events since 1996. The village maintenance department is in charge of clearing roads after a snow storm. There are not designated snow routes, but the most heavily used streets are cleared first. The local planning team indicated that for most events the removal resources are sufficient, but additional resources are typically needed for larger snow events. The 2016 American Community Survey data shows that 14% of the population of Staplehurst is over the age of 65. This age group is more likely to sustain injury or have a medical emergency during winter storms. If a severe winter storm and possible power loss were to occur, the local planning team indicated that these populations would be helped by local community members.

Governance

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

- Clerk/Treasurer
- Utility Superintendent
- Attorney
- County Sheriff
- Fire Chief
- Sewer/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 STP.4: Capability Assessment

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

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

The Village of Staplehurst has a comprehensive plan and building codes. However, due to the age of these plans they contain very little discussion of hazards or hazard mitigation. The village's Local Emergency Operations Plan (LEOP) is an annex to the 2019 Seward County plan. The LEOP discusses hazards of greatest concern, identifies evacuation routes, assigns specific responsibilities, and lists shelter locations. 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	Comprehensive City/Village Disaster and Emergency Response Plan
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed. This mitigation action is required to be completed/updated every five years. County Emergency Management leads this effort.

Ongoing and New Mitigation Actions

Mitigation Action	Alert Sirens
Description	Perform an evaluation of existing alert sirens in order to determine sires which should be replaced or placement of new sirens.
Hazard(s) Addressed	All Hazards
Estimated Cost	$15,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Seward County Emergency Management
Status	In Progress. The village maintenance department is currently evaluating the existing alert siren.

Mitigation Action	All-Terrain Vehicles
Description	Supply a limited number of ATVs to be used during disaster situations.
Hazard(s) Addressed	All Hazards
Estimated Cost	$5,000 to $15,000
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Seward County Emergency Management
Status	Not Started

Mitigation Action	Backup Generators
Description	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters. Locations for the backup generators would be the village community building, wastewater plant, and water tower.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$15,000 to $30,000 per generator
Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board, Seward County Emergency Management
Status	In Progress. A backup generator was purchased a few years ago for the water tower.

Mitigation Action	National Flood Insurance Program
Description	Participate in the National Flood Insurance Program. This will allow the Village and residents to purchase flood insurance policies.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Funding	General Fund
Timeline	5+ Years
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	High
Lead Agency	Village Board, Volunteer Fire Department
Status	Not Started

Mitigation Action	Formal Evacuation Plan
Description	Establish a plan to effectively evacuate residents during storm events/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	High
Lead Agency	Village Board, Seward Emergency Management, County Roads Department
Status	Not Started

Mitigation Action	Improve Snow / Ice Removal Program
Description	Revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris. This would include updating the emergency routes, acquiring equipment that is needed, paving routes, and ordinances as necessary. Improve capabilities to rescue those stranded in blizzards.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$20,000+
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Mitigation Action	New Municipal Well
Description	Evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$350,000 to $450,000
Funding	Community Development Block Grant, General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Planning Stage. The village is currently looking into different well sites. Water quality is the main issues with finding a site.

Mitigation Action	Public Awareness/Education
Description	Distribute maps and environmental education through activities such as outreach projects to 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 water conservation methods.
Hazard(s) Addressed	All Hazards
Estimated Cost	$500+
Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, NEMA, NDNR, Fire Department
Status	Ongoing

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
Estimated Cost	$500,000+
Funding	CDBG, General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	In Progress. The village is currently looking into different well sites.

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas. The village would like to add a safe room to the fire hall.
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	Medium
Lead Agency	Village Board, Seward County Emergency Management
Status	Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Deepen drainage ditches and clean out culverts.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000+
Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Maintenance
Status	Not Started. New Action

Mitigation Action	Windbreaks
Description	Install windbreaks to increase water storage capacity in soil.
Hazard(s) Addressed	Drought
Estimated Cost	$2,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, UBB NRD
Status	Planning Stage

Removed Mitigation Actions

Mitigation Action	Continuity Plans
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team removed this mitigation action. The village feels that this action would not do much to reduce their vulnerability to hazards. Most of these functions are already in place.

Mitigation Action	Electrical System Looped Distribution / Redundancies
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this mitigation action because the village would not have any control over this action. Their local public power district would be the ones to implement this mitigation action.

Mitigation Action	Emergency Communication
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This mitigation action was removed by the local planning team. The village indicated that communication between agencies performs well and improvements would not add much. In the future if situations change, this action will be reevaluated.

Mitigation Action	Enhanced Codes
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team. The village experiences very little new construction. A different action may have a larger impact on the community. If development picks up, the community will reevaluate this mitigation action.

Mitigation Action	Evaluate and Improve Building Standards
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team. The village experiences very little new construction. A different action may have a larger impact on the community. If development picks up, the community will reevaluate this mitigation action.

Mitigation Action	Floodplain Management
Hazard(s) Addressed	Flooding
Reason for Removal	The local planning team removed this mitigation action. The village felt that this action would be very difficult for them to implement. More feasible and realistic actions for flooding will be added.

Mitigation Action	Hail Resistant Roofing
Hazard(s) Addressed	Hail, Severe Thunderstorms
Reason for Removal	This mitigation action was removed by the local planning team. The village experiences very little new construction. A different action may have a larger impact on the community. If development picks up, the community will reevaluate this mitigation action.

Mitigation Action	Irrigation / Groundwater Management Plan
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team removed this mitigation action. The village has very little control over this action. It would have more impact if done by the UBB NRD.

Mitigation Action	Low Impact Development Practices
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team because the village experiences very little new construction. A different action may have a larger impact on the community. If development picks up, the community will reevaluate this mitigation action.

Mitigation Action	Power and Service Lines
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this mitigation action because the village would not have any control over this action. Their local public power district would be the ones to implement this mitigation action.

Mitigation Action	Protection of Vulnerable Populations
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team because the village is small enough that there are not more or least vulnerable areas. It would also be extremely difficult to move populations to other areas.

Mitigation Action	Public Awareness / Continuity Planning
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team because there are very few businesses in the community. If more businesses come to the village, then the community will reevaluate this action.

Mitigation Action	Rural Water District and Water System Upgrades
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team removed this mitigation action. The village has very little control over this action. It would have more impact if done by the UBB NRD.

Mitigation Action	Shelter In Place Training
Hazard(s) Addressed	Chemical Spills – Fixed Site, Chemical Spills – Transportation
Reason for Removal	This mitigation action was removed by the local planning team. The village does not contain any chemical storage facilities and chemicals are not regularly transported on local transportation corridors.

Mitigation Action	Snow Fences
Hazard(s) Addressed	Severe Winter Storms
Reason for Removal	This mitigation was removed by the local planning team. The community believes that other actions would better address this hazard.

Mitigation Action	Stream Bank Stabilization
Hazard(s) Addressed	Flooding
Reason for Removal	This mitigation action was removed by the local planning team. The village does not currently have any banks which are degraded and need stabilization. If the need arises in the future, the village will reevaluate this mitigation action.

Mitigation Action	Trailer Park Safe Rooms
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team removed this mitigation action because the village does not have any mobile homes. If this were to change in the future, this action will be reevaluated.

Mitigation Action	Tree City USA – Tree Maintenance Program
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Reason for Removal	The local planning team removed this mitigation action. The village was no longer interested in pursuing this designation.

Mitigation Action	Vehicular Barriers
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team because there is very little risk of critical facilities being damaged by vehicles. Other mitigation actions would be better pursued by the village.

Mitigation Action	Vulnerable Population Database
Hazard(s) Addressed	All Hazards
Reason for Removal	The local planning team removed this mitigation action. The village is small enough that all vulnerable populations and support systems are already known.

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	The local planning team removed this mitigation action because the village has very little control over this action. It would have more impact if done by the Seward County Emergency Management.

Mitigation Action	Weather Radios
Hazard(s) Addressed	All Hazards
Reason for Removal	This mitigation action was removed by the local planning team because they felt that it was no longer needed. There are very few public buildings in the communities, so weather radios would not be very effective.

[cx] *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*
[cxi] *United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.*
[cxii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
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[cxix] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cxx] *County Assessor. Personal correspondence, February 2019.*

COMMUNITY PROFILE

VILLAGE OF UTICA

Upper Big Blue Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2019

Local Planning Team

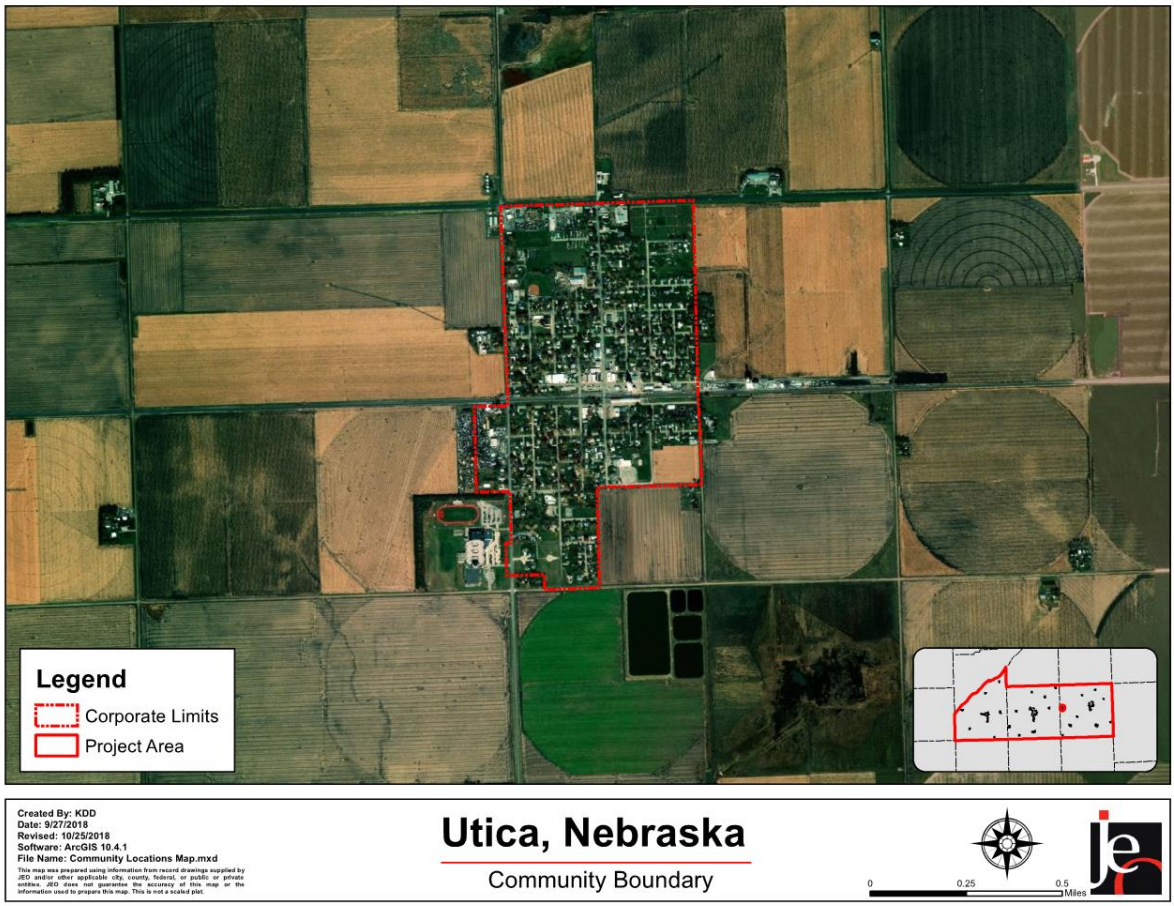
Table UTC.1: Utica Local Planning Team

Name	Title	Jurisdiction
Nathan Baack	Board Member	Village of Utica
Don Olson	Board Chairperson	Village of Utica

Location and Geography

The Village of Utica is located in the central western portion of Seward County and covers an area of 294 acres. Freeman Lakes Waterfowl Production Area, North Lake Basin State Wildlife Management Area, and Shypoke State Wildlife Management Area are all located within five miles of Utica.

Figure UTC.1: Community Boundary



Transportation

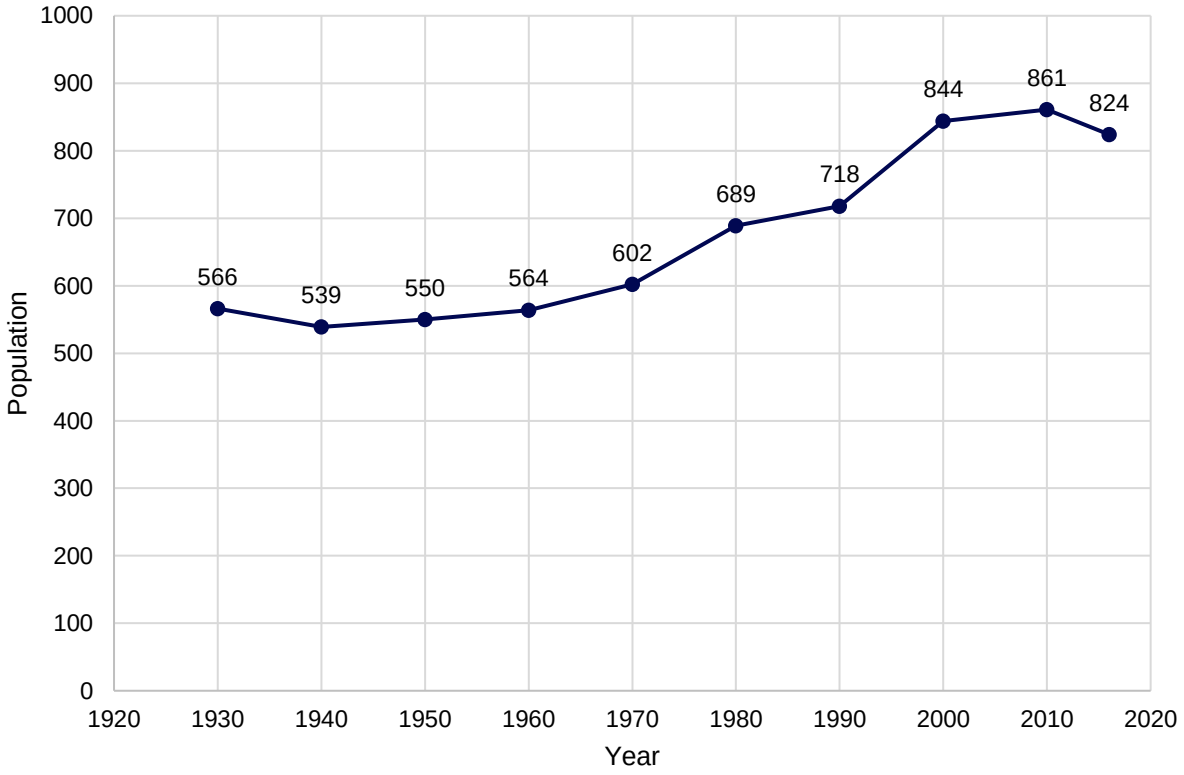
Uticas's major transportation corridor includes Nebraska Highway 34 with 2,485 vehicles a day and Nebraska Highway L-80F with 1,190 vehicles a day.[cxxi] Utica has one Burlington Northern rail line running east west through the center of the community. Utica has one airport (Flying V Airport) which is located two miles south of 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 D Street, 1st Street, and Centennial Avenue were the transportation routes of most concern for the community.

Demographics

Utica's population declined from about 844 people in 2000 to 824 people in 2016, an average annual decrease of 0.15%. This is important because the population decline means a decreasing tax revenue and the possibility of unoccupied buildings. Utica's population accounted for 4.82% of Seward County's population in 2016.[cxxii]

Figure UTC.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, Utica's population was:

- **Older.** The median age of Utica was 44.2 years old in 2016, compared with the county average of 38.1 years. Utica's population grew older since 2010, when the median age was 39.7 years old. Utica had a smaller proportion of people under 20 years old (25.9%) than the county (28.2%).[cxxiii]
- **More ethnically diverse**. In 2010, 1.4% of Utica's population was Hispanic or Latino. The Hispanic population in the county was 1.6%. By 2016, Utica became more ethnically diverse, with 2.9% of the population Hispanic or Latino. During that time, the Hispanic population in the county grew to 2.3%.[cxxiv]
- **More likely to be below the federal poverty line.** The poverty rate in Utica (5.9% of families living below the federal poverty line) was higher than the county's poverty rate (4.7%) in 2016.[cxxv]

Employment and Economics

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

- **Similar mix of industries.** Utica's major employment sectors, accounting for 10% or more of employment each, were: manufacturing; transportation, warehousing, and utilities; and educational services and health care/social assistance.[cxxvi]
- **Higher household income.** Utica's median household income in 2016 ($64,712) was about $3,100 higher than the county ($61,563).[cxxvii]
- **Fewer long-distance commuters.** About 62.9% of workers in Utica commuted for fewer than 15 minutes, compared with about 49.8% of workers in Seward County. About 13.8% of workers in Utica commute 30 minutes or more to work, compared to about 24.6% of the county workers.[cxxviii]

Major Employers

Major employers within Utica include Centennial Public School, Tomes Industries, and Breera Feed. A large percentage of residents commute to Lincoln and Seward.

Housing

In comparison to Seward County, Utica's housing stock was:

- **Less renter-occupied**. About 22.0% of occupied housing units in Utica are renter occupied compared with 27.9% of occupied housing in Seward County.[cxxix]
- **Older.** Utica had a larger share of housing built prior to 1970 than the county (59.1% compared to 48.5%).[cxxx]
- **Less multifamily.** Although the predominant housing type in the village is single family detached, Utica contains much less multifamily housing with five or more units per structure compared to the county (0.0% compared to 6.9%). About 92.6% of housing in Utica was single-family detached, compared with 80.8% of the county's housing. Utica has a smaller share of mobile and manufactured housing (2.7%) compared to the county (3.2%).[cxxxi]

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 village has approximately ten mobile homes located along 8th Street.

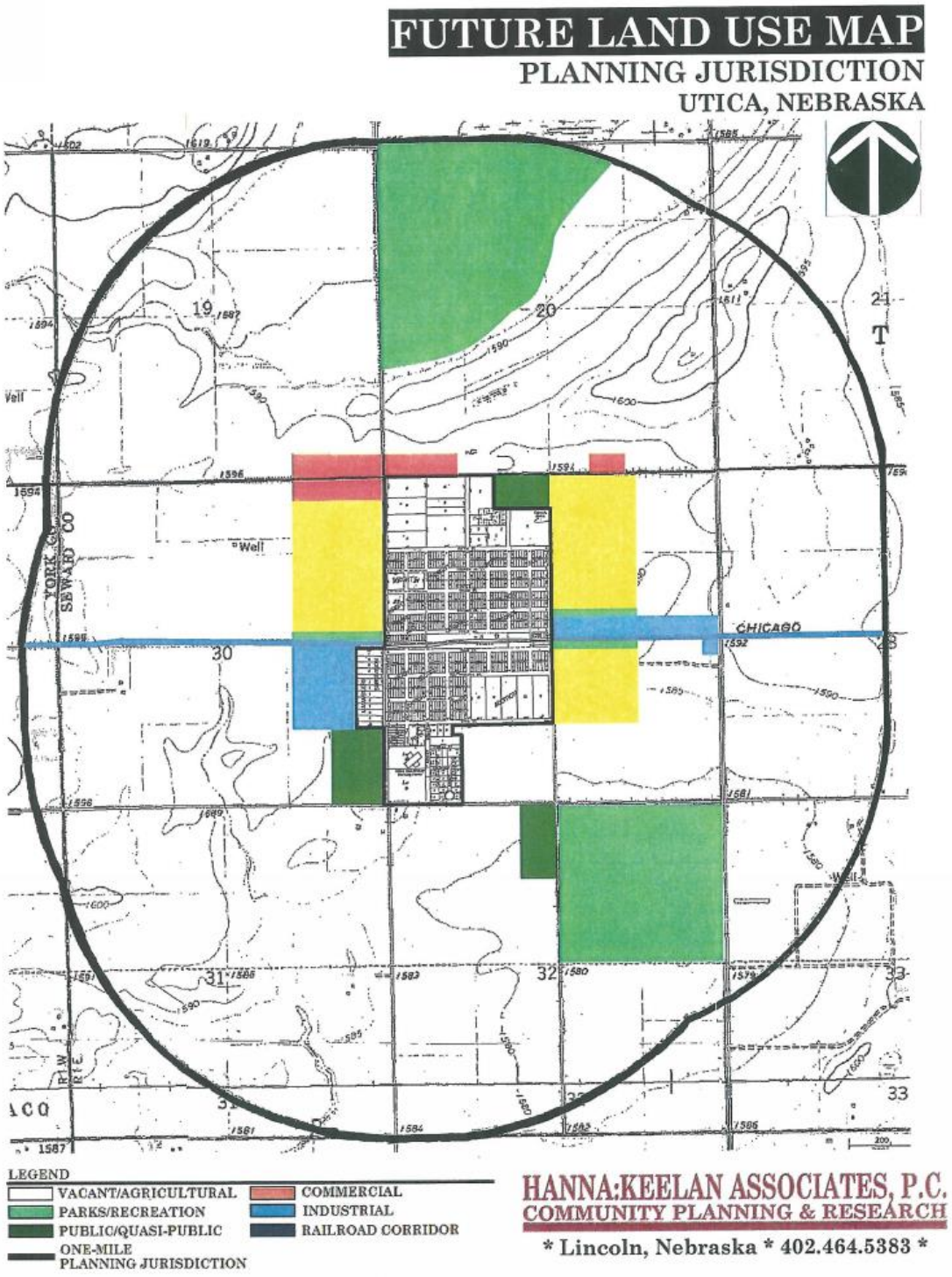
Future Development Trends

In the last five years, Utica has not experienced much change. No new housing or businesses have been built and no buildings have been demolished. According to the 2016 American Community Survey estimates, Utica's population has slightly declined since 2010. A declining population may result in a shrinking tax base, which may make implementing mitigation actions more difficult. At this time no new housing developments, businesses, or industry is planned over the next five years. Figures UTC.3 and UTC.4 show the future land use maps for Utica.

Figure UTC.3: Future Land Use Map Corporate Limits

Source: Village of Utica

Figure UTC.4: Future Land Use Map Planning Jurisdiction



Source: Village of Utica

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 UTC.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
393	$34,057,943	$86,661	1	$104,505

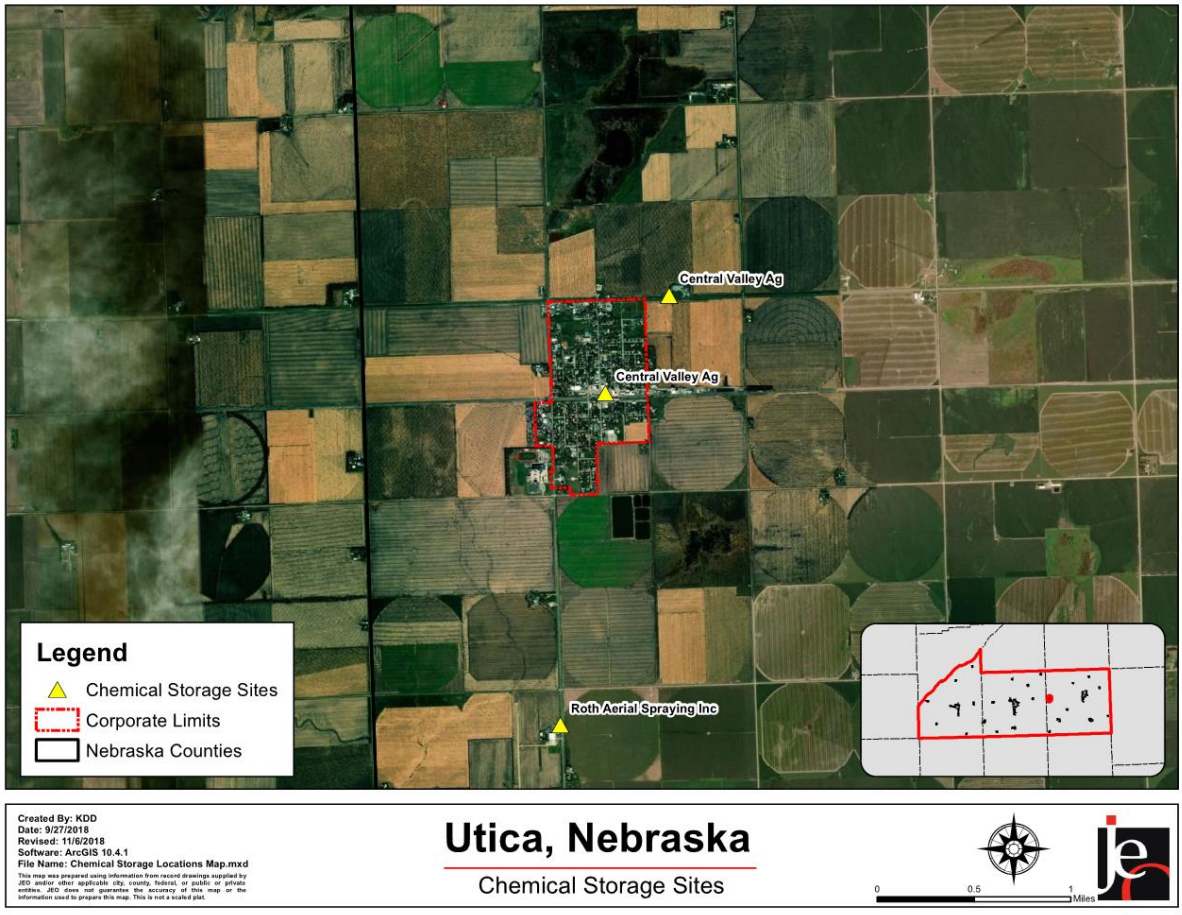
Source: Nebraska Department of Revenue, Property Assessment Division[cxxxii]

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 three chemical storage sites in Utica. The map below shows the name and location of the sites.

Figure UTC.5: Chemical Storage Sites



Source: Nebraska Department of Environment and Energy[cxxxiii]

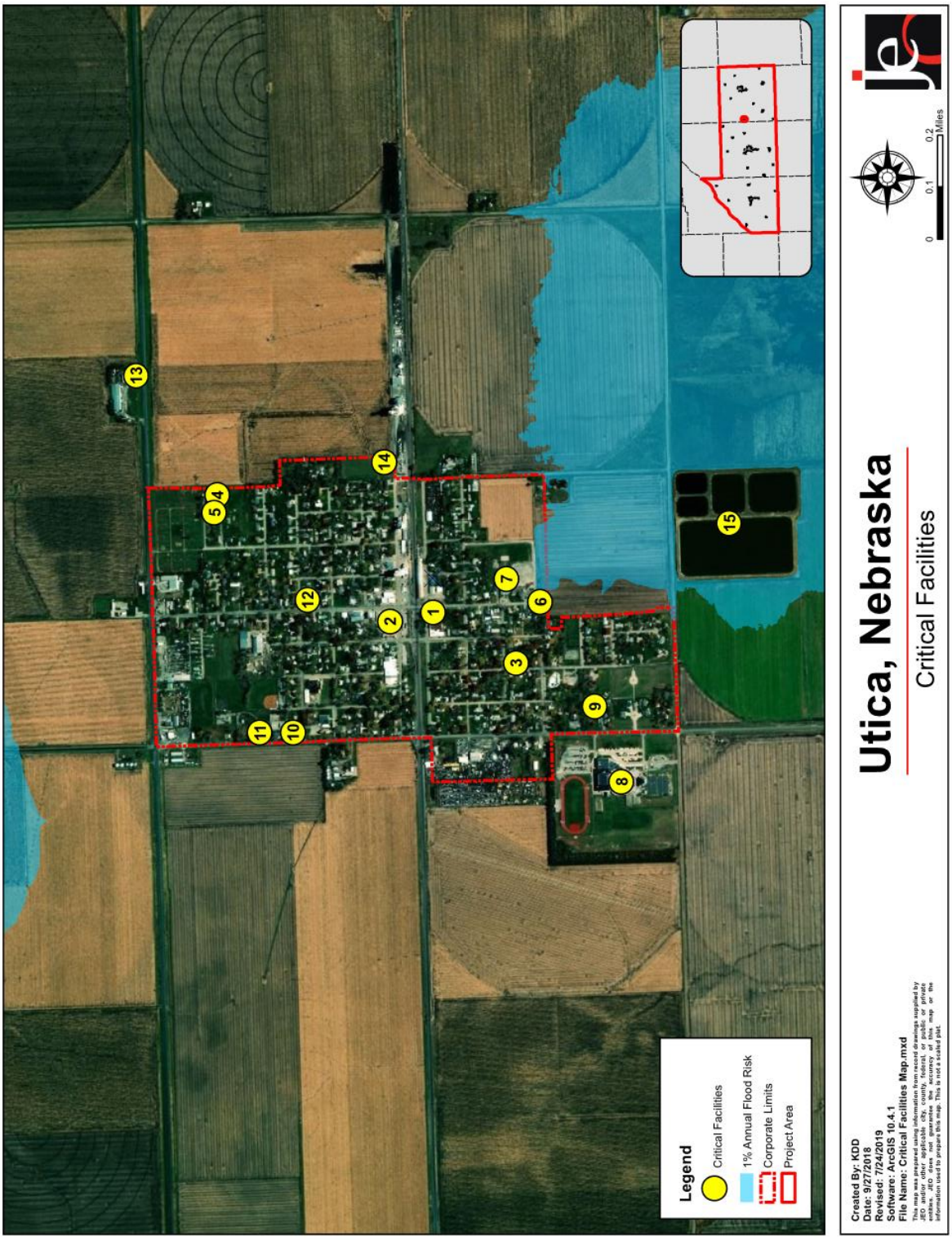
Critical Facilities

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 UTC.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Village Fire Hall	N	Y	N
2	Village Office	N	N	N
3	Norris Power Sub Station	N	N	N
4	Village Water Tower	N	Y	N
5	Water Treatment Plant	N	N	N
6	Lift Station	N	Y	Y
7	St. Paul School	N	N	N
8	Centennial School	Y	N	N
9	Utica Community Care Center	Y	Y	N
10	Memorial Health Care Center	N	N	N
11	Village Maintenance Shop	N	N	N
12	Utica Senior Center	N	N	N
13	Central Valley Gas Station	N	N	N
14	Seward County Maintenance Shop	N	Y	N
15	Wastewater Lagoons	N	N	N

Figure UTC.6: Critical Facilities



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

Historical Occurrences

See the Seward County community profile for historical hazard events.

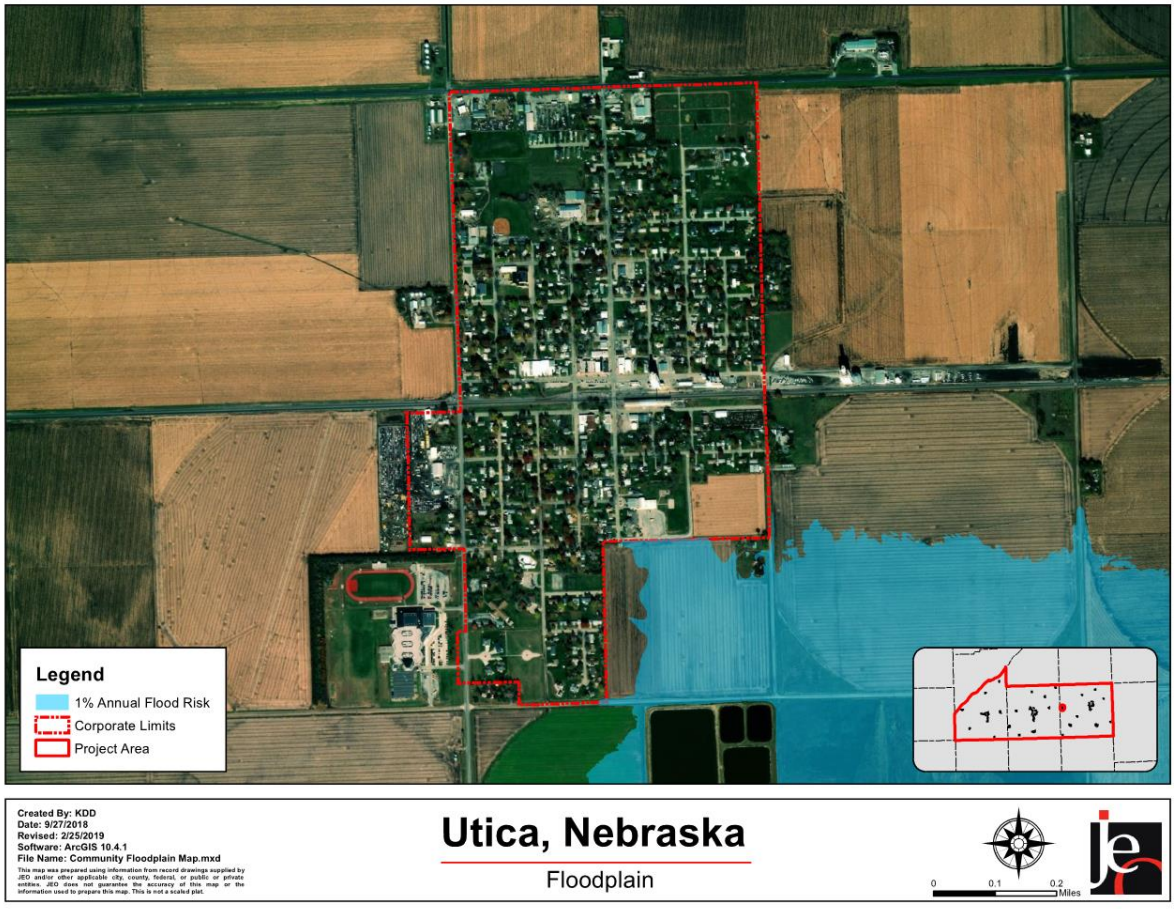
Hazard Prioritization

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.

Flooding

Figure UTC.7 shows the floodplain for the Village of Utica. The only floodplain is located along the southeast boarder of the community. NCEI data shows that Utica has experienced one flood event in 2010. That flood caused $10,000 in property damage. The local planning team indicated that there is an aqueduct which runs through the village. If there was a problem with the aqueduct much of the village could potentially flooded.

Figure UTC.7: Floodplain Map



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

Hail
The Norris Public Power Company recently checked all of the street poles in the village and replaced any that showed signs of deterioration. However, a large hail event could still cause loss of power from downed trees and limbs. The village has a high percentage (59%) of houses built prior to 1970. These structures are at higher risk of damage from a hail event as they were typically not built with hail resistant materials.

Severe Thunderstorms
NCEI data shows that thunderstorm wind events have occurred 14 times since 1996. The highest wind event was 80 mph. Wind speeds of this magnitude can result in loss of electricity, blocked roadways, and damage to trees. Blocked roadways present life safety concerns that may be more prevalent with older populations needing immediate medical attention resulting from injuries or the loss of medical devices resulting from prolonged power outages.

Severe Winter Storms
Loss of power and blocked transportation routes are the primary concern with severe winter storms. The village community center has a backup power generator which residents can use as a heating center in the event of power loss. Other critical facilities with backup power generators include the lift station, fire hall, and Seward County maintenance shop.

Tornadoes
NCEI data shows that since 1996 Utica has experienced one tornado event. The tornado occurred in June of 1998 and did not cause any property damage. A few years ago, the village installed new tornado sirens, so that the entire village is now covered. It should be noted that a large-scale tornado (F3 or greater) could impact the entire community and result in significant losses to most or all structures within the community.

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

- Clerk/Treasurer
- Attorney
- Street Commissioner
- Water Commissioners
- Maintenance/Safety Director
- Fire Chief
- Planning Commission
- Zoning Inspector

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 UTC.4: Capability Assessment

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

Survey Components/Subcomponents		Yes/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?	Moderate
Does your community staff have the time to devote to hazard mitigation?	Moderate

Plan Integration

The Village of Utica has several community plans which address hazard mitigation. The village's comprehensive plan, zoning ordinance, building code, and subdivision regulations were all updated in 2011. The emergency operations plan was updated in 2019 and the wellhead protection plan was developed in 1993.

The comprehensive plan does not directly discuss any natural hazards; however, the plan does direct development away from the floodplain and encourage infill development. In the next update of the comprehensive plan, the village is considering identifying areas that need emergency shelters. The village's building code requires the use of fire-resistant building materials and defensive space around structures built in the extraterritorial jurisdiction. 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	Electrical System Looped Distribution / Redundancies
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Completed in 2014 by the power company.

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. The village would like to put a generator on the Utica Senior Center.
Hazard(s) Addressed	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes, Hail
Estimated Cost	$15,000-$30,000
Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New Action, Not Started

Mitigation Action	Drainage Study / Stormwater Master Plan
Description	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be developed to help identify stormwater problem areas and potential drainage improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	$15,000+
Funding	General Fund
Timeline	5+ Years
Priority	Medium/Low
Lead Agency	Village Board
Status	New Action, 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.
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	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.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000+
Funding	General Fund
Timeline	5+ Years
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	5+ Years
Priority	Low
Lead Agency	Village Board, Village Fire Department
Status	Not Started

Mitigation Action	Storm Shelter / Safe Rooms
Description	Design and construct storm shelters and safe rooms in highly vulnerable areas. Establish a community safe room or safe areas for residents living in vulnerable structures/locations. The village is looking at having the emergency shelter along 8th street.
Hazard(s) Addressed	Tornadoes, Severe Thunderstorms, Severe Winter Storms, High Winds
Estimated Cost	Safe Room: $200-$300/sf stand alone; $150-200/sf addition/ retrofit
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New Action, Not Started

Mitigation Action	Stormwater System and Drainage Improvements
Description	Improve storm sewers and drainage patterns in and around the community. Deepen drainage ditches and clean out culverts.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000+
Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New Action, 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	5+ Years
Priority	Medium
Lead Agency	Village Board, Planning Commission
Status	New Action, Ongoing

Removed Mitigation Actions

Mitigation Action	Community Rating System (CRS)
Hazard(s) Addressed	Flooding
Reason for Removal	This action was removed as the village is not a participant in the NFIP program. If the village participates in NFIP, they will then reevaluate this mitigation action.

Mitigation Action	Power and Service Lines
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This action was removed because a different mitigation action was undertaken. The electrical supplier checked all the street light poles in the village and any that showed signs of deterioration were replaced. The village will continue to work with the electrical provider to replace poles as needed.

Mitigation Action	Warning Systems
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Reason for Removal	This action was removed because a different mitigation action was undertaken. New sirens were installed a few years ago and now the entire village is covered.

Mitigation Action	Windbreaks
Hazard(s) Addressed	Drought
Reason for Removal	The local planning team identified this project as non-essential. Drought is not a major concern for the community and other actions would help better mitigate the hazard. The village will continue to assess the need for windbreaks in the future.

[cxxi] *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*
[cxxii] *United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.*
[cxxiii] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[cxxiv] *United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.*
[cxxv] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxvi] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxvii] *United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxviii] *United States Census Bureau. "American Fact Finder: S0804: Means of Transportation to Work by Selected Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxix] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxx] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxxi] *United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.*
[cxxxii] *County Assessor. Personal correspondence, February 2019.*
[cxxxiii] *Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed September 2018. https://deq-iis.ne.gov/tier2/tier2Download.html.*