COMMUNITY PROFILE

VILLAGE OF CONCORD

Lower Elkhorn Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2020

Local Planning Team

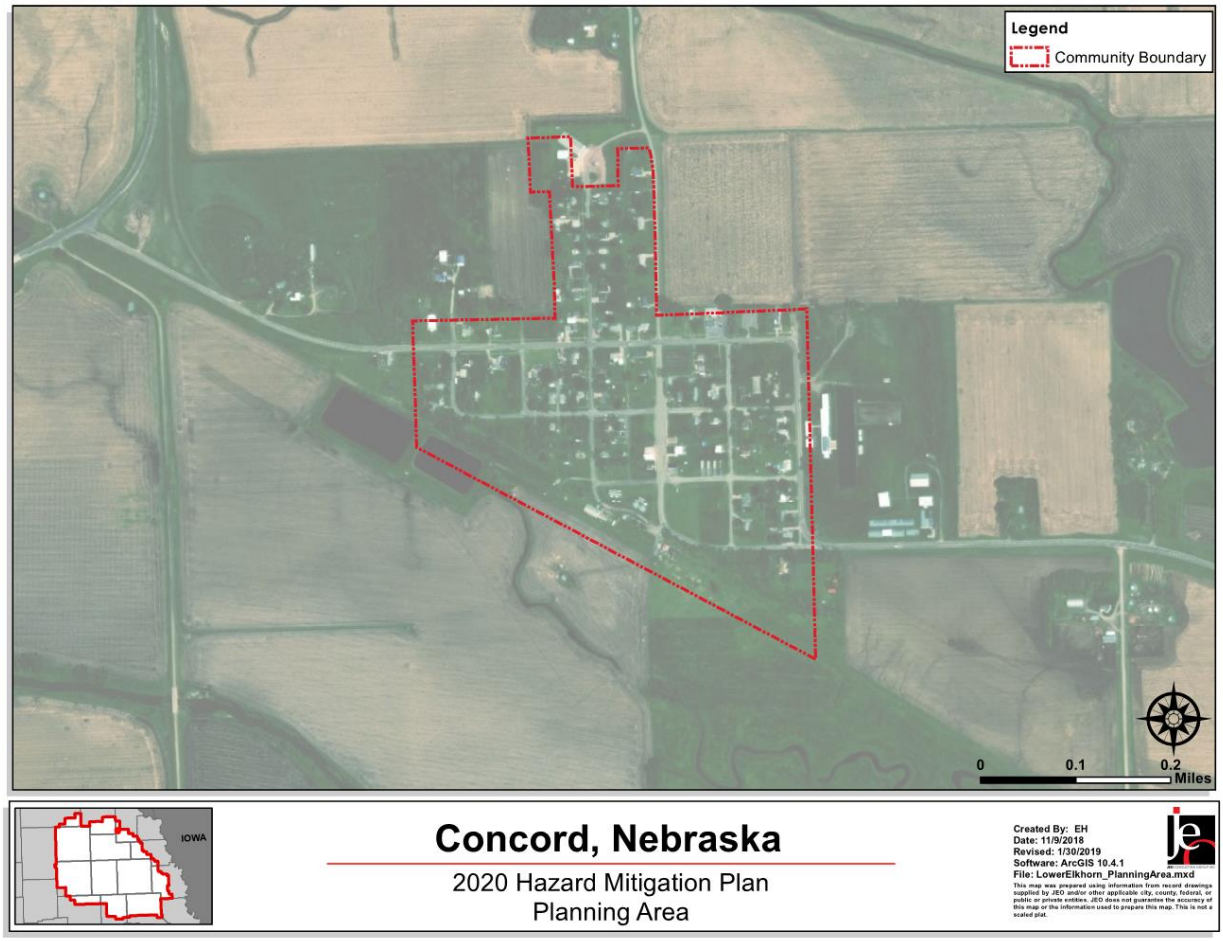
Table CND.1: Concord Local Planning Team

Name	Title	Jurisdiction
Robert Clarkson	Board Chair	Village of Concord
Scott Huetig	Fire Chief	Concord Fire Department

Location and Geography

The Village of Concord is in the southern portion of Dixon County, approximately 1.5 miles east of Cedar-Dixon County line and five miles southwest of the Tarbox Hollow Living Prairie. The village covers an area of 0.13 square miles. Nebraska Highway 116, its spur road and Nebraska Highway 15 are the main transportation corridors. There are two major waterways near the village. The biggest is the Logan Creek Dredge, which flows north-to-south about a half-mile south of the village. The other is the North Logan Creek, which flows north-to-south about a half-mile north of the village. The two waterways form a confluence about two miles southeast of the downtown area.

Figure CND.1: Village of Concord



Transportation

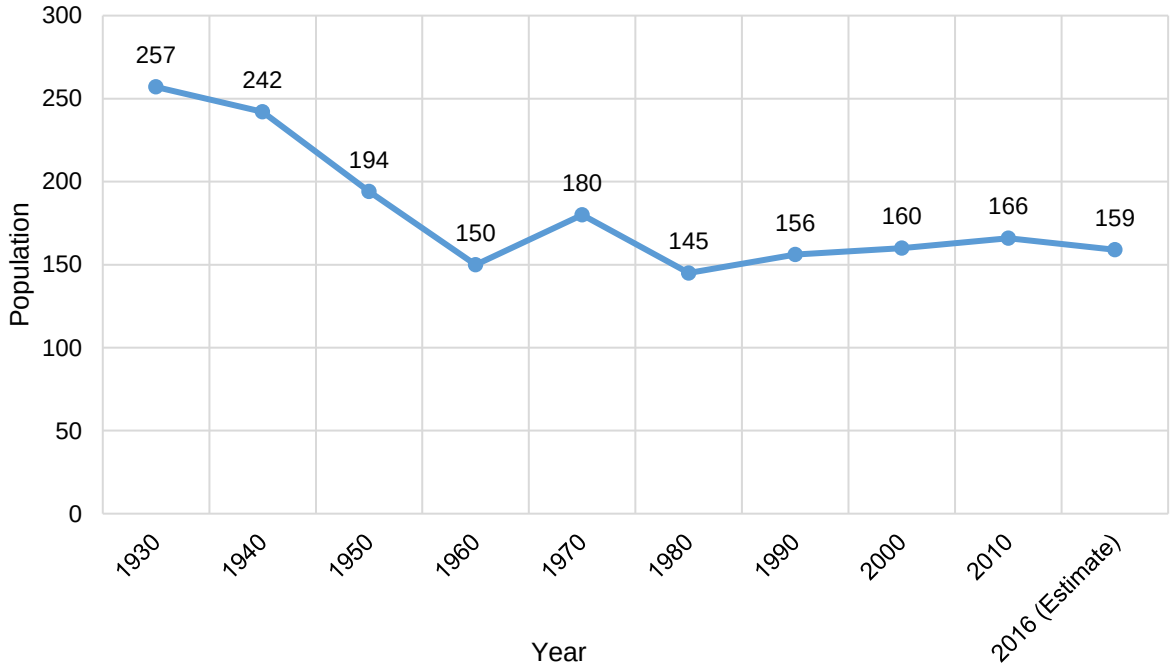
The Village of Concord has two major transportation corridors and a spur road critical for access. The main corridor is Nebraska Highway 116, which runs north-and-south slightly outside of the village limits. This corridor averages 610 vehicles per day. The village depends on a spur road, Nebraska Highway 26B, to access this corridor. The spur road runs east-and-west, becomes Iowa Street in the village limits, and averages 475 vehicles per day. The second is Nebraska Highway 15, which runs northwest-and-south and branches off into Highway 116 about 1.5 miles west of the village. This corridor averages 1,930 vehicles per day. 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 State Highway is the main source of concern for mitigation planners due to the heavy volume of traffic and relatively close to the village. Occasionally chemicals are transported along this route and are usually related to agriculture. However, locally no significant transportation accidents have happened recently.

Demographics

Concord's population declined from about 160 people in 2000 to 159 people in 2016. This relatively stable population is important because shifting internal demographics could impact hazard mitigation priorities. Concord's population accounted for 2.76% of Dixon County's population of 5,762 in 2016.[i]

Figure CND.2: Population 1930 - 2016



Source: U.S. Census Bureau

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

- **Similarly aged.** The median age of Concord was 43.6 years old in 2016, compared with the County average of 42.4 years. Concord's population grew slightly older since 2009, when the median age was 42.8 years old. Concord had a smaller proportion of people under 20 years old (24.1%) than Dixon County (27.6%).[ii]
- **Less ethnically diverse**. Since 2010, Concord grew less ethnically diverse. In 2010, Concord's population was 2.7% Hispanic or Latino. By 2016, Concord's population was 0% Hispanic or Latino. During that time, the Hispanic or Latino population in Dixon County grew from 9.1% in 2010 to 12.1% in 2016.[iii]
- **More likely to be below the federal poverty line.** The poverty rate in Concord (10.5% of families living below the federal poverty line) was higher than Dixon County's poverty rate (8.7%) in 2016.[iv]

Employment and Economics

The Dixon County major economic base is a mixture of education/healthcare/social services (22%), manufacturing (18.7%), and agriculture (10.3%) In comparison to the County, The Village of Concord economy had:

- **Diverse mix of industries.** Concord major employment sectors, accounting for 10% or more of employment each, were: manufacturing (22.6%), education/healthcare/social services (19.4%), and retail (17.7%). Three additional sectors increased diversification by having 81% of the industry share: construction, transportation/warehousing/utilities, and other services besides public administration.[v]
- **Lower household income.** Concord median household income in 2016 ($36,250) was $16,563 lower than the County ($52,813).[vi]
- **More middle-distance commuters.** A total of 29.7% percent of workers in Concord commuted for fewer than 15 minutes, compared with 42.1% of workers in Dixon County. An additional 3.4% of workers in Concord commute 30 minutes or more to work, compared to 29.3% of the County workers.[vii]

Major Employers

There are no major employers located in the Village of Concord. Most people commute to work in Wayne, Wakefield, or Laurel.

Housing

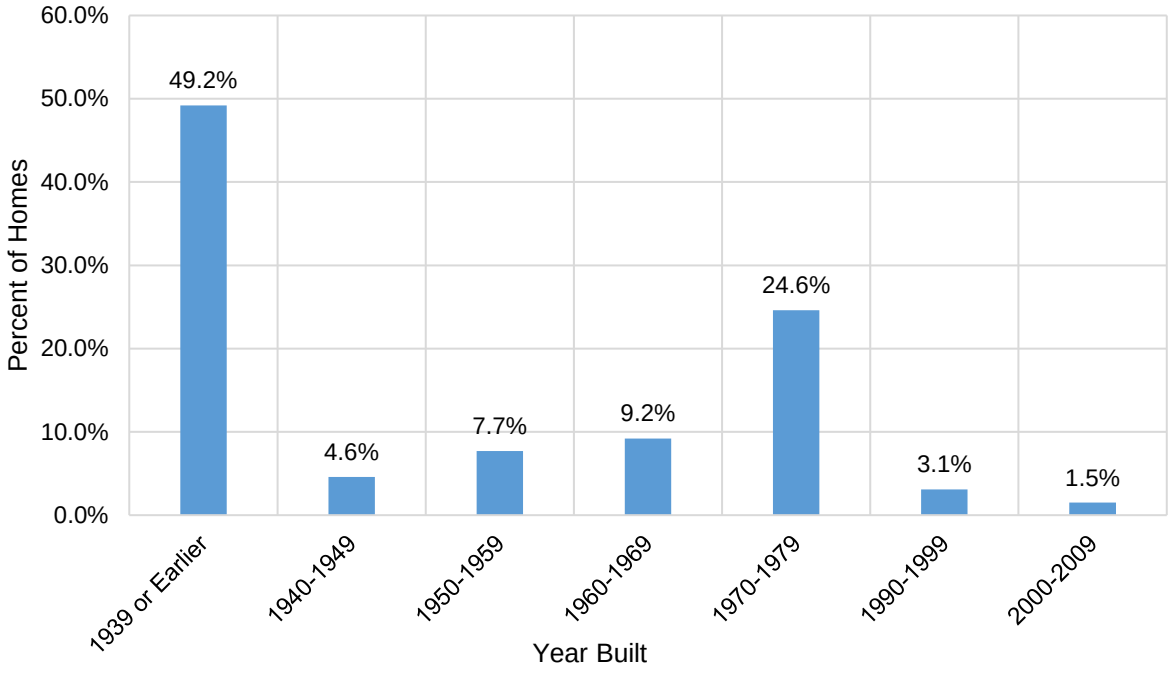
In comparison to Dixon County, Concord's housing stock was:

- **More owner-occupied**. Of occupied housing units in Concord, 82.1% are owner-occupied compared with 76.9% of occupied housing in Dixon County.[viii]
- **Older.** Concord had a larger share of housing built prior to 1970 than Dixon County (78.4% compared to 65.9%). [ix]
- **No alternative housing options.** The only housing type in Concord is single family detached, Concord contains no multifamily housing with five or more units per structure and has 1 mobile home, accounting for 1.5% of housing options.

This housing information is relevant to hazard mitigation 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.

Figure CND.3: Housing in Concord, Nebraska



Source: U.S. Census Bureau

Future Development Trends

Since the previous mitigation plan, one older home was demolished, and some new housing was put in. The local planning team attributes the relatively stable population of Concord to the affordability of living there. At present there are no new businesses, industries, or housing developments planned in 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 CND.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
127	$3,335,270	$26,262	1	$26,305

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

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 fixed chemical storage sites.[xi]

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 CND.3: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	Backup Well	N	Y	N
2	Concordia Lutheran Church	N	N	N
3	Evangelical Free Church	N	N	N
4	Fire Department	N	Y	N
5	Grand Stand at Fair Grounds	N	N	N
6	Main Well	N	Y	N
7	Post Office	N	N	N
8	Senior Center	N	N	N
9	Village Offices	N	Y	N
10	Wastewater Lagoon	N	N	Y
11	Wastewater Lift Station	N	N	Y
12	Water Tower	N	N	N

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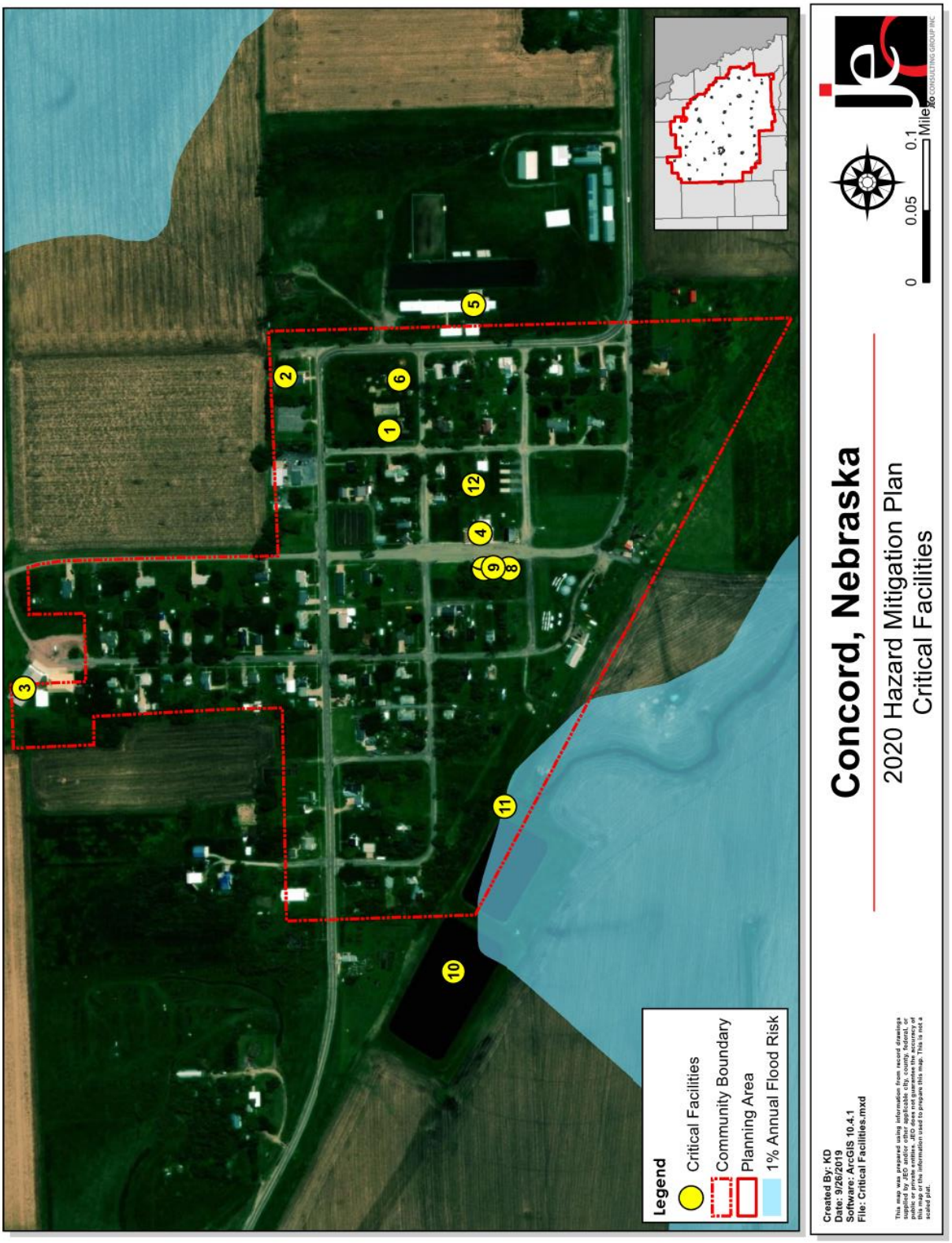
Figure CND.4: Critical Facilities



*The 1% Annual Flood Risk for this map is a Flood Awareness Area produced by NeDNR, which can be used as "best available data" for communities that have outdated floodplain information. The Flood Awareness Area should not be used for flood insurance purposes.

Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the community or Dixon County. The property damages from the NCEI Storm Events Database (1996–2018) 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 CND.4: Severe Weather Events

Hazard Type		Count	Property Damage	Crop Damage[2]
Agricultural Disease	Animal Disease[10]	13*	50 Animals*	N/A
	Plant Disease[2]	5*	N/A	$64,313*
Chemical Spills – Fixed Site[4] *1 Injury*		9	$0	N/A
Chemical Spills – Transportation[6] *1 Injury*		2	$10,500	N/A
Dam Failure[5]		0	$0	N/A
Drought[8]		364/1,487 months*	$0	$63,594,492*
Earthquake[7]		0	$0	$0*
Extreme Heat[9]		3 days/year*	N/A	$7,535,211*
Flooding[1]	Flash Flood	4	$0	$1,032,706*
	Flood	1	$0	
Grass/Wildfires[3]		26	819.7 acres	$2,550
Hail[1]		33	$0	$13,861,865*
High Winds[1]		20*	$118,000*	$596,034*
Levee Failure[11]		0	N/A	N/A
Severe Thunderstorms[1]	Thunderstorm Wind	16	$505,000	N/A
	Heavy Rain	1	$0	$2,091,090*
	Lightning	1	$5,000	N/A
Severe Winter Storms[1]	Blizzard	19*	$45,000*	$182,662*
	Extreme Cold/Wind Chill	5*	$0*	
	Heavy Snow	11*	$0*	
	Ice Storm	3*	$0*	
	Winter Storm	22*	$0*	
	Winter Weather	44*	$0*	
Terrorism/Civil Disorder[12]		0	$0	N/A
Tornadoes[1]		3	$20,000	$93,300*
Total		**238**	**$703,500**	**$89,054,223**

* Indicates county or regional data
N/A: Data not available
1 NCEI (January 1996-2018)
2 USDA RMA (2000-2017)
3 NFS (2000-2017)
4 U.S. Coast Guard NRC (1990-2018)
5 Stanford NPDP (1911-2016)
6 PHMSA (1980-2017)
7 USGS (1872-2017)

8 NCDC (1895-2018)
9 High Plains Regional Climate Center (HPCC) (1887-2018)
10 NDA (2014-2017)
11 United States Army Corps of Engineers (2010)
12 Global Terrorism Database (1970-2017)
in. = inches; EG = Estimated Gust

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 main concern with this hazard is the unintentional and uncontrolled release into the local area, specifically along Nebraska Highway 26B, a spur road. Hazardous Materials are regularly transported along this route and are typically related to the local, agricultural economy. This includes fertilizers, pesticides, and herbicides. This concern is further enhanced by the location of the village well, fairgrounds, and church located near major transportation corridors.

Hail

Personal property damage is the biggest concern to the local planning team. Although there are no recent hail storms significantly impacting the area, the potential severity is too critical to ignore. There are only two critical facilities that have hail-resistant roofing, Concordia Lutheran Church and Concord Evangelical Church. However, all the other critical facilities are insured. There is no local tree board and there is no educational outreach for residents about using these materials.

High Winds

The most pressing concerns related to this hazard are loss of power and personal property damage. High wind events are an annual occurrence in Concord and tree removal is a normal part of maintenance. Municipal records are backed up on a flash drive and critical facilities have not been damaged by high winds to date. At present some community safe rooms are in the planning stage. Currently the churches, fire department, and park restroom have shelters but are not FEMA certified safe rooms. The County Emergency Manager dos not offer text alerts and no educational outreach activities are done in the community.

Severe Thunderstorms

The local planning team's main concern is power loss. Although no critical facilities have been impacted by severe thunderstorms they are an annual occurrence. Municipal records are protected by surge protectors. The Fire Department and wells have backup generators as none of the village's power lines are buried. At present there are no hazardous trees in need of removals and all fire trucks have weather radios.

Severe Winter Storms

The main concern regarding this hazard are highway and road closures. There has never been structural damaged associated with a severe winter storm. There are no designated snow routes and the community does not use snow fences. Concord has access to a snow plow truck, tractor/loader and blade, which is considered sufficient for the task.

Tornadoes

There have not been any local tornadic events impacting the community, however that does not mean there is no risk. Municipal records are backed up on flash drives. There are local warning

sirens activated by dispatch and locally. The community is planning for FEMA certified shelters but at present has none. Instead the Fire Department, churches, and park restroom serve as the tornado shelters. The Big 9 and northeast Mutual Aid Agreements are the main sources of outside help in the area.

Governance

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

- Board Chairperson
- Clerk
- Utility Superintendent
- Sewer Commissioner
- Street Commissioner
- Water Commissioner
- Volunteer Fire Department
- Fair 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 CND.5: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	Yes
	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	Yes
	Building Codes	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	Community Wildfire Protection Plan
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administration	Yes
	GIS Capabilities	Yes (County)
	Chief Building Official	No

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

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

Plan Integration

The village's Local Emergency Operations Plan (LEOP) is an annex to the county's 2018 plan. The LEOP addresses hazards of greatest concern, identifies evacuation routes, and lists shelter locations. Concord is a participant in the Missouri River Northeast Community Wildfire Protection Plan. The plan aims to actively and sustainably manage forests, reduce the risk of wildfire impacts in forests and communities, and protect water quality and quantity. Concord also has a capital

improvements plan, building code, and floodplain ordinance. However, those have not been integrated with the hazard mitigation plan at this time.

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

Action	Alert Sirens
Hazard(s) Addressed	All Hazards
Status	This action was completed in 2014.

Action	Comprehensive Village Disaster / Emergency Response Plan
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	This action was completed in 2018.

Action	Improve and Revise Snow/Ice Removal Program
Hazard(s) Addressed	Severe Winter Storm
Status	This action was completed in 2018.

Ongoing and New Mitigation Actions

Action	Backup Generator
Analysis	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	All Hazards
Estimated Cost	$10,000+
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started, New Action

Action	Civil Service Improvements
Analysis	Improve Fire Department and Rescue squad equipment and facilities. Providing additional, or updating existing emergency response equipment; this could include fire trucks, ATV's, pay loaders, 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	$5,000 to $400,000 per vehicle, varies depending on what equipment is needed
Potential Funding	Grants, Rural Board, Fire Department, Fund Raisers
Timeline	2-5 Years
Priority	High
Lead Agency	Volunteer Fire Department, Rural Board
Status	In Progress. The village and fire department purchase equipment when the need arises and funding is available.

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Action	Formal Evacuation Plan
Analysis	Develop an evacuation plan to be prepared for any disaster that would require evacuation.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Public Awareness
Analysis	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing equipment such as overhead projectors and laptops.
Hazard(s) Addressed	All Hazards
Estimated Cost	$0-$5,000+
Potential Funding	Village Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing. At present the village puts out mailings with water bills and posts information in public schools.

Action	Safe Rooms / Strom Shelter
Analysis	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
Potential Funding	Village Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Planning Stage. The safe room is set to be located near the campsite on the corner of Cleland and State Street.

Removed Mitigation Actions

Action	Emergency Communications
Analysis	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications.
Hazard(s) Addressed	All Hazards
Status	Due to the Fire Department's pagers, group texts, and the social media community page, this action can be removed.

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Action	Participate in the Community Rating System (CRS)
Analysis	Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts.
Hazard(s) Addressed	Flooding
Status	This action is no longer relevant and has been removed.

Action	Power and Service Lines
Analysis	Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures/infrastructure to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Activities could include: Replacing damaged/aging power poles lines and removing unused lines from poles; burying power lines; install pad mounted transformers; elevating transformers above floodplain; adding guy wire and support; removing large diameter communication lines; replacing damaged poles with higher class; using multiple poles or dead end structures to support; replacing porcelain cutout; ice-proof cutouts; and use dead head poles.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	Due to a lack of local utilities this action is being removed.

Action	Promote First Aid
Analysis	Promote first aid training for all residents.
Hazard(s) Addressed	All Hazards
Status	All individuals interested in this training have taken it and the remainder receive this training through work.

Action	Short Term Residency Shelters
Analysis	Design and construct short term shelters for rural residents after damage from an event. These structures would not serve as FEMA approved safe rooms. The building could also be used for things such as short term sheltering during a high heat event for those without A/C. The building is not intended to be used for long term recovery, such as long-term (more than a month) displacement from floods, fires, etc. The number of shelters needed depends on the size of the building(s), which will be determined during a future project scoping process.
Hazard(s) Addressed	All Hazards
Status	This action will be combined with an additional action. There are also several existing shelters available to the public.

Action	Stormwater System and Drainage Improvements
Analysis	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.
Hazard(s) Addressed	Flooding
Status	This action was removed as the village would like to focus on other mitigation actions.

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Action	Warning Systems
Analysis	Improve cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911, emergency text messaging warning system, etc.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	The village does not currently have this capability and is no longer interested in pursuing this action.

Action	Water Conservation Awareness Programs
Analysis	Improve and/or develop a program to conserve water use by the citizens during elongated periods of drought. Potential restrictions on water could include limitations on lawn watering, car washing, or water sold to outside sources. Work with DNR on farm irrigation restrictions.
Hazard(s) Addressed	Drought
Status	This action is managed by the Lower Elkhorn NRD.

Action	Weather Radios
Analysis	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.
Hazard(s) Addressed	All Hazards
Status	This action was removed because there are other options for severe weather warnings.

Action	Work with other Utility Providers for Mutual Aid
Analysis	Work with other Utility Providers for Mutual Aid
Hazard(s) Addressed	All Hazards
Status	Other than electric the village has no utilities providers. As a result, this action has been removed from the mitigation plan.

[i] United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.
[ii] United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.
[iii] United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.
[iv] United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.
[v] United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.
[vi] United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.
[vii] United States Census Bureau. "American Fact Finder: S0802: Means of Transportation to Work by Selected 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] County Assessor. Personal correspondence, February 2019.
[xi] Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed November 2018. https://deq-iis.ne.gov/tier2/search.faces.

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COMMUNITY PROFILE

VILLAGE OF EMERSON

Lower Elkhorn Natural Resources District

Multi-Jurisdictional Hazard Mitigation Plan Update

2020

Local Planning Team

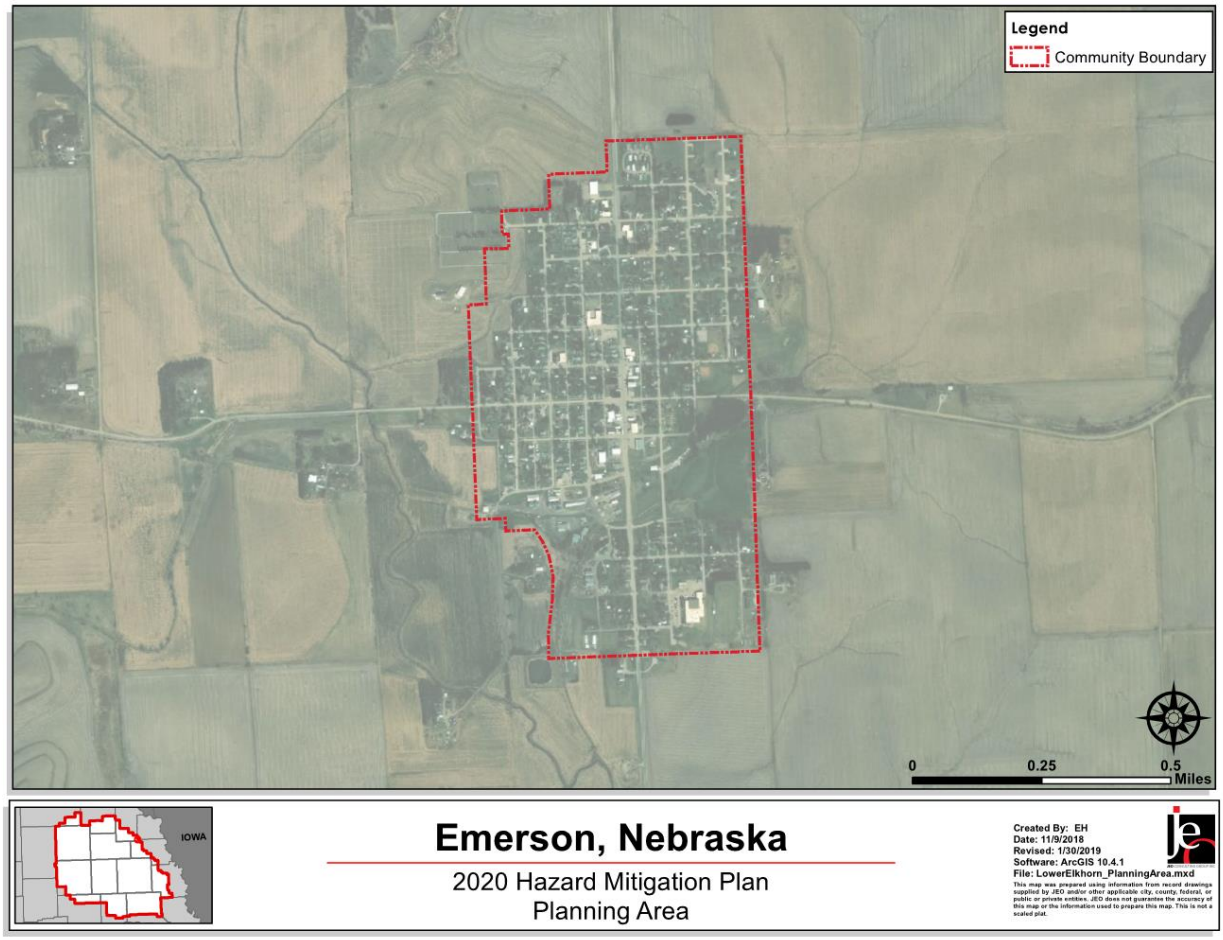
Table EMR.1: Emerson Local Planning Team

Name	Title	Jurisdiction
Richard McCabe	Utilities Superintendent	Village of Emerson
Cathy Duncan	Village Clerk	Village of Emerson

Location and Geography

The Village of Emerson is in the southeast corner of Dixon County. The village is collocated in Dixon, Dakota, and Thurston Counties in addition to the Winnebago Reservation. The village covers an area of 0.47 square miles. Nebraska Highways 9 and 35 are the main transportation corridors. There are two major waterways near Emerson. The biggest is the Middle Creek, which flows south on the west end of the community. The other is the North Omaha Creek about two miles southeast of the downtown area. This creek is part of the Papio-Missouri NRD.

Figure EMR.1: Village of Emerson



Transportation

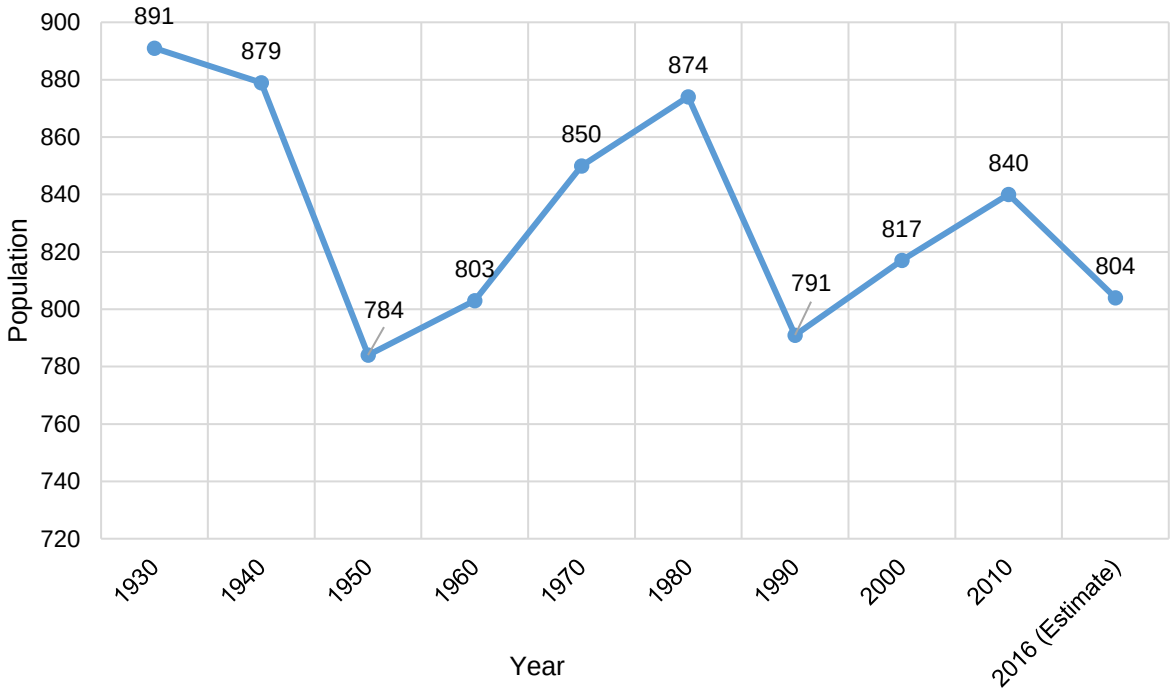
The Village of Emerson has two major transportation corridors. The first is Nebraska Highway 9, which runs north-and-south directly through the center of the community where is becomes Main Street. This corridor averages 2,145 vehicles per day. The second is Nebraska Highway 35, which intersects with Highway 9. This corridor averages 3,485 vehicles per day.[i] 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.

Nebraska Highways 9 and 35 are the main concern to local mitigation planners. These two routes are heavily used and run through and near the village, respectively. Although no major transportation incidents have occurred locally hazardous materials are regularly transported along these routes. This includes agricultural chemicals like fertilizer and pesticides and petroleum products like diesel fuel and gasoline.

Demographics

Emerson's population declined from about 817 people in 2000 to 804 people in 2016, a decrease of 13 people or about 1.6% of the population. This is important because although the overall population is stable, shifting internal demographics may impact hazard mitigation priorities. Emerson's population accounted for 14% of Dixon County's population of 5,762 in 2016.[ii]

Figure EMR.2: Population 1930 - 2016



Source: U.S. Census Bureau

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

- **Younger.** The median age of Emerson was 37.7 years old in 2016, compared with the County average of 42.4 years. Emerson's population grew younger/older since 2009,

when the median age was 36.5 years old. Emerson had a larger/smaller proportion of people under 20 years old (25.8%) than Dixon County (27.6%).[iii]

- **More ethnically diverse**. Since 2010, Emerson grew more ethnically diverse. In 2010, Emerson's population was 6.6% Hispanic or Latino. By 2016, Emerson's population was 7.5% Hispanic or Latino. During that time, the Hispanic or Latino population in Dixon County grew from 9.1% in 2010 to 12.1% in 2016.[iv]
- **More likely to be below the federal poverty line.** The poverty rate in Emerson (14.5% of families living below the federal poverty line) was higher than Dixon County's poverty rate (8.7%) in 2016.[v]

Employment and Economics

The Dixon County major economic base is a mixture of education/healthcare/social services (22%), manufacturing (18.7%), and agriculture (10.3%) In comparison to the County, The Village of Emerson economy had:

- **Diverse mix of industries.** Emerson major employment sectors, accounting for 10% or more of employment each, were: education/healthcare/social services (33.2%), manufacturing (17.2%), and retail (10.9%). An additional two industry sectors had large enough shares to warrant inclusion. Non-public administration services (9.7%) and transportation/warehousing/utilities (8.1%).[vi]
- **Lower household income.** Emerson median household income in 2016 ($43,000) was $9,813 lower than the County ($52,813).[vii]
- **Similar number of long-distance commuters.** A total of 42.3% percent of workers in Emerson commuted for fewer than 15 minutes, compared with 42.1% of workers in Dixon County. An additional 32.4% of workers in Emerson commute 30 minutes or more to work, compared to 29.3% of the County workers.[viii]

Major Employers

Major employers within Emerson include Emerson-Hubbard Public Schools, Heritage of Emerson (a nursing home), the medical clinic, Iron Horse Casino, and farms in the area. A percentage of residents commute to Sioux City, Wayne, and Pender for employment.

Housing

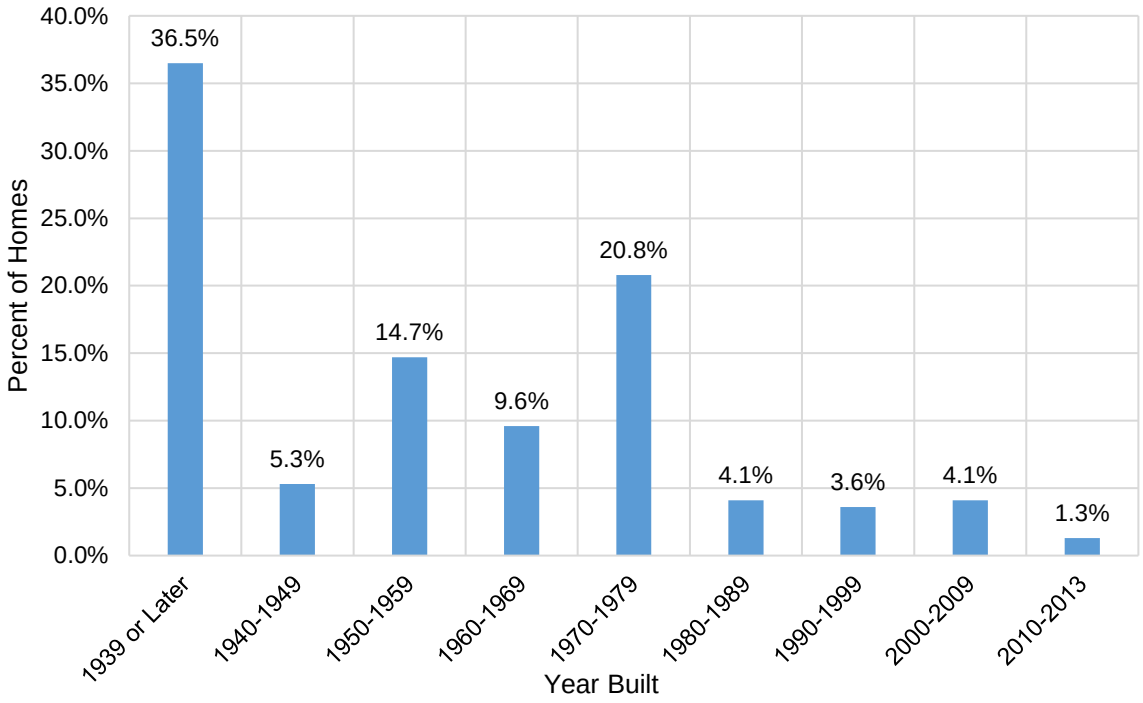
In comparison to Dixon County, Emerson's housing stock was:

- **Fewer owner-occupied**. Of occupied housing units in Emerson, 68.4% are owner-occupied compared with 76.9% of occupied housing in Dixon County.[ix]
- **Similar housing age.** Emerson had a slightly smaller share of housing built prior to 1970 than Dixon County (64.1% compared to 65.9%). [x]
- **Limited multifamily.** The predominant housing type in Emerson is single family detached, Emerson contains no multifamily housing with five or more units per structure compared to Dixon County (0% compared to 4.3%). Of the available housing stock, 13% is multifamily dwellings of four or fewer units and 1-unit attached. The housing in Emerson is 82.9% single-family detached, compared with 85.6% of the County's housing. Emerson has a smaller share of mobile housing (4.2%) compared to the County (6.7%).[xi] Mobile homes are located along the north end of the village.

This housing information is relevant to hazard mitigation 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.

Figure EMR.3: Housing in Emerson, Nebraska

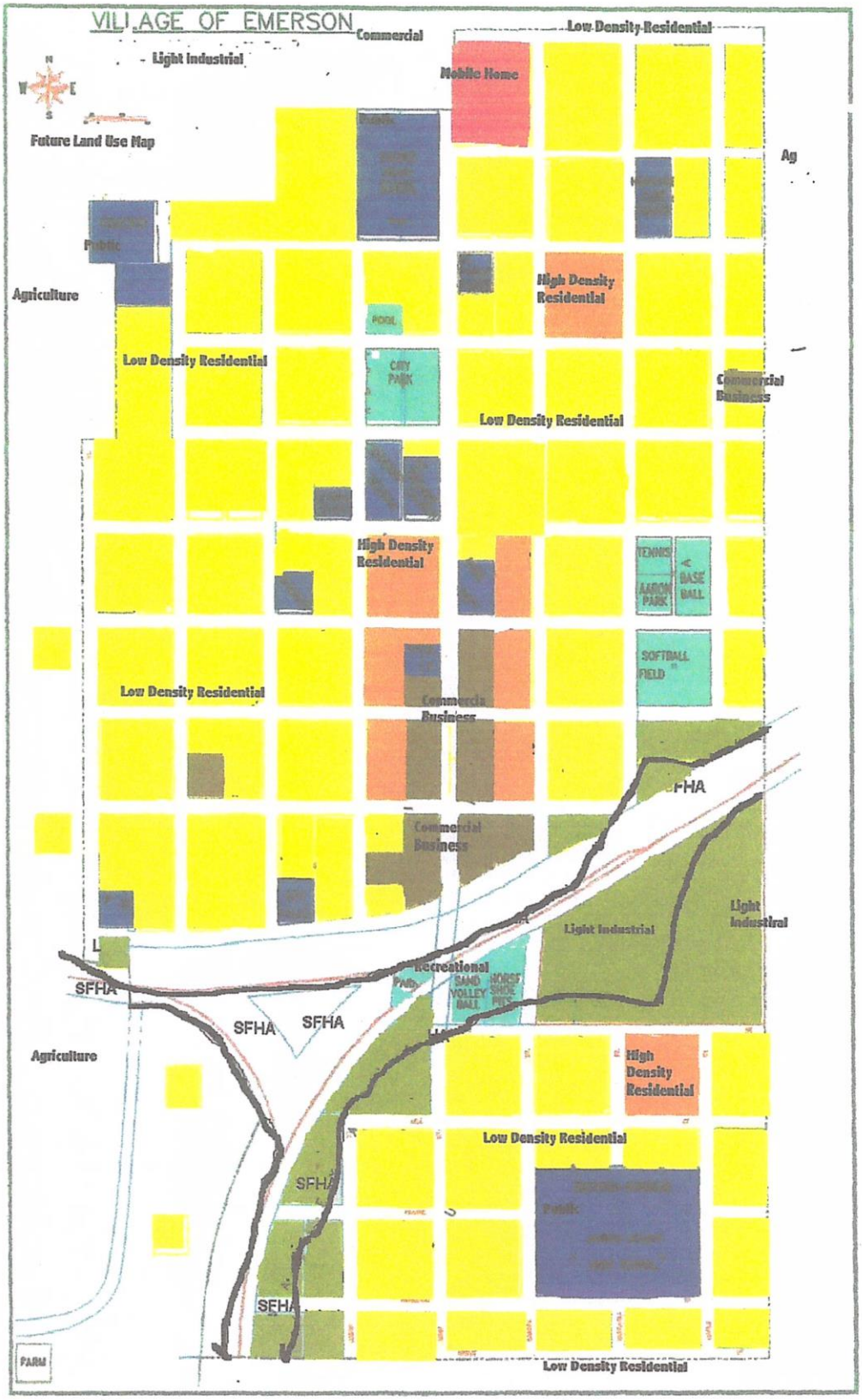


Source: U.S. Census Bureau

Future Development Trends

In the past five years the Village of Emerson has demolished two old buildings and put up a new medical clinic/apothecary and constructed a new fire station. The mitigation planners attribute the relatively stable population to a large percentage of home owners. All housing with the exception of three homes being renovated and one home for sale are all occupied. The village is looking at further housing development in the next five years.

Figure EMR.4: Future Land Use Map



Source: Village of Emerson

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 EMR.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
484	$22,505,040	$46,498	28	$875,605

Source: Nebraska Department of Revenue, Property Assessment Division[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 is one fixed chemical storage site.

Table EMR.3: Chemical Storage Fixed Sites

Facility Name	Address	In Floodplain (Y/N)
NDOT Salt Brine Storage Yard	411 W Front Street	N

Source: Nebraska Department of Environment and Energy 2018[xiii]

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 EMR.4: Critical Facilities

CF Number	Name	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in Floodplain (Y/N)
1	American Legion	N	N	N
2	City and Police Offices	N	N	N
3	Emerson-Hubbard Elementary	N	N	N
4	Emerson-Hubbard School	N	N	N
5	Emerson Medical Clinic	N	N	N
6	Emerson Municipal Pool	N	N	N
7	Fire Department	N	N	N
8	Generating Plant	N	Y	N
9	Library	N	N	N
10	Post Office	N	N	N
11	Sacred Heart Catholic Church	N	N	N
12	Sacred Heart Convent	N	N	N
13	St. Luke's Lutheran Church	N	N	N
14	St. Paul's Lutheran Church	N	N	N
15	Wastewater Treatment	N	N	Y
16	Water Tower	N	N	N
17	Water Treatment Plant	N	N	N

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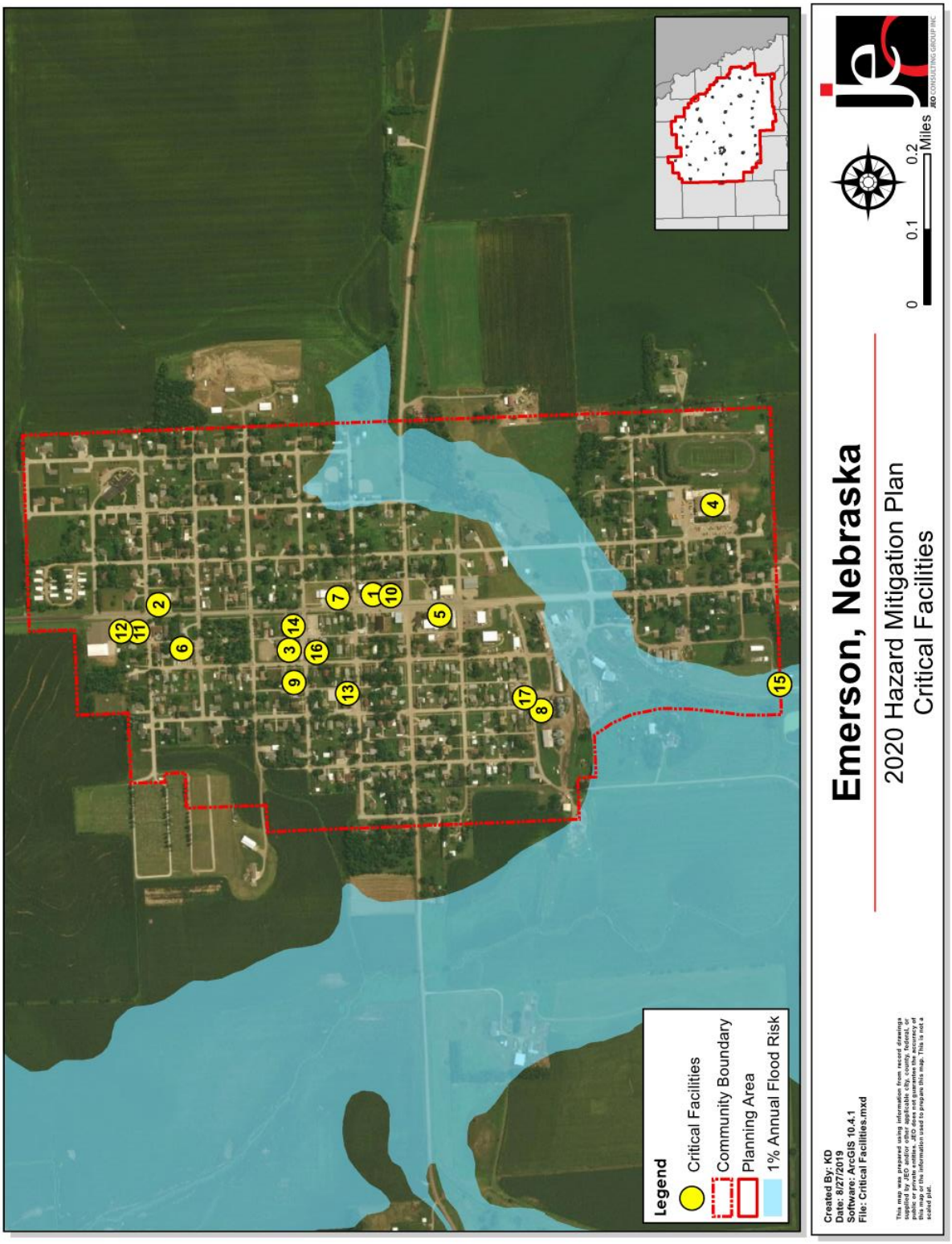
Figure EMR.5: Critical Facilities



*The 1% Annual Flood Risk for this map is a Flood Awareness Area produced by NeDNR, which can be used as "best available data" for communities that have outdated floodplain information. The Flood Awareness Area should not be used for flood insurance purposes.

Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the community or Dixon County. The property damages from the NCEI Storm Events Database (1996–2018) 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 EMR.5: Severe Weather Events

Hazard Type		Count	Property Damage	Crop Damage[2]
Agricultural Disease	Animal Disease[10]	13*	50 Animals*	N/A
	Plant Disease[2]	5*	N/A	$64,313*
Chemical Spills – Fixed Site[4] *1 Injury*		9	$0	N/A
Chemical Spills – Transportation[6] *1 Injury*		2	$10,500	N/A
Dam Failure[5]		0	$0	N/A
Drought[8]		364/1,487 months*	$0	$63,594,492*
Earthquake[7]		0	$0	$0*
Extreme Heat[9]		3 days/year*	N/A	$7,535,211*
Flooding[1]	Flash Flood	4	$0	$1,032,706*
	Flood	1	$0	
Grass/Wildfires[3]		26	819.7 acres	$2,550
Hail[1]		33	$0	$13,861,865*
High Winds[1]		20*	$118,000*	$596,034*
Levee Failure[11]		0	N/A	N/A
Severe Thunderstorms[1]	Thunderstorm Wind	16	$505,000	N/A
	Heavy Rain	1	$0	$2,091,090*
	Lightning	1	$5,000	N/A
Severe Winter Storms[1]	Blizzard	19*	$45,000*	$182,662*
	Extreme Cold/Wind Chill	5*	$0*	
	Heavy Snow	11*	$0*	
	Ice Storm	3*	$0*	
	Winter Storm	22*	$0*	
	Winter Weather	44*	$0*	
Terrorism/Civil Disorder[12]		0	$0	N/A
Tornadoes[1]		3	$20,000	$93,300*
Total		**238**	**$703,500**	**$89,054,223**

* Indicates county or regional data
N/A: Data not available
1 NCEI (January 1996-2018)
2 USDA RMA (2000-2017)
3 NFS (2000-2017)
4 U.S. Coast Guard NRC (1990-2018)
5 Stanford NPDP (1911-2016)
6 PHMSA (1980-2017)
7 USGS (1872-2017)

8 NCDC (1895-2018)
9 High Plains Regional Climate Center (HPCC) (1887-2018)
10 NDA (2014-2017)
11 United States Army Corps of Engineers (2010)
12 Global Terrorism Database (1970-2017)
in. = inches; EG = Estimated Gust

Hazard Prioritization

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

Drought

The biggest concern to the Village of Emerson was sufficient water in wells to serve population's needs and is defined as insufficient water for over a month. The impact of the 2012 drought resulted in foundation cracking. Metering performed at well draw-downs once a week and residential water is metered as used. Drought planning is done at the County level, which has a drought board and response plan. Recent testing reveals a lack of nitrates in the groundwater and drinking supply. Aquifer levels dropped in 2012. There is a water conservation ordinance however there are no landscaping restrictions. At present an alternate water source is needed.

Hail

Hail impacts the community by damaging roofs and siding as well as damaging the photocell on street lights. Although the village office, water plant, light plant, and fire hall are made of hail resistant building materials many facilities across the village are not. The critical facilities are insured. There is no local tree board, and there is no organized outreach for hail resistant building materials education.

High Winds

High winds impact the community in a variety of ways. The local trailer court is particularly exposed to hazards related to high winds. Broken tree limbs and power poles could result in a loss of utilities that negatively impact the village. This occurred most recently on August 17, 2017 when high winds brought down trees throughout the city resulting in broken powerline poles. Municipal data is backed up in both flash drives and on the cloud. No critical facilities have been damaged to date. The community does have safe rooms located in the grade school basement, high school weight room, and the village office and many residents have access to basements. The County Emergency Management Agency provides alerts via email.

Severe Thunderstorms

The most recent, local thunderstorm occurred August 2017, which resulted in power poles collapsing, loss of power, and down trees. This is a concern because the loss of power effects the water supply by incapacitating the water plant and wells. Surge protectors are the main source of device protection. The village owns an electrical generation facility and a well that can be operated via tractor PTO, which is useful considering 5% of power lines are buried. There is no hazardous tree removal system nor weather radios in critical facilities.

Severe Winter Storms

The most recent, local winter storm occurred January 18, 2018 and resulted in wind-initiated drifting the made streets unpassable. There are also concerns regarding electrical outages lasting for extended periods of time. At present there are no designated snow routes nor does the community utilize snow fences. City employees are in charge of removing snow. Emerson has

access to two dump trucks, with blade, a payloader, tractor with blade, and maintainer and considers these resources adequate.

Tornadoes

Although Emerson has never experienced a tornadic event, the potential severity is too significant to ignore. At present Emerson backs everything up on another computer and on the cloud. Emerson has alert sirens which are controlled by a computer center at the local Emergency Management Agency (EMA) and the fire Department. The village has shelters in the village office and schools, but they are not FEMA certified. Local residents typically have basements to shelter in. The County EMA does not offer text alerts. The village maintains mutual aid agreements with surrounding communities.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Emerson has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. Emerson has a five-member Village Board. and the following offices that may help implement mitigation actions.

- Board Chairperson
- Clerk
- Utility Superintendent
- Street Commissioner
- Street superintendent
- Engineer
- Police Department
- Volunteer Fire Department
- Community Economic Development Director

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 EMR.6: Capability Assessment

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

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Survey Components/Subcomponents		Yes/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	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	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.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree Village USA	No
	Other (if any)	-

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

Plan Integration

The village of Emerson's comprehensive plan was last updated in 2000. However, Emerson is currently in the process of conducting income surveys and community needs assessment for a new comprehensive plan, capital improvements plan, and economic development plan. The local planning team indicated that the new comprehensive plan will include a natural hazards discussion. The zoning ordinance for the village was revised in 2007 and minor changes will be completed over the next year. The ordinance discourages development in the floodplain, prohibits filling of wetlands, and discourages development near chemical storage sites and major transportation routes. The building code for the village was last updated in 2000. The code requires mechanical systems be elevated for structures in the floodplain, requires onsite storm water detention for commercial structures, and encourages the use of fire-resistant building materials.

Emerson's Local Emergency Operations Plan (LEOP) was last updated in 2018 as an annex to the county's plan. The water plant also has its own plan which gets updated every three years. The LEOP addresses hazards of greatest concerns, assigns specific responsibilities, identifies scenarios that would require evacuation, and provides locations of shelters. The local planning team indicated that the utility department and fire department are both familiar with the plan. The village is part of a wellhead protection plan which was developed in 2003 and revised in 2007. Emerson is also part of the Missouri River Northeast Community Wildfire Protection Plan. The goals of the plan are to actively and sustainably manage forests and reduce the risk of wildfire impacts.

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

Action	Evaluate and Improve Building Standards
Hazard(s) Addressed	All Hazards
Status	This action was completed in June 2018, is located at the Fire Station, and was funded via sales tax.

Action	Hail Resistant Roofing
Hazard(s) Addressed	Hail
Status	This action was completed in June 2018 when the sewer building, fire station, and water plant received hail resistant roofing.

Action	Short Term Residency Shelters
Hazard(s) Addressed	All Hazards
Status	This project was completed in June 2018, located in the Fire Station and was funded by a sales tax.

Action	Work with other Utility Providers for Mutual Aid
Hazard(s) Addressed	All Hazards
Status	This project was completed in 2015.

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Ongoing and New Mitigation Actions

Action	Adopt a No Adverse Impact
Analysis	Adopt a no adverse impact approach to floodplain management
Hazard(s) Addressed	Flooding, Dam Failure, Levee Failure
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Planning and Zoning
Status	Not Started

Action	Alert Sirens
Analysis	Perform an evaluation of existing alert sirens in order to determine sires which should be replaced or upgraded. Install new sirens where lacking.
Hazard(s) Addressed	All Hazards
Estimated Cost	$15,000+
Potential Funding	HMGP, LENRD, Governing County, Local Governing Agency
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Planning Stage. The looking at performing an evaluation of the current alert siren.

Action	Backup Generator
Analysis	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 a backup generator for the fire hall.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$15,000-$30,000 per generator
Potential Funding	HMGP, LENRD, Governing County & Local Governing Agency
Timeline	2-5 Years
Priority	High
Lead Agency	Village Office, Fire Department
Status	Not Started

Action	Civil Service Improvements
Analysis	Improve Fire Department and Rescue squad equipment and facilities. Providing additional, or updating existing emergency response equipment; this could include fire trucks, ATV's, pay loaders, etc. This would also include developing backup systems for emergency vehicles and identifying and training additional personnel for emergency response. The village is looking at purchasing a new snowplow
Hazard(s) Addressed	All Hazards
Estimated Cost	$5,000 to $400,000 per vehicle, varies depending on what equipment is needed
Potential Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Office, Fire Department
Status	Ongoing. The village and fire department purchase equipment when the need arises, and funding is available.

Action	Continuity Plans
Analysis	Develop continuity plans for critical community services. Educate local businesses on the value of continuity planning.
Hazard(s) Addressed	All Hazards
Estimated Cost	$500-$1,000
Potential Funding	Local Funds, Operating Budgets, Volunteer Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Coordinate with National Drought Mitigation Center
Analysis	Coordinate with National Drought Mitigation Center
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing. The village works with the National Drought Mitigation Center and would like to continue the relationship.

Action	Create a City/Village Wide Master Plan to Prioritize all Flood Related Projects
Analysis	Identify potential flooding sources and flood-vulnerable areas. Explore solutions and prioritize.
Hazard(s) Addressed	Flooding, Dam Failure, Levee Failure
Estimated Cost	$50,000 - $100,000
Potential Funding	CDBG
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Floodplain Administrator
Status	Not Started

Action	Emergency Communications
Analysis	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies. Establish inner-operable communications.
Hazard(s) Addressed	All Hazards
Estimated Cost	$10,000+
Potential Funding	Homeland Security, LENRD, Governing County, Local Governing Agency
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department
Status	Not Started

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Action	Facilities for Vulnerable Populations
Analysis	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
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Police Department
Status	Not Started

Action	Formal Evacuation Plan
Analysis	Develop an evacuation plan to be prepared for any disaster that would require evacuation.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Improve Building Codes
Analysis	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
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Improve Subdivisions Design
Analysis	Improve any existing building standards or establish new standards as deemed necessary to reduce potential of damage to new and existing structures in subdivisions
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

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Action	Install Vehicular Barriers
Analysis	Install vehicular barriers to protect critical facilities and key infrastructure where possible.
Hazard(s) Addressed	All Hazards
Estimated Cost	$2,000+
Potential Funding	DHS; Local Funds: EMPG
Timeline	5+ Years
Priority	Low
Lead Agency	Streets
Status	Not Started

Action	New Municipal Well
Analysis	Evaluate and Install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, increase of demand in water, and additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$350,000 to $450,000
Potential Funding	CDBG
Timeline	5+ Years
Priority	High
Lead Agency	Water Department
Status	Not Started

Action	Obtaining Missing Data for Future Updates
Analysis	Obtain necessary data to improve vulnerability assessments when updating the plan. Information may include hazardous events that occur between plan updates, development in hazardous areas between plan updates, etc.
Hazard(s) Addressed	All Hazards
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing. The village provides missing data at each plan update and will continue to do so.

Action	Participate in the Community Rating System (CRS)
Analysis	Participation in the CRS, part of the NFIP, can provide a movement for the community to undertake a number of projects and activities designed to increase the flooding mitigation efforts.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Potential Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Floodplain Administrator
Status	Not Started

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Action	Power and Service Lines
Analysis	Communities can work with their local Public Power District or Electricity Department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures/infrastructure to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Activities could include: Replacing damaged/aging power poles lines and removing unused lines from poles; burying power lines; install pad mounted transformers; elevating transformers above floodplain; adding guy wire and support; removing large diameter communication lines; replacing damaged poles with higher class; using multiple poles or dead end structures to support; replacing porcelain cutout; ice-proof cutouts; and use dead head poles.
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Estimated Cost	$70,000/mile for burying, other costs vary
Potential Funding	HMGP, PDM, LENRD, Governing County & Local Governing Agency
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utilities
Status	Ongoing. The village has some buried power lines but would like to bury additional power liens.

Action	Preserve Natural Floodplain
Analysis	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, Dam Failure, Levee Failure
Estimated Cost	Varies
Potential Funding	FMA, local funds, corporate partnerships, local foundations, park funds
Timeline	5+ Years
Priority	Low
Lead Agency	Floodplain Administrator
Status	Not Started

Action	Promote First Aid
Analysis	Promote first aid training for all residents.
Hazard(s) Addressed	All Hazards
Estimated Cost	$500+
Potential Funding	Local Funds, Corporate Donations, Community Foundations, Volunteer Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Protecting the Water Treatment Facility
Analysis	Flood protection measures for the water treatment facility such as levees and/or a bypass system may be constructed.
Hazard(s) Addressed	Flooding, Drought
Estimated Cost	Varies
Potential Funding	CDBG
Timeline	5+ Years
Priority	Low
Lead Agency	Village Maintenance
Status	Not Started

Action	Public Awareness
Analysis	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing equipment such as overhead projectors and laptops. Improve and/or develop a program to conserve water use by the citizens during elongated periods of drought. Potential restrictions on water could include limitations on lawn watering, car washing, or water sold to outside sources. Work with DNR on farm irrigation restrictions.
Hazard(s) Addressed	All Hazards
Estimated Cost	$0-$5,000+
Potential Funding	CDBG
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing. The village provides some educational materials but would like to provide additional materials.

Action	Safe Room / Storm Shelter
Analysis	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
Potential Funding	CDBG
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Action	Source Water Contingency Plan
Analysis	Evaluate and locate new sources of groundwater.
Hazard(s) Addressed	All Hazards
Estimated Cost	$500,000+
Potential Funding	CDBG
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Action	Stormwater System and Drainage Improvements
Analysis	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.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000-$50,000 for smaller communities, $100,000+ for larger
Potential Funding	CDBG
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Update Comprehensive Plan
Analysis	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	All Hazards
Estimated Cost	$10,000+
Potential Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started, New Action

Action	Warning Systems
Analysis	Improve city cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911, emergency text messaging warning system, etc.
Hazard(s) Addressed	Tornadoes and high winds, severe winter storms, severe thunderstorms
Estimated Cost	$5,000+
Potential Funding	HMGP, PDM, LENRD, Governing County, Local Governing Agency
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Fire Department
Status	Not Started

Action	Water System Improvements
Analysis	Water system improvements to include additional fire hydrants/increase supply and pressure. High pressure is needed in the event of an emergency to effectively fight fires and also to meet increasing demands
Hazard(s) Addressed	All Hazards
Estimated Cost	$50,000+
Potential Funding	CDBG
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Utilities
Status	Not Started

Action	Weather Radios
Analysis	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
Potential Funding	HMGP, PDM, LENRD, Governing County, Local Governing Agency
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Department
Status	Not Started

Removed Mitigation Actions

Action	Comprehensive Village Disaster / Emergency Response Plan
Analysis	Create or update Comprehensive City/Village Disaster and Emergency Response Plan
Hazard(s) Addressed	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
Status	This action is no longer considered relevant.

Action	Floodplain Regulation Enforcements/ Updates
Analysis	Continue to enforce local floodplain regulations for structures located in the 100-year floodplain. Strict enforcement of the type of development and elevations of structures should be considered through issuance of building permits by any community or County. Continue education of building inspectors or Certified Floodplain Managers.
Hazard(s) Addressed	Flooding
Status	This action is no longer considered relevant.

Action	Sheltering in Place Outreach
Analysis	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	All Hazards
Status	This action is no longer considered relevant.

Action	Tree City USA – Tree Maintenance Programs
Analysis	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a tree maintenance program in order to maintain trees in a community to limited potential damages when a storm event occurs. The four main requirements include: 1) Establish a tree board; 2) Enact a tree care ordinance; 3) Establish a forestry care program; 4) Enact an Arbor Day observance and proclamation.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes, High Winds, Severe Winter Storms
Status	This action is no longer considered relevant.

Action	Vulnerable Population Support Database
Analysis	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them
Hazard(s) Addressed	All Hazards
Status	This action is no longer considered relevant.

Action	Water Conservation Awareness Programs
Analysis	Improve and/or develop a program to conserve water use by the citizens during elongated periods of drought. Potential restrictions on water could include limitations on lawn watering, car washing, or water sold to outside sources. Work with DNR on farm irrigation restrictions.
Hazard(s) Addressed	Drought
Status	This action was removed as it will be combined with other public awareness actions.

[i] Nebraska Department of Transportation. "Statewide Traffic Flow Map." Accessed December 2018. https://dot.nebraska.gov/media/2510/2014-statewide-traffic-flow-map.pdf.
[ii] United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.
[iii] United States Census Bureau. "American Fact Finder: S0101: Age and Sex." [database file]. https://factfinder.census.gov/.
[iv] United States Census Bureau. "American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. https://factfinder.census.gov/.
[v] United States Census Bureau. "American Fact Finder: DP03: Selected Economic Characteristics." [database file]. https://factfinder.census.gov/.
[vi] United States Census Bureau. "American Fact Finder: DP03: Selected Economic 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: S0802: Means of Transportation to Work by Selected 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: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.
[xi] United States Census Bureau. "American Fact Finder: DP04: Selected Housing Characteristics." [database file]. https://factfinder.census.gov/.
[xii] County Assessor. Personal correspondence, February 2019.
[xiii] Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed December 2018. https://deq-iis.ne.gov/tier2/search.faces.