

Sioux County Appendix

SIoux COUNTY.....2
VILLAGE OF HARRISON20

Community Profile

SIoux COUNTY

Region 23 Emergency Management Agency
Multi-Jurisdictional Hazard Mitigation Plan Update

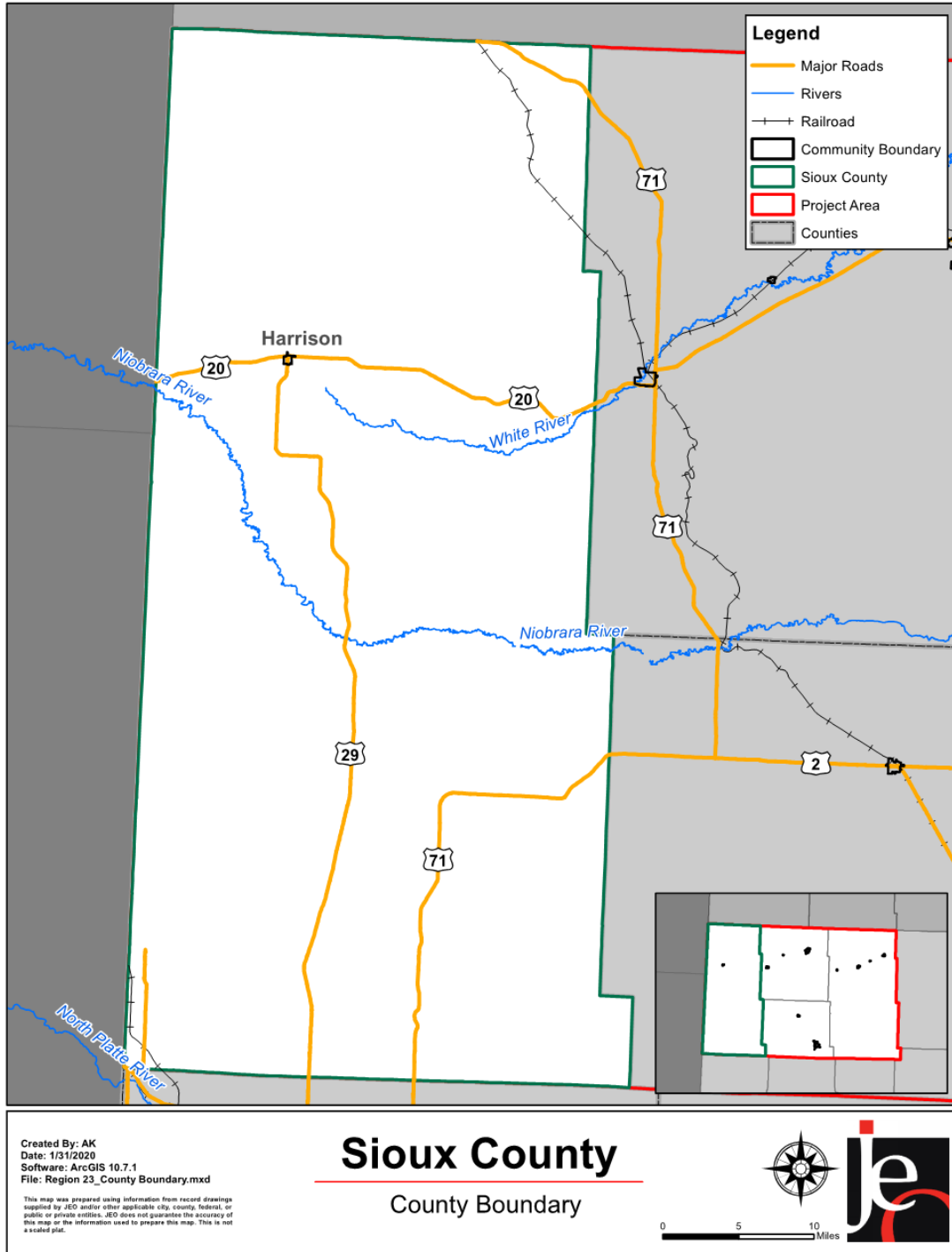
2020

Local Planning Team

Table SXC.1: Sioux County Local Planning Team

NAME	TITLE	JURISDICTION
J.W. GEISER	County Commissioner	Sioux County

Figure SXC.1: Sioux County



Location, Geography, and Climate

Sioux County is the most northwestern county in Nebraska. It is bordered by Scotts Bluff, Box Butte, and Dawes Counties in Nebraska, Fall River County in South Dakota, and Niobrara and Goshen Counties in Wyoming. The total area of Sioux County is 2,067 square miles. The White River terminates in the northern half of the county while the Niobrara River flows directly across central Sioux County. The county is topographically diverse and is comprised of Rolling Hills, Valleys, Valley-Side Slopes, Bluffs and Escarpments, Dissected Plains, Plains and Sandhills¹, with the majority of land used as rangeland for livestock.

Climate

For Sioux County, the normal high temperature for the month of July is 85.2°F and the normal low temperature for the month of January is 11.7°F. On average, Sioux County receives 17.1 inches of precipitation and 45.8 inches of snowfall per year. The table below compares climate indicators with those of the entire state. Climate data is helpful in determining if certain events are higher or lower than normal. For example, if the high temperatures in the month of July are running well into the 90s, high heat events may be more likely which could impact vulnerable populations.

Table SXC.2: Sioux County Climate Normals

	Sioux County	State of Nebraska
JULY NORMAL HIGH TEMP	85.2°F	87.4°F
JANUARY NORMAL LOW TEMP	11.7°F	13.8°F
ANNUAL NORMAL PRECIPITATION	17.01"	23.8"
ANNUAL NORMAL SNOWFALL	45.8"	25.9"

Source: NCEI 1981-2010 Climate Normals², High Plains Regional Climate Center, 1981-2010³
Precipitation includes all rain and melted snow and ice.

Transportation

Sioux County's major transportation corridors include Nebraska Highway 29 running north-south, Nebraska Highway 71 running north-south and east-west, and U.S. Highway 20 running east-west. Highways 29 and 20 are of top concern for the local planning team as they intersect at Harrison and are heavily traveled by local traffic. A small section of Burlington Northern Santa Fe rail line also runs through the far northeastern corner of the county. Rail lines commonly transport hazardous materials through the county including coal, oil, or waste materials. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the county, as well as areas more at risk to transportation incidents.

Chemical Transportation

Hazardous materials are commonly transported by a range of transportation methods, including highways, rail, air, and pipeline. Railway and highway transportation spills are the most frequently occurring chemical transportation incidents. While incident proximity will always occur near or on transportation methods, it is not possible to predict precise locations of possible future events. Proximity of pipelines, rail lines, and highways near critical facilities or vulnerable population centers, including schools, daycares, nursing homes, and/or hospitals, increases overall vulnerability to chemical transportation spills. Specifically, the county courthouse and Harrison Fire Station, which is used as the EOC, are located along major highways. A BNSF rail line, state highways 29 and 71, and U.S. Highway 20 are all commonly used to transport hazardous chemicals across the County; however, no major incidents have occurred in the county. Private

¹ Center for Applied Rural Innovation. "Topographic Regions Map of Nebraska." 2001. <http://digitalcommons.unl.edu/caripubs/62>.

² National Centers for Environmental Information. "1981-2010 U.S. Climate Normals." Accessed December 2019. <https://www.ncdc.noaa.gov/cdo-web/datatools>.

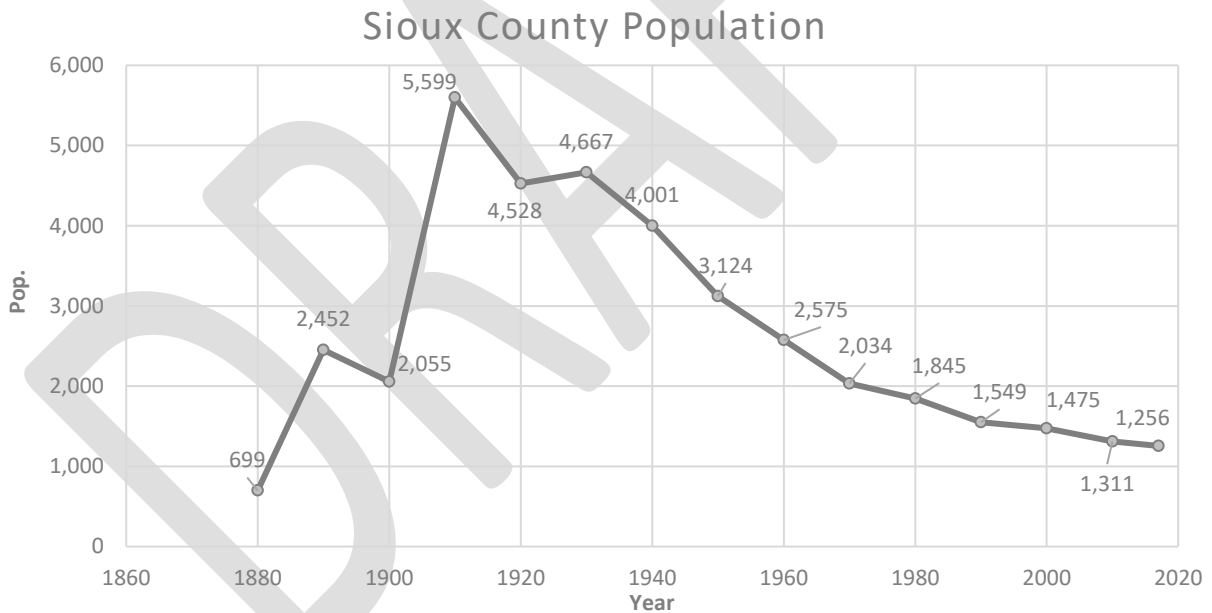
³ High Plains Regional Climate Center. "Monthly Climate Normals 1981-2010 – Harrison NE." Accessed December 2019. <http://climod.unl.edu/>.

entities, local emergency response units, and state resources have strict regulatory oversight and emergency action plans in place to respond to significant chemical spills. If incidents were to occur, Harrison Fire Department would respond and request resources as needed.

Demographics

The following figure displays the historical population trend from 1880 to 2017. This figure indicates that the population of Sioux County has declined steadily since the early 1990s. This is notable for hazard mitigation because areas with declining population may have a higher level of unoccupied housing not being maintained. Furthermore, areas with declining population will be less prone to pursuing residential/commercial development in their areas, which may reduce the number of structures vulnerable to hazards in the future. Decreasing populations can also represent decreasing tax revenue for the county which could make implementation of mitigation actions more fiscally challenging.

Figure SXC.2: Population 1880 – 2017



Source: U.S. Census Bureau⁴

The following table indicates the State of Nebraska has a higher percentage of people under the age of five; however Sioux County has a greater proportion of residents over 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 SXC.3: Population by Age

AGE	SIOUX COUNTY	STATE OF NEBRASKA
<5	6.5%	6.9%
5-64	70.5%	78.3%
>64	23.0%	14.8%
MEDIAN	51.6	36.2

Source: U.S. Census Bureau⁵

⁴ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov>.

⁵ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov>.

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

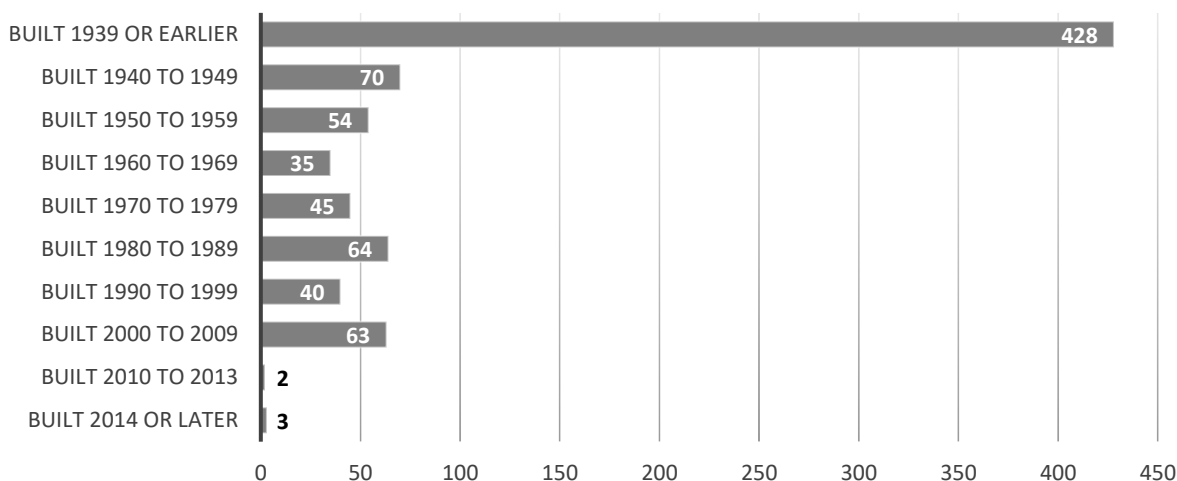
Table SXC.4: Housing and Income

	SIOUX COUNTY	STATE OF NEBRASKA
MEDIAN HOUSEHOLD INCOME	\$45,375	\$56,675
PER CAPITA INCOME	\$26,852	\$29,866
MEDIAN HOME VALUE	\$103,200	\$142,000
MEDIAN RENT	\$592	\$773

Source: U.S. Census Bureau^{6,7}

The following figure indicates that the majority of housing in Sioux County was built prior to 1939 (53.2%). Older homes are less likely to meet building code requirements and are more likely to become dilapidated due to a lack of care or remodeling. According to 2017 ACS 5-year estimates, the county has 804 housing units with 72.0% percent of those units occupied. There are approximately 94 mobile homes in the county. Housing age can serve as an indicator of risk as structures built prior to state building codes may be at greater risk. Finally, residents that live in mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe winter storms.

Figure SXC.3: Housing Units by Year Built



Source: U.S. Census Bureau⁸

⁶ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov>.

⁷ United States Census Bureau. "2017 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov>.

⁸ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov>.

Table SXC.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
SIOUX COUNTY	579	72.0%	225	28.0%	438	75.6%	141	24.4%
NEBRASKA	748,405	90.8%	75,771	9.2%	494,189	66.0%	254,216	34.0%

Source: U.S. Census Bureau⁹

Major Employers

According to 2016 Business Patterns Census Data, Sioux County had 17 business establishments. The following table presents the number of establishments, number of paid employees, and the annual payroll in thousands of dollars. Communities which have a diverse economic makeup may be more resilient following a hazardous event, especially if certain industries are more impacted than others.

Table SXC.6: Business in Sioux County

	TOTAL BUSINESSES	NUMBER OF PAID EMPLOYEES	ANNUAL PAYROLL (IN THOUSANDS)
TOTAL FOR ALL SECTORS	17	32	1,163

Source: U.S. Census Bureau¹⁰

Agriculture is also important to the economic fabric of Sioux County, and the state of Nebraska as a whole. Sioux County's 307 farms cover 1,229,719 acres of land, over 92% of the county's total area. Crop and livestock production are the visible parts of the agricultural economy, but many related businesses contribute as well by producing, processing, and marketing farm and food products. These businesses generate income, employment and economic activity throughout the region.

Table SXC.7: Sioux County Agricultural Inventory

SIOUX COUNTY AGRICULTURAL INVENTORY	
NUMBER OF FARMS	307
LAND IN FARMS	1,229,719

Source: USDA 2017 Census of Agriculture¹¹

Future Development Trends

Little has changed in the county over the past five years. The Village of Harrison, the only incorporated community in the county, installed a new well and water system. There have been no changes in housing or business developments and no changes are expected in the next few years.

Structural Inventory and Valuation

GIS parcel data as of December 2019 was requested from GIS Workshop, which the county hires to manage the County Assessor data. This data was analyzed for the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table SXC.8: Sioux County Parcel Valuation

⁹ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov>.

¹⁰ United States Census Bureau. "2016 American Fact Finder: Geography Area Series County Business Patterns 2015 Business Patterns." [database file]. <https://factfinder.census.gov>.

¹¹ United States Department of Agriculture, National Agricultural Statistics Server. 2019. "2017 Census of Agriculture – County Data." <https://www.nass.usda.gov/Publications/AgCensus/2017/index.php>.

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NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN
4,699	1,063	\$77,092,763	N/A	N/A

Source: County Assessor

Critical Infrastructure/Key Resources

Hazardous Materials

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there two chemical storage sites throughout Sioux County which house hazardous materials; however, there are none located in unincorporated Sioux County. For a description and map of chemical sites located in incorporated areas, please see the jurisdiction’s participant section.

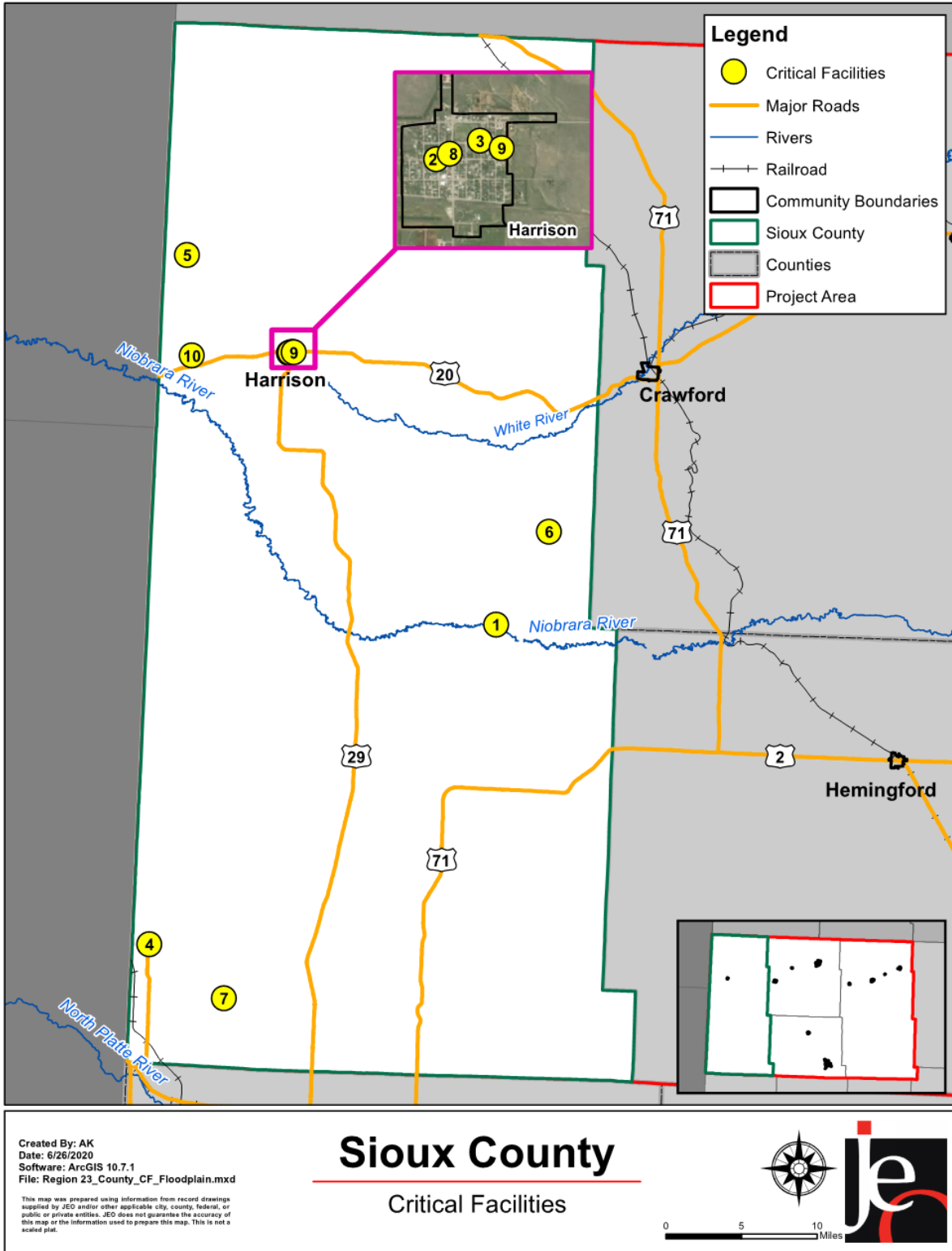
Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and are essential for returning the jurisdiction’s functions to normal during and after a disaster. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update per the FEMA Community Lifelines guidance. No floodplain information is available for Sioux County, however it is assumed no critical facilities are located within flood risk hazard areas. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table SXC.9: Sioux County Critical Facilities

CF Number	Name	Shelter (Y/N)	Generator (Y/N)
1	Pink School	Y	N
2	Harrison Elementary School	Y	N
3	Sioux County High School	Y	N
4	Chalk Butte School	Y	N
5	Radio Tower 1	N	N
6	Radio Tower 2	N	N
7	Cell Phone Towers	N	N
8	County Courthouse/Sheriff’s Office	N	N
9	Harrison Fire Department/EOC	N	Y
10	NEA Substation	N	N

Figure SXC.5: Critical Facilities



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 2019) should be considered only as broad estimates. Sources include but are not limited to: emergency management; local law enforcement; Skywarn spotters; NWS damage surveys; newspaper clipping services; insurance industry; and the general public. Crop damages reports come from the USDA Risk Management Agency for Sioux County between 2000 and 2019.

Table SXC.10: Severe Weather Events for Sioux County

HAZARD TYPE		Count	Property	Crop
Agricultural Disease	Animal Disease ¹	1	2	N/A
	Plant Disease ²	10	N/A	\$76,766
Dam Failure ³		0	\$0	N/A
Drought and Extreme Heat ^{4,5}	Drought	353/1,489 months	\$0	\$616,542
	Extreme Heat	Avg 1 day/year	\$0	\$430,410
Flooding ⁵	Flash Flood	6	\$0	\$20,432
	Flood	0	\$0	
High Winds and Tornadoes ⁵	High Winds	30	\$0	\$1,230,352
	Tornadoes <i>1 injury</i>	16	\$6,000	\$0
Severe Thunderstorms ⁵	Hail	161	\$73,000	\$5,256,918
	Heavy Rain	3	\$0	\$347,707
	Lightning	0	\$0	N/A
	Thunderstorm Wind	26	\$6,000	N/A
Severe Winter Storms ⁵	Blizzard	9	\$0	
	Extreme Cold/Wind Chill	9	\$0	
	Heavy Snow	15	\$0	\$2,719,671
	Ice Storm	0	\$0	
	Winter Storm	52	\$0	
	Winter Weather	18	\$0	
Terrorism ⁷		0	\$0	\$0
Wildfires ⁸		815	164,302 acres	\$28,300
		1,144	\$85,000	\$10,727,098

N/A: Data not available

1 NDA (2014-2019)

2 USDA RMA (2000-2019)

3 Stanford NPDP (1911-2018)

4 NOAA (1895-2019)

5 NCEI (January 1996 to Sept 2019)

6 HPRCC (1987-2019)

7 GTD (1970-2017)

8 NFS (2010-2018)

County Hazard Prioritization

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

Drought and Extreme Heat

The local planning team ranked drought and extreme heat as a top concern due to the potential impacts to the local agricultural economy. Drought is a common occurrence in the State of Nebraska. For the county, much of the workforce relies on agriculturally based income and the local economy could be significantly affected during severe droughts. Additionally, nearly a quarter of the county's population is over the age of 65. Elderly residents are at greater risk to health impacts during periods of extreme heat. Due to the highly rural landscape of the county, elderly residents may not have access to adequate cooling centers or medical facilities. Early drought and prolonged heat event impacts are not always as visual as impacts of other natural hazards and are hard to quantify. Drought and extreme heat have caused over \$1,046,000 in crop damages since 2000 according to the RMA.

Severe Thunderstorms

The planning team estimated that severe thunderstorms are the most common hazard event to impact the county annually. NCEI data recorded 190 thunderstorm events from 1996 to 2019 with a total of \$79,000 in property damages. It should be noted that no lightning events were reported via the NCEI; however, this does not indicate they do not occur. Lightning is the leading cause of wildfires in the planning area and Sioux County experiences subsequent damages annually.

Severe thunderstorms are commonly associated with hail, heavy rain, and strong winds. Events have reported strong winds up to 70 miles per hour. Past events have caused damages to trees, power lines, and buildings. The county planning team identified hailstorms as a significant threat for Sioux County. NCEI reported 161 hail events with a total of \$73,000 in property damages. Hail in the unincorporated areas of the county is most likely to impact agriculture. There are more than a million acres devoted to agriculture, primarily corn. Hailstorms can have devastating impacts on crops, causing up to a 100 percent loss. There are no FEMA certified safe rooms in the county but outdoor warning sirens are located in Harrison. The county uses CodeRed alerts through Region 23 EMA.

Severe Winter Storms

Severe winter storms are a regular part of the climate across Region 23 and Sioux County is no exception. According to the NCEI there were 103 severe winter storm events in Sioux County from 1996 through 2019 including blizzards, extreme cold, heavy snow, ice storms, and winter storms. There were no reported property damages from these events; however, that does not indicate if damages actually occurred and were covered by individual residents or insurance. These events did cause over \$2 million in crop loss damages. The county is responsible for clearing snow on county roads while the state clears snow from the major highways. Extreme winter events can block many rural roads and hinder transportation access for emergency services, residents needing medical attention, or motorists traveling through the county.

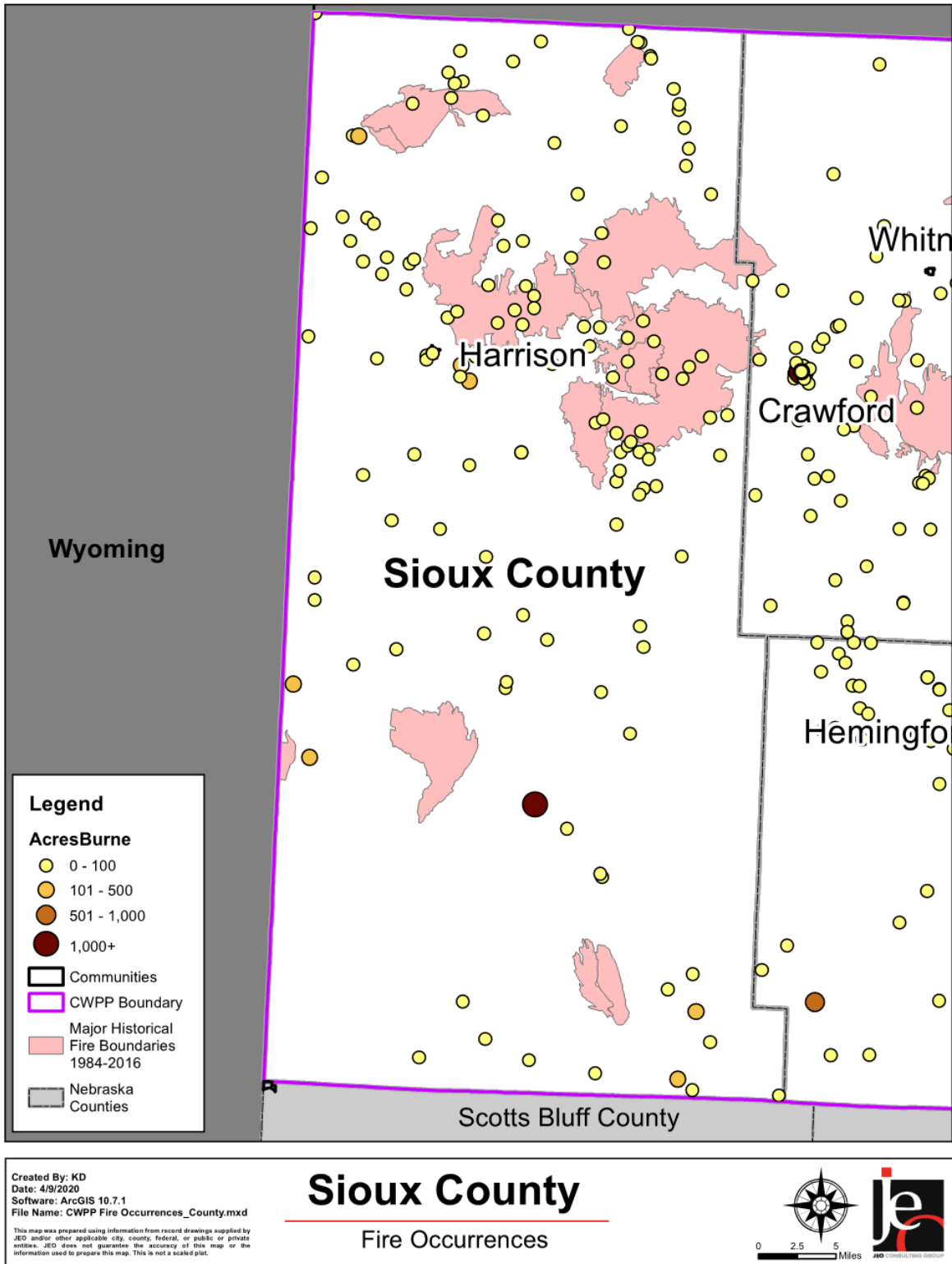
Wildfire

The local planning team identified grass/wildfire as the greatest threat Sioux County. According to the Nebraska Forestry Department there were 815 reported fires by the Harrison, Morrill/Sheep

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Creek and Farmers, Mitchell, Scottsbluff Rural, and Minatare Fire Departments from 2000 to 2018 which consumed a total of 164,302 acres.

Figure SXC.6: Wildfire Events in Sioux County



While only Harrison Fire District is located entirely within the county, local responses and fire events from all overlapping departments were included here. Harrison Fire Department built a new fire hall which is now fully owned by the village and upgraded equipment. The new fire hall is larger for more equipment storage and has a generator. Particular concerns for the county regarding wildfires include the Pine Ridge area due to heavy fuel loads and the remote location. Sioux County has historically seen large fires which have burned thousands of acres including the Fort Robinson Fire Complex (1989), Warbonnet Fire (2000), and the Spotted Tail Fire (2006).

The areas most at-risk from wildfire are the lands surrounding municipalities and recreational/residential areas where there are heavy fuels and limited access. In Sioux County, NFS staff has identified the historic large fire footprints and the remaining green areas of the Pine Ridge, especially where there are homesteads with limited access and difficult terrain as being at high risk. The NFS priority landscape analysis indicated Niobrara River as at-risk. The 2013 CWPP identified the Village of Harrison and the Agate Fossil Beds National Monument as areas of concern.

Governance

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

- County Clerk
- County Assessor
- County Treasurer
- County Attorney
- Sheriff's Office
- Volunteer Fire Department

Capability Assessment

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

Table SXC.11: Capability Assessment

Survey Components/Subcomponents		Yes/No
PLANNING & REGULATORY CAPABILITY	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No

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Survey Components/Subcomponents		Yes/No
	Building Codes	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes
	Other (if any)	
ADMINISTRATIVE & TECHNICAL CAPABILITY	Planning Commission	Yes
	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
FISCAL CAPABILITY	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	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.	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	Yes
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

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

Plan Integration

The Sioux County LEOP, last updated August 2017, incorporates mitigation by: identifying hazards of concern requiring emergency action; specific responsibilities of individual communities or community roles; scenarios that would require evacuation; sheltering locations; an animal disease response plan; media contacts; and other information for the county. This plan is updated every five years by Region 23 Emergency Management Agency.

The county uses International Building Codes and updates zoning as needed; however the county does not have any floodplain regulations in place and is not a member of the National Flood Insurance Program. Currently, flooding is not a hazard of top concern for the county. At this time there are no other planning mechanisms which integrate hazard mitigation principles. Future updates of plans should consider hazard mitigation concerns and capabilities.

Mitigation Strategy

Completed Actions

MITIGATION ACTION	COMPREHENSIVE COUNTY/DISASTER EMERGENCY RESPONSE/RESCUE PLAN
DESCRIPTION	Update comprehensive county disaster and emergency response and rescue plan
HAZARD(S)	All hazards
STATUS	County LEOP was updated by Region 23 EMA in 2017 and is updated every five years as required.

MITIGATION ACTION	FIRE PREVENTION PROGRAM
DESCRIPTION	The Nebraska Forest Service Wildland Fire Protection Program provides services in wildfire suppression training, equipment, pre-suppression planning, wildfire preventions, and aerial fire suppression.
HAZARD(S)	Wildfire
STATUS	NE Forest Service conducted training with Sioux County and Harrison Fire Department for suppression in 2018.

Ongoing or New Actions

MITIGATION ACTION		ALERT/WARNING SIRENS
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.	
HAZARD(S)	All hazards	
ESTIMATED COST	\$15,000+	
FUNDING	General Funds, PDM, HMGP	
TIMELINE	2-5 years	
PRIORITY	Low	
LEAD AGENCY	Harrison VFD	
STATUS	This project has not yet been started.	

MITIGATION ACTION		BACKUP POWER 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)	All hazards	
ESTIMATED COST	\$15,000-\$35,000	
FUNDING	Fire Department Funds, PDM, HMGP	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Harrison VFD	
STATUS	A generator was included in the construction of the new Harrison Fire Department building. It is being wired for EOC redundancy. Additional generators are needed for the courthouse.	

MITIGATION ACTION		EVACUATION PLAN
DESCRIPTION	Establish a plan to effectively evacuate residents during hazard events	
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, Flooding, High Winds and Tornadoes, Wildfire	
ESTIMATED COST	\$5,000+	
FUNDING	General Fund	
TIMELINE	5+ years	
PRIORITY	Low	
LEAD AGENCY	County Commissioners, Region 23 EMA	
STATUS	This project has not yet been started.	

MITIGATION ACTION	GROUNDWATER/IRRIGATION/WATER CONSERVATION MANAGEMENT PLAN AND PRACTICES
DESCRIPTION	Develop and implement a plan/ best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought Identify water saving irrigation projects of improvements such as sprinklers of soil moisture monitoring. Potential restrictions on water could include limitation on lawn watering, car washing, farm irrigation restrictions, or water sold to outside sources. Implement BMPs through water conservation practices such as changes in irrigation management, education on no-till agriculture and use of xeriscaping in communities.
HAZARD(S)	Drought and Extreme Heat
ESTIMATED COST	\$10,000
FUNDING	General Fund, PDM, HMGP
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	County Commissioners, Region 23 EMA, UNWNRD
STATUS	This project has not yet been started.

MITIGATION ACTION	HAZARDOUS FUELS REDUCTION
DESCRIPTION	The Nebraska Forest Service (NFS) Forest Fuels Reduction Program creates/ strategically located corridors of thinned forests across the landscape reduces fire intensity, improves fire suppression effectiveness, increases firefighters safety, and better protects lives and property
HAZARD(S)	Wildfire
ESTIMATED COST	Varies by need
FUNDING	General Funds, NFS, HMGP, PDM
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Harrison VFD
STATUS	This project has not yet been started. Fuels reduction is needed in the Pine Ridge area and additional landowner participation is needed.

MITIGATION ACTION	PARTICIPATE IN THE NATIONAL FLOOD INSURANCE PROGRAM
DESCRIPTION	Work to become a member in good standing with the National Flood Insurance Program
HAZARD(S)	Flooding
ESTIMATED COST	Staff Time
FUNDING	General Funds
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	County Commissioners
STATUS	This project has not yet been started. At this time this project is a low priority as flooding is not a hazard of top concern for the county.

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

MITIGATION ACTION		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)	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes	
ESTIMATED COST	\$200-\$300/sf standalone/\$150-\$200/sf retrofit	
FUNDING	General Fund, School Funds, HMGP, PDM	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	County Sheriff, Schools, Region 23 EMA	
STATUS	This project has not yet been started. Safe rooms are needed at all schools.	

MITIGATION ACTION		STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossings can increase conveyance, reducing the potential for flooding. Replacement or modification of bridges may be necessary to provide greater capacity, maintain or improve structural integrity during flood events, and eliminate flooding threats and damages.	
HAZARD(S)	Flooding	
ESTIMATED COST	\$100,000+	
FUNDING	General Fund, HMGP, PDM	
TIMELINE	2-5 years	
PRIORITY	Medium	
LEAD AGENCY	Road Department	
STATUS	This project has not yet been started.	

MITIGATION ACTION	WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed
HAZARD(S)	Severe Thunderstorms, Severe Winter Storms, High Winds and Tornadoes
ESTIMATED COST	\$50 per radio
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Region 23 EMA
STATUS	This project has not yet been started.

DRAFT

Community Profile

VILLAGE OF HARRISON

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Multi-Jurisdictional Hazard Mitigation Plan Update

2020

Local Planning Team

Table HRS.1: Harrison Local Planning Team

NAME	TITLE	JURISDICTION
PHILLIP SKAVDAHL	Board Chairman	Village of Harrison
DASHIELL ROHAN	Board Member	Village of Harrison
MISTY SKAVDAHL	Deputy	Region 23 EMA

Location and Geography

The Village of Harrison is located in northern Sioux County and covers an area of 0.31 square miles. There are no major waterways in or near the community. The Village is the only incorporated community in the county and serves as the county seat of Sioux County.

Transportation

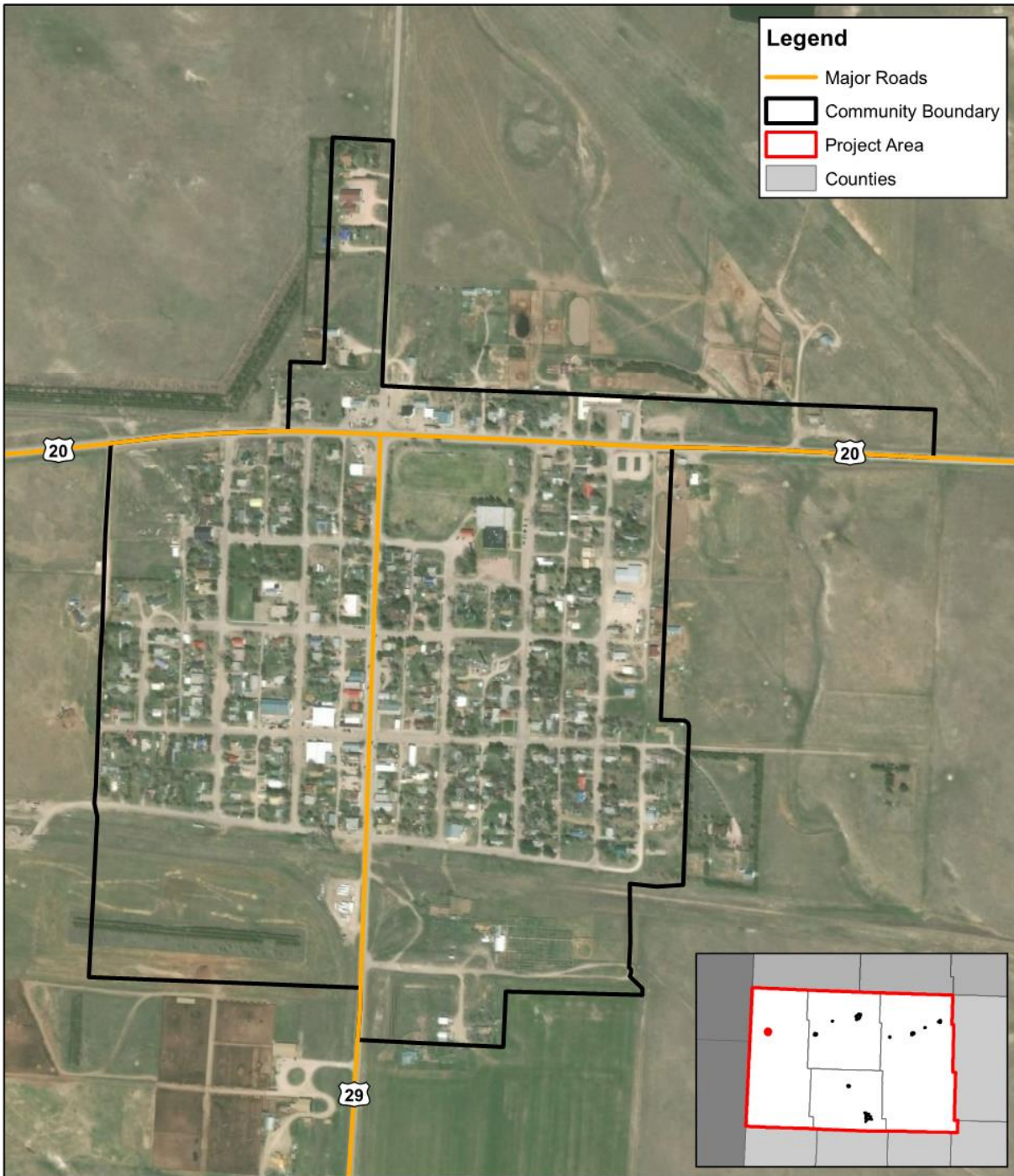
Harrison's major transportation corridors include Nebraska Highway 29 which averages 265 vehicles per day, and U.S. Highway 20 which averages 725 vehicles per day.¹² There are no rail lines or airports located in Harrison. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Chemical Transportation

Hazardous materials are commonly transported by a range of transportation methods, including highways, rail, air, and pipeline. Railway and highway transportation spills are the most frequently occurring chemical transportation incidents. While incident proximity will always occur near or on transportation methods, it is not possible to predict precise locations of possible future events. Proximity of pipelines, rail lines, and highways near critical facilities or vulnerable population centers, including schools, daycares, nursing homes, and/or hospitals, increases overall vulnerability to chemical transportation spills. Highways are commonly used transport hazardous chemicals through Harrison. Private entities, local emergency response units, and state resources have strict regulatory oversight and emergency action plans in place to respond to significant chemical spills.

¹² 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>

Figure HRS.1: Village of Harrison



Created By: AK
Date: 1/23/2020
Software: ArcGIS 10.7.1
File: Region 23_Community Boundary.mxd

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Village of Harrison

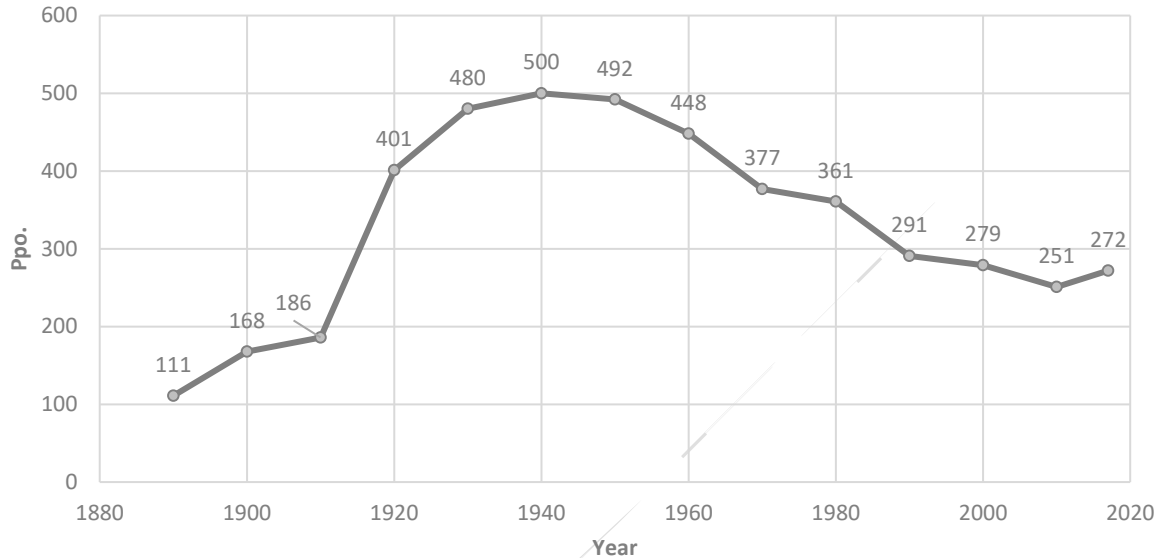
Community Boundary



Demographics

Harrison's population declined from a peak of 500 in 1940 to 272 people in 2017. Declining populations make communities more vulnerable to hazards as it leads to more unoccupied or vacant housing units and decreasing tax revenues to pursue mitigation projects. Harrison's population accounted for 22% percent of Sioux County's population in 2017.¹³

Figure HRS.2: Estimated Population 1890 - 2017



Source: U.S. Census Bureau¹⁴

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

- **Younger.** The median age of Harrison was 45.7 years old in 2017, compared with the County average of 51.6 years. Harrison's population has grown younger since 2010, when the median age was 54.8 years old. Harrison had a larger proportion of people under 20 years old (24.7%) than the County (21.3%).¹⁵
- **Less ethnically diverse.** Since 2010, Harrison grew less ethnically diverse. In 2010, 5.1% of Harrison's population was Asian and 3.8% was two or more races. By 2017, 0% of the population was Asian and only 0.7% was two or more races. During that time, the population of two or more races in the County grew from 1.0% in 2010 to 5.4% in 2017.¹⁶
- **Less likely to be at the federal poverty line.** The poverty rate in Harrison (5.7% of families living below the federal poverty line) is lower than the County's poverty rate (10.8%) in 2017.¹⁷

Employment and Economics

The Village's economic base is a mixture of industries. In comparison to Sioux County, Harrison's economy had:

¹³ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

¹⁴ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

¹⁵ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

¹⁶ United States Census Bureau. "2017 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

¹⁷ United States Census Bureau. "2017 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

SECTION SEVEN: VILLAGE OF HARRISON COMMUNITY PROFILE

- **Similar mix of industries.** Both Sioux County and Harrison's major employment sectors, accounting for 10% or more of employment each, were: Agriculture/Forestry/Fishing and Educational Services in 2017.¹⁸
- **Lower household income.** Harrison's median household income in 2017 (\$35,208) was about \$10,167 lower than the County (\$45,375).¹⁹
- **Fewer long-distance commuters.** About 66.1% percent of workers in Harrison commuted for fewer than 15 minutes, compared with about 48.9% of workers in Sioux County. About 16.1% of workers in Harrison commute 30 minutes or more to work, compared to about 27.8% of the County workers.²⁰

Major Employers

Major employers in the Village of Harrison include Sioux County School District, Sioux County positions, and Henen Brothers. A large portion of residents in Harrison commute to Chadron, Lusk, Wyoming, or Scottsbluff for employment.

Housing

In comparison to Sioux County, Harrison's housing stock was:

- **More owner occupied.** About 78.6% of occupied housing units in Harrison are owner occupied compared with 75.6% of occupied housing in Sioux County in 2017.²¹
- **Older aged housing stock.** Harrison has a greater amount of houses built prior to 1970 than the county, 78.1% compared to 73.0% respectively.²²
- **More multifamily homes.** The predominant housing type in the Village is single family detached. Harrison contains fewer multifamily housing with five or more units per structure compared to the County (0% compared to 0.6%). About 81.2% of housing in Harrison was single-family detached, compared with 85.4% of the County's housing. Harrison has a larger share of mobile and manufactured housing (12.4%) compared to the County (11.7%).²³ The local planning team indicated mobile homes are dispersed evenly through 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

The planning team indicated few changes in the past five years in the Village of Harrison. Notable improvements in town is the installation of a new well system including water line, meters, and system controls with a generator capable of running the whole system; as well as a new, Village owned fire hall. According to the U.S. Census Bureau American Community Survey estimates, Harrison's population has been declining over the past several decades. The local planning team indicated that a lack of available jobs and a reduced agriculture industry in the region has contributed to the decline. No new housing or commercial developments are planned at this time.

¹⁸ United States Census Bureau. "2017 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

¹⁹ United States Census Bureau. "2017 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

²⁰ United States Census Bureau. "2017 American Fact Finder: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://factfinder.census.gov/>.

²¹ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

²² United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

²³ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

Structural Inventory and Valuation

The planning team requested GIS parcel data from the County Assessor as of December 2019. 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 HRS.2: Harrison Parcel Valuation

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN
282	229	\$9,190,131	N/A	N/A

Source: County Assessor

Critical Infrastructure/Key Resources

Hazardous Materials

Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are two chemical storage sites in Harrison that contain hazardous chemicals. According to the U.S. Coast Guard National Response Center, one fixed chemical spill has occurred in the community with no reported injuries, fatalities, or damages.

Table HRS.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS
WESTCO BULK PLANT	6809 Highway 29
NDOT HARRISON YARD 51300	840 Highway 20

Source: Nebraska Department of Environment and Energy²⁴

According to the local planning team, the NDOT yard is located outside of city limits and there are three additional chemical storage sites: County Weed and Road Department (294 Grace St), Lotton Services and Repair Station (120 West Hwy 20), and Herren Bros. (174 West 2 Hwy).

Local resources utilized in chemical spills events include the local volunteer fire department and county sheriff's office. Concerns exist for elderly residents in town which may be more vulnerable to the impacts of chemical spill events.

²⁴ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed November 2018. <https://deq-iis.ne.gov/tier2/search.faces>.

Critical Facilities

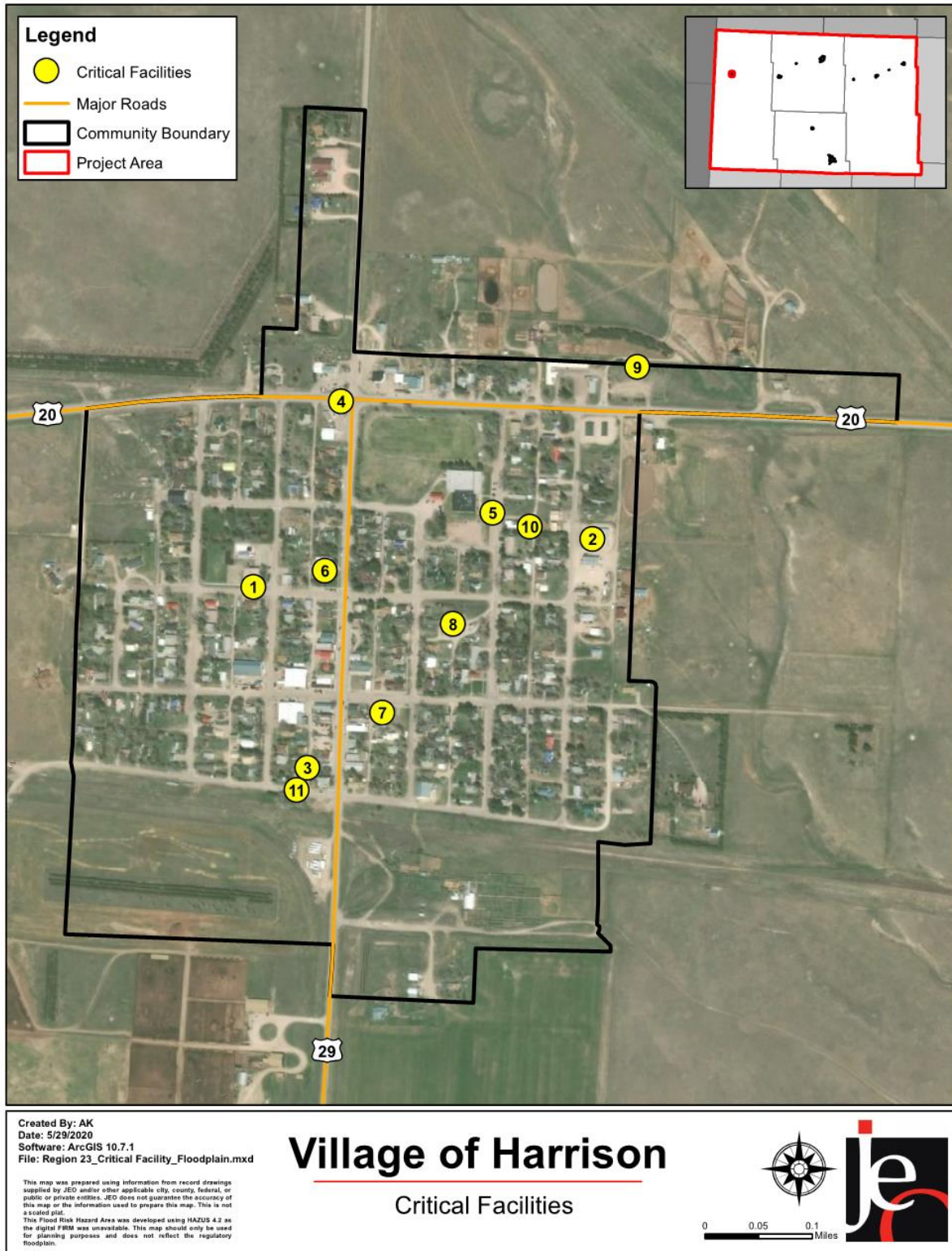
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during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

Table HRS.4: Critical Facilities

CF Number	Name	Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Harrison Elementary School	Y	N	N
2	Harrison Rural Fire District	Y	Y	N
3	Light and Water Power Plant	N	Y	N
4	Senior Citizens Center	N	N	N
5	Sioux County High School	Y	N	N
6	County Courthouse/Village Office	Y	N	N
7	VFW Hall	N	N	N
8	Water Tower	N	N	N
9	Sewer Lift Station	N	N	N
10	Pump	N	N	N
11	Electric Generator	N	Y	N

Note that floodplain mapping has not been conducted for the Village of Harrison or within Sioux County. There are no major rivers, streams, or creeks located within the Village of Harrison and thus it is assumed no critical facilities are within the floodplain.

Figure HRS.3: Critical Facilities



Historical Occurrences

See the Sioux 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 selected by the local planning team from the regional hazard list as the relevant hazards for the community. The selected hazards were then prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities.

Drought and Extreme Heat

The local planning team ranked drought as a top threat for the community. Drought is a high concern as agriculture and rangeland are strong economic drivers in the county and for Harrison. Early drought impacts are not always as visual as impacts of other natural hazards and are hard to quantify. Wildfire is also of greater concern during periods of drought as there may be reduced water supplies and highly flammable landcover. The community recently upgraded the water system and included a generator to supply water to the entire village to increase capacity during events.

High Winds and Tornadoes

The local planning team identified tornadoes and high winds significant concern for the community. Tornadoes are a concern due to their potential for catastrophic damage to a community. According to the NCEI, there were nine tornadoes which passed near Harrison. All tornados were either EF/F0 with no reported damages. There are no FEMA certified safe rooms in the community; however, sirens are located in Harrison and residents are able to sign up for CodeRed alerts through Region 23 EMA.

Severe Thunderstorms

Severe thunderstorms are a regular part of the climate for Sioux County and Harrison and can include heavy rain, hail, lightning strikes, and damaging winds. The local planning team identified severe thunderstorms as the greatest threat for the village. The NCEI recorded 98 severe thunderstorm events with \$38,000 in damages to property. Severe thunderstorms and hail can result in loss of electricity, blocked roadways, damages to trees, and localized flooding from heavy rain. Blocked roadways, as a result of downed trees, may also present life safety concerns to those needing immediate medical attention. Lightning is the leading cause of wildfires in the planning area.

Severe Winter Storms

Severe winter storms are a regular part of the climate and occur annually in Harrison. According to the NCEI there were 103 severe winter storm events in Sioux County which may have impacted Harrison from 1996 through 2019. These events resulted in no reported damages to property or resident safety. Major concerns related to severe winter storms include loss of power, cold temperatures, blocked transportation routes, and cattle mortality for residents working the surrounding areas and impacts to the local economy. There are no windbreaks or snow fences located in the Village.

Wildfires

The local planning team identified wildfire as a top concern for the village. According to the Nebraska Forestry Department there were 92 reported fires by the Harrison Fire Department from 2000 to 2018 which consumed a total of 72,564 acres. The fires also resulted in \$28,300 in

damages to crops. According to the CWPP there have been seven major fires since the late 1950s. The Village of Harrison lies within the WUI as defined by the CWPP. The Harrison Fire Department has mutual aid agreements with the fire departments in the surrounding areas, but during large scale events it is possible nearby fire department would be unable to lend assistance due to addressing the needs of their respective community/protection area. The Village of Harrison has a new fire hall which is now fully owned by the village. The new fire hall is larger for more equipment storage and has a generator.

Governance

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

- Village Clerk
- Village Attorney
- Planning Commission
- Electric Department
- Fire Department
- Police Department
- Streets Department
- Sewer/Water Department

Capability Assessment

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

Table HRS.5: Capability Assessment

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

SECTION SEVEN: VILLAGE OF HARRISON COMMUNITY PROFILE

Survey Components/Subcomponents		Yes/No
ADMINISTRATIVE & TECHNICAL CAPABILITY	Floodplain Administration	No
	GIS Capabilities	Yes
	Chief Building Official	(County)
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
FISCAL CAPABILITY	Capital Improvement Plan/ 1 & 6 Year plan	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	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
EDUCATION & OUTREACH CAPABILITY	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	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 Village USA	No
	Other (if any)	

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

Does your county staff have the time to devote to hazard mitigation?	Limited
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Plan Integration

The Village of Harrison’s Comprehensive Plan was last updated in 1996. While updating the plan has been discussed among community members, it is currently cost prohibitive for the community. The plan does not discuss or integrate hazard mitigation principals or goals at this time.

The Village’s Building, Zoning, and Subdivision regulations are updated as needed and were last revised in August 2018. These codes do not currently limit development in hazardous areas such as the floodplain or WUI. The Village updates the 1 and 6 Year plan annually and emphasizes street and water projects.

The Village has a Public Water System Emergency Response Plan which is reviewed and updated every three years. Village officials, the local health department, and utilities departments have copies of this plan. The plan outlines actions to be taken in the case of: power outages, water system failures, water equipment failures, contamination, chemical incidents, drought, severe weather, fire at facilities, hazardous material releases, earthquakes, and/or terrorist events.

The Village also has an annex to the Sioux County LEOP, last updated August 2017. The LOEP incorporates mitigation by: identifying hazards of concern requiring emergency action; specific responsibilities of individual communities or community roles; scenarios that would require evacuation; sheltering locations; an animal disease response plan; media contacts; and other information for the county. This plan is updated every five years by Region 23 Emergency Management Agency.

Mitigation Strategy

Completed Actions

MITIGATION ACTION	ALERT/WARNING SIREN
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking.
HAZARD(S)	All Hazards
STATUS	The village upgraded the system with a new siren in 2018.

MITIGATION ACTION	BACKUP POWER 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)	All Hazards
STATUS	A portable backup generator was purchased by the village in 2020 which can be hooked up to shelters or critical facilities as needed.

MITIGATION ACTION		COMPREHENSIVE CITY DISASTER/ EMERGENCY RESPONSE/RESCUE PLAN
DESCRIPTION	Update comprehensive city/village disaster and emergency response/rescue plan	
HAZARD(S)	Tornadoes and High Winds, Severe Thunderstorms, Severe Winter Storms	
STATUS	The local plan was revised and updated in 2019.	

MITIGATION ACTION		EVACUATION PLAN
DESCRIPTION	Establish a plan to effectively evacuate residents during storm events and major flooding.	
HAZARD(S)	Severe Thunderstorms, Tornadoes and High Winds, Severe Winter Storms, Flooding	
STATUS	The evacuation plan was completed in 2019 and is evaluated and revised on an ongoing and as-needed basis.	

MITIGATION ACTION		GROUNDWATER/IRRIGATION/ WATER CONSERVATION MANAGEMENT
DESCRIPTION	Develop and implement a plan/ best management practices to conserve water use and reduce total use (high water use to low water use) and consumption of groundwater resources by citizens and irrigators of agricultural land during elongated periods of drought Identify water saving irrigation projects of improvements such as sprinklers of soil moisture monitoring. Potential restrictions on water could include limitation on lawn watering, car washing, farm irrigation restrictions, or water sold to outside sources. Implement BMPs through water conservation practices such as changes in irrigation management, education on no-till agriculture and use of xeriscaping in communities.	
HAZARD(S)	Drought	
STATUS	A plan was developed and implemented by the village in 2015.	

MITIGATION ACTION		WARNING SYSTEMS
DESCRIPTION	Improve city cable TV interrupt warning system and implement telephone interrupt system such as Reverse 911, emergency text messaging warning system, etc.	
HAZARD(S)	All Hazards	
STATUS	This project was completed in 2016 with funding assistance from Region 23 EMA.	

MITIGATION ACTION		WEATHER RADIOS
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed.	
HAZARD(S)	All Hazards	
STATUS	An inventory of weather radios was performed and new radios were added as needed.	

Ongoing or New Actions

MITIGATION ACTION		BACKUP POWER 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)	All Hazards	
ESTIMATED COST	\$15,000-\$30,000	
FUNDING	General Fund, PDM, HMGP	
TIMELINE	5+ years	
PRIORITY	Low	
LEAD AGENCY	Village Board, Region 23 EMA	
STATUS	A second portable backup generator is needed for EOC and shelters during emergency events.	

MITIGATION ACTION		FIRE PREVENTION PROGRAM
DESCRIPTION	The Nebraska Forest Service Wildland Fire Protection Program provides services in wildfire suppression training, equipment, pre-suppression planning, wildfire preventions, and aerial fire suppression.	
HAZARD(S)	Wildfire	
ESTIMATED COST	Varies	
FUNDING	General Funds, NFS	
TIMELINE	1 year	
PRIORITY	High	
LEAD AGENCY	Village Board, Harrison Rural Fire District, NFS	
STATUS	This project is currently in progress. Fire suppression areas of concern and needs are being evaluated by the local fire departments and alongside the CWPP.	

MITIGATION ACTION		PUBLIC EDUCATION/AWARENESS
DESCRIPTION	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc. In addition, purchasing equipment such as overhead projectors and laptops.	
HAZARD(S)	All Hazards	
ESTIMATED COST	\$500	
FUNDING	General Funds	
TIMELINE	5+ years	
PRIORITY	Medium	
LEAD AGENCY	Village Clerk	
STATUS	This is an ongoing project.	

Removed Actions

MITIGATION ACTION		HAZARDOUS FUELS REDUCTION
DESCRIPTION	The Nebraska Forest Service (NFS) Forest Fuels Reduction Program creates/ strategically located corridors of thinned forests across the landscape reduces fire intensity, improves fire suppression effectiveness, increases firefighters safety, and better protects lives and property.	
HAZARD(S)	Wildfire	
REASON FOR REMOVAL	This project is no longer a priority for the village. Removing hazardous fuels in the area is typically the responsibility of the forest service. The Village will continue to identify areas of concern and convey needs to the forest service.	

MITIGATION ACTION		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)	All Hazards	
REASON FOR REMOVAL	This project is not currently a priority for the village.	

MITIGATION ACTION		STORM WATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION	Smaller communities may utilize storm water systems comprising of ditches, culverts, or drainage ponds to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other storm water system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossings can increase conveyance, reducing the potential for flooding. Replacement or modification of bridges may be necessary to provide greater capacity, maintain or improve structural integrity during flood events, and eliminate flooding threats and damages.	
HAZARD(S)	Flooding	
REASON FOR REMOVAL	This project is not currently a priority for the village.	