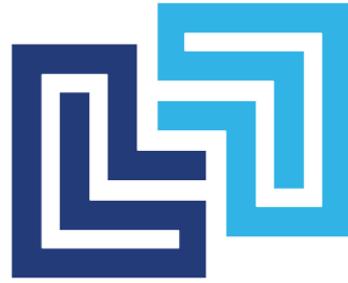


AGENDA ITEM 4C

2021 Papio-Missouri NRD Hazard Mitigation Plan

MEMO



TO: Planning Commission Members

FROM: Pat Dowse, City Engineer

CC: City Council Members and applicable City Staff

DATE: 7/28/2021

RE: 2021 Papio-Missouri NRD Hazard Mitigation Plan

The 2021 Papio-Missouri NRD Hazard Mitigation Plan is the result of participation in the Papio-Missouri River Natural Resources District effort to update the 2016 Multi-Hazard Mitigation Plan. The City Council authorized the participation by the City of La Vista in a resolution approved on June 16, 2020. The purpose of the updated plan is to identify actions that would reduce or eliminate long-term risk to people and property from natural or other hazards and to ensure that each participating community is eligible to receive federal funding under the Hazard Mitigation Grant Program (MGP), Pre-Disaster Mitigation Program (PDM), and the Flood Mitigation Assistance Program (FMA). Updating the plan is required by FEMA in order to maintain eligibility for receiving federal funds.

Participation in this plan is a prerequisite by the Federal Emergency Management Agency to being eligible to receive Federal funds for hazard mitigation projects in the City of La Vista. An example of this is the funds received for the voluntary property acquisition program for Thompson Creek. A print copy of the Table of Contents and La Vista's Community Profile are available for review. La Vista's Community Profile provides an overall description of La Vista's portion of the Plan. The full plan, as a very large document, has not been printed.

The Plan and the associated Community Profiles are available on-line at <https://papiomitigation.org/> for those that wish to review the entire document.

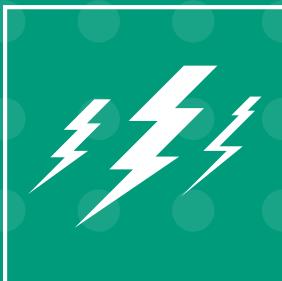
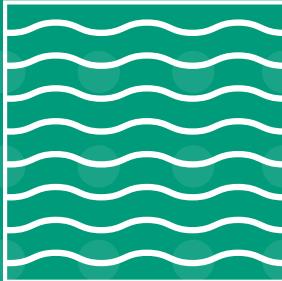
RECOMMENDATION

Staff recommends approval of the 2021 Papio-Missouri NRD Hazard Mitigation Plan



PATIO-MISSOURI RIVER
NATURAL RESOURCES DISTRICT

2021 Papio-Missouri River Natural Resources District



MULTI-HAZARD MITIGATION PLAN



JEO CONSULTING GROUP

Hazard Mitigation Plan Regional Planning Team

NAME	TITLE	JURISDICTION
Aaron Alward	Emergency Management Specialist	Douglas County EMA
Ann Chytka	Highway Superintendent	Burt County
Bryon Miller	Meteorologist	NWS
Dan Douglas	Emergency Manager	Washington County
David Pearson	Senior Hydrologist	NWS
David Six	Emergency Manager, Floodplain Administrator	Burt County
Deanna Hagberg	Emergency Manager	Dakota County
Dirk Petersen	Meteorologist	NWS
Doug Cook	Planning and Zoning Administrator, Floodplain Administrator	Douglas Cook
Jessica Sharf	Hazard Mitigation Specialist	NEMA
Jim Thieler	Public Works Assistant Director	City of Omaha
John Cook	Hazard mitigation Planning Specialist	NEMA
Joseph Green	Recovery Planning Specialist	NEMA
Josie Oliver	Emergency Manager, Floodplain Administrator	Burt County
Lori Laster	Stormwater Management Engineer	P-MRNRD
Lynn Marshall	Emergency Manager	Sarpy County
Mark Stursma	Director of Planning, Floodplain Administrator	City of Papillion
Michael Burns	Zoning Administrator, Floodplain Administrator	City of Valley
Noma Borde	Civil Engineer	City of Omaha
Stacy Gillman	Stormwater Assistant/Deputy Emergency Manager	Douglas County
Rynn Kerkhove	City Planner	City of Omaha
Tom Perez	Emergency Manager	Thurston County
Travis Gibbons	Assistant Planning Director	City of Papillion
Becky Appleford*	Project Manager	JEO Consulting Group
Brooke Seachord*	Project Planner	JEO Consulting Group
Mary Baker*	Resiliency Strategist	JEO Consulting Group

*served in an advisory consultant role

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COMMUNITY PROFILE

CITY OF LA VISTA

Papio-Missouri River NRD
Multi-Jurisdictional Hazard Mitigation Plan Update

2021

Local Planning Team

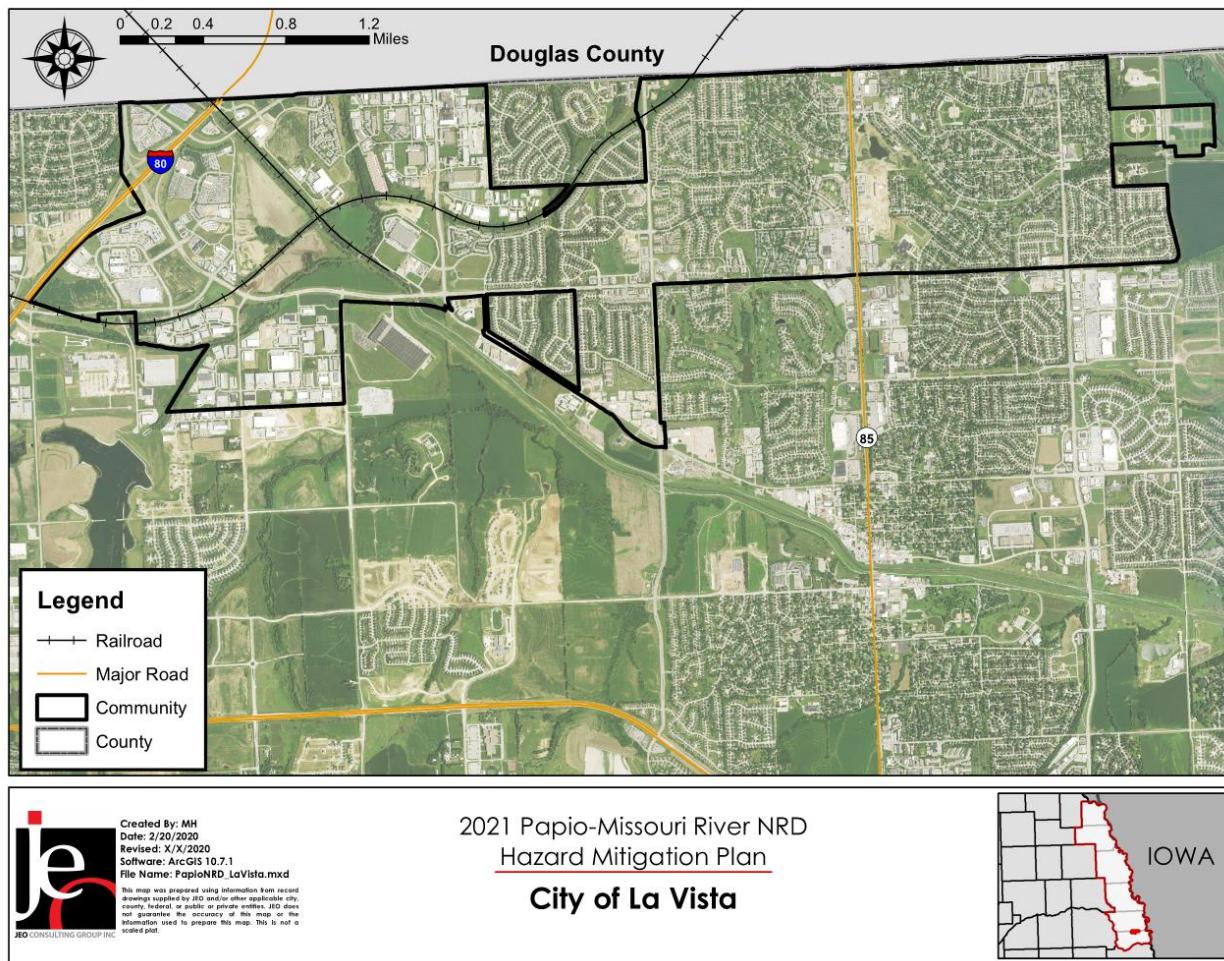
Table LVA.1: La Vista Local Planning Team

NAME	TITLE	JURISDICTION
PAT DOWSE	City Engineer	City of La Vista

Location and Geography

The City of La Vista is located in the northern portion of Sarpy County and covers an area of 5.45 square miles. Major waterways in the area include the Big Papillion Creek, West Papillion Creek, South Papillion Creek, Hell Creek, Thompson Creek, and Applewood Creek.

Figure LVA.1: City of La Vista



Transportation

La Vista's major transportation corridors include 84th Street/Highway 85 and Interstate 80. 84th Street has 24,535 vehicles on average per day, with 980 of those being heavy commercial vehicles. Interstate 80 on the west side of La Vista has 60,535 vehicles on average per day, 9,105 of which are heavy commercial vehicles. Giles Road near Interstate 80 is also of concern for the city due to its location within an industrial area. The road averages 17,140 vehicles a day, with 1,230 being heavy trucks. The local planning team noted that industrial uses are mixed in the area and it is possible some chemical delivery/distribution occurs at certain facilities. Two rail lines go through La Vista – the Burlington Northern Santa Fe railroad and Amtrak. Both are located on

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

Demographics

Historical populations for La Vista are only available since 1970. Since that point La Vista's population has increased steadily. The current estimated population in 2017 was 17,062. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. La Vista's population accounted for approximately 10% percent of Sarpy County's population in 2017.¹

Figure LVA.2: Estimated Population 1890 – 2017



Source: U.S. Census Bureau²

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

- **Older.** The median age of La Vista was 34.8 years old in 2017, compared with the county average of 34.2 years. La Vista's population has grown older since 2010, when the median age was 30.1 years old. La Vista had a smaller proportion of people under 20 years old (28.1%) than the county (30.2%).³
- **Less ethnically diverse.** Since 2010, La Vista had a relatively stable diversity. In 2010, 3% of La Vista's population was Black or African American, 3% was Asian, 2% was other races, and 3% were two or more races. By 2017, about 3.5% of La Vista's population was Black or African American, 1.9% was Asian, 2% was other races, and 2.6% were two or more races. During that time, Sarpy County had: 4% (Black or African American), grew 2% to 3% (Asian), and 3% (two or more races) from 2010 to 2017 respectively.⁴

¹ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

² United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

³ United States Census Bureau. "2017 American Fact Finder: S0101: Age and Sex." [database file]. <https://factfinder.census.gov/>.

⁴ United States Census Bureau. "2017 American Fact Finder: DP05: ACS Demographic and Housing Estimates." [database file]. <https://factfinder.census.gov/>.

SECTION SEVEN: CITY OF LA VISTA COMMUNITY PROFILE

- **Equally likely to be at the federal poverty line.** The poverty rate of all persons in La Vista and Sarpy County was 5.3% in 2017.⁵

Employment and Economics

The city's economic base is a mixture of industries. In comparison to Sarpy County, La Vista's economy had:

- **Similar mix of industries.** Employment sectors accounting for 10% or more of employment in La Vista included Retail Trade and Educational Services 2017. In comparison Sarpy County's included Retail, Professional and Scientific jobs, and Educational Services.⁶
- **Lower household income.** La Vista's median household income in 2017 (\$63,034) was about \$12,700 lower than the county (\$75,752).⁷
- **Fewer long-distance commuters.** About 34.6% percent of workers in La Vista commuted for fewer than 15 minutes, compared with about 28.3% of workers in Sarpy County. About 14.6% of workers in La Vista commute 30 minutes or more to work, compared to about 21.8% of the county workers.⁸

Major Employers

Major employers for the community include PayPal, Papillion-La Vista Public Schools, Offutt Air Force Base, and Embassy Suites. A large percentage of residents commute to other areas in the Omaha metro for work.

Housing

In comparison to Sarpy County, La Vista's housing stock was:

- **Less owner occupied.** About 56.3% of occupied housing units in La Vista are owner occupied compared with 69.6% of occupied housing in Sarpy County in 2017.⁹
- **Smaller share of aged housing stock.** La Vista has fewer houses built prior to 1970 than the county (18.4% compared to 19.8%).¹⁰
- **More multi-family homes.** The predominant housing type in the city is single family detached and La Vista contains more multifamily housing with five or more units per structure than the county (36.0% compared to 17.9%). About 59.8% of housing in La Vista was single-family detached, compared with 74.2% of the county's housing. La Vista has a smaller share of mobile and manufactured housing (0.1%) compared to the county (0.8%).¹¹ The planning team expressed concern that some single-family homes do not have basements for sheltering in the event of a tornado.

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.

⁵ United States Census Bureau. "2017 American Fact Finder: DP03: Selected Economic Characteristics." [database file]. <https://factfinder.census.gov/>.

⁶ United States Census Bureau. "2017 American Fact Finder: DP03: Selected Economic 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: S0802: Means of Transportation to Work by Selected Characteristics." [database file]. <https://factfinder.census.gov/>.

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

¹⁰ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

¹¹ United States Census Bureau. "2017 American Fact Finder: DP04: Selected Housing Characteristics." [database file]. <https://factfinder.census.gov/>.

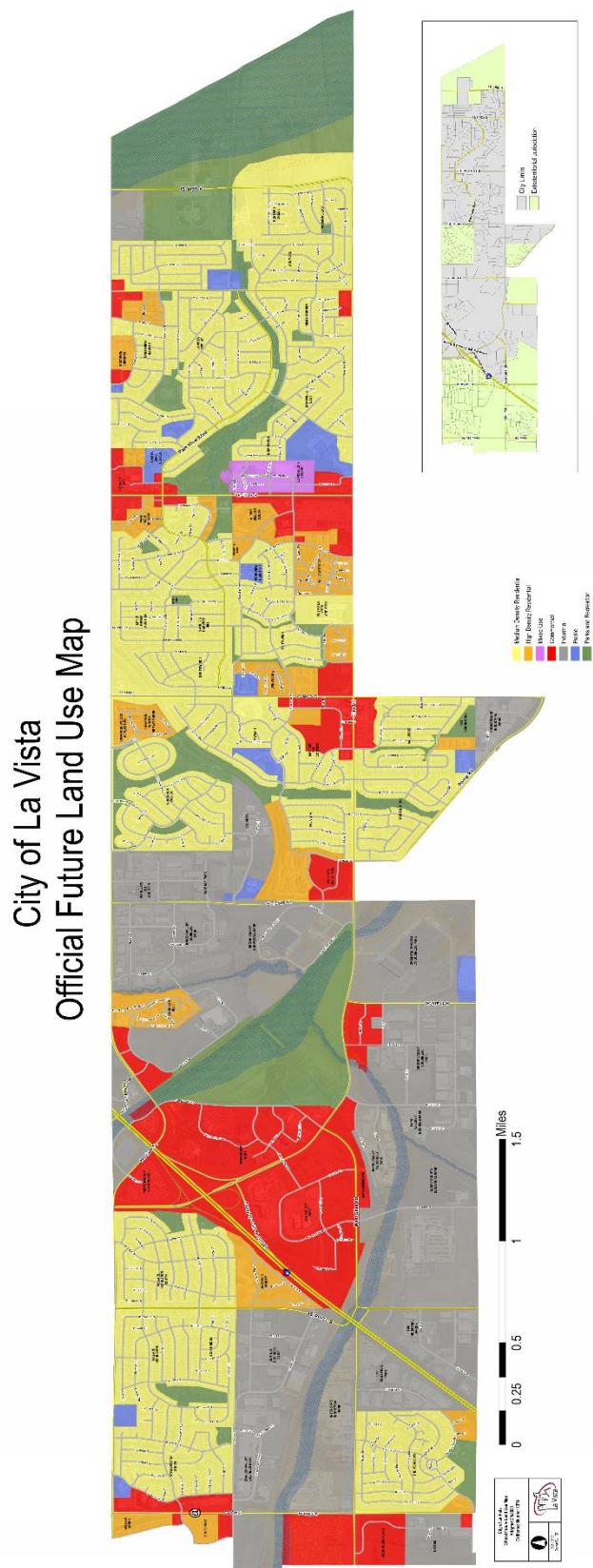
Future Development Trends

A moderate amount of residential and commercial development has taken place over the last five years in La Vista. The planning team indicated that although most of the single-family home lots had already been developed, there has been apartment and multi-family developments occurring in recent years. A redevelopment project near 84th Street and Civic Center Park has been in development and continues to add multi-family housing, office space, and other commercial uses. This area had been made up of blighted and potentially hazard prone commercial properties, but redevelopment may reduce such vulnerability to hazards. There has also been residential, commercial and some industrial development on the western edge of La Vista and in the city's extraterritorial jurisdiction near the Interstate. Most of the residential development is apartment and multi-family housing. The city has a floodplain ordinance to ensure that the floodplain, creek setbacks, and other hazardous areas are taken into account as new developments are proposed.

According to census data, La Vista's population has been growing over the past few decades. The planning team attributes this growth to the city's central location within the Omaha metro area, the short commute times, and the small town feel that tends to attract residents.

SECTION SEVEN: CITY OF LA VISTA COMMUNITY PROFILE

Figure LVA.3: Future Land Use Map



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. Several structures in Jackson have been removed from the floodplain via LOMA. A summary of LOMAs identified for Jackson can be found in the table below.

Table LVA.2: La Vista Parcel Valuation

NUMBER OF PARCELS	NUMBER OF IMPROVEMENTS	TOTAL IMPROVEMENT VALUE	NUMBER OF IMPROVEMENTS IN FLOODPLAIN	VALUE OF IMPROVEMENTS IN FLOODPLAIN	PERCENT OF IMPROVEMENTS IN FLOODPLAIN
4,831	4,622	\$1,390,757,240	100	\$105,309,266	2%

Source: County Assessor

Table LVA.3: La Vista Flood Map Products

TYPE OF PRODUCT	PRODUCT ID	EFFECTIVE DATE	DETAILS
LOMA	12-07-0970A-310192	1/24/2012	Structure removed from SFHA
LOMA	11-07-0265A-310192	10/29/2010	Structure removed from SFHA
LOMA	19-07-0502A-310192	1/22/2019	Structure removed from SFHA
LOMA	16-07-1099A-31092	6/8/2016	Structure removed from SFHA
LOMA	11-07-2472A-310192	10/20/2011	Structure (garage) removed from SFHA
LOMA			Structure (building A) removed from SFHA
LOMA	10-07-1206A-310192	6/24/2010	
LOMA	11-07-0030A-310192	10/29/2010	Property removed from SFHA
LOMA	11-07-0684A-310192	12/20/2010	Property removed from SFHA
LOMA	11-07-1629A-310192	5/19/2011	Structure (north bldg.) removed from SFHA

Source: FEMA Flood Map Service Center

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 12 chemical storage sites in La Vista that contain hazardous chemicals.

Table LVA.4: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS	LOCATED IN FLOODPLAIN?
R & L CARRIERS	10611 Gertrude St	N
UNITED STATES COLD STORAGE INC	10711 Olive St	N
CENTURYLINK	8401 Harrison St	N
OPPD SUBSTATION NO 1255 3455	8905 S 114th St	N
OPPD SUBSTATION NO 928	7717 S 72nd St	N
SHAMROCK CONCRETE CO	9305 S 97th St	N
SALONCENTRIC	11720 Peel Cir	N
YAHOO INC NE1	10917 Harry Watanabe Pkwy	N
NATUREWORKS LLC	11906 Centennial Rd	N
REPUBLIC NATIONAL DISTRIBUTING	8648 S 117th St	N
ENERSYS INC	6944 S 108th St	N
COSTCO WHOLESALe 1237	12515 Portside Pkwy	N

Source: Nebraska Department of Environment and Energy¹²

¹² Nebraska Department of Environment and Energy, "Search Tier II Data." Accessed February 2020. <https://deq-iis.ne.gov/tier2/search.faces>.

SECTION SEVEN: CITY OF LA VISTA COMMUNITY PROFILE

There have been no reported fixed site chemical spills in La Vista, according to the U.S. Coast Guard National Response Center. The planning team expressed some concern about chemical spills due to the various industrial uses in the city. Such spills could impact nearby waterways, facilities, residences, and transportation corridors.

Critical Facilities

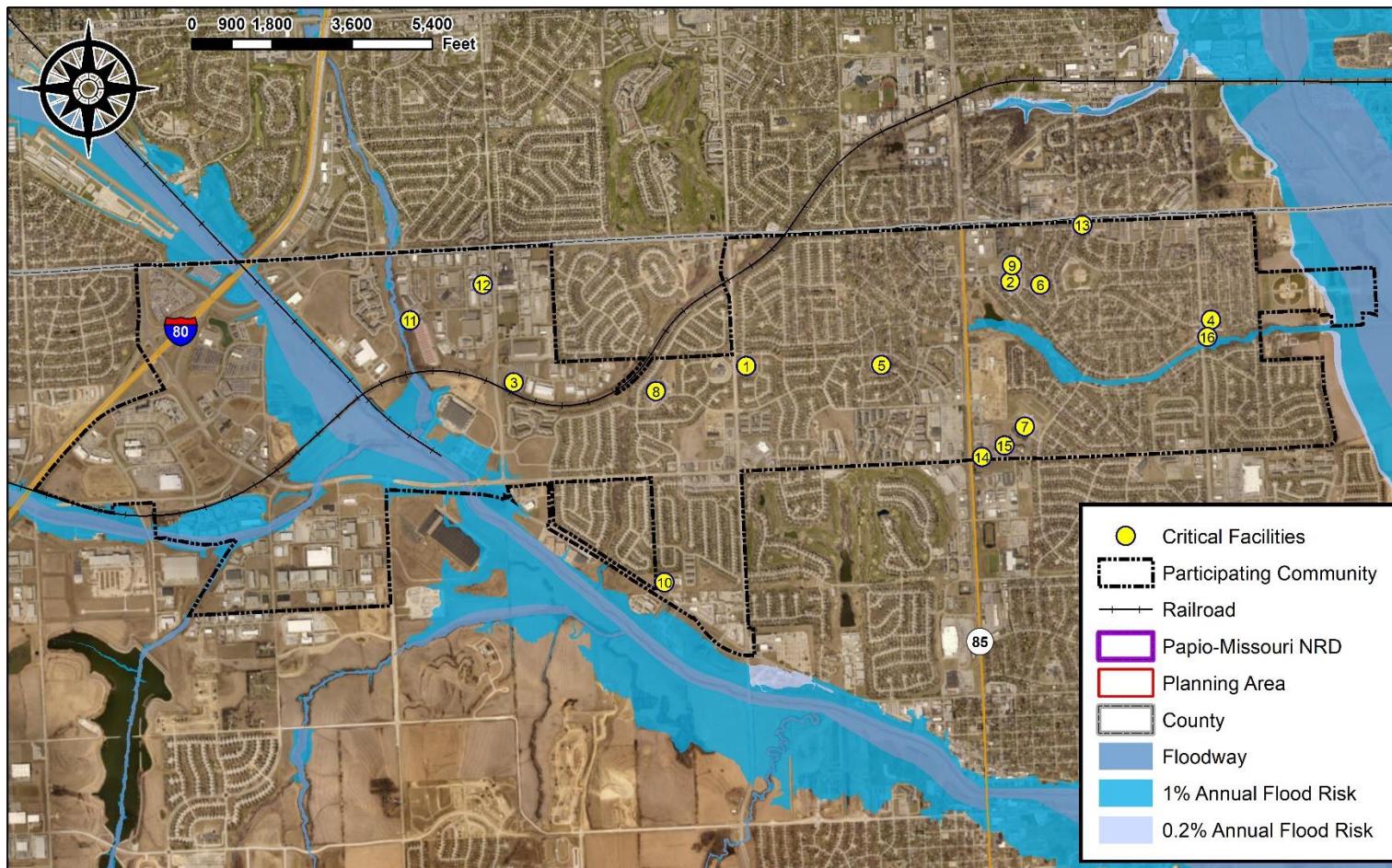
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during 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 LVA.5: Critical Facilities

CF #	TYPE	NAME	SHORT-TERM SHELTER (Y/N)	GENERATOR (Y/N)	FLOODPLAIN (Y/N)
1	Safety and Security	La Vista Police Department	N	Y	N
2	Safety and Security	Papillion Fire 4	N	N	N
3	Safety and Security	Papillion Fire 1	N	Y	N
4	Food, Water, and Shelter	G Stanley Hall Elementary	N	N	N
5	Food, Water, and Shelter	Parkview Heights Elementary	Y	Y	N
6	Food, Water, and Shelter	La Vista West Elementary	Y	N	N
7	Food, Water, and Shelter	La Vista Junior High	Y	N	N
8	Food, Water, and Shelter	Portal Elementary	N	N	N
9	Food, Water, and Shelter	La Vista City Hall and Community Center	Y	Y	N
10	Safety and Security	La Vista Public Works	N	Y	N
11	Food, Water, and Shelter	Brook Valley School South	N	N	N
12	Food, Water, and Shelter	Brook Valley School North	N	N	N
13	Food, Water, and Shelter	MUD Pumping Station	N/A	Unknown	N
14	School Facility	Plps Transportation/Distribution	N	N	N
15	School Facility	Plps Buildings And Grounds	N	N	N
16	Substation	OPPD Substation 928	N/A	N/A	N

Figure LVA.4: Critical Facilities

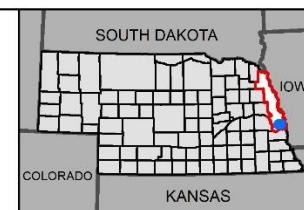


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 Software: ArcGIS 10.7.1
 File Name: PapioNRD_LaVistaCF.mxd

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

2021 Papio-Missouri River NRD
 Hazard Mitigation Plan

**City of La Vista
 Critical Facilities**



Historical Occurrences

See the Sarpy 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 either identified in the previous HMP and determined to still be of top concern or were added by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities.

Chemical Transportation

The local planning team identified chemical transportation as a hazard of top concern. According to the Pipeline and Hazardous Materials Safety Administration, there have been 33 chemical spills during transportation in the city. Fifteen of these spills caused damages ranging from \$700 to \$14,000. None of these spills resulted in injuries or evacuations. The planning team noted a spill in September 2013 that released toxic liquids and caused \$2,000 in damages. This spill was caused by a pallet in the bed of the truck puncturing the drum while in transit. The spill was primarily contained within the truck. According to the local planning team, the transportation routes of most concern are Interstate 80, Giles Road, 84th Street/Highway 85, and 72nd Street. The fire station, city hall, and substation are all located near main transportation routes. The local concern also relates to the proximity of residents to potential chemical spills as well as the quantity and security of these chemicals.

The planning team indicated that continued monitoring and hazmat training for first responders is currently planned to improve the city's response to this hazard. Improvements to the city planning process as it relates to new developments and potential chemical transportation issues are also being planned. The team noted that ongoing monitoring and safe shipping/handling are needed in the future.

Dam Failure

Although dam failure was not a top concern for the city, there is some risk and vulnerability from high hazard dams in the area. There are two high hazard dams in or near La Vista: Thompson Creek and Prairie Queen. The city has an evacuation plan in place for both dams, and emergency housing is available for displaced residents. If one of these high hazard dams were to fail, there would likely be loss of life and housing.

Table LVA.6: High Hazard Dams in La Vista

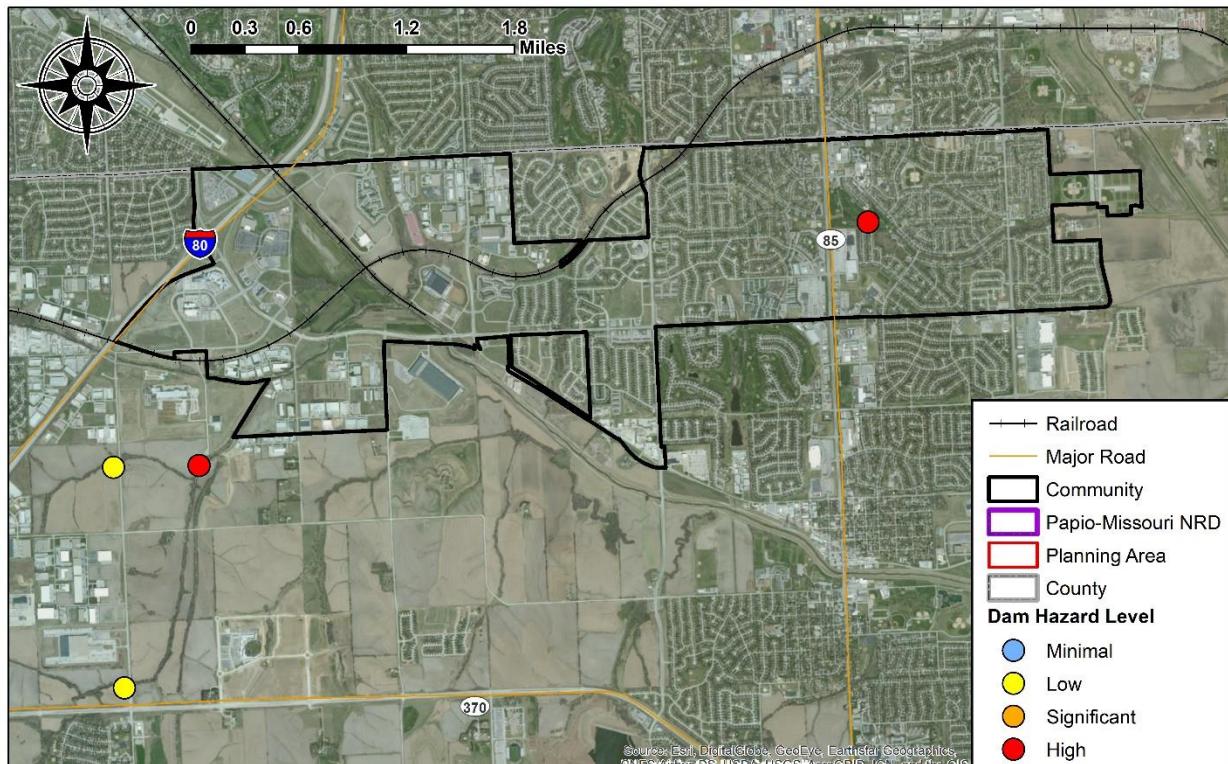
NIDID	DAM NAME	LOCATION	STREAM NAME	OWNER
NE02217	Thompson Creek Dam	La Vista	Thompson Creek	CITY OF LA VISTA
NE05082	Prairie Queen Main Dam	Papillion	Trib. To South Papillion Creek	P-MRNRD

Source: NID

The Papio-Missouri River NRD is currently constructing two dams (WP-6 and WP-7) south of the city on Schram Creek and a tributary to West Papillion Creek. The planning team indicated that the impacts to the City of La Vista appear to be minimal due to their location. The team also indicated that Thompson Creek Rehabilitation Project is in its final phase of design. The project is located downstream from the dam until Edgewood Boulevard and will reshape the banks for floodplain restoration and provide for water quality features. Construction is anticipated within the next five years. Although no other projects were identified by the planning team as being needed

in the future, continued maintenance and inspections are crucial to understanding new needs as they come up.

Figure LVA.5: Dams in La Vista



Flooding

The local planning team identified flooding as a hazard of top concern due to increasing development, which leads to greater runoff. The team was also concerned with flooding as it relates to dam failure. According to NCEI data, there have been no reported flood events from 1996 to November 2019. However, the local planning team noted that low-level neighborhoods can flood during heavy rains. Erosion from heavy rains events have also caused damage to infrastructure. The city continues to monitor and plan for scour issues related to heavy rain events and provides a budgetary item to address minor issues should they arise. The Civic Centre Park Transformation Project was completed recently to transform the city golf course into a city park. The water surface area was increased, and water quality basins were added to treat stormwater runoff from the 84th Street redevelopment area.

The planning team identified two areas of concern for poor stormwater drainage in the city, both along the railroad in central La Vista. Damage to two bridges above Hell Creek, one at Olive Street and the other at Harrison Street, also occurred as a result of flood waters. A sanitary sewer siphon was damaged as well. The planning team noted that the city was spared from most flood-related issues during the 2019 floods. The City of La Vista participates in the NFIP and has 36

SECTION SEVEN: CITY OF LA VISTA COMMUNITY PROFILE

policies in-force for \$10,248,000. There are no repetitive flood loss properties in the city. Sarpy County has a Flood Insurance Study dated May 3, 2010 which includes Bellevue, Gretna, La Vista, Papillion, and Springfield. The study notes principal flood problems include heavy rainfall, snowmelt, or combinations on the Missouri River, Platte River, and the Elkhorn River. Flooding along Big Papillion Creek, Buffalo Creek, Papillion Creek, South Branch Papillion Creek, Springfield Creek, and West Papillion Creek normally occurs from heavy rainfall. The Missouri River historically was a major flood problem for Sarpy County. This, however, has changed considerably since the construction of six dams and reservoirs on the Missouri River in the Dakotas and Montana. The completion of Missouri River Levee Unit R-616 in May 1979 (Reference 13) protects from flooding that part of Sarpy County located downstream from the City of Bellevue extraterritorial zoning limits to Papillion Creek. Missouri River Levee Unit R-613 is located between Papillion Creek and the Platte River. These flood control structures eliminated the threat of a 0.2-percentannual-chance flood from the Missouri River for those areas of Sarpy County and the City of Bellevue landward of these levee systems. However, due mainly to tributary inflow downstream from the main stem dams and ice conditions, those areas of Sarpy County and Bellevue riverward of the levee system are subject to flooding. These areas include agricultural areas, recreational areas, residential areas, and barge terminals. The Platte River has also historically been a major flood problem for Sarpy County. Unfortunately, unlike the Missouri River, few flood control measures exist along the Platte River that reduce flood damages. Ice conditions on the Missouri River, Platte River, and Elkhorn River can also have a significant effect on both the degree of flooding and frequency of flooding in Sarpy County. Flood protection measures primarily include dams, reservoirs, and levees along major waterways. The Papio-Missouri River NRD has had a continuing program since 1968 to construct channel and levee improvements along Papillion Creek and Big Papillion Creek. These improvements are complete from Capehart Road in Bellevue, Nebraska, upstream through Sarpy County except for tie-back levees along Mud Creek, and a short portion on the right bank upstream from the West Papillion Creek confluence. Channel straightening by local interests has occurred on Papillion Creek, Big Papillion Creek, and West Papillion Creek, and on portions of Buffalo Creek, Springfield Creek, Mud Creek, Betz Road Ditch, and Squaw Creek. Tieback levees have been constructed along the downstream portions of Mud Creek, Betz Road Ditch, and Squaw Creek, also by local interests.

Additionally, La Vista is included in the Big Papillion-Mosquito Watershed Flood Risk Report (9/12/2016). The report utilized HAZUS to estimate potential losses for flood event scenarios. For the City of Bennington the inventory estimated value was \$4,327,200,000.

The city has multiple projects planned to improve its response to flooding and reduce its risk of impacts. A project to upsize a culvert crossing at one railroad crossing is currently being planned as well as a project to address drainage issues at the other railroad crossing. A stream degradation study is being completed by the U.S. Army Corps of Engineers, with contributions from the PCWP to analyze and identify potential solutions related to scour and erosion from heavy rain events. The city is also planning to replace a sewer siphon in the coming years to address a scour concern on the east side of the community. Stream stabilization projects within the Hell Creek watershed and the South Papillion Creek watershed were identified by the planning team as being needed in the future.

High Winds and Tornadoes

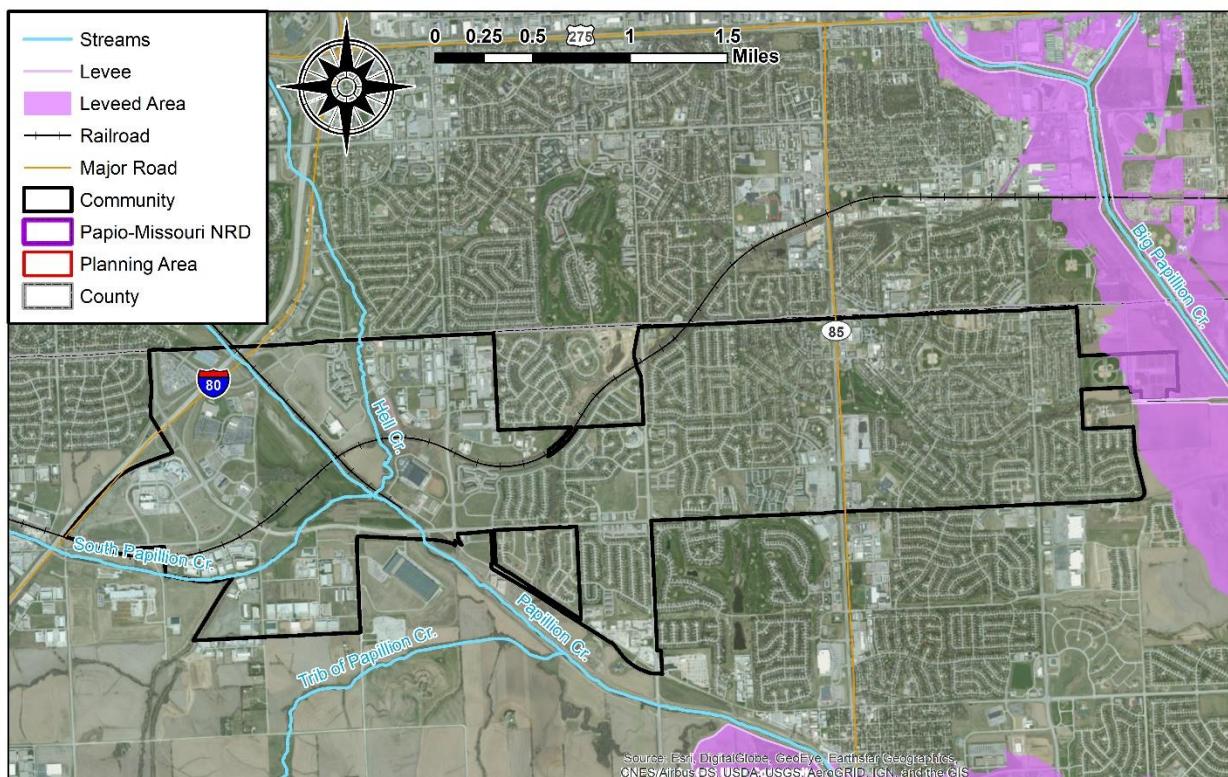
Tornadoes and high winds are common within the planning area and have the potential to cause significant damages, economic impacts, and loss of life. According to the NCEI, there have been 19 high wind events and seven tornadoes in Sarpy County from 1996 to 2019; however, no recorded tornadoes have hit La Vista. The planning team noted that a high wind event in 2017

caused significant tree damage in the city. The damage was extensive enough that a drop-off site was set up for residents to take downed branches and limbs. La Vista Public Works was able to provide mutual aid to the City of Papillion to assist in their storm cleanup efforts as well. The city does not have a community safe room, but the planning team indicated that the city could benefit from such storm shelters and that future city and parks planning efforts should incorporate shelter projects. The need for a regional warning system for cell phones was also expressed. The community backs up municipal records and performs tornado drills regularly. A severe weather notification project was completed by the city in 2014.

Levee Failure

Although the local planning team did not identify levee failure as a top concern for La Vista, there are levee protected areas within the city. The area protected by a levee is contained to the far eastern portion of the jurisdiction. The levees near La Vista are FEMA certified and owned by the Papio-Missouri River NRD. The levees provide 1 percent annual flood risk protection. If a levee was to fail, there would likely be utility and recreation impacts.

Figure LVA.5: Levee Map



Public Health Emergency

Public health emergency is a new hazard of top concern for this plan update. Concerns for public health emergencies stemmed from the development and spread of the novel coronavirus (COVID-19), beginning in 2020. Sarpy County has seen numerous confirmed cases of the virus and

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monitors the virus at the county level. According to the planning team, city policies and plans regarding the pandemic have been updated, reviewed, or are currently being modified. Emergency Declarations have closed many city facilities to the public and nearly all public events have been cancelled. As Directed Health Measures from the state or Sarpy/Cass Health Department are updated, city officials will continue to restrict use or implement policies for public facilities as needed. It is unknown if the current health emergency is a long-term concern, but current issues may have longer term effects on operations and/or policies. No other major disease outbreaks have impacted the city.

Severe Thunderstorms

The local planning team identified severe thunderstorms as a top concern for the city. Severe thunderstorms occur frequently in the planning area and can include heavy rain, strong winds, lightning strikes, and hail. According to NCEI data, 13 severe thunderstorm events were recorded in La Vista from 1996 to November 2019. One storm in June 2014 caused seven and a half inches of rain to fall on the city, resulting in flooding in six residential basements. Hail during these events is also common. The main concern for hail is the cost to repair damaged property, as critical facilities have been damaged in the past. The planning team noted that municipal facilities have been insured for hail. Critical municipal records are stored electronically and protected with surge protectors. A new generator was purchased for Fire Station #4 in 2017; however, other critical facilities such as City Hall are still needing backup power. Weather radios are available in critical facilities. Other projects that reduced risk are the ongoing effort to bury power lines (30 percent complete) and identification of hazardous trees (east of 84th Street). The planning team indicated that continued tree maintenance and ordinance enforcement are needed to minimize tree-related damage.

Social Media Engagement

The Papio-Missouri River NRD launched a “Would You Rather” themed social media campaign during the 2021 HMP update to garner local input on hazard priorities, residential capabilities, and action items residents would like to see the community take in the future to reduce potential impacts from hazard events.

The City of La Vista had 13 reported respondents in the campaign (based upon general zip code analysis). According to those respondents the top hazards of concern for them included: High Winds and Tornadoes, Severe Thunderstorms, and Severe Winter Storms. Some ways residents have indicated they had reduced their personal risk to hazard events included: signed up for emergency alert texts, attended safety related trainings or certifications, and identified safe places in home and work environments for hazard events.

The local respondents noted text alerts are the #1 preferred method of notification for major events, with social media and community website updates are secondary methods. Protecting people and critical facilities, prevent development in hazardous areas, increasing cooperation between emergency response agencies, improving emergency notifications, and emergency are the most important priorities for identifying hazard mitigation projects. Noted actions to improve hazard mitigation in the community included improving the timeliness and volume of emergency alerts and sirens, avoiding development in the floodplain, having one specific resource for emergency notifications/information, and developing a registry of vulnerable adults who may require assistance during hazard events to assist emergency responders or neighbors check in on them.

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. La Vista has a number of offices or departments that may be involved in implementing hazard mitigation initiatives. The city has a mayor, an eight-member council, and the following offices.

- City Clerk
- City Administration
- Police Department
- Public Works
- Library
- Parks and Recreation
- Building Department
- Planning Department
- Finance Department
- Human Resources

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 LVA.7: Capability Assessment

SURVEY COMPONENTS/SUBCOMPONENTS		YES/NO
PLANNING & REGULATORY CAPABILITY	Comprehensive Plan	Yes (2019)
	Capital Improvements Plan	Yes (2019)
	Economic Development Plan	No
	Emergency Operational Plan	Yes (2017)
	Floodplain Management Plan	Yes (2005)
	Storm Water Management Plan	Yes (2019)
	Zoning Ordinance	Yes (2020)
	Subdivision Regulation/Ordinance	Yes (2014)
	Floodplain Ordinance	Yes (2015)
	Building Codes	Yes (2016)
	National Flood Insurance Program	Yes
	Community Rating System	No
	Other (if any)	
ADMINISTRATIVE & TECHNICAL CAPABILITY	Planning Commission	Yes
	Floodplain Administration	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes

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SURVEY COMPONENTS/SUBCOMPONENTS		YES/NO
FISCAL CAPABILITY	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
	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
EDUCATION & OUTREACH CAPABILITY	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	
	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. Ex. CERT Teams, Red Cross, etc.	No
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes
	Natural Disaster or Safety related school programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	

OVERALL CAPABILITY	LIMITED/MODERATE/HIGH
FINANCIAL RESOURCES NEED TO IMPLEMENT MITIGATION PROJECTS	Limited
STAFF/EXPERTISE TO IMPLEMENT PROJECTS	Limited
COMMUNITY SUPPORT TO IMPLEMENT PROJECTS	Moderate
TIME TO DEVOTE TO HAZARD MITIGATION	Limited

Plan Integration

The Local Emergency Operations Plan (LEOP) for La Vista, which was last updated in 2016, is an annex of Sarpy County's LEOP. The LEOP is anticipated to be updated in 2021. It is an all hazards plan that does not address specific natural and man-made disasters. It provides a clear assignment of responsibility in case of an emergency.

According to the planning team, plans and mechanisms that currently incorporate hazards and mitigation include planning and zoning ordinances, subdivision regulations, and building permits. The city will need to continue best practices for city planning, code enforcement, and operations to ensure hazard mitigation is incorporated.

The City's Comprehensive Plan was last updated in 2019. The plan does not discuss natural hazards; however does encourage smart growth, annexation, and future land use designation. The Capital Improvements Plan is updated annually and, as of winter 2020, identified the last phase of Thompson Creek Rehabilitation project programmed. The city's zoning and subdivision ordinances are updated on an as needed basis and limit development in hazardous areas such as the floodplain or near chemical storage sites. The city has adopted the 2012 IBC edition.

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the City Engineer and City Council. The profile was last updated in 2020 after the past City Engineer retired. The Capability Assessment was also updated to reflect changes to Planning and Regulatory Capabilities. The local planning team will review the plan no less than annually and will include the public in the review and revision process by: updating the city website, social media posts, and sharing information at city council meetings open to the public.

Mitigation Strategy

Continued Mitigation Actions

MITIGATION ACTION	BACKUP POWER GENERATOR
DESCRIPTION	Obtain back up power generation for critical facilities especially for the La Vista Community Center
HAZARD(S)	All hazards
ESTIMATED COST	\$500,000
FUNDING	HMGP, BRIC
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Public Works
STATUS	Fire Station #4 was outfitted with a generator in 2017 but other critical facilities still lack backup power capabilities. Facilities plans and needs studies are programmed for the future and could indicate the need for more generators.

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MITIGATION ACTION		BURY POWER LINES
DESCRIPTION	Work with local public power district to bury power lines where feasible High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms \$10,000,000 HMGP, BRIC 5+ years Low Public Works	
HAZARD(S)		
ESTIMATED COST		
FUNDING		
TIMELINE		
PRIORITY		
LEAD AGENCY		
STATUS	Although some power lines have been buried where feasible, a city-wide effort has not started due to lack of funding. Coordination with the power utility continues as development projects occur.	
MITIGATION ACTION		CHANNEL MAINTENANCE AND BANK STABILIZATION
DESCRIPTION	Channel maintenance and bank stabilization for Thompson Creek from 72 nd to 78 th Streets. Hell Creek is prioritized next for maintenance and stabilization. Flooding \$3,000,000 (Thompson Creek); \$6,000,000 (Hell Creek) NET Grant, P-MRNRD Funds, City sales tax revenue 2-5 years High Public Works	
HAZARD(S)		
ESTIMATED COST		
FUNDING		
TIMELINE		
PRIORITY		
LEAD AGENCY		
STATUS	The Thompson Creek project is entering its final phase and will be completed over the next five years. The next phase of the Hell Creek stabilization project has been discussed but is not currently in the CIP.	
MITIGATION ACTION		DEVELOP AN URBAN TREE MANAGEMENT PROGRAM
DESCRIPTION	Develop an urban tree management program especially along city right of ways and parks. Drought and Extreme Heat, High Winds and Tornadoes, Severe Thunderstorms, Severe Winter Storms \$50,000 Sales or property tax if available 5+ years Low Public Works	
HAZARD(S)		
ESTIMATED COST		
FUNDING		
TIMELINE		
PRIORITY		
LEAD AGENCY		
STATUS	The parks department is currently working on a 1 & 5 year tree program to identify tree maintenance and plantings within city-owned property.	

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MITIGATION ACTION		STORM SHELTERS/SAFE ROOMS
DESCRIPTION		Identify, designate, and publicize tornado shelter
HAZARD(S)		High Winds and Tornadoes
ESTIMATED COST		\$50,000
FUNDING		HMPG, BRIC
TIMELINE		2-5 years
PRIORITY		Medium
LEAD AGENCY		Community Services
STATUS		This project has not yet started; however, as public areas are redeveloped or rehabilitated, discussions continue.

MITIGATION ACTION		STORMWATER SYSTEM AND DRAINAGE IMPROVEMENTS
DESCRIPTION		Reduce impacts of stormwater at various locations at major culverts and drainage ditches.
HAZARD(S)		Flooding, Severe Thunderstorms
ESTIMATED COST		\$1,000,000
FUNDING		P-MRNRD Funds, Sales tax if sufficient funds are available
TIMELINE		5+ years
PRIORITY		Medium
LEAD AGENCY		Public Works
STATUS		The city continues to work on minor stabilization projects as they become apparent and works with other agencies on potential stabilization opportunities. Some sanitary and improvement districts (SIDs) within the city's zoning jurisdiction continue to embark on channel stabilization projects.

MITIGATION ACTION		UPGRADE PROBLEM BRIDGES AND CULVERTS
DESCRIPTION		Upgrade problem bridges and culverts. Two bridges on Hell Creek have been identified for upgrades.
HAZARD(S)		Flooding
ESTIMATED COST		\$2,000,000
FUNDING		Sales tax, Bonds, P-MRNRD funds
TIMELINE		2-5 years
PRIORITY		Medium
LEAD AGENCY		Public Works
STATUS		The improvement project near Harrison Street bridge has been completed. The next phase near the Olive Street bridge is being discussed but is not currently in the CIP.

Removed Mitigation Actions:

MITIGATION ACTION		MAINTAIN GOOD STANDING IN THE NFIP
DESCRIPTION		Maintain good standing with National Flood Insurance Program (NFIP) including floodplain management practices/ requirements and regulation enforcements and updates.
HAZARD(S)		Flood
REASON FOR REMOVAL		While the community will continue to participate in the NFIP, this project can be removed as it is considered an ongoing effort.