

Central Platte NRD Hazard Mitigation Plan

August 2017



SECTION SEVEN: PARTICIPANT SECTIONS

PURPOSE OF PARTICIPANT SECTIONS

Participant sections contain information specific to jurisdictions which have participated in the CPNRD planning effort. Information from individual jurisdictions was collected at public and one-on-one meetings and used to establish the plan. Participant sections include: location and geography, transportation, demographics, future development trends, critical facilities, local hazard prioritization, capability assessment, plan integration, and mitigation actions. In addition, maps specific only to each jurisdiction are included such as the critical facilities and hazardous material storage facilities mapped with the floodplain.

The risk assessment and hazard prioritization information, as provided by individual participants, in *Section Four: Risk Assessment* and *Section Seven: Participant Sections* varies due in large part to the extent of the geographical area, the jurisdiction's designated representatives (who were responsible for completing meeting worksheets), identification of hazards, and occurrence and risk of each hazard type. For example, a jurisdiction located near a river may list flooding as highly likely in probability and severe in extent of damage, where a jurisdiction located on a hill may list flooding as unlikely in probability and limited in extent of damage. The overall risk assessment for the identified hazard types represents the presence and vulnerability to each hazard type area wide throughout the entire planning area. The discussion of certain hazards selected for each participant section were prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities. The hazards not examined in depth can be referred to in *Section Four: Risk Assessment*.

PARTICIPANT SECTION
FOR THE
CITY OF LEXINGTON

Central Platte NRD
Multi-Jurisdictional Hazard Mitigation Plan

August 2017

LOCAL PLANNING TEAM

Table LEX.1 provides the list of participating members that comprised the Lexington local planning team. Members of the planning team attended Round 1 and Round 2 meetings, and provided important information including, but not limited to: confirming demographic information, critical facilities, future development trends, hazard history and impacts, identifying hazards of greatest concern, and prioritization of mitigation actions that address the hazards at risk to the community.

Table LEX.1: Lexington Local Planning Team

Name	Title	Department / Organization
Dennis Burnside	Assistant City Manager	City of Lexington
Bill Brecks	Development Services Director	City of Lexington

LOCATION AND GEOGRAPHY

The City of Lexington is located in the south central portion of Dawson County and covers an area of 4.51 square miles. Major waterways in the area include the Platte River, Spring Creek, and Buffalo Creek.

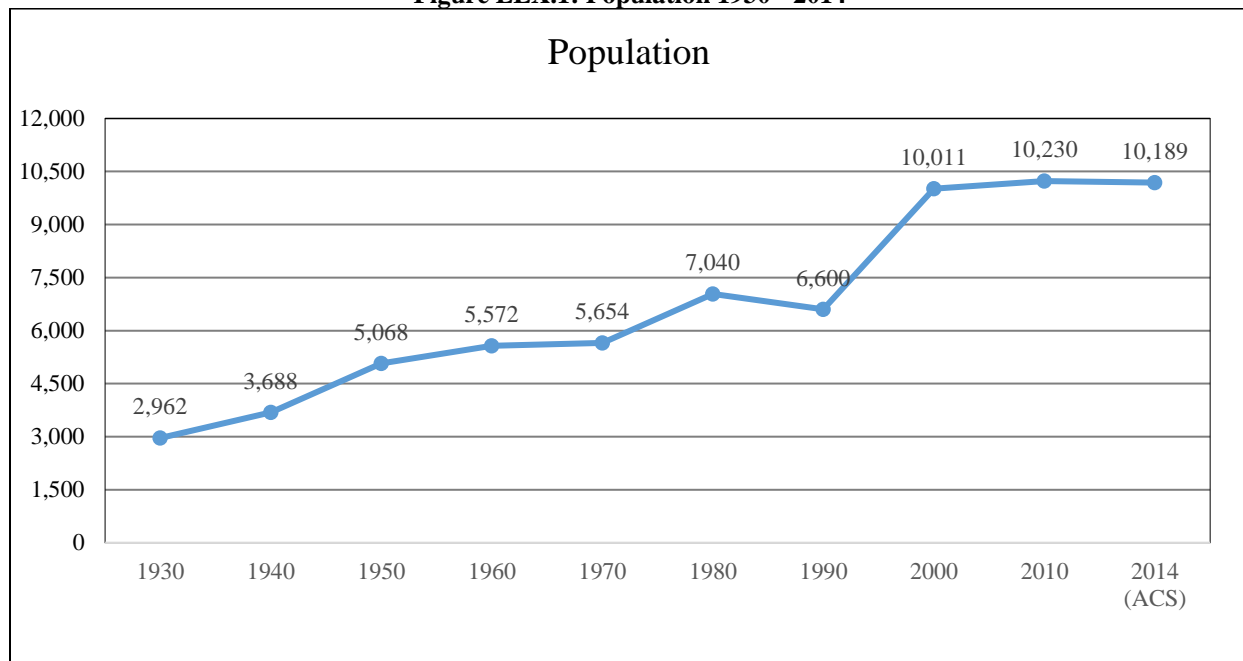
TRANSPORTATION

Lexington’s major transportation corridors include Interstate 80 and Highways 21, 30, and 283. The average daily vehicle load for I-80 is between 15,915 and 16,705 vehicles with 6,960 to 7,585 of those being categorized as heavy commercial vehicles. The average daily vehicle load for highways 21, 30, and 283 are 1,880, 2,970 to 3,140, and 7,810 respectively. Of those counts, 220, 245 to 260, and 475 are categorized as heavy commercial vehicles respectively. Lexington has one major rail line, the Union Pacific Railroad. At Lexington, the line runs parallel to Highway 30 and bisects the City.

DEMOGRAPHICS

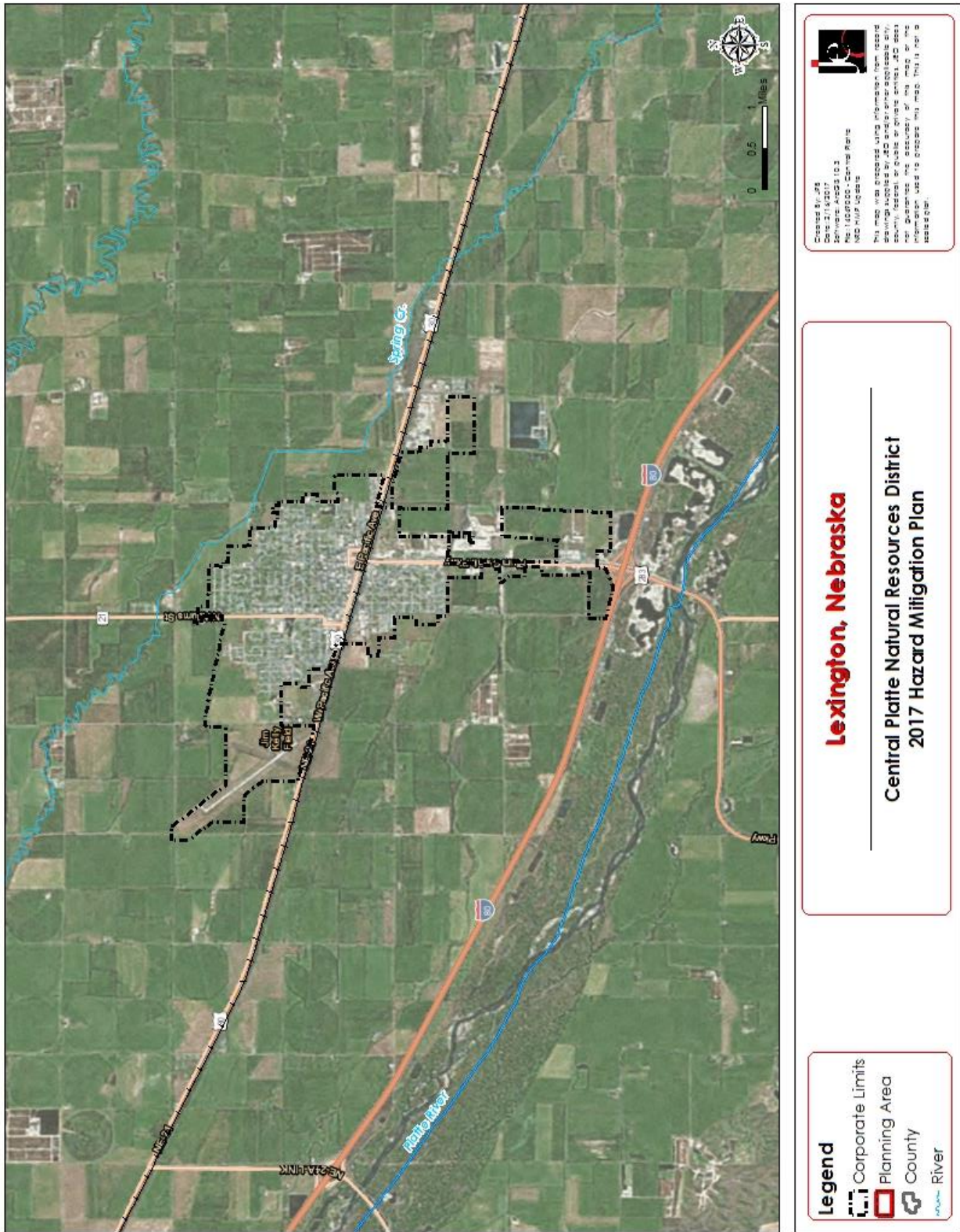
The following figure displays the historical population trend from 1930 to 2014. This figure indicates that the population of Lexington has been increasing since 1930. The significant increase in growth between 1990 and 2000 can be attributed to an increase in the Hispanic population during this time.

Figure LEX.1: Population 1930 - 2014



Source: U.S. Census Bureau

Figure LEX.2: Map of the City of Lexington





 Created by: JRS
 Date: 8/1/2017
 Software: ArcGIS 10.3
 File: 11060000 - Central Platte
 NRD MAP Update

 This map was prepared using information from several
 sources including but not limited to: the City of
 Lexington, Nebraska, and other public entities. The data
 was obtained from these sources and the City of Lexington
 does not guarantee the accuracy of the map or the
 information used to create this map. This is not a
 warranty.

Lexington, Nebraska
 Central Platte Natural Resources District
 2017 Hazard Mitigation Plan

Legend


 Corporate Limits
 Planning Area
 County
 River

The following table indicates the City has a slightly higher percentage of the population under the age of 5, a slightly higher percentage of population between 5 and 64 years of age, and a higher median age when compared to the County and the state. However, Lexington has a lower percentage of its population over the age of 64 as compared to both Dawson County and the state.

Table LEX.2: Population by Age

Age	Lexington	Dawson County	State of Nebraska
<5	9.7%	7.9%	7.2%
5-64	81.0%	78.2%	79.2%
>64	9.3%	13.9%	13.6%
Median	29.3	36.3	36.2

Source: U.S. Census Bureau, 2010, Table DP-1

An important factor in Lexington’s population is the racial composition of the overall population. The following table shows the changes in Lexington’s racial composition from 1990 to 2010.

Table LEX.3: Racial Composition Trends, 1990-2010

Race	1990		2000		2010		1990-2010
	Number	% of Total	Number	% of Total	Number	% of Total	% Change
White, not Hispanic	6,231	94.39%	4,635	46.30%	3,174	31.03%	-63.37%
Black	3	0.05%	32	0.32%	649	6.34%	6.30%
American Indian and Alaskan Native	27	0.41%	76	0.76%	34	0.33%	-0.08%
Other, not Hispanic	10	0.15%	103	1.03%	130	1.27%	1.12%
Two or more races	1	0.02%	5	0.05%	14	0.14%	0.12%
Hispanic or Latino Origin	329*	1.64%	5,121	51.15%	6,183	60.44%	55.46%
Total Population	6,601	100%	10,011	100%	10,230	100%	

Source: U.S. Census Bureau; Lexington Comprehensive Plan 2013

*1990 Census Category White, Hispanic origin is included into the Hispanic or Latino population

The following table indicates that Lexington’s median household income and per capita income are lower than the County’s as well as the state’s. Lexington also has a lower median home value and median rent value.

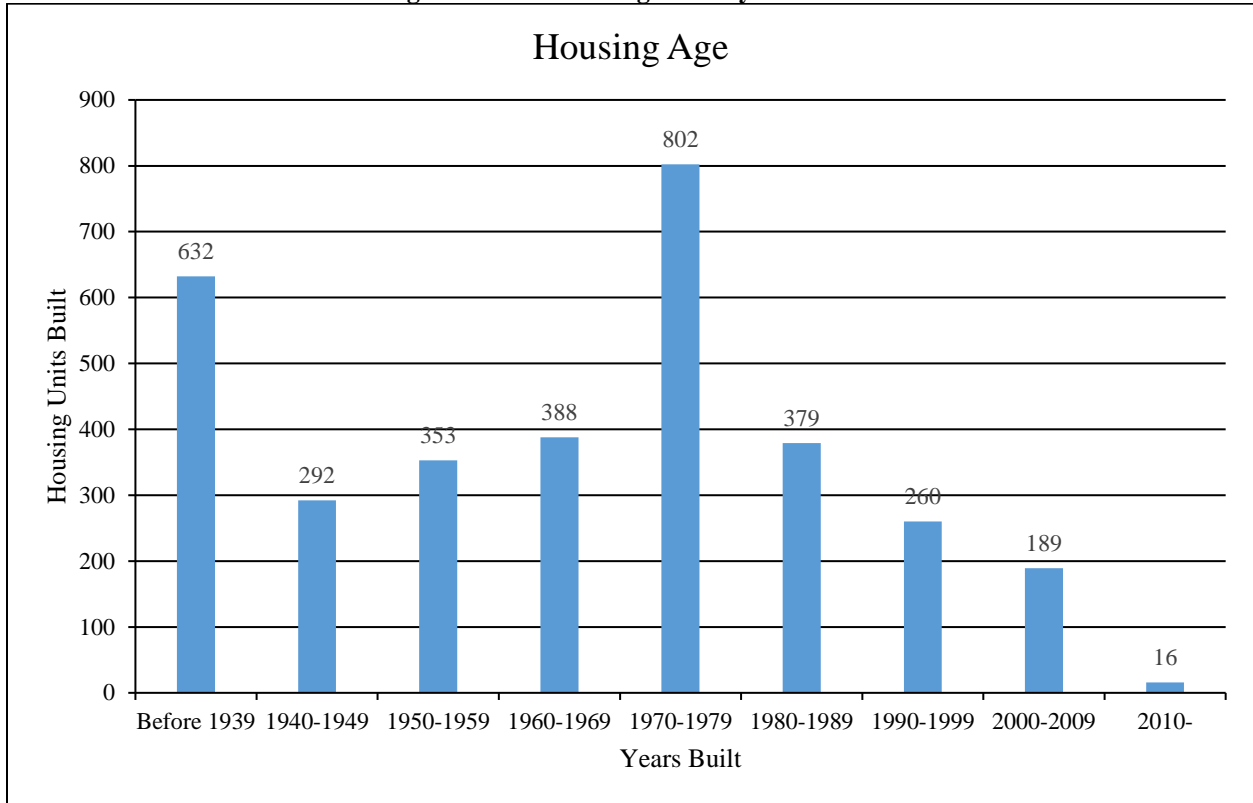
Table LEX.4: Housing and Income

	Lexington	Dawson County	State of Nebraska
Median Household Income	\$44,966	\$56,361	\$52,400
Per Capita Income	\$15,477	\$21,046	\$27,339
Median Home Value	\$82,000	\$89,700	\$130,100
Median Rent	\$653	\$648	\$721

Source: U.S. Census Bureau, 2010-2014 American Community Surveys 5-year Estimates, Table DP03 and DP04

According to 2010-2014 ACS 5-year estimates, the community has 3,311 housing units with 90.4 percent of those units occupied. There are approximately 307 mobile homes in the community, and there are two mobile home parks in the City. Both of the mobile home parks are located near Highway 30 with one at the far east side and one at the far west side. The initial Flood Insurance Rate Map (FIRM) was developed in May 1984.

Figure LEX.3: Housing Units by Year Built



Source: U.S. Census Bureau, 2010-2014 American Community Surveys 5-year Estimates, Table DP04

Table LEX.5: Housing Units

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
City of Lexington	2,994	90.4%	317	9.6%	1,767	59.0%	1,227	41.0%
Dawson County	8,731	86.1%	1,404	13.9%	68.4%	2,761	31.6%	8,731

Source: Selected Housing Characteristics, 2010 - 2014 ACS 5-year Estimates

MAJOR EMPLOYERS

Major employers in the City of Lexington include: Tyson Fresh Meats, Lexington Public Schools, Orthman Manufacturing, Walmart Super Store, and Lexington Regional Health Center. Most of the residents work in the City of Lexington, and do not commute outside the community.

FUTURE DEVELOPMENT TRENDS

In the last five years, development of the southeast business park has attracted Orthman Manufacturing, Volvo Trucks of Lexington, Bauer Built Tires, and six small retailers. A new car lot and True Value Hardware store have been developed farther north on Hwy 283. In 2015, a 22-unit apartment complex was built in the south end of town. New housing developments are growing in the northwest side of town. A new YMCA was built. The hospital and Tyson Fresh Meats are completing major expansions. According to the planning team, job opportunities in manufacturing and meat processing are contributing to Lexington’s growing population. In the next five years, major housing developments are planned for the northwest and southwest sides of Lexington.

Figure LEX.4: Future Land Use Map

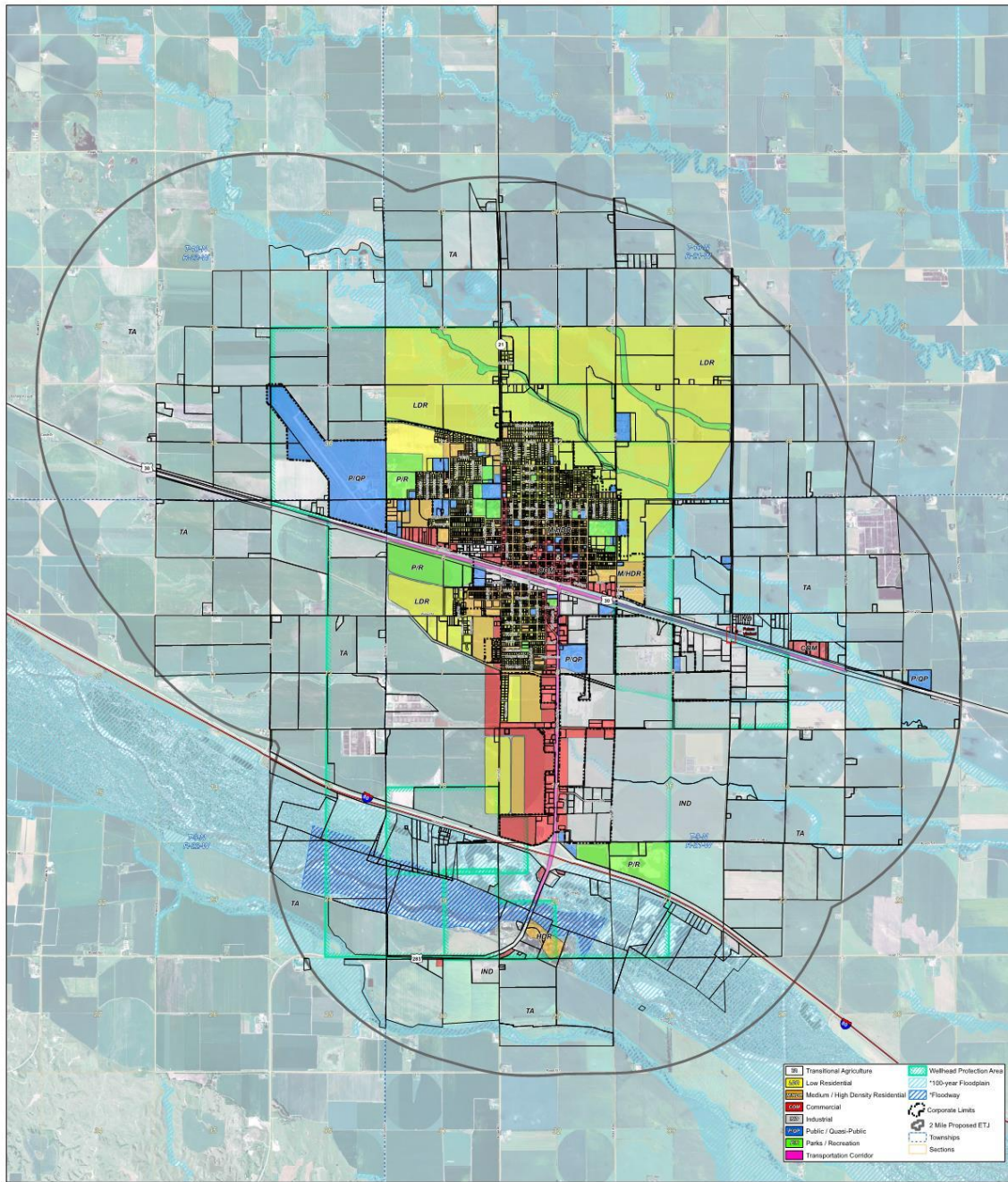
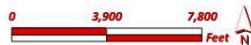


Figure 27: Future Land Use Map, Lexington

City of Lexington
 Dawson County, Nebraska
 Future Land Use Map



Created By: S&B
 Revised By: S&B
 Date: 6/17/2013
 Software: ArcGIS 10
 File: 100999

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HDR

*The 100-Year Floodplain shown on this map are a generalized representation of the Floodplain boundaries shown on the following FRM panels in the 31873C series: 0559A, 0575A adopted on 04/20/05, panel in the 31171C series: 0513C adopted on 1/16/05, panel in the 31947C series: 0444C, 0451C, 463C, 475C, 450C, 0456C, 0459C, 0464C, 0467C, 0470C, 0473C adopted on 9/20/11. The above mentioned FRM panels must be referred to for interpretation of Floodplain areas.

PARCEL IMPROVEMENTS AND VALUATION

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

Table LEX.6: Parcel Improvements

Number of Improvements	Total Improvement Value	Mean Value of Improvements Per Parcel	Number of Improvements in Floodplain	Value of Improvements in Floodplain
2,957	\$163,302,461	\$105,720	598	\$34,099,336

Source: GIS Workshop/Lexington County Assessor

CRITICAL INFRASTRUCTURE/KEY RESOURCES

CHEMICAL STORAGE FIXED SITES

According to the Tier II System reports submitted to the Nebraska Department of Environmental Quality, there are a total of five chemical storage sites that house hazardous materials in Lexington. However, none of the chemical storage sites are located in the floodplain (Figure LEX.5).

Table LEX.7: Chemical Storage Fixed Sites

Facility	Address	In Floodplain?
Tyson Fresh Meats Inc	1500 Plum Creek Pkwy	No
Darling Ingredients Inc	1208 E Walnut St	No
All Points Cooperative	1306 E Walnut St	No
CenturyLink	112 E 7th St	No
Davis Energy Inc	925 W Pacific Ave	No

Source: Nebraska Department of Environmental Quality

HISTORIC SITES

According to the National Register of Historic Places for Nebraska, there are two historic sites located in or near Lexington.

Table LEX.8: National Historic Registry

Site Name	Date Listed	In Floodplain?
Ira Webster Olive House	11/27/1989	No
Dawson County Courthouse	1/10/1990	No

Source: Nebraska State Historical Society, 2016

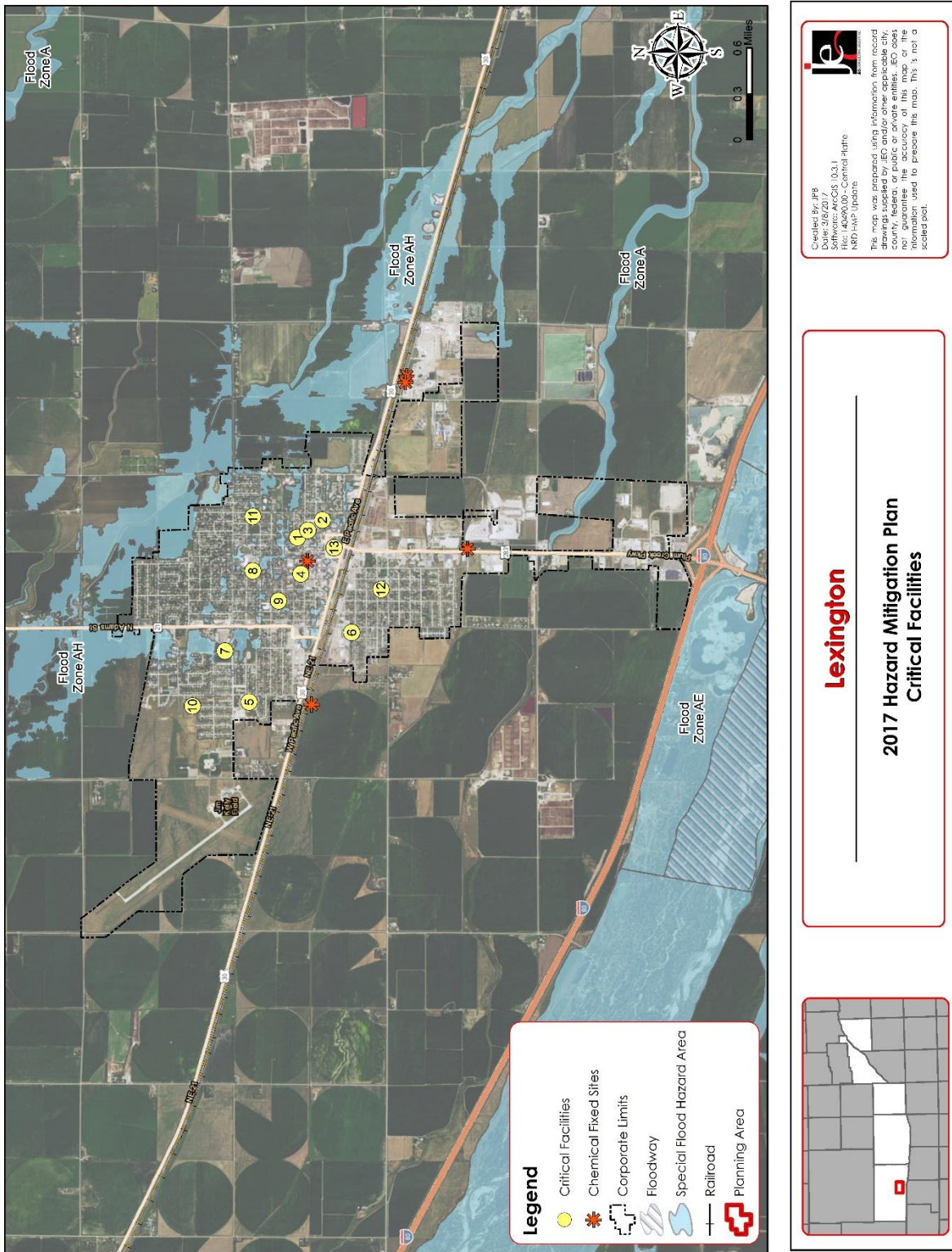
CRITICAL FACILITIES

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

Table LEX.9: List of Critical Facilities in Lexington

CF #	Name	Address	Red Cross Shelter (Y/N)	Generator (Y/N)	Located in 1% Floodplain (Y/N)
1	City Hall/Police	406 E. 7 th Street	N	Y	N
2	Fire Hall	600 N. Tyler Street	N	Y	N
3	Grand Generation Center	407 E. 6 th Street	Y	N	N
4	County Building/Sheriff	700 N. Washington Street	N	Y	N
5	Lexington Regional Health Center	1201 N. Erie Street	N	Y	N
6	City Service Building	801 W. Vine Street	N	Y	N
7	Lexington High School	705 W. 13 th Street	Y	N	N
8	Lexington Middle School	1100 N. Washington Street	Y	Y	Y
9	Bryan Elementary School	1003 N. Harrison Street	Y	N	N
10	Sandoz Elementary School	1711 N. Erie Street	Y	N	N
11	Pershing Elementary School	1104 N. Tyler Street	Y	N	N
12	Morton Elementary School	505 S. Lincoln Street	Y	N	N
13	Wastewater Treatment Plan	1110 E. Industrial Road	N	Y	N

Figure LEX.5: Critical Facilities and Hazardous Materials Storage Facilities with Floodplain



HISTORICAL OCCURRENCES

For a table of historical hazard occurrences, please see the Participant Section for Dawson County.

LOCAL HAZARD PRIORITIZATION

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

Extreme Heat

The local planning team identified extreme heat as a top hazard for Lexington. The community is concerned about the health and safety of at risk populations, the potential strain on the power grid, the safety of livestock, the increased chance for fire and drought, and the earth generally warming. Lexington has most recently experienced extreme heat in the summer of 2016. The community does not have official cooling centers, but Lexington has parks with shelters and shade, and the City is adding a few splash pads. Event cancelation proceeds through various social and traditional media outlets.

The City is concerned with power outages caused by extreme heat. Lexington is working to continually improve their power system. Current hazard mitigation plans include creating a redundant electrical system, and providing backup generators for critical facilities. Currently some faith-based organizations might attempt to aid vulnerable populations, but nothing is in effect yet. Lexington also plans to educate its residents on mitigation and response procedures for extreme heat.

Flooding

The City of Lexington is flanked by floodplain on its north and east sides, and down Highway 30 mostly east of the City’s corporate limits. The planning team identified flash flooding as a top hazard for the City. One of the most significant flood events occurred in May of 2008 as a result of heavy spring rains. This flood event caused water to enter homes, inundate streets, and impacted an electrical substation resulting in a reported \$100,000 in property damages. Lexington was also affected by the massive flooding event in May of 2005 that caused \$3,000,000 in property damages throughout central Nebraska. Flooding during this event left nearly 60 percent of Lexington without power. Stormwater drainage effectiveness varies within the community. Spring Creek is a body of water of concern to the planning team, but a culvert has been renovated to improve its flow past the City. To further mitigate flood damages, Lexington has conducted a floodplain study and FIRM mapping, and adopted floodplain development regulations. Future mitigation plans include raising building codes, updating the City’s Comprehensive Plan, and improving existing physical features by stabilizing banks, deepening drainage ditches, and improving overall drainage.

Lexington has 165 NFIP policies in-force for \$30,867,800. There are no repetitive flood loss properties in the City of Lexington.

The following table is parcel improvement information as provided by GIS Workshop for the community. It indicates that an estimated 20.2 percent of all parcel improvements in Lexington are in the floodplain.

Table LEX.10: Structures in the 1% Annual Flood Risk Area

Value of Improvements in Floodplain	Number of Improvements in Floodplain	Total Number of Improvements in Community	Percentage of Improvements in Floodplain
\$34,099,336	598	2,957	20.2%

Source: GIS Workshop/Lexington County Assessor

High Winds

The local planning team ranked high winds as a top hazard of concern. Lexington is concerned with the potential damage to trees, property, and power lines. NCEI reported 11 high wind events nearing wind speeds of 60 mph since 1996. A high wind event in April of 2010 brought down tree branches that caused power outages throughout the City. The planning team reports that Lexington experiences high winds perennially that down tree limbs. The City's municipal records are backed up, text alerts are available, and the community has safe rooms in the senior center and in the local hospital. To mitigate the hazards associated with high winds, Lexington has maintained membership with Tree City USA for 20 years, and plans to continue tree maintenance with hazardous tree removal, a tree assistance program, a tree care ordinance, and a tree planting program. They also plan to create a redundant electrical system, and educate the public on hazard events.

Severe Thunderstorms

The local planning team selected severe thunderstorms as a top hazard. The NCEI reports 29 severe thunderstorms and one lightning event since 1998, causing \$2,105,000 dollars in damage. Of these, the most damage was caused in July of 2014 when severe thunderstorms, accompanied by hail and strong winds, caused \$1,000,000 in property damage. The community experiences thunderstorms often in the summer, and Lexington is concerned with potential power outages, lightning strikes, and the potential loss of life or property. In September of 2009, lightning struck a dry cleaning business in Lexington, igniting a fire that burned the business to the ground. Critical municipal records are backed up, and most critical facilities have backup generators and weather radios. To mitigate damage caused by severe thunderstorms, Lexington plans to update and improve their tree maintenance programs by maintaining their Tree City USA membership, remove hazardous trees, assist vulnerable populations in their tree maintenance, adopt a tree care ordinance, and plant trees. Lexington also plans to provide backup generators for critical facilities without them and create a redundant electrical system.

Severe Winter Storms

Severe winter storms were selected as a top concern for the City by the local planning team. Half an inch of ice from a storm in December of 2007 was heavy enough to down power lines and trees, precipitating concerns about future losses of power and disabling heating. The community is also concerned with the potential harm to industry, depending on the severity of the storm and conditions of roads. Finally, the planning team feels concern about the delay in emergency response time due to road conditions. The City publishes emergency snow routes online and on local media outlets. There are a few snow fences along main transportation routes. Only about five percent of power lines are buried. The City owns several sander/plows, pickup trucks with blades, front end loaders, and a new snow blower to use for snow removal. Lexington plans to create a redundant electrical system, provide backup generators for all critical facilities, designate snow routes, and improve their snow removal program to further mitigate the hazards associated with severe winter storms.

GOVERNANCE

A community’s governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. The city is governed by a five-member City Council led by a President (mayor). Furthermore, Lexington has a number of offices or departments that may be involved in implementing hazard mitigation initiatives.

- Clerk/Treasurer
- Streets/Parks Department
- Planning Commission
- Housing Authority
- Water and Sewer Department
- Volunteer Fire Department
- City Manager
- Development Services Department
- Community Development Agency

CAPABILITY ASSESSMENT

Thus far, the planning process has identified the major hazards for the community, and described and quantified the vulnerability of the community to these risks by acquiring updated information from FEMA, local jurisdictions, and other sources. The following step, referred to as a capability assessment, assesses what loss prevention or preparedness mechanisms are already in place. Combining the risk assessment with the local capability assessment results in a stronger mechanism for understanding a locality’s “net vulnerability,” and to what extent they are able to implement the identified goals, objectives, and actions.

A two-step approach was applied to conduct this assessment for each participant. First, an inventory of common mitigation activities was developed through the Capability Assessment Survey completed by the participants’ representatives. Four major local capabilities were examined in this assessment, and they are planning & regulatory capability, administrative & technical capability, fiscal capability, and education & outreach capability.

The purpose of this effort was to identify policies and programs that were either in place, needed improvement, or could be undertaken, if deemed appropriate. Second, local existing policies, regulation, plans, and programs were reviewed and evaluated to determine their contributions to reducing hazard-related losses.

Table LEX.10: Capability Assessment

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

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

Table LEX.11: Overall Jurisdictional Capability

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

PLAN INTEGRATION

The following paragraphs provide a summary of the community plans that were analyzed using guidance from FEMA's 2014 *Plan Integration Guide*.

The City of Lexington’s Comprehensive Plan was last updated in 2013, and the goals and objectives in the plan are consistent with those in the Hazard Mitigation Plan. Flooding, water quality, and continuity of electric service are hazards discussed in the Comprehensive Plan. The plan directs developments away from the floodplain, and in future updates, will direct development away from chemical storage facilities. The plan also encourages infill development, clustering of development in sensitive areas, elevation of structures located in the floodplain, and preservation of open space in hazard-prone areas. The City anticipates updating the Comprehensive Plan every five to ten years, and will integrate additional hazard mitigation actions and goals into future updates.

Lexington’s Zoning Ordinance was last updated in 2014. The Ordinance discourages development in the floodplain, identifies floodplain areas as parks of open space, and requires at least one-foot of elevation above base flood elevation in the floodplain. Furthermore, it prohibits development within the floodways, prohibits filling of wetlands, and discourages development near chemical storage sites. It also encourages maintaining open space within the floodplain, limits development in the extraterritorial jurisdiction, and accounts for current population trends.

Lexington has an annex to the Dawson County Local Emergency Operations Plan, last updated in 2014. The plan addresses the hazards of greatest concern, identifies scenarios that would require evacuation and critical evacuation routes, locations to be used for mass sheltering, and provides a clear assignment of responsibility during an emergency.

The City’s Building Codes were recently updated in 2016, and they mention several hazards including fire, flood, chemical, electrical, and environmental. The Codes require mechanical systems to be elevated for structures in the floodplain, requires sewer backflow valves for structures in the floodplain, and outlines proper sump pump installation. They also allow for raingardens in residential areas, encourage the use of permeable surfaces, encourage the use of hail resistant building materials, and require hurricane clips during construction.

The Capital Improvement Program (CIP) was also recently updated in 2016 and is annually updated. The CIP includes several projects such as stormwater projects, regular maintenance for drainage structures, upgrading and regular maintenance of the storm sewer system, and improving transportation routes for drainage. Furthermore, the CIP includes bridge improvements, installing new municipal wells, installation of water meters for residential structures, looping electrical distribution to critical facilities, improving the existing police headquarters, and improving the existing public works facility.

MITIGATION STRATEGY

Completed Mitigation Actions

	Detailed Floodplain Study
Description	The City Manager will draft a letter for the Mayor to sign to be sent to the Head of the Floodplain and Dam Safety Division of NDNR, asking to be considered for this detailed study
Hazard(s) Addressed	Flooding
Funding	General funds
Status	Completed 2011.
Location	Lexington, Dawson County

	Tree City USA
Description	Works to become a Tree City USA through the National Arbor Day Foundation to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program to limit potential tree damage and damages caused by trees in a community when a storm event occurs
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds, Tornadoes
Cost	Tree care program funded at \$2/capita
Funding	General funds
Status	Member for 20 consecutive years.

	Backup Municipal Records
Description	Develop protocol for backing up critical municipal records onto a portable storage device or service; maintain routine backup of records
Hazard(s) Addressed	All Hazards
Cost	\$100 for external hard drive
Funding	General funds
Status	Complete.

	FIRM Mapping
Description	Update FIRM maps to reflect accurate flood inundation areas within the jurisdiction
Hazard(s) Addressed	Flooding
Funding	General funds
Status	Complete.

	Floodplain Regulation
Description	Develop and pass more restrictive floodplain regulations; enhancements may include: limiting types of development within the floodplain, redefining substation loss for impacted homes, and increasing the free-board requirement to more than one-foot above base flood elevation
Hazard(s) Addressed	Flooding
Funding	General funds
Status	Complete.

	Improve Spring Creek Flow
Description	Renovate the culvert near Spring Creek to improve its flow
Hazard(s) Addressed	Flooding
Funding	General funds
Status	Completed 2008.
Location	Spring Creek

Ongoing and New Mitigation Actions

Community Education and Awareness	
Description	Obtain or develop hazard education materials; conduct multi-faceted public education; distribute fact sheets or maps at community events, public schools, other venues and to public and private communication systems; conduct scheduled siren/warning system tests; prepare educational materials listing safe rooms and shelters and evacuation plans; distribute educational materials listing safe rooms and shelters; purchase equipment such as overhead projectors and laptops to facilitate presentation of information
Hazard(s) Addressed	All Hazards
Estimated Cost	\$5,000+
Funding	General funds
Status	In progress.
Timeline	Ongoing
Priority	Medium
Lead Agency	City Administration

Improve Electrical Service	
Description	Evaluate hardening, retrofitting, looping and/or burying of power lines and related infrastructure and/or comparable protection measures; provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails; implement measures to improve electrical service; bury power lines for future construction
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds, Tornadoes
Estimated Cost	\$50,000+
Funding	Enterprise funds
Status	In progress.
Timeline	2-5 years
Priority	High
Lead Agency	City Administration, Electric, and Utility Departments

Hail Resistant Roofing	
Description	Use roofing materials that are resistant to hail impacts for new buildings; retrofit existing buildings with hail resistant roofing; encourage the use of hail resistant roofing for any new constructions
Hazard(s) Addressed	Hailstorms, Severe Thunderstorms
Estimated Cost	\$2/square foot
Funding	General funds
Status	In progress.
Timeline	Ongoing
Priority	Low
Lead Agency	Building Department

Reduce Tree Damage and Damage from Trees	
Description	Conduct tree inventory; develop tree maintenance/trimming program; implement tree maintenance/trimming program; remove hazardous limbs and/or trees
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds, Tornadoes
Estimated Cost	\$50/tree
Funding	General funds
Status	In progress.
Timeline	Ongoing
Priority	Low
Lead Agency	Streets and Parks Departments

	Tree Planting/Assistance
Description	Educate public on appropriate tree planting and establish an annual tree trimming program to assist low income and elderly residents; develop tree planting and maintenance guidelines
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, High Winds, Tornadoes
Estimated Cost	\$3,000, Staff Time
Funding	As funding is identified, Streets and Park Department Funds
Status	In progress – continue education efforts.
Timeline	Ongoing
Priority	Medium
Lead Agency	City Administration and Parks Department, Tree Board

	Improve Warning Systems
Description	Evaluate current warning systems (defined as alert sirens, weather radios, and television, telephone, and radio warning systems, etc.); improve warning systems/develop new warning system; obtain/upgrade warning system equipment and methods; conduct evaluation of existing alert sirens for replacement or placement of new sirens; identify location of weather warning radios; improve weather radio system; obtain/upgrade weather radios
Hazard(s) Addressed	All Hazards
Estimated Cost	\$15,000+
Funding	General funds
Status	In progress.
Timeline	Ongoing; continue to evaluate as city grows
Priority	Medium
Lead Agency	City Administration, Streets Department

	Improve/Provide Adequate Backup and Emergency Generators
Description	Identify and evaluate current backup and emergency generators; obtain additional generators based on identification and evaluation; provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters
Hazard(s) Addressed	All Hazards
Estimated Cost	\$3,500+ depending on site requirements
Funding	General funds, HMGP, PDM
Status	In progress. Some wells still need to be addressed.
Timeline	2-5 years
Priority	Medium
Lead Agency	City Administration, Water Department

	Improve Construction Standards and Building Survivability
Description	Evaluate building standards/codes/requirements; implement new or improved building standards/codes/requirements; educate construction companies on building standards; promote use of higher codes and standards, such as fortified for Safer Living Standard, to provide greater protection for any new construction or building retrofits
Hazard(s) Addressed	All Hazards
Estimated Cost	\$0
Funding	General funds
Status	Evaluation needed.
Timeline	5+ years
Priority	Medium
Lead Agency	Building Department

Update Comprehensive Plan	
Description	Update Comprehensive Plan; integrate plan with Hazard Mitigation Plan components
Hazard(s) Addressed	All Hazards
Estimated Cost	\$100,000+
Funding	General funds
Status	Not yet started.
Timeline	5+ years
Priority	Medium
Lead Agency	City Administration

Evaluate Stream Channelization/Bank Stabilization	
Description	Evaluate current stream bed and bank stabilization needs; implement stream bed and bank stabilization improvements including grade control structures, rock rip rap, vegetative cover, etc.
Hazard(s) Addressed	Flooding
Estimated Cost	\$10,000+ Varies by scope
Funding	General funds, PDM, FMA
Status	In progress. One City lake done.
Timeline	2-5 years
Priority	Medium
Lead Agency	Public Works Department

Improve Drainage	
Description	Improve storm sewers and drainage patterns in and around the community; deepen drainage ditches and clean out culverts
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Funding	As funding is identified
Status	In progress.
Timeline	Ongoing
Priority	Medium
Lead Agency	City Administration, Streets and Water Departments

Tree Care Ordinance	
Description	Pass and enforce a tree care ordinance to improve tree health and to remove dangerous trees and limbs
Hazard(s) Addressed	High Winds, Severe Winter Storms, Severe Thunderstorms, Tornadoes
Estimated Cost	\$0
Funding	General funds
Status	Some ordinances are in place but need to be evaluated.
Timeline	Ongoing
Priority	Low
Lead Agency	Streets and Parks Departments, Tree Board

Develop Emergency Snow/Evacuation Routes	
Description	Develop or improve snow and evacuation routes and programs to include parking, snow/ice/debris removal, etc.; obtain and install snow emergency route and evacuation signs; provide information on emergency routes to the public; construct snow fences where possible on main routes to prevent snow from disrupting transportation
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	\$1,000, staff time
Funding	General funds
Status	In progress.
Timeline	2-5 years
Priority	Medium
Lead Agency	City Administration, Utilities Department

Improve and Revise Snow/Ice Removal Program	
Description	Revise and improve snow and ice removal program for streets; address situations such as plowing snow, ice removal, parking during snow and ice removal, and removal of associated storm debris; improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	Varies
Funding	General funds
Status	In progress.
Timeline	Ongoing
Priority	Medium
Lead Agency	City Administration, Streets Department

Removed Mitigation Actions

Maintain NFIP Participation	
Description	Continue to regulate development in floodplain areas; adopt future floodplain maps when they become available; complete any necessary additional floodplain mapping/remapping
Reason for Removal	City will continue to participate in program, however, this is no longer considered a mitigation action.