SECTION SEVEN: COMMUNITY PROFILES

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WEBSTER COUNTY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

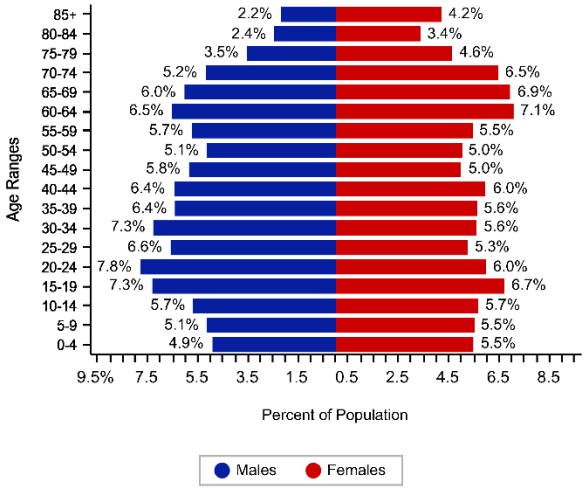
Community Summary Fact Sheet

Webster County, IA

Webster County Iowa Hazard Mitigation Plan 2026

36,737	41.2	15,111	2.22	$173,722	$71,165
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



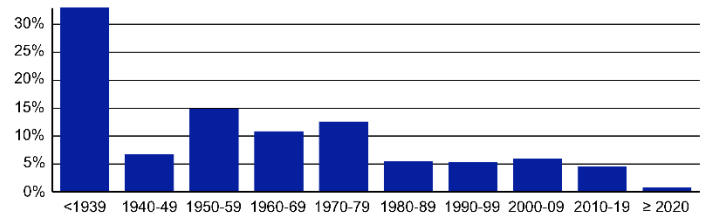
TOTAL POPULATION

2026 Total Population (Estimate)	36,737
2020 Total Population (U.S. Census)	36,999
2010 Total Population (U.S. Census)	38,013
2000 Total Population (U.S. Census)	40,237

AT RISK POPULATIONS

3,983	8,201	1,035	13%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

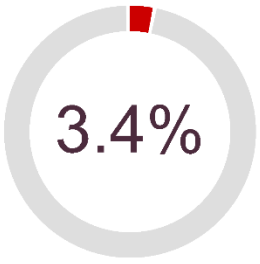
HOUSING: YEAR BUILT



EMPLOYMENT

1,796	5.1%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

1,707	2%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Webster County Local Planning Team

Name	Title	Department	Participation
Dylan Hagen	EMA	Emergency Management	Attended R1, R2
Bob Thode	Supervisor	Board of Supervisors	Attended R1, R2
Austin Hayek	Supervisor	Board of Supervisors	Attended R1, R2
Jeff Johnson	Planning and Zoning Director	Planning and Zoning	Profile Development
Jamie Johll	Engineer	Secondary Roads	Profile Development
Brian Hitchcock	Director of Communication	Communications	Attended R1, R2

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The County profile was last reviewed in 2024 and no revisions or changes were made during the review at that time. The Board of Supervisors and Emergency Management will be responsible for reviewing the County profile outside of the five-year update. The plan will be reviewed annually and the public will be notified through Board meetings and social media.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Webster County Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	2023
	Capital Improvements Plan	Yes	
	Economic Developmet Plan	Yes	
	Emergency Operations Plan	Yes	20% Yearly
	Floodplain Management Plan	Yes	2026
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	2009
	Subdivision Regulation/Ordinance	Yes	2024
	Floodplain Ordinance	Yes	2026
	Building Codes	Yes - State	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	Yes - State	
	National Flood Insurance Program	Yes	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	Yes	2023
Administrative & Technical Capability	Planning Commission	Yes	
	Planner/Engineer (Land Development)	Yes	
	Transportation Planner	Yes	
	Floodplain Administrator	Yes	
	GIS Capabilities	Yes	
	Building Code Official	Yes	
	Civil Engineering	Yes	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	Yes	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Fiscal Capability	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 – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	No	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. (Ex. CERT Teams, Red Cross, etc.)	Yes	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The County plans to increase its capabilities in the near future by hiring a Grant Manager.

Webster County Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	High
Public Support to Implement Projects	Moderate
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

PLANS AND STUDIES

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Floodplain Management Plan	Yes, the HMP has been integrated into the floodplain management plan.

Floodplain and National Flood Insurance Program

Webster County participates and is currently in good standing with the National Flood Insurance Program. Jeff Johnson serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. Floodplain regulations are currently outlined through the Code of Ordinances. The Floodplain Administrator is responsible for enforcing floodplain regulations which—along with information on NFIP standards—are located within the Floodplain Code.

Webster County does not have higher regulatory standards than the NFIP minimum and has not experienced a recent flood event. The County plans to continue its involvement with the NFIP in the future and there are currently no compliance issues between the County and NFIP. Webster County is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. The risk map identified a range between Very Low to Very High risk of flooding for the County form the Middle Des Moines River. Very High risk is identified northwest of Fort Dodge and unincorporated areas throughout the County having primarily Very Low, Low, and Medium risk of flooding. The risk map also notes localized flooding possibilities due to ice jams from the Des Moines River in Fort Dodge.

National Flood Insurance Program Information

Date of NFIP Participation:	**10/1/1985**	**Number of Repetitive Loss Structures:**	5
Number of NFIP Policies In-Force:	17	**Number of Severe Repetitive Loss Structures:**	1
Total NFIP Premium ($):	$24,478	**Number of LOMA/LOMRs**	4
Total NFIP Coverage ($):	$4,079,000	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$65	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$2,577,759		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	25,349	$6,831,274,760	332	$29,463,480	1.3%
500-year			23	$1,473,370	<1%

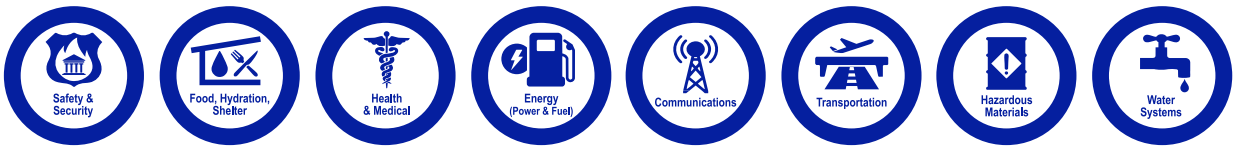
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

In the past five years, no significant growth has happened within the County. No new structures have been developed in the floodplain or other hazardous areas and no new structures have been mitigated for specific hazards. There are new housing developments and businesses/industry plans in the near future, however none will be located within the floodplain or other hazardous areas.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Webster County Community Lifelines

CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Safety and Security	Courthouse	701 Central Ave 1st floor, Fort Dodge, IA 50501	Y	Y
2	Safety and Security	Webster County Law Enforcement Center	702 1st Ave S #2, Fort Dodge, IA 50501	Y	Y
3	Communications	Radio Towers (various)	*Not mapped*		
4	Other	County Sheds (various)	*Not mapped*	N	

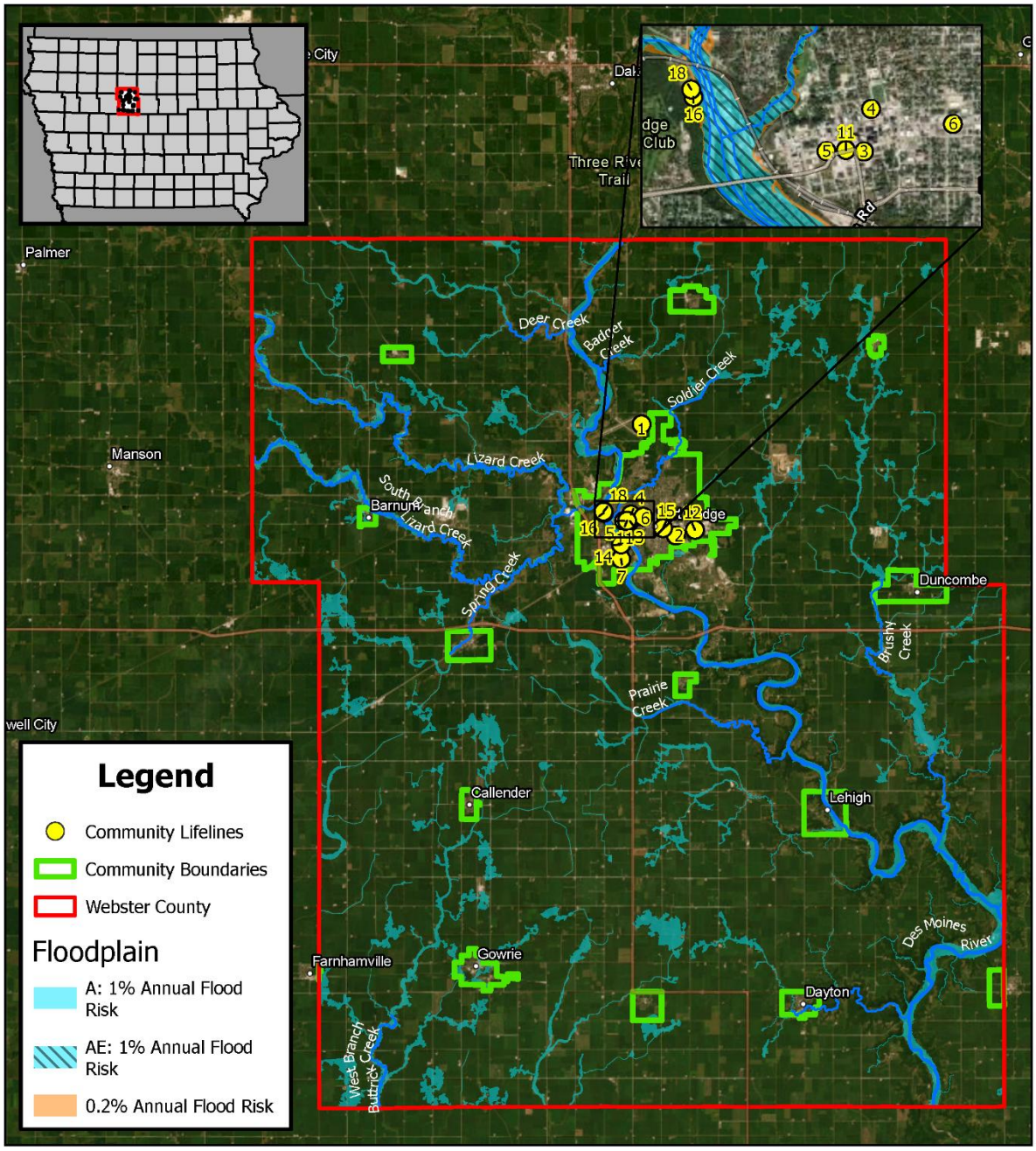
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
5	Health & Medical	Health Department	723 1st Ave South 2nd Floor Fort Dodge, IA 50501	Y	Y
6	Communications	Radio Stations (various)	*Not mapped*	N	N
7	Communications	TV/Internet	*Not mapped*	N	N
8	Water Systems	Xenia Rural Water	23988 141st St, Bouton, IA	N	N
9	Food, Hydration, and Shelter	Fairgrounds	22770 Old Hwy 169, Fort Dodge, IA 50501	Y	N
10	Health & Medical	Unity Point Hospital	802 Kenyon Rd, Fort Dodge, IA 50501	Y	Y

Other Community Assets

The City of Webster County also has numerous other community assets of concern including:

- Bank Building
- County Parks
- County Roads
- Hidden Acres
- Mobile Home Parks
- Various Radio & Transmitter Stations
    - KWMT/KKEZ - Fort Dodge (*has a generator)*
    - KIAQ - Badger
    - KTLB - Pomeroy, IA
    - KXFT - Fort Dodge
    - KVFD - Fort Dodge
    - KZLB - Fort Dodge

Webster County Community Lifelines Map



Created By: SO
Date: 10/25/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP

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.

Webster County Community Lifelines

2026 Webster County Hazard Mitigation Plan Update

N W E S

0 1,500 3,000 Feet

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Webster County has not experienced any major drought concerns in the recent past. However, dry conditions can increase the risk of fires and may lead to the implementation of burn bans. Drought conditions can also increase the need for dust control on gravel roads and raise concerns regarding limited groundwater availability. The primary vulnerability is the potential for fires to become difficult to control and spread rapidly under dry conditions. The County has implemented burn bans and uses public education and messaging to mitigate these risks. Additional mitigation will focus on providing timely notifications to the public regarding dry conditions and associated fire risks.

Mitigation Action	**Hazard Public Education**
Description	Ensuring that the public is aware of and prepared for potential hazards may reduce the amount of hazardous events that might occur. Education for the public may include, but is not limited to radio and television announcements, reading materials and training events.
Hazard(s)	Drought, Extreme Temperatures, Flooding, Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$5,000
Funding	EMA, Grant Funding
Timeline	Over 5 years

Mitigation Action	**Hazard Public Education**
Priority	Medium
Lead Agency	EMA
Status	Work with radio station and local papers to run ads during severe weather week, dry conditions, preparedness month, etc. and attend community events providing informational handouts and visual educational materials.

Mitigation Action	**Acquire an ATV with Tracks**
Description	An ATV with tracks has proven to be the best way to traverse around closed roads due to snow. This action would allow for rescure efforts off-road due to ground conditions from a weather event and also prevents having to manage flat tires.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$50,000
Funding	General Fund
Timeline	2-5 years
Priority	Medium
Lead Agency	Webster County EMA
Status	In progress. EMA has a single cab ATV with tracks and has been used numerous times during weather events and offroad needs. A larger cab is also needed to be able to transport more people.

Extreme Temperatures

Level of Vulnerability: Moderate

Webster County has experienced impacts from extreme temperatures, including power outages and difficulties operating diesel-powered equipment during periods of extreme cold. Extreme

temperatures can also create challenges for heating and cooling locations. Key vulnerabilities include the need to provide sheltering locations and transportation for residents requiring assistance, as well as the potential for power loss to medically vulnerable residents. To mitigate these risks, the County has purchased new fuel nozzles for fuel barrels and had previously taken equipment home to allow it to operate throughout the night when needed. Additional mitigation will focus on ensuring critical facilities have reliable backup power to maintain essential services during extreme temperature events.

Mitigation Action	**Generator Installation for Critical Facilities**
Description	This action is intended to begin the process of acquiring and installing backup generators within critical facilities.
Hazard(s)	Severe Winter Storms, Tornado/Windstorm, Thunderstorms: Lightning & Hail, Extreme Temperatures, Flooding (Flash and Riverine)
Estimated Cost	$50,000
Funding	General Fund
Timeline	2-5 years
Priority	Medium
Lead Agency	Webster County EMA
Status	In progress. Two county shed locations now have generators, including two communication tower sites.

Mitigation Action	**Inform the Public About Alert Iowa/Inspiron**
Description	Alert Iowa/Rave is a service provided to the County to warn residents of potential hazards and threats. Notifications are sent via text message, email and/or phone call. Ensuring that residents are aware of these services will prevent injuries due to oncoming hazards.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Hazardous Materials, Flooding, Tornado/Windstorm, Extreme Temperatures, Grass Fire or Wildland Fire

Mitigation Action	**Inform the Public About Alert Iowa/Inspiron**
Estimated Cost	$5,000
Funding	Local EMA Funding
Timeline	Over 5 years
Priority	Medium
Lead Agency	EMA
Status	In progress. Publish information in local news/radio.paper. Send out mailers to rural residents.

Flooding

Level of Vulnerability: Moderate

The County has experienced several flooding events along the Des Moines River, resulting in road closures, evacuations, home flooding, and streambank failure. To mitigate risk, the Couty has pursued EWP funding and tracks river levels to know what impacts each stage will bring; two dams were also removed in Fort Dodge, though their impact on flooding remains unclear. To further reduce risk, land buyouts and pre-positioned signage for flooding are identified as needs.

Mitigation Action	**Acquire Flood-Prone Property Located Within the Floodplain**
Description	Some properties located within the floodplain of Webster County have experienced substantial damages due to river flooding that has occurred more frequently in recent years. Acquiring and demolishing such properties would ensure that residents and structures are out of harm's way and would reduce and potentially eliminate damages experienced due to river flooding.
Hazard(s)	Flooding
Estimated Cost	TBD
Funding	County Budget
Timeline	Over 5 years
Priority	Low

Mitigation Action	**Acquire Flood-Prone Property Located Within the Floodplain**
Lead Agency	Webster County
Status	Reviewing updated floodplain to see current properties and discuss plans for them in the future.

Grass Fire or Wildland Fire

Level of Vulnerability: High

Webster County has experienced several field/timber fires during dry conditions. The County's key vulnerability is limited volunteers, which can put stress on departments and mutal aid agencies when responding to larger fires.

To mitigate risk, the County has implemented burn bans, outreach, and education. To further reduce risk, fire breaks, communication equipment improvements, and working to identify and coordinate with farmers willing to volunteer to have farm equipment ready to respond are identified as needs.

Mitigation Action	**Interoperable Communication Upgrades**
Description	This action is intended to upgrade communication systems across the County.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$1,000,000
Funding	General Fund, Bonds, 911 Surcharge
Timeline	Over 5 years
Priority	High
Lead Agency	Webster County EMA
Status	In progress. County constructed a radion tower for inoperable communications to enhance coverage along the river valley in communities and state parks. There are still ongoing upgrades that

Mitigation Action	**Interoperable Communication Upgrades**
	will be required to keep the system operational and ensure agencies have the communication equipment they need.

Severe Winter Storms

Level of Vulnerability: Moderate

Webster County has experienced blizzards in the past few years, during which the EMA utilized a tracked ATV to check on stranded motorists due to roads blown shut, along with power outages. The County's key vulnerabilities are power outages and limited access to rural areas via county roads.

To mitigate risk, the Couty issues travel warning and tow bans, provides advance notice of threats, and maintains generators at critical facilities. To further reduce risk, the County plans to purchase additional tracks ATVs and a large snowplower for secondary roads.

Mitigation Action	**Acquire Truck Mounted Snowblower**
Description	This action is intended to help clear and open roads faster after a severe winter storm event.
Hazard(s)	Severe Winter Storms
Estimated Cost	$350,000
Funding	General Fund
Timeline	2-5 years
Priority	High
Lead Agency	Webster County EMA
Status	On hold; awaiting funding.

Sinkholes

Level of Vulnerability: Low

Webster County has experienced several sinkhole events due to undermining. The County's key vulnerability is not knowing when or where these events are going to happen. No mitigation actions have been identified. To reduce risk, the County needs maps of undermined areas and GPS equipment to help map them.

*See **Acquire ATV with Tracks** mitigation action under Drought*

*See **Interoperable Communication Upgrades** mitigation action under Grass Fire or Wildland Fire*

*See **Mobile Command Center** and **COOP/COOG** mitigation actions under Thunderstorms: Lightning & Hail*

Thunderstorms: Lightning & Hail

Level of Vulnerability: Low

Webster County has experienced a large hail storm numerous years ago, along with a lightning strike to communication equipment. Key vulnerabilities include loss of communications and trauma to people caught outdoors during hail storms.

To mitigate risk, the County activates sirens for golf ball-size hail, maintains generator power, and has alarms on tower sites for any system failures or malfunctions. To further reduce risk, additional methods of communication to the public, such as weather radios, are identified as needed.

Mitigation Action	**Mobile Command Center**
Description	A mobile command center would be pre-positioned at requested large scale events and be on site at the location of the disaster. This would house detection equipment for lightning and severe weather events to quickly assist the promoter or organizer to get people to shelter or evacuate.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$120,000

Mitigation Action	**Mobile Command Center**
Funding	General Fund, EMA
Timeline	2-5 years
Priority	Medium
Lead Agency	Webster County EMA
Status	In progress. Obtained quotes and done research on equipment and supplies to equip the mobile command center.

Mitigation Action	**COOP/COOG**
Description	Ensuring an updated coop cog plan for the County will ensure that in the event of a severe weather storm where a department or building has to relocate due to damage, the transition can be seamless and prevents a gap in services.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$2,500
Funding	General Fund, EMA
Timeline	2-5 years
Priority	Medium
Lead Agency	Webster County EMA
Status	In progress. Rought draft of the plan is complete. Departments need to review and determine if any agreements or contracts need to be in place.

Tornado/Windstorm

Level of Vulnerability: Low

Webster County has experienced numerous wind events and several confirmed tornadoes, damaging several farms and limiting access due to downed power poles and lines. Key vulnerabilities include quick-developing storms with short notification time, several camping locations with limited shelters, and poor cell service in some areas.

To mitigate risk, the County utilizes Alert Iowa and has updated its siren activation policy to include winds of 70 mph or greater. To further reduce risk, additional sirens in parks, shelters in mobile home parks and campgrounds, and cell phone boosters are identified as needs.

Mitigation Action	**Build Tornado Safe Rooms in Campgrounds and Recreational Areas**
Description	Tornado safe rooms are critical in protecting residents in public and recreational areas where shelter is not available. Prior to building tornado safe rooms the County should identify feasible spaces for such. Some considerations may include Kennedy Park, Brushy Creek State Park, Harlan Rodgers Park, Webster County Fairgrounds or the OHB Park.
Hazard(s)	Tornado/Windstorm
Estimated Cost	$500,000
Funding	County Budget, EMA, Camping Fees
Timeline	Over 5 years
Priority	High
Lead Agency	Webster County, EMA
Status	Finding appropriate locations within campgrounds for storm shelters. Several utilize brick and mortar shower/bathrooms. Need to evaluate mobile home parks and State parks.

Mitigation Action	**Update Outdoor Warning Sirens**
Description	This action is intended to update existing outdoor warning sirens.
Hazard(s)	Tornado/Windstorm
Estimated Cost	$500,000
Funding	General Fund

Mitigation Action	**Update Outdoor Warning Sirens**
Timeline	Over 5 years
Priority	Low
Lead Agency	Webster County EMA
Status	In progress. Several outdoor warning sirens will need to be updated to ensure they are functioning properly based on current radio activation requirements. Sirens are maintained yearly, however some components are becoming obsolete and will need to be replaced with new sirens.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is identified as a concern for Webster County, with recent impacts from emerald ash borer and HPAI (highly pathogenic avian influenza). The County's key vulnerability is increased tree debris, which has caused numerous multiagency responses to fires. To mitigate risk, the County has contacted the DNR about regulations. To further reduce risk, limiting the size of tree piles and requiring fire breaks are identified as needs.

Dam Failure

Webster County Dams

River	Dam Name	Classification	Type	Owner
Lizard Creek	Low-Head Dam (18396)			
Des Moines River	Low-Head Dam (17423)			
Soldier Creek	Low-Head Dam (22487)			
Des Moines River	Low-Head Dam (22076)			

River	Dam Name	Classification	Type	Owner
Des Moines River	Fort Dodge Mill Dam			City of Fort Dodge
Badger Lake Dam	Badger Creek	Significant		Webster County Conservation Board
Badger Lake Dredge Spoil Dam	Tr- Badger Creek	Low		Webster County Conservation Board
Brushy Creek Dam	Brushy Creek	High		Iowa Department of Natural Resources
Patz Dam	Lizard Creek	Low		Don Patz
Bowden Dam	Tr- Des Moines River	Low		Dean Bowden
Finucan Dam	Tr- Des Moines River	Low		Timothy Finucan
Erickson Dam	Tr-Des Moines River	Low		MV Erickson
Becker Dam	Tr- Des Moines River	Low		Bruce E Becker
Youngren Dam	Tr- Des Moines R.	Low		C Youngren
Donney Dam	Tr-Des Moines R.	Low		T Donney
Hammer Dam	West Branch Lizard	Low		Joe W Hammer
Hidden Acres Dam	Tr- Des Moines River	Low		Hidden Acres Christian Center

Dam failure is identified as a concern for Webster County. A recent concern arose over potential dam failure from erosion, though it was ultimately determined to be a tile issue. Key vulnerabilities include the potential to impact a large number of people in a short amount of time, as well as closure or washout of several roadways near the dams. No mitigation actions have been taken to date. To reduce risk, the County identifies a need for a siren or warning system

for failure at the Brushy Dam, the largest and most impactful dam, which could potentially tie into the existing storm siren system.

Hazardous Materials

The majority of jurisdictions determined that the severity of impact would be limited with minor injuries/illness, short-term property damage, and a minor environmental impact. Fort Dodge concluded that the result of a hazardous material incident would be negligible with few if any injuries and little to no property damage. Fort Dodge has the most critical facilities in a hazard area.

Hazardous materials is identified as a concern for Webster County. A recent event involved a large release of chemicals into field tile and into a creek/river, resulting in fish dying. The County's key vulnerability is fishing, swimming, and outdoor activities near the water.

To mitigate risk, the County worked with the facility to update protocols and stress the importance of immediate notification to public safety in the event of a release. To further reduce risk, shut-offs in the tiles and additional resources for the hazmat team are identified as needs.

Mitigation Action	**Locate Additional Funding for Region V HAZMAT Team**
Description	Region V HAZMAT Team responds to all HAZMAT Events that occur in Webster County. By ensuring that the HAZMAT Team has adequate funding, the County is protecting its residents from further impacts due to HAZMAT events.
Hazard(s)	Hazardous Materials
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Medium
Lead Agency	Webster County, EMA
Status	A portion of the Regional Hazmat Team is funded through the County budget. They County will continue to fund the hazmat team annually and assist with locating additional funding and training opportunities.

Terrorism/Cyber-Attack

Terrorism/cyber-attack is identified as a concern for Webster County. A recent cyber incident occurred at Fort Dodge Community School. The County's key vulnerablity is the potential impact to day-to-day activity, including water, electrical, personal, and financial systems.

To mitigate risk, the County has implemented additional security enhancements to technology. To furth reduce risk, increased training and education, along with additional cybersecurity checks, are identified as needs.

Mitigation Action	**Evaluate and Update Law Enforcement Equipment**
Description	The Law Enforcement's ability to respond to terrorism is strongly dependent on the equipment they have to respond to a multitude of incidents. Forms of equipment may include surveillance equipment, weapons and ammunition, rummage tool kits, etc.
Hazard(s)	Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	County Budget, Grant Funding
Timeline	Over 5 years
Priority	Medium
Lead Agency	Webster County, EMA
Status	Ongoing evaluations, assessments, and current incident reviews across the area prompt new ideas and ways to respond, including new and updated equipment/supplies.

Removed Mitigation Actions

Mitigation Action	**Establish funding for identifying potential targets of terrorism**
Description	Webster County Emergency Management has recognized the need to identify potential targets for terrorism in Webster County; however, the County has yet to overcome the costs that would be incurred to identify all targets. By establishing funding to identify such targets, the County is taking the first step in preparing and protecting potential targets.
Hazard(s)	Terrorism
Status	No longer needed.

Mitigation Action	**Enforce burn bans when in effect**
Description	Placing a burn ban on the County prevents grass and wildland fires that may occur during dry periods. Enforcing such burn bans is just as important to ensuring that grass and wildland fires do not occur.
Hazard(s)	Grass Fire or Wildland Fire
Status	No longer needed.

CITY OF BADGER COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

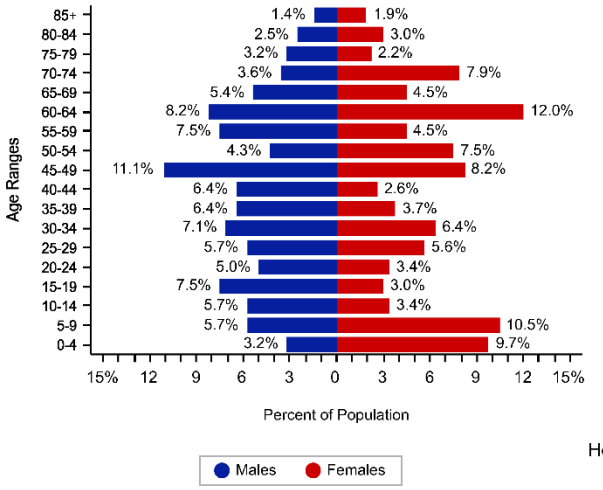
Community Summary Fact Sheet

Badger, IA

Webster County Iowa Hazard Mitigation Plan 2026

547	44.3	236	2.32	$184,239	$103,006
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



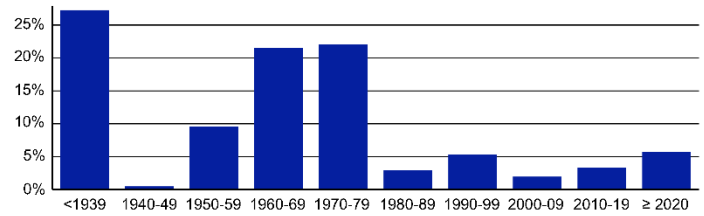
TOTAL POPULATION

2026 Total Population (Estimate)	547
2020 Total Population (U.S. Census)	522
2010 Total Population (U.S. Census)	561
2000 Total Population (U.S. Census)	610

AT RISK POPULATIONS

35	97	6	5%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

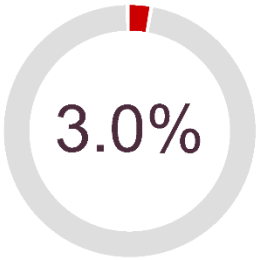
HOUSING: YEAR BUILT



EMPLOYMENT

14	2.2%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

14	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Badger Local Planning Team

Name	Title	Department	Participation
Glenda Rasmussen	City Clerk	Administration	Profile Development
Teresa Larson-White	Council Member	City Council	Attended R1 and R2; Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Badger is located in the northern part of Webster County. The nearest federal highway is U.S. Highway 169 to the west of the City, which runs north-south. Badger is located in between two water channels: Badger Creek to the west and Soldier Creek to the east.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2019, and no revisions or changes were made during the review at that time. The City Clerk and City Council will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed bi-annually and the public will be notified through City Council meetings.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Badger Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	No	
	Capital Improvements Plan	No	
	Economic Development Plan	Yes	2020
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	2014
	Subdivision Regulation/Ordinance	Yes	2019
	Floodplain Ordinance	Yes	2025
	Building Codes	Yes	2025
	Water System Emergency Response Plan	Yes	2022
	Source Water/Wellhead Protection Plan	Yes	2022
	National Flood Insurance Program	Yes	2019

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	Yes	
	GIS Capabilities	No	
	Building Code Official	Yes	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	Yes- MIDAS	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	No	
	Awarded a Grant in the Past	No	
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No- Private Utilities	
	Stormwater Service Fees	Yes	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness,	Yes- county	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	access and functional needs populations, etc. (Ex. CERT Teams, Red Cross, etc.)		
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes-county	
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	Yes	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Siren, Alert Iowa	

The City of Badger is able to increase its capabilities in the future by adopting an Emergency Response Plan, Capital Improvements Plan, and a Comprehensive Plan.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Badger has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Badger updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Zoning Ordinance Year: (2014) Ord. 19-310	The HMP has not been integrated into the zoning ordinance. The current ordinance serves as an urban revitalization plan distinguishing restricted and non-restricted areas.
Floodplain Regulations/ Ordinance Year: (2025) Ord. 25-338	The HMP has not been integrated into the floodplain ordinance
Subdivision Regulations Year: (2019) Badger Ridge Covenants and Chapter 160 (2014)	The HMP has not been integrated into the subdivision ordinances. The subdivision ordinance remained unchanged from the last update in 2014.
Building Codes or Regulations Year: (2025) Chapter 155 and Ord. 25-339	The HMP has not been integrated into the building codes. The building and land use chapters of the 2014 code were updated to add accessible dwelling units (ADU's)
Water System Emergency Response Plan Year: (2022) Badger Emergency Response Plan	The HMP has not been integrated into the water system ERP.
Source Water Protection Plan (2022) Ord. 22-323	The HMP has not been integrated into the source water protection plan.

Floodplain and National Flood Insurance Program

The City of Badger participates and is currently in good standing with the National Flood Insurance Program. The City Clerk serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. Floodplain regulations are currently outlined through the Code of Ordinances. The City Council is responsible for enforcing floodplain regulations which—along with information on NFIP standards—are located within the Floodplain Code. If a major flood event were to occur, the City Clerk would be responsible for determining substantial damages.

The City of Badger does not have higher regulatory standards than the NFIP minimum and has not experienced a recent flood event. The City plans to continue its involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Badger is included in the RISK MAP for *Middle Des Moines Watershed, Iowa* risk map. This risk map is identified Very Low and Low risk of flooding for the City of Badger from the Middle Des Moines River.

National Flood Insurance Program Information

Date of NFIP Participation:	12/04/12	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	278	$51,699,310	0	$0	0%
500-year			0	$0	0%

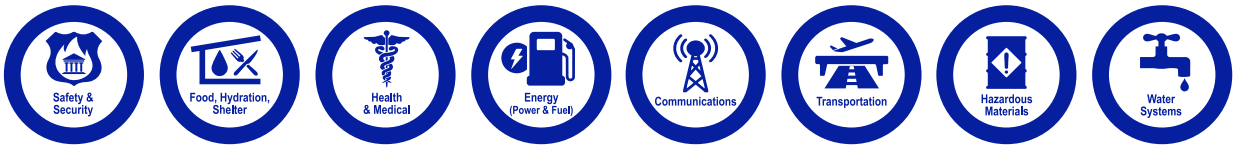
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

Since 2021, seven new houses have been built: six of them in the Badger Ridge subdivision and two are on 6th Street SE. No new structures have been developed within the floodplain or other hazardous areas, and none of the structures have been mitigated for specific hazards. The City of Badger currently does not have any new housing developments or new businesses/industry planned in the near future.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Badger Community Lifelines

CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Safety and Security	Clerk's Office	120 1st Ave SE	N	Y
2	Communications	Post Office	130 1st Ave SE	N	N

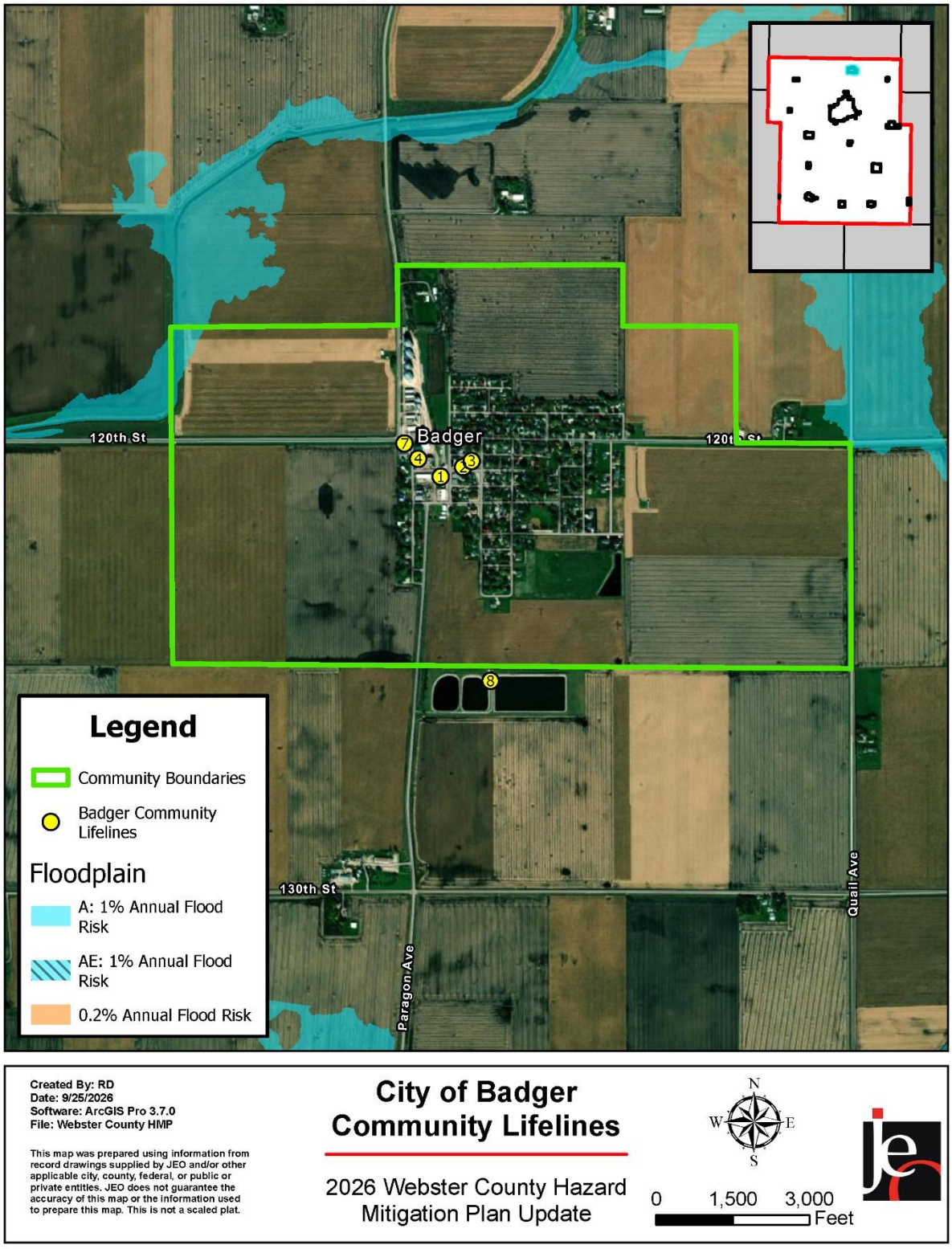
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
3	Safety and Security	Fire & Rescue Station	150 2nd Street SE	N	N
4	Water Systems	Water Plant	73 1st St SW, Badger, IA 50516	N	Y
5	Water Systems	Water Tower—Two Wells	*Not mapped.*	N	N
6	Energy	Power Lines—MidAmerican Energy Company	*Not mapped.*	N	-
7	Safety and Security	City Shop	1st Street & 120th Street	N	N
8	Water Systems	Sewer System Lift Station/Lagoons	P59 Paragon Avenue	N	Y

Other Community Assets

The City of Badger has also identified various other community assets of concern:

- Badger Development—16 Apartments for the Elderly
- Badger Lutheran Church
- Ball Field
- Jones Park
- Knudson Park
- Library Community Center
- Nels Pederson Construction
- W7H Co-Op & Convenience W & H Co-Op
- Water Mains & Fire Hydrants

Badger Community Lifelines Map



***Community Lifelines 5 and 6 are not mapped**

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Moderate

Webster County's agricultural economy depends heavily on available water resources to support the local economy. Prolonged drought conditions reduce stream flows and can strain local water resources, increasing reliance on aquifer supplied wells for crop production and livestock operations. An extended drought can result in reduced agricultural yields, livestock stress, increased feed costs, and broader economic impacts to producers and related businesses. Municipal water systems and domestic wells may also experience strain during sustained dry periods.

Badger's water system draws from wells over 500 feet deep tapping into an aquifer, supported by a Source Water/Wellhead Protection Plan. No specific past drought events with documented dates or property damage have been recorded for the City of Badger. However, drought remains a community-wide risk, with potential impacts to water supply, urban vegetation, and public health, especially during period of high water demand.

During drought events, the City would request voluntary reduced water usage from residents. To further reduce risk, the City will consider adopting an ordinance to formally regulate water usage during drought conditions.

Mitigation Action	**Establish Water Preservation Ordinance**
Description	To ensure that the community does not run out of water during a drought, a water preservation ordinance shall be established. The ordinance will set regulations on the use of water.
Hazard(s)	Drought

Mitigation Action	**Establish Water Preservation Ordinance**
Estimated Cost	Staff time
Funding	General fund
Timeline	2-5 years
Priority	Low
Lead Agency	City Council
Status	Not started. Council would need to decide on ordinance language.

Mitigation Action	**Develop Drought Contingency Plan**
Description	A contingency plan for drought will provide a framework for what the community should do when a drought occurs.
Hazard(s)	Drought
Estimated Cost	$15,000
Funding	General fund
Timeline	2-5 years
Priority	Low
Lead Agency	City of Badger – Water Dept, Webster County EMA
Status	Not started.

Extreme Temperatures

Level of Vulnerability: Moderate

No specific past extreme temperature events with documented dates or property damage have been recorded for the City of Badger. However, the hazard poses meaningul risk to the community: extreme temperatures could place strain on the power grid, and since the City does not currently own its power system—relying on MidAmerican Energy—vulnerable populations, particularly children and the elderly, are at risk of extreme temperature related illness with no reliable place to relocate temporarily.

The City has attempted to open the local library/community center as a shelter during extreme temperature events, but the facility lacks a generator for auxiliary power. To reduce risk in the future, the City has indicated the need for a designated shelter equipped with auxiliary power.

Mitigation Action	**Backup Generator**
Description	Purchase and install an auxillary backup source of power at community center to serve as a cooling center or storm shelter.
Hazard(s)	Extreme Temperatures, Severe Winter Storms, Thunderstorms: Lightning & Hail, Drought, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Tornado/Windstorm, Dam Failure, Terrorism/Cyber-Attack
Estimated Cost	$50,000
Funding	No city funds currently available
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Badger
Status	Not started.

Flooding (Flash and Riverine)

Level of Vulnerability: Low

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

For riverine flooding, the impact on local community assets would not be signifiant with minimal risk to people, property, and community lifelines. The City is not located near any rivers or creeks, however, heavy rainfall could still produce flash flooding and result in property damage, particularly given the City's inadequate storm sewer capacity.

To address this concern, the City has added new storm sewers and a retention pond as part of its most recent housing development projects. Continued risk reduction will require additional storm sewer installation as well as improvements to existing infrastructure.

Mitigation Action	**Expand Storm Sewer System**
Description	Areas of the City experience flash flooding due to an inadequate sewer system. To improve flash flooding in the community, storm sewers should be extended to areas where they may be lacking or inefficient.
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	TBD
Funding	Storm sewer fund/loads/bond issues
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Badger
Status	Not started. This would depend on available funding. A preliminary engineering report is need to determine scale, scope, and cost.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

The City of Badger is surrounded by agricultural land, including crop fields, grassy ditches, and CRP acres, making it vulnerable to fast-spreading grass and wildland fires, particularly during dry, windy spring and fall conditions. Rural homes, farmsteads, outbuildings, livestock, and agricultural equipment are at risk, as is the local agricultural cooperative's grain bins and anhydrous ammonia storage—a critical facility that could be threatened if fire spreads. The community's reliance on the volunteer fire department also means large or multiple incidents may require mutual aid from neighboring departmens.

The Badger Fire Department has strengthened its wildland firefighting capabilities with three dedicated grass/wildland response vehicles: two four-wheel-drive grass rigs with exterior spray nozzles allowing firefighters to attack fires from inside the cab, and a 1,700-gallon tanker supporting water supply in CRP areas, crop fields, and other rural locations. Members also participate in ongoing wildland firefighting and emergency response training. Moving forward,

the department intends to continue this training to maintain and build on its response capabilities.

Mitigation Action	**Enforce Burn Bans**
Description	While burn bans do go into effect at the County level, not all members of the community hear about the ban or simply disregard it; therefore, it has been determined that the City staff and fire department should ensure that no residents are burning waste of any sort while a burn ban is in place.
Hazard(s)	Grass Fire or Wildland Fire
Estimated Cost	Varies
Funding	General fund
Timeline	1 year or less
Priority	High
Lead Agency	City of Badger
Status	In progress. The City informs the public when a burn ban is in effect via website. The City also enforces the ban on burning established by ordinance. A plan of action is needed on how to notify residents a burn ban is in place to prevent debris burning.

Severe Winter Storms

Level of Vulnerability: Moderate

Badger regularly experiences severe winter weather, including heavy snowfall, high winds with blowing snow, and ice. Severe winter storms pose a risk of disupted essential services and public health hazards, including storm damage to property, blocked roads, and disruptions to transportation and emergency response services.

For snow removal, the City relies on a dump truck with a large blade, a pickup with a small blade, and a skidloader, and can contract additional snow removal when support is needed, though at a significant cost. Backup generatores have been installed at the lift station, water plant, and city hall, however, the library/community center used for shelter lacks auxiliary powr. To reduce the impact in the future, the City intends to establish a designated shelter equipped with auxiliary power.

*See **Backup Generator** mitigation action under Extreme Temperatures.*

*See **Promote Alert Iowa** mitigation action under Thunderstorms: Lightning & Hail*

*See **Update Tornado Siren** mitigation action under Thunderstorms: Lightning & Hail*

Sinkholes

Level of Vulnerability: Low

The City of Badger has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Badger is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

Mitigation Action	**Education on Sinkholes**
Description	This action is intended to provide educational opportunities for community members to learn about sinkholes and ways to mitigate them.
Hazard(s)	Sinkholes
Estimated Cost	Staff Time
Funding	General fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Badger City Council, City Clerk
Status	Not started

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Badger experiences periodic severe storm events that may include high winds, lightning, hail, and short-duration heavy rainfall. These storms can cause property damage, power outages, and transportation disruptions. Lightning associated with severe storms can also serve as a significant source of wildfire ignition under dry conditions. Intense rainfall during storms may contribute to localized flooding, particularly in areas of poor stormwater drainage. While severe storms occur periodically, their impacts are generally localized and short-lived.

The primary vulnerabilities to this hazard are property damage and power outages. To mitigate risk, the City has installed backup generators at the lift station, water plant, and city hall. To reduce risk in the future, the City intends to establish a designated shelter equipped with auxiliary power.

Mitigation Action	**Promote Alert Iowa**
Description	Alert Iowa is a notification system that Webster County uses to inform residents and businesses of potential hazards that may occur. Citizens simply supply their phone number and call preferences to be informed of hazards that may occur. The hazard mitigation team committee determined that more members of the community should be members of Alert Iowa and that it is the City's responsibility in informing residents of the available service.
Hazard(s)	Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Flooding (Flash and Riverine), Extreme Temperatures
Estimated Cost	Staff Time
Funding	General fund
Timeline	1 year or less
Priority	Medium
Lead Agency	City Clerk, Webster County EMA
Status	In progress. The City distributes information on how to sign up when given the information by the county/EMA.

Mitigation Action	**Update Warning Siren**
Description	This action is intended to update warning sirens

Mitigation Action	**Update Warning Siren**
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Flooding (Flash and Riverine)
Estimated Cost	$30,000
Funding	General fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Badger - Maintenance
Status	This is a new mitigation action

Tornado/Windstorm

Level of Vulnerability: Moderate

Key vulnerabilites of a tornado/windstorm event include potential property damage, power outages, loss of life, and the presence of homes without basements, which limits available shelter options.

To mitigate risk, the City has installed backup generators at the lift station, water plant, and city hall, and maintains an outdoor warning siren conncted to the county/NWS alert system. To further reduce risk in the future, the City intends to establish a designated shelter equipped with auxiliary power.

Mitigation Action	**Build Tornado Safe Room**
Description	A tornado safe room can be constructed inside a building and would be used to protect residents and people passing through during a tornado event.
Hazard(s)	Tornado/Windstorm
Estimated Cost	Varies by Scale
Funding	Unknown
Timeline	2-5 years

Mitigation Action	**Build Tornado Safe Room**
Priority	Medium
Lead Agency	City Council and Webster County EMA
Status	Not started. Funding sources would have to be determined.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is a concern for the community, primarily due to emerald ash borer infestation, which has left many of the City's ash trees dead or dying. In response, the City has removed all ash trees on city property and is working toward an ordinance requiring removal of infected ash trees on private property. However, further tree removal is still needed, and cost remains a barrier for many residents who can not always afford removal on their own.

Mitigation Action	**Tree Removal Ordinance**
Description	Develop a tree removal ordinance regarding trees impacted by Emerald Ash Borer. Investigate potential funding opportunities for impacted homeowners.
Hazard(s)	Animal/Crop/Plant Disease
Estimated Cost	*$35-60K to residents*
Funding	No city funding; this would be the property owners' responsibility
Timeline	1 year or less
Priority	High
Lead Agency	City Council
Status	Currently working on an ordinance.

Dam Failure

There are no dams which a failure would impact the City of Badger. No dam inundation areas extend into the jurisdiction. Thus, dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

No mitigation or resiliency actions were identified at this time for the jurisdiction.

Hazardous Materials

The City of Badger identifies hazardous materials as a concern, with a historical anuual probability of 51-75% and an estimated 51-75% of people and property potentially affected during an event; however, the anticipated severity is considered negligible, with few if any injruies and little to no property damage expected. No specific past events were documented. As a farming community, the City's vulnerability stems from the regular transport of chemicals through town and its proximity to a gas pipeline.

To mitigate this risk, the fire department is trained in hazardous materials response. Continued HazMat training is identified as the primary need going forward to further reduce risk.

Mitigation Action	**Firefighter HAZMAT Training**
Description	Ensuring each member of the fire department has the necessary training to address hazardous materials spills or leaks due to fixed facilities or transportation is important in protecting the residents of Badger from experiencing great impacts due to such incidents. Different organizations provide such training that each member of the fire department should attend yearly.
Hazard(s)	Hazardous Materials
Estimated Cost	TBD
Funding	Fire department fund
Timeline	1 year or less
Priority	Medium
Lead Agency	Badger Fire Department
Status	In progress. The Badger Fire Department has ongoing HaZmat training.

Terrorism/Cyber-Attack

The City of Badger believes less than 25% of the community would be affected by a terrorism/cyber-attack event and does not identify this hazard as a current concern. No past events or specific vulnerabilities were documented. However, the City has taken some mitigation steps: the city hall computer system, along with the lift station and water plant controls, operate as standalone systems with no network connection, and the City carries cyber insurance. No further risk reduction needs were indentified.

No mitigation or resiliency actions were identified at this time for the jurisdiction.

Removed Mitigation Actions

Mitigation Action	**Promote Use of Weather Radios**
Description	Weather radios are another form of warning for individuals and households. The radios alert residents when storms are occurring nearby. The hazard mitigation committee determined that the community should be informed and encouraged to purchase weather radios so all households have adequate warning for hazards.
Hazard(s)	Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Flooding (Flash and Riverine), Extreme Temperatures
Status	No longer needed. Community was informed and encouraged to purchase weather radios, but with newer cell phone apps and other newer technology sources where they can gain that information, we no longer feel we need to keep reminding them

Mitigation Action	**Winter Weather Education**
Description	Ensuring the public has been informed on how to prepare for and react to severe winter storms is critical in keeping them safe. Providing precautions on driving, staying warm, etc. will assist in protecting residents of Badger from severe winter storms.
Hazard(s)	Severe Winter Storms
Status	No longer needed. Many other news sources and such relay this information to residents.

CITY OF BARNUM COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

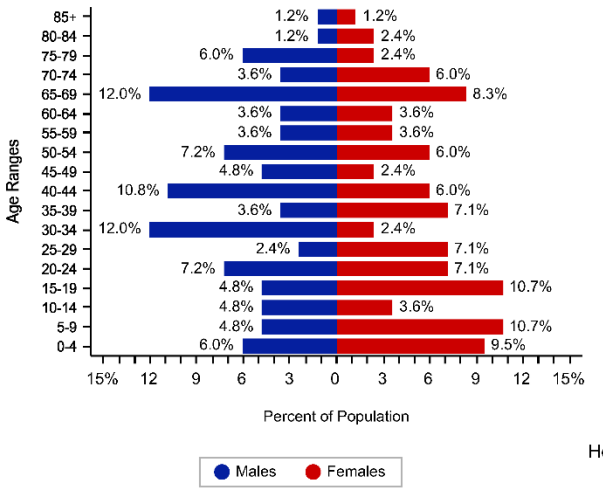
Community Summary Fact Sheet

Barnum, IA

Webster County Iowa Hazard Mitigation Plan 2026

167	38.1	69	2.42	$247,222	$75,928
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



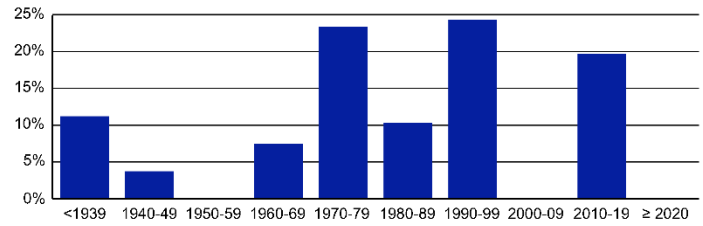
TOTAL POPULATION

2026 Total Population (Estimate)	167
2020 Total Population (U.S. Census)	175
2010 Total Population (U.S. Census)	191
2000 Total Population (U.S. Census)	195

AT RISK POPULATIONS

11	37	2	4%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

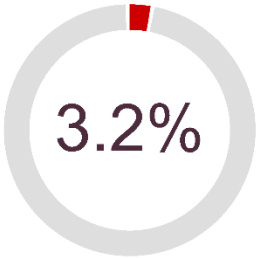
HOUSING: YEAR BUILT



EMPLOYMENT

6	1.1%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

12	1%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Barnum Local Planning Team

Name	Title	Department	Participation
Christy Bower	City Clerk	Administration	Attended R1 and R2
Cassie Dillon	Mayor	Administration	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Barnum is located in the northwestern part of Webster County, off of Highway 7 to the north. The south branch of Lizard Creek runs through the City moving east to northwest.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2019, and no revisions or changes were made during the review at that time. The City Clerk and Mayor will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed bi-annually and the public will be notified through City Council meetings.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Barnum Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	No	
	Capital Improvements Plan	No	
	Economic Development Plan	Yes	2017
	Emergency Operations Plan	Yes	
	Floodplain Management Plan	Yes	
	Stormwater Management Plan	Yes	
	Zoning Ordinance	Yes	
	Subdivision Regulation/Ordinance	Yes	
	Floodplain Ordinance	Yes	
	Building Codes	Yes	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	
	National Flood Insurance Program	Yes	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	No	
	GIS Capabilities	No	
	Building Code Official	No	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	No	
	Awarded a Grant in the Past	No	
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	No	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	No	
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	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No	
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Barnum has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Barnum updates these

planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Economic Development Plan	The HMP has not been integrated into the economic development plan
Emergency Operations Plan	The HMP has not been integrated into the emergency operations plan
Floodplain Management Plan	The HMP has not been integrated into the floodplain management plan
Stormwater Management Plan	The HMP has not been integrated into the stormwater management plan
Zoning Ordinance	The HMP has not been integrated into zoning ordinance
Subdivision Regulation/Ordinance	The HMP has not been integrated into the subdivision regulations/ordinance
Floodplain Ordinance	The HMP has not been integrated into the floodplain ordinance
Building Codes	The HMP has not been integrated into the building codes

Floodplain and National Flood Insurance Program

The City of Barnum participates and is currently in good standing with the National Flood Insurance Program. The Mayor serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. The City Council is responsible for enforcing floodplain regulations, which—along with information on NFIP standards—are located within the City Code. Floodplain regulations are enforced through the Code of Ordinances.

The City of Barnum does not have higher regulatory standards than the NFIP minimum and has not experienced a recent flood event. The City plans to continue its involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Barnum is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. This risk map identified a mix of Very Low, Low, and Medium Risk for the City of Barnum from the Middle Des Moines River.

National Flood Insurance Program Information

Date of NFIP Participation:	**09/01/96**	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	2	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$1,444	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$600,000	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	332	$29,463,480	4	$344,390	1.2%
500-year			0	$0	0%

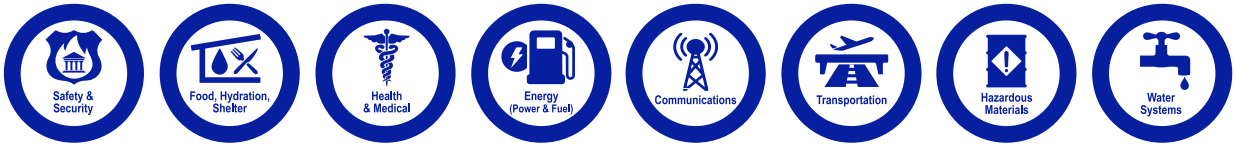
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

No new developments have occurred in the past five years. The City of Barnum currently does not have any new housing developments or new businesses/industry planned in the near future. All future vulnerability will remain the same unless additional development or changes occur. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and windstorms, all development could be impacted.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Barnum Community Lifelines

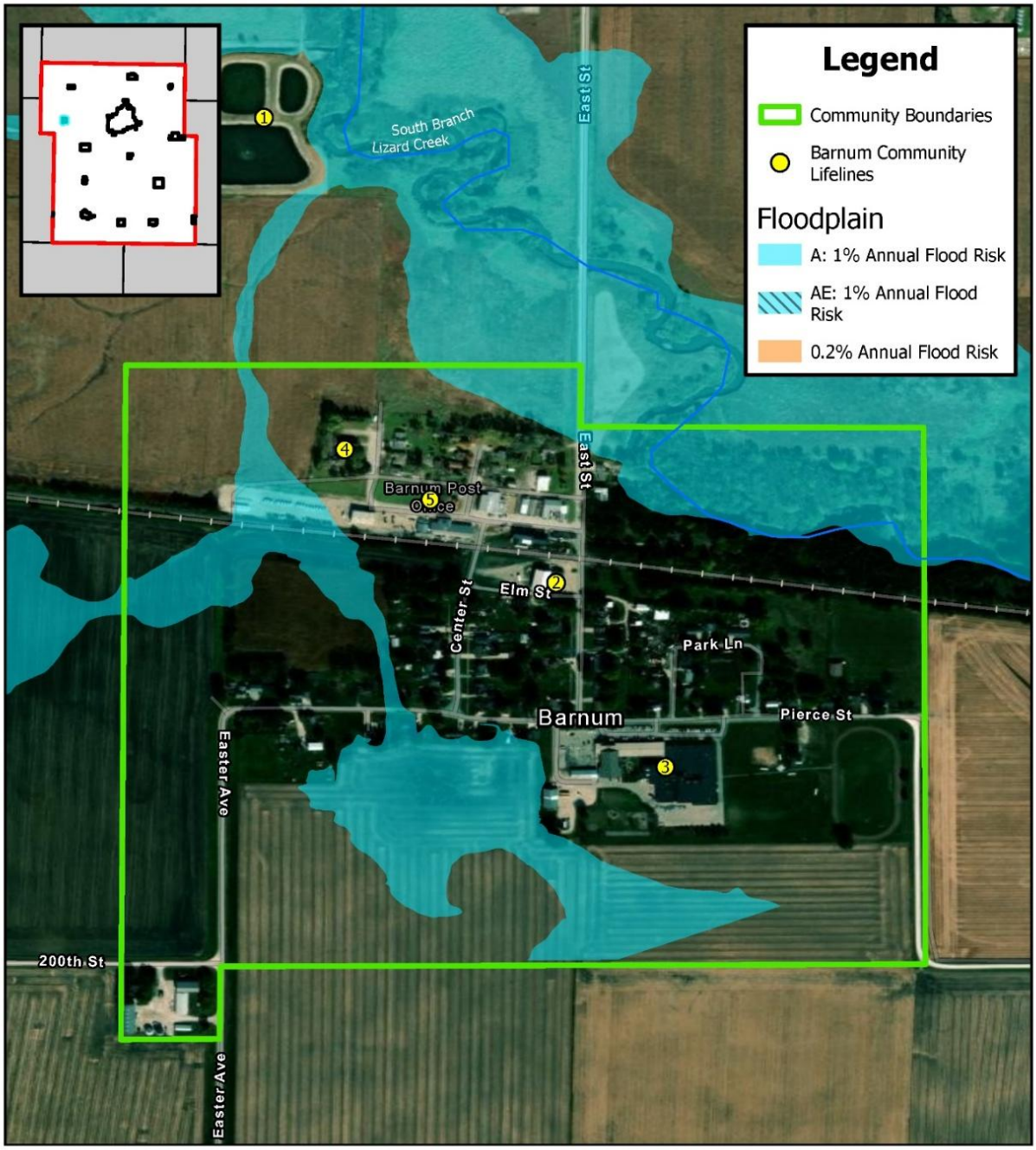
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Water Systems	Water Treatment Plant	P.O. Box 167	N	Y
2	Safety and Security	Fire Department	416 East Street	Y	N
3	Other	MNW Webster Elementary School	303 Pierce Street	Y	-
4	Food, Hydration, Shelter	By the Grace of God Church	326 West Street	Y	N
5	Communications	Post Office	404 Front Street	Y	N

Other Community Assets

The City of Barnum has also identified three other community assets of concern:

- City Park
- Junkyard Bar & Grill

Barnum Community Lifelines Map



Created By: RD
Date: 8/3/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP

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.

City of Barnum Community Lifelines

2026 Webster County Hazard Mitigation Plan Update

N W E S

0 250 500 Feet

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more in-depth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Moderate

Webster County's agricultural economy depends heavily on available water resources to support the local economy. Prolonged drought conditions reduce stream flows and can strain local water resources, increasing reliance on aquifer-supplied wells for crop production and livestock operations. An extended drought can result in reduced agricultural yields, livestock stress, increased feed costs, and broader economic impacts to producers and related businesses. Municipal water systems and domestic wells may also experience strain during sustained dry periods.

Barnum's small population and municipal water system are vulnerable to the impacts of drought. The Iowa DNR lists Barnum Water Supply as a community groundwater system serving about 175 people. Barnum's municipal drinking water supply relies on groundwater, with its active well drawing from the Devonian aquifer. The presence of two standby wells provides some redundancy, but prolonged drought or declining groundwater conditions could still place additional stress on the community's water system. Barnum relies on agricultural areas within and surrounding the community and is sensitive to any pervasive impacts of long-term drought. Drought can reduce crop yields, affect pasture and livestock feed availability, and generate economic losses that extend to businesses and residents dependent on the agricultural economy. Dry vegetation can also increase the potential for grass and field fires. The community may be more resilient to short-term impacts due to the presence of the South Branch Lizard Creek which runs along the northeast corner of town.

*See **Update City Disaster Plan** mitigation action under Grass Fire or Wildland Fire or **Develop a Tree-Trimming Management Program** mitigation action under Severe Winter Storms.*

*See **Backup Generator** mitigation action under Extreme Temperatures*

Extreme Temperatures

Level of Vulnerability: Moderate

Barnum is vulnerable to periods of extreme heat and extreme cold that can threaten resident health, increase energy demands, and stress buildings, utilities, and other infrastructure. Older adults, young children, outdoor workers, individuals with limited mobility, and residents without adequate heating or cooling are particularly vulnerable to the effects of extreme temperatures. Residents who require specialized medical or social services may also need to travel outside the community to obtain assistance, making prolonged extreme-temperature events combined with transportation or power disruptions a concern.

Extreme heat can increase demand for electricity and cooling and contribute to heat-related illness, while extreme cold can result in frostbite, hypothermia, frozen pipes, water-main or service-line failures, and increased heating demands. A prolonged power outage occurring during either temperature extreme could significantly increase impacts, particularly for residents dependent on electricity. All power lines in Barnum are above ground and the local church, school, and fire department can be used as sheltering locations but none have a generator to power it as a cooling station during power outages.

Mitigation Action	**Promote Alert Iowa**
Description	Alert Iowa is a public notification system used to inform residents of potential hazards and emergencies. Notifications may be delivered by text message, email, and/or phone call. Promoting awareness of and enrollment in Alert Iowa can provide residents with timely information, allowing them to take protective actions and reducing the potential for injury during hazard events.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Hazardous Materials, Flooding (Flash and Riverine), Tornado/Windstorm, Extreme Temperatures, Grass Fire or Wildland Fire
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Barnum

Mitigation Action	**Promote Alert Iowa**
Status	In progress. The City continues to share Alert Iowa information and updates through social media.

Mitigation Action	**Backup Generator**
Description	Purchase and install an auxiliary backup source of power at the community center to serve as a cooling center or storm shelter.
Hazard(s)	Extreme Temperatures, Severe Winter Storms, Thunderstorms: Lightning & Hail, Drought, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Tornado/Windstorm, Dam Failure, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Barnum
Status	This is a new mitigation action.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well

The City of Barnum rated its vulnerability to riverine flooding as low. A flood event is expected to result in few, if any, injuries; minor impacts to quality of life; little to no property damage; brief disruptions to services; and no significant environmental impacts.

Major flooding in 1993 resulted in water entering residential basements. No additional jurisdiction-specific vulnerabilities were identified. During flood events, residents may use alternate routes when primary routes are inaccessible. To further reduce flood risk, the City identified a need to clean the combined storm and sanitary sewer.

Mitigation Action	**Clean Storm Sewer**
Description	Clean out sewer lines to reduce flooding impacts.
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Barnum
Status	This is a new mitigation action.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

The City of Barnum is surrounded by agricultural land, including crop fields and grassy areas that may be susceptible to fast-spreading grass or wildland fires during dry and windy conditions. Fires originating outside the city could spread rapidly towards the community under dry and windy conditions. Smoke may also create respiratory concerns and reduce visibility along area roads. Agricultural equipment, outdoor burning, electrical equipment, vehicles, and lightning are common ignition sources in Webster County.However, no past events with documented dates or property damage have been reported, and the City has not identified any specific community assets or populations that are particularly vulnerable to this hazard.

Mitigation Action	**Update City Disaster Plan**
Description	This action is intended to ensure that the community has adequately planned for potential disasters that may impact the City.

Mitigation Action	**Update City Disaster Plan**
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Barnum
Status	The City will look into updating.

Severe Winter Storms

Level of Vulnerability: Moderate

The City of Barnum regularly experiences severe winter weather, including heavy snowfall, high winds with blowing snow, and ice. The community's location within a predominantly open agricultural landscape increases the potential for blowing and drifting snow along rural roads and transportation routes connecting Barnum with surrounding communities. Severe winter storms pose a risk of disrupted essential services and public health hazards, including storm damage to property, blocked roads, and disruptions to transportation and emergency response services. Heavy snow and ice can also damage trees, causing downed limbs on power lines or roofs, potentially causing extended power or communications outages. The community identified several trees around town as vulnerable. A tree-trimming management program would help address this concern with regular tree maintenance included.

Mitigation Action	**Develop a Tree-Trimming Management Program**
Description	This action is intended to begin a tree-trimming management program for the City of Barnum. The purpose of this enforcement is to reduce the frequency of power outages due to downed tree limbs and reduce the amount of vegetative debris after severe storms.

Mitigation Action	**Develop a Tree-Trimming Management Program**
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorms, Drought
Estimated Cost	$8,000+
Funding	Staff Time, City Funds
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Barnum
Status	The City is continuing to keep up with the amount of trees that need removal. Local tree services are on hand if additional support is needed. An evaluation of vulnerable trees and limbs at risk should be conducted.

Sinkholes

Level of Vulnerability: Low

The City of Barnum has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Barnum is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

*See **Update City Disaster Plan** under Grass Fire or Wildland Fire*

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

The City of Barnum experiences periodic severe storm events that may include high winds, lightning, hail, and short-duration heavy rainfall. These storms can cause property damage, power outages, and transportation disruptions. Lightning associated with severe storms can

also serve as a significant source of wildfire ignition under dry conditions. Intense rainfall during storms may contribute to localized flooding, particularly in areas of poor stormwater drainage. Heavy rainfall occurring during the same event can overwhelm drainage infrastructure and cause localized flooding. Barnum's flood hazard map indicates overflow from South Branch Lizard Creek will bisect the city and can contribute to significant ponding on the south of town. While severe thunderstorms can create cascading impacts, their impacts are generally localized and short-lived in Barnum.

Mitigation Action	**Update Warning Siren**
Description	This action is intended to update warning sirens
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Flooding (Flash and Riverine)
Estimated Cost	$30,000
Funding	General fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Barnum
Status	This is a new mitigation action

Mitigation Action	**City Equipment Maintenance**
Description	This includes all major city equipment i.e generators, vehicles, etc. Equipment is to be maintained as needed.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorms
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Barnum

Mitigation Action	**City Equipment Maintenance**
Status	The City currently has an outside service that provides maintenance.

Tornado/Windstorm

Level of Vulnerability: High

The City of Barnum has experienced past tornado and windstorm events. A tornado could produce concentrated severe structural damage within Barnum, while a derecho or other widespread windstorm could affect the entire community and surrounding agricultural area simultaneously. Residences, older buildings, lightly constructed structures, overhead utilities, mature trees, grain bins, machine sheds, and other agricultural facilities may be particularly susceptible to high winds. Downed trees, poles, and structural debris could also block roads and impede emergency response.

As tornadoes and windstorms can impact large areas at the same time, the majority of Barnum is vulnerable to damage during a single event. A single high-impact event affecting multiple structures simultaneously can easily exceed local capacity and require mutual aid from neighboring jurisdictions. The community's primary vulnerabilities include building damage caused by strong winds and flying debris. To reduce the potential for injury and loss of life, the City maintains outdoor warning sirens, and residents rely on individual shelter locations. The local church, school, and fire department may be used as sheltering locations, but they do not currently have a tornado grade safe shelter or backup generators for power outages.

Mitigation Action	**Build Tornado Safe Room**
Description	The City of Barnum plans on incorporating a public tornado safe room. A tornado safe room would be used to protect residents and people passing through during a tornado event.
Hazard(s)	Tornado/Windstorm
Estimated Cost	TBD
Funding	TBD
Timeline	Over 5 years
Priority	Low

Mitigation Action	**Build Tornado Safe Room**
Lead Agency	City of Barnum
Status	The City is looking into the possibility of using the church basement as a designated tornado safe room.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Dam Failure

Dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

The City of Barnum identified hazardous materials as a community concern, with an estimated 10% annual probability of occurrence. The City anticipates that less than 25% of the community's population and property would be affected by an event. No recent hazardous materials incidents were reported.

The community's primary vulnerability is the transportation of ammonia and ethanol by rail. Van Diest Enterprises implements measures to reduce hazardous materials risks, while the Webster County Sheriff's Office and railroad representatives are involved in incident coordination and response. No additional mitigation or resiliency actions were identified at this time for the jurisdiction.

Terrorism/Cyber-Attack

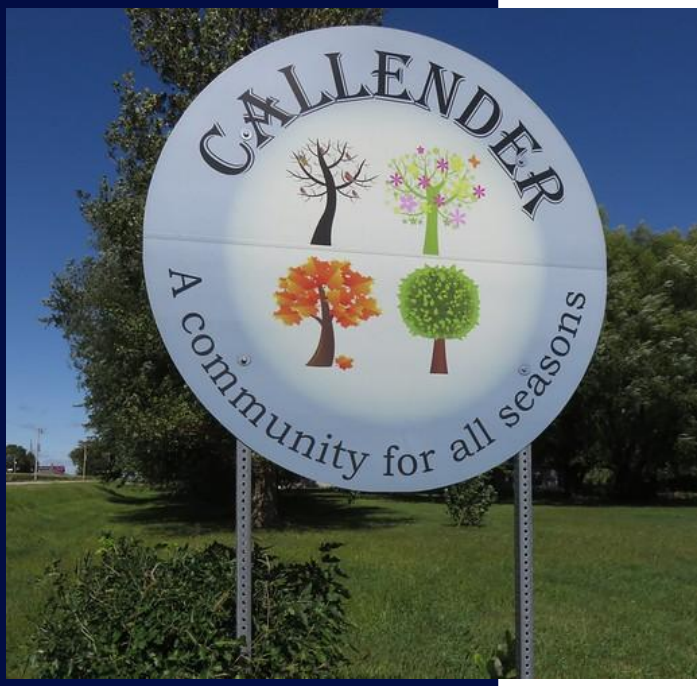
The City of Barnum has a relatively low likelihood of experiencing a terrorist attack; however, the community remains vulnerable to intentional acts of violence or sabotage that could disrupt critical facilities, infrastructure, public services, or community events. Potential targets could include municipal facilities, water infrastructure, utilities, transportation infrastructure, emergency-response facilities, schools or gathering places in the surrounding area. As Barnum is a small community, a limited number of facilities and systems reduces the number of potential targets, but loss or disruption of a single critical facility or key employee could have a disproportionate effect on community operations. Potential incidents from cyber-attack can

include ransomware, phishing, unauthorized access, theft of personal or financial information, website or email compromise, and attacks against systems used to operate or monitor municipal infrastructure.

Removed Mitigation Actions

Mitigation Action	**Purchase Snow Plow**
Description	Currently, the City does not own a snow plow. This action was created in order to clean the streets more quickly and efficiently.
Hazard(s)	Severe Winter Storm
Status	No longer needed.

CITY OF CALLENDER COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

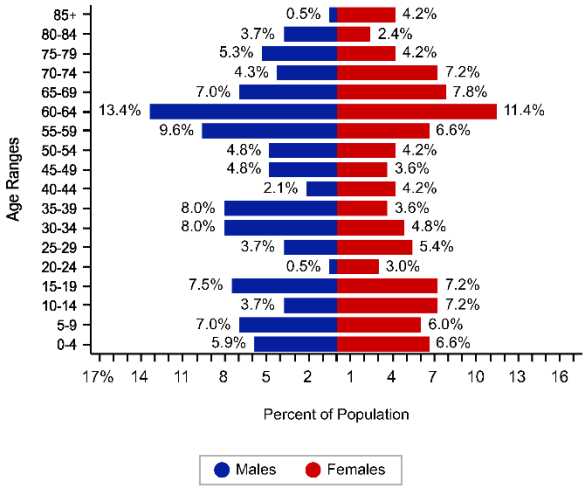
Community Summary Fact Sheet

Callender, IA

Webster County Iowa Hazard Mitigation Plan 2026

Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income
353	48.2	157	2.25	$200,000	$77,509

AGE PYRAMID



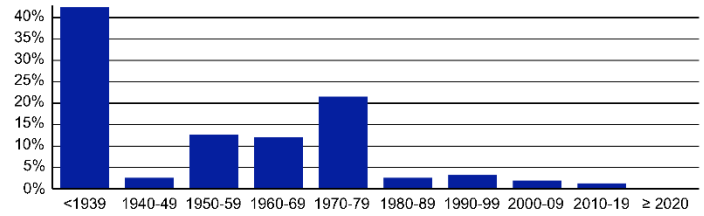
TOTAL POPULATION

2026 Total Population (Estimate)	353
2020 Total Population (U.S. Census)	368
2010 Total Population (U.S. Census)	376
2000 Total Population (U.S. Census)	424

AT RISK POPULATIONS

Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level
37	82	2	5%

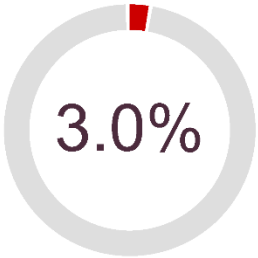
HOUSING: YEAR BUILT



EMPLOYMENT

Total Businesses	Unemployment Rate
12	0.0%

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

Vacant Housing Units	Mobile Homes
8	0%

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Callender Local Planning Team

Name	Title	Department	Participation
Mateo Luna	Mayor	Administration	Attended Kickoff and Round 2, Profile Development
Shawn Geary	Fire Chief	Fire	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Callender is located in the southwestern part of Webster County, near the Calhoun County line. Callender sits at the intersection of County Roads Fairbanks Avenue and 295th Street, with the Union Pacific Railroad running along the east end of town. The west fork of Buttrick Creek runs alongside the east end of the City, moving north.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2019, and no revisions or changes were made during the review at that time. The Mayor and Fire Chief will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed biannually, and the public will be notified through City Council meetings.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Callender Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	2017
	Capital Improvements Plan	No	
	Economic Development Plan	No	
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	2021
	Subdivision Regulation/Ordinance	Yes	
	Floodplain Ordinance	No	
	Building Codes	No	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	National Flood Insurance Program	No	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	Yes	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	No	
	GIS Capabilities	No	
	Building Code Official	Yes	
	Civil Engineering	Yes	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	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 – Private Utilities	
	Stormwater Service Fees	Yes	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness,	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	access and functional needs populations, etc. (Ex. CERT Teams, Red Cross, etc.)		
	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	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City of Callender is able to increase its capabilities in the future by adopting a Capital Improvements Plan, Economic Development Plan, Emergency Operations Plan, Floodplain Management Plan, and Stormwater Management Plan

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Callender has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Callender updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	HMP Integration
Comprehensive Plan: (2017)	The HMP has not been integrated into the Comprehensive Plan.
Zoning Ordinance Year: (2021)	The HMP has not been integrated into the zoning ordinance. The current ordinance serves as an urban revitalization plan, distinguishing restricted and non-restricted areas.
Subdivision Regulations	The HMP has not been integrated into the subdivision ordinances

Floodplain and National Flood Insurance Program

The City of Callender does not participate in the National Flood Insurance Program due to their being no floodplain that moves through the community.

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	% of Improvements in Floodplain
100-year	219	$21,001,570	0	$0	0%
500-year			0	$0	0%

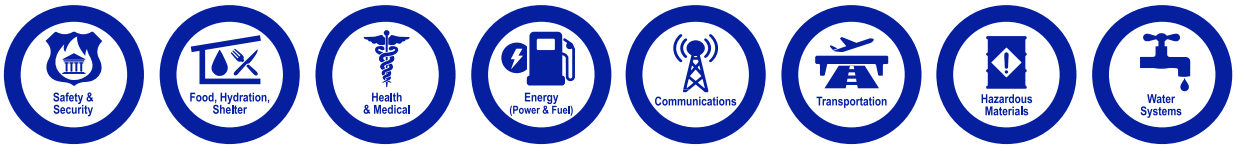
Source:

FUTURE DEVELOPMENT TRENDS

The City of Callender reported no new housing, business, or industrial development during the past five years. No new structures were developed within identified hazard areas, and no new developments are currently planned. Development-related exposure has therefore remained substantially unchanged since the previous HMP. Existing buildings, infrastructure, and residents remain exposed to the hazards described in this profile.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Callender Community Lifelines

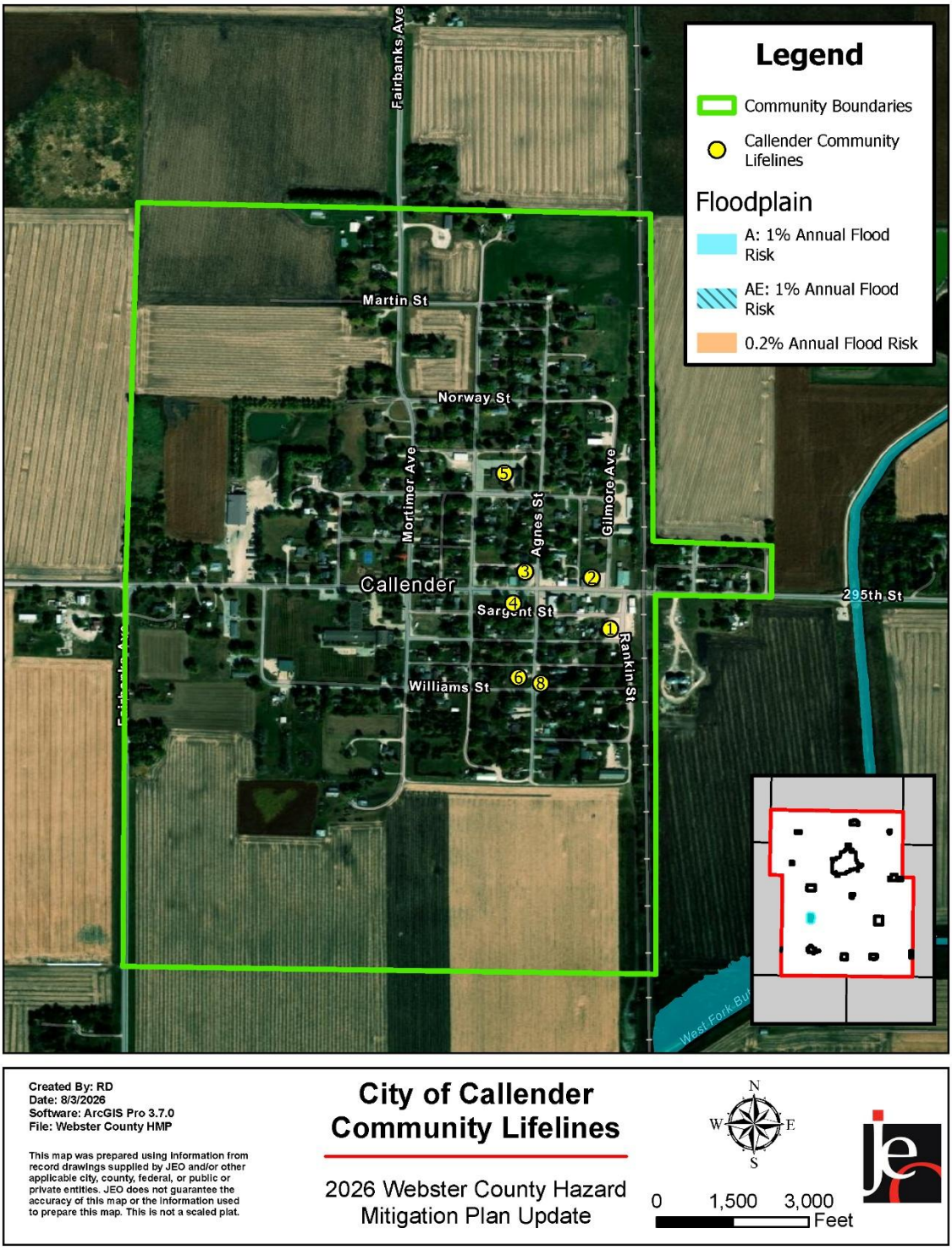
CF #	Lifeline	Name	Address / Location	Shelter	Generator
1	Energy	Callender Fuel 24	420 Sargent Street	N	N
2	Safety and Security	Fire Department	706 Gilmore Ave	N	N
3	Communications	Post Office	706 Agnes Street	N	N
4	Food, Hydration, Shelter	Community Center	505 Thomas Street	Y	N
5	Food, Hydration, Shelter	Lutheran Church	504 James Street	Y	N
6	Water Systems	Water Plant	Agnes & Williams	N	Y
7	Water Systems	Lagoon	East of town	N	Y
8	Water Systems	Well Pumps (various)	Agnes & Williams	N	N
9	Water Systems	Lift Stations (various)	*Will not be mapped*	N	Y

Other Community Assets

The City of Callender has also identified two other community assets of concern:

- Our Savior's Lutheran Church
- Callender Public Library
- Daycare

Callender Community Lifelines Map



***Community Lifeline 7 is outside of map boundary**

****Community Lifeline(s) 9 are not mapped**

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

No past drought events have been identified for the City of Callender. The community's key vulnerabilities include being surrounded by field crops, with dry conditions posing fire hazards due to close proximity to housing and residential units, and businesses situated next to crops on all sides.

To mitigate risk, the community manages offsets with farmers and follows safe practices, and has worked with other communities and Webster County to establish automatic auto-paging mutal aid for field/grass fires, along with improving response times for manpower and equipment. To further reduce risk, the City plans to work with surrounding townships and the County to ensure the County plan integrates Callender and mitigates these risk concerns, and provide adequate training to local staff on paging and response protocols.

Mitigation Action	**Emergency Staff Training**
Description	This action is intended to enhance the training for emergency personnel within the City. This will speed up response times and create less confusion during emergencies.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	Staff Time

Mitigation Action	**Emergency Staff Training**
Funding	City Funds
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Callender
Status	Project in progress. Fire department is currently training city emergency response teams. The City plans to be more involved and mandatory training is needed.

Extreme Temperatures

Level of Vulnerability: Moderate

No specific past extreme temperature events with documented dates or property damage have been recorded for the City of Callender. However, the hazard poses a meaningful risk to the community, as extreme heat and cold can place additional strain on the power grid. There are currently no backup power generators in the city to use at cooling or heating centers. Vulnerable populations, particularly children and the elderly, are at risk of extreme temperature related illness with no reliable place to relocate temporarily.

Mitigation Action	**Portable Generator Installation**
Description	Purchase generators that would provide the energy for heating and electricity in city shelters.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm
Estimated Cost	Unknown
Funding	City Funds
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Callender

Mitigation Action	**Portable Generator Installation**
Status	Need portable generators for potential shelters. Currently in planning phase.

Mitigation Action	**Generator Hookup on Designated Shelters**
Description	This action was a mitigation action formed in conjunction with designated shelter areas throughout the City. These generators would provide the energy for heating and electricity in these shelters in the event of an emergency.
Hazard(s)	Extreme Temperatures, Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm
Estimated Cost	Varies by Location
Funding	City Funds
Timeline	2-5 years
Priority	High
Lead Agency	City of Callender
Status	Currently there are no designated shelters. Some buildings within the City do not have basements. The City needs to install backup generators for all operations before designating shelters.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

Before sewer upgrades, the City of Callender had routine flooding; state-funded sewer improvements have since mitigated flooding in affected areas, though a few areas of the City still experience flooding after large or heavy rainfall events. The community's key vulnerability is that if sewer upgrades fail or emergency power fails, flooding will occur.

To mitigate risk, the City has installed lift stations, upgraded sewer drainage, and expanded the lagoon and rendering area; a plan was also put in place to add extensions to main storm tiles. Notably, the previously flood-prone areas are less expensive to address than before the project, though still subject to flooding possibility.

To further reduce risk, the community identifies several needs: security fencing aroud the lagoon/water works, cameras throughout, emergency power for the City, and replacing agin hazardous sewer drains with state-compliant materials.

Mitigation Action	**Right Sizing of Drainage Capabilities**
Description	This action is intended to develop a study that would be able to show what size of drainage system is needed for the City of Callender
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	$50,000
Funding	City Funds
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Callender
Status	Project in progress. There has been improvements throughout the past few years but more improvements/upgrades are still needed.

Mitigation Action	**Mapping Utilities**
Description	The purpose of mapping utilities is so that the City, and its populace, would have a clear definition of where all of the essential utilities are located. The current maps are used for this purpose, but the thinking by the hazard mitigation committee was that the most up-to-date map might reveal changes in the updated systems. This could even help to establish policy in regards to digging permits in the City of Callender.
Hazard(s)	Flooding (Flash and Riverine)

Mitigation Action	**Mapping Utilities**
Estimated Cost	$50,000
Funding	City Funds
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Callender
Status	Project in progress. Electrical system still needs to be mapped.

Mitigation Action	**Storm Sewer Line Installation**
Description	This action is intended to install more storm sewer lines throughout the City of Callender. The hazard mitigation committee identified that flash flooding is an issue for Callender, and that this is mainly due to the lack of capacity of the storm sewer lines. Expanding the system should reduce the amount of flooding experienced from flash flooding.
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine)
Estimated Cost	$500,000
Funding	City Funds
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Callender
Status	Project in progress. Improvements have been made, but there are still vulnerabilities if outages were to occur with emergency power.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

The City of Callender determined that a grass fire or wildland fire event would be substantial, possinly leading to a critical level causing major damage to facilities, homes, and loss of life. No specific past events are known. The community's key vulnerability is that it is surrounded by field crops, with dry conditions posing a significant fire threat to housing, structures, and residential areas due to their close proximity to these fields.

To mitigate risk, fire department leaders have worked with surrounding communities and Webster County to establish automatic dual-page mutual aid for crop, grass, and wildland fires, providing faster response, manpower, and equipment. To further reduce risk, the community identifies a need to improve buffer zones between crops and the City.

Mitigation Action	**Ensure Safety for Disabled Residents**
Description	This action would create a volunteer list of individuals with special needs. Knowing what citizens need special assistance during an emergency would help first responders know who and how to help in the event of a disaster, particularly related to evacuation needs.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	Staff Time
Funding	City Funds
Timeline	1 year or less
Priority	High
Lead Agency	City of Callender
Status	Project in progress. Fire and EMS needs to be aware of residents with disabilities during an emergency. The City can gather information and get to the LEC to relay to fire/EMS during an emergency.

Severe Winter Storms

Level of Vulnerability: Moderate

With above-ground electrical transmission wires, the City of Callender is vulnerable to power outages during storms, with heavy snow, wind, and ice all contributing factors; power outages happen every winter, multiple times. Downed power lines are the community's key vulnerability, and three times in the Winter of 2025, dead trees came down knocking out power.

To mitigate risk, the City is slowly replacing aging electric poles and removing trees, including requiring citizens to remove their own trees as well; the City has also implemented an abatement/nuisance program to get dead trees removed, though cost has been prohibitive. To further reduce risk, the community will continue to remove all dead trees, replacing all aging electric poles, and moving electricity underground.

Mitigation Action	**Public Education**
Description	This action is intended to provide public education for the citizens of Callender on how to prepare and act during hailstorms and severe winter storms. This would include winter preparedness and education on driving conditions.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms
Estimated Cost	Staff Time
Funding	City Funds
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Callender
Status	The City currently uses Facebook for direct communication to residents. More can be done with the City website and social media.

Sinkholes

Level of Vulnerability: Low

No specific past sinkhole events with documented dates or property damage have been recorded for the City of Callender. The community's key vulnerability is downed power lines. To mitigate risk, the City has implemented an abatement/nuisance program to get trees out, though cost has been prohibitive. To further reduce risk, the community needs to remove all dead trees and replace aging electric poles.

Mitigation Action	**Electricity Distribution Engineering Study**
Description	Currently, there isn't any official electric distribution plans in the City of Callender. This action is intended to develop an official plan in an effort to try to further mitigate the probability of power failure or power loss.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Sinkholes
Estimated Cost	$50,000
Funding	City Funds
Timeline	2-5 years
Priority	High
Lead Agency	City of Callender
Status	Project in progress. Electrical infrastructure needs major improvements. This is very important and failure is very common.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Callender experiences periodic severe storm events that may include high winds, lightning, hail, and short-duration heavy rainfall. These storms can cause property damage, power outages, and transportation disruptions. Lightning associated with severe storms can also serve as a significant source of wildfire ignition under dry conditions. Intense rainfall during storms may contribute to localized flooding, particularly in areas of poor stormwater drainage. While severe storms occur periodically, their impacts are generally localized and short-lived.

The primary vulnerabilities to this hazard are property damage and power outages. The City needs to designate specific shelter areas for local residents and equip it with auxiliary power.

Mitigation Action	**Designate Shelter Areas**
Description	This action is intended to designate shelter areas throughout Callender to protect citizens from the hazards that are listed below.

Mitigation Action	**Designate Shelter Areas**
	These shelters could be existing buildings such as schools, churches, etc. that the public may be able to take refuge in.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm
Estimated Cost	Staff Time
Funding	City Funds
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Callender
Status	Project in progress. Action needs taken to provide temporary safe rooms for those affected.

Tornado/Windstorm

Level of Vulnerability: High

The City of Callender has experienced derecho winds and high winds, as well as tornadoes. The community's key vulnerabilities are dead trees and aging poles coming down. To mitigate risk, the City has implemented a dead tree abatement program and is replacing poles each year funds are available. To further reduce risk, the community plans to replace all electric poles over 5 years old and remove all dead trees.

Mitigation Action	**County Wide Emergency Storage Facility**
Description	This action is to build a secondary EOC or storage facility within the City of Callender so that the Webster County Emergency Manager would have the ability to function more efficiently in the event of a hazard.
Hazard(s)	Tornado/Windstorm, Severe Winter Storms
Estimated Cost	$100,000
Funding	City Funds

Mitigation Action	**County Wide Emergency Storage Facility**
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Callender
Status	Currently in planning phase.

Mitigation Action	**Tornado Safe Room**
Description	The City of Callender plans on incorporating a public tornado safe room. A tornado safe room would be open to the public and is designed to be located in such a way that people nearby could walk to it in case of a tornado (within a 5 minute walk).
Hazard(s)	Tornado/Windstorm
Estimated Cost	$100,000
Funding	City Funds, Grants
Timeline	2-5 years
Priority	High
Lead Agency	City of Callender
Status	Currently in the planning phase.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is identified as a concern for the City of Callender, with a recent impact from emerald ash borer. The community's key vulnerability is a large amount of ash trees in the City, both privately and publicly owned.

To mitigate risk, the City has removed some publicly owned trees and is working to remove trees that are dead, along with some enforcement of privately owned trees with potential infrastructure damage. To further reduce risk, the community identifies a need to remove all ash trees, or treat to preserve salvageable trees.

Dam Failure

Dam failure is not identified as a concern as there are no dams that could impact the community. No further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

The City of Callender has had a historical probability of a hazardous materials event of 51-775% annually, with 51-75% of residents and property expected to be affected during an event, and identifies this hazard as a concern. Recent events include railroad and trucks moving hazmat from the POET plant through the City, and a pipeline east of town carrying HP natural gas. The community's key vulnerability is railroad and heavy trucks hauling chemicals to and from the ethanol plant south of town, as well as multiple plants along the rail line.

To mitigate risk, the City has increased fire department response training related to railway and pipeline incidents. To further reduce risk, increasing fire department response capacity, purchasing equipment to support response, more training, and community education are identified as needs.

Terrorism/Cyber-Attack

Terrorism/cyber-attack is identified as a concern for the City of Callender, though no recent events were described. The community's key vulnerability is that the entire City, and all communities generally, could be affected by a cyber-attack, including electronic meters, water, and electric systems. No mitigation actions have been taken to date. To reduce risk, a plan of action is required, along with educating staff and elected officials on how to properly use cybersecurity measures and creating security to protect systems.

Completed Mitigation Actions

Mitigation Action	**Update City Siren**
Description	Update the City's warning siren so that it is networked with Webster County.
Hazard(s)	Tornado/Windstorm, Severe Winter Storms
Status	Project completed. City sirens have been upgraded through grant funding in fiscal year 2025.

CITY OF CLARE COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

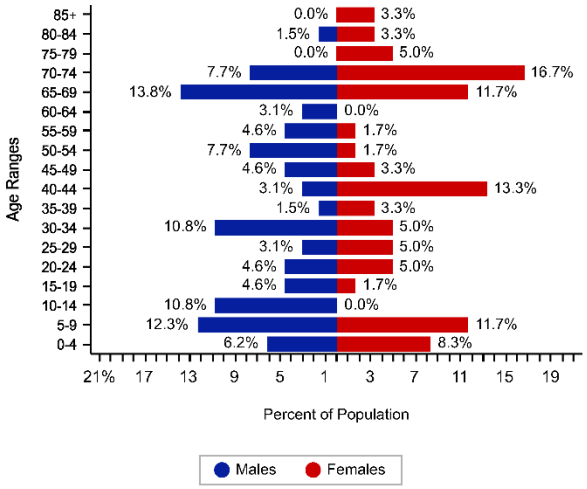
Community Summary Fact Sheet

Clare, IA

Webster County Iowa Hazard Mitigation Plan 2026

125	41.8	53	2.36	$184,375	$78,810
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



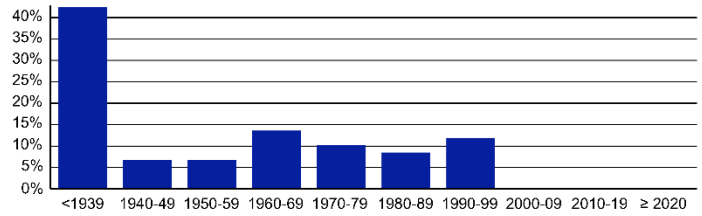
TOTAL POPULATION

2026 Total Population (Estimate)	125
2020 Total Population (U.S. Census)	136
2010 Total Population (U.S. Census)	146
2000 Total Population (U.S. Census)	190

AT RISK POPULATIONS

15	39	0	2%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

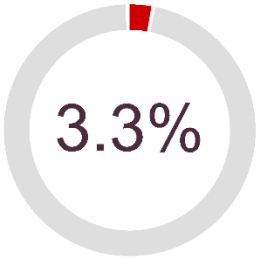
HOUSING: YEAR BUILT



EMPLOYMENT

8	0.0%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

7	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Clare Local Planning Team

Name	Title	Department	Participation
Denny Stuhrenberg	Council Member	City Council	Attended R1 and R2
Mike McFarland	Fire Chief	Fire Department	Attended R1 and R2
Christy Bower	City Clerk	Administration	Attended R1and R2

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Clare is located in the northwestern part of Webster County. Clare sits west of U.S. Highway 169, in the area between Deer Creek and Pioneer townships to the north and Barnum to the south.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2020, revisions or changes that were made during review are unknown. The City Council and Mayor will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed bi-annually and the public will be notified through City Council meetings and social media. The plan was last reviewed in 2021.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Clare Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	
	Capital Improvements Plan	No	
	Economic Developmet Plan	No	
	Emergency Operations Plan	County	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	
	Subdivision Regulation/Ordinance	No	
	Floodplain Ordinance	No	
	Building Codes	Yes	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	National Flood Insurance Program	No	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	No	
	GIS Capabilities	No	
	Building Code Official	Yes	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	No	
	Awarded a Grant in the Past	No	
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	No	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	No	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness,	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	access and functional needs populations, etc. (Ex. CERT Teams, Red Cross, etc.)		
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No	
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City of Clare has indicated that they are not able to increase their capabilities in the near future.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Clare has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Clare updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Comprehensive Plan Year: (2017)	The HMP has not been integrated into the comprehensive plan.
Zoning Ordinance Year: (2021)	The HMP has not been integrated into the zoning ordinance.
Building Codes	The HMP has not been integrated into the building codes.

Floodplain and National Flood Insurance Program

The City of Clare does not participate in the National Flood Insurance Program due to there being no floodplain that moves through the community.

The City of Clare is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. This risk map identified Very Low risk of flooding for the City of Clare from the Middle Des Moines River.

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	127	$28,403,770	0	$0	0%
500-year			0	$0	0%

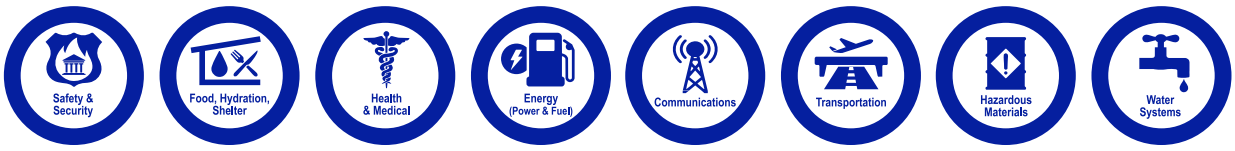
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

No new developments have occurred in the past five years. The City of Clare currently does not have any new housing developments or new businesses/industry planned in the near future.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Clare Community Lifelines

CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Safety and Security	Fire & Rescue	125 E Front Street	Y	N
2	Communications	Post Office	200 W Front Street	N	N
3	Food, Hydration, Shelter	Community Center	520 E Front Street	Y	N

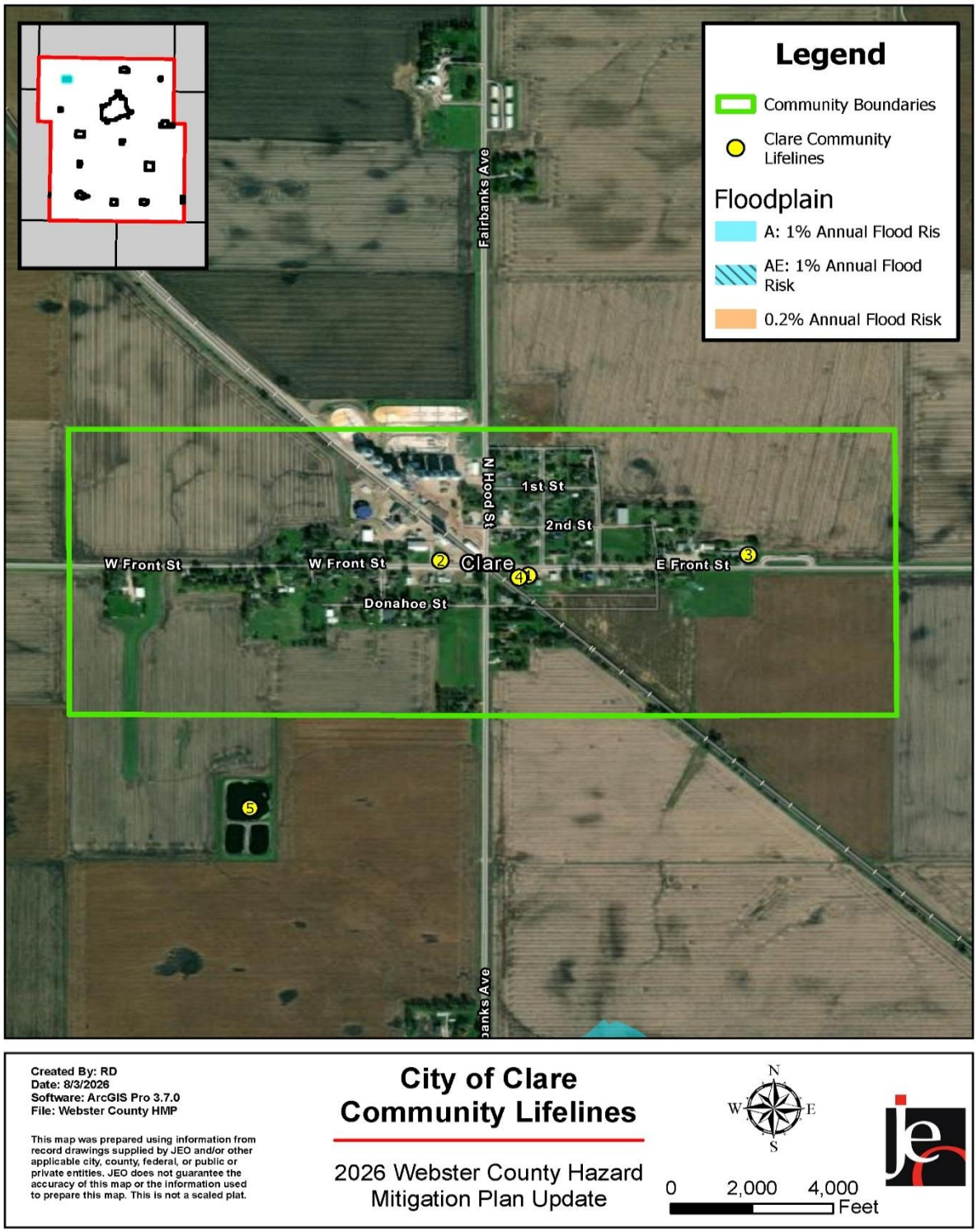
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
4	Safety and Security	City Hall & Warning Siren	119 E Front Street	Y	N
5	Water Systems	City Lagoons	SW of Town	N	N

Other Community Assets

The City of Clare has also identified various other community assets of concern:

- County Sheriff
- NEW Cooperative Inc.

Clare Community Lifelines Map



HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Moderate

Drought is a pervasive hazard that could significantly impact agriculture, water resources, and industry, as agriculture is a primary cornerstone of the local economy. Reduced water availability would stress crops and livestock, leading to lower yields and higher costs for farmers. Drought also threatens water resources for communities, potentially leading to stricter water restrictions and higher utility costs for residents. An extended drought can result in local municipal systems and domestic wells being strained, as well as reduced resources for emergency services to combat wildfires or structural fire events. The community's key vulnerability is localized dry conditions, increased fire risk, and strain on local water systems. Proactive measures like water conservation policies and evaluating other sources of water will be crucial for mitigating future risks.

Mitigation Action	**Drought and Water Conservation Education**
Description	This action is intended to provide educational opportunities to residents to learn about the effects of Drought and how to mitigate it.
Hazard(s)	Drought
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Low

Mitigation Action	**Drought and Water Conservation Education**
Lead Agency	City of Clare
Status	This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Low

No past extreme temperature events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard. Approximately a quarter of the local population is over the age of 65 which are most likely to feel negative impacts from extreme temperatures. No community mass care facilities have been identified as potential cooling centers; and the city does not have any generators to open facilities as a cooling center.

Mitigation Action	**Clare Community Center Shelter Designation**
Description	This action is intended to designate a shelter area in Clare to protect citizens from hazards. This shelter would be retrofitted in the existing Community Center in Clare. In a hazardous event, the public may take refuge in center with heating, cooling, power communication, and other safety essentials.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Extreme Temperatures
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Clare
Status	Project in progress. A generator has been installedin the community center.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

There is no risk of riverine flooding for the city; however, the City of Clare experienced major flash flooding in 1993, during which everyone had water in ther basements and led to the sewer system being entirely backed up. The community's key vulnerbaility to flooding is the potential for the sewer to backup after an event due to insufficient stormwater drainage. To mitigate this risk, the City has cleaned up its sewer lines, and going forward, plans to keep sewer lines cleaned to reduce further risk.

Mitigation Action	**Improve Storm Water Drainage**
Description	This action is intended to install more storm sewer lines throughout the City of Clare. The hazard mitigation committee has identified that flash flooding is an issue for Clare, and that this is mainly due to the lack of capacity of the storm sewer lines. Expanding the system should reduce the amount of flooding experienced from flash flooding.
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine)
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Clare
Status	Project in progress. Cleaning and tile removal have been completed.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

The City of Gowrie is surrounded by agricultural land, including crop fields, grassy ditches, and CRP acres, making it vulnerable to fast-spreading grass and wildland fires, particularly during dry, windy spring and fall conditions. The community's reliance on the volunteer fire department also means large or multiple incidents may require mutual aid from neighboring departments.

Mitigation Action	**Update Communication Equipment for Fire Station**
Description	This action is intended to purchase new equipment for the Clare Fire Station. The equipment will enable the Fire Department to communicate with other first responders in the area during emergencies. Some of the equipment includes repeater station and hand-held radios.
Hazard(s)	Severe Winter Storms, Tornado/Windstorm, Flooding (Flash and Riverine), Hazardous Materials, Thunderstorms: Lightning & Hail, Grass Fire or Wildland Fire
Estimated Cost	TBD
Funding	General fund
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Clare
Status	Project in progress. The City has bought a new radio.

Severe Winter Storms

Level of Vulnerability: Moderate

The City of Clare experiences blizzards and sever winter weather annually, with loss of electricity and heat as the primary vulnerabilities. Severe winter storms can make local and rural roads impassable and limit access for residents and emergency responders. Drifting snow is common in open rural areas and ice accumulation can cause widespread transportation disruptions. No past severe winter storm events with documented dates or property damages have been recorded for the City of Clare. The community's key vulnerability is power outage impacting the community. The city plans to purchase a backup generator.

*See **Clare Community Center Shelter Designation** under Extreme Temperatures*

*See **Update Communication Equipment for Fire Station** mitigation action under Grass Fire or Wildland Fire*

*See **Debris Removal Equipment** mitigation action under Thunderstorms: Lightning & Hail*

*See **Enforce Current Building Codes** mitigation action under Tornado/Windstorm*

*See **Update Warning Siren** mitigation action under Thunderstorms: Lightning & Hail*

Sinkholes

Level of Vulnerability: Low

The City of Clare has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Clare is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Severe thunderstorms that can produce large hail, frequent lightning, heavy rainfall, and damaging winds. Thunderstorms are common throughout Iowa and can result in property damage, utility disruptions, transportation impacts, localized flooding, and threats to public safety. Lightning strikes can cause injuries or fatalities, ignite fires, and damage electrical and communications systems. Power surges and outages may also temporarily disrupt municipal facilities, businesses, and essential services.

Heavy rainfall associated with thunderstorms can overwhelm the local drainage systems and produce localized street, property, or flash flooding, particularly in low-lying areas or where stormwater infrastructure has limited capacity.

Mitigation Action	**Update Warning Siren**
Description	This action is intended to update warning sirens
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Flooding (Flash and Riverine)
Estimated Cost	$30,000
Funding	General fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Clare
Status	This is a new mitigation action

Mitigation Action	**Debris Removal Equipment**
Description	This action is intended to aide in the removal of debris after a storm event. Equipment that would be used includes chainsaws, boom truck, and an all-terrain vehicle (ATV). The equipment would be useful to the City in removing trees from power lines, streets, and other City property.
Hazard(s)	Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Clare
Status	In progress. This is dependent upon help from City residents or businesses.

Tornado/Windstorm

Level of Vulnerability: Moderate

The City of Clare is vulnerable to tornadoes, straight-line winds, and derechos, which can cause significant damage to buildings, critical facilities, utilities, trees, transportation infrastructure, and agricultural resources. The state experiences both tornadoes and widespread high-wind events, with Webster County being one of the most likely in the state to experience high annual losses from wind-related hazards. Residential and commercial structures, municipal facilities, utility infrastructure, and buildings without adequate safe-room or interior shelter space are particularly vulnerable. The main identified vulnerability is potential building damage. Debris from damaged trees and structures may also block streets and delay emergency response, down power lines and poles, and delay utility restoration. There are no tornado safe rooms located in the city, but most midwestern homes have basements and emergency sirens are present in town.

Mitigation Action	**Community Tornado Safe Room**
Description	The City of Clare plans on incorporating a public tornado safe room. A tornado safe room would be open to the public and is designed to be located in such a way that people nearby could walk to it in case of a tornado (within a 5 minute walk).
Hazard(s)	Tornado/Windstorm, Thunderstorms: Lightning & Hail
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Clare
Status	Project in progress. The City is considering purchasing a shelter.

Mitigation Action	**Enforce Current Building Codes**
Description	This action is intended to create an enforcement program for the current building codes in the City of Clare to reduce the potential for damage to old buildings.

Mitigation Action	**Enforce Current Building Codes**
Hazard(s)	Tornado/Windstorm, Flooding (Flash and Riverine), Severe Winter Storms
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Clare
Status	In progress. Currently in the process of taking down building that are not occupied.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Dam Failure

Dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

The City identifies this hazard as a concern, though no recent events have occurred. The community's primary vulnerabilities are ammonia and ethanol transported via railroad cars. To mitigate risk, the local co-op takes care of this issue and provides notifications through social media.

Terrorism/Cyber-Attack

The City of Clare has indicated that less than 25% of their community members would be affected by a terrorism/cyber-attack event. Terrorism/cyber-attack is not identified as a concern

for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Mitigation Action	**Update City Hall**
Description	Preparing the Clare City Hall is an action that will protect sensitive documents and other important City data. To secure the City Hall, the hazard mitigation committee decided that computer backups, security systems, and bullet proof glass would keep terrorism and Public Disorders away from the City Hall.
Hazard(s)	Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	General fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Clare
Status	Project in progress. One camera has been installed at the library. The City continually updates their computer software.

Removed Mitigation Actions

Mitigation Action	**Tree-Trimming Program**
Description	This action is intended to begin a tree-trimming management program for the City of Clare. The purpose of this enforcement is to reduce the frequency of power outages due to downed tree limbs and reduce the amount of vegetative debris after severe storms.
Hazard(s)	Thunderstorms: Lightning & Hail, Tornado/Windstorm, Severe Winter Storms
Status	No longer needed. MidAmerican takes care of tree removal/trimming when needed.

Mitigation Action	**Light Maintenance**
Description	The action is intended to ensure the safety of the community from air traffic, a light changing and checking program for safety lights needs to be developed and enforced. The safety lights that need to be included in this action are the New Cooperative grain bins and the City water tower.
Hazard(s)	Severe Winter Storms, Thunderstorms: Lightning & Hail
Status	No longer needed.

Mitigation Action	**Smoke Detector Distribution**
Description	This action is intended to distribute smoke detectors for people that may not have the means to keep new detectors with fresh batteries in them. This action will mitigate the probability of people being injured in a structural fire event.
Hazard(s)	Structural Fires
Status	Structural Fires are not an applicable hazard to the mitigation update.

CITY OF DAYTON COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

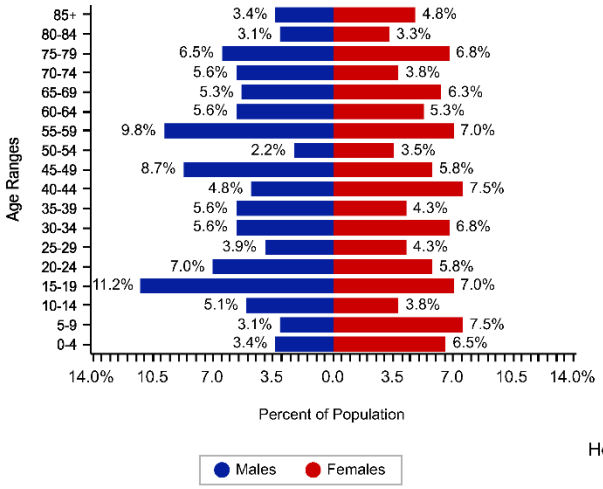
Community Summary Fact Sheet

Dayton, IA

Webster County Iowa Hazard Mitigation Plan 2026

754	43.6	317	2.30	$169,737	$83,455
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



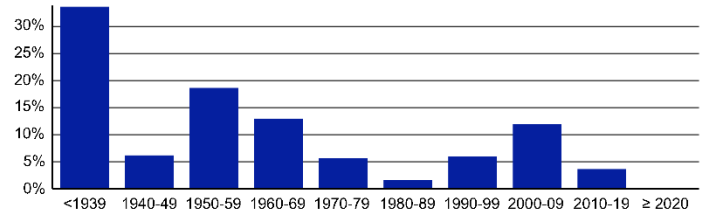
TOTAL POPULATION

2026 Total Population (Estimate)	754
2020 Total Population (U.S. Census)	772
2010 Total Population (U.S. Census)	837
2000 Total Population (U.S. Census)	883

AT RISK POPULATIONS

87	184	9	17%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

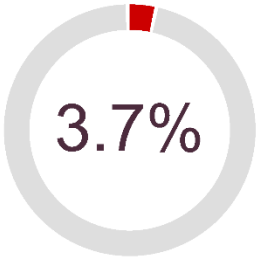
HOUSING: YEAR BUILT



EMPLOYMENT

41	1.5%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

63	0%
Vacant Housing Units	Mobile Homes

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Dayton Local Planning Team

Name	Title	Department	Participation
Sara Pieper	City Clerk	Administration	Attended Kickoff and Round 1, Profile Development
Maureen Hainzinger	Council Member	City Council	Attended Round 1, Profile Development
Luke Hainzinger	Fire Chief	Fire Department	Profile Development
Mitch Anderson	City Foreman	Administration	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Dayton is located in the southwestern part of Webster County, along Iowa Highway 175, situated between Harcourt to the west and Stratford and Hardin to the east. Iowa Highway 175 runs directly through Dayton on its east-west path across this part of the county, having earlier converged with U.S. Highway 169. Skillet Creek runs through the City from the west moving to the east.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2019, and no revisions or changes were made during the review at that time. The City Clerk, Fire Chief, and the City Foreman will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed biannually, and the public will be notified through City Council meetings.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Dayton Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	2025
	Capital Improvements Plan	Yes	2025
	Economic Developmet Plan	Yes	2025
	Emergency Operations Plan	Yes	2025
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	2025
	Subdivision Regulation/Ordinance	Yes	2025
	Floodplain Ordinance	Yes	2025
	Building Codes	No	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	
	National Flood Insurance Program	Yes	2025
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	No	
	GIS Capabilities	No	
	Building Code Official	No	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	Yes	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Awarded a Grant in the Past	Yes	
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	No	
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. (Ex. CERT Teams, Red Cross, etc.)	No	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No	
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City of Dayton has indicated that they are not able to increase their capabilities in the near future.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Dayton has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Dayton updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Comprehensive Plan	The HMP has not been integrated into the Comprehensive Plan.
Capital Improvements Plan	The HMP has not been integrated into the Capital Improvements Plan.
Economic Development Plan	The HMP has not been integrated into the Economic Development Plan.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Emergency Operations Plan	The HMP has not been integrated into the Emergency Operations Plan, but the EOP does reference hazards profiled in the HMP.
Zoning Ordinance	The HMP has not been integrated into the zoning ordinance.
Subdivision Regulation/Ordinance	The HMP has not been integrated into the subdivision ordinances
Floodplain Ordinance	The HMP has not been integrated into the Floodplain Ordinance but the ordinance does address the hazard of flooding in Dayton.

Floodplain and National Flood Insurance Program

The City of Dayton participates and is currently in good standing with the National Flood Insurance Program. The City Clerk serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. Floodplain regulations are currently outlined through the Code of Ordinances. The City Council is responsible for enforcing floodplain regulations, which—along with information on NFIP standards—are located within the Floodplain Code. If a major flood event were to occur, the City Clerk would be responsible for determining substantial damages.

The City of Dayton does not have higher regulatory standards than the NFIP minimum and has not experienced a recent flood event. The City plans to continue its involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Dayton is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. This risk map identified Very Low and Medium risk of flooding for the City of Dayton from the Middle Des Moines River.

National Flood Insurance Program Information

Date of NFIP Participation:	09/01/96	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0

Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	520	$58,190,050		$	%
500-year				$	%

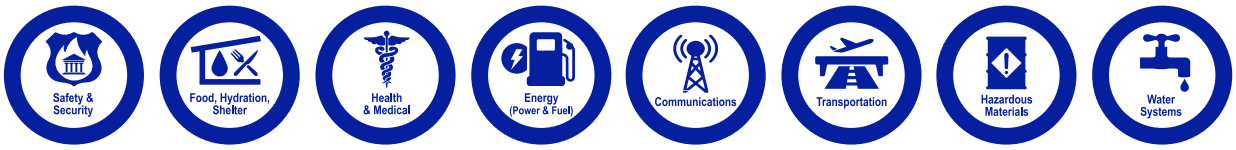
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

In the past five years no new structures are being developed in the floodplain or other hazardous areas, and no hazard-specific mitigation is incorporated into new structures. No new housing developments, businesses, or industrial development were reported as planned in the near future.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Dayton Community Lifelines

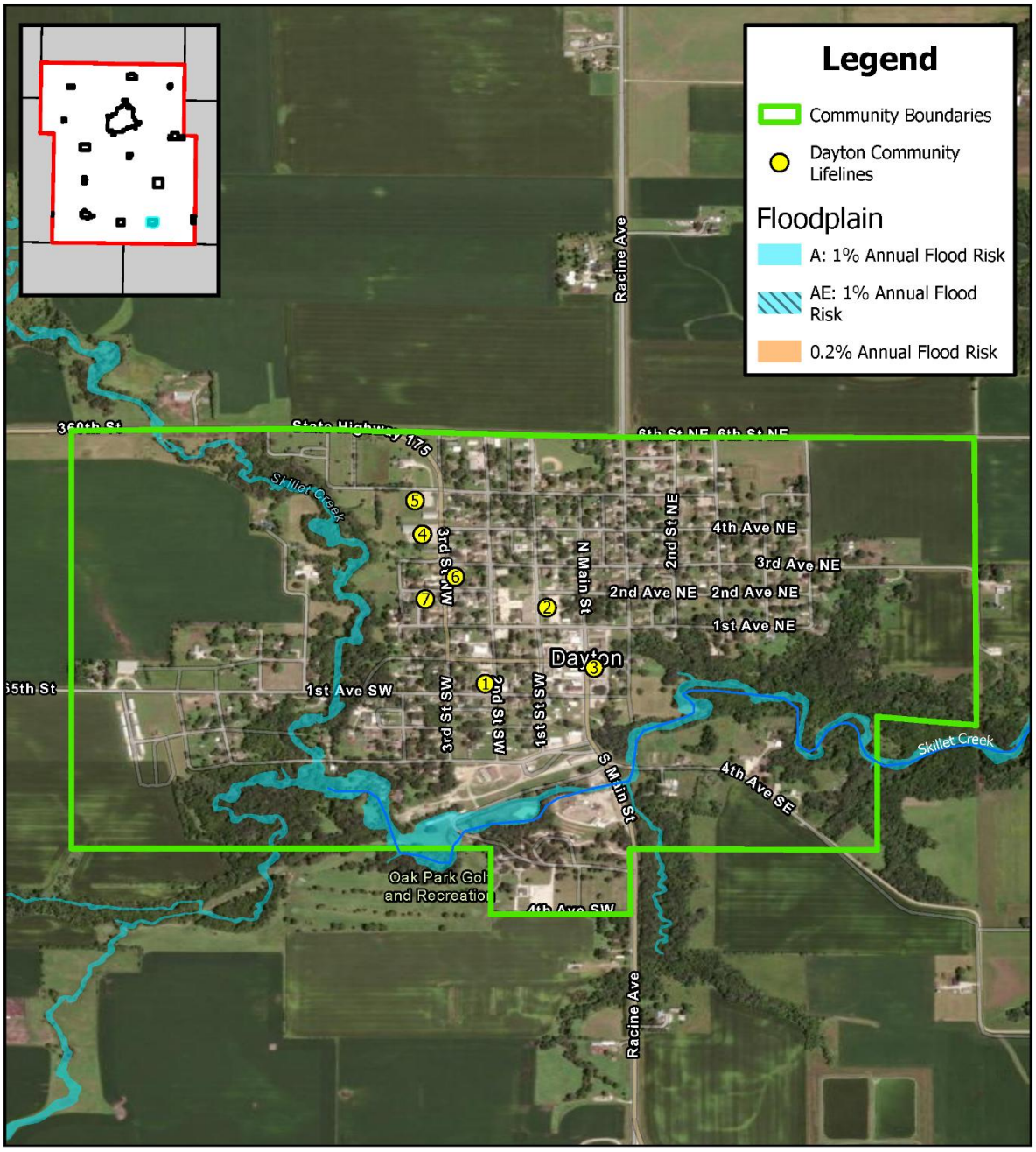
CF #	Lifeline	Name	Address/Location	Shelter	Generator
1	Safety and Security	Police Department & Fire Station	202 1st Ave & 27 2nd St	N	N
2	Safety and Security	Community Center	104 1st St	Y	N
3	Health and Medical	Community Health Clinic	24 S Main St	N	N
4	Energy	Casey's	307 3rd St	N	N
5	Other	Dollar General Store	403 3rd St	N	N
6	Other	Emmanuel Lutheran Church	208 2nd Ave NW	Y	N
7	Other	United Methodist Church	107 3rd St NW	Y	N

Other Community Assets

The City of Dayton has also identified two other community assets of concern:

- Community Club
- Grandview Apartments
- Local Schools

Dayton Community Lifelines Map



HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Moderate

The City of Dayton is vulnerable to drought through impacts to municipal water supplies, agriculture, vegetation, and the local economy. Dayton's municipal drinking water system is supplied by groundwater wells drawing from the Mississippian-Devonian aquifer, making long-term groundwater availability an important consideration during prolonged drought. The system does have multiple active wells and elevated storage, which provides some operational redundancy.

The local economy is also heavily impacted by agriculture. Drought can also reduce crop yields, affect livestock and feed availability, and increase water demand for irrigation. Prolonged dry conditions can also increase the amount of combustible vegetation and crop residue, increasing fuel loads for grass or wildfire.

Mitigation Action	**Water Conservation Public Awareness**
Description	This action is intended to address the concern of water usage during times when the community's water source may be running low.
Hazard(s)	Drought
Estimated Cost	$0
Funding	N/A
Timeline	2-5 years
Priority	Medium

Mitigation Action	**Water Conservation Public Awareness**
Lead Agency	City of Dayton
Status	Project will be completed once mass notification system has been implemented.

Extreme Temperatures

Level of Vulnerability: Low

Dayton is vulnerable to both extreme heat and extreme cold, which can threaten resident health, increase energy demands, and place additional stress on utilities and infrastructure. Populations most vulnerable include older adults, young children, outdoor workers, residents with limited mobility, individuals with chronic health concerns, and households without reliable heating or air conditioning.

During extreme heat, increased cooling demand can strain electrical systems, while prolonged exposure may result in heat exhaustion or heat stroke. Outdoor workers such as farmers and residents without adequate cooling are particularly vulnerable. Heat can also stress crops, livestock, pavement, mechanical systems, and municipal equipment.

During periods of extreme cold, Dayton may experience frozen pipes and water-service lines, equipment and vehicle failures, increased heating demand, and risks of frostbite and hypothermia. A utility outage occurring during either extreme heat or cold could substantially increase life-safety concerns, particularly for residents dependent on electrical medical equipment or climate-controlled environments. The local community center and community churches could be used as temporary cooling centers, but backup generators are needed.

Mitigation Action	**Emergency Plan Review**
Description	This action is intended to ensure that critical facilities within the community are considered in emergency plans. A committee of residents will be estalished to review and update the plan as needed.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm:Lightning & Hail, Tornado/Windstorm,

Mitigation Action	**Emergency Plan Review**
	Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	$0
Funding	N/A
Timeline	1 year or less
Priority	High
Lead Agency	City of Dayton
Status	The committee is in the process of finishing the review.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

The proximity of Skillet Creek to Dayton produces meaningful flood risk to the community, including potential inundation of residential and commercial properties on the west and south sides of town. Flooding may affect residences, businesses, streets, bridges and culverts, utility infrastructure, agricultural property, and low-lying areas near waterways or drainage corridors. High water may temporarily close streets or roads, restrict access to properties, and delay emergency response. Flooding can also cause erosion, damage drainage infrastructure, inundate basements or lower levels of buildings, and interfere with utility operations.

In 2019, the City experienced creek flooding which damaged campers and buildings. The City plans to prevent camping and construction closest to the creek.

Mitigation Action	**Ensure Dayton Has Adequate Equipment**
Description	This action is intended to ensure that emergency responders are properly equipped in the event of a hazard.

Mitigation Action	**Ensure Dayton Has Adequate Equipment**
	The community plans to budget for the equipment as necessary.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	$20,000 annually
Funding	General Fund, Bonds & Grants
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Dayton
Status	Equipment is evaluated yearly and upgraded as needed.

Mitigation Action	**Flood-hazard Area Development Restrictions**
Description	Develop an ordinance or code which prevents construction and camping in low-lying flood risk hazard areas.
Hazard(s)	Flooding, Thunderstorms
Estimated Cost	Staff Time
Funding	General Fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Dayton
Status	Not yet started.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

Dayton is vulnerable to grass and field fires due to its surrounding rural agricultural landscape containing cropland, grasses, roadside vegetation, wooded areas, and other combustible fuels. Fire potential increases significantly during periods of drought, extreme heat, low humidity, and strong winds. A wildland fire outside Dayton could spread rapidly toward the community under windy conditions. Properties near the edge of the city, agricultural structures, outbuildings, utility infrastructure, crops, and transportation corridors may be particularly exposed. Smoke can also reduce visibility along roads and create respiratory concerns.

In 2020, a wildland fire occurred outside of Dayton and encroached into wooded areas toward the community. The primary vulnerability to this hazard is the wooded areas surrounding the City, which could allow a grass or wildland fire to spread toward developed areas. To mitigate this risk, the City is in the process of upgrading a fire truck to a brush truck, improving its ability to respond to wildland fire incidents. Additional mitigation efforts will focus on community information and public education to increase awareness of wildland risks and appropriate prevention measures.

Mitigation Action	**Enforce Burn Bans**
Description	This action is intended to make sure enforcement of the burn ban in Dayton is occurring during dry, windy, and hot conditions.
Hazard(s)	Grass Fire or Wildland Fire, Drought
Estimated Cost	$0
Funding	None
Timeline	1 year or less
Priority	High
Lead Agency	City of Dayton
Status	In progress. Burn bans are announced on multiple Facebook pages and will also be announced on public notification system once installed.

NEW Mitigation Action	**Emergency Response Equipment**
Description	Evaluate and upgrade appropriate emergency equipment to provide adquate emergency response and capacity for the community.
Hazard(s)	Grass fire or wildland fire, Drought
Estimated Cost	$65,000+
Funding	General Fund
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Dayton
Status	This is a new mitigation action. The city is currently upgrading a fire truck to a brush rig for local emergency response.

Severe Winter Storms

Level of Vulnerability: Moderate

Dayton is vulnerable to severe winter storms capable of producing heavy snowfall, blowing and drifting snow, freezing rain, ice accumulation, and extreme cold. Snow and ice can make roads hazardous or impassable, delay emergency response and utility restoration, and interfere with deliveries, school transportation, employment, and access to medical services.The City of Dayton has experienced severe winter weather events, including ice storms and snow drifts blown by high winds. The community is particularly vulnerable due to its older electrical infrastructure, which may be more susceptible to damage and power outages during severe winter storms. Residents who are older, have limited mobility, rely on electrically powered medical devices, or have difficulty traveling outside the community may face increased vulnerability during prolonged power outage events. To mitigate this risk, the City has installed a generator capable of supporting the entire community during power outages. Additional mitigation needs include continued repairs and regular inspections of the electrical infrastructure to identify and address vulnerabilities before they result in service disruptions.

Mitigation Action	**Ensure Elderly and Disabled Residents Safety**
Description	This action is intended to make sure that elderly and disabled residents are aware of when a hazard could be impacting the community.The community will achieve this by encouraging residents to sign up for direct notifications.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm:Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	$1,000 annually
Funding	General Fund
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Dayton
Status	Currently in progress. The City is looking into companies to partner with.

Mitigation Action	**Ensure Street Signage is Up-to-Date**
Description	Evaluate and replace city signage. This action is intended to ensure that the community's street signage is visible to vehicle operators and pedestrians.
Hazard(s)	Tornado/Windstorm, Severe Winter Storms, Thunderstorms: Lightning & Hail
Estimated Cost	$3,000 annually
Funding	General Fund
Timeline	Over 5 years
Priority	Medium

Mitigation Action	**Ensure Street Signage is Up-to-Date**
Lead Agency	City of Dayton
Status	City street signs are on a rotating schedule to be replaced.

Sinkholes

Level of Vulnerability: Low

The City of Dayton has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Dayton is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

Due to the lack of localized vulnerability to this hazard and no past historical events of sinkholes occuring in Dayton, no mitigation actions were identified for Sinkholes.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Dayton is vulnerable to severe thunderstorms capable of producing large hail, intense rainfall, lightning, and damaging winds. These storms can cause widespread but generally short-duration impacts to residences, businesses, municipal facilities, vehicles, trees, utility systems, agricultural buildings, and crops. The city has experienced lightning strikes to transformers, which can result in damage to electrical infrastructure and disruptions to electrical service. The community is vulnerable to power loss due to its reliance on an external electrical power supplu from Midland.

To mitigate risk, the City utilizes a generator to provide backup power during outages. Additional mitigation efforts should include annual inspections and upgrades to the electrical grid to improve reliability and reduce the potential for service disruptions during evere thunderstorms.

Mitigation Action	**Replace and Bury Overhead Power Lines**
Description	This action is intended to aid in the protection of the community's power lines.

Mitigation Action	**Replace and Bury Overhead Power Lines**
Hazard(s)	Tornado/Windstorm, Thunderstorms: Lightning & Hail
Estimated Cost	TBD
Funding	Dayton Light & Power
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Dayton
Status	All new construction is required to be underground. Dayton Light & Power is putting most needed sections underground as necessary.

Tornado/Windstorm

Level of Vulnerability: Moderate

Dayton is vulnerable to tornadoes, straight-line winds, and derechos capable of producing severe or catastrophic damage to buildings, utilities, trees, transportation infrastructure, and agricultural resources. Residences, commercial buildings, older structures, manufactured or lightly constructed buildings, overhead electrical infrastructure, mature trees, grain bins, machine sheds, barns, and other agricultural facilities may be particularly vulnerable.

In 2021, a tornado occurred outside of Dayton and damaged electrical poles belonging to Midland, resulting in the potential for power outages and service disruptions. The community is vulnerable to loss of power, displacement, and property damage associated with tornado and windstorm events. To mitigate this risk, the community center serves as a designated meeting place for residents in need, and the City has installed a generator to provide backup power. Additional mitigation efforts will focus on public information and education to increase awareness of tornado safety, preparedness, and available community resources, as well as burying overhead powerlines moving forward to recuce potential power loss occurrences.

Mitigation Action	**Designate Shelters within the Community**
Description	This action will establish shelters in the community where residents can go in the event of a hazard.

Mitigation Action	**Designate Shelters within the Community**
Hazard(s)	Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Extreme Temperatures
Estimated Cost	$0
Funding	N/A
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Dayton
Status	Currently in progress. Boxes of supplies need to be placed in each shelter.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

According to the 2022 Census of Agriculture, Webster County contained approximately 335,000 acres of cropland, and crops accounted for about 72% of county agricultural sales. This concentration of agricultural production means a widespread disease affecting corn, soybeans, or other crops could result in substantial losses for producers and create secondary economic impacts for businesses and residents in and around Dayton. In 2026, Iowa State University Extension reported Phytophthora root and stem rot and bacterial blight in soybeans within the agronomy region that specifically includes Webster County.

Significant disease outbreaks could reduce crop yields and quality, increase production and treatment costs, reduce farm income, and potentially affect grain storage and marketing. Because agriculture represents a substantial portion of Webster County's economy, severe or widespread crop losses could have secondary effects on agricultural suppliers, equipment dealers, transportation and grain-handling businesses, local employment, household spending, and the broader tax base.

Mitigation Action	**Plan For and Identify Plant Diseases**
Description	This action is intended to limit the impacts on the Emerald Ash Borer and Scotch Pine Disease on trees in town for the future.

Mitigation Action	**Plan For and Identify Plant Diseases**
	The community plans to inspect for disease, pests, and remove dead/dying trees.
Hazard(s)	Animal/Crop/Plant Disease
Estimated Cost	$20,000 annually
Funding	General Fund and Grants
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Dayton
Status	The City has removed over 100 trees so far. Approximately 48 trees are left that have disease.

Dam Failure

Dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

No mitigation or resiliency actions were identified at this time for the jurisdiction.

Hazardous Materials

The City of Dayton has historically had more than a 75% chance of a hazardous materials event annually. The City has concluded that the result of a hazardous mateiral incident would be negligible with few if any injuries and little to no property damage. No specific past events were documented. As a farming community, the City's vulnerability stems from the regular transport of chemicals through town

No mitigation or resiliency actions were identified at this time for the jurisdiction.

Terrorism/Cyber-Attack

The City of Dayton has indicated that any terrorism or cyber-attack vulnerabilities primarily affect the local water system or municipal records.

No mitigation or resiliency actions were identified at this time for the jurisdiction.

Completed Mitigation Actions

Mitigation Action	**Warning Siren Updates and Installation**
Description	Update existing siren including hardening and looped power.
Hazard(s)	Tornado/Windstorm
Status	Project completed.

Removed Mitigation Actions

Mitigation Action	**Fan Distribution Program**
Description	This action will help ensure that community members stay cool during an extreme heat event.
Hazard(s)	Extreme Temperatures
Status	No longer needed.

Mitigation Action	**Cost Analysis for Weather Radios**
Description	This action will increase awareness on how the City can receive funding to provide weather radios to its residents.
Hazard(s)	Tornados/Windstorm, Severe Winter Storms, Thunderstorms: Lightning & Hail
Status	No longer needed.

Mitigation Action	**Construct Tornado Safe Room**
Description	This action will create a room within the community where residents can go to take shelter in the event of a tornado.
Hazard(s)	Tornado/Windstorm
Status	No longer needed.

Mitigation Action	**Flash Flooding Public Awareness**
Description	This action is intended to increase awareness and educate the public on the proper actions to take in the event of a flash flood.
Hazard(s)	Flooding (Flash and Riverine)
Status	No longer needed.

CITY OF DUNCOMBE COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

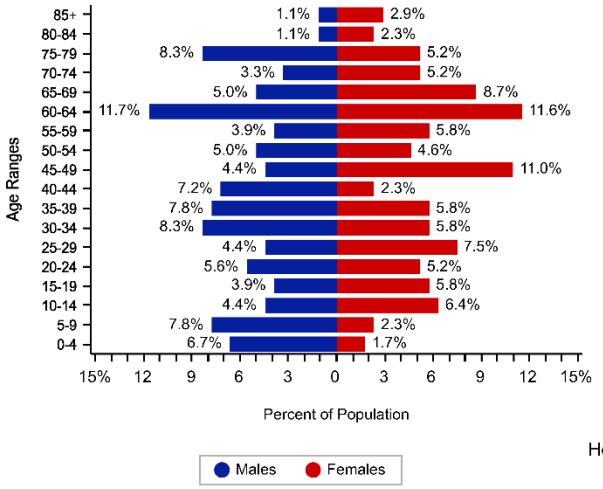
Community Summary Fact Sheet

Duncombe, IA

Webster County Iowa Hazard Mitigation Plan 2026

353	45.3	162	2.18	$312,143	$45,570
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



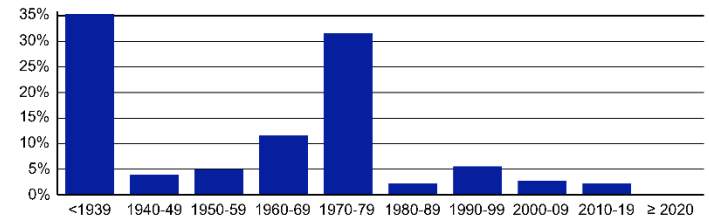
TOTAL POPULATION

2026 Total Population (Estimate)	353
2020 Total Population (U.S. Census)	381
2010 Total Population (U.S. Census)	412
2000 Total Population (U.S. Census)	475

AT RISK POPULATIONS

45	76	2	10%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

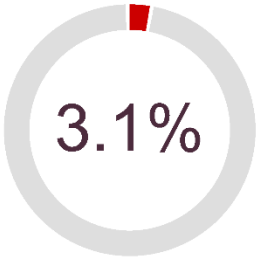
HOUSING: YEAR BUILT



EMPLOYMENT

9	6.2%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

9	1%
Vacant Housing Units	Mobile Homes

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Duncombe Local Planning Team

Name	Title	Department	Participation
Lynda Wunder	City Clerk	Administration	Attended R1 and R2
Zach Trent	Mayor	Administration Fire Department	Attended R2
Coey Stuhr	Firefighter	Fire Department	Attended R2
Todd Bingham	Fire Chief	Fire Department	Attended R2

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles, and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River, which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Duncombe is located in the northeastern part of Webster County. The City sits just north of U.S. Highway 20, which runs east-west south of town, connecting it to Fort Dodge to the west.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The City Clerk, Mayor, Fire Chief, and Public Works will be responsible for reviewing and updating the community profile outside of the five-year update. The City of Duncombe will review the plan bi-annually. The public will be notified through the newsletter, social media, the city's website, and required published legal notices.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Duncombe Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	No	
	Capital Improvements Plan	No	
	Economic Developmet Plan	No	
	Emergency Operations Plan	Yes	
	Floodplain Management Plan	Yes	2026
	Stormwater Management Plan	No	
	Zoning Ordinance	No	
	Subdivision Regulation/Ordinance	No	
	Floodplain Ordinance	Yes	2026
	Building Codes	Yes	
	Water System Emergency Response Plan	Unsure	
	Source Water/Wellhead Protection Plan	Yes	2018
	National Flood Insurance Program	Yes	2026
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	Yes	
	GIS Capabilities	No	
	Building Code Official	Yes	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	Yes	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	Yes	
	Awarded a Grant in the Past	Yes	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes	
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	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

Overall Capability

The city has the ability to increase plans and capabilities. The city is in need of a comprehensive plan, a capital improvements plan, a stormwater management plan, and a water system emergency response plan. These need to be a priority, and the city is in a financial position to complete these plans.

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

PLANS AND STUDIES

The City of Duncombe has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Duncombe updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	HMP Integration
Emergency Operations Plan	The HMP has not been integrated into the emergency operations plan
Floodplain Management Plan	The HMP has not been integrated into the floodplain management plan
Floodplain Ordinance	The HMP has not been integrated into the floodplain ordinance
Building Codes	The HMP has not been integrated into the building codes
Source Water/Wellhead Protection Plan	The HMP has not been integrated into the source water/wellhead protection plan

Floodplain and National Flood Insurance Program

The City of Duncombe participates and is currently in good standing with the National Flood Insurance Program. The City Clerk serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. The City Clerk is also responsible for enforcing floodplain regulations, which—along with information on NFIP standards—are located within the Floodplain Code.

The City of Duncombe does not have regulatory higher standards than the NFIP minimum and has not experienced a recent flood event. The City plans to continue its involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Duncombe is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. This risk map identified a mix of Very Low, Low, and Medium risk of flooding for the City of Duncombe from the Middle Des Moines River.

National Flood Insurance Program Information

Date of NFIP Participation:	**05/08/26**	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	271	$43,071,290	0	$0	0%
500-year			0	$0	0%

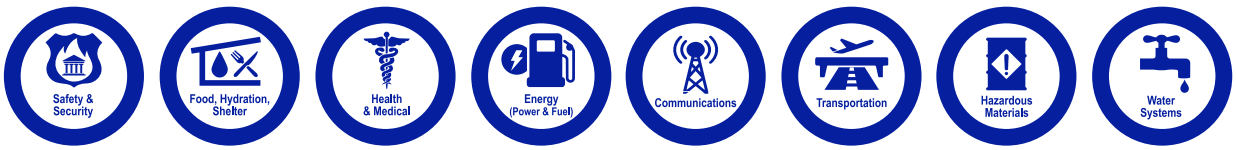
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

Over the past five years, one new house has been built on Boise Street and road improvements have been completed along Wagner Street. No new structures have been developed in the floodplain or other hazardous areas and no new structures have been mitigated for specific hazards. There are two lots that are expected to have new homes built on in the near future, however these will not be located within the floodplain.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Duncombe Community Lifelines

CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Food, Hydration, Shelter	Community Center & Tornado Shelter	510 Folger Street	Y	Y

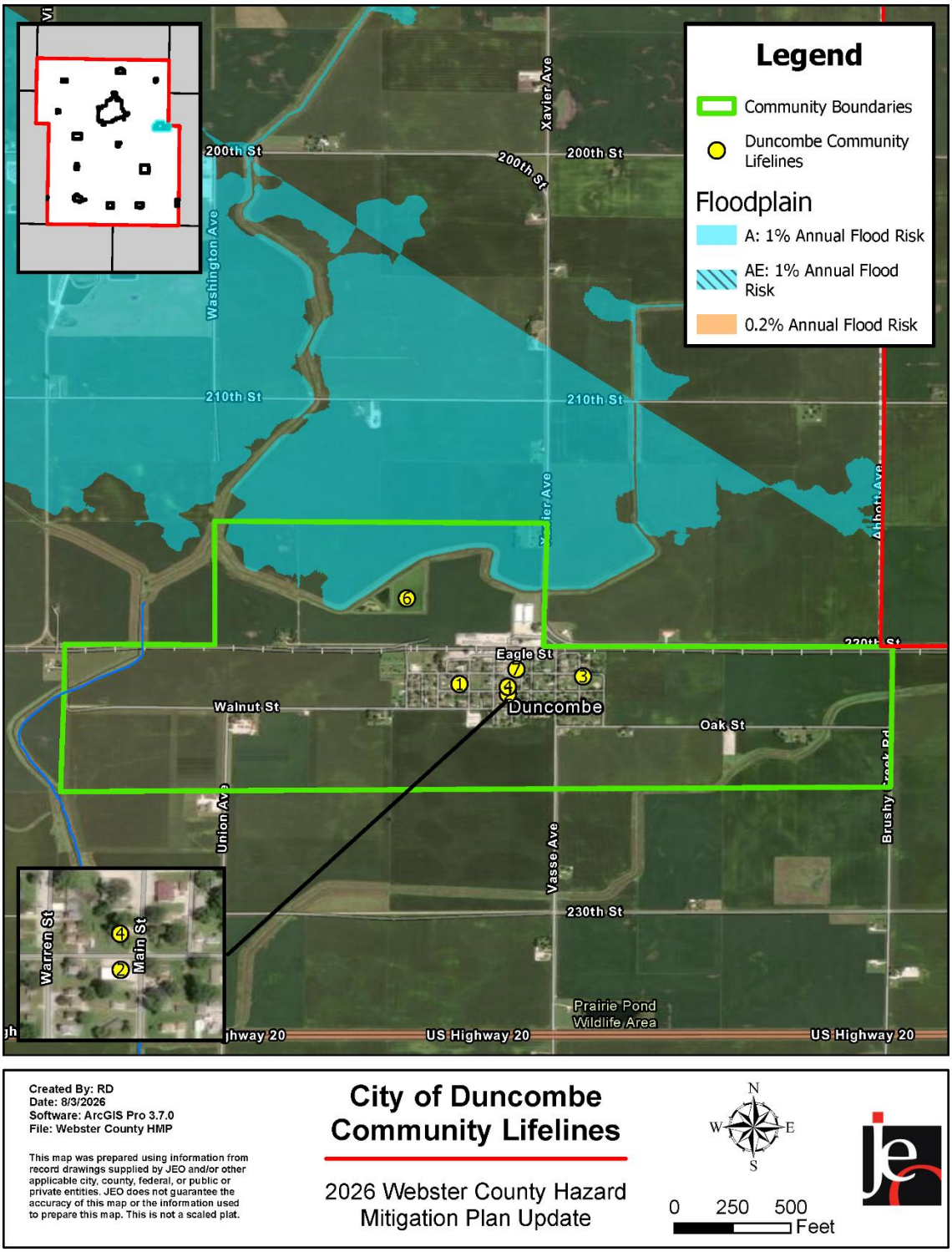
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
2	Safety and Security	Fire Department & Warning Siren	606 Main Street	N	Y
3	Water Systems	Water Plant & City Shed	525 Wagner Street	N	Y
4	Water Systems	Water Tower	Main Street	N	N
5	Water Systems	Sewer Lift Stations (various)	*Not mapped*	N	Y
6	Water Systems	Lagoons	NW of town	N	N
7	Safety and Security	City Hall	421 Main Street	N	N

Other Community Assets

The City of Duncombe has also identified various other community assets of concern including:

- Ball Park
- Churches
- Duncombe Public Library
- Murphey Apartments
- New Coop, New Feeds
- Post Office
- Recreation Committee
- Van Diest Supply Company

Duncombe Community Lifelines Map



*Community lifeline(s) 5 are not mapped

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Moderate

The City of Duncombe is vulnerable to drought primarily through impacts to water resources, agriculture, vegetation, and the local economy. The City of Duncombe experienced area-wide drought conditions in both 2024 and 2025. The community's key vulnerability is its water supply, specifically low well levels and the water plant and water tower struggling to keep up with demand. Because Duncombe's municipal drinking water is supplied by groundwater from the Mississippian aquifer, prolonged drought conditions places stress on the City's water supply, particularly if increased demand coincides with declining groundwater levels.

To mitigate risk, the City has educated citizens and businesses on water conservation and requested reduced usage, while also working to stop high-volume commercial users from overusing water. To further reduce risk, the City plans to construct a larger-capacity water tower and add a new well.

Mitigation Action	**Improve Water Infrastructure**
Description	Plan, design, and construct a larger-capacity water tower and add a new well to city water infrastructure
Hazard(s)	Drought
Estimated Cost	$3 million or more
Funding	Grant funding, loans
Timeline	Over 5 years
Priority	Medium

Mitigation Action	**Improve Water Infrastructure**
Lead Agency	City of Duncombe
Status	This is a new mitigation action

Extreme Temperatures

Level of Vulnerability: Moderate

Duncombe is vulnerable to periods of extreme heat and extreme cold that can threaten public health, increase energy demands, and place additional stress on buildings and critical infrastructure. Older adults and young children which make up over a third of the local population, as well as outdoor workers, people with limited mobility, and residents without adequate heating or cooling are particularly vulnerable to extreme temperatures. Extreme heat can cause heat-related illnesses, while prolonged cold can result in hypothermia, frostbite, frozen pipes, and increased demand for heating.

Extreme temperatures can also create secondary infrastructure impacts. Prolonged heat can increase electricity demand and stress mechanical and electrical equipment, while extreme cold can result in frozen or broken water lines, vehicle and equipment failures, and increased heating demands. Power outages occurring during either extreme heat or cold would significantly increase risks to residents. The community's key vulnerability is intermittent power loss over the past several years, with variable outage durations in both winter and summer; this particularly affects the aging population, who may go without heat or air conditioning with no resources to relocate temporarily.

Mitigation Action	**Encourage Training City Personnel on NIMS**
Description	This action is intended to increase the knowledge that City Personnel have in regards to the National Incident Management System (NIMS)
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	TBD

Mitigation Action	**Encourage Training City Personnel on NIMS**
Timeline	2-5 years
Priority	Low
Lead Agency	City of Duncombe
Status	Project not started.

Flooding (Flash and Riverine)

Level of Vulnerability: Low

Duncombe is vulnerable to flooding resulting from heavy rainfall, rapidly accumulating runoff, drainage limitations, and flooding along nearby waterways and low-lying areas. Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Heavy rainfall can overwhelm drainage infrastructure, inundate roads and properties, cause basement flooding, and temporarily restrict transportation and emergency access.

Riverine flooding presents a low hazard to the City of Duncombe as the only mapped floodplain runs through a canal near the lagoons. If flooding were to occur localized impacts would be minimal.

Mitigation Action	**Slip Line Sanitary Sewer Mains Throughout City**
Description	This action is intended to help protect the structural stability of existing sewer lines through the community.
Hazard(s)	Sinkholes, Flooding (Flash and Riverine), Severe Winter Storms, Drought
Estimated Cost	TBD
Funding	TBD
Timeline	2-5 years
Priority	High
Lead Agency	City of Duncombe

Mitigation Action	**Slip Line Sanitary Sewer Mains Throughout City**
Status	Project in progress. Preliminary engineering report has been completed.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

The City of Duncombe is vulnerable to grass fire or wildland fire due to the extensive agricultural land and vegetation surrounding the community. During drought, extreme heat, low humidity, or high-wind conditions, grasses, crop residue, and other vegetation can become dry and highly combustible. Although a grass fire may initially occur outside the developed portion of Duncombe, strong winds could cause a fire to spread rapidly toward residences, agricultural structures, utilities, or other developed areas. Smoke may also reduce visibility on area roads and create health concerns. Agricultural equipment, electrical equipment, outdoor burning, and lightning are the most likely ignition causes in Webster County.

The community's key vulnerability is its agricultural land, both within and just outside City limits, which could be at risk of crop fires during extremely dry and windy conditions. The city is also dependent on the capacity of local and mutual-aid fire dpeartments to responde to rapidly spreading events.

Mitigation Action	**Emergency Response Mutual Aid Agreements**
Description	This action is intended to ensure that proper protection services are in place for when a hazard impacts the community. The City will make sure to have the tools and resources for farmers to assist in plowing spots or strips to stop fires from spreading.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm:Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	TBD

Mitigation Action	**Emergency Response Mutual Aid Agreements**
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Duncombe
Status	Project in progress.

Mitigation Action	**New Fire Station**
Description	This action is intended to begin construction on a new fire station within the City. This action was identified as a priority by community members.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials,
Estimated Cost	TBD
Funding	TBD
Timeline	5+ Years
Priority	Medium
Lead Agency	City of Duncombe
Status	This is a new mitigation action

Severe Winter Storms

Level of Vulnerability: Moderate

Duncombe is vulnerable to severe winter storms that can produce heavy snowfall, blowing and drifting snow, freezing rain, ice accumulation, extreme cold, and hazardous travel conditions. The City's is surrounded by rural agricultural landscape which increases the potential for blowing and drifting snow along roads.

Heavy snow and ice can also damage trees, utility lines, poles, roofs, and communication infrastructure, causing extended power outages. Snow-covered or ice-covered roads can also delay emergency response, utility repairs, school transportation, and impede those seeking medical care. These impacts can be particularly significant for older adults, people with limited mobility, and residents dependent on electrically powered medical equipment.

Winter storms may also affect municipal water and sewer operations, particularly if extreme cold causes frozen pipes or equipment problems or if power disruptions affect essential facilities. Duncombe directly provides municipal water and sewer services, making continued operation of these systems an important component of community resilience. The community's key vulnerabilities are power outages and drifting , blowing snow that cuts off access out of the City.

To mitigate risk, the City maintains adequate snow removal equipment and contracts additional labor for excessive snow removal.

Mitigation Action	**Resident Emergency Plans**
Description	This action will help promote cohesive planning efforts between the City and its companies in town. The goal is to make sure that everyone in the community knows the most direct route to the community center or the fire station. Also, to pull resources within the City to make sure everyone can get to where they need to go safely.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm:Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	TBD
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Duncombe
Status	Project not started.

Sinkholes

Level of Vulnerability: Low

The City of Duncombe has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Duncombe is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

Due to the lack of localized vulnerability to this hazard and no past historical events of sinkholes occuring in Duncombe, no mitigation actions were identified for Sinkholes.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Duncombe is vulnerable to severe thunderstorms capable of producing large hail, lightning, damaging winds, and intense rainfall. These events can damage residences, businesses, municipal facilities, vehicles, crops, trees, and utility infrastructure. Hail is particularly capable of damaging roofs, siding, windows, vehicles, agricultural crops, and outdoor equipment.

Lightning presents risks to people outdoors and can damage electrical, communications, and municipal equipment or ignite fires. High winds associated with thunderstorms can down trees and power lines, damage roofs and outbuildings, and create debris that blocks streets. Heavy rainfall can simultaneously overwhelm local drainage infrastructure and produce localized flooding.

Mitigation Action	**Update Warning Siren**
Description	This action is intended to update warning sirens
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Flooding (Flash and Riverine)
Estimated Cost	$30,000
Funding	General fund
Timeline	2-5 Years

Mitigation Action	**Update Warning Siren**
Priority	Medium
Lead Agency	City of Duncombe
Status	This is a new mitigation action

Mitigation Action	**Upgrade City Radios**
Description	By upgrading the City's radios, this action will help increase overall public awareness of when a hazard may impact the communities.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	Grant funding
Timeline	2-5 years
Priority	Low
Lead Agency	Fire Department
Status	In progress. No updates have been made.

Tornado/Windstorm

Level of Vulnerability: High

Duncombe is vulnerable to tornadoes, straight-line winds, and derechos that can cause significant or catastrophic damage to structures, utilities, trees, transportation infrastructure, and agricultural resources. A significant tornado could produce concentrated areas of severe structural damage, while a derecho or other straight-line wind event could affect the entire community and surrounding agricultural area. Overhead electrical and communications infrastructure, mature trees, older buildings, manufactured or lightly constructed structures, grain bins, machine sheds, and other agricultural facilities may be particularly vulnerable.

Downed trees, utility poles, and structural debris could block roads and impede emergency response.

The City of Duncombe was impacted by the 2020 derecho and winter tornado in December 2021, both of which left the community without power for 2-3 days. Key vulnerabilities include power outages and homes without basements.

The city has a public tornado shelter with a backup generator at the community center which City or Fire Department personnel may open during tornado watches. The water plant and sewer lift station are also equipped with generators.

Mitigation Action	**Create and Maintain Provisions List at Storm Shelter**
Description	This action will allow the City to provide more resources for citizens when there is an emergency and at the storm shelter.
Hazard(s)	Tornado/Windstorm
Estimated Cost	Staff time
Funding	N/A
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Duncombe
Status	Project not started.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is identified as a concern for the City of Duncombe, due to an emerald ash borer infestation that has infected and killed many trees. A key vulnerability is that many of the dead trees are located in easements, creating risk from falling trees and broken limbs in roadways and on private property.

To mitigate risk, some dead trees have already been removed. To further reduce risk, more trees need to be removed, but the cost is currently prohibitive.

Dam Failure

Dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

The City of Duncombe has historically had a significant chance of hazardous materials event occuring in any given year; though no recent events were reported. The community's key vulnerability is the proximity of Koch Nitrogen to City limits—in the event of a catastrophic failure at the plant, the City's population would be in danger.

Mitigation Action	**Firefighter HAZMAT Training**
Description	This action will help to ensure that the community's firefighters will be knowledgeable in dealing with any hazardous materials operation in the future.
Hazard(s)	Hazardous Materials
Estimated Cost	$5,000
Funding	Generl Fund
Timeline	1 year or less
Priority	Medium
Lead Agency	Fire Department
Status	In progress. Training is done annually for HAZMAT

Terrorism/Cyber-Attack

Terrorism/cyber-attack is not identified as a concern for the community.

Completed Actions

Mitigation Action	**Move Lift Station to a Higher Elevation**
Description	This action will provide a more adequate location for the community's lift station at a higher elevation in the City.

Mitigation Action	**Move Lift Station to a Higher Elevation**
Hazard(s)	Flooding (Flash and Riverine)
Status	Project completed.

Mitigation Action	**Comply With Street Signage Requirements**
Description	This action will help ensure that signs in the community and up-to-date and adhere to today's regulations and requirements.
Hazard(s)	Tornado/Windstorm, Severe Winter Storms, Flooding (Flash and Riverine)
Status	Project completed.

Mitigation Action	**Welcome Packet Upgrade**
Description	This action will increase the knowledge of the City's tornado shelter to new residents who move to town throught the welcome packet that every new household receives.
Hazard(s)	Tornado/Windstorm
Status	Project completed.

Mitigation Action	**Promote Alert Iowa**
Description	Provide information on how to receive weather alerts via Alert Iowa.
Hazard(s)	Tornado/Windstorm
Status	Project completed.

Mitigation Action	**Purchase Generator/Upgrade Solar Panels**
Description	This action will increase the amount of time the City can provide shelter to citizens in the event of a disaster.
Hazard(s)	Tornado/Windstorm
Status	Project completed.

Removed Actions

Mitigation Action	**Continue Participation in Region V HAZMAT**
Description	This action will ensure that the agreement between Region V HAZMAT and the community will remain in place for the future.
Hazard(s)	Hazardous Materials
Status	No longer needed. Continued participation Is not considered a mitigation action.

CITY OF FORT DODGE COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

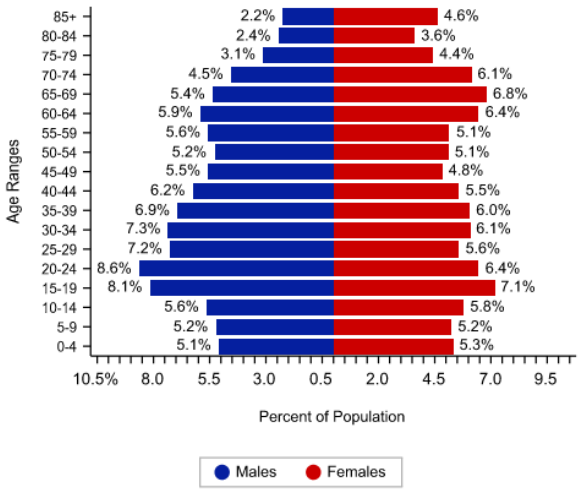
Community Summary Fact Sheet

Fort Dodge, IA

Webster County Iowa Hazard Mitigation Plan 2026

24,490	39.3	9,948	2.16	$156,797	$63,356
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID

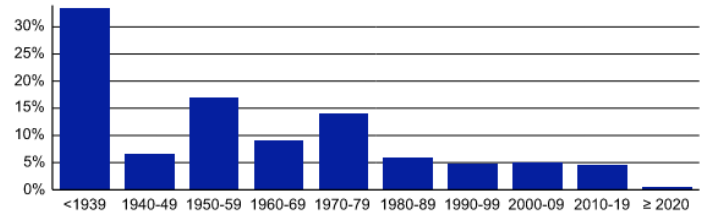


TOTAL POPULATION	
2025 Total Population (Estimate)	24,490
2020 Total Population (U.S. Census)	24,871
2010 Total Population (U.S. Census)	25,204
2000 Total Population (U.S. Census)	25,166

AT RISK POPULATIONS

3,047	5,238	863	14%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

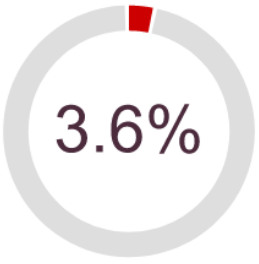
HOUSING: YEAR BUILT



EMPLOYMENT

1,319	2.4%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

936	2%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2025, 2020, 2010, 2000, 2019-2023.

LOCAL PLANNING TEAM

Fort Dodge Local Planning Team

Name	Title	Department	Participation
Austin Morrow	Engineer / Floodplain / Stormwater	City of Fort Dodge Engineering	Profile Development
Brett Daniel	Director	Public Works	Profile Development
Brooke Flattery	Planner II	City of Fort Dodge Development Services	Profile Development
Dennis Quinn	Chief of Police	Fort Dodge Police Department	Attended Round 1 and Round 2, Profile Development
Dylan Hagen	Emergency Management Director	Webster County Emergency Management	Attended Kickoff, Round 1, and Round 2, Profile Development
Matt Price	Fire Chief	Fort Dodge Fire Department	Profile Development
Shawn George	Building Official	Building Inspections	Attended Kickoff, Round 1, and Round 2, Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Fort Dodge is located in the north-central part of Webster County. The Des Moines River runs southeast to northwest through Fort Dodge and bisects the city along the western border. The City of Fort Dodge may be the only urban cluster in Webster County due to having the county's largest school district located in the City, as well as a variety of manufacturing and processing companies that also reside in the City. Fort Dodge is also less than two miles from the intersection of major highways US Highway 169, which runs through the City, and US Highway 20.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The City of Fort Dodge's community profile was last reviewed on September 23, 2026. The City Engineer, Public Works Director, Building Inspection, Police Chief, and Fire Chief are

responsible for reviewing and updating the profile outside of the five-year plan update. The City intends to review the profile every two years.

CAPABILITY ASSESSMENT

The planning team reviewed the City's planning and regulatory, administrative and technical, fiscal, education and outreach, and warning capabilities. The following tables summarize these resources and the City's overall ability to implement mitigation projects.

Fort Dodge Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	2016
	Capital Improvements Plan	Yes	2026
	Economic Development Plan	Yes	2026
	Emergency Operations Plan	Yes	20% Annually
	Floodplain Management Plan	Yes	2026
	Stormwater Management Plan	Yes	2018
	Zoning Ordinance	Yes	2025
	Subdivision Regulation/Ordinance	Yes	2021
	Floodplain Ordinance	Yes	2024
	Building Codes	Yes	2026
	Water System Emergency Response Plan	Yes	2025
	Source Water/Wellhead Protection Plan	No	
	National Flood Insurance Program	Yes	2024
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
	Other (if any) Webster County HMP	Yes	2026
Administrative & Technical Capability	Planning Commission	Yes	
	Planner/Engineer (Land Development)	Yes	
	Transportation Planner	Yes	
	Floodplain Administrator	Yes	
	GIS Capabilities	Yes	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Building Code Official	Yes	
	Civil Engineering	Yes	
	Emergency Manager	Yes - County	
	Grant Manager	Yes	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	Yes	
	Other (if any)		
Fiscal Capability	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 – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes – up to 5% of City valuation	
	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	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Natural Disaster or Safety related school programs	Yes	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	Yes – Growth Award	
	Other (if any)		
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa, Outdoor Sirens, City/County Web Notification	

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City reported that the HMP has been integrated into its Floodplain Management Plan and Stormwater Management Plan. The other listed plans and ordinances have not yet incorporated the HMP. As shown below, the City intends to integrate the HMP into future updates of all nine listed planning mechanisms. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	HMP Integration
Comprehensive Plan	The HMP has not been integrated into the Comprehensive Plan. The City intends to incorporate the HMP during future updates.
Capital Improvements Plan	The HMP has not been integrated into the Capital Improvements Plan. The City intends to incorporate the HMP during future updates.
Economic Development Plan	The HMP has not been integrated into the Economic Development Plan. The City intends to incorporate the HMP during future updates.

Plan Title	HMP Integration
Emergency Operations Plan	The HMP has not been integrated into the Emergency Operations Plan. The City intends to incorporate the HMP during future updates.
Floodplain Management Plan	The HMP has been integrated into the Floodplain Management Plan, and the City intends to continue incorporating it during future updates. Specific integration methods were not provided.
Stormwater Management Plan	The HMP has been integrated into the Stormwater Management Plan, and the City intends to continue incorporating it during future updates. Specific integration methods were not provided.
Zoning Ordinance	The HMP has not been integrated into the Zoning Ordinance. The City intends to incorporate the HMP during future updates.
Subdivision Regulation/Ordinance	The HMP has not been integrated into the Subdivision Regulation/Ordinance. The City intends to incorporate the HMP during future updates.
Floodplain Ordinance	The HMP has not been integrated into the Floodplain Ordinance. The City intends to incorporate the HMP during future updates.

Floodplain and National Flood Insurance Program

The City of Fort Dodge participates in the National Flood Insurance Program and intends to continue participating. The City Engineer serves as the Floodplain Administrator, is not a Certified Floodplain Administrator, and is responsible for enforcing floodplain regulations. Regulations and information concerning NFIP standards are maintained in the City Code. The City enforces regulations through plan review, planning and zoning, and permitting processes. The City reported that it does not have standards above the NFIP minimum. It identifies substantially improved structures after a flood through plan review, planning and zoning, permits, and building inspections.

National Flood Insurance Program Information

Date of NFIP Participation:	04/09/71	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	5	**Number of Severe Repetitive Loss Structures:**	0

Total NFIP Premium ($):	$5,642	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$1,608,000	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	20	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$43,677		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	11,539	$1,881,236,490	76	3,656,460	.7%
500-year			23	1,473,370	.2%

Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

During the past five years, development in Fort Dodge has included residential construction, commercial redevelopment, riverfront recreation facilities, and transportation and utility improvements. Activity has been concentrated on the east, north, and northwest sides of the city, downtown, and along the Des Moines River corridor.

Redevelopment of the former Crossroads Mall property into Corridor Plaza represents a substantial change in commercial land use on the east side of the city. The property is generally located between 1st Avenue South and 5th Avenue South near South 25th–27th Streets. Following the mall's closure in 2022, portions of the enclosed structure were demolished, and the site was reconfigured for commercial development. Improvements have included streets, utilities, commercial lots, and retail and medical facilities. South 27th Street and 2nd Avenue South were extended through the property. Additional retail, lodging, entertainment, and public gathering uses are included in redevelopment plans.

Residential development has continued at Williams Bend, east of Williams Drive and south of 25th Avenue North. The neighborhood includes single-family and attached housing, with land available for additional residential construction. District 29, near 29th Street and Dodger Drive, has added apartments and townhomes through multiple phases. District 29 Phase III received state workforce housing tax credits for 49 additional units, which the developer identifies as townhomes.

Construction began in 2026 on the River District housing development along 3rd Avenue Northwest. The project includes 64 apartments in eight buildings, consisting of 40 affordable rental units and 24 workforce housing units. This development adds housing within the Northwest River District, where the City has also invested in roadway, utility, pedestrian, and streetscape improvements.

The City has continued to address vacant and deteriorated properties through environmental assessment, cleanup, and demolition. At the former Greenleaf Healthcare Facility, 1305 North 22nd Street, asbestos abatement was completed in 2023 and demolition was underway in late 2024. Other projects include demolition of the structurally deficient building at 710 Central Avenue and environmental assessment and cleanup planning for Warden Plaza. Residential nuisance and abandoned-building demolition efforts have also continued throughout the city. These activities address unsafe building conditions and make land available for infill development.

Transportation and utility investments have included street reconstruction, pavement repairs, bridge rehabilitation, and storm sewer improvements. Projects identified during the review period include South 21st Street and 15th Avenue South reconstruction and Veterans Bridge rehabilitation. The Northwest River District Phase 2 project includes reconstruction and widening of 3rd Avenue Northwest between 7th and 10th Streets Northwest, along with water main and storm sewer replacement. Reconstruction at North 15th Street and 2nd Avenue North

includes intersection realignment, traffic signals, storm sewer, water main, and sidewalk improvements. Both projects were scheduled to begin in 2026.

Recreational development has occurred within the Central River District along the Des Moines River near the west end of Central Avenue. Improvements include the Matt Cosgrove River's Edge Discovery Center, playscapes, fishing access, trails, and associated amenities. A second phase, scheduled for construction from 2026 through 2027, includes an outdoor shelter, seasonal restrooms, trails, sidewalks, landscaping, and site restoration.

The City identified the discovery center as a new structure constructed in a hazard-prone area and reported that fill was placed to elevate the building site. This reported elevation measure does not establish whether the building or surrounding property is outside the mapped Special Flood Hazard Area. Flood exposure should be documented using current flood hazard mapping and applicable site elevation records.

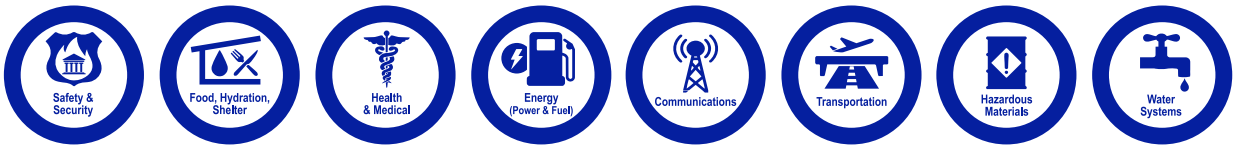
Construction of Fort Dodge Fiber began in 2022, and the municipal utility reported completion of its mainline infrastructure in 2024. The network provides fiber-optic service to homes and businesses and represents an expansion of the city's communications infrastructure.

Future development includes additional housing, continued commercial redevelopment, and industrial expansion. The City's comprehensive plan identifies the Cross-town Industrial Park and the 1st Avenue South and 5th Avenue South corridors toward Quail Avenue as areas for continued employment and industrial development. Development in these areas will depend on access, utility capacity, stormwater management, and site conditions.

The comprehensive plan encourages development patterns that avoid floodplains, steep slopes, and other environmentally sensitive areas. The relationship between proposed development and mapped hazard areas should be evaluated at the site level, particularly within the Northwest and Central River Districts. Location outside the mapped riverine floodplain does not eliminate exposure to localized flooding or other hazards. As development proceeds, the City's risk assessment should account for changes in the location and number of residents, buildings, infrastructure, and public gathering areas exposed to hazards.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Fort Dodge Community Lifelines

CF #	Lifeline	Name	Address / Location	Shelter	Generator
1	Transportation	Airport	1639 Nelson Ave	N	N
2	Transportation	Central Maintenance Center	3001 8th Ave South, Fort Dodge, IA	N	N
3	Safety and Security	City Hall	819 1st Ave S	N	Y
4	Health & Medical	Community Health Center	126 N 10th St	Y	N
5	Transportation	DART Bus Services	530 1st Ave S	N	N
6	Safety and Security	Fire Station	1515 Central Ave	Y	Y
7	Safety and Security	Fort Dodge Correctional Facility	1550 L St	N	Y
8	Energy	Fuel Stations (various)	*Will not be mapped*	N	N
9	Food, Hydration, and Shelter	Grocery Stores (various)	*Will not be mapped*	N	N
10	Water Systems	Lift Stations (various)	*Will not be mapped*	N	Y
11	Safety and Security	Police Department	702 1st Ave S (Law	Y	Y

CF #	Lifeline	Name	Address / Location	Shelter	Generator
			Enforcement Center)		
12	Communications	Post Office	3440 Maple Dr	N	N
13	Transportation	Transporation Facilities	Road, rail, airport, transit, and bridge facilities - specify/map as appropriate	Varies	Varies
14	Health & Medical	Trinity Regional Medical Center (Hospital)	802 Kenyon Rd	Y	Y
15	Safety and Security	Veterans Administration Clinic	530 S 25th St	N	N
16	Water Systems	Waste Water Treatment Facility	Phinney Park Dr	N	Y
17	Water Systems	Water Towers	*Will not be mapped*	N	No
18	Water Systems	Water Treatment Plant	Phinney Park Dr	N	Y
19	Water Systems	Wells	*Will not be mapped*	N	Y

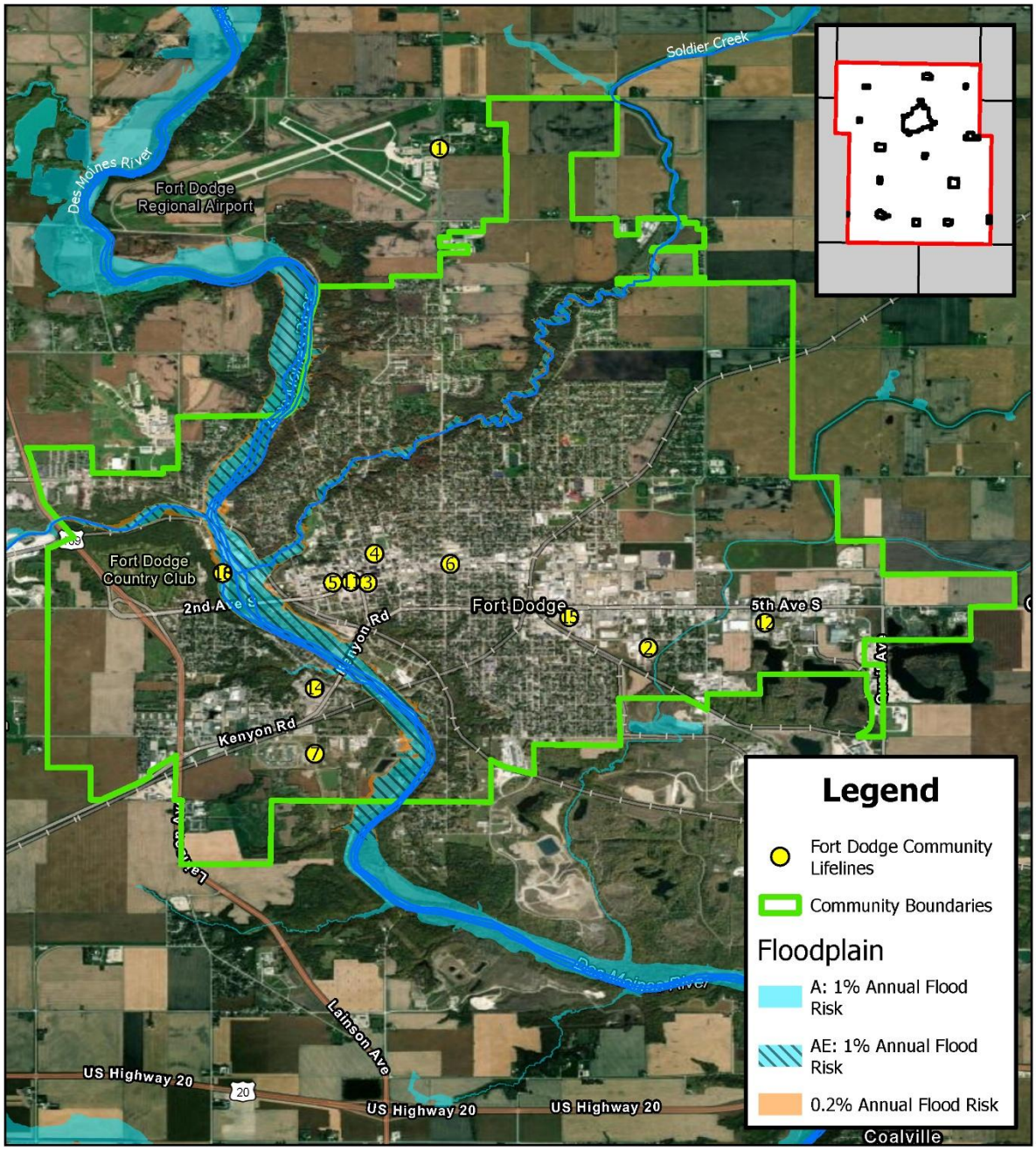
Other Community Assets

The City of Fort Dodge also has numerous other community assets of concern including:

- Unity Point Trinity Outpatient Rehab
- Iowa Central Community College
- Friendship Haven
- Heartland Communications
- Public Library

- Downtown Historic District & Oak Hill Historic District
- City Parks
- City Pools
- Schools – Fort Dodge School District
- Major Business / Employers
    - Decker Truck Line
    - Koch Fertilizer
    - Georgia Pacific Corporation
    - Certain Teed Gypsum
    - Cargill
    - Valero
    - CJ Bio America
    - Elanco
    - Nestle Purina
    - Silgan
    - National Gypsum
    - United States Gypsum
    - C&S Products
- Churches – various
- Child Care Services – various
- County Owned Properties
    - Webster County Courthouse
    - Webster County Communications Center
    - Webster County Jail

Fort Dodge Community Lifelines Map



Created By: SO
Date: 8/3/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP

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.

City of Fort Dodge Community Lifelines

2026 Webster County Hazard Mitigation Plan Update

N W E S

0 1,500 3,000 Feet

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Webster County and north-central Iowa experienced recurring drought conditions from 2021 through 2024. These conditions contributed to agricultural, vegetation, and water-management stress; however, no verified estimate of damage to City-owned property was identified. Fort Dodge's primary vulnerabilities include increased demand on the municipal water system and source wells, stress on urban trees and parks, reduced river flows, increased grass and brush fire potential, and economic impacts to agriculture, food processing, and related employers.

The City and Webster County currently monitor drought conditions using state drought information and coordinate municipal water-system operations, public communications, vegetation management, and emergency response activities. The City's 2023–2027 Capital Improvement Plan also identifies investments in the municipal water system. To further reduce risk, the City identified a need to create or update a drought annex that establishes measurable water-conservation stages and public-notification triggers; verify backup water-supply and system-interconnection capacity; protect source wells; plan for the needs of critical water users; and coordinate urban forestry, vegetation watering, and fire-risk reduction activities.

Mitigation Action	**Ensure Emergency Responders Have Adequate Equipment and Training**
Description	Adequate training and equipment are crucial for emergency responders to complete the task at hand. The City of Fort Dodge will seek to provide the training and equipment necessary to keep the fire department, police department, emergency medical services, and other emergency response groups prepared for potential hazards. Conduct an assessment of all current equipment, training, and certifications to identify areas of improvement.

Mitigation Action	**Ensure Emergency Responders Have Adequate Equipment and Training**
Hazard(s)	Drought, Extreme Temperatures, Flooding, Grass Fire, Severe Winter Storms, Sinkholes, Thunderstorms, Tornado/Windstorm
Estimated Cost	$100,000-$1,000,000+ annually/capital, depending on identified gaps
Funding	Department general funds; capital funds; state/federal grants
Timeline	1 Year or less
Priority	High
Lead Agency	Police / Fire-Rescue / EMS / County EMA
Status	FDPD policy supports regular briefing/training and disaster-scene readiness. Complete a documented annual multiagency gap assessment covering PPE, HAZMAT, communications, rescue, severe weather, continuity, and cyber response.

Extreme Temperatures

Level of Vulnerability: Moderate

The City of Fort Dodge has experienced both extreme heat and extreme cold. The highest recorded local temperature was 106 degrees Fahrenheit in August 1988. More recently, a January 2024 blizzard and extreme-cold event caused dangerous wind chills, travel disruptions, and closures, although no verified damage to City-owned property was identified. Extreme temperatures pose the greatest risk to older adults, children, people with disabilities, low-income and unhoused residents, outdoor workers, residents of older housing, and people who rely on electrically powered medical equipment. Utility outages may further increase these risks and disrupt essential services.

The City and its partners currently reduce impacts through Alert Iowa and other warning systems, public heat- and cold-safety messaging, welfare checks, emergency response, utility coordination, and partner facilities that may provide shelter when activated. To further reduce risk, the City has identified a need to maintain a formal extreme-temperature annex; designate accessible warming and cooling locations; identify transportation and generator needs; establish outreach and welfare-check procedures; and coordinate energy assistance and backup-power planning.

Mitigation Action	**Backup Energy for Friendship Haven**
Description	Purchase a backup generator for Friendship Haven. Friendship Haven is a critical facility for the City of Fort Dodge that provides care for multiple elderly patients. With the elderly residents who reside at this facility, it is necessary to ensure that adequate backup energy is available for the entity during energy disruptions.
Hazard(s)	Flooding, Thunderstorms, Severe Winter Storms, Extreme Temperatures, Tornado/Windstorm
Estimated Cost	$250,000-$750,000 planning-level estimate, subject to load study
Funding	Friendship Haven capital funds; private sources; eligible FEMA/state grants
Timeline	2-5 Years
Priority	High
Lead Agency	Friendship Haven with Webster County EMA
Status	Not yet started.

Flooding

Level of Vulnerability: Moderate

The City of Fort Dodge is vulnerable to riverine flooding along the Des Moines River and its tributaries, as well as localized flash flooding, sewer backups, and drainage problems associated with older infrastructure. In June 2024, the Des Moines River at Fort Dodge reached approximately 17.12 feet, affecting about a dozen homes and closing roads for several days; however, overall damage was reported as relatively minor. Heavy storms in May 2024 also caused localized flooding concerns and power outages. Potential impacts include damage to homes, roads, bridges, and utilities; disruption of emergency routes and business operations; and interruption of water and wastewater services. Although no critical facilities are located within the mapped hazard area, the wastewater lagoon is located nearby. The planning team determined that a major flood could cause serious injuries or illnesses, long-term property damage, disruptions to essential services lasting 24 to 72 hours, and significant long-term environmental impacts.

The City currently reduces flood risk by participating in the National Flood Insurance Program, enforcing floodplain regulations, operating a stormwater utility, monitoring river conditions,

issuing public warnings, removing low-head dams, and implementing storm sewer, drainage, detention, and sanitary sewer improvements. To further reduce risk, the City identified a need to update local flood and repetitive-loss information; continue drainage and sewer capital improvements; evaluate the voluntary acquisition or elevation of repeatedly flooded properties; provide backup power for lift stations; maintain alternate emergency routes; and expand public outreach regarding flood insurance and preparedness.

In the 2026 Hazard Mitigation Plan public survey, local community members identified cleaning up the Des Moines River to address water pollution and identifying areas needing future improvements as priorities. The existing Stabilize Tributaries action addresses erosion and sedimentation; it does not specifically include the requested water-pollution cleanup.

Mitigation Action	**Acquire Property in the Floodplain**
Description	Acquiring property in the floodplain will provide an independent, long-term solution to river flooding by permanently removing structures from flood-prone areas.
Hazard(s)	Flooding
Estimated Cost	$250,000-$2,000,000+ per acquisition project
Funding	FEMA HMGP/FMA/BRIC or successor programs; CDBG; local match
Timeline	Over 5 Years
Priority	Medium
Lead Agency	Development Services / Engineering / Floodplain Administrator with County EMA
Status	June 2024 flooding affected about a dozen Fort Dodge homes. No active public acquisition project was identified; evaluate repetitive-loss and substantially damaged properties as voluntary opportunities arise.

Mitigation Action	**Backup Energy for Lift Stations**
Description	Power outages create the potential for system distress and sanitary sewer overflows in the wastewater collection and

Mitigation Action	**Backup Energy for Lift Stations**
	treatment system. By purchasing and installing backup energy for the lift stations, the City will prevent sanitary sewer overflows and the potential for such materials to make their way into nearby waters.
Hazard(s)	Flooding, Thunderstorms, Severe Winter Storms, Extreme Temperatures, Tornado/Windstorm
Estimated Cost	$100,000-$500,000 per station, depending on size and electrical work
Funding	Sewer utility/capital funds; bonds; eligible FEMA/state grants
Timeline	2-5 Years
Priority	High
Lead Agency	City Engineering / Public Works / Utilities
Status	Not yet started.

Mitigation Action	**Encourage Participation in the Iowa Floodplain and Storm Water Management Association**
Description	IFSMA was formed to build public awareness and disseminate general and technical information about storm water management and hazard mitigation. Memberships are available at the individual, agency and student levels. Encouraging participation in IFSMA will assist the City in building an understanding of potential flood risks. Citizens and entities can be informed of IFSMA membership via fliers, newsletters, utility bills, local television stations, radio announcements or other sources.
Hazard(s)	Flooding
Estimated Cost	Staff time, membership, and training costs
Funding	Engineering/floodplain/stormwater operating budgets
Timeline	1 Year or less
Priority	Medium

Lead Agency	City Engineering / Floodplain Administrator
Status	Use IFSMA training and networking to maintain NFIP, floodplain, stormwater, and mitigation expertise.

Mitigation Action	**Implement Sanitary Sewer and Storm Sewer Projects to Reduce/Eliminate Backflow and Flash Flooding**
Description	Sanitary and storm sewer projects will help to reduce or eliminate backup and flash flooding that has impacted, or has the potential to impact, homes, businesses, and infrastructure within the City of Fort Dodge. Projects will be targeted in areas such as Crossroads Mall, Downtown, Mason Drive, Crestview Heights, Elkhorn Creek, Oleson Park, and other areas where backup and flash flood relief is seen as necessary.
Hazard(s)	Flooding, Thunderstorms (related sewer-backup impacts)
Estimated Cost	$1,000,000-$20,000,000+ over multiple phases
Funding	Stormwater and sewer utilities; bonds; state revolving funds; grants; local capital
Timeline	2 – 5 Years
Priority	Medium
Lead Agency	City Engineering / Planning / GIS
Status	Fort Dodge has completed and continues phased storm-sewer, detention, roadway, sanitary-sewer, and drainage improvements in known problem areas. Continue prioritizing repeated backups, flash flooding, and critical-route impacts through the CIP. Currently conducting a study on improvements.

Mitigation Action	**Sanitary Sewer Evaluation Study**
Description	Similar to televising the sanitary sewer, a sanitary sewer evaluation study is the first step in addressing concerns such as sewage backup or flash flooding. By running a study of the sanitary sewer system, engineers will be able to evaluate the structural integrity as well as capacity and maintenance issues that may negatively

Mitigation Action	**Sanitary Sewer Evaluation Study**
	impact the system's performance. This will provide engineers with potential solutions to sanitary and storm sewer concerns.
Hazard(s)	Flooding
Estimated Cost	$250,000-$1,000,000 depending on scope and flow monitoring
Funding	Sewer utility; bonds; SRF; grants
Timeline	2-5 years
Priority	High
Lead Agency	City Engineering
Status	Ongoing sewer maintenance and capital work indicate continued evaluation.

Mitigation Action	**Stabilize Tributaries**
Description	Some tributaries, mainly relating to the Des Moines River and branching creeks, have developed issues with degradation, bank erosion, straightening and encroachment. Each of these issues causes sedimentation, which is especially a concern for owners of property along such tributaries. By stabilizing the tributaries, the City will be taking steps towards protecting land owners and reducing the impacts of flooding where sedimentation has occurred.
Hazard(s)	Flooding
Estimated Cost	$500,000-$10,000,000+ depending on reach and permitting
Funding	Watershed/stream grants; FEMA/state/federal programs; City funds; landowner partnerships
Timeline	5 Years
Priority	High
Lead Agency	City Engineering / Parks / Iowa DNR / landowners

Status	Prioritize reaches with active bank erosion, infrastructure exposure, sedimentation, or flood impacts. Complete hydraulic, ecological, property, and permitting review before construction.

Mitigation Action	**Televise Sanitary and Storm Sewer Systems to Identify Necessary Repairs**
Description	Assessing issues with the sanitary and storm sewer systems is the first step in addressing concerns such as sewage backup or flash flooding. By televising the sanitary and storm sewer systems, engineers will be able to evaluate the effectiveness of maintenance procedures and gain insightful information regarding the physical deterioration of storm and sanitary sewer lines. This will provide engineers with potential solutions to sanitary and storm sewer concerns.
Hazard(s)	Flooding
Estimated Cost	$100,000-$500,000 annually, depending on inspection program and repairs
Funding	Sewer and stormwater utility funds; capital funds
Timeline	1 year or less
Priority	High
Lead Agency	City Engineering / Public Works / Utilities
Status	Maintain a risk-based CCTV/condition-assessment program and use findings to prioritize cleaning, lining, point repairs, replacement, inflow/infiltration reduction, and recurring-backup areas.

Mitigation Action	**Televise Sanitary and Storm Sewer Systems to Identify Necessary Repairs**
Description	Assessing issues with the sanitary and storm sewer systems is the first step in addressing concerns such as sewage backup or flash flooding. By televising the sanitary and storm sewer systems, engineers will be able to evaluate the effectiveness of maintenance procedures and gain insightful information regarding the physical deterioration of storm and sanitary sewer lines. This

Mitigation Action	**Televise Sanitary and Storm Sewer Systems to Identify Necessary Repairs**
	will provide engineers with potential solutions to sanitary and storm sewer concerns.
Hazard(s)	Flooding, Thunderstorms
Estimated Cost	$100,000-$500,000 annually, depending on inspection program and repairs
Funding	Sewer and stormwater utility funds; capital funds
Timeline	1 year or less
Priority	High
Lead Agency	City Engineering / Public Works / Utilities
Status	Maintain a risk-based CCTV/condition-assessment program and use findings to prioritize cleaning, lining, point repairs, replacement, inflow/infiltration reduction, and recurring-backup areas.

Grass Fire or Wildland Fire

Level of Vulnerability: Low

No major wildland fire causing property damage within the City of Fort Dodge was identified in the public sources reviewed for 2020 through 2026. However, brush and ravine fires elsewhere in the region that required mutual aid demonstrate the potential for fires to spread during dry and windy conditions. Areas of concern within Fort Dodge include river and ravine corridors, parks, vacant lots, railroad and industrial edges, and the urban fringe. Drought, high winds, accumulated vegetation, limited access or water supplies, smoke, and the proximity of nearby structures may increase the potential impacts of an event.

The City currently reduces risk by regulating open burning, imposing temporary burning restrictions when necessary, maintaining fire-response capabilities, participating in mutual-aid agreements, managing vegetation in parks and other public areas, and providing public fire-safety education. To further reduce risk, the City identified a need to map wildland-urban interface and high-fuel areas; document emergency access routes and available water sources; conduct joint response exercises; prioritize brush and vegetation management; and continue reviewing public education, equipment, personal protective equipment, and mutual-aid needs.

Mitigation Action	**Educate the Public on Fire Hazards**
Description	Ensuring the public is aware and prepared for fire events can help to prevent or reduce the impacts of such hazards. Citizens and entities can be educated on fire hazards via fliers, training, newsletters, utility bills, local television stations, radio announcements or other sources.
Hazard(s)	Grass Fire or Wildland Fire
Estimated Cost	Less than $25,000 annually plus staff time
Funding	Fire-Rescue operating funds and grants
Timeline	1 Year or less
Priority	Medium
Lead Agency	Fort Dodge Fire-Rescue / Fire Marshal
Status	Continue education on open burning, brush/grass fire prevention, smoke alarms, evacuation, and seasonal fire danger; coordinate with parks, schools, media, and social channels.

Mitigation Action	**Review and Assess Mutual Aid Agreements**
Description	Mutual aid agreements are very important for the City of Fort Dodge and surrounding communities. To ensure that all areas of the county are covered, it would be beneficial to review those mutual aid agreements
Hazard(s)	Grass Fire and Wildland Fire
Estimated Cost	Staff time; exercise and training costs
Funding	Participating agency budgets and preparedness grants
Timeline	1 year or less
Priority	High
Lead Agency	Police / Fire-Rescue / EMS / County EMA

Status	In progress. Inventory and review mutual-aid agreements and after major incidents; confirm dispatch, communications, reimbursement, command, equipment, credentialing, and exercise provisions. FDPD policy supports interagency coordination and training.

Severe Winter Storms

Level of Vulnerability: High

The City of Fort Dodge experiences severe winter storms that can disrupt transportation, utilities, emergency services, and access to essential facilities. During the March 2025 blizzard, Fort Dodge police officers responded to dozens of additional weather-related calls involving stranded motorists, vehicle crashes, welfare checks, power outages, downed utility lines and trees, and alarms. A January 2024 blizzard and extreme-cold period also created significant travel and life-safety concerns. Areas of vulnerability include U.S. Highways 20 and 169, local hills and bridges, open areas subject to drifting snow, overhead utilities, water mains, communications systems, fuel supplies, and routes to hospitals and care facilities. Severe winter conditions may also affect emergency staffing and travel and place older adults and medically vulnerable residents at increased risk.

The City currently reduces winter storm impacts through designated snow routes, snow removal operations, parking and roadway notices, Alert Iowa and other public messaging, 24-hour public-safety response, utility coordination, and mutual aid. To further reduce risk, the City identified a need to improve snow-emergency and parking communications; evaluate recurring snow-drift areas for potential snow fences; maintain backup power, fuel supplies, and staff callback and lodging plans; pre-identify warming centers and transportation resources; and conduct winter-storm continuity exercises.

Mitigation Action	**Bury Powerlines**
Description	Burying powerlines will reduce the number of energy disruptions Fort Dodge experiences. Powerlines that lie underground are protected from outside elements such as windstorms, severe winter storms, thunderstorms and lightning, hailstorms, tornadoes, and other events.
Hazard(s)	Severe Winter Storms, Thunderstorms, Tornado/Windstorms
Estimated Cost	$1,000,000+ per mile; highly site-dependent

Funding	Utility capital; development requirements; coordinated City project funds
Timeline	Over 5 Years
Priority	Medium
Lead Agency	Electric utility with City Engineering
Status	No Citywide burial program was identified. Retain as a selective strategy for major reconstruction, repeated-outage locations, critical corridors, and new development when cost-beneficial. Local community members identified upgrading the electrical grid and installing underground power lines throughout town as a priority in the 2026 Hazard Mitigation Plan public survey.

Mitigation Action	**Establish Snow Fences**
Description	Snow fences can reduce maintenance costs and protect lives by providing a solution to blowing snow. Making roads much safer, snow fences reduce unwanted snowdrifts, which may cause a loss of vehicle control, reduce sight distance on curves and at intersections, impair motorist visibility, promote ice formation, bury informational signs, and render safety barriers ineffective.
Hazard(s)	Severe Winter Storms
Estimated Cost	$25,000-$250,000 depending on length, land, and type
Funding	Street/Public Works budget; Iowa DOT or safety grants; landowner agreements
Timeline	2 – 5 Years
Priority	Medium
Lead Agency	Public Works / Engineering
Status	Perform a recurring drift study before installation. Use temporary or permanent snow fences only where documented drifting repeatedly affects priority routes, sight distance, or emergency access.

Mitigation Action	**Inform the Public of Road Clearance Requirements During Snow Events**
Description	Snow routes are designated so roads can be adequately cleared during and after winter storms. Ensuring residents are informed of road clearance requirements can ease the snow removal process for plows and reduce the number of transportation incidents that occur within Fort Dodge during the winter season. Citizens can be informed of snow routes via signs, fliers, newsletters, utility bills, local television stations, radio announcements or other sources.
Hazard(s)	Severe Winter Storms
Estimated Cost	Staff time and less than $25,000 annually
Funding	Public Works/communications/police operating budgets
Timeline	1 year or less
Priority	High
Lead Agency	Public Works / City Communications / Police
Status	Continue seasonal snow-route, parking, towing, road-condition, and closure messaging through signs, media, City channels, and Alert Iowa where appropriate.

Sinkholes

Level of Vulnerability: Moderate

The City of Fort Dodge has experienced several significant sinkholes. In May 2016, a sinkhole on South 22nd Street measured approximately 25 feet long and 20 feet deep and required an estimated $10,000 in repairs. In August 2017, a sinkhole approximately 4 feet wide and 20 feet deep developed on South 17th Street. Other incidents reported during 2017 affected yards and streets or were associated with collapsed drainage infrastructure. No injuries were reported in the cited events. Fort Dodge's gypsum and karst features, historic mining geology, steep terrain, and aging buried storm sewer and sanitary sewer infrastructure increase the potential for sudden ground collapse. Streets, yards, structures, utilities, motorists, and emergency access may be affected when voids develop beneath the ground surface.

The City currently responds to sinkholes by closing and stabilizing affected areas, investigating the cause, excavating the site, and repairing damaged infrastructure. These efforts involve Engineering, Public Works, utility personnel, geographic information system (GIS) capabilities, and emergency responders. To further reduce risk, the City identified a need to create a GIS

inventory of known sinkholes, historic mines, karst areas, utilities, and completed repairs; establish geotechnical review requirements for development or construction in susceptible areas; expand closed-circuit television inspections and condition assessments of buried infrastructure; establish a public sinkhole-reporting procedure; and maintain emergency traffic-control and utility-isolation plans.

Mitigation Action	**Geophyscial Ground Survey and Database**
Description	Conduct a survey to identify potential areas of weakness and create a GIS inventory of known sinkholes, historic mines, karst areas, utilities, and completed repairs.
Hazard(s)	Sinkholes
Estimated Cost	$75,000-$150,000
Funding	Limited Local Funding Available
Timeline	2 – 5 Years
Priority	Low
Lead Agency	City Engineer
Status	This is a new mitigation action.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

The City of Fort Dodge is periodically affected by severe thunderstorms that produce heavy rain, lightning, hail, and damaging winds. Severe storms in May and June 2024 resulted in heavy rainfall, localized flooding concerns, power outages, and emergency response activities. The severe weather outbreak of December 15, 2021, produced tornadoes and widespread damaging winds across Iowa, including Webster County, and caused local property damage and power disruptions. Vulnerable assets include roofs, windows, vehicles, trees, overhead utility lines, communications systems, and traffic signals. Outdoor recreation areas and sports venues, older housing, and power-dependent facilities—including hospitals, schools, care facilities, and water and wastewater systems—may also be affected.

Existing preparedness and risk-reduction measures include Alert Iowa, outdoor warning sirens, National Oceanic and Atmospheric Administration weather alerts, Emergency Alert System notifications, trained emergency responders, storm spotting and emergency management

coordination, tree maintenance, and public safety messaging. To further reduce risk, the City identified a need to continue public education about multiple warning methods; verify shelter plans for schools, parks, stadiums, and other large venues; expand backup communications and power capabilities; promote resilient roofing and glazing; and document and implement lessons identified through after-action reviews following major storms.

Mitigation Action	**Educate the Public on Alert Iowa/Inspiron**
Description	Alert Iowa/Inspiron is a community notification system that alerts citizens of emergency situations or critical community alerts (Alert Iowa, 2011). Educating the public on Alert Iowa/Inspiron is a minor step toward ensuring that citizens are warned of hazards that could affect them. Citizens will be encouraged to enroll in Alert Iowa/Inspiron via fliers, newsletters, utility bills, local television stations, radio announcements or other plausible sources. Different from weather radios or Nixle, Alert Iowa/Inspiron, is a County-wide program that sends pre-recorded emergency telephone notification/information messages to targeted areas.
Hazard(s)	Severe Thunderstorms, Tornado / High Winds, Flooding, Severe Winter Storms, Hazardous Materials, Grass and Wildfire, Extreme Temperatures, Dam Failure, Sinkholes
Estimated Cost	*$21,000/year for the Alert Iowa Program and Staff Time*
Funding	Webster County EMA/telecommunications or preparedness budgets
Timeline	1 Year or less
Priority	High
Lead Agency	Webster County Emergency Management and the Communications Board
Status	Alert Iowa is the current official mass-notification system. Rollout additional enrollment campaigns, accessibility/multilingual outreach, exercises, and message-template maintenance.

Mitigation Action	**Educate the Public on Weather Radios**
Description	Weather radios broadcast alerts for many different types of hazards such as natural hazards, technological hazards, AMBER alerts, and terrorist attacks (National Weather Service, 2008). Educating the public on weather radios is a minor step toward ensuring that citizens are warned of hazards that could affect them. Citizens will be encouraged to purchase weather radios via fliers, newsletters, utility bills, local television stations, newspapers, radio announcements or other conceivable sources. Different from Alert Iowa/Inspiron or Nixle, weather radios are a nationwide tool that broadcasts continuous weather information from the nearest National Weather Service.
Hazard(s)	Severe Thunderstorms, Tornadoes / High Winds
Estimated Cost	Less than $25,000 annually; radios may be privately purchased or grant-funded
Funding	EMA/public education budgets; grants; public-private partners
Timeline	1 year or less
Priority	Medium
Lead Agency	Webster County Emergency Management
Status	Conduct promotion of NOAA Weather Radio, especially for schools, care facilities, public buildings, and residents who may not reliably receive mobile alerts.

Tornado/Windstorm

Level of Vulnerability: Moderate

The City of Fort Dodge is vulnerable to tornadoes and damaging wind events. The severe weather outbreak of December 15, 2021, produced confirmed tornadoes and widespread damaging winds across Iowa, including Webster County, resulting in property damage and power disruptions. Additional tornado warnings and confirmed tornadoes occurred in the Webster and Calhoun County area in 2026. Manufactured homes, older buildings, large-span structures, schools, care facilities, correctional and medical facilities, outdoor gatherings, overhead utilities, and locations without basements or rated storm shelters are particularly vulnerable. There is a large number of manufactured homes north of 3rd Avenue on the

northwest corner of town, a mobile home park north of town just south of the airport, and Frontier Village a manufactured home lot to the southwest of town.

Existing preparedness and risk-reduction measures include outdoor warning sirens, Alert Iowa, National Weather Service warnings, emergency management and storm-spotter coordination, school and facility drills, public education, mutual aid, and public-safety response. To further reduce risk, the City identified a need to evaluate and prioritize safe-room and storm-shelter projects; improve shelter signage and agreements; verify warning-siren coverage and testing; expand accessible notification methods; provide backup power and communications; and strengthen public education for manufactured-home residents and people attending outdoor events.

Mitigation Action	**Establish Public Tornado Safe Rooms**
Description	The hazard mitigation committee determined that tornado safe rooms should be developed for the Senior High; Dodger Stadium; the Fire Substation near Iowa Central Community College; the Fort Museum; Friendship Haven and Hospital; the Harlan Rogers Sports Complex; and/or near the future Rec Center & Downtown Area. While a feasibility study would need to be done for each of these sites, constructing tornado safe rooms near public gatherings is a priority for the Fort Dodge Hazard Mitigation Committee.
Hazard(s)	Tornado/Windstorms
Estimated Cost	$500,000-$5,000,000+ per site, depending on capacity and construction
Funding	FEMA safe-room/mitigation grants; state/local/facility capital; private match
Timeline	Over 5 Years
Priority	High
Lead Agency	City / County EMA / schools / Iowa Central / facility owners
Status	Not yet started.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal, crop, and plant disease is a concern for the City of Fort Dodge because Webster County has substantial agricultural, livestock, poultry, food-processing, transportation, and supply-chain exposure. A probable highly pathogenic avian influenza event was reported in Webster County in 2015. State and federal agencies continue to monitor animal diseases and biosecurity threats; however, no more recent major event affecting Fort Dodge was confirmed in the public sources reviewed. Potential impacts include losses to agricultural producers and processors, workforce and supply-chain disruptions, transportation restrictions, increased biosecurity and carcass-disposal needs, misinformation, and indirect effects on local employers and public revenues.

The U.S. Department of Agriculture and Iowa agricultural agencies currently conduct disease surveillance, receive reports, provide producer guidance, and implement quarantine or animal-movement controls when necessary. Local responsibilities may include public information, law-enforcement and traffic support, emergency coordination, and public-health consultation. To further reduce risk, the City and County identified a need to maintain an animal-disease annex that includes current agency and producer contacts, traffic and movement-control procedures, carcass-disposal and personal protective equipment plans, coordinated public messaging, and periodic multiagency tabletop exercises.

Dam Failure

Numerous low-head dams exist in or around Fort Dodge. None of the dams are considered High-Hazard.

Fort Dodge Dams

River	Dam Name	Classification	Type	Owner
Badger Creek	Badger Lake Dam	Significant	Earth Dam	Webster County Conservation Board
Badger Creek	Badger Lake Dredge Spoil Dam	Low	Earth Dam	Webster County Conservation Board
Lizard Creek	Patz Dam	Low	Earth Dam	Don Patz
Des Moines River	Erickson Dam	Low	Earth Dam	MV Erickson

River	Dam Name	Classification	Type	Owner
Des Moine River	Becker Dam	Low	Earth Dam	Bruce E. Becker
Des Moines River	Donney Dam	Low	Earth Dam	T. Donney
Lizard Creek	Hammer Dam	Low	Earth Dam	Joe W. Hammer
Soldier Creek	Low-Head Dam (22487)	-	Low-Head Dam	-
Des Moines River	Low-Head Dam (22076)	-	Low-Head Dam	-
Des Moines River	Fort Dodge Mill Dam	-	Low-Head Dam	City of Fort Dodge

Dam failure is considered a concern for the City of Fort Dodge because, although the likelihood is low, an incident could produce localized impacts to people, property, infrastructure, and recreational users. No recent dam failure affecting Fort Dodge was identified. In 2019, the City removed the Hydroelectric Dam and Little Dam, eliminating two City-owned low-head dam hazards and restoring river conditions. Remaining potential vulnerabilities include privately owned or other low-head structures upstream or downstream of the City, boaters and anglers, rapid localized changes in water levels, downstream trails and roads, floating debris, erosion, and incomplete ownership or emergency-contact information.

The 2019 dam-removal project substantially reduced the City's exposure to this hazard. Other existing risk-reduction measures include state dam inventory and inspection requirements, warning signs, river monitoring, emergency coordination, and public recreation safety efforts. To further reduce risk, the City identified a need to update the local dam inventory and hazard classifications; confirm structure ownership, inspection status, and emergency action plans; map potential localized downstream impacts; maintain public-safety signage; and coordinate notification and evacuation procedures with Webster County Emergency Management.

Hazardous Materials

The majority of jurisdictions determined that the severity of impact would be limited to minor injuries/illness, short-term property damage, and a minor environmental impact. Fort Dodge concluded that the result of a hazardous material incident would be negligible, with few, if any, injuries and little to no property damage.

Hazardous materials are a concern for the City of Fort Dodge due to the presence of industrial and agricultural facilities, rail and highway corridors, fuel and fertilizer facilities, utilities, and populated areas near critical facilities. On July 5, 2022, an overturned and leaking anhydrous ammonia nurse tank east of Fort Dodge required a multi-hour hazardous materials response and roadway closure. No serious injuries were reported. Potential vulnerabilities include releases from fertilizer, industrial, and fuel facilities; incidents along rail and highway corridors; contamination or disruption of water and wastewater systems; airborne plume movement; evacuation or shelter-in-place needs; and exposure of emergency responders.

Existing preparedness and response capabilities include Fort Dodge Fire Rescue and hazardous materials personnel, law enforcement, 911 communications, Webster County Emergency Management, the Local Emergency Planning Committee framework, facility reporting, mutual aid, protective equipment, and public alerts. To further reduce risk, the City and County identified a need to conduct annual reviews and exercises of the Local Emergency Planning Committee plan; maintain a protected inventory of hazardous-material facilities and transportation routes; prepare evacuation and shelter-in-place messages in advance; and improve plume-modeling and notification tools, interoperable communications, decontamination capabilities, equipment, and responder training.

Mitigation Action	**Build Public Awareness on Hazardous Material Reporting**
Description	Ensuring the public is aware of who to call during a hazardous material (HAZMAT) event can reduce the negative impacts of such an event. By promptly reporting a HAZMAT event, responders are able to more efficiently contain and treat the material spilled in a timely manner. Develop and distribute hazardous material reporting educational materials to members of the public.
Hazard(s)	Hazardous Materials
Estimated Cost	Less than $25,000 annually plus staff time
Funding	Fire/EMA/LEPC operating budgets and preparedness grants
Timeline	1 Year
Priority	Medium
Lead Agency	Fort Dodge Fire-Rescue / Webster County EMA / LEPC
Status	Use 911, Alert Iowa, City/County communications, facility outreach, and LEPC education to reinforce immediate reporting, shelter-in-place, evacuation, and responder-safety messages.

Terrorism/Cyber-Attack

Terrorism or cyberattacks on essential systems are concerns for the City of Fort Dodge. In September 2020, a cyberattack disrupted telephone and internet services for the Fort Dodge Community School District and resulted in a school closure. In 2021, a ransomware attack affecting NEW Cooperative disrupted business systems. These incidents demonstrate the community's dependence on interconnected systems and third-party service providers. Systems supporting emergency communications, municipal operations, utilities, healthcare, schools, correctional facilities, financial functions, and protected data may be vulnerable to ransomware, social engineering, service outages, and third-party compromise.

Removed Mitigation Actions

Mitigation Action	**Crackdown on Methamphetamine**
Description	Illegal drugs can be dangerous for all individuals involved, especially when used or produced in the form of methamphetamine (meth). Anyone who comes in contact with meth is at risk due to the toxic nature of the ingredients, which leaves behind hazardous waste. When ingredients are combined, they can ignite, causing explosions, fires and the release of toxic fumes. By prosecuting individuals participating in the illegal action of producing or using meth, the Hazard Mitigation Committee is seeking to protect the lives, safety and property of citizens in Fort Dodge by preventing hazardous material events, explosions and structural fires that could potentially result from meth or other drug production.
Hazard(s)	Hazardous Materials
Status	No longer needed.

Mitigation Action	**Develop List of Potential Target Areas for Terrorism**
Description	Potential targets for terrorism have been identified for Webster County in the past; however, to ensure that all potential targets within the City of Fort Dodge are prepared, the Hazard Mitigation Committee suggests that a new assessment of potential targets be implemented.

Mitigation Action	**Develop List of Potential Target Areas for Terrorism**
Hazard(s)	Terrorism / Cyber-Attack
Status	No longer needed.

Mitigation Action	**Educate the Public on the Nixle Program**
Description	Nixle is a notification program that provides the City of Fort Dodge with news and information via SMS, mobile applications, email and web. Educating the public on Nixle is a minor step toward ensuring that citizens are warned of hazards that could affect them. Citizens will be encouraged to enroll in Nixle via fliers, newsletters, utility bills, local television stations, social media sites, radio announcements or other plausible sources. Different from Alert Iowa/Inspiron & weather radios Nixle is a City-wide notification system that sends mobile messages and emails on crime alerts, missing person notifications, traffic advisories and other warnings.
Hazard(s)	Drought, Extreme Temperatures, Flooding, Grass Fire, Severe Winter Storms, Sinkholes, Thunderstorms, Tornado/Windstorm
Status	No longer needed.

Mitigation Action	**Hydro-Electric Dam Improvements**
Description	Improvements to the dam could include reducing the height, removing the gates or entirely removing the dam. By taking these actions, there is less chance that the City will experience a dam or levee failure.
Hazard(s)	Dam Failure
Status	No longer needed.

Mitigation Action	**Identify Areas with Landslide Potential**
Description	Steep slopes are present throughout the City of Fort Dodge. Examining and securing the slope stability of such areas could reduce the likelihood of landslide events within the community.
Hazard(s)	Landslide (not profiled in this HMP)
Status	No longer needed.

Mitigation Action	**Meet National Fire Protection Agency's Fire Codes and Standards**
Description	The NFPA standards and codes are accepted as the professional standard for the Fort Dodge Fire Department. By complying with as many NFPA standards as possible, the department is showing their dedication to fire prevention and protection.
Hazard(s)	Flooding
Status	No longer needed.

Mitigation Action	**Storm Water Management Ordinance**
Description	Establishing an ordinance for storm water management will help ensure that Fort Dodge's storm water practices are consistent with its storm water quality and quantity needs/goals. Such an ordinance will establish guidelines that will assist the community in reducing and improving the quality of storm water discharges. This action will assist in erosion and sediment control and help ensure that the storm water system is not required to work over its capacity.
Hazard(s)	Flooding
Status	No longer needed.

Mitigation Action	**Update and Enforce Floodplain Ordinance**
Description	Adopting and enforcing floodplain ordinances is an important element in regulating development in the floodplain. Ordinances assist in making flood insurance available to home and business owners and promote the safety of residents, businesses, and structures.
Hazard(s)	Flooding
Status	No longer needed.

CITY OF GOWRIE COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

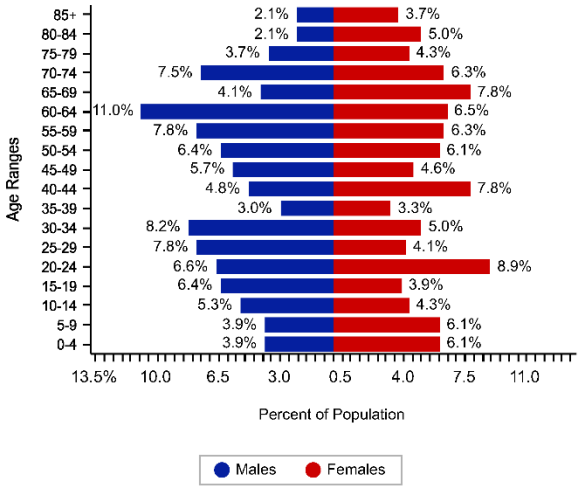
Community Summary Fact Sheet

Gowrie, IA

Webster County Iowa Hazard Mitigation Plan 2026

899	45.4	405	2.16	$164,500	$77,858
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



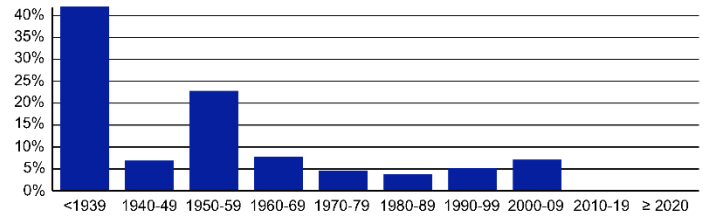
TOTAL POPULATION

2026 Total Population (Estimate)	899
2020 Total Population (U.S. Census)	952
2010 Total Population (U.S. Census)	1,037
2000 Total Population (U.S. Census)	1,038

AT RISK POPULATIONS

91	210	7	12%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

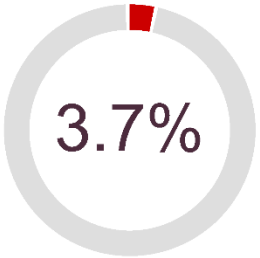
HOUSING: YEAR BUILT



EMPLOYMENT

49	5.1%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

110	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Gowrie Local Planning Team

Name	Title	Department	Participation
Bruce Towne	Mayor	Administration	Attended R1 and R2

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Gowrie is located in the southwestern part of Webster County, south and west of the U.S. Highway 169/Iowa Highway 175 junction. Gowrie sits near the Calhoun County line to the west and is bordered by Clay township to the north and Burnside/Dayton to the east.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2021. The Mayor will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed bi-annually and the public will be notified through social media.

CAPABILITY ASSESSMENT

Gowrie Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	2021
	Capital Improvements Plan	No	
	Economic Developmet Plan	Yes	2017
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	Yes	2018
	Zoning Ordinance	Yes	2018
	Subdivision Regulation/Ordinance	Yes	2018
	Floodplain Ordinance	No	
	Building Codes	No	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	
	National Flood Insurance Program	Yes	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission		
	Planner/Engineer (Land Development)		
	Transportation Planner		

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Floodplain Administrator		
	GIS Capabilities		
	Building Code Official		
	Civil Engineering		
	Emergency Manager	Yes - County	
	Grant Manager		
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements		
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	No	
	Awarded a Grant in the Past	No	
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	No	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	No	
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	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City of Gowrie does not plan to increase its capabilities in the near future.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Gowrie has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Gowrie updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Comprehensive Plan	The HMP was integrated in 2021
Economic Development Plan	The HMP has not been integrated into the economic development plan
Stormwater Management Plan	The HMP has not been integrated into the stormwater management plan
Zoning Ordinance	The HMP has not been integrated into the zoning ordinance plan
Subdivision Regulation/Ordinance	The HMP has not been integrated into the subdivision regulations/ordinance

Floodplain and National Flood Insurance Program

The City of Gowrie participates and is currently in good standing with the National Flood Insurance Program. The Planning and Zoning Department, Administrative Inspector, and Mayor are all identified as Floodplain Administrators and are responsible for enforcing floodplain regulations, which—along with information on NFIP standards—are located in the Floodplain Code.

The City of Gowrie does not have higher regulatory standards than the NFIP minimum. The Administrative Inspector identifies substantially improved structures after a flood event. The community plans to continue involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Gowrie is included in the RISK MAP for the *North Raccoon Watershed, Iowa* risk map. The risk map identified Very Low risk of flooding for the City of Gowrie.

National Flood Insurance Program Information

Date of NFIP Participation:	**03/07/23**	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both

Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, North Raccoon Watershed, IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	552	82,299,580	17	$2,100,670	3.1%
500-year			0	$0	0%

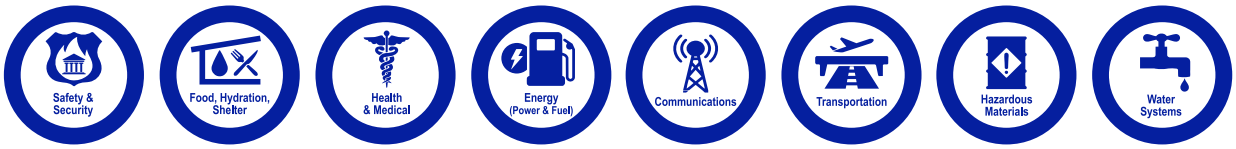
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

Over the past five years there have been new business developments, new demolished buildings, and new road improvements within city limits. No new structures have been developed in the floodplain or other hazardous areas. New housing and business developments are planned within the next ten years with a new subdivision on the east side of the city. No projects will be located within the floodplain or other hazardous areas.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Gowrie Community Lifelines

CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Safety and Security	City Hall	1206 Market Street	N	N
2	Safety and Security	Fire Station	1004 Main Street	N	N
3	Health and Medical	EMS Station	1006 Main Street	N	N
4	Energy	City Utilities	1108 Main Street	N	Y
5	Health and Medical	Stewart Memorial Clinic	1808 Main Street	N	N
6	Water Systems	Waste Water Plant*	1562 320th Street	N	N
7	Energy	Generator	*Will not be mapped*	N	Y
8	Energy	Casey's	1131 Market Street	N	N

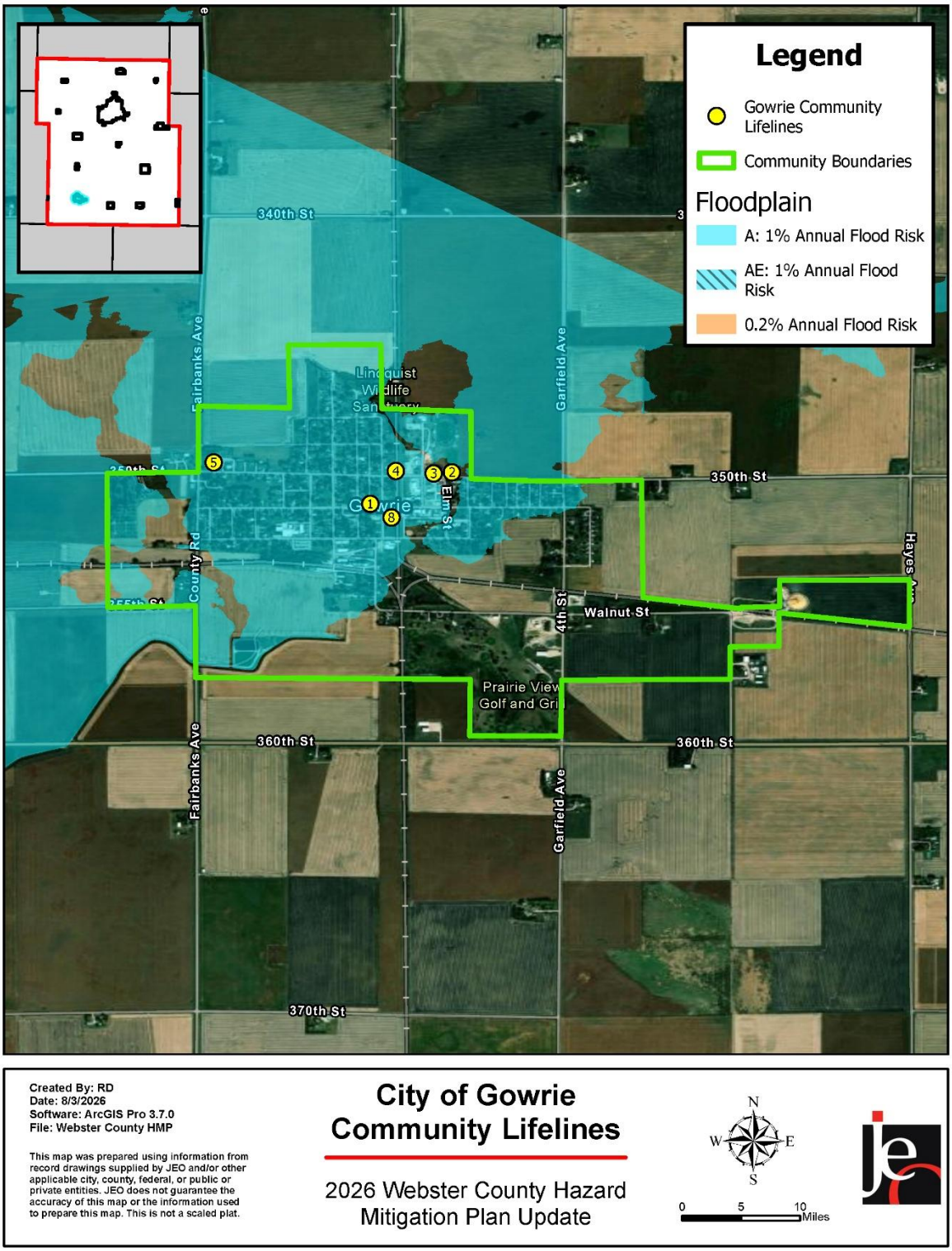
*Waste Water Plant (7) is north of map boundary

Other Community Assets

The City of Gowrie has also identified various other community assets of concern including:

- City Parks -Open areas
- City Pool -Open area
- High School Sports Complex - Restricted access & Open areas
- Library -Size limitation
- Livestock Sale Barn - Flooding
- Southeast Valley High School -Restricted access

Gowrie Community Lifelines Map



*Waster Water Plant (7) is north of map boundary

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Moderate

The City of Gowrie is vulnerable to drought due to its location within an agricultural region and its dependence on reliable groundwater and precipitation. Extended periods of below-normal precipitation can reduce groundwater recharge, lower soil moisture, stress municipal and private water supplies, and increase demand for water during periods when supplies may already be limited. The City of Gowrie experienced drought conditions in 2024 and 2025, with no repairs or property damage reported. An extended drought can result in local municipal systems and domestic wells strain, as well as reduced resources for emergency services to combat wildfire or structural fire events. The community's key vulnerability is localized dry conditions, increased fire risk, and strain on local water system. Water conservation measures or restrictions may become necessary during an extended event.

Mitigation Action	**Increase Water Infrastructure**
Description	This action is intended to increase water infrastructure access and also to begin to implement alternate watering days.
Hazard(s)	Drought
Estimated Cost	$2 million
Funding	$100,000 through General Fund, the rest TBD
Timeline	Over 5 years
Priority	Low
Lead Agency	The City of Gowrie

Mitigation Action	**Increase Water Infrastructure**
Status	This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Low

No past extreme temperature events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard. Approximately a quarter of the local population is over the age of 65 which are most likely to feel negative impacts from extreme temperatures. No community mass care facilities have been identified as potential cooling centers; but the city does have a portable backup generator to supply power in case of extreme strain on the local power grid due to extreme temperatures.

*See **Hire More EMT Personnel** mitigation action under Severe Winter Storms.*

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

The City of Gowrie has several areas of mapped 100-year floodplain throughout the city and flood damage could impact facilities, residents, and critical infrastructure. While riverine flood risk would likely be negligible, brief loss of services and inundated roadways would occur. In the early 2000s, the community replaced county drainage tiles through the City. The City's key vulnerability is low-level flooding secondary to delayed storm tile drainage. To help reduce localized flood impacts, the city identified an education campaign initiative to encourage sumppump disconnects during flooding or heavy rain events due to slow stormwater drainage.

Mitigation Action	**Encourage Residents to Disconnect Sump Pump**
Description	This action will help ensure that those living within the community disconnect their sanitary sewer lines from storm sewer lines to prevent associated problems.

Mitigation Action	**Encourage Residents to Disconnect Sump Pump**
Hazard(s)	Flooding (Flash and Riverine), Thunderstorms: Lightning & Hail
Estimated Cost	$0
Funding	TBD
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Gowrie
Status	In progress. New construction, ordinance, and inspecton have begun.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

The City of Gowrie is surrounded by agricultural land, including crop fields, grassy ditches, and CRP acres, making it vulnerable to fast-spreading grass and wildland fires, particularly during dry, windy spring and fall conditions. The community's reliance on the volunteer fire department also means large or multiple incidents may require mutual aid from neighboring departmens.

While no past grass fire or wildland fire events with documented dates or property damage have been recorded for the community, wildland fire remains a possible risk.

*See **Hire More EMT Personnel** mitigation action under Severe Winter Storms.*

Severe Winter Storms

Level of Vulnerability: Moderate

The City of Gowrie is vulnerable to severe winter storms, including heavy snow, blowing and drifting snow, freezing rain, and ice accumulation. Severe winter storms can make local and rural roads impassable and limit access for residents and emergency responders. Drifting snow is common in open rural areas and ice accumulation can cause widespread transportation disruptions.

Heavy snow and ice accumulation may also damage trees, utility lines, poles, communications infrastructure, and buildings, resulting in power or communications outages with prolonged

electrical disruptions having cascading impacts on water and wastewater operations. Gowrie does have local electric generation capability that can help reduce its vulnerability when outside power supplies are disrupted.

Additional vulnerabilities include older adults, young children, residents with limited mobility, and households dependent on electrically powered medical or heating equipment, particularly if outages or blocked roads persist. No past severe winter storm events with documented dates or property damages have been recorded for the City of Gowrie. The community's key vulnerability is snow drifting that impacts emergency vehicle use and access. The city identified a need to hire and train additional EMT personnel to assist residents during hazard events, including winter related travel accidents and extreme cold.

Mitigation Action	**Hire More EMT Personnel**
Description	This action will ensure that the community is properly services in a time of need.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire and Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	Varies
Funding	Unknown
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Gowrie, Webster County
Status	In progress. A county-wide property tax levy was passed in 2025 to fund equipment upgrades and hire personnel. Managed by a Webster County supervisors appointed board.

Sinkholes

Level of Vulnerability: Low

The City of Gowrie has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Gowrie is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include

damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

Due to the lack of localized vulnerability to this hazard and no past historical events of sinkholes occuring in Gowrie, no mitigation actions were identified for Sinkholes.

*See **Hire More EMT Personnel** mitigation action under Severe Winter Storms.*

Thunderstorms: Lightning & Hail

Level of Vulnerability: High

The City of Gowrie is vulnerable to severe thunderstorms that can produce large hail, frequent lightning, heavy rainfall, and damaging winds. Thunderstorms are common throughout Iowa and can result in property damage, utility disruptions, transportation impacts, localized flooding, and threats to public safety. Lightning strikes can cause injuries or fatalities, ignite fires, and damage electrical and communications systems. Power surges and outages may also temporarily disrupt municipal facilities, businesses, and essential services.

Hail presents a particular vulnerability to buildings, vehicles, agricultural crops, and other exposed property. Large hail can damage roofs, siding, windows, vehicles, outdoor equipment, and vegetation. The City of Gowrie experienced a July 2026 severe thunderstorm that passed directly over Gowrie; trained weather spotters reported quarter-sized hail in the community, while the storm was also capable of producing approximately 60-mph winds. Past events have cause hail damage that necessitated spotty roof repair or replacement every five years.

Heavy rainfall can overwhelm the local drainage systems and produce localized street, property, or flash flooding, particularly in low-lying areas or where stormwater infrastructure has limited capacity. Many local residents rely on sumppumps to manage water during periods of heavy rainfall.

Mitigation Action	**Update and Install New Warning Sirens**
Description	This action is intended to update the current warning siren in the city and another warning siren close to the new east suburb.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Flooding (Flash and Riverine)
Estimated Cost	$30,000
Funding	General fund

Mitigation Action	**Update and Install New Warning Sirens**
Timeline	2-5 Years
Priority	Medium
Lead Agency	City of Badger
Status	This is a new mitigation action

Tornado/Windstorm

Level of Vulnerability: High

The City of Gowrie is vulnerable to tornadoes, straight-line winds, and derechos, which can cause significant damage to buildings, critical facilities, utilities, trees, transportation infrastructure, and agricultural resources. The state experiences both tornadoes and widespread high-wind events with Webster County one of the most likely in the state to experience high annual losses from wind related hazards. Residential and commercial structures, municipal facilities, utility infrastructure, and buildings without adequate safe-room or interior shelter space are particularly vulnerable. Debris from damaged trees and structures may also block streets and delay emergency response, down power lines and poles, and delay utility restoration. There are no tornado safe rooms located in Gowrie, but most midwestern homes have basements and emergency sirens are present in town.

The agricultural areas surrounding Gowrie are also highly exposed because crops, livestock facilities, grain bins, machine sheds, and other agricultural structures have little protection from high winds. Webster County was identified in the federal declaration disaster for Iowa's December 2021 derecho, with winds exceeding 100 mph in some locations and millions of acres of cropland damaged or destroyed.

Mitigation Action	**Demolish Dilapidated Structures**
Description	This action will help rid the community of any structures that are a potential threat to its citizens.
Hazard(s)	Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$50,000

Mitigation Action	**Demolish Dilapidated Structures**
Funding	TBD
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Gowrie
Status	In progress. Downtown buildings and older residential buildings have been torn down by the City of Gowrie as funds & adjudication permit. Some are resold to citizens for demolition or remodel.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease was not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Dam Failure

Dam failure was not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

The City of Gowrie has historically had more than a 75% chance of hazardous materials event annually, and the impact of such an event is expected to be catastrophic to the community. This hazard is identified as a concern, though no recent events were described. The community's key vulnerability is railroad and highway transport of ethanol.

Terrorism/Cyber-Attack

The City of Gowrie has indicated that a terrorism/cyber-attack event would affect 51-75% of its population and identifies this hazard as a concern. Recent events include regular internet phishing attacks. The community's key vulnerability is primarily individuals, though some government exposure exists as well. To mitigate risk, the City relies on individual internet firewalls and web/call verification via email. To further reduce risk, regular internet security upgrades are needed.

Mitigation Action	**Water Facility Fencing**
Description	This action will create a barrier between the City's water facilities and the rest of the community.
Hazard(s)	Terrorism/Cyber-Attack
Estimated Cost	$100,000
Funding	$10,000 from General Fund, the rest is TBD
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Gowrie
Status	In progress. Under utility jurisdiction.

Completed Actions

Mitigation Action	**Disaster Plan Update**
Description	This action is intended to ensure that the coommunity has adequately planned for potential disasters tht may impact the City.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Status	Project completed.

Mitigation Action	**Fire Department Continuity of Operations**
Description	This action is intended to make sure that the Fire Department has the resources it needs to properly handle emergency situations.
Hazard(s)	Grass Fire or Wildland Fire, Hazardous Materials
Status	Project completed.

Mitigation Action	**Wireless Emergency Notification System (WENS)**
Description	This action will increase the percentage of the community who has signed up for the Wireless Emergency Notification System (WENS)
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm:Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Status	Project completed.

Mitigation Action	**Build Public Hazard Awareness**
Description	This action is intended to increase the public's awareness in regards to all hazards discussed within this section that could potentially impact the community.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorm: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Status	Project completed.

Mitigation Action	**Weather Radios**
Description	This action will help increase the amount of residents living in the community who have access to a weather radio in the case of an event.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorms
Status	Project completed.

Mitigation Action	**Rail Safety Meetings**
Description	This action will increase knowledge of railways around the area for City Police, Fire, and Rescue Staff
Hazard(s)	Hazardous Materials
Status	Project completed.

Mitigation Action	**Shelter Communication**
Description	The intention of this action is to increase the overall public awareness of the available shelters in town to residents of the community.
Hazard(s)	Extreme Temperatures, Tornadoes/Windstorm, Thunderstorms: Lightning & Hail, Severe Winter Storms
Status	Project completed.

Mitigation Action	**Establish Living Snow Fences**
Description	This action will build living barriers (generally trees, bushes, and other varying vegetation) in feasible areas to combat the effects of drifting snow.
Hazard(s)	Severe Winter Storms
Status	Project completed.

Mitigation Action	**Hydrant Construction**
Description	This action will ensure that the entire community is adequately serviced in the event of a fire outbreak
Hazard(s)	Grass Fire or Wildland Fire, Hazardous Materials

Mitigation Action	**Hydrant Construction**
Status	Project completed.

Mitigation Action	**Bury Power Lines**
Description	The purpose of this action is to bury power lines to prevent the loss of power during thunderstorms and lightning, tornadoes, severe winter storms, and windstorms.
Hazard(s)	Thunderstorms: Lightning & Hail, Tornado/Windstorm, Severe Winter Storms
Status	Project completed.

Mitigation Action	**Improve and Enhance Storm Water Infrastructure**
Description	This action will increase the capacity of the community's storm water infrastructure system during times of heavy rain or flash flooding.
Hazard(s)	Thunderstorms: Lightning & Hail
Status	Project completed.

CITY OF HARCOURT COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

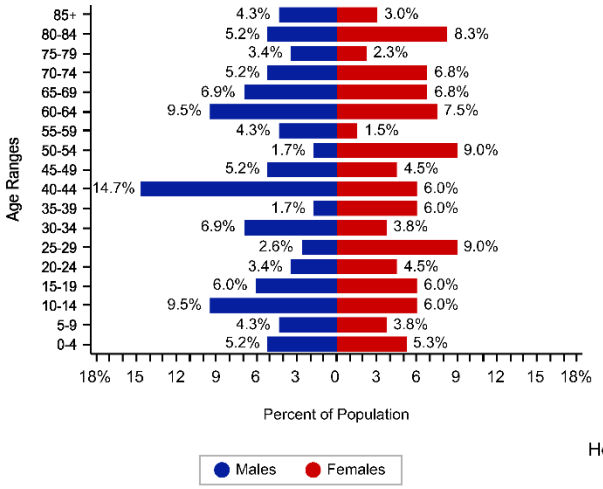
Community Summary Fact Sheet

Harcourt, IA

Webster County Iowa Hazard Mitigation Plan 2026

Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income
249	43.9	118	2.11	$160,526	$54,275

AGE PYRAMID



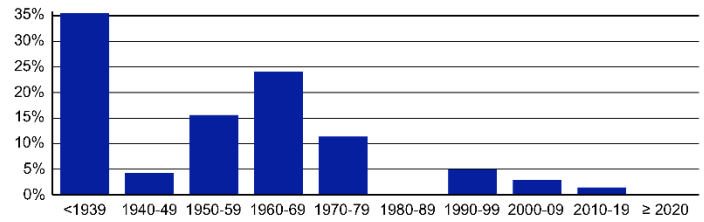
TOTAL POPULATION

2026 Total Population (Estimate)	249
2020 Total Population (U.S. Census)	264
2010 Total Population (U.S. Census)	303
2000 Total Population (U.S. Census)	340

AT RISK POPULATIONS

Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level
61	65	2	23%

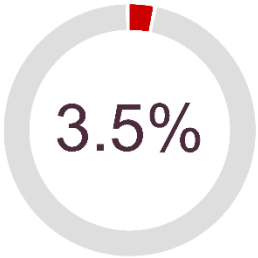
HOUSING: YEAR BUILT



EMPLOYMENT

Total Businesses	Unemployment Rate
16	3.2%

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

Vacant Housing Units	Mobile Homes
20	0%

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Harcourt Local Planning Team

Name	Title	Department	Participation
Lisa Klatt	Mayor	Administration	Attend Meeting, Profile Development
Rebecca Morford	City Clerk	Administration	Profile Development
Ryan Bogue	Fire Chief	Fire Department	Attend Meeting, Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles, and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River, which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Harcourt is located in the southwestern part of Webster County. U.S. Highway 169 runs directly through Harcourt on a north-south alignment. The eastern fork of Buttrick Creek runs along the northwestern boundary of the City.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed in 2026, and no revisions or changes were made during the review at that time. The Mayor, City Clerk, Fire Chief, and Public Works Department will be responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed annually, and the public will be notified through council meetings and social media.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Harcourt Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	No	
	Capital Improvements Plan	No	
	Economic Developmet Plan	No	
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	No	
	Subdivision Regulation/Ordinance	No	
	Floodplain Ordinance	Yes	2023
	Building Codes	No	
	Water System Emergency Response Plan	Yes	2024
	Source Water/Wellhead Protection Plan	Yes	
	National Flood Insurance Program	Yes	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
	Other (if any)		
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	Yes	
	GIS Capabilities	No	
	Building Code Official	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Civil Engineering	No-In house	
	Emergency Manager	Yes - County	
	Grant Manager	Yes-City Clerk	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
	Other (if any)		
Fiscal Capability	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 – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes	
	Other (if any)		
Education & Outreach Capability	Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc. (Ex. CERT Teams, Red Cross, etc.)	Yes	
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	
	Natural Disaster or Safety related school programs	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
	Other (if any)		
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City is able to increase its capabilities in the near future by developing a source water/wellhead protection plan, updating its water system emergency response plan to reflect current personnel and contacts, and improving urban forestry through hazardous tree removal and replacement plantings.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

PLANS AND STUDIES

The following table identifies planning documents related to hazard mitigation and their reported integration with the Hazard Mitigation Plan. When relevant plans are updated, the City can use the hazard findings and mitigation actions in this profile to inform water-system protection, drainage improvements, and continuity of essential services. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	HMP Integration
Floodplain Ordinance	The HMP has not been integrated into the floodplain ordinance. The ordinance does review properties that deal with flooding.
Source Water Protection Plan	The HMP has not been integrated into the source water protection plan.
Water System Emergency Response Plan	The HMP has not been integrated into the water system emergency response plan.
Vulnerability Assessment and Emergency Response Plan 2024	The HMP has not been integrated into the Vulnerability. Assessment and Emergency Response Plan 2024.

Floodplain and National Flood Insurance Program

The City of Harcourt participates and is currently in good standing with the National Flood Insurance Program. The Mayor serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. The Mayor is responsible for enforcing floodplain regulations, which—along with information on NFIP standards—are located within the City Code of Ordinances. If a major flood event were to occur, the Floodplain Administrator would review proposed repairs and improvements to structures in identified flood hazard areas for compliance with Chapter 20 and applicable NFIP requirements. The City plans to continue its involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Harcourt is included in the RISK MAP for the *North Raccoon Watershed, Iowa* risk map. This risk map identified Minimal Risk of flooding for the City of Harcourt.

National Flood Insurance Program Information

Date of NFIP Participation:	**12/6/1974**	**Number of Repetitive Loss Structures:**	

Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, North Raccoon Watershed, IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	201	$18,109,380	0	$0	0%
500-year			0	$0	0%

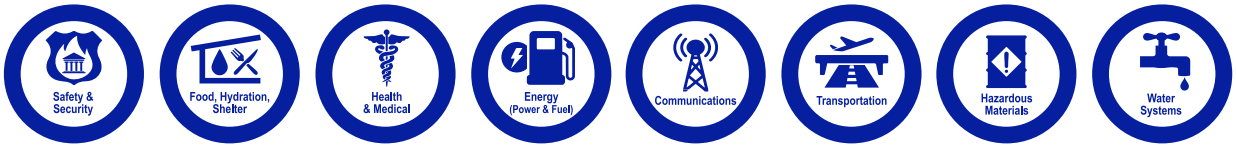
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

Over the past five years, no new housing developments, business developments, or new roads have occurred. Individual structures have been demolished, and routine street/infrastructure improvements have occurred within the existing developed area or the community. No known new structures have been developed within the mapped floodplain or other identified hazardous areas or have required hazard-specific mitigation. No significant housing developments, businesses, or industrial development are currently planned. Any future development would be reviewed for applicable floodplain and other hazard-related requirements.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Harcourt Community Lifelines

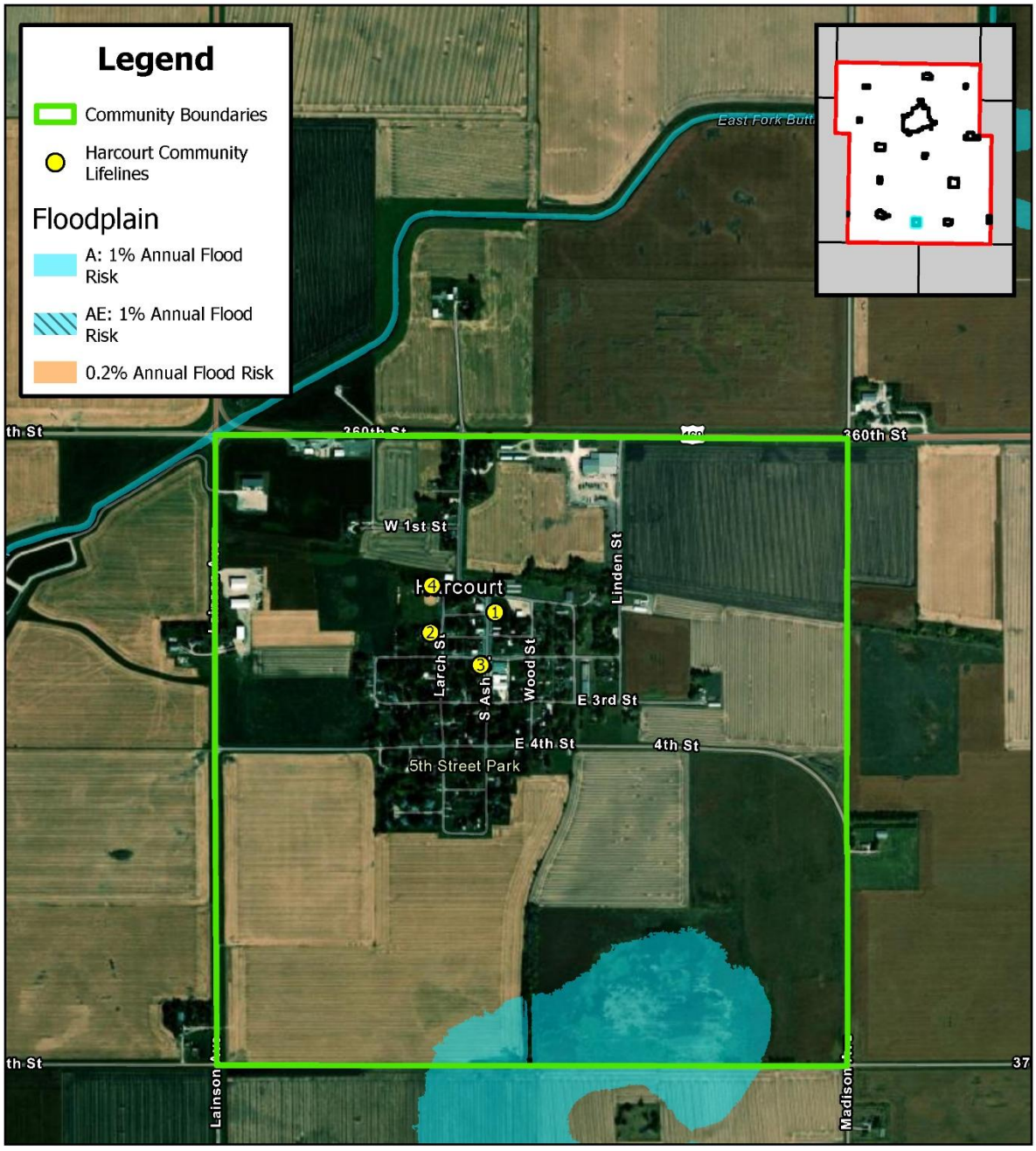
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Communications	Post Office	109 S Ash Street	N	N
2	Food, Hydration, Shelter	Community Center	116 Larch Street	Y	N
3	Safety and Security	Fire Department & City Hall	204 S Ash Street	Y	N
4	Water Systems	Water Plant	102 Larch Street	N	Y

Other Community Assets

The City of Harcourt has also identified various other community assets of concern:

- Covenant Church-United
- Faith Lutheran Church
- Harcourt Public Library
- Sparky's One Stop

Harcourt Community Lifelines Map



HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. The following section details jurisdiction-specific concerns per hazard and identified mitigation actions to address each hazard. For a more in-depth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: High

Webster County's agricultural economy depends heavily on available water resources to support the local economy. Prolonged drought conditions reduce stream flows and can strain local water resources, increasing reliance on aquifer-supplied wells for crop production and livestock operations. An extended drought can result in reduced agricultural yields, livestock stress, increased feed costs, and broader economic impacts to producers and related businesses. Municipal water systems and domestic wells may also experience strain during sustained dry periods.

Harcourt relies on groundwater wells for its municipal drinking water supply. The City's 2024 Vulnerability Assessment and Emergency Response Plan does not identify a specific past drought event that caused documented City property damage or required repairs. However, extended drought could reduce groundwater availability and interrupt or limit the community's drinking water supply.

The City's plan identifies implementation of a Water Conservation Policy during drought conditions, including limiting unnecessary water use and lawn and garden watering and deferring activities such as hydrant flushing. It also identifies arrangements for emergency bottled drinking water if needed. To further reduce risk, the City should maintain and periodically update the policy, monitor well and groundwater conditions, establish clear public notification procedures, and evaluate long-term water supply resilience, including backup supply options and groundwater source protection.

Mitigation Action	**Backup Generator for Critical Facilities**
Description	Purchase and install a new backup generator for the municipal water system and relocate/repurpose the existing water system generator for use at the Community Center. This will provide backup power for critical water infrastructure and improve the Community Center's ability to function as an emergency shelter during extended power outages and severe weather events.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Dam Failure, Terrorism/Cyber-Attack
Estimated Cost	TBD
Funding	City funds; grant or other state/federal funding as available
Timeline	2-5 years
Priority	High
Lead Agency	City of Harcourt, City Clerk
Status	This is a new mitigation action

Extreme Temperatures

Level of Vulnerability: Moderate

Harcourt experiences periods of extreme heat and extreme cold; however, the City's 2024 Vulnerability Assessment and Emergency Response Plan does not identify specific event dates with documented City property damage or repair costs. Extreme heat poses health risks, particularly for older adults, people with health conditions, and residents without adequate air conditioning. Extreme cold can cause hypothermia and frostbite, strain heating systems, freeze and rupture water or sewer pipes, and interfere with generator fuel systems and continued utility operations.

The City identifies the Community Center as its local emergency shelter and maintains bottled water, emergency blankets, public notification procedures, transportation assistance to shelter, and snow-removal arrangements. Public education on frozen-pipe prevention and backup generator power at the water plant also help reduce risk. To further improve preparedness, the City should pursue reliable backup power for the Community Center, regularly test and maintain

existing backup power systems, maintain emergency supplies, and continue public education on heat and cold safety. Procedures to help vulnerable residents reach the Community Center should also remain in place.

See **Backup Generator for Critical Facilities** mitigation action under Drought.
See **Handicap-Accessible Improvements** mitigation action under Thunderstorms: Lightning & Hail.

Flooding (Flash and Riverine)

Level of Vulnerability: Low

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health, and transportation accidents, and contamination of water supplies are likely effects of flooding situations as well.

Harcourt has experienced localized flooding during heavy rainfall and runoff events, including water backing into basements. However, the City's 2024 Vulnerability Assessment and Emergency Response Plan does not identify a specific flash or riverine flood event with documented City property damage or repair costs. Although riverine flooding exposure is limited, the City's limited storm sewer and drainage system connects to county drainage tile. Heavy rainfall, inadequate drainage capacity, deteriorated infrastructure, and obstructions such as root intrusion can contribute to surface flooding and basement backups.

The City maintains its storm sewer and drainage infrastructure, including periodically water jetting portions of the system to remove roots and other obstructions. Harcourt also maintains floodplain regulations and participates in the National Flood Insurance Program. To further reduce risk, the City should continue inspecting and cleaning its drainage system, repair or replace deteriorated or inadequate infrastructure, and coordinate with the county regarding drainage tile affecting the City's system. Maintaining floodplain regulations and program participation will also support continued flood risk reduction.

Mitigation Action	**Repair City Tile**
Description	The city needs to repair tile to help drain water from the area and to prevent localized flooding.
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine), Severe Winter Storms, Grass Fire or Wildland Fire, Hazardous Materials
Estimated Cost	$25,000

Mitigation Action	**Repair City Tile**
Funding	City funds; grant or other state/federal funding as available
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Harcourt, City Clerk
Status	The City continues to maintain and repair drainage tile serving the community. The City's limited storm sewer and drainage system connects to county drainage tile, and continued maintenance and repair are necessary to address drainage limitations and reduce localized flooding. The City will coordinate with Webster County as necessary for drainage issues involving county tile.

Grass Fire or Wildland Fire

Level of Vulnerability: High

Harcourt is surrounded by agricultural and rural land where controlled burns, debris burning, and vegetation fires may occur. The City's 2024 Vulnerability Assessment and Emergency Response Plan (VAERP) does not identify a specific past grass or wildland fire event with a documented date, City property damage, or repair costs. Dry vegetation, high temperatures, high winds, and low humidity can allow fires to spread rapidly. Rural homes and outlying structures may be more vulnerable because of their distance from firefighting resources and limited hydrant access in some areas.

The City and Fire Department maintain mutual-aid agreements with neighboring departments, maintain firefighting equipment, and test hydrant flow rates to support fire response. The VAERP also identifies notification of local emergency officials when controlled burns are conducted. To further reduce risk, the City should continue public education on controlled burning, keep mutual-aid agreements current, maintain and replace equipment as needed, and continue hydrant testing and upgrades where necessary. Coordination with county and emergency officials during elevated fire-danger conditions should also continue.

Mitigation Action	**Mutual Aid Agreement Between Fire Departments**
Description	This action will ensure that an adequate amount of fire relief is at the scene in the event of a fire.

Mitigation Action	**Mutual Aid Agreement Between Fire Departments**
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine), Severe Winter Storms, Grass Fire or Wildland Fire, Sinkholes
Estimated Cost	Staff time / No direct cost anticipated
Funding	City/Fire Department operating funds
Timeline	1 year or less
Priority	Medium
Lead Agency	City of Harcourt, Fire District #3
Status	Mutual aid agreements are currently in place. The City's 2024 VAERP identifies continued review of Fire Department 28E mutual aid agreements to ensure they remain current. Agreements will be reviewed and updated as necessary.

Severe Winter Storms

Level of Vulnerability: High

Severe winter storms occur annually in the Harcourt area and may include blizzards, heavy snow, freezing rain, ice, high winds, and extreme cold. The City's 2024 VAERP does not identify a specific past event with documented City property damage or repair costs. These conditions can disrupt transportation, electricity, communications, and municipal water service. Snow and ice can damage trees, utility lines, and structures, while extreme cold can freeze and rupture water or sewer lines. Power outages may also interrupt heating and essential City services.

The City maintains a snow-removal contract and backup generator power at the water plant and has identified the Community Center for emergency shelter use. The VAERP provides for emergency blankets, bottled water, volunteer transportation assistance, and prioritized snow removal to critical facilities. The City also provides public education on frozen-pipe prevention. Additional needs include reliable backup power at the Community Center, regular generator testing and maintenance, continued snow-removal arrangements and emergency supplies, and procedures to help residents reach shelter during severe winter weather.

See **Backup Generator for Critical Facilities** mitigation action under Drought.

See **Handicap-Accessible Improvements** mitigation action under Thunderstorms: Lightning & Hail.

Sinkholes

Level of Vulnerability: Moderate

No specific past sinkhole or ground-subsidence event in Harcourt with documented property damage or repair costs has been identified. Underground utility failures, including leaks or breaks in the City's aging water distribution system, could contribute to ground subsidence. Natural causes may also result in subsidence. Ground settlement or collapse could undermine streets and other infrastructure and create hazards for vehicles and pedestrians.

The City monitors its municipal water system for leaks and unexplained water loss that could indicate underground line failures and responds to identified street or utility problems. To reduce risk, the City should continue monitoring water loss, promptly investigate suspected utility failures or ground settlement, and maintain and replace aging water infrastructure as funding allows. Identified failures should be repaired, with access restricted to affected areas until repairs are completed.

See **Mutual Aid Agreement Between Fire Departments** mitigation action under Grass Fire or Wildland Fire.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

In June 2026, Harcourt experienced a power outage during a severe weather event, after which Municipal Well No. 1 became inoperable. An insurance claim was filed, and the insurer characterized the loss as lightning-related; however, the electrical contractor did not find evidence confirming lightning as the cause of the equipment failure. Water service continued using Municipal Well No. 2. No damage amount or repair cost was provided. Lightning can damage electrical equipment or start fires, while thunderstorm winds and hail can damage buildings, vehicles, trees, crops, and utility infrastructure. Related power outages can disrupt essential City services.

The City maintains backup generator power at the water plant and emergency response procedures for power outages and blocked access. The Community Center is available for emergency shelter use when needed. To further reduce risk, the City should continue testing and maintaining backup power systems, pursue reliable generator capability at the Community Center, maintain emergency access and debris-clearing procedures, and continue public severe-weather education and notification.

Mitigation Action	**Install City Storm Sewer**
Description	The City has a limited storm sewer and drainage system that connects to county drainage tile. Installing additional storm sewer will ensure that the City's storm sewer is functioning properly and is ready to handle the correct capacity of water that is generated from storm events that occur within the community. .
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine), Severe Winter Storms
Estimated Cost	$500,000
Funding	City funds; grants or other state/federal funding as available
Timeline	Over 5 years
Priority	Low
Lead Agency	City of Harcourt, City Clerk
Status	Not started.

Mitigation Action	**Upgrade City Storm Sewer**
Description	The City continues to maintain the existing system, including periodic water jetting to remove root intrusion and other obstructions. Additional repairs, improvements, or replacement may be necessary to address aging infrastructure, drainage capacity, and recurring localized drainage concerns
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine), Severe Winter Storms
Estimated Cost	$500,000
Funding	City funds; grants or other state/federal funding as available
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Harcourt, City Clerk

Mitigation Action	**Upgrade City Storm Sewer**
Status	The City continues to maintain and repair its existing storm sewer and drainage system. Additional improvements remain necessary to address aging infrastructure and stormwater capacity concerns.

Mitigation Action	**Handicap-Accessible Improvements**
Description	The purpose of this action is to increase the overall accessibility of the town's community center so that if there were a hazard in town, anyone could take shelter within the community center. The City will evaluate and complete needed accessibility improvements at the Community Center to ensure residents with disabilities or mobility limitations can safely access and use the facility during emergency shelter operations.
Hazard(s)	Thunderstorms: Lightning & Hail, Flooding (Flash and Riverine), Severe Winter Storms
Estimated Cost	$5,000
Funding	City/Township funds; grants as available
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Harcourt, City Clerk
Status	Accessibility improvements have been completed at the Community Center, including accessible curb access and installation of a chair lift providing access to the lower level. Additional accessibility improvements will be considered as facility needs are identified.

Tornado/Windstorm

Level of Vulnerability: High

Harcourt has experienced severe wind and storm events; however, the City's 2024 VAERP does not identify a specific tornado or windstorm event with a documented date, City property

damage, or repair costs. Tornadoes and high winds can damage or destroy buildings, trees, power lines, utility poles, and other infrastructure. Light-frame structures and residents without secure shelter are particularly vulnerable. Flying debris, downed power lines, blocked streets, and utility interruptions can create additional public safety hazards.

The VAERP provides for public education, regular inspection of the water tower structure, use of the Community Center as an emergency shelter, coordination with Webster County Emergency Management, prioritized debris and street clearing, and power-outage response procedures. It also identifies the need for emergency food and bottled water. The City should continue these measures, maintain shelter capability, pursue reliable backup power at the Community Center, and keep arrangements for emergency supplies and access current.

See **Backup Generator for Critical Facilities** mitigation action under Drought.

See **Handicap-Accessible Improvements** mitigation action under Thunderstorms: Lightning & Hail.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

No recent animal, crop, or plant disease event causing documented impacts to Harcourt's City operations or property has been identified. Because Harcourt is located in an agricultural area, disease outbreaks could indirectly affect the community through losses at surrounding farms, disruption of food production, and impacts to the local economy. Restrictions on the movement or disposal of affected animals or agricultural products could create additional challenges.

The City maintains emergency coordination procedures and would work with Webster County Emergency Management and appropriate county, state, and agricultural agencies during a significant disease event. To reduce risk, the City should maintain these relationships, monitor public information during outbreaks, and follow emergency guidance from the responding agencies.

Dam Failure

There are no dams whose failure would impact the City of Harcourt. No dam inundation areas extend into the jurisdiction. This dam failutre is not identified as a concern for the community, and no further vulnerability, mitigation, or risk is needed at this time.

Hazardous Materials

The City of Harcourt has had a low historical probability of a hazardous materials incident annually at less than 10%. Harcourt has concluded that less than 25% of its people and property would be affected.

The City maintains emergency response procedures and coordinates with the Fire Department, Webster County Emergency Management, law enforcement, and other responding agencies. The VAERP also includes procedures to protect the public water supply when contamination is suspected. To further reduce risk, the City should keep emergency contacts and response procedures current, continue coordination and training with responding agencies, maintain public notification and evacuation procedures, and protect the municipal water supply from potential contamination.

Terrorism/Cyber-Attack

No recent terrorism or cyber-attack event causing documented impacts to Harcourt's City operations has been identified. A cyber-attack could disrupt City computer systems, financial and administrative operations, communications, and utility systems or records. A physical security incident could threaten critical infrastructure, including municipal wells and water facilities, and potentially interrupt or contaminate the public water supply.

The City maintains emergency response procedures, reports suspicious activity, and has identified physical security measures to restrict unauthorized access to municipal wells and water facilities. Additional needs include improving physical security at critical water facilities and strengthening cybersecurity protections for City computer and utility systems. Secure access controls, regular data backups, software updates, staff awareness, and cyber incident response procedures would help reduce risk.

Completed Mitigation Actions

Mitigation Action	**Generator Installation**
Description	A generator for the town's water plant would allow this facility to continue to serve the community in the event of a community-wide power outage.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire or Wildland Fire, Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Dam Failure, Terrorism/Cyber-Attack
Status	Completed

Mitigation Action	**Update City Siren**
Description	Update the City Siren so that it is tied in with the County Siren system.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms
Status	Completed

Mitigation Action	**Acquire Updated Fire Radios**
Description	Acquire new fire radios for emergency staff so that they may better stay in contact and respond to emergency situations.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Grass Fire and Wildland Fire, Hazardous Materials
Status	Completed

Removed Mitigation Actions

Mitigation Action	**Continue Participation in Region V HAZMAT**
Description	The purpose of this action is to make sure that the community is properly protected in the event of a hazardous materials spill through its membership to the Regional V Hazardous Materials Response Commission.
Hazard(s)	Hazardous Materials
Status	No longer needed. The City will continue to utilize and coordinate with Region V HAZMAT as appropriate; however, continued participation alone does not constitute a mitigation action. No specific additional Region V HAZMAT project has been identified at this time.

Mitigation Action	**Hazardous Materials Firefighter Training**
Description	Fire District #3 currently has at least five members with hazardous materials training, including one member trained within the past year. Because the department is volunteer-based and cannot require members to complete additional HAZMAT training, the City is removing this as a formal mitigation action.
Hazard(s)	Hazardous Materials
Status	No longer needed.

Mitigation Action	**Building Construction**
Description	Construct a new building which would house the Fire Station, City Hall, and City Library. Could possibly make this facility a community shelter.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm, Grass Fire or Wildland Fire, Hazardous Materials
Status	No longer needed. The City is not currently pursuing construction of a new combined Fire Station, City Hall, Library, and community

Mitigation Action	**Building Construction**
	shelter facility. Existing facilities continue to serve these functions, and improvements to existing critical facilities are being pursued separately.

CITY OF LEHIGH COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

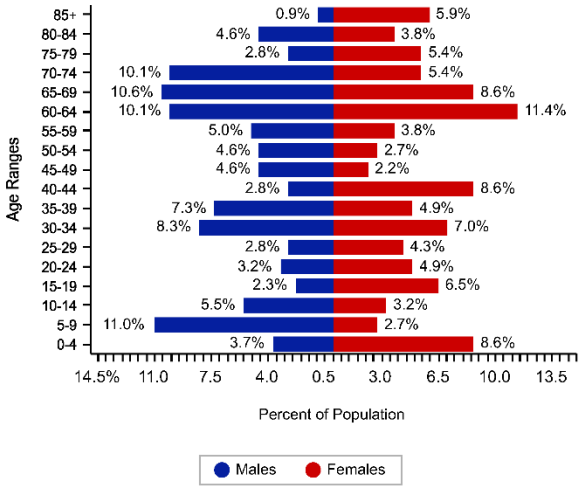
Community Summary Fact Sheet

Lehigh, IA

Webster County Iowa Hazard Mitigation Plan 2026

403	47.0	187	2.16	$95,000	$56,702
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



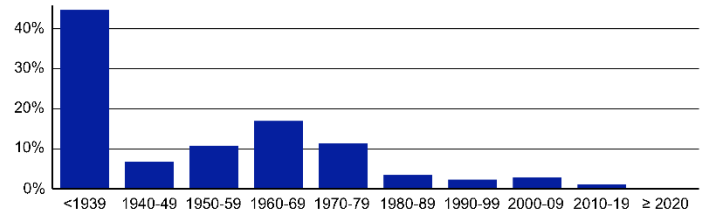
TOTAL POPULATION

2026 Total Population (Estimate)	403
2020 Total Population (U.S. Census)	395
2010 Total Population (U.S. Census)	416
2000 Total Population (U.S. Census)	497

AT RISK POPULATIONS

52	117	4	15%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

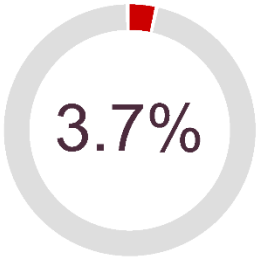
HOUSING: YEAR BUILT



EMPLOYMENT

22	3.1%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

7	3%
Vacant Housing Units	Mobile Homes

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Lehigh Local Planning Team

Name	Title	Department	Participation
Aaron Morrs	Fire Chief	Fire Department	Profile Development
Joe Tule	Mayor	City Council	Profile Development
Theres Grossnicke	City Clerk	City Clerk	Watched Meeting Video, Profile Development
Chad Popp	Maintenance	Maintenance	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Lehigh is located in the southeastern part of Webster County. Lehigh sits in a valley on the west bank of the Des Moines River, which flows directly through the City. Several state-managed natural areas sit within a few miles of the City, including Dolliver State Park, Brushy Creek State Recreation Area, and Woodman Hollow State Preserve. Lehigh's location on U.S. Highway 169, a few miles south of Otho and Burnside along the Elkhorn/169 corridor, connect it north to Fort Dodge



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The City of Lehigh's community profile was last reviewed in 2019. The City Council, Fire Department, and maintenance staff review and update the profile between five-year plan updates. The City plans to review the HMP bi-annually.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Lehigh Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	Yes	2019
	Capital Improvements Plan	No	
	Economic Development Plan	No	
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	No	
	Subdivision Regulation/Ordinance	No	
	Floodplain Ordinance	Yes	2024
	Building Codes	No	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	
	National Flood Insurance Program	Yes	2019
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
	Other (if any)		
Administrative & Technical Capability	Planning Commission		
	Planner/Engineer (Land Development)		
	Transportation Planner		
	Floodplain Administrator	Yes	
	GIS Capabilities		
	Building Code Official		

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Civil Engineering		
	Emergency Manager	Yes - County	
	Grant Manager		
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements		
	Other (if any)		
Fiscal Capability	1- & 6-Year Plan		
	Applied for Grants in the Past		
	Awarded a Grant in the Past		
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects		
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees		
	Water/Sewer Service Fees		
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds		
	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.)		
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)		
	Natural Disaster or Safety related school programs		
	StormReady Certification	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Firewise Communities Certification	No	
	Tree City USA	No	
	Other (if any)		
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City does not anticipate increasing its capabilities in the near future

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

The City of Lehigh is not able to increase its capabilities in the near future.

PLANS AND STUDIES

The City's Comprehensive Plan was last updated in 2019, and its floodplain ordinance was updated in 2024. The HMP has not been integrated into these documents, and the City does not currently plan to incorporate it during future updates. The City reported that required floodplain compliance will be followed. No additional plans, ordinances, regulations, or studies were identified. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	HMP Integration
Comprehensive Plan 2019	The HMP has not been integrated into the Comprehensive Plan.
Floodplain Regulations/ Ordinance	The HMP has not been integrated into the floodplain ordinance.

Floodplain and National Flood Insurance Program

The City Clerk serves as the Floodplain Administrator and is responsible for enforcing floodplain regulations. The administrator is not certified. NFIP standards and floodplain regulations are maintained in the City Code and Floodplain Code. The City does not issue floodplain permits before approval by the Iowa Department of Natural Resources (DNR), and its standards do not exceed NFIP minimum requirements. The City intends to continue participating in the NFIP. The City identifies substantially improved structures based on cost.

The City of Lehigh does not have higher regulatory standards than the NFIP minimum. The City experienced flood events in 2017 and 2019, highlighting the need for participation in the NFIP. The City plans to continue its involvement with the NFIP in the future, and there are currently no identified compliance issues between the City and NFIP. The City of Lehigh is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. This risk map identified Very Low to Medium risk of flooding for the City of Lehigh from the Middle Des Moines River.

National Flood Insurance Program Information

Date of NFIP Participation:	**09/04/84**	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0
Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	10	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$154,590		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	310	$17,694,420	43	$1,054,490	13.9%
500-year			0	$0	0%

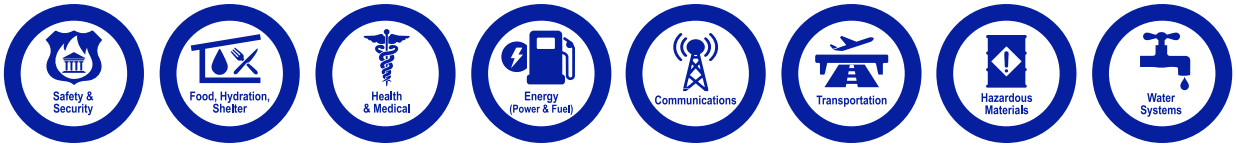
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

Since 2021, buildings on Main Street have been demolished, and additional buildings are planned for demolition. No new structures are being developed in the floodplain or other hazardous areas, and no hazard-specific mitigation is incorporated into new structures. No new housing developments, businesses, or industrial development were reported as planned in the near future.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Lehigh Community Lifelines

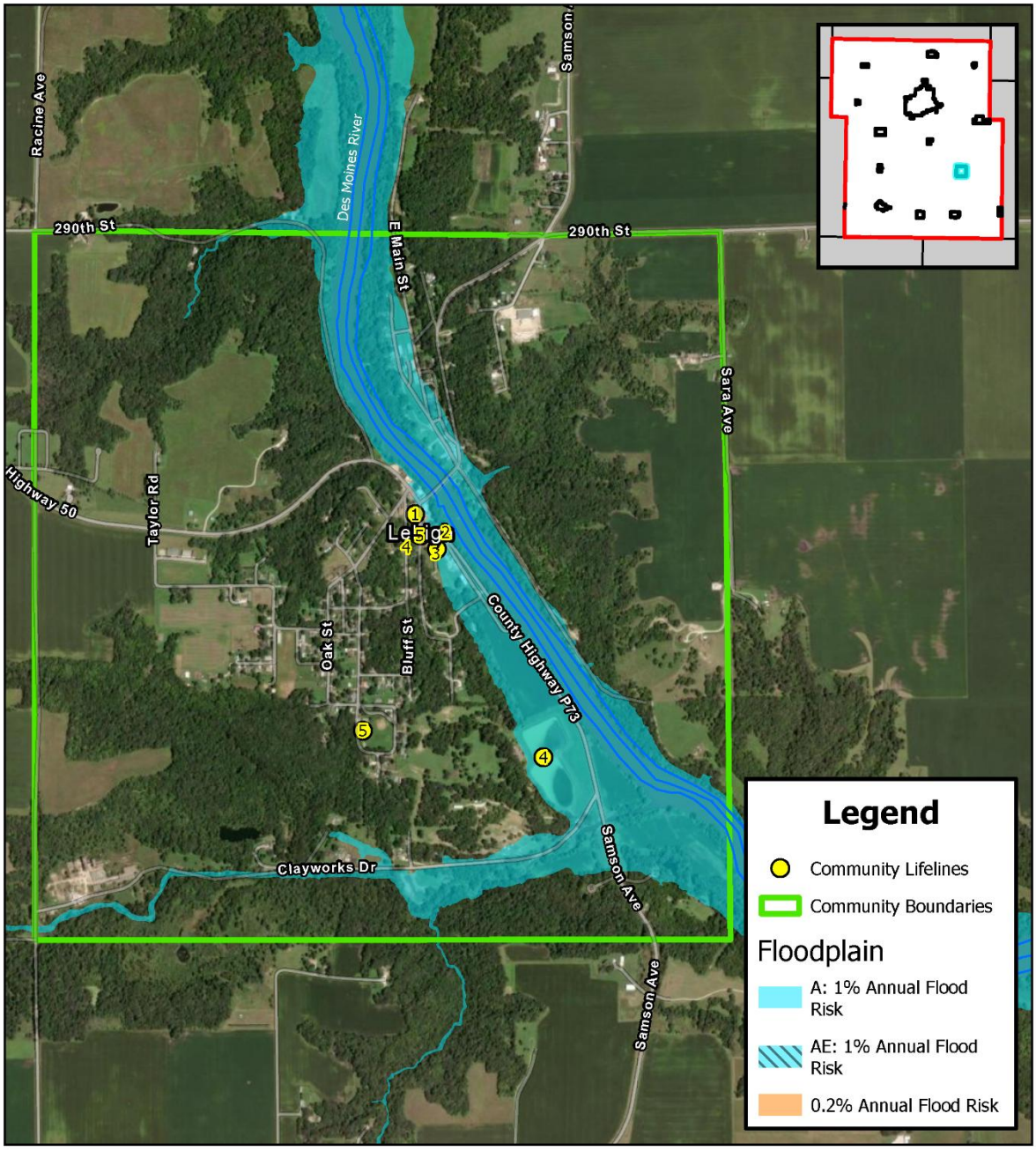
CF #	Lifeline Type	Name	Address / Location	Shelter	Generator
1	Safety and Security	Community Center	114 Main	N	N
2	Water Systems	Water Plant	241 Elm	N	Y
3	Safety and Security	City Hall	241 Elm	N	N
4	Water Systems	Lagoons (various)	*Southeast of town*	N	N
5	Water Systems	Water Tower	Ballpark	N	N

Other Community Assets

The City of Lehigh has also identified various other community assets of concern:

- Lions Club
- Women's Club
- Betterment Committee
- Library
- Ballpark
- Lehigh Christian Church
- Phone Company
- Electrical Distribution System
- Roads & Bridges
- River Berms/Dykes

Lehigh Community Lifelines Map



Created By: SO
Date: 10/25/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP

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.

Lehigh Community Lifelines

2026 Webster County Hazard Mitigation Plan Update

N W E S

0 1,500 3,000 Feet

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Prolonged drought may reduce available water supplies and increase demand on the City's water system. Dry conditions can stress vegetation and increase grass fire risk. Reduced crop yields and agricultural income may affect nearby producers, local businesses, and residents employed in agriculture.

Mitigation Action	**Research Shelter Options**
Description	Research efforts would help construct or designate structures in town that can serve as shelters for residents during hazards. The City would plan for specific hazards including emergency water during droughts, cooling and heating areas for extreme temperatures.
Hazard(s)	Drought, Extreme Temperatures, Flooding (Flash and Riverine), Grass Fire and Wildland Fire, Severe Winter Storms, Sinkholes, Thunderstorms: Lightning & Hail, Tornado/Windstorm, Animal/Crop/Plant Disease, Dam Failure, Hazardous Materials, Terrorism/Cyber-Attack
Estimated Cost	Staff Time
Funding	General Budget
Timeline	1 year or less
Priority	Low

Mitigation Action	**Research Shelter Options**
Lead Agency	City Clerk
Status	This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Low

Extreme heat and cold can threaten older adults, outdoor workers, and residents without adequate heating or cooling. Temperature extremes can increase energy demand and strain building systems. Prolonged freezing conditions may damage water lines and plumbing and interrupt water service.

*See **Research Shelter Options** mitigation action under Drought*

Flooding (Flash and Riverine)

Level of Vulnerability: Medium

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well. The City of Lehigh has historically had a 26-60% chance of flash flooding annually. Lehigh has felt that their community could be hit the hardest within the county and is concerned about the potential for serious injury or illness, major or long-term property damage, along with the shutdown of essential facilities for 24 to 72 hours afterward. They also believed that there could be long-term environmental implications. Flooding in 2017 and 2019 washed out roads and caused bank erosion, demonstrating the vulnerability of local transportation infrastructure.

Mitigation Action	**Flooding Education**
Description	The community participates in the NFIP and will educate citizens on the NFIP and flooding as a hazard in Lehigh.
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	Staff Time

Mitigation Action	**Flooding Education**
Funding	General Budget
Timeline	2-5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Grass Fire or Wildland Fire

Level of Vulnerability: Medium

Fires in surrounding grasslands, agricultural areas, and wooded areas may spread toward buildings and infrastructure. Dry vegetation and strong winds can increase fire spread and place greater demands on local firefighting resources. Smoke may affect residents with respiratory conditions and disrupt outdoor activities. The City of Lehigh has historically been one of two jurisdictions within the county with a probability of a grass fire or wildland fire over 60% annually.

Mitigation Action	**Wildfire Prevention Education**
Description	Educate staff and citizens about preventing outdoor ignitions and reporting fire hazards. Train grounds staff on vegetation management and keeping combustible materials away from buildings.
Hazard(s)	Grass Fire or Wildland Fire
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Severe Winter Storms

Level of Vulnerability: Low

Snow, ice, and drifting can make roads impassable, delay emergency services, and isolate residents. Ice accumulation and falling tree limbs may damage power lines and interrupt electricity, heating, and communications. Extended cold can also damage plumbing and water infrastructure.

Mitigation Action	**Tree-Trimming Program**
Description	This action would keep community trees trimmed and away from power lines.
Hazard(s)	Tornado/Windstorm, Thunderstorms: Lightning & Hail, Severe Winter Storms
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Sinkholes

Level of Vulnerability: Low

Localized ground collapse or settlement could damage streets, building foundations, and underground utilities. Potential risk depends on subsurface conditions, including any abandoned mine workings or deteriorated buried infrastructure. Ground failures may create immediate safety hazards and require road closures or costly repairs.

Mitigation Action	**Sinkhole Awareness Education**
Description	Train maintenance and grounds staff to recognize and report new depressions, unusual settlement, pavement cracks, and recurring

Mitigation Action	**Sinkhole Awareness Education**
	drainage problems. Teach citizens to avoid and report suspected ground openings.
Hazard(s)	Sinkholes
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Medium

Lightning and hail can damage buildings, vehicles, electrical equipment, and utility infrastructure in Lehigh. Lightning may cause fires or power outages, while hail can damage roofs and nearby crops. Associated service interruptions may affect households, businesses, and municipal operations. The City's tree-trimming program addresses storm-related risks to overhead power lines, and generators at City Hall and the Water Plant provide backup power at those facilities.

Mitigation Action	**Generator Cost Analysis**
Description	Research efforts would help the process of purchasing and installing a generator for City Hall and the Water Treatment Facility in town so that these entities can remain functioning when there is a city-wide power outage.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm
Estimated Cost	Staff Time
Funding	General Fund

Mitigation Action	**Generator Cost Analysis**
Timeline	1 year or less
Priority	Low
Lead Agency	Fire Department
Status	This is a new mitigation action.

Tornado/Windstorm

Level of Vulnerability: Medium

A windstorm in December 2021 brought down power lines in Lehigh, requiring repair or replacement. The City identified trees falling onto power lines and falling utility poles as local vulnerabilities. Strong winds may also damage buildings, block roads with debris, and interrupt essential services. Existing measures include utility pole replacement, tree trimming, and vegetation management. The tree-trimming program remains ongoing.

*See **Research Shelter Options** mitigation action under Drought*

*See **Tree-Trimming Program** mitigation action under Severe Winter Storms.*

*See **Generator Cost Analysis** mitigation action under Thunderstorms: Lightning & Hail.*

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

The City did not identify animal, crop, or plant disease as a community concern. However, diseases affecting nearby crops and livestock could reduce agricultural production and affect household income and local businesses. Tree diseases and invasive pests may weaken trees near buildings, streets, and power lines, increasing removal costs and the potential for falling limbs. The City did not provide information on specific disease events or related mitigation measures.

Dam Failure

Lehigh Dams

River	Dam Name	Classification	Type	Owner
Des Moines	Lehigh Rock Dam	Low Hazard	Low Head Dam	City of Lehigh

The profile identifies the City-owned Lehigh Rock Dam on the Des Moines River as a low-head dam with a low hazard classification. The City did not identify dam failure as a community concern. Potential impacts would depend on the dam's condition, failure characteristics, and downstream exposure and could include localized changes in flow, erosion, or damage to nearby infrastructure. The completed responses did not identify past failures, affected properties, or dam-specific mitigation needs.

Hazardous Materials

Although the City did not identify hazardous materials as a community concern, a release could affect nearby residents, restrict access, and contaminate soil or water. The City of Lehigh has historically had a 10-25% chance of a hazardous materials incident annually. Depending on the substance and location, an incident could require evacuation or sheltering in place. Lehigh maintains participation in Region V HAZMAT, and the Fire Department handles general hazardous materials incidents with assistance from Fort Dodge when needed. General hazardous materials training for firefighters is ongoing.

Mitigation Action	**Hazardous Materials Firefighter Training**
Description	This action will help ensure that all firefighters are knowledgeable about how to handle events related to hazardous materials operations.
Hazard(s)	Hazardous Materials
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	Fire Department
Status	This is a new mitigation action.

Terrorism/Cyber-Attack

The City did not identify terrorism or cyber-attacks as a community concern. The City of Lehigh feels that less than 25% of its community members would be affected. Potential impacts nevertheless include disruption of municipal communications, financial systems, records, or electronically controlled services. Deliberate damage to public facilities or incidents during community events could also threaten public safety. The City reported ongoing efforts related to reserve law enforcement coverage and active shooter training, with the Fire Department identified as the lead for training. These measures address physical security and preparedness; the profile does not identify specific cybersecurity measures.

Mitigation Action	**Active Shooter Training**
Description	The purpose of this action is to ensure that enough law enforcement officials and potential targeted citizens or locations have the knowledge on how to handle an active shooter.
Hazard(s)	Terrorism/Cyber-Attack
Estimated Cost	Staff Time
Funding	General Fund
Timeline	1 year
Priority	Low
Lead Agency	Fire Department
Status	This is a new mitigation action.

Mitigation Action	**Hire Reserve Law Enforcement**
Description	The purpose of this action is to ensure that enough law enforcement officials are on duty during special events throughout the year in Lehigh.
Hazard(s)	Terrorism/Cyber-Attack
Estimated Cost	Staff Time
Funding	General Fund

Mitigation Action	**Hire Reserve Law Enforcement**
Timeline	1 year
Priority	Low
Lead Agency	Fire Department
Status	This is an ongoing search for reserve law enforcement.

CITY OF MOORLAND COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

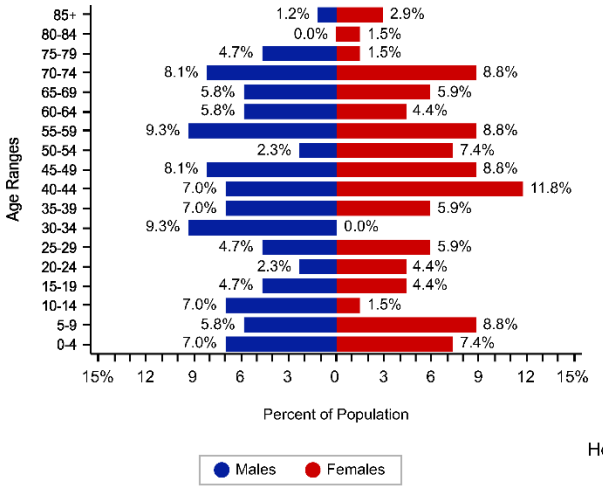
Community Summary Fact Sheet

Moorland, IA

Webster County Iowa Hazard Mitigation Plan 2026

154	43.6	71	2.17	$192,188	$91,657
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



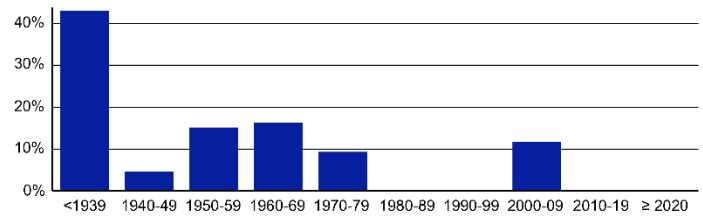
TOTAL POPULATION

2026 Total Population (Estimate)	154
2020 Total Population (U.S. Census)	168
2010 Total Population (U.S. Census)	169
2000 Total Population (U.S. Census)	201

AT RISK POPULATIONS

29	31	9	11%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

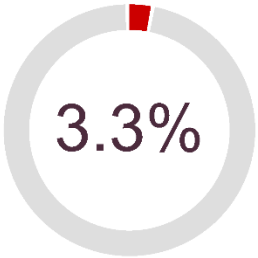
HOUSING: YEAR BUILT



EMPLOYMENT

12	1.2%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

11	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2000, 2010, 2020, 2020-2024, 2026.

LOCAL PLANNING TEAM

Moorland Local Planning Team

Name	Title	Department	Participation
Brad Hoffman	Mayor	City Council	Watched Meeting Video, Profile Development
Delia Hoffman	Council member	City Council	Profile Development
Debra Rauhauser	Council member	City Council	Profile Development
Christopher Fiala	Council member	City Council	Profile Development
Julie Ball	Council member	City Council	Profile Development
Matthew Smith	Council member	City Council	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles, and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River, which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Moorland is located in the west-central part of Webster County. U.S. Highway 20 runs directly through Moorland, forming the City's main east-west corridor and connecting it to Fort Dodge roughly nine miles to the east; a diamond interchange just northeast of town marks where the four-lane expressway meets the older Highway 20 alignment through Moorland itself.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community profile was last reviewed on April 1, 2023. An amendment added generators for the Community Building, water plant/lift station, and Fire Station. The Mayor and City Council are responsible for reviewing and updating the profile outside of the five-year update. The City intends to review the profile annually and involve the public through its Facebook page, inserts in water bills, and Council meetings with notices posted at designated posting sites.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize planning and regulatory, administrative and technical, fiscal, and education and outreach capabilities, along with the community's overall ability to implement mitigation projects.

Moorland Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	No	
	Capital Improvements Plan	No	
	Economic Development Plan	Yes	
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	
	Subdivision Regulation/Ordinance	No	
	Floodplain Ordinance	Yes	
	Building Codes	State	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	No	
	National Flood Insurance Program	Yes	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
	Other (if any)		
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	Yes	
	GIS Capabilities	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Building Code Official	No	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
	Other (if any)		
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	No	
	Awarded a Grant in the Past	No	
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	No	
	Water/Sewer Service Fees	No	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	No	
	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	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
	Other (if any)		
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Moorland has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Moorland updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation

actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	HMP Integration
Economic Development Plan	The HMP has not been integrated into the economic development plan.
Zoning Ordinance	The HMP has not been integrated into the zoning ordinance.
Floodplain Ordinance	The HMP has not been integrated into the floodplain ordinance. The ordinance does restrict development in the floodplain.

Floodplain and National Flood Insurance Program

The City of Moorland participates and is currently in good standing with the National Flood Insurance Program. The City Clerk serves as the Floodplain Administrator and is not currently a Certified Floodplain Administrator. Floodplain regulations are currently outlined through the Code of Ordinances. The City Council is responsible for enforcing floodplain regulations, which—along with information on NFIP standards—are located within the Floodplain Code. If a major flood event were to occur, the City Clerk would be responsible for determining substantial damages.

The City of Moorland does not have higher regulatory standards than the NFIP minimum and has not experienced a recent flood event. The City plans to continue its involvement with the NFIP in the future and there are currently no identified compliance issues between the City and NFIP. The City of Moorland is included in the RISK MAP for the *Middle Des Moines Watershed, Iowa* risk map. This risk map identified Very Low and Low risk of flooding for the City of Moorland from the Middle Des Moines River.

National Flood Insurance Program Information

Date of NFIP Participation:	**09/01/96**	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	Number of Severe Repetitive Loss Structures:	0
Total NFIP Premium ($):	$0	Number of LOMA/LOMRs	0
Total NFIP Coverage ($):	$0	FIRMs Digital or Paper?	Both

Number of Claims Paid Out:	$0	Located in a RISK Map Area?	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	130	$12,951,600	0	$0	0%
500-year			0	$0	0%

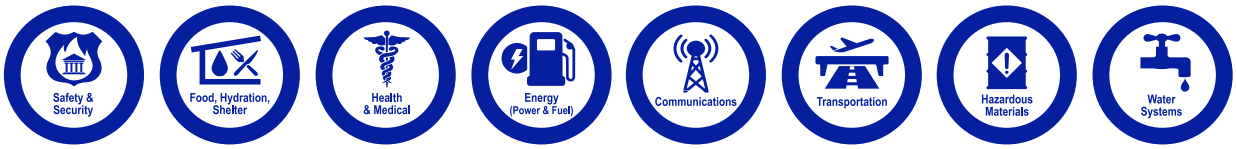
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

The City reported no changes in Moorland over the past five years. No new structures were developed in the floodplain or other hazardous areas, and no hazard-specific mitigation of new structures was reported. No new housing developments or businesses/industry are planned in the near future.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

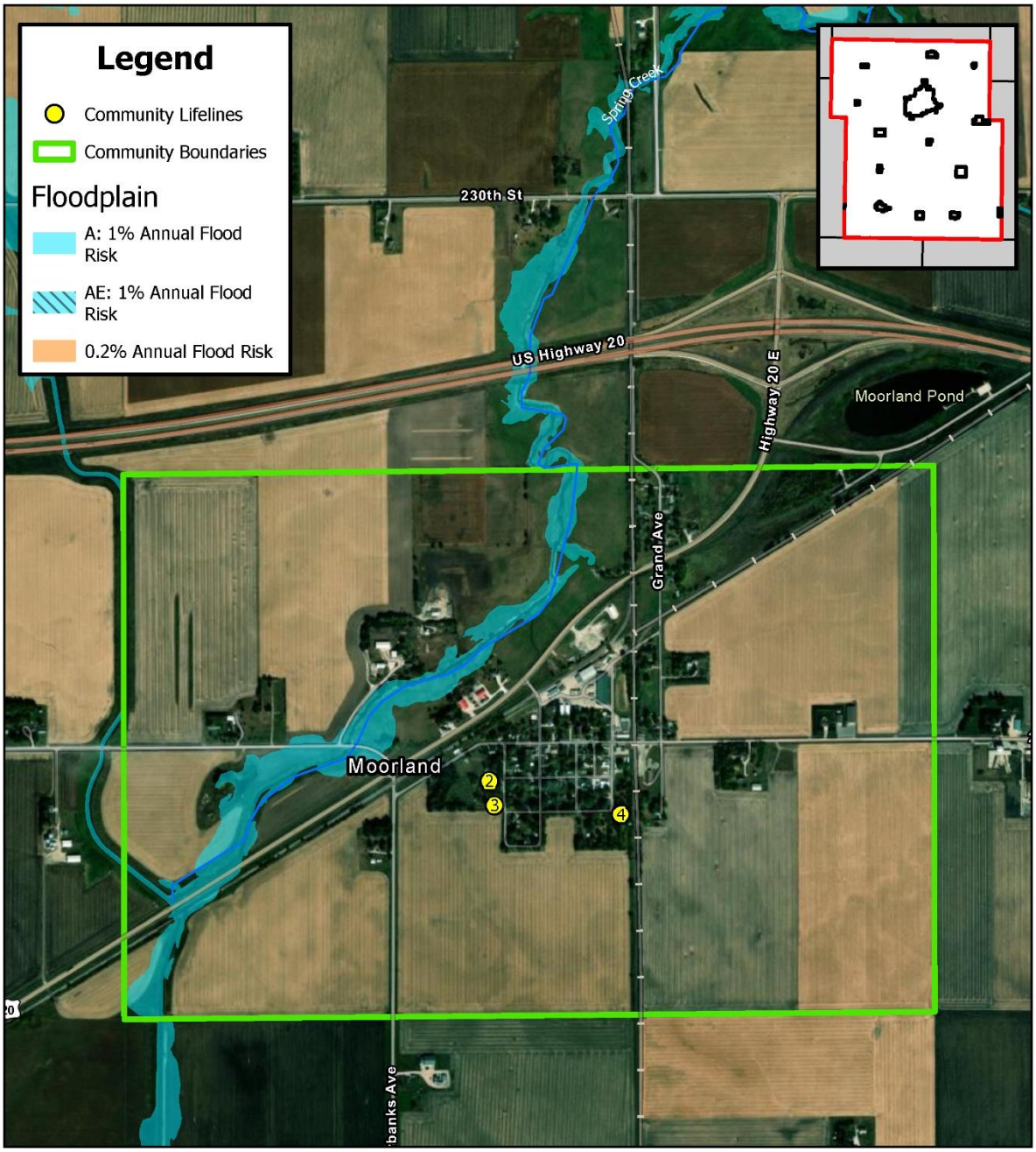


Moorland Community Lifelines

CF #	Lifeline Type	Name	Address/ Location	Shelter	Generator
1	Safety and Security	Clerk's Office*	N/A	Y	Y
2	Safety and Security	Community Center	416 3rd St W	Y	Y
3	Safety and Security	Fire Department	404 3rd St W	N	Y
4	Water Systems	Water Treatment Plant	Linden St/Front St	N	Planned not yet installed

**not mapped*

Moorland Community Lifelines Map



HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Prolonged drought may reduce available water supplies and increase demand on Moorland's water system. Dry conditions can stress vegetation, increase grass fire risk, and reduce crop yields in the surrounding agricultural area, affecting producers, local businesses, and household income.

Mitigation Action	**Drought and Water Conservation Education**
Description	Educate citizens about water conservation, reporting leaks, and reducing water use during drought. Share conservation information with families.
Hazard(s)	Drought
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Staff
Status	This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Low

Extreme heat and cold can threaten residents without adequate heating or cooling, particularly older adults and people with medical conditions. Temperature extremes may also increase energy demand and damage plumbing during prolonged freezing conditions. The Community Center serves as a shelter during hot weather and has an installed generator to support continued operation during power outages. No additional risk-reduction measures were identified.

Mitigation Action	**Extreme Temperature Education**
Description	Provide seasonal information on heat and cold exposure, hydration, appropriate clothing, and district procedures for outdoor activities. Train staff to recognize temperature-related illness.
Hazard(s)	Extreme Temperatures
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Flooding (Flash and Riverine)

Level of Vulnerability: Low

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health, and transportation accidents, and contamination of water supplies are likely effects of flooding situations as well.

The City reported no past flood events and indicated that Moorland is not located in a flood zone. If residents are displaced, they can shelter at the Community Center, which has a generator. A generator has also been installed at the Fire Station to support emergency services.

Mitigation Action	**Water Tile Relief**
Description	The purpose of this action would be to repair/replace tiling in areas of town that need to be repaired/replaced to alleviate flash flooding.
Hazard(s)	Flooding (Flash and Riverine), Severe Winter Storms, Thunderstorms: Lightning & Hail
Estimated Cost	$6,000
Funding	City Funds
Timeline	2-5 years
Priority	Medium
Lead Agency	City Clerk
Status	In progress.

Grass Fire or Wildland Fire

Level of Vulnerability: Low

Grass and wildland fires could spread toward Moorland's homes and infrastructure, particularly during dry and windy conditions. Potential impacts include property damage, threats to resident safety, and smoke exposure. The City reported no past grass or wildland fire events. An installed generator at the Fire Station supports continued emergency services during power outages associated with a fire or other emergency. No additional risk-reduction needs were identified.

Mitigation Action	**Wildfire Prevention Education**
Description	Educate staff and citizens about preventing outdoor ignitions and reporting fire hazards. Train grounds staff on vegetation management and keeping combustible materials away from buildings.
Hazard(s)	Grass Fire or Wildland Fire
Estimated Cost	Staff Time

Mitigation Action	**Wildfire Prevention Education**
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Severe Winter Storms

Level of Vulnerability: Moderate

Severe winter storms can interrupt electrical service, leave homes without heat, and create hazardous travel conditions that delay emergency response and access to essential services. The City identified power outages, loss of heat, and resident safety as primary concerns but reported no specific impacts from past winter storms. The Community Center has an installed generator and serves as a shelter where residents can obtain warmth during outages. The Fire Station also has a generator to support emergency response. No additional risk-reduction needs were identified.

*See **Water Tile Relief** mitigation action under Flooding (Flash and Riverine)*

Sinkholes

Level of Vulnerability: Low

Ground collapse or settlement could threaten resident safety and damage streets, building foundations, and underground utilities. The City reported no past sinkhole events and did not identify specific locations susceptible to collapse. The Community Center could shelter displaced residents, while the Fire Station would support emergency response. These arrangements address potential consequences but do not reduce the likelihood of ground collapse.

Mitigation Action	**Sinkhole Awareness Education**
Description	Train maintenance and grounds staff to recognize and report new depressions, unusual settlement, pavement cracks, and recurring

Mitigation Action	**Sinkhole Awareness Education**
	drainage problems. Teach citizens to avoid and report suspected ground openings.
Hazard(s)	Sinkholes
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Thunderstorms can damage Moorland's buildings, vehicles, trees, and electrical infrastructure. Lightning may cause fires or outages, while hail can damage roofs and other exposed property. The City reported no specific past thunderstorm, lightning, or hail impacts. Generators at the Community Center and Fire Station support shelter operations and emergency services during power outages. The Tree-Trimming Ordinance action addresses tree-related hazards that may contribute to storm damage. No additional risk-reduction needs were identified in the hazard response.

*See **Water Tile Relief** mitigation action under Flooding (Flash and Riverine)*

Tornado/Windstorm

Level of Vulnerability: Moderate

An EF0 tornado affected Moorland on May 17, 2026, causing approximately $20,000 in reported damage to City trees. Residents also experienced tree damage and some roof damage. A Proclamation of Disaster Emergency was declared, and the City obtained an emergency order allowing its burn site to remain open for 30 days for tree-debris disposal and burning.

Tornadoes and strong winds can damage buildings, bring down trees and power lines, and displace residents. The Community Center has an installed generator and is designated as a shelter, while a generator at the Fire Station supports emergency response. The City also plans to install a generator at the facility described as the water/lift station to maintain service during outages, provided the facility remains operable. The Tornado Shelter and Tree-Trimming Ordinance actions address shelter availability and tree-related risks.

Mitigation Action	**Tornado/Windstorm Education**
Description	Educate staff and citizens about tornado safety and shelters in Moorland.
Hazard(s)	Tornado/Windstorm
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease was not identified as a concern for the community.

Dam Failure

Dam failure was not identified as a concern for the community.

Hazardous Materials

Hazardous materials was not identified as a concern for the community

Terrorism/Cyber-Attack

Terrorism/cyber-attack was not identified as a concern for the community.

Completed Mitigation Actions

Mitigation Action	**Tornado Shelter**
Description	The City of Moorland would like to build a tornado shelter in the event of a tornado; this would be available to all citizens in need.
Hazard(s)	Tornado/Windstorm, Thunderstorms: Lightning & Hail, Severe Winter Storms
Status	Completed: The Community Center is designated as a shelter and has a generator.

Mitigation Action	**Tree-Trimming Ordinance**
Description	This action is to continue with the tree trimming management program for the City of Moorland. The purpose of this enforcement is to reduce the frequency of power outages due to downed tree limbs and reduce the amount of vegetative debris after severe storms.
Hazard(s)	Thunderstorms: Lightning & Hail, Severe Winter Storms, Tornado/Windstorm
Status	Completed: The tree trimming ordinance is in place and will continue to be managed by the city.

Mitigation Action	**Enforce/Update Flood Ordinance**
Description	The City of Moorland currently has a flood ordinance. This mitigation action is set to continue to enforce the flood ordinance.
Hazard(s)	Flooding (Flash and Riverine)
Status	Completed: The city is continuing to enforce the flood ordinance.

CITY OF OTHO COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

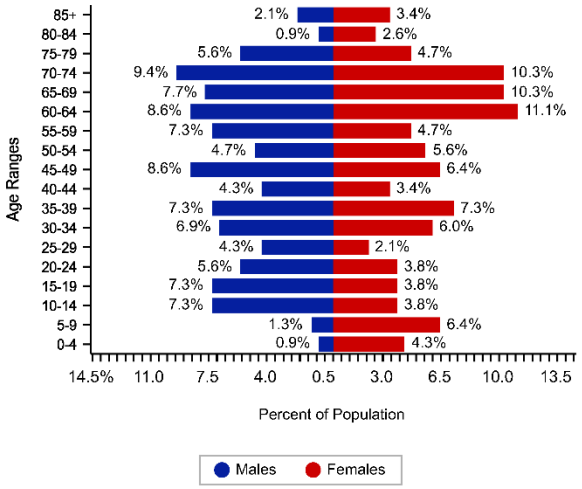
Community Summary Fact Sheet

Otho, IA

Webster County Iowa Hazard Mitigation Plan 2026

467	49.6	218	2.14	$92,000	$58,259
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



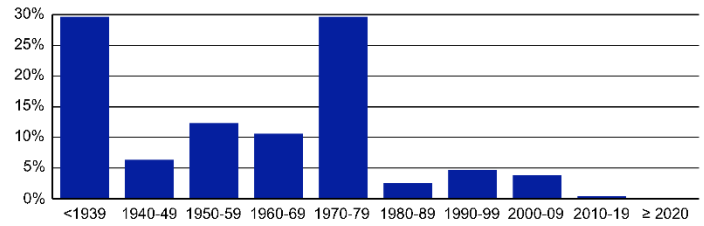
TOTAL POPULATION

2025 Total Population (Estimate)	467
2020 Total Population (U.S. Census)	429
2010 Total Population (U.S. Census)	542
2000 Total Population (U.S. Census)	582

AT RISK POPULATIONS

60	133	11	13%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

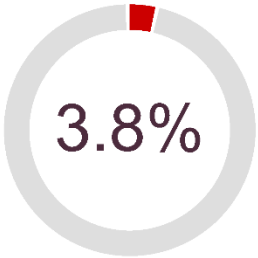
HOUSING: YEAR BUILT



EMPLOYMENT

13	1.9%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

2	8%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2025, 2020, 2010, 2000, 2019-2023.

LOCAL PLANNING TEAM

Otho Local Planning Team

Name	Title	Department	Participation
Joe Hayes	Mayor	Administration	Profile Development
Travis Roach	City Council	Administration	Attended Round 1 and Round 2

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Otho is located in the south-central part of Webster County. The Des Moines River runs along the easter edge of Otho and the City is roughly four miles from the intersection of major highways US Highway 169 on the west and US Highway 20 on the north.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Fire Chief and Assistant Fire Chief are responsible for reviewing and updating the community profile outside of the five-year update. The plan will be reviewed bi-annually and the public will be notified through City Council meetings. The plan was last reviewed in 2021.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Otho Capability Assessment

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Comprehensive Plan	No	
	Capital Improvements Plan	No	
	Economic Development Plan	No	
	Emergency Operations Plan	No	
	Floodplain Management Plan	No	
	Stormwater Management Plan	No	
	Zoning Ordinance	Yes	2015
	Subdivision Regulation/Ordinance	No	
	Floodplain Ordinance	No	
	Building Codes	No	
	Water System Emergency Response Plan	No	
	Source Water/Wellhead Protection Plan	Yes	2000
	National Flood Insurance Program	No	
	Community Rating System	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	No	
	GIS Capabilities	No	
	Building Code Official	No	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	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 – Private Utilities	
	Stormwater Service Fees	Yes	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	Yes	
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	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	No	
	Natural Disaster or Safety related school programs	No	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City of Otho is able to increase its capabilities in the future by adopting an Emergency Response Plan, Capital Improvements Plan, and a Comprehensive Plan.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City's zoning ordinance and Source Water/Wellhead Protection Plan have not yet incorporated the Hazard Mitigation Plan. The City intends to integrate the HMP into future updates of both documents. When Otho updates these planning mechanisms, the local planning team will review the Hazard Mitigation Plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Plan Integration
Zoning Ordinance	The HMP has not been integrated into the zoning ordinance. There are plans to integrate the HMP in future updates.
Source Water/Wellhead Protection Plan	The HMP has not been integrated into the Source Water/Wellhead Protection Plan. There are plans to integrate the HMP in future updates.

Floodplain and National Flood Insurance Program

The City of Otho does not participate in the National Flood Insurance Program due to there being no floodplain mapped within the community.

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	330	$24,415,660	0	$0	0%
500-year			0	$0	0%

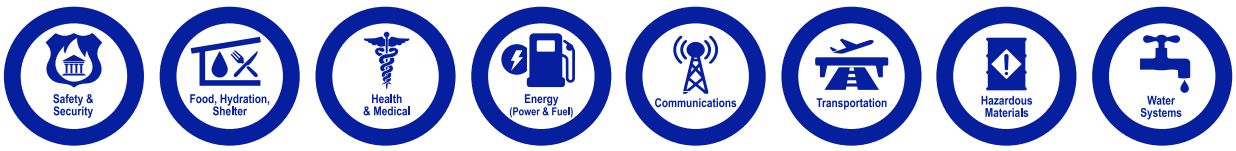
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

The City of Otho has had no major changes over the past 5 years and does not currently anticipate any new development in the next 5 years.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Otho Community Lifelines

CF #	Lifeline	Name	Address / Location	Shelter	Generator
1	Safety and Security	City Hall/Outdoor Warning Siren	205 N Highway Street	Y	N
2	Food, Hydration, Shelter	Community Center	220 Rake Street	Y	N
3	Safety and Security	Police Department	702 1st Ave S #1, Fort Dodge, IA 50501	Y	N
4	Safety and Security	Fire Department	204 Rake Street	Y	Y
5	Water Systems	Water Plant	324 Railroad St	N	N
6	Water Systems	Lift Station-Sewer	N Hayes St	N	N
7	Water Systems	Water Tower	South Street / Rake Street	N	N

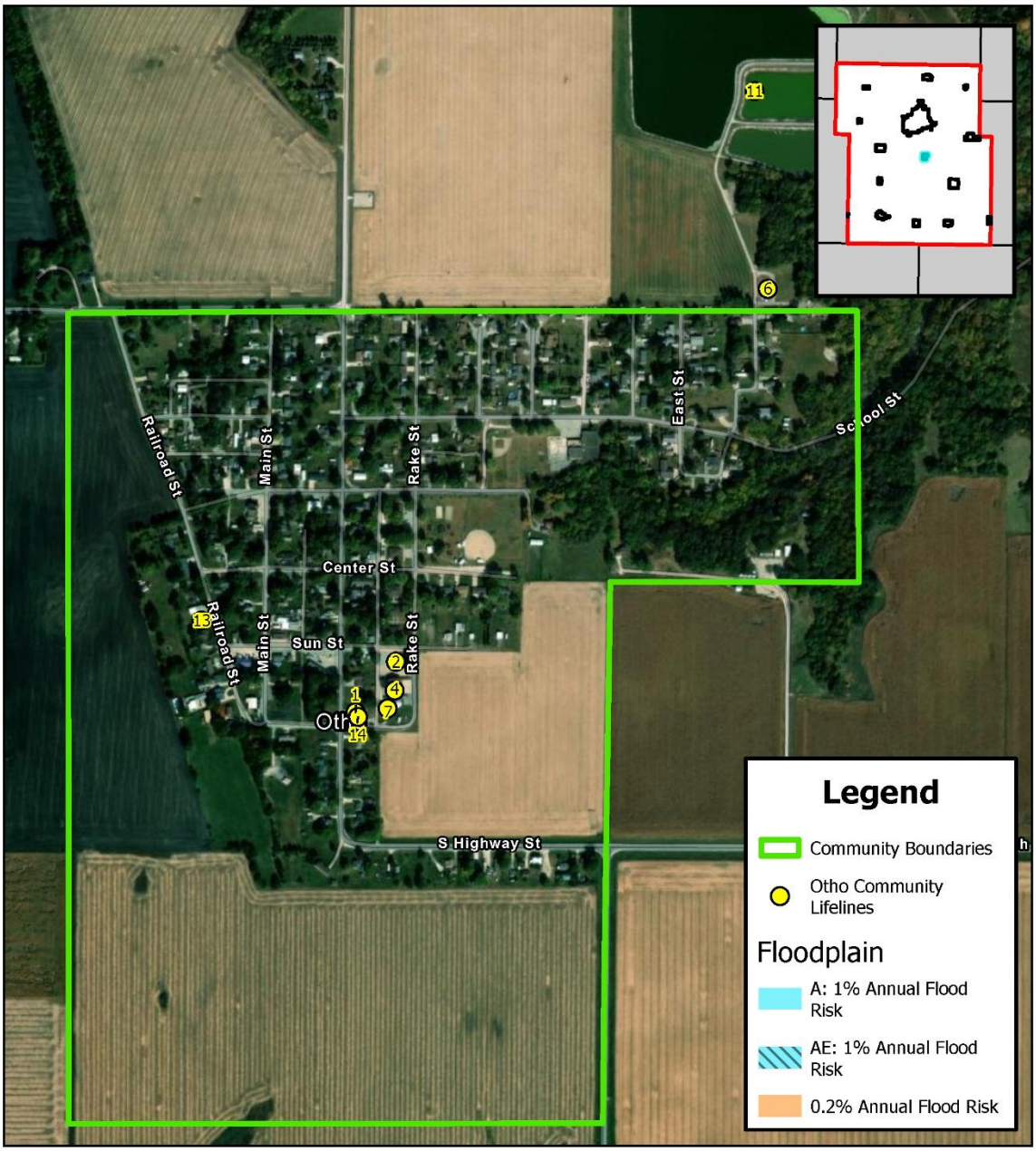
CF #	Lifeline	Name	Address / Location	Shelter	Generator
8	Water Systems	Water Wells (various)	*Will not be mapped*	N	N
9	Water Systems	Water Mains/Fire Hydrants (various)	*Will not be mapped*	N	N
10	Water Systems	Lift Station/Pumps (various)	*Will not be mapped*	N	N
11	Water Systems	3 Cell Lagoon	NE of Otho (North of Hayes Street)	N	N
12	Safety and Security	Sewer Mains (various)	*Will not be mapped*	N	N
13	Safety and Security	City Shop 1	205 N Highway St	Y	Y
14	Safety and Security	City Shop 2	326 Railroad St	N	N

Other Community Assets

The City of Otho also has numerous other community assets of concern, including:

- Parkview Apartments
- Otho Convenience
- Otho Pub
- Otho United Methodist Church
- City Equipment
- Community Events
- Hetherington Park
- Otho Betterment Committee
- Stringer Field
- City Streets
- Power Lines—MidAmerican Energy Company

Otho Community Lifelines Map



Created By: SO
Date: 10/25/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP

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.

City of Otho Community Lifelines

2026 Webster County Hazard Mitigation Plan Update

N W E S

0 1,500 3,000 Feet

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
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Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Otho is vulnerable to drought primarily through impacts to agriculture, water resources, vegetation, and the local economy. Prolonged drought can reduce soil moisture and groundwater recharge, increase water demand, stress crops and vegetation, and increase the potential for grass and field fires. Because Otho is surrounded by agricultural production, crop losses can create secondary economic impacts for residents and businesses connected to agriculture. Direct structural impacts are generally limited, but prolonged drought can have widespread agricultural, economic, water-supply, and secondary fire consequences.

Mitigation Action	**Establish Drought Ordinance**
Description	To ensure that the community does not run out of water during a drought, a drought ordinance shall be established. The ordinance will set regulations on the use of water.
Hazard(s)	Drought
Estimated Cost	Staff time
Funding	General fund
Timeline	2-5 years
Priority	Low
Lead Agency	City Clerk
Status	This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Moderate

Extreme heat and cold create public-health and infrastructure concerns for Otho. Older adults, young children, outdoor workers, residents with medical conditions, and households without adequate heating or cooling may be particularly vulnerable. Extreme heat increases electrical demand and can stress crops and livestock, while extreme cold can result in frozen pipes, water-service interruptions, vehicle and equipment failures, and increased heating demand. Power outages occurring during either temperature extreme can substantially increase impacts.

The Fire Department is used for community and Fire Department activities, and has been identified as an adequate place for people to meet and use as an emergency shelter. This building would be used for extreme temperature events or power outages, especially when there is a power outage in the depths of winter, so that people would be able to keep warm. The building has also been identified as a place to take the elderly in case of a wild/grass fire so that they may be taken care of and be in a well-ventilated building.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

Otho has potential vulnerability to riverine and localized flooding, with the greatest risks associated with low-lying areas, drainageways, transportation infrastructure, and areas influenced by the nearby Des Moines River system. Intense rainfall can also overwhelm local drainage infrastructure and produce localized street or property flooding outside mapped floodplains. Insufficient stormwater drainage in Otho contributes to localized ponding, blocked roadways, and flooding of roads, bridges, and culverts restricts access to Otho and interferes with emergency response. Agricultural areas surrounding the community are additionally vulnerable to inundation, erosion, saturated soils, and crop losses.

Mitigation Action	**Perform Field Tile Study**
Description	A field tile study would help determine whether or not the tile system is contributing to the amount of water being delivered to Otho.
Hazard(s)	Flooding (Flash and Riverine), Thunderstorms

Mitigation Action	**Perform Field Tile Study**
Estimated Cost	$1,000
Funding	General fund
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Otho, City Clerk
Status	Project in progress.

Mitigation Action	**Stormwater System Extension**
Description	A study and subsequent extension of the stormwater system is necessary to remove stormwater from the community.
Hazard(s)	Flooding (Flash and Riverine), Thunderstorms
Estimated Cost	$1,000,000
Funding	General fund, Grants
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Otho, City Clerk
Status	This is a new mitigation action.

Grass Fire or Wildland Fire

Level of Vulnerability: Moderate

Otho is vulnerable to grass and field fires because the community is surrounded by agricultural land and open vegetation. Drought, high temperatures, low humidity, and strong winds can dry grasses, crop residue, and other vegetation and allow fires to spread rapidly. Properties along the edge of the community, agricultural buildings, utilities, and transportation corridors may be particularly exposed. Smoke could also reduce roadway visibility and create health concerns. A

rapidly spreading fire could require mutual aid from surrounding departments, making emergency-response capacity an additional consideration for a small community.

While no past grass fire or wildland fire events with documented dates or property damage have been recorded for the community within the last five years, wildfire continues to be a potential risk for the city.

Mitigation Action	**Enforce Burn Bans**
Description	The City of Otho currently has a burning ordinance. This mitigation action is set to evaluate the ban to ensure enforcement is adequate for local needs.
Hazard(s)	Grass Fire and Wildland Fire, Drought
Estimated Cost	Staff Time
Funding	General fund
Timeline	1 year
Priority	Medium
Lead Agency	City of Otho, City Clerk
Status	Annual review scheduled for fall 2026.

Severe Winter Storms

Level of Vulnerability: Moderate

Otho is vulnerable to heavy snow, blowing and drifting snow, freezing rain, ice accumulation, and extreme cold. Its location within an agricultural landscape increases the potential for drifting across exposed rural roads, potentially restricting travel into and out of the community. Ice and snow accumulation can damage trees, power lines, utility poles, communications infrastructure, and buildings. Hazardous roads may delay emergency response, utility restoration, deliveries, and access to medical services. Older adults and residents dependent on electrical medical equipment are particularly vulnerable during extended outages or periods of isolation. While the fire department and City Shop 1 have a backup generator, there are no other backup power options in the city.

Mitigation Action	**Promote NOAA Weather Radios**
Description	The City would use funds to provide coupons for the citizens of Otho to be able to purchase NOAA radios for less than retail price. This could also be done by the City purchasing NOAA radios and then providing them to citizens at a discounted price.
Hazard(s)	Severe Winter Storms, Thunderstorms: Lightning & Hail
Estimated Cost	Staff Time
Funding	General fund
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Otho, City Clerk
Status	In progress through Fire & Rescue Department.

Sinkholes

Level of Vulnerability: Low

The City of Otho has a low vulnerability to sinkholes as it is not located within one of Iowa's primary areas of concentrated karst and sinkhole development. The Iowa Geological Survey identifies the greatest concentrations of sinkholes in northeastern and north-central Iowa, whereas Otho is outside these primary concentrations. localized ground subsidence or sinkhole-like failures could still affect infrastructure if they occur. Potential impacts include damage to roads, utilities, building foundations, drainage facilities, and agricultural land. No past sinkhole events with documented dates or property damage have been recorded for the community, and the City is not aware of any specific vulnerabilities to this hazard.

Due to the lack of localized vulnerability to this hazard and no past historical events of sinkholes occurring in Otho, no mitigation actions were identified for Sinkholes.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

The City of Otho is vulnerable to severe thunderstorms that can produce large hail, frequent lightning, heavy rainfall, and damaging winds. Thunderstorms are common throughout Iowa and

can result in property damage, utility disruptions, transportation impacts, localized flooding, and threats to public safety. Lightning strikes can cause injuries or fatalities, ignite fires, and damage electrical and communications systems. Power surges and outages may also temporarily disrupt municipal facilities, businesses, and essential services.

Hail presents a particular vulnerability to buildings, vehicles, agricultural crops, and other exposed property. Large hail can damage roofs, siding, windows, vehicles, outdoor equipment, and vegetation. Heavy rainfall can overwhelm the local drainage systems and produce localized street, property, or flash flooding, particularly in low-lying areas or where stormwater infrastructure has limited capacity

Mitigation Action	**Education Materials for Tree-Trimming Practices**
Description	Develop and share a pamphlet or flier to be sent out by the City Clerk with the utility bill, reminding people of the current ordinance that the City has in place and encouraging them to keep the branches of the trees in their yard trimmed.
Hazard(s)	Tornado/Windstorm, Thunderstorms: Lightning & Hail, Severe Winter Storms, Drought
Estimated Cost	<$5,000, staff time
Funding	General fund
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Otho, City Clerk
Status	Education materials are under development.

Tornado/Windstorm

Level of Vulnerability: Moderate

Otho is vulnerable to tornadoes, straight-line winds, and derechos capable of causing significant or catastrophic damage. Residences, municipal facilities, older or lightly constructed buildings, overhead utilities, mature trees, grain bins, machine sheds, and other agricultural structures may be particularly vulnerable.

Resident safety and access to adequate shelter are major concerns. A direct tornado could affect a significant portion of a small community such as Otho, while a derecho or widespread straight-line wind event could affect the entire community and surrounding area simultaneously.

Downed trees, utility poles, and debris could block roads and delay emergency response. Extensive damage could also exceed local response capabilities and create reliance on county and regional mutual aid.

The City of Otho currently does not have any safe rooms. While the majority of Otho residents do have basements that they could take refuge in the event of a tornado, there are some that do not. Some of these areas are the people who live in the apartments and the elderly who live in the elder care centers. These are the populations that would be at risk during a tornado, since they wouldn't have a safe place to go.

Mitigation Action	**Maintain and Evaluate Outdoor Warning Sirens**
Description	Evaluate existing outdoor warning sirens for condition and potential improvements. Make updates or improvements if identified.
Hazard(s)	Tornado/Windstorm
Estimated Cost	<$5,000, staff time
Funding	General fund
Timeline	1 year
Priority	Medium
Lead Agency	City of Otho, City Clerk
Status	Will perform evaluation and needed maintenance in 2026.

Mitigation Action	**Establish Safe Room Building Locations**
Description	This action would be used to identify the correct placement and construction of a tornado safe room so that vulnerable populations would have a place of refuge to protect them from the high winds and flying debris.
Hazard(s)	Tornado/Windstorm, Extreme Temperatures
Estimated Cost	Staff Time
Funding	General fund

Mitigation Action	**Establish Safe Room Building Locations**
Timeline	2-5 years
Priority	Medium
Lead Agency	City Council, Fire Department
Status	Not yet started

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal and crop disease is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Plant disease has been listed as a concern for the community due to Ash Borer infestations. See the *Ash Borer Disease* section below for more information.

Ash Borer Disease

Emerald ash borer (Agrilus planipennis) is an invasive beetle from Asia, first found in North America near Detroit in 2002, that has since killed tens of millions of ash trees across the eastern and midwestern U.S. and Canada. Adults are small and metallic green, however, damage comes from their larvae, which tunnel under the bark in S-shaped galleries, cutting off the tree's nutrient and water flow; infested trees show canopy dieback, bark splitting, D-shaped exit holes, and increased woodpecker activity, and usually die within 2–4 years. Nearly all North American ash species are highly susceptible, making this a significant issue for urban forestry, hazard mitigation (dead-tree fall risk, wildfire fuel loading), and natural ecosystems, with management relying on insecticide injections for high-value trees, biological control via parasitoid wasps, firewood movement restrictions, and removal/replacement of dead ash.

The City is surveying the community to identify problem areas affected by emerald ash borer and will work with residents to establish a timeline to remove affected trees. Letters specifying a timeline will be sent to residents to prompt removal of affected trees.

Dam Failure

Dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

Hazardous materials is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Terrorism/Cyber-Attack

Terrorism/cyber-attack is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Completed Mitigation Actions

Mitigation Action	**Acquire Generator for Fire Station**
Description	This building is in need of a generator for auxiliary power in case of an outage.
Hazard(s)	Grass Fire or Wildand Fire, Severe Winter Storms, Tornado/Windstorm, Extreme Temperatures
Status	Project completed.

Mitigation Action	**Improve Storm Water Sewer System**
Description	The storm sewer lines currently do not extend throughout the entire City; they only cover a portion of the City. This action would increase the storm sewer coverage throughout the City and improve drainage in the event of heavy rain. The existing storm sewer system is old and could use updating to further increae the capacity of water drainage.
Hazard(s)	Flooding (Flash and Riverine)
Status	Project completed in 2021.

CITY OF VINCENT COMMUNITY PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

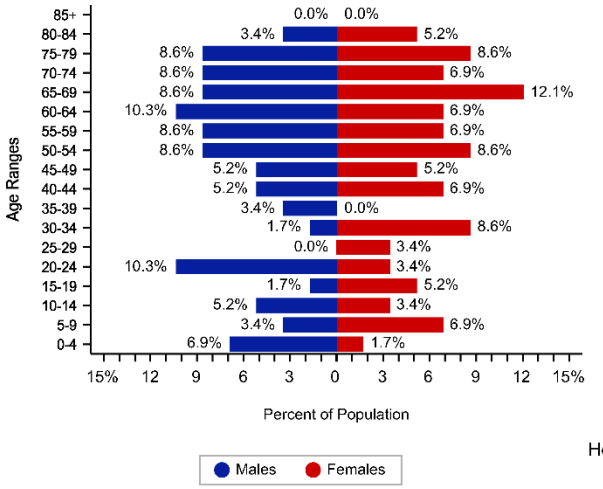
Community Summary Fact Sheet

Vincent, IA

Webster County Iowa Hazard Mitigation Plan 2026

116	53.5	61	1.90	$251,471	$102,458
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



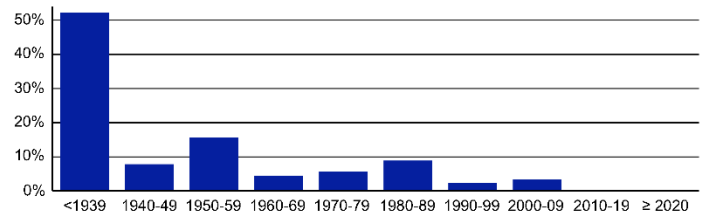
TOTAL POPULATION

2025 Total Population (Estimate)	116
2020 Total Population (U.S. Census)	130
2010 Total Population (U.S. Census)	174
2000 Total Population (U.S. Census)	158

AT RISK POPULATIONS

10	36	2	7%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

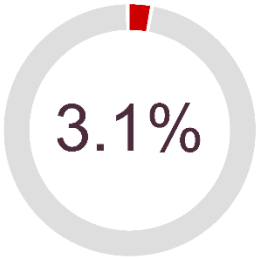
HOUSING: YEAR BUILT



EMPLOYMENT

8	2.8%
Total Businesses	Unemployment Rate

HAVE FLOOD HOME INSURANCE COVERAGE



HOUSING

23	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri-MRI-Simmons, Esri, U.S. Census, ACS, Esri-Data Axle. Esri forecasts for 2025, 2020, 2010, 2000, 2019-2023.

LOCAL PLANNING TEAM

Vincent Local Planning Team

Name	Title	Department	Participation
Corey Rutherford	Mayor Pro Tem	Administration	Attended Round 2, Profile Development
Craig Larson	Water/Waste Water Superintendent	Public Works	Profile Development
Jordan Frakes	Mayor	Administration	Attended Round 1 and Round 2, Profile Development
Michelle Hendren	City Clerk	Administration	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles, and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The City of Vincent is located in the northeast part of Webster County. It is located roughly between Fort Dodge to the southwest and Eagle Grove to the northeast. U.S. Highway 169 runs north-south through Fort Dodge just west of Vincent, and U.S. Highway 20 crosses Webster County east-west a few miles to the south.



PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Mayor, Water/Waste Water Superintendent, and City Clerk are responsible for reviewing and updating the City of Vincent's community profile outside of the five-year plan update. The City intends to review the profile bi-annually, with public notification and involvement coordinated through the City Clerk's office. The plan was last reviewed in 2021.

CAPABILITY ASSESSMENT

The planning team assessed the community's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the community's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Vincent Capability Assessment

Capability/Planning Mechanism	Yes/No	Year of Last Update or Revision
Comprehensive Plan	No	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
Planning & Regualtory Capability	Capital Improvements Plan	No	
	Economic Development Plan	No	
	Emergency Operations Plan	Yes	2025
	Floodplain Management Plan	Yes	2025
	Stormwater Management Plan	Yes	2019
	Zoning Ordinance	No	
	Subdivision Regulation/Ordinance	Yes	2026
	Floodplain Ordinance	Yes	2019
	Building Codes	State	
	Water System Emergency Response Plan	Yes	2025
	Source Water/Wellhead Protection Plan	Yes	2025
	National Flood Insurance Program	Yes	
	Community Rating System	No	
	Community Wildfire Protection Plan	No	
	Growth Management Ordinance	No	
Administrative & Technical Capability	Planning Commission	No	
	Planner/Engineer (Land Development)	No	
	Transportation Planner	No	
	Floodplain Administrator	Yes	
	GIS Capabilities	No	
	Building Code Official	No	
	Civil Engineering	No	
	Emergency Manager	Yes - County	
	Grant Manager	No	
	Mutual Aid Agreement	Yes	
	Site Plan Review Requirements	No	
Fiscal Capability	1- & 6-Year Plan	No	
	Applied for Grants in the Past	Yes	
	Awarded a Grant in the Past	Yes	

Capability/Planning Mechanism		Yes/No	Year of Last Update or Revision
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No	
	Gas/Electric Service Fees	No – Private Utilities	
	Stormwater Service Fees	Yes	
	Water/Sewer Service Fees	Yes	
	Development Impact Fees	No	
	General Obligation Revenue or Special Tax Bonds	No	
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	Yes	
	StormReady Certification	No	
	Firewise Communities Certification	No	
	Tree City USA	No	
Warning Systems/ Services	General – includes flood, fire, tornado, or severe weather	Alert Iowa	

The City of Vincent is able to increase its capabilities in the future by adopting a Capital Improvements Plan and a Comprehensive Plan.

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The City of Vincent has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Vincent updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. Following each applicable plan or ordinance update, the responsible position will record whether HMP information was incorporated, identify the provisions changed, and retain the revision or approval date with the community profile.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Emergency Operations Plan	The HMP has not been integrated into the Emergency Operations Plan. The current plan does address the city's operation in the event of an emergency.
Floodplain Management Plan	The HMP has not been integrated into the floodplain management plan. The Floodplain Management Ordinance identifies where flooding may occur and who would be affected.
Stormwater Management Plan	The HMP has not been integrated into the stormwater management plan.

Plan Title	Has the HMP Been Integrated into This Plan? If Yes, Please Explain.
Subdivision Regulation/Ordinance	The HMP has not been integrated into the Subdivision Regulation/Ordinance.
Floodplain Ordinance	The HMP has not been integrated into the Floodplain Ordinance.
Water System Emergency Response Plan	The HMP has not been integrated into the Water System Emergency Response Plan.
Source Water/Wellhead Protection Plan	The HMP has not been integrated into the Source Water/Wellhead Protection Plan

Floodplain and National Flood Insurance Program

The City of Vincent participates in and is currently in good standing with the National Flood Insurance Program. The Mayor serves as the Floodplain Administrator, is not a Certified Floodplain Administrator, and is responsible for enforcing floodplain regulations. Regulations and NFIP information are maintained in the City Code. Sections 160.04–160.07 apply the regulations to designated special flood hazard areas, establish flood-resistant construction and elevation requirements, designate the Mayor as administrator, and require a floodplain development permit before covered construction, filling, grading, excavation, or other development.

Vincent's floodplain ordinance exceeds NFIP minimum elevation requirements by one foot. Substantially damaged or improved structures are identified through the floodplain development permit review process administered by the Mayor. Estimated repair or improvement costs are compared with the structure's market value. After a flood, restoration costs equaling or exceeding 50% of a structure's pre-damage market value constitute substantial damage.

National Flood Insurance Program Information

Date of NFIP Participation:	**05/08/19**	**Number of Repetitive Loss Structures:**	0
Number of NFIP Policies In-Force:	None	**Number of Severe Repetitive Loss Structures:**	0
Total NFIP Premium ($):	$0	**Number of LOMA/LOMRs**	0

Total NFIP Coverage ($):	$0	**FIRMs Digital or Paper?**	Both
Number of Claims Paid Out:	$0	**Located in a RISK Map Area?**	Yes, Middle Des Moines Watershed IA
Total Amount of Claims Paid Out ($:)	$0		

Source: Policy and Loss Data by Geography (HUDEX), June 2026

Buildings and Valuation in the Floodplain

GIS parcel data as of June 2026 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.

Floodplain Buildings and Value

Floodplain	Total Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	% of Buildings in Floodplain
100-year	132	$59,777,140	0	$0	0%
500-year			0	$0	0%

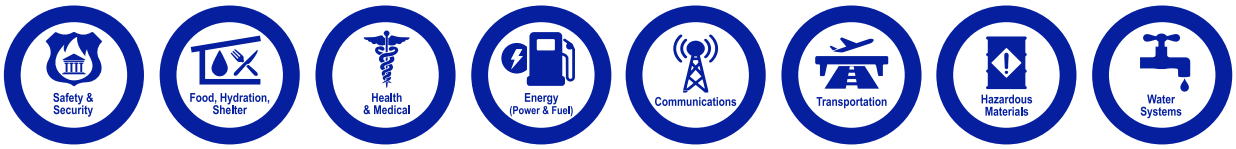
Source: GIS Workshop, June 2026

FUTURE DEVELOPMENT TRENDS

During the past five years, the City had no new residential construction or new businesses. Private construction firms have expressed interest in purchasing, renovating, and reselling existing homes. Routine road maintenance has continued throughout the community. No new structures were developed in the floodplain or other hazardous areas, and no hazard-specific mitigation of new structures was reported. No new housing developments or businesses/industry are planned in the near future. The City does not have a future land use map.

COMMUNITY LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Vincent Community Lifelines

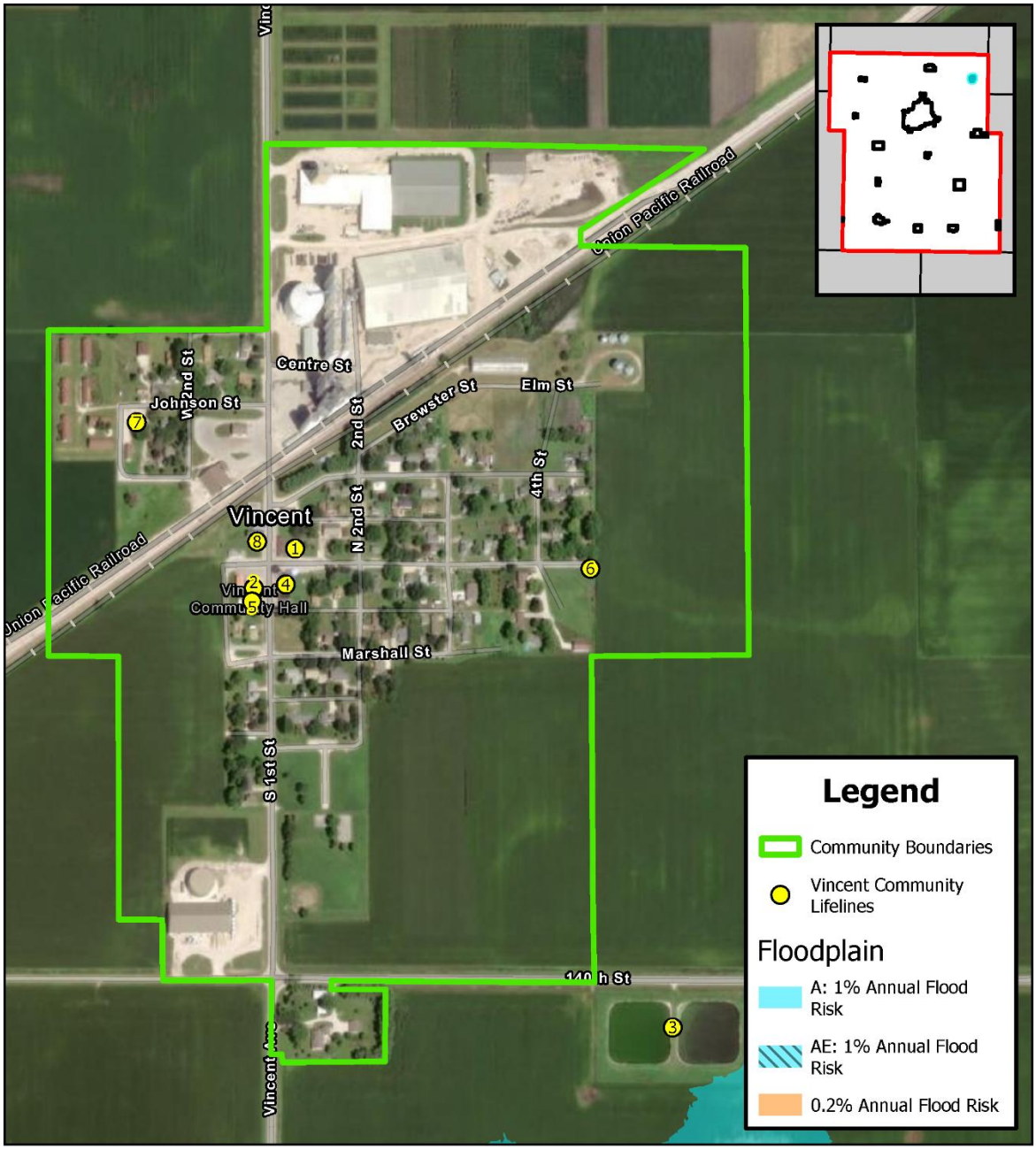
CF #	Lifeline	Name	Address / Location	Shelter	Generator
1	Safety and Security	City Hall	104 Arthur Street	N	N
2	Safety and Security	Fire Station	102 S 1st Street	Y	Y
3	Water Systems	Wastewater Treatment Plant	3180 140th Street	N	Y
4	Water Systems	Water Tower	1st Street	N	Y
5	Food, Hydration, and Shelter	Community Center	102 1st Street	Y	N
6	Water Systems	Lift Station	Southeast end of Arthur St	N	Y
7	Food, Hydration, and Shelter	South Enes Lutheran Church	205 Johnson Street	N	N
8	Communications	Post Office	104 N 1st Street	N	N

Other Community Assets

The City of Vincent also has numerous other community assets of concern, including:

- Railroad
- Vincent Community Apartments
- Community Park
- NEW Cooperative Inc.
- Land O' Lakes
- Mrs. T's Mercantile

Vincent Community Lifelines Map



Created By: SO
Date: 10/25/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP

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.

City of Vincent Community Lifelines

2026 Webster County Hazard Mitigation Plan Update

N W E S

0 1,500 3,000 Feet

HAZARD AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants The following section details jurisdiction specific concerns per hazard and identified mitigation actions to address each hazard. For a more indepth review and analysis of each hazard, please see *Section Four: Risk Assessment.*

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A

Hazard Type		Count	Property	Crop
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Vincent and the surrounding areas agricultural economy depends heavily on available water resources to support the local economy. Prolonged drought conditions reduce stream flows and can strain local water resources, increasing reliance on aquifer supplied wells for crop production and livestock operations. An extended drought can result in reduced yields, livestock stress, increased feed costs, and broader economic impacts to producers and related businesses. Municipal water systems and domestic wells may also experience strain during sustained dry periods and dry conditions significantly exacerbate grassland fire risk.

No specific past drought events with documented dates or property damage have been recorded for the City of Vincent. However, drought remains a community-wide risk, with potential impacts to water supply, urban vegetation, and public health, especially during period of high water demand. During drought events, the City would request voluntary reduced water usage from residents. To further reduce risk, the City will consider adopting an ordinance to formally regulate water usage during drought conditions.

Mitigation Action	**City Ordinance for Water Usage in Case of Drought**
Description	This type of ordinance will help decrease water usage during times when the community's water source is running low.
Hazard(s)	Drought
Estimated Cost	Staff Time
Funding	City Funds
Timeline	1 year

Mitigation Action	**City Ordinance for Water Usage in Case of Drought**
Priority	Low
Lead Agency	City of Vincent
Status	In progress. Contingencies are currently in place for emergency water.

Extreme Temperatures

Level of Vulnerability: Low

During the 2025-26 winter season, the City of Vincent experienced blizzard conditions and prolonged subzero temperatures that resulted in frozen and burst water pipes, causing property damage to resident's homes. Since freezing temperatures and frozen pipes are an annual risk, proactive mitigation measures are considered essential. The community's key vulnerability is a lack of generators in City buildings.

To mitigate risk, the fire department added a generator to their facility, and the City ran conduit to connect the community hall facility to the City generator in case heating is needed. To further reduce risk, the City identifies education on unpredictable weather as a need.

Mitigation Action	**Public Education**
Description	Design and implement a public education campaign to ensure residents are aware of shelter locations, weather alerts, and available city resources
Hazard(s)	Extreme Temperatures, Severe Winter Storms, Thunderstorms, Tornado/Windstorms
Estimated Cost	Staff Time
Funding	City Funds
Timeline	2 – 5 Years
Priority	Low
Lead Agency	City of Vincent

Mitigation Action	**Public Education**
Status	In progress. Contingencies are currently in place for emergency water.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

Zone A floodplain is located west of town and flooding has regularly occurred on the north side of the City, including in 2024 and annually prior years. The community's key vulnerabilities include damage to housing, personal property, business, and railroad.

To mitigate risk, the City discussed a retention pond with engineers but found acquiring and developing the necessary farmland prohibitively expensive; the City has instead cleaned out tiles and lined sewer pipes to decrease infiltration. A dredge ditch on the north side of the City was also considered as a potential plan, but property costs made that option too expensive as well.

Mitigation Action	**Education on Health Risk of Floodwater**
Description	This action will increase the community's knowledge regarding the health risk of standing floodwater, as well as risks associated with field runoff and contamination.
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	City Funding, Grants
Funding	General Fund
Timeline	2-5 years
Priority	Low
Lead Agency	City of Vincent

Mitigation Action	**Education on Health Risk of Floodwater**
Status	Project in progress. Developing materials.

Grass Fire or Wildland Fire

Level of Vulnerability: Low

The City of Vincent is surrounded by agricultural land, including crop fields and grassy ditches, making it vulnerable to fast-spreading grass and wildland fires, particularly during dry, windy spring and fall conditions. Drought, extreme heat, low humidity, and strong winds can dry grasses, crop residue, and roadside vegetation and allow fires to spread rapidly. Properties near the edge of the community, agricultural buildings, crops, utilities, and transportation corridors may be particularly exposed. Smoke could also reduce visibility on rural roads and create health concerns. The community's reliance on the volunteer fire department also means large or multiple incidents may require mutual aid from neighboring departments.

While no past grass fire or wildland fire events with documented dates or property damage have been recorded for the community, wildland fire remains a possible risk.

Mitigation Action	**Inspect Local Firefighting and Water-Supply Capabilities**
Description	Inspect local firefighting capabilities or fire hydrants and water-supply infrastructure.
Hazard(s)	Grass Fire or Wildland Fire
Estimated Cost	Staff Time
Funding	City Funding
Timeline	2-5 years
Priority	Low
Lead Agency	City of Vincent, City Clerk
Status	This is a new mitigation action.

Severe Winter Storms

Level of Vulnerability: Moderate

Vincent is vulnerable to heavy snow, blowing and drifting snow, freezing rain, ice accumulation, and extreme cold. Its location within an open agricultural landscape increases vulnerability to blowing and drifting snow along rural roads, potentially limiting access to and from the community. Snow and ice can also damage power lines, utility poles, trees, communications infrastructure, and buildings. Hazardous roads may delay emergency response, utility restoration, deliveries, and access to medical care or employment outside Vincent. During the 2025-26 winter season, the City of Vincent experienced blizzard conditions and prolonged subzero temperatures that resulted in frozen and burst water pipes, causing property damage to homes and facilities across the city. Since freezing temperatures and frozen pipes are an annual risk, proactive mitigation measures are considered essential. The community's key vulnerability is a lack of generators in City buildings.

To mitigate risk, the fire department added a generator to their facility, and the City ran conduit to connect the community hall facility to the City generator in case heating is needed. To further reduce risk, the City identifies education on unpredictable weather as a need.

*See **Public Education** action under Extreme Temperatures.*

Sinkholes

Level of Vulnerability: Moderate

Sinkhole impacts could include damage to roads, utilities, building foundations, drainage infrastructure, or agricultural property. The City of Vincent experienced two sinkhole events: one in 2026 on N 1st Street, the main road through the City, and another in 2021 near the old locker on N 1st Street near Arthur Street. No specific vulnerabilities were identified. To mitigate the risk, the City has begun relining sewer pipes for added stability and would like to complete a geotechnical GIS mapping of underground conditions to avoid potential weak areas for future development.

Mitigation Action	**GIS Mapping of Underground Mines and Sinkholes**
Description	This action would provide the City and its residents with knowledge related to the location of mines and sinkholes.
Hazard(s)	Sinkholes
Estimated Cost	$25,000

Mitigation Action	**GIS Mapping of Underground Mines and Sinkholes**
Funding	City Funding, Grants
Timeline	1 year
Priority	Low
Lead Agency	City of Vincent, Webster County
Status	Project in progress.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

The City is located in a region that regularly experiences seasonal severe thunderstorms capable of producing strong winds, large hail, and heavy rainfall. Webster County and Vincent have experienced severe thunderstorm events that downed trees, damaged roofs, disrupted utilities, and impacted transportation.

The community vulnerabilities include older homes, manufactured homes, and agricultural buildings most susceptible to roof, window, and structural damage from high winds; overhead electrical lines vulnerable to falling trees, increasing risk to power outages; mature trees throughout the community pose safety hazards and can limit emergency access if downed; rural roads may become blocked by debris or downed lines, delaying emergency response; extended power outages can disrupt communications, heating/cooling, water supply, and medical equipment access; shelter availability is limited as a small rural community; and community buildings, water infrastructure, and public utilities may experience service interruptions or damage during and after severe storms.

To mitigate risk, the community maintains a weather siren for resident warning, linked with Webster County. To address poor stormwater drainage and localized ponding, the city identified the need for an additional retention pond.

Mitigation Action	**Create a Retention Pond for Storm Water**
Description	A retention pond will aid in the collection of storm water after a storm event. This pond will slowly release water back into the ground at a rate that the area's infrastructure can handle.
Hazard(s)	Flood (Flash and Riverine), Thunderstorms

Mitigation Action	**Create a Retention Pond for Storm Water**
Estimated Cost	$3 million + dependent upon private land sales.
Funding	City Funding, Grants
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Vincent
Status	Engineers have provided a plan to City Council; no action has been taken due to the cost of completion.

Mitigation Action	**Correct Inflow and Infiltration Problem**
Description	The purpose of this action is to ensure that the community's drainage system can properly handle the proper amount of intake during a storm. The separation of the community's sanitary system from the storm system will also correct issues that the community has been facing in regard to infiltration.
Hazard(s)	Flooding (Flash and Riverine), Thunderstorms
Estimated Cost	$19,000
Funding	City Funding, Grants
Timeline	2-5 years
Priority	Medium
Lead Agency	City of Vincent
Status	Project in progress. The first stage has been completed; the second stage will be completed in four parts.

Tornado/Windstorm

Level of Vulnerability: Moderate

Vincent is vulnerable to tornadoes, straight-line winds, and derechos capable of causing significant or catastrophic damage. Residences, municipal facilities, older or lightly constructed buildings, overhead utilities, mature trees, grain bins, machine sheds, and agricultural structures may be particularly susceptible.

For small communities such as Vincent, a single tornado can affect a substantial portion of the developed community. Derechos and widespread straight-line winds may affect the entire community and surrounding agricultural area simultaneously. Downed trees, utility poles, and debris can block transportation routes, cause extended outages, and delay emergency response. Limited local resources may also increase reliance on Webster County and neighboring jurisdictions following a significant event.

To mitigate risk, the community maintains a weather siren for resident warning, linked with Webster County.

Mitigation Action	**Create a Community Tornado Shelter**
Description	This action would provide citizens of the community with a space to take shelter in the event of a tornado outbreak.
Hazard(s)	Tornado/Windstorm
Estimated Cost	$250,000
Funding	City funds, grants
Timeline	Over 5 years
Priority	Medium
Lead Agency	City of Vincent
Status	Project has been discussed at previous City Council meetings, no action has been taken. Currently cost prohibitive.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is identified as a concern for the City of Vincent. In past years, the community has dealt with emerald ash borer, resulting in severeal trees on City property being removed and paid for with taxpayer money, while trees on personal property were removed by residents, with some unable to afford removal left with downed limbs. Bird flu also caused several nearby chicken plants to dispose of chickens; disposal in a pit on their property miles from the City, combined with heavy rainfall, led to a fly problem that caused discomfort for residents.

The community's key vulerability is that minimal trees remain in the City susceptible to ash borer, and the City is attempting to replant trees with available funds. No mitigation actions have been taken to date. The City is unsure how to prevent illness to trees and birds going forward, but is considering planting trees where trees were removed to improve wind breaks for winter weather and provide shade for houses during high temperatuers.

Dam Failure

Dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

Hazardous Materials

The City of Vincent has determined that the severity of impact from a hazardous materials event would be catastrophic, with a probability of 10-25% annually, and identifies this hazard as a concern. The community currently has a hazard plan in place with Webster County in case Koch Nitrogen were ever to have issues, and routinely, farmers and New Cooperative haul chemicals through the City; if a spill were to occur, a plan is in place to resolve it. The same considerations apply to the community's vulnerabilities. No specific mitigation actions or risk reduction needs were identified.

Mitigation Action	**Unused Hazardous Materials Dropoff**
Description	The purpose of this action is to establish a program that allows households within the community a safe place to drop off any unused hazardous materials that they no longer need.
Hazard(s)	Hazardous Materials
Estimated Cost	$40,000

Mitigation Action	**Unused Hazardous Materials Dropoff**
Funding	City Funding
Timeline	In Progress
Priority	Low
Lead Agency	City of Vincent
Status	Complete annual drop off opportunities for the community.

Terrorism/Cyber-Attack

The City of Vincent believes more than 75% of its community members would be affected by a terrorism/cyber-attack event and identifies this hazard as a concern, though no recent events were described. The community's key vulnerabilities are municipal software and water/waste water controls.

To mitigate risk, the City uses antivirus software. No specific risk reduction needs were identified.

Completed Mitigation Actions

Mitigation Action	**Continuity of Operations During Power Outage**
Description	This action will allow these entities of the town to remain open and functioning when the City is experiencing power outages.
Hazard(s)	Extreme Temperatures, Severe Winter Storms
Status	Project completed.

Mitigation Action	**Electricity Updates to Correct Frequent Brownouts**
Description	Electricity updates will lessen the frequency of any power outages within the community during a hazard event.
Hazard(s)	Tornado/Windstorm, Thunderstorms: Lightning & Hail

Mitigation Action	**Electricity Updates to Correct Frequent Brownouts**
Status	Generators have been installed in City facilities.

FORT DODGE COMMUNITY SCHOOL DISTRICT PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

LOCAL PLANNING TEAM

Fort Dodge Community School District Local Planning Team

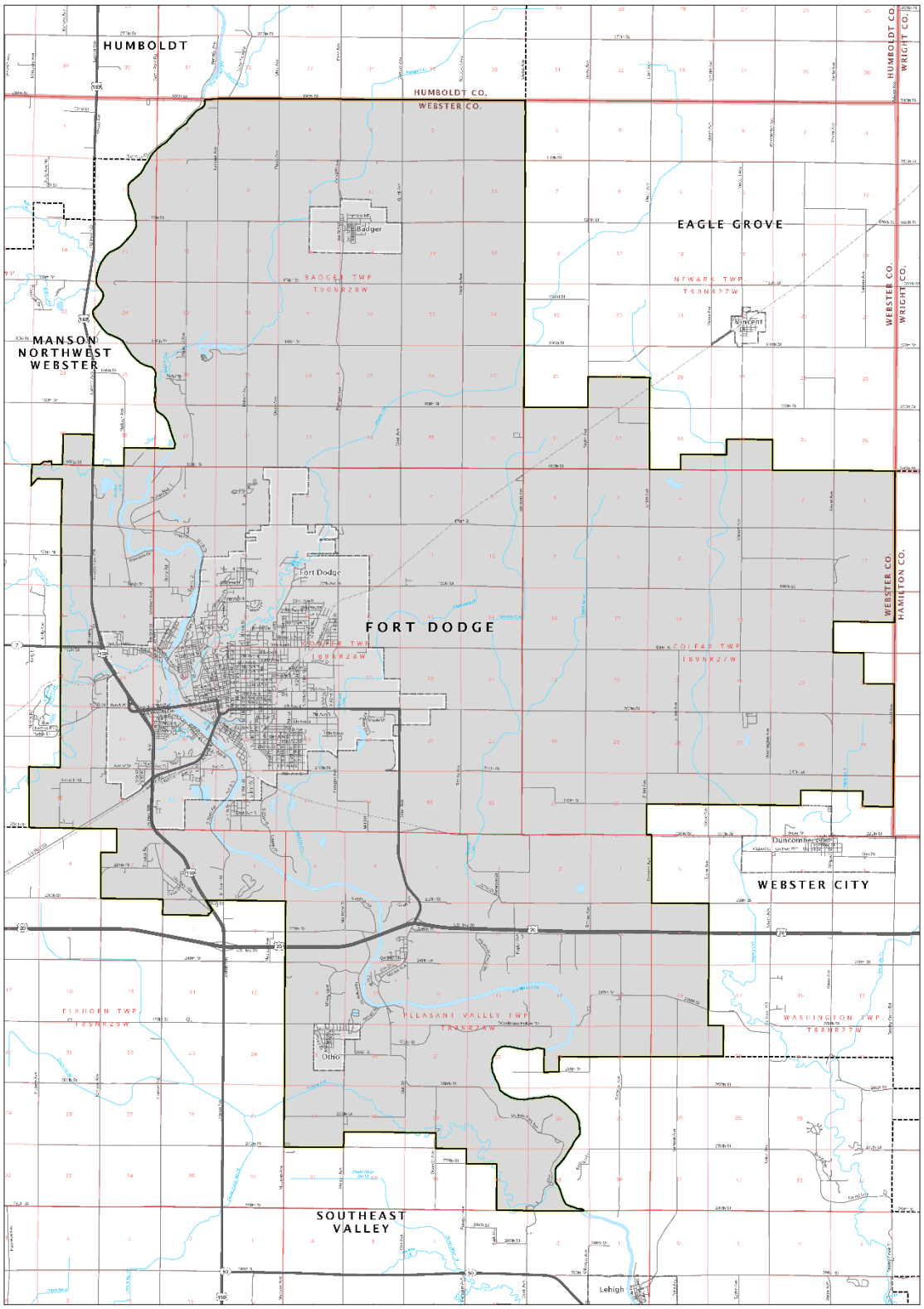
Name	Title	Department	Participation
Roger Porter	Director of Safety and Security	Fort Dodge Community School District (FDCSD)	Attended School 1-on-1, Profile Development
Josh Porter	District Superintendent	FDCSD	Profile Development
Ryan Utley	Director of Building and Grounds	FDCSD	Profile Development
Kevin Bailey	Director to Technology	FDCSD	Profile Development
Brandon Hansel	Chief Finance Officer	FDCSD	Profile Development

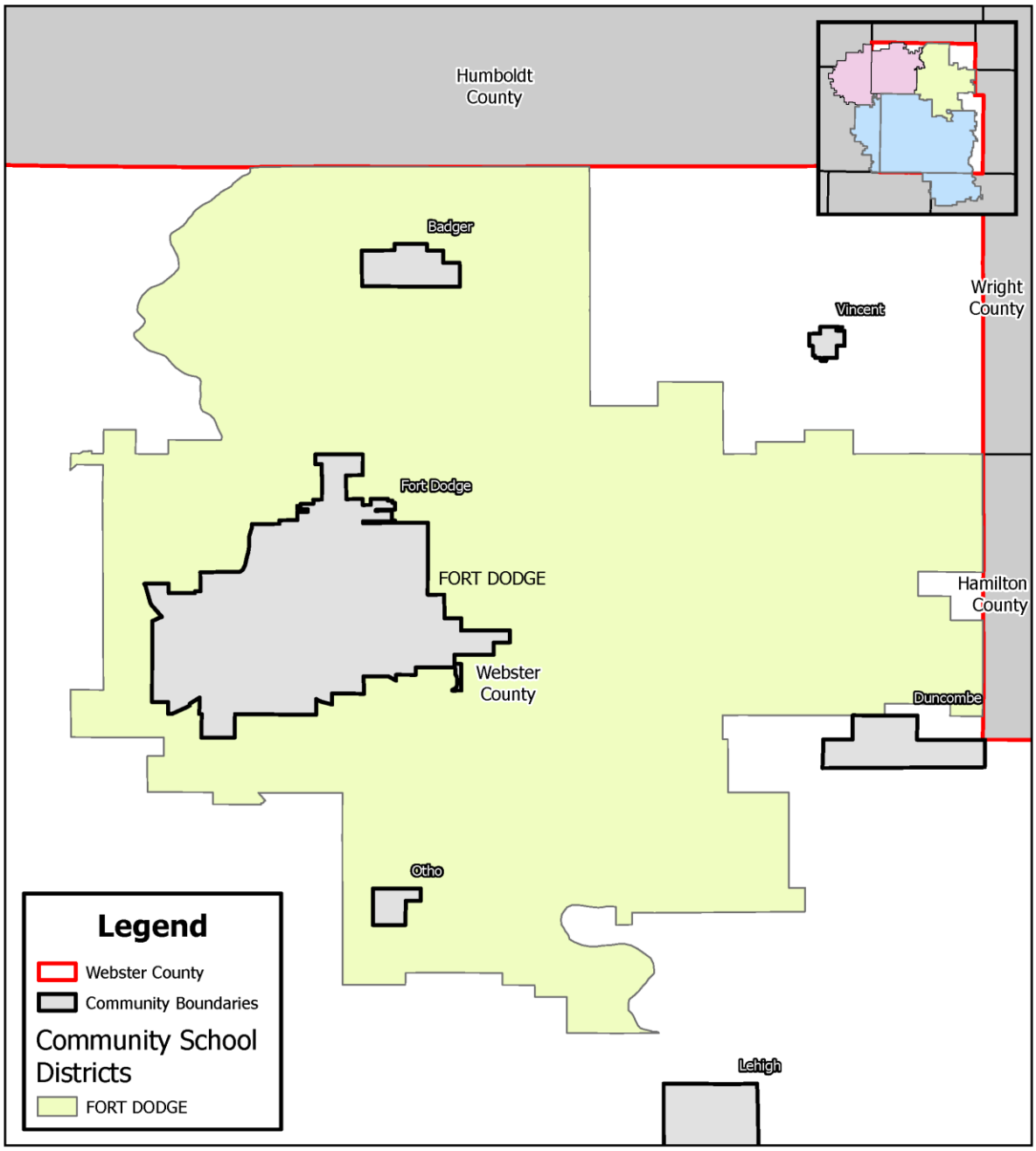
LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles, and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River, which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The Fort Dodge Community School District covers a long, narrow north-south band through the center of Webster County, anchored by the City of Fort Dodge and extending from the Humboldt County line in the north down to the Lehigh area in the south. The district's shape reflects the Des Moines River corridor it largely follows.




HUMBOLDT
HUMBOLDT CO.
WEBSTER CO.
HUMBOLDT CO.
WRIGHT CO.
EAGLE GROVE
Badger
BADGER TWP
T90NR28W
NEWARK TWP
T90NR27W
Vincent
WEBSTER CO.
WRIGHT CO.
MANSON
NORTHWEST
WEBSTER
Fort Dodge
FORT DODGE
DOLLIVER TWP
T89NR28W
COLFAX TWP
T89NR27W
WEBSTER CO.
HAMILTON CO.
Duncombe
WEBSTER CITY
ELKHORN TWP
T88NR28W
PLEASANT VALLEY TWP
T88NR27W
WASHINGTON TWP.
T88NR27W
Otho
SOUTHEAST
VALLEY
Lehigh
IOWA | Department of Education
SCHOOL DISTRICT BOUNDARY VERIFICATION PROGRAM 2025-2026
FORT DODGE
Fort Dodge Comm School District
Adjacent School District
Township
Section
County
City
N
Miles

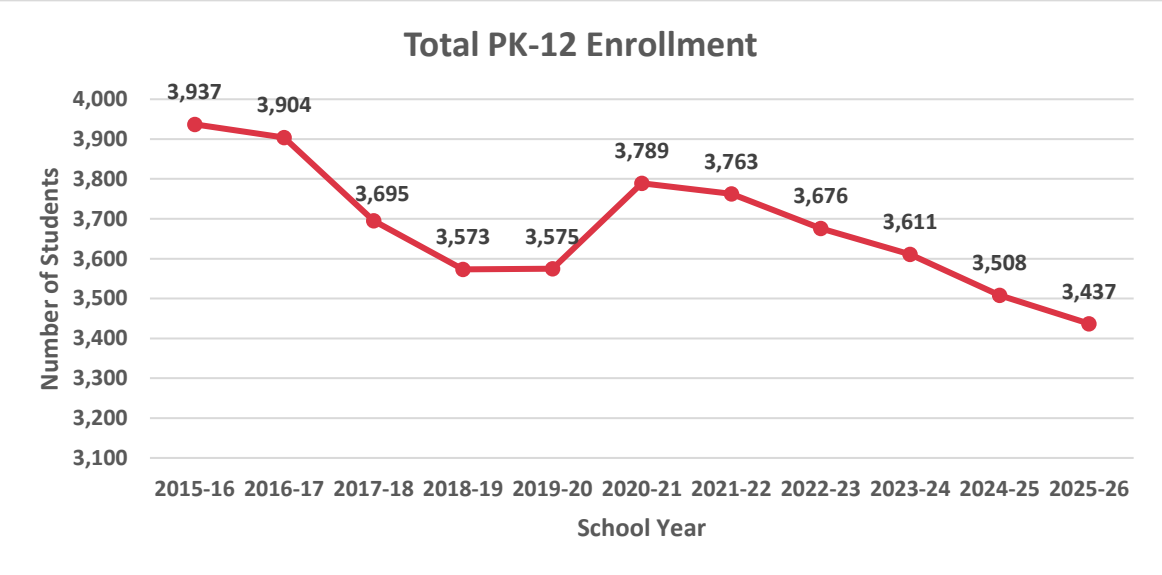

Humboldt County
Badger
Vincent
Wright County
Fort Dodge
FORT DODGE
Webster County
Hamilton County
Duncombe
Otho
Lehigh
Legend
Webster County
Community Boundaries
Community School Districts
FORT DODGE
Created By: RD
Date: 9/2/2026
Software: ArcGIS Pro 3.7.0
File: Webster County HMP
This map was prepared 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.
Fort Dodge Community School District
2026 Webster County Hazard Mitigation Plan Update
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Miles

PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Director of Safety and Security, Superintendent, Director of Building and Grounds, and Chief Finance Officer are responsible for reviewing and updating the district profile outside of the five-year update. The District intends to review the profile annually.

DEMOGRAPHICS



CAPABILITY ASSESSMENT

The planning team assessed the District's planning, administrative and technical, fiscal, education and outreach capabilities, and drill schedules. The following tables summarize the reported capabilities and overall ability to implement mitigation projects.

Fort Dodge Community School District Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	Yes
	Continuity of Operations Plan	Yes
	Crisis Response Plan	Yes
	Strategic Plan	Yes
	Other (if any)	
Administration & Technical Capability	Grant Manager	No
	Mutual Aid Agreement	No
Fiscal Capability	Applied for grants in the past	Yes
	Awarded grants in the past	Yes
	Authority to levy taxes for specific purposes such as mitigation projects	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved bonds in the past	Yes
	Flood Insurance	No
Education & Outreach Capability	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, Crisis Response Teams, etc.)	No
	Hazard education or information program	No

Capability/Planning Mechanism		Yes/No
Drills	Fire	4 annually
	Tornado	4 annually
	Intruder	2 annually
	Bus evacuation	2 annually
	Evacuation	4 annually

Overall Capability

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote To Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

PLANS AND STUDIES

The District identified a Facility Improvements Plan, Continuity of Operations Plan, Crisis Response Plan, and Strategic Plan in its capability assessment. The HMP has not been integrated into these documents.

Floodplain and National Flood Insurance Program

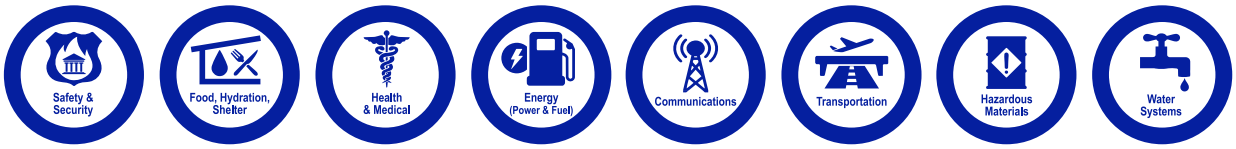
Fort Dodge Community School District is not eligible to participate in the National Flood Insurance Program. However, the school district has facilities in Fort Dodge and Badger—which participate in the NFIP—and Otho, which does not participate.

FUTURE DEVELOPMENT TRENDS

Fort Dodge Senior High School is being updated through a recently approved bond. Most improvements involve the main building, and construction of a new athletic training center addition is beginning. The District reported no new structures developed in the floodplain or other hazardous areas and no hazard-specific mitigation of new structures. Additional development is planned at the high school and is not expected to be in the floodplain.

DISTRICT LIFELINES

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

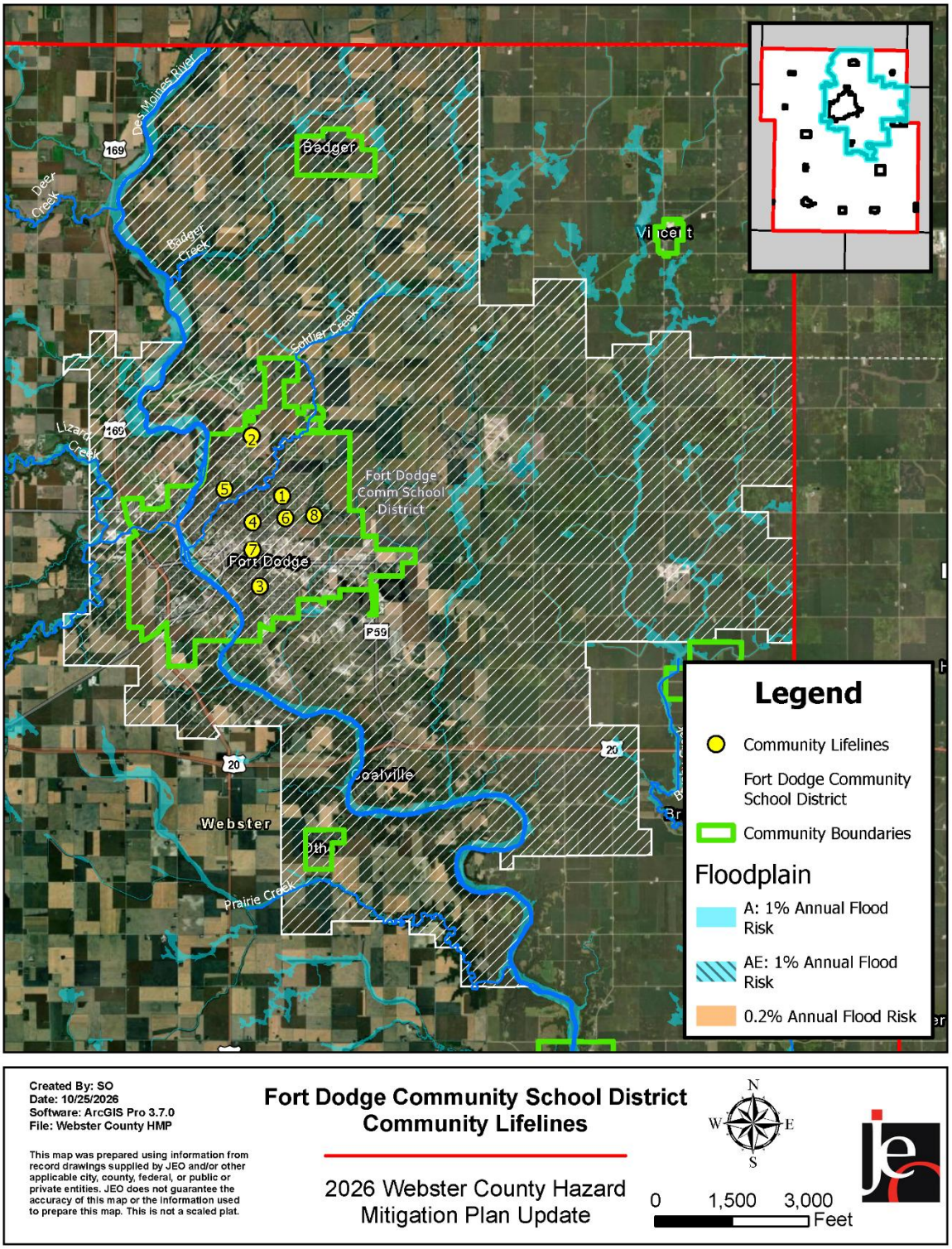


Fort Dodge Community School District Community Lifelines

CL#	Lifeline Type	Name	Location	# of Students	# of Staff	Shelter	Generator
1	Safety and Security	Butler School	945 S 18th, Fort Dodge	307	N/A	Y	Y
2	Safety and Security	Cooper Elementary School	2420 14th Ave, Fort Dodge	214	N/A	Y	Y
3	Safety and Security	District Bus Barn	1634 31st Ave N, Fort Dodge	-	-	N	Y

CL#	Lifeline Type	Name	Location	# of Students	# of Staff	Shelter	Generator
4	Safety and Security	Duncombe Elementary School	1620 6th Ave N, Fort Dodge	449	N/A	Y	Y
5	Safety and Security	Early Childhood Center		387	N/A	Y	Y
6	Safety and Security	Feelhaver School	1300 14th Ave N, Fort Dodge	200	N/A	Y	Y
7	Safety and Security	Fort Dodge High School	819 N 25th St, Fort Dodge	754	N/A	Y	Y
8	Safety and Security	Fort Dodge Middle School	800 N 32nd St, Fort Dodge	1,000	N/A	Y	Y

Fort Dodge Community School District Community Lifelines Map



HAZARD PRIORITIZATION AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Fort Dodge Community School District. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern. For a review and analysis of other regional hazards, please see Section Four: Risk Assessment.

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	

Hazard Type		Count	Property	Crop
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Prolonged drought can strain public water supplies, increase irrigation needs, and damage school grounds. Agricultural losses may affect household income and the surrounding economy.

Mitigation Action	**Drought and Water Conservation Education**
Description	Educate students and staff about water conservation, reporting leaks, and reducing water use during drought. Share conservation information with families.
Hazard(s)	Drought
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Low

Extreme heat or cold can endanger students waiting for buses or participating in outdoor activities. Temperature extremes can strain heating and cooling systems, increase operating costs, and cause frozen pipes.

Mitigation Action	**Extreme Temperature Education**
Description	Provide seasonal information on heat and cold exposure, hydration, appropriate clothing, and district procedures for outdoor activities. Train staff to recognize temperature-related illness.
Hazard(s)	Extreme Temperatures
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Flooding (Flash and Riverine)

Level of Vulnerability: Low

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and community services; crop and livestock losses; and interruption of businesses. Hazards of fire, health, and transportation accidents, and contamination of water supplies are likely effects of flooding situations as well.

None of the District's identified community lifelines are in the floodplain. Bus routes to schools, as well as transportation to and from the schools, could become inaccessible due to severe flooding. Further analysis on school emergency routes will need to be completed.

Mitigation Action	**Flood Risk Education**
Description	Educate students, staff, and families about local flood risks, avoiding flooded roads, and reporting drainage problems. Provide facilities staff with training on reducing building exposure and protecting equipment and records.
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Grass Fire or Wildland Fire

Level of Vulnerability: Low

Fires near school property can threaten buildings and outdoor facilities. Smoke can affect indoor air quality and students with respiratory conditions. Road closures or evacuations can interrupt school operations.

Mitigation Action	**Wildfire Prevention Education**
Description	Educate students and staff about preventing outdoor ignitions and reporting fire hazards. Train grounds staff on vegetation management and keeping combustible materials away from buildings.
Hazard(s)	Grass Fire or Wildland Fire
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low

Mitigation Action	**Wildfire Prevention Education**
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Severe Winter Storms

Level of Vulnerability: Moderate

Winter storms can create unsafe travel conditions for students and staff. School buses are not safely equipped to travel through large amounts of uncleared snow. The District closes school when winter weather prevents safe travel or creates unsafe conditions and identified continued weather monitoring as a risk-reduction need.

Mitigation Action	**Severe Winter Storms Education**
Description	Provide seasonal education on winter travel, slip prevention, and cold exposure. Train facilities staff to recognize frozen-pipe risks, blocked vents, and signs of excessive snow or ice accumulation.
Hazard(s)	Severe Winter Storms
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Sinkholes

Level of Vulnerability: Low

Ground collapse or settlement can damage foundations, pavement, playgrounds, and buried utilities. Affected areas may require closure and disrupt access or school operations. Risk depends on local ground conditions and infrastructure.

Mitigation Action	**Sinkhole Awareness Education**
Description	Train maintenance and grounds staff to recognize and report new depressions, unusual settlement, pavement cracks, and recurring drainage problems. Teach students to avoid and report suspected ground openings.
Hazard(s)	Sinkholes
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Hail, lightning, and strong winds can damage roofs, windows, buses, and outdoor equipment. Falling trees and power outages can disrupt instruction, communications, and transportation. The District filed an insurance claim for hail damage to one or more buildings in 2020. All buildings have lightning rods, but the District reported that built-in surge protectors are not installed.

Mitigation Action	**Severe Thunderstorm Education**
Description	Provide annual education on lightning, hail, and wind hazards. Train staff to recognize exposed outdoor equipment, unsecured objects, and hazardous trees and report them for corrective action.
Hazard(s)	Severe Winter Storms
Estimated Cost	Staff Time
Funding	General Fund

Mitigation Action	**Severe Thunderstorm Education**
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

Tornado/Windstorm

Level of Vulnerability: Moderate

Tornadoes and windstorms can cause substantial building damage, flying debris, injuries, and extended closures. Large rooms and outdoor activity areas may provide limited protection without access to suitable shelter. Each building has the capacity to serve as a temporary shelter and supply depot for the community, although no formal agreements are in place. The District conducts four tornado drills annually. It identified continued building-level training and maps showing students and staff where to go during a tornado as ongoing needs. No specific past tornado or windstorm event has occurred to the community lifelines.

Mitigation Action	**Tornado and Windstorm Education**
Description	Provide annual instruction on wind risks, suitable shelter locations, and the limitations of large open rooms. Train staff to identify unsecured equipment and other conditions that could increase wind damage.
Hazard(s)	Severe Winter Storms
Estimated Cost	Staff Time
Funding	General Fund
Timeline	2–5 years
Priority	Low
Lead Agency	District Leadership Department
Status	This is a new mitigation action.

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Level of Vulnerability: Low

Tree diseases and pests can create falling-limb hazards and increase removal costs. Agricultural outbreaks can affect local employment and family income. Animal-related disease exposure may affect agricultural education programs.

Dam Failure

There are no dams whose failure would impact the school district. No dam inundation areas extend into the jurisdiction. Thus, dam failure is not identified as a concern for the community, and no further vulnerability, mitigation, or risk reduction is needed at this time.

No mitigation or resiliency actions were identified at this time for the jurisdiction.

Hazardous Materials

Level of Vulnerability: Moderate

Hazardous materials were identified as a concern for the District. No recent events were reported. An anhydrous ammonia plant is located within a few miles of the nearest school, and a railway near multiple school buildings may transport dangerous chemicals. The District identified awareness, training, and coordination with the Fort Dodge Fire Department if an incident occurs as risk-reduction needs

Terrorism/Cyber-Attack

Level of Vulnerability: Moderate

Terrorism/cyber-attack was identified as a concern for the District. Phishing email attempts occur throughout the year. Existing measures include staff training and IT oversight. The District identified continued annual awareness training and staying current on emerging threats as additional needs.

IOWA COMMUNITY COLLEGE DISTRICT PROFILE

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SOUTHEAST VALLEY SCHOOL DISTRICT PROFILE



WEBSTER COUNTY IA
HAZARD MITIGATION PLAN

2026

LOCAL PLANNING TEAM

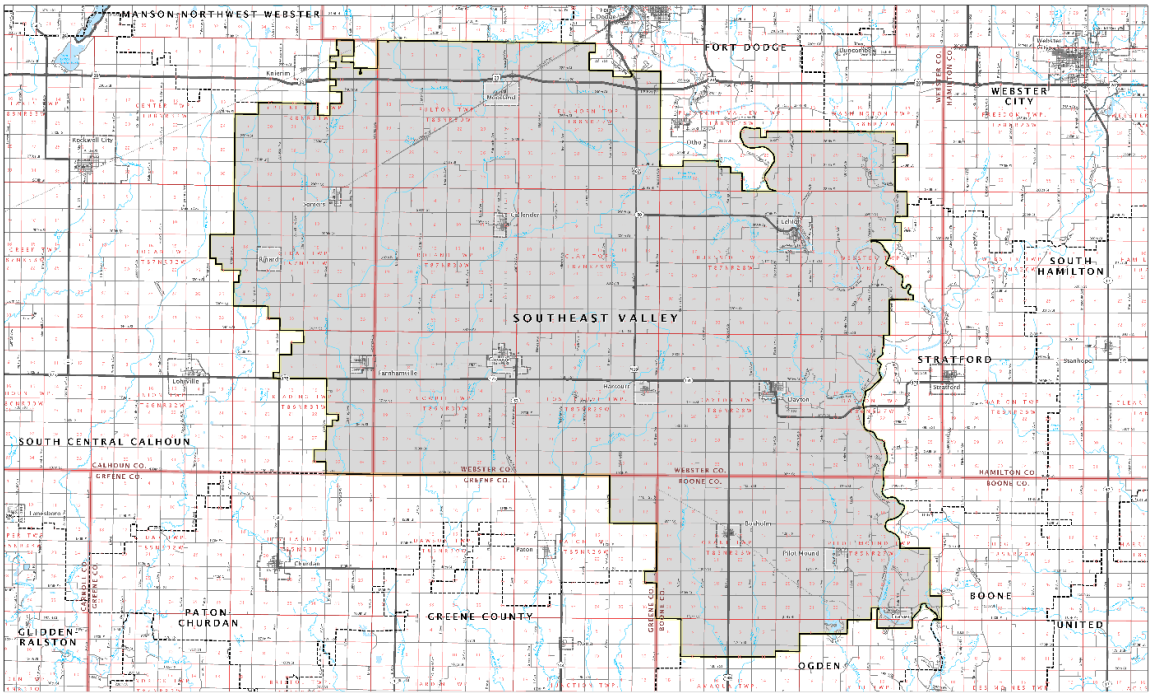
Southeast Valley District School District Local Planning Team

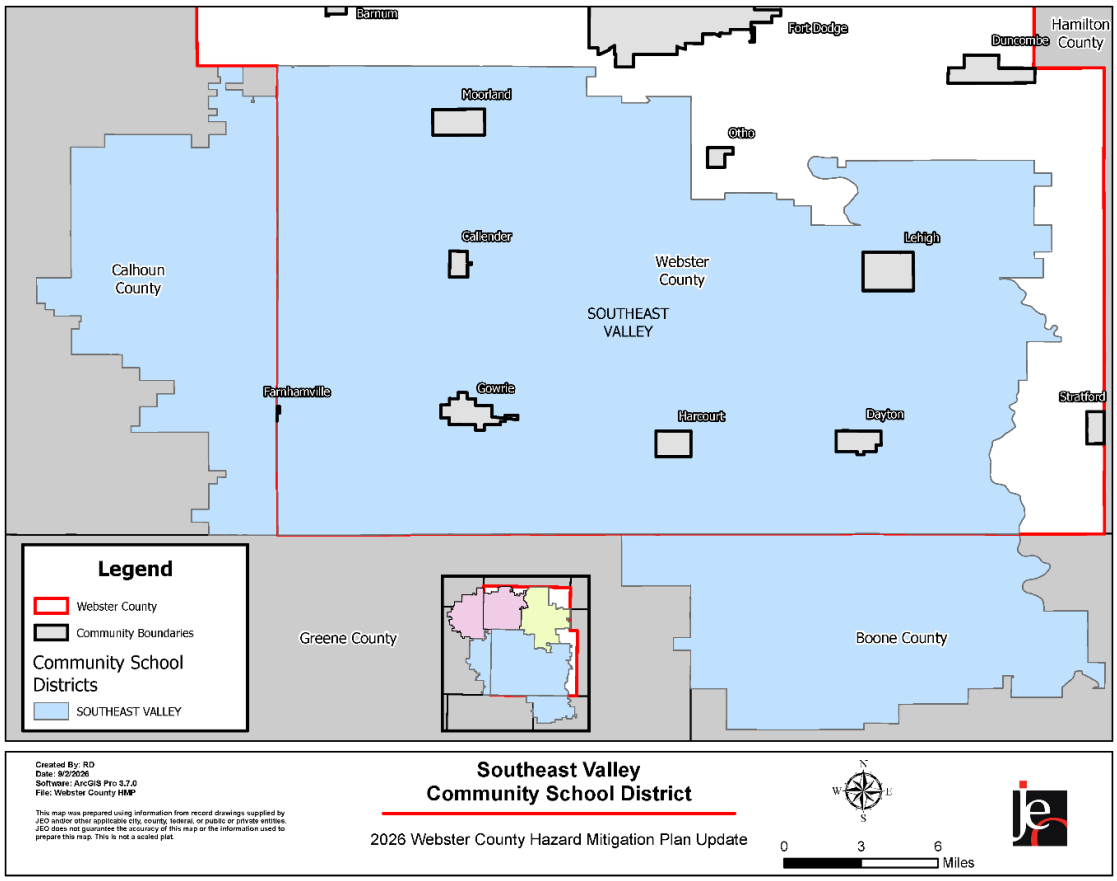
Name	Title	Department	Participation
Brian Johnson	Superintendent	Administration	Profile Development
Tyler Johnson	Custodian	Custodial Staff	Attended Meetings; Profile Development
Lisa Willardson	Affirmative Action Coordinator	Administration	Profile Development
Jason Slinker	Maintenance Director	Administration	Profile Development

LOCATION & GEOGRAPHY

Webster County is located in central Iowa. The counties adjacent to it are Pocahontas, Humboldt, Wright, Hamilton, Boone, Greene, and Calhoun. The total area of Webster County is 718 square miles, and Fort Dodge is the county seat. Major waterways within the county include the Des Moines River, which crosses the entire county. Brushy Creek State Recreation Area is located in eastern Webster County.

The Southeast Valley School District covers an area spanning parts of Webster, Calhoun, Greene, and Boone counties in west-central Iowa, with Fort Dodge sitting just north of the district's core boundary.


MANSON NORTHWEST WEBSTER
FORT DODGE
WEBSTER CITY
SOUTH HAMILTON
SOUTHEAST VALLEY
STRATFORD
SOUTH CENTRAL CALHOUN
PATON CHURDAN
GLIDDEN RALSTON
GREENE COUNTY
BOONE
UNITED
OGDEN
IOWA | Department of Education SCHOOL DISTRICT BOUNDARY VERIFICATION PROGRAM 2025-2026
SOUTHEAST VALLEY

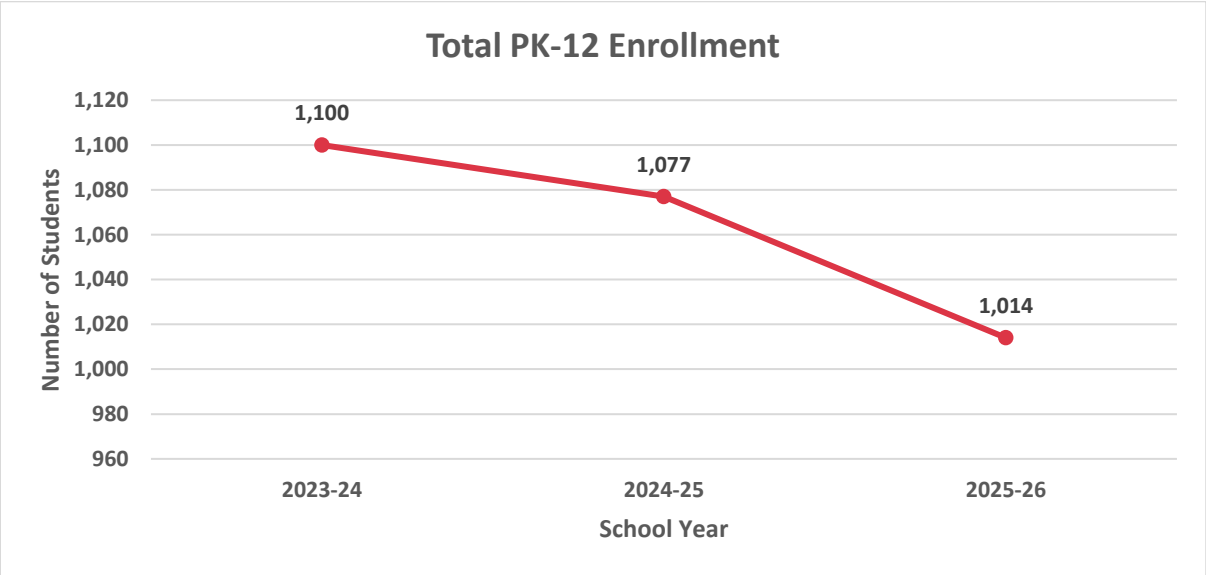

Barnum
Fort Dodge
Hamilton County
Duncombe
Moorland
Otho
Callender
Lehigh
Calhoun County
Webster County
SOUTHEAST VALLEY
Farnhamville
Gowrie
Harcourt
Dayton
Stratford
Legend
Webster County
Community Boundaries
Community School Districts
SOUTHEAST VALLEY
Greene County
Boone County
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Southeast Valley Community School District
2026 Webster County Hazard Mitigation Plan Update
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PLAN MAINTENANCE

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Superintendent and Director of Student Safety are responsible for reviewing and updating the district profile between five-year HMP updates. The district will review the HMP on a biannual review schedule.

DEMOGRAPHICS



CAPABILITY ASSESSMENT

The planning team assessed the school district's hazard mitigation capabilities by reviewing existing policies, plans, and programs related to hazard mitigation. The following tables summarize the district's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Southeast Valley School District Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning	Facility Improvements Plan	Yes

Capability/Planning Mechanism		Yes/No
Capability	Continuity of Operations Plan	Yes
	Crisis Response Plan	Yes
	Strategic Plan	Yes
Administration & Technical Capability	Grant Manager	Yes
	Mutual Aid Agreement	Yes
Fiscal Capability	Applied for grants in the past	Yes
	Awarded grants in the past	Yes
	Authority to levy taxes for specific purposes such as mitigation projects	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved bonds in the past	Yes
	Flood Insurance	Yes
Education & Outreach Capability	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, Crisis Response Teams, etc.)	No
	Hazard education or information program	Yes
Drills	Fire	Quarterly
	Tornado	Quarterly
	Intruder	Annually
	Bus evacuation	Biannually
	Evacuation	Quarterly

The district can expand its capabilities through additional intruder-drill training. Mutual aid agreements support reunification locations and access to generators. Fire, tornado, and evacuation drills are conducted quarterly; intruder drills occur annually; and bus evacuation drills occur semiannually.

Overall Capability

The district rated financial resources for mitigation projects as limited, staff expertise as high, and public support, available time, and the ability to expand capabilities as moderate.

Capability	Rating
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	High
Public Support to Implement Projects	Moderate
Time to Devote To Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

PLANS AND STUDIES

The district maintains a Facility Improvements Plan, Continuity of Operations Plan, Crisis Response Plan, and Strategic Plan. The following table summarizes current HMP integration and intended future updates.

Plan Title	HMP Integration
Facility Improvements Plan	The HMP has not been integrated into the Facility Improvements Plan. The district intends to integrate it during a future update.
Continuity of Operations Plan	The HMP has not been integrated into the Continuity of Operations Plan. The district intends to integrate it during a future update.
Crisis Response Plan	The HMP has not been integrated into the Crisis Response Plan. The district intends to integrate it during a future update.

Plan Title	HMP Integration
Strategic Plan	The HMP has not been integrated into the Strategic Plan. No future integration is currently planned.

Floodplain and National Flood Insurance Program

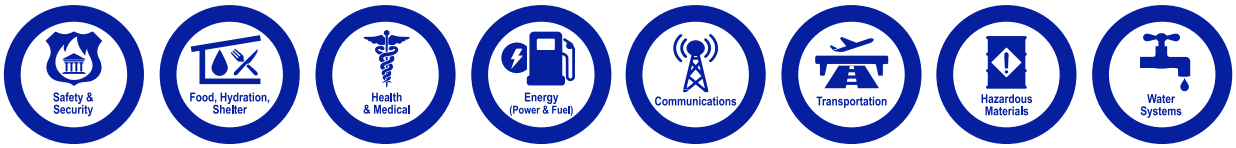
Southeast Valley District Schools District is not eligible to participate in the National Flood Insurance Program. However, the school district has facilities in Gowrie, Dayton, and Harcourt, and all jurisdictions participate in NFIP.

FUTURE DEVELOPMENT TRENDS

The district remodeled the high school locker rooms in Gowrie in 2025 and identified a tornado shelter area within the locker rooms. No new structures were reported in the floodplain or other hazardous areas, and no additional district developments are currently planned.

DISTRICT LIFELINES

As listed in the following table, each participating jurisdiction identified district lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA District Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Southeast Valley District School District Lifelines

CL#	Lifeline Typer	Name	Location	# of Students	# of Staff	Shelter	Generator
1	Safety and Security	Southeast Valley High School	Gowrie	321	39	Y	Y

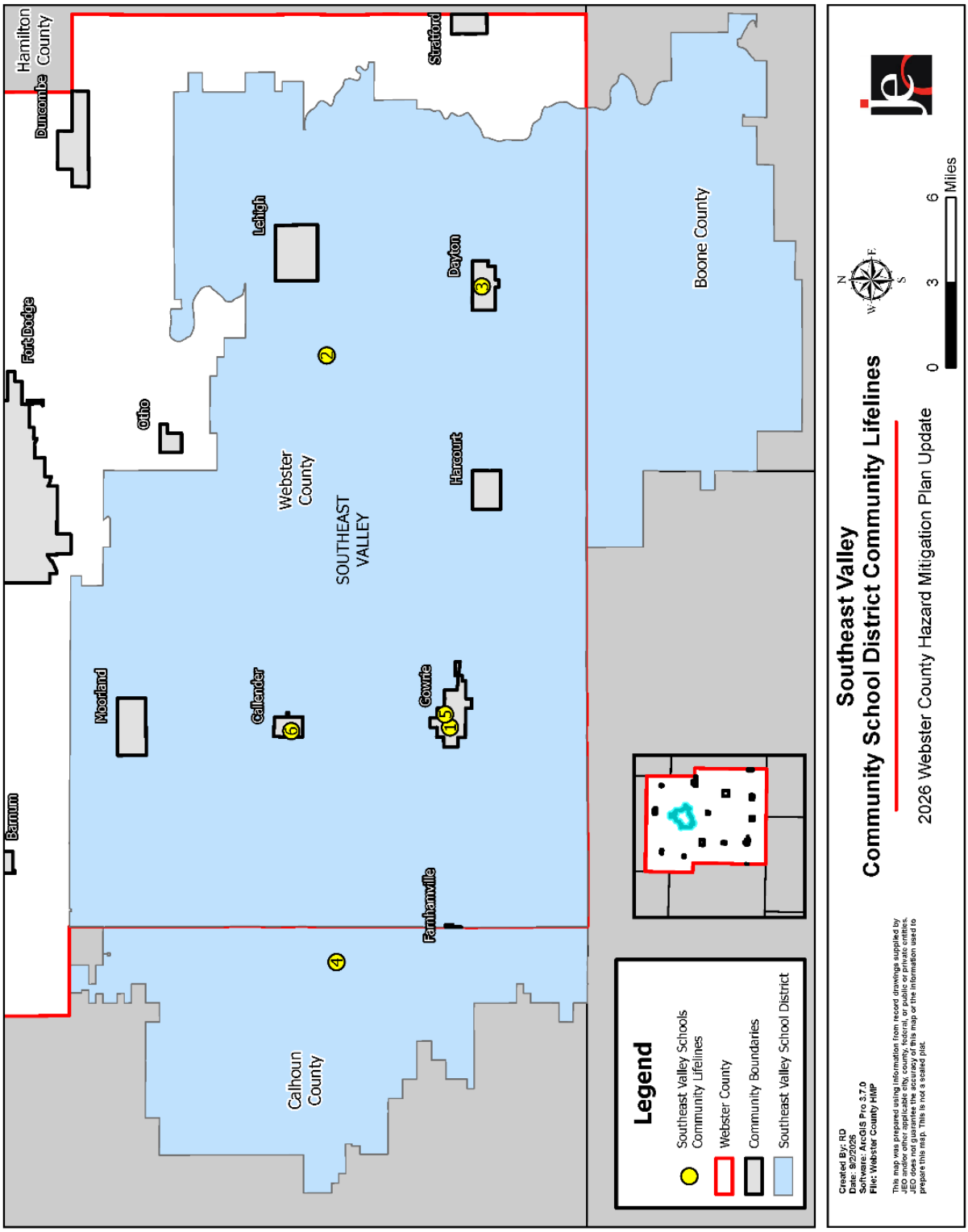
CL#	Lifeline Typer	Name	Location	# of Students	# of Staff	Shelter	Generator
2	Safety and Security	Southeast Valley Middle School	Burnside	330	39	Y	N
3	Safety and Security	Southeast Valley Dayton Elementary	Dayton	184	37	Y	Y
4	Safety and Security	Southeast Valley Farnhamville Elementary	Farnhamville	233	37	Y	N
5	Safety and Security	Southeast Valley District Office	Gowrie	-	11	N	Y
6	Safety and Security	Southeast Valley Bus Barn	Callender	-	19	N	N

Other Jurisdiction Assets

Southeast Valley District School District also has one other district asset of concern:

- Rental House

Southeast Valley District School District District Lifelines Map



HAZARD PRIORITIZATION AND RISK DISCUSSION

This Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Southeast Valley School District. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern. For a review and analysis of other regional hazards, please see Section Four: Risk Assessment.

Hazards for Analysis

Natural Hazards	Other / Man-Made Hazards
Drought	**Animal/Crop/Plant Disease**
Extreme Temperatures	**Dam Failure**
Flooding (Flash and Riverine)	**Hazardous Materials**
Grass Fire or Wildland Fire	**Terrorism / Cyber-Attack**
Severe Winter Storms	
Sinkholes	
Thunderstorms: Lightning & Hail	
Tornado/Windstorm	

Hazard Loss Estimates for Webster County

Hazard Type		Count	Property	Crop
Drought		464 out of 1,577 months	N/A	$70,215,077
Extreme Temperatures	Extreme Cold	Avg 7 days per year	$0	$84,678
	Extreme Heat	Avg 1 days per year	$135,000	$1,415,662
Flooding	Flash Flood	56	$4,500,000	$390,402
	Flood	101	$6,163,570	
Grass Fire or Wildland Fire		55	225.4 acres burned	$0
Severe Winter Storms	Blizzard	27	$525,000	$1,224,312
	Heavy Snow	26	$181,000	
	Ice Storm	11	$1,168,330	
	Winter Storm	30	$509,900	
	Winter Weather	1	$0	

Hazard Type		Count	Property	Crop
Sinkholes		N/A	N/A	N/A
Thunderstorms	Hail	202	$1,978,700	$10,349,700
	Heavy Rain	111	$100,000	$42,981,937
	Lightning	3	$108,000	N/A
	Thunderstorm Wind	164	$2,698,000	N/A
Tornadoes & Windstorms	Tornado	45	$1,244,200	$13,000
	Windstorm	47	$1,871,110	$1,123,995
Animal/Crop/Plant Disease		23	N/A	$160,452
Dam Failure		N/A	N/A	N/A
Hazardous Materials	Fixed Site[3]	361	$139,000	N/A
	Transportation[4]	41	$73,501	N/A
Terrorism/Cyberattack		Unknown	Not available	N/A
Totals		**1,301**	**$21,395,311**	**$127,946,215**

Natural Hazards

Drought

Level of Vulnerability: Low

Southeast Vally School district has relatively limited direct physical vulnerability to drought compared with other community jurisdictions; however, prolonged drought can affect water availability, landscaping and athletic fields, outdoor activities, and water-dependent building operations. Dry vegetation can also increase grass-fire risk around school property. Because the Southeast Valley Community School district serves heavily agricultural communities, significant crop losses may indirectly affect district families, enrollment, local economic conditions, and the tax base. While Iowa has experienced numerous significant drought periods, no past drought events have directly impacted the Southeast Valley District School District.

Mitigation Action	**Review and Upgrade Plumbing Infrastructure**
Description	The district will review plumbing infrastructure as needed and consider upgrades or repairs on a case-by-case basis.
Hazard(s)	Drought
Estimated Cost	$20,000
Funding	General Fund
Timeline	2-5 years

Mitigation Action	**Review and Upgrade Plumbing Infrastructure**
Priority	Low
Lead Agency	District Leadership
Status	Not started. This is a new mitigation action.

Extreme Temperatures

Level of Vulnerability: Moderate

Extreme temperatures present a significant safety and operations concern for students and staff. Extreme heat may affect classrooms without adequate cooling, outdoor recess, athletics, marching band, practices, and other activities. Extreme cold creates risks during student transportation, particularly for students waiting outdoors for buses or stranded due to vehicle problems. Both temperature extremes increase demands on HVAC and electrical systems. A prolonged power or natural-gas outage could make a school facility unsafe to occupy and may require closure or relocation.
Children may be particularly susceptible to temperature-related illness, while staff or students with medical conditions may have additional vulnerabilities. District facilities used as community shelters or gathering locations could also experience increased demand during temperature emergencies.

The Southeast Valley Community School District has experienced multiple dates of extreme cold that forced school closures. To mitigate risk, the district monitors temperatures to determine whether early dismissal or delayed starts are needed, updates HVAC systems districtwide, and communicates with families, staff, and students. To further reduce risk, the district needs on-site generators at buildings to ensure all buildings can maintain a safe environment for staff and students.

Mitigation Action	**Backup Generator**
Description	Purchase and install an auxiliary backup source of power at school facilities to maintain operations, serve as a storm shelter, or be used as a mass care facility by impacted communities
Hazard(s)	Extreme Temperatures, Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$40,000

Mitigation Action	**Backup Generator**
Funding	General Fund
Timeline	Over 5 years
Priority	Medium
Lead Agency	District Leadership
Status	Not started. This is a new mitigation action.

Flooding (Flash and Riverine)

Level of Vulnerability: Moderate

Flooding impacts include potential loss of life; property damage and destruction; damage and disruption of communications, transportation, electric service, and district services; crop and livestock losses; and interruption of businesses. Hazards of fire, health and transportation accidents; and contamination of water supplies are likely effects of flooding situations as well.

Flood vulnerability varies significantly according to the location of individual schools, transportation facilities, athletic fields, and other district property relative to floodplains and drainageways. Even when school buildings are outside mapped floodplains, intense rainfall can overwhelm stormwater systems and cause localized flooding, basement intrusion, roof drainage problems, erosion, and damage to athletic fields.During high river water times, the Southeast Valley Community School District experiences roads becoming impassable, occurring during both river flooding and ponding/field flooding events.

The district's key vulnerability is bus routes that fall in flood-prone areas. Flooded roads, bridges, and culverts may prevent buses from reaching students or create unsafe travel conditions across a geographically dispersed district. Flooding can therefore disrupt school operations even when no district building is directly inundated. When high water events occur, the Transportation Director is made aware of water issues on roads and communicates this to drivers and families, with alternate routes designated as needed.

Mitigation Action	**Develop Flood-Related Alternate Bus Routes**
Description	Develop alternate bus routes and expand transportation communication procedures for high-water events. The

Mitigation Action	**Develop Flood-Related Alternate Bus Routes**
	Transportation Director is coordinating with the County Engineer/Roads Department.
Hazard(s)	Flooding (Flash and Riverine)
Estimated Cost	$0
Funding	Staff Time
Timeline	1 year or less
Priority	Medium
Lead Agency	Southeast Valley Community School District
Status	Not started. This is a new mitigation action.

Grass Fire or Wildland Fire

Level of Vulnerability: Low

School buildings within developed communities generally have limited direct exposure to grass fires. However, schools, athletic complexes, bus facilities, or other district properties located near agricultural fields, prairie, grasslands, or undeveloped property may be more vulnerable. Dry vegetation, drought, low humidity, and high winds can allow fires to spread rapidly. Smoke may create a greater district-wide concern than direct flame exposure. Smoke can affect students with respiratory sensitivities, require outdoor activities to be canceled, reduce roadway visibility, and potentially require sheltering or evacuation. Rural bus routes could also be affected by active fires or smoke.

No past grass fire or wildland fire events have directly impacted the Southeast Valley Community School District, and no specific vulnerabilities were identified. To mitigate risk, the district maintains wooded areas around buildings, including regular ground cleanup. To further reduce risk, the district should continue grounds cleaning and remove dead or dying trees.

Mitigation Action	**Vegetation Management**
Description	Conduct an audit of existing dead or dying trees across campus and remove them as a potential fuel load or debris during hazard events.
Hazard(s)	Grass Fire or Wildland Fire, Severe Winter Storms, Thunderstorms: Lightning & Hail, Tornado/Windstorm
Estimated Cost	$0
Funding	Staff Time
Timeline	2-5 years
Priority	Low
Lead Agency	Southeast Valley Community School District
Status	Not started. This is a new mitigation action.

Severe Winter Storms

Level of Vulnerability: High

Severe winter storms are the most common and significant hazard event to impact school districts. Heavy snow, blowing and drifting snow, freezing rain, ice accumulation, and extreme cold can make transportation unsafe and lead to delayed starts, early dismissals, or school closures. Rural transportation is particularly vulnerable. Open agricultural landscapes allow snow to drift across roads, while ice can affect buses, staff vehicles, and student drivers. Winter storms may also damage power lines and trees, interrupt electricity or communications, freeze pipes, damage HVAC equipment, and affect building access. Students who are already in transit when conditions deteriorate are especially vulnerable.

Severe winter storms have impacted the Southeast Valley Community School District primarily through school closings or delays throughout the winter months. The district's key vulnerability is its size and the extensive rural transportation network required to reach various locations.

To mitigate risk, the district monitors weather events and forecasts, making closing or delay decisions based on the best available information with student and staff safety as the priority. To further reduce risk, the district needs standalone generators at each building to help prevent potential damage in the event of power outages from severe winter storms and long-term power events.

*See **Backup Generators** mitigation action under Extreme Temperatures.*

Sinkholes

Level of Vulnerability: High

A sinkhole occurring beneath or near district property could damage buildings, foundations, parking lots, athletic fields, utilities, sidewalks, or access roads. Sinkholes can also provide a direct pathway for surface contamination to enter groundwater. The Iowa Geological Survey notes that Iowa sinkholes have previously affected roads, ponds, agricultural land, and a sewage-treatment lagoon.

The Southeast Valley Community School District has experienced two past sinkhole events at unknown dates, both occurring in the high school parking lot near the high school building; both were mitigated with fill and repaving where needed. The district continues to monitor grounds for signs of sinkhole risks or areas of concern. To further reduce risk, a geophysical ground survey of school locations would help locate potential areas of concern and prevent another ground collapse.

Mitigation Action	**Geophyscial Ground Survey and Database**
Description	Conduct a ground survey to identify potential areas of weakness on school campus and remediate problem areas as identified.
Hazard(s)	Sinkholes
Estimated Cost	$10,000
Funding	General Fund
Timeline	Over 5 years
Priority	Low
Lead Agency	Southeast Valley Community School District
Status	Not started. This is a new mitigation action.

Thunderstorms: Lightning & Hail

Level of Vulnerability: Moderate

Severe thunderstorms represent a frequent hazard for school facilities and operations. Large hail can damage roofs, HVAC equipment, skylights, windows, buses, staff and student vehicles, athletic facilities, and other exposed property. Roof damage may also allow water intrusion. Heavy rainfall can overwhelm roof drains and local stormwater systems, flood low-lying portions of school property, damage athletic fields, and affect bus routes. Lightning creates additional risk during recreational events such as sporting events, recess, field trips, or other outdoor activities. Lightning and thunderstorm winds may also cause power outages or damage communications and electronic equipment.

In Spring 2026, the Southeast Valley Community School District experienced significant hail damage in Gowrie. The district's key vulnerability is that it covers such a large areas with buildings spread across multiple locations, putting it at a greater risk of damage due to zonal type hazards which cover a great geographic area. To mitigate risk, the district has severe weather plans in place for all buildings and communicates with staff, students, and parents on weather situations.

*See **Backup Generators** mitigation action under Extreme Temperatures.*

Tornado/Windstorm

Level of Vulnerability: High

Tornadoes, straight-line winds, and derechos represent a potentially devastating hazard type for a school district due to the large numbers of students and staff which may be concentrated in a single building. Vulnerable building components may include large-span gymnasiums, cafeterias, auditoriums, field houses, portable classrooms, windows, roofs, and exterior walls. Older facilities constructed before modern wind-resistance standards may warrant particular attention.

Adequate storm shelter capacity is therefore a critical vulnerability consideration. The district should evaluate whether designated shelter areas provide sufficient space for the entire building population and whether they offer appropriate protection from wind and debris. Transportation is another concern because students may be aboard buses when warnings are issued.

In 2022, the Southeast Valley Community School District's Middle School in Burnside sustained signficant roof damage to the gym area from a derecho, requiring a new roof and interior repairs to the gym flood and surrounding areas. The district's key vulnerability is having multiple buildings located in standalone rural areas without on-site backup power supply.

To mitigate risk, the district monitors weather conditions prior to events and communicates with staff, students, and families. The cities of Dayton and Gowrie have citywide generators that supply power to two of the district's four school buildings.

*See **Backup Generators** mitigation action under Extreme Temperatures.*

OTHER / MAN-MADE HAZARDS

Animal/Crop/Plant Disease

Animal/crop/plant disease is not currently a concern to the district.

Dam Failure

Dam failure is not currently a concern to the district.

Hazardous Materials

Hazardous materials is not currently a concern to the district.

Terrorism/Cyber-Attack

The district identifies terrorism/cyber-attack as a concern for the jurisdiction, though no recent events or specific vulnerabilities were noted. To mitigate risk, the district has contracted IT security services. No further risk reduction needs were identified.