

Community Profile

City of Woodward

**Dallas County
Hazard Mitigation Plan 2023**

Local Planning Team

Table WWD.1: Woodward Local Planning Team

Name	Title	Jurisdiction
Steven Godwin	Council Member	City of Woodward

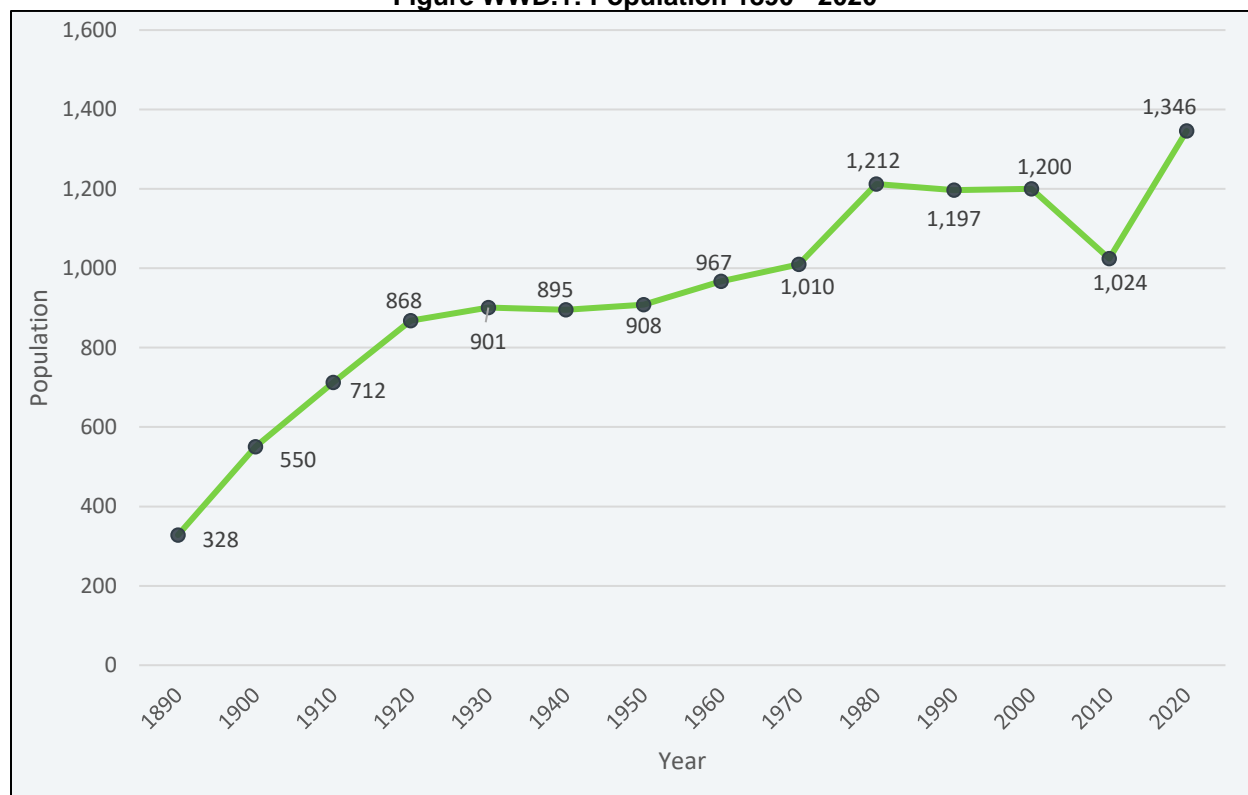
Location and Geography

The City of Woodward is located in northeast Dallas County and covers an area of 3.65 square miles. Major waterways in the area include Des Moines River, Beaver Creek, and Preston Creek.

Demographics

Woodward’s population in 2020 was 1,346. The following figure displays the historical population trend from 1890 to 2020. This figure indicates that the population of Woodward gradually increased from 1890 to 1980, leveled off from 1980 to 2000, then saw a sharp drop followed by a sharp increase from 2000 to 2020. Increasing populations are associated with increased hazard mitigation and emergency planning requirements for development. Increasing populations can also contribute to increasing tax revenues, allowing communities to pursue additional mitigation projects. Woodward’s population accounted for 1.4% of Dallas County’s population in 2020.¹

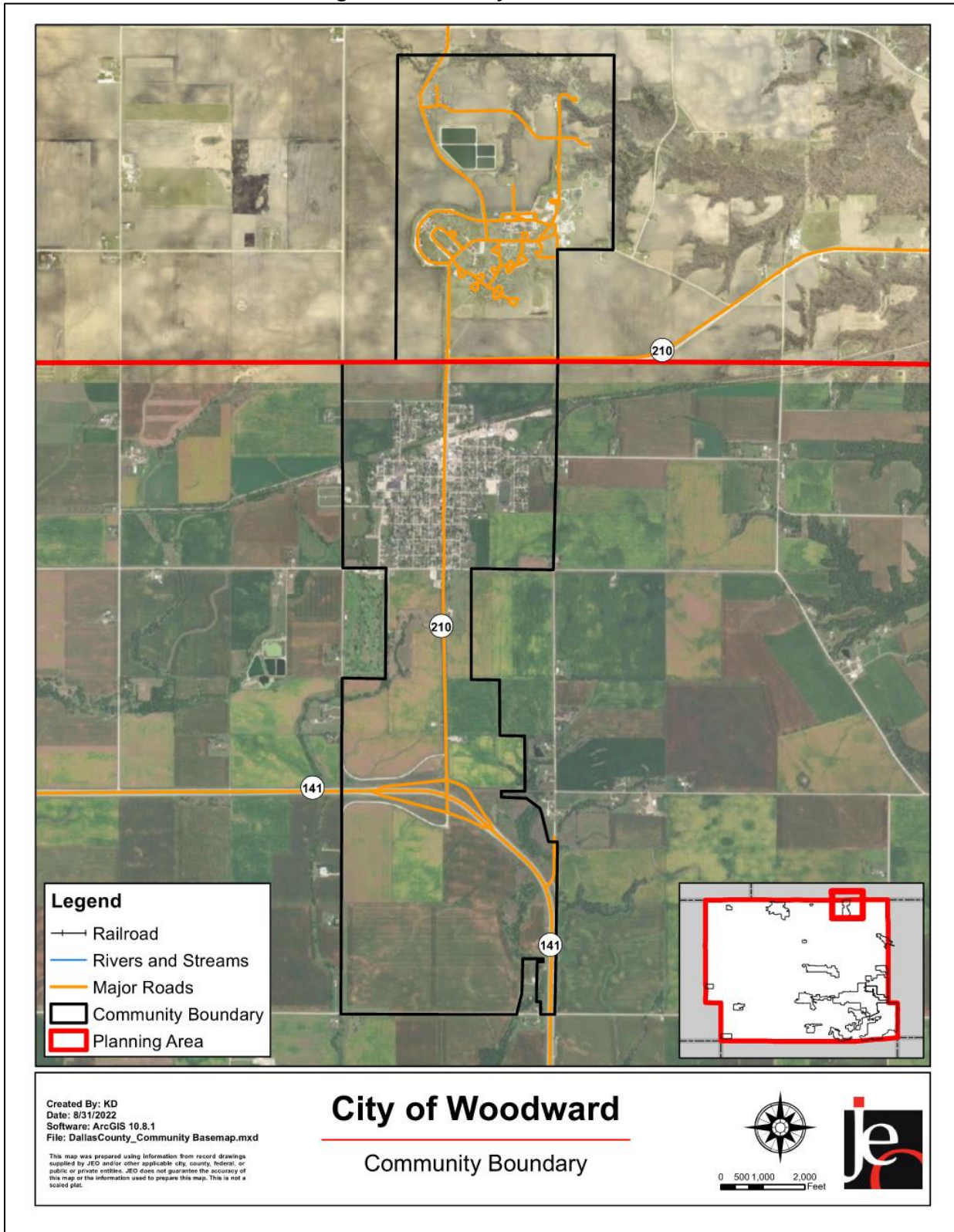
Figure WWD.1: Population 1890 - 2020



Source: U.S. Census Bureau

¹ United States Census Bureau. “2020 Census Redistricting Data (Public Law 94-171): P1: Race.” <https://data.census.gov>.

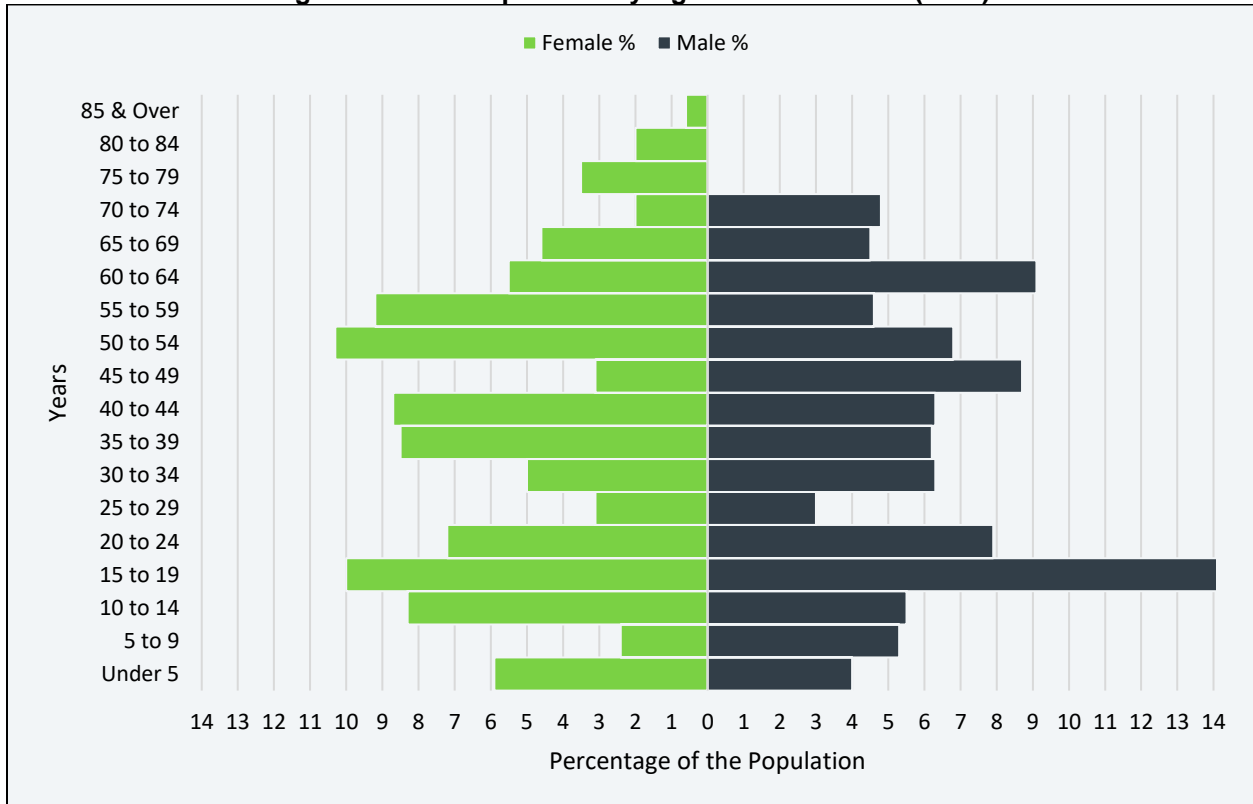
Figure WWD.2: City of Woodward



The young, elderly, and minority populations may be more vulnerable to certain hazards than other groups. Looking at Woodward’s population:

- **16.5% is non-white.** Since 2010, Woodward became more racially diverse. In 2010, 4.7% of the Woodward’s population was non-white. By 2020, 16.5% was non-white.^{2 3}
- **37.5 median age.** The median age of Woodward was 37.5 years old in 2020. The population grew older since 2010, when the median age was 35.6.^{4 5}

Figure WWD.3: Population by Age Cohort and Sex (2020)



Source: U.S. Census Bureau⁴

The figure above shows Woodward’s population percentage broken down by sex and five-year age groups. Woodward’s population is relatively stable with most of the population spread out between different age groups. This indicates that the population is likely to remain stable in the future.

² United States Census Bureau. “2020 Census Redistricting Data (Public Law 94-171): P1: Race.” <https://data.census.gov>.

³ United States Census Bureau. “2010 Census Redistricting Data (Public Law 94-171): P1: Race.” <https://data.census.gov>.

⁴ United States Census Bureau. “2020 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov>.

⁵ United States Census Bureau. “2010 Census Bureau American Community Survey: S0101: Age and Sex.” <https://data.census.gov>.

Employment and Economics

Low-income populations, long distance commuters, and the unemployed may be more vulnerable to certain hazards than other groups. Woodward's population has:

- **13.6% of people living below the poverty line.** The poverty rate (8.5%) in Woodward was higher than the state's poverty rate (11.1%) in 2020.⁶
- **\$27,214 median household income.** Woodward's median household income in 2020 (\$27,214) was about \$34,600 lower than the state (\$61,836).⁷
- **5.4% unemployment rate.** In 2020 Woodward had a higher unemployment rate (5.4%) compared to the state (3.9%).⁸
- **31.2% of workers commuted 30 minutes or more to work.** Fewer workers in Woodward commuted 30 minutes or more to work than workers commuting less than 15 minutes (31.2% compared to 42.3%).⁹

Major Employers

Major employers for the city include Woodward Resource Center and Woodward Academy. According to the local planning team, a large percentage of residents commute to other communities for work, such as Perry, Granger, Des Moines, Minburn, and Dawson.

Housing

The age of housing may indicate which housing units were built prior to the development of state building codes. Vacant housing stock may also be more vulnerable to hazard events if it is poorly maintained. Unoccupied housing may also suggest that future development may be less likely to occur. Communities with a substantial number of mobile homes may be more vulnerable to the impacts of high winds, tornadoes, and severe thunderstorms if those homes are not anchored correctly. Renter-occupied housing depends on the initiative of landlords for proper maintenance and retrofitting to be resilient to disasters. They are less likely than homeowners to have flood insurance, or to know their risks to flooding and other hazards.

- **62.4% of housing built prior to 1970.** Woodward has a greater share of housing built prior to 1970 than the state (62.4% compared to 50.4%).¹⁰
- **2.6% of housing units vacant.** Since 2010, Woodward's vacancy rate decreased. In 2010 the vacancy rate was 8.6%. By 2020, 2.6% of housing units were vacant.^{11 12}

⁶ United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." <https://data.census.gov>.

⁷ United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." <https://data.census.gov>.

⁸ United States Census Bureau. "2020 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." <https://data.census.gov>.

⁹ United States Census Bureau. "2020 Census Bureau American Community Survey: S0802: Means of Transportation to Work by Selected Characteristics." <https://data.census.gov>.

¹⁰ United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov>.

¹¹ United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov>.

¹² United States Census Bureau. "2010 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov>.

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- **1.3% mobile and manufactured housing.** The City of Woodward had a smaller share of mobile and manufactured housing (1.3%) compared to the state (3.6%).¹³
- **18.2% renter-occupied.** The rental rate of Woodward was 18.2% in 2020. The percentage decreased since 2010, when renter occupied housing was at 23.2%.^{14 15}

Governance

A community's governance indicates the number of boards or offices that may be available to help implement hazard mitigation actions. Woodward has a mayor, a five-member city council, and the following offices.

- Clerk/Treasurer
- Attorney
- Chief of Police
- Fire Chief
- Public Works Director
- Airport Authority Chairperson
- City Inspector
- Economic Development Director
- Library Board Chairperson
- GIS/Zoning Administrator

Capability Assessment

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

Table WWD.2: Capability Assessment

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

¹³ United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov>.

¹⁴ United States Census Bureau. "2020 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov>.

¹⁵ United States Census Bureau. "2010 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." <https://data.census.gov>.

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

Table WWD.3: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Moderate
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Plan Integration

The City of Woodward has several planning documents that discuss or relate to hazard mitigation. Each applicable planning mechanism is listed below along with a short description of how it is integrated with the hazard mitigation plan. The city will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Grants and Funding

The City of Woodward's funds are limited to covering maintenance of current facilities and municipal systems only. A large portion of municipal funds are dedicated to the upgrade of current municipal wells. Municipal funds have stayed the same over recent years. The city has applied for and been awarded multiple grants in the last five years.

Capital Improvements Plan (2017)

The capital improvement plan outlines large purchases and projects that the city would like to pursue. Projects identified in the plan include: storm water projects; upsizing culverts and drainage structures; regular maintenance for drainage structures; upgrading storm sewer systems; regular maintenance for the storm sewer system; and installing emergency generators in critical facilities. The plan does not have a current timeline to be updated.

Comprehensive Plan (2017)

The comprehensive plan is designed to guide the future actions and growth of the city. The city's plan contains goals aimed at Safe Growth and identifies areas that need emergency shelters. The city does not have a current timeline to update the plan, but the local planning team has indicated that the next update will limit density in areas adjacent to known hazardous areas, encourage infill development and clustering of development in sensitive areas, and encourage preservation of open space in hazard-prone areas.

Building Code (2021)

The building code sets standards for constructed buildings and structures. The city has adopted the 2021 International Building Codes. These Codes require the elevation of structures and mechanical systems in the floodplain as well as the installation sewer backflow valves for structures in the floodplain. They also outline proper sump pump installation and require onsite stormwater detention for commercial structures. They allow for raingardens in residential areas, encourage the use of hail resistant building materials, and require hurricane clips during construction. Lastly, the Codes require the use of fire-resistant building materials and the use of defensible space around structures built in the extraterritorial jurisdiction.

Zoning Ordinance (2022), Subdivision Regulation (2021)

The Zoning Ordinances are continually updated as needed. They prohibit development within the floodplain and limit population density in the floodplain.

Community Wildfire Protection Plan (2014)

The City of Woodward participated in the Saylorville Flood Plain Community Wildfire Protection Plan (CWPP), which was developed in 2014. The Saylorville floodplain is located along the Des Moines River. The purpose of the CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses area-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies.

Future Development Trends

In the last five years, the Siglin Estates housing development was built in the city. The structure is not located within a floodplain or other hazardous area. In the next five years, the east portion of Woodward will be developed into the Hawks Landing housing development.

Community Lifelines

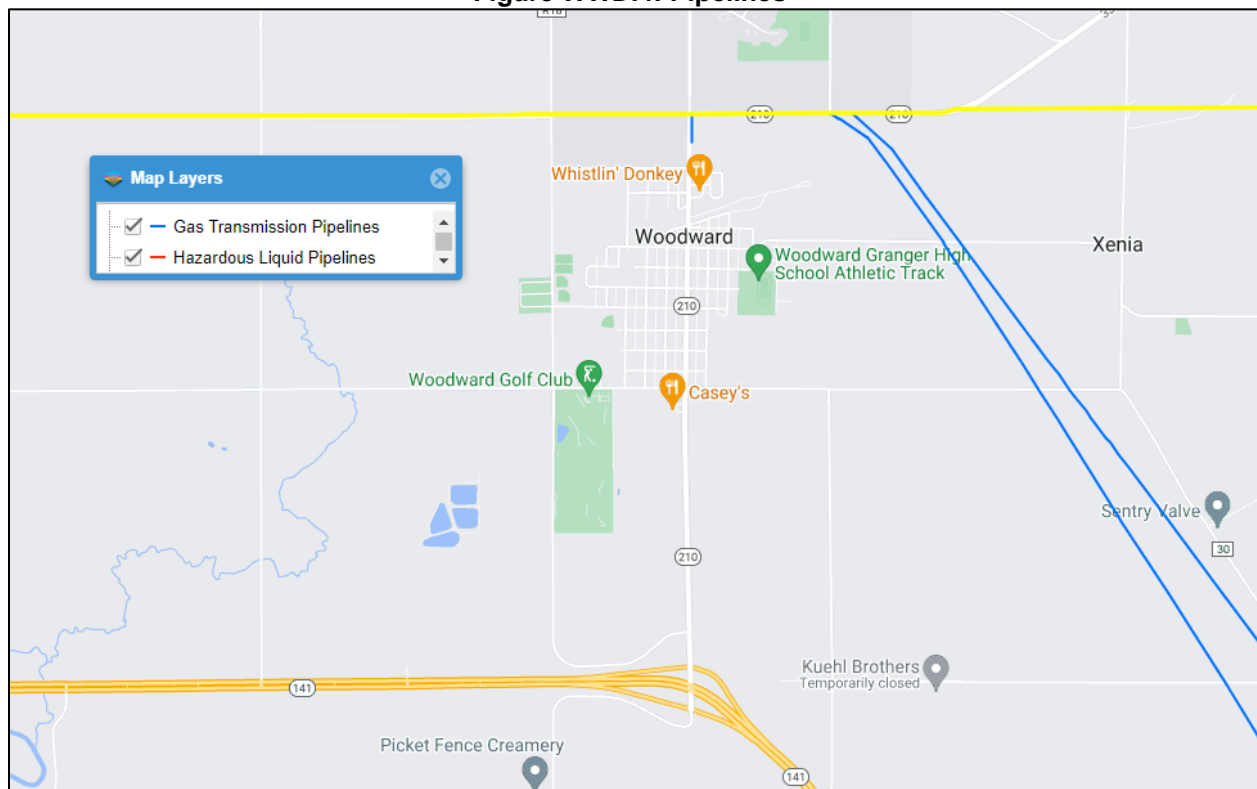
Transportation

Woodward's major transportation corridors include State Highway 210 and 2nd Street. The most traveled route is Highway 210, with an average of 3,400 vehicles daily, 126 of which are trucks.¹⁶ One of the city's critical facilities, the water tower, is located along the main transportation route one block east of highway 210. No chemical spills or other significant transportation events have occurred within the city. The nearest airport, Perry Municipal Airport, is located about 12 miles southwest of Woodward. Transportation information is important to hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk of transportation incidents.

Hazardous Materials

There are gas transmission pipelines that travel near the city and can be seen as blue lines in the figure below.

Figure WWD.4: Pipelines



Source: National Pipeline Mapping System¹⁷

¹⁶ Iowa Department of Transportation. 2020. "Iowa Traffic Data". Accessed May 2022.

<https://iowadot.maps.arcgis.com/apps/MapSeries/index.html?appid=0cce99afb78e4d3b9b24f8263717f910>.

¹⁷ National Pipeline Mapping System. 2022. "Public Viewer." Accessed April 2022. <https://pvnpm.phmsa.dot.gov/PublicViewer/>.

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According to the Tier II System reports submitted to the Iowa Department of Natural Resources, there are two chemical storage sites in Woodward that contain hazardous chemicals. In the event of a chemical spill, the local fire department and emergency response may be the first to respond to the incident.

Table WWD.4: Chemical Storage Sites

Facility Name	Address	Located in Floodplain?
Landus Cooperative - Woodward	110 Railway Street	No
Minburn Telecommunications Inc	108 W 2nd Street	No

Source: Iowa Department of Natural Resources¹⁸

Health and Medical Facilities

According to the Iowa Department of Inspection and Appeals, there are no medical and health facilities located within the community.

Critical Facilities

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

Table WWD.5: Critical Facilities

CF #	Name	Mass Care (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Minburn Communications	N	Y	N
2	Lil' Sprouts Mission	N	N	N
3	Woodward City Hall	Y	N	N
4	Woodward Public Library	Y	N	N
5	Woodward Public Works Building	N	Y	N
6	Woodward Social Center	Y	N	N
7	Hope Wellness Center	N	N	N
8	Woodward Resource Center	Y	Y	N
9	Woodward Fire Station	Y	N	N
10	Woodward Police Department	N	N	N
11	Woodward Academy	Y	N	N
12	Woodward State Hospital	Y	Y	N
13	Woodward Senior Citizens Housing	N	N	N
14	Woodward Senior Citizens Housing	N	N	N
15	Woodward Water Plant	N	Y	N
16	Woodward-Granger High School	Y	N	N
17	Woodward-Granger Middle School	Y	N	N
18	Grandwood Education Center*	N	N	N
19	Woodward Granger Hawk Stadium	N	N	N
20	Minburn Telecommunications, Inc.	N	Y	N
21	West Central Cooperative - Woodward	N	N	N

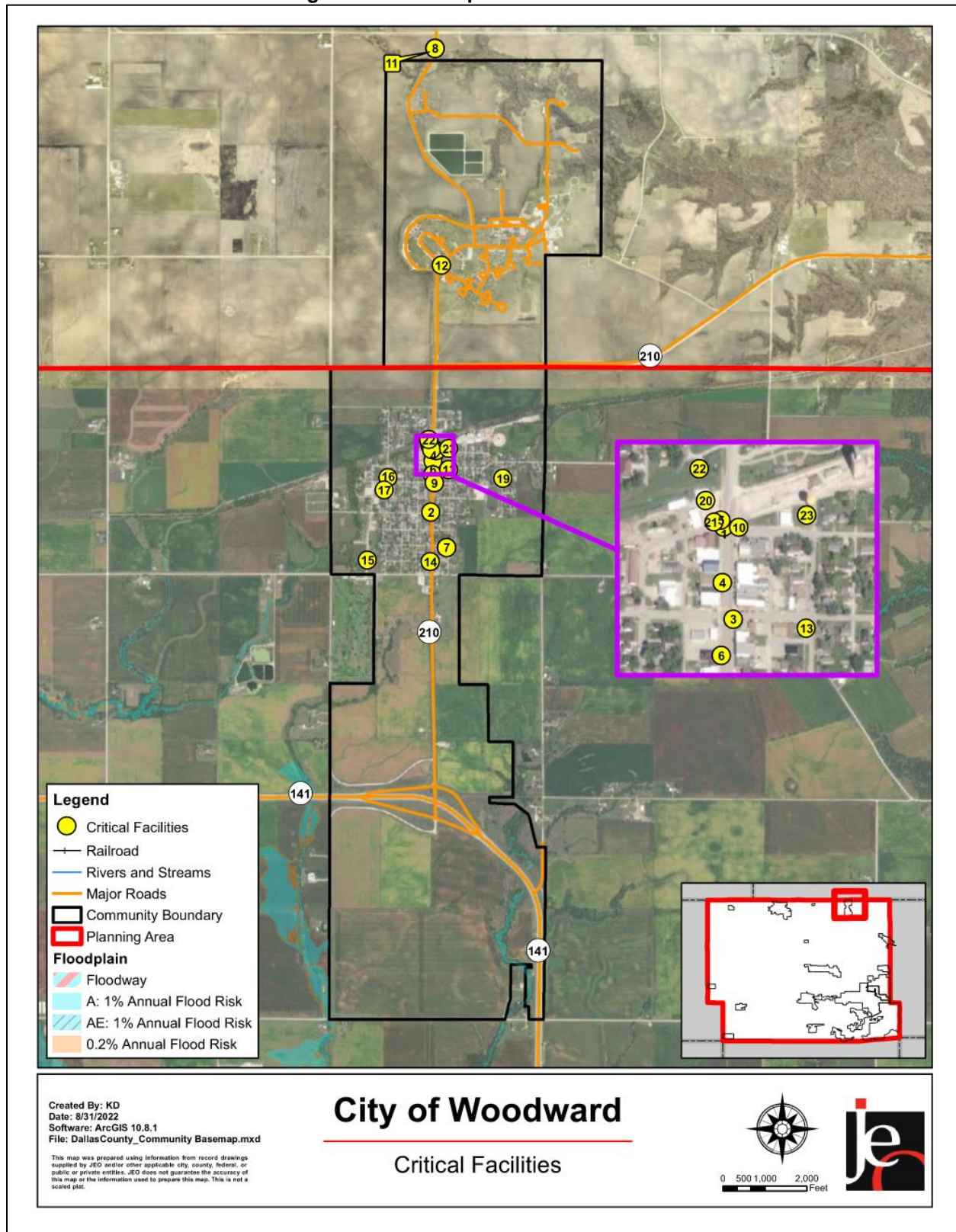
¹⁸ Iowa Department of Natural Resources. 2022. "Emergency Response - Tier II Chemical Storage." Accessed April 2022. <https://facilityexplorer.iowadnr.gov/facilityexplorer/>.

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22	Iowa Electric Power & Light Co - Electric Substation	N	N	N
23	Woodward Water Tower	N	N	N

*Grandwood Education Center is not mapped but is located in the City of Granger.

Figure WWD.5: Map of Critical Facilities



Parcel Improvements and Valuation

The planning team requested GIS parcel data from the County Assessor as of July 2022. This data allowed the planning team to analyze the location, number, and value of property improvements at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following table.

Table WWD.6: Woodward Parcel Improvements and Value in the 1% Annual Flood Risk Area

Total Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	% of Improvements in Floodplain
488	\$70,083,820	0	-	-

Source: County Assessor, 2022

Table WWD.7: Woodward Parcel Improvements and Value in the 0.2% Annual Flood Risk Area

Total Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	% of Improvements in Floodplain
488	\$70,083,820	0	-	-

Source: County Assessor, 2022

Table WWD.8: Woodward Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIS Report	19049CV000B	12/7/2018	Flood Insurance Study
FIS Report	19015CV000A	10/21/2021	Flood Insurance Study

Source: FEMA Flood Map Service Center¹⁹

¹⁹ Federal Emergency Management Agency. 2022. "FEMA Flood Map Service Center." Accessed July 2022. <https://msc.fema.gov/portal/advanceSearch>.

Hazard Prioritization

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

Severe Thunderstorms (Includes Hail and Lightning)

Severe thunderstorms are a regular part of the climate and weather for Woodward. These storms can cause damage through lightning strikes, hail, and high winds. The NCEI reports 14 instances of severe thunderstorms occurring in Woodward from 1998 to 2021. The typical damage seen caused by these severe thunderstorms was toppled trees and power poles or wires due to high winds. These storms caused a total of \$80,000 worth of damage across Dallas County. The local planning team reports experiencing Derecho winds in 2020 that resulted in mass damages to houses and property with downed trees and power loss. Additionally, the NCEI reported 16 instances of hail occurring in Woodward. The hail ranged from 0.88 inches to 3 inches that resulted in \$106,000 of property damage.

The local planning team is highly concerned with severe thunderstorms is acquiring the equipment and manpower required to clean up storm debris. The planning team did not indicate any specific actions or projects implemented to reduce risk and impacts from this hazard. There are no current projects planned for the city to reduce risk of severe thunderstorms either.

Tornado and Windstorm

The local planning team identified tornado and windstorm as a top hazard due to their prevalence in the area and potential for damage and loss of life. Windstorms are common across the county and can cause property and tree damage and brief power outages. Tornadoes are much less common, but the impacts can be far greater. Between 1996 and 2021, the NCEI recorded 31 high wind events in Dallas County and two tornadoes in Woodward. The brief tornado event occurred in August 1997 with an F0 tornado that reportedly damaged \$1,000 worth of crops. The second tornado occurrence was in May 2000 with an F0 tornado that briefly touched down. There were no injuries or other damages were reported. Derechos in 2020 impacted the community and caused power outages, uprooted trees, and damaged structures.

The local planning team's top concerns for this hazard was resulting mass damage to properties. The planning team did not indicate any specific actions or projects implemented to reduce risk and impacts from this hazard. There are no current actions or projects planned for the city to reduce risk of severe thunderstorms either.

A resident from Woodward responded to the public survey and indicated that they would like there to be a central place during a disaster where information on repairs and recovery can be found.

Mitigation Strategy

Continued Mitigation and Strategic Actions

Mitigation Action	Generator Hookup
Description	Install a transfer switch to enable a portable generator to be hooked up to 3 buildings (Police Station, Fire Station, and City Hall) and potentially any above ground shelter that is built. This will allow power to be restored to continue vital functions and provides continuity of services.
Hazard(s)	All hazards
Estimated Cost	\$8,500 per building
Funding	City General Fund, HMA
Timeline	12 months
Priority	High
Lead Agency	City of Woodward
Status	This project is waiting on funding.

Mitigation Action	Public Education and Awareness
Description	The city has a bike trail and campground located where an old trailer park previously existed that has nowhere for people to take shelter during a severe storm. Education on open area safety and where to seek shelter is needed.
Hazard(s)	All hazards
Estimated Cost	\$25,000
Funding	City General Fund, HMA
Timeline	12 months to ongoing
Priority	High
Lead Agency	City of Woodward, Police Department, and Public Works
Status	This project will be completed by October 31, 2022

Mitigation Action	Storm Water Management
Description	By adding properly sized storm sewers in different areas of town it mitigates the damaging effects of a significant rain event.
Hazard(s)	Flooding
Estimated Cost	\$1,006,250
Funding	Storm Sewer User Fees, City General Fund, CDBG, HMA
Timeline	2 years
Priority	High
Lead Agency	Public Works, Clerks, and City Council
Status	This project is on hold due to funding

Removed Mitigation and Strategic Actions

Mitigation Action	Alert/Warning Sirens
Description	Purchase and install at least one warning siren in recently annexed areas.
Hazard(s)	Tornado and Windstorms
Status	Warning apps are available and are more reliable for inside warning.

Mitigation Action	Safe Room/Storm Shelter
Description	Construct an above ground storm shelter with 200-person capacity as well as retrofitting another structure as an underground shelter. By building a large capacity shelter, the city can accommodate large numbers of people, reducing the potential for loss of life. By retrofitting an inground cement container as a shelter the city can offer multiple venues for protection.
Hazard(s)	Tornado and Windstorm
Status	Leadership decision to remove from plan

Plan Maintenance

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

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Mayor, City Council Members, and Community Members. The plan will be reviewed annually. The public will be included in the review and revision process via social media updates and the city websites.