

Community Profile

City of Minburn

**Dallas County
Hazard Mitigation Plan 2023**

Local Planning Team

Table MIN.1: Minburn Local Planning Team

Name	Title	Jurisdiction
Joe Stuetelberg	Mayor	City of Minburn
Dan Case	Fire Chief	City of Minburn
Megan Cline	City Council	City of Minburn

Location and Geography

The City of Minburn is located in north central Dallas County and covers an area of 0.26 square miles. Waterways in the area include Racoon River and Slough Creek.

Demographics

Minburn’s population in 2020 was 325. The following figure displays the historical population trend from 1900 to 2020. This figure indicates that the population of Minburn fluctuated from 1900 to 1930, gradually increased from 1930 to 1980, fluctuated again from 1980 to 2000, and has since seen a decline. A declining population can lead to more unoccupied housing that is not being maintained and is then at risk to high winds and other hazards. Furthermore, with fewer residents, there is decreasing tax revenue for the community, which can make implementation of mitigation projects fiscally challenging. Minburn’s population accounted for 0.3% of Dallas County’s population in 2020.¹

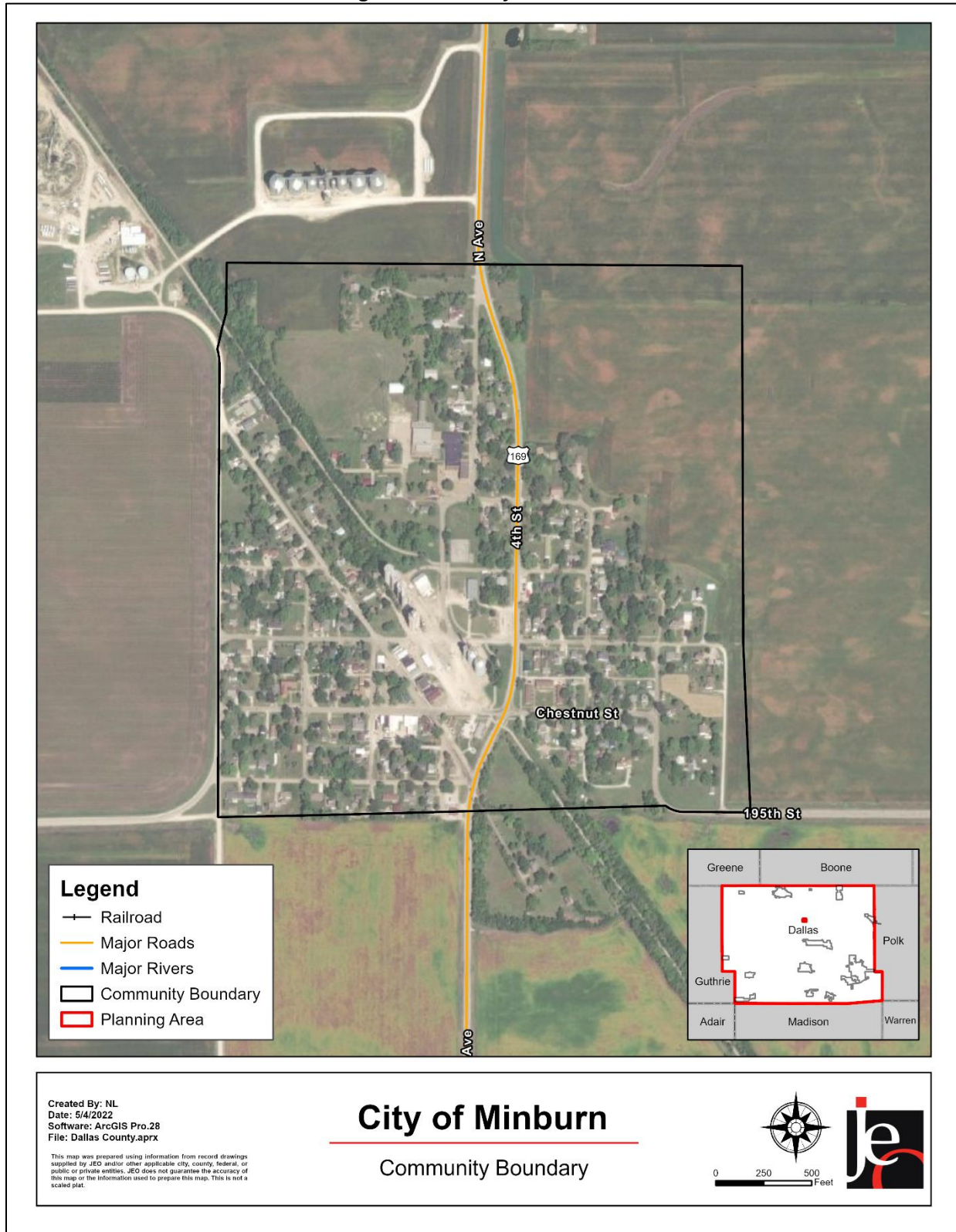
Figure MIN.1: Population 1900 - 2020



Source: U.S. Census Bureau

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

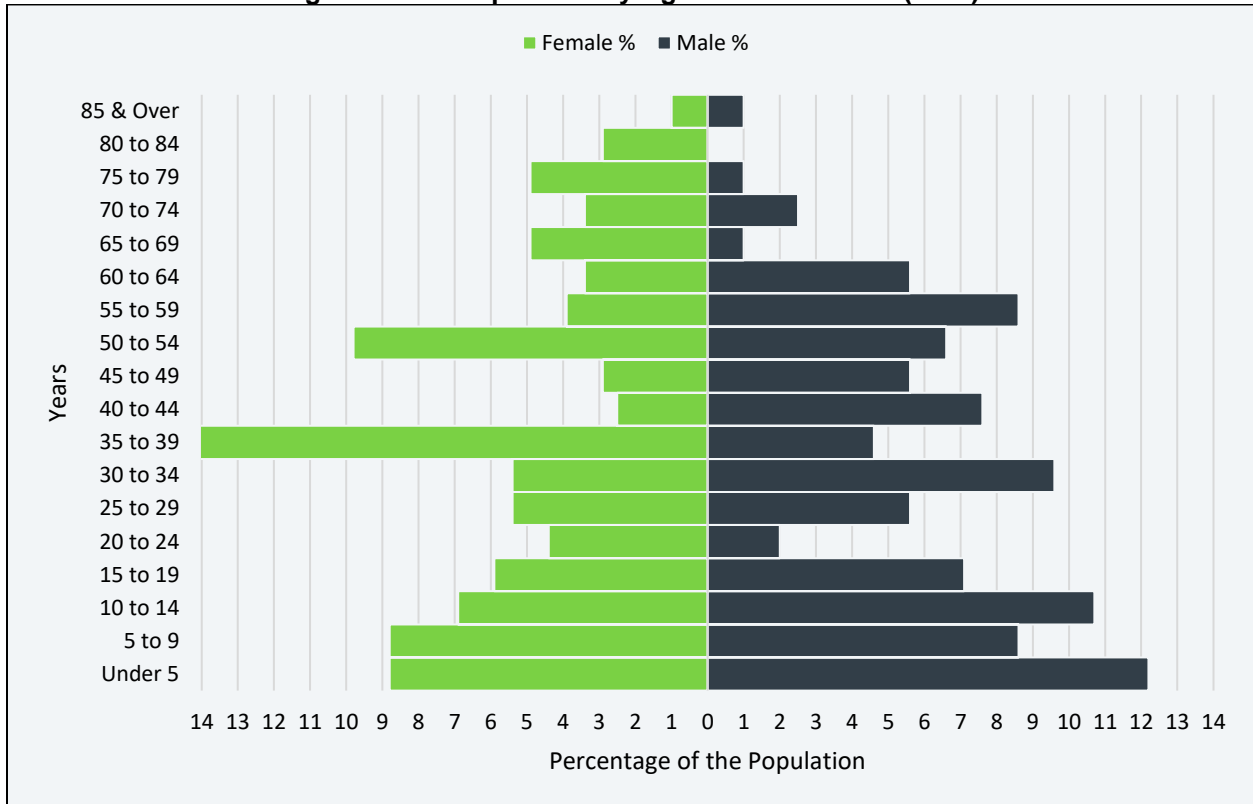
Figure MIN.2: City of Minburn



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

- **3.1% is non-white.** Since 2010, Minburn became more racially diverse. In 2010, 1.9% of the Minburn’s population was non-white. By 2020, 3.1% was non-white.^{2 3}
- **33 median age.** The median age of Minburn was 33 years old in 2020. The population became younger since 2010, when the median age was 45.2.^{4 5}

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



Source: U.S. Census Bureau⁴

The figure above shows Minburn’s population percentage broken down by sex and five-year age groups. Minburn’s population is younger with a higher percentage of the population below 40 years of age. This likely indicates a growing population in the years to come.

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. Minburn’s population has:

- **8 % of people living below the poverty line.** The poverty rate (8%) in Minburn was lower than the state’s poverty rate (11.1%) in 2020.⁶
- **\$59,000 median household income.** Minburn’s median household income in 2020 (\$59,000) was about \$2,800 lower than the state (\$61,836).⁷
- **1% unemployment rate.** In 2020 Minburn had a lower unemployment rate (1%) compared to the state (3.9%).⁸
- **52.8% of workers commuted 30 minutes or more to work.** More workers in Minburn commuted 30 minutes or more to work than workers commuting less than 15 minutes (52.8% compared to 27.3%).⁹

Major Employers

Major employers for the city include Heartland Cooperative, Minburn Communications, Ron Allen Trucking, Veterinary Medical Associates, Minburn Veterinary Clinic, The Nineteen Fourteen, Casa Oaxaca, Hy-Line International, Stine Seed Company, and the City of Minburn. According to the local planning team, a large percentage of the residents commute to other communities for work, such as Des Moines Metro Area, Perry, Dallas Center, and Adel.

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.

- **75.7% of housing built prior to 1970.** Minburn has a greater share of housing built prior to 1970 than the state (75.7% compared to 50.4%).¹⁰
- **16.5% of housing units vacant.** Since 2010, Minburn’s vacancy rate increased. In 2010 the vacancy rate was 0%. By 2020, 16.5% 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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- **4.1% mobile and manufactured housing.** The City of Minburn had a greater share of mobile and manufactured housing (4.1%) compared to the state (3.6%).¹³
- **23.5% renter-occupied.** The rental rate of Minburn was 23.5% in 2020. The percentage increased since 2010, when renter occupied housing was at 18.6%.^{14 15}

The city has between two and three mobile homes spread throughout the community, however there are no mobile home parks.

Governance

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

- Clerk/Treasurer
- Attorney
- Fire Chief
- Library Board Chairperson
- Public Works Director (water/sewer/streets)
- Betterment Committee

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.

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>.

Table MIN.2: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
	Other (if any)	
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year Plan	No
	Applied for grants in the past	Yes
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	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.	Yes
	Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes

Survey Components/Subcomponents		Yes/No
	Natural Disaster or Safety related school programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Table MIN.3: Overall Capability

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

Plan Integration

Minburn 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.

Funding and Grants

The municipal funds for the City of Minburn are limited to maintaining existing facilities and systems. A large portion of the city’s municipal funds are dedicated to servicing debt on depot relocation and renovation. Funds are also dedicated to sanitary sewer system construction. Municipal funds have decreased in recent years. The city has applied for multiple grants including the Dallas County Foundation, Bock Foundation, and FEMA Assistance to Firefighters Grant. Of these grants, the city was awarded the Dallas County Foundation and the Bock Foundation Grants which funded improvement projects involving the Fire Department, City Hall, Betterment Club, and Library.

Emergency Operations Plan (2022)

Emergency Operations Plans are designed to provide procedures for the city to ensure residents and workers are safe during an emergency event. The plan details who the city will do during a disaster including incident command implementation, command center location and activities, and any specific actions city departments need to take to ensure safety of employees and city residents.

Future Development Trends

In the last five years, there have been many new developments in the city. As a result of the Raccoon Valley Trail, new businesses including restaurants and an Airbnb have moved to town. The largest apartment complex in town underwent significant interior/exterior renovations and will be reopened to renters. The Dallas County Freedom Rock was constructed south of the depot and the land in the area has been improved for visitors. The Adel-DeSoto-Minburn school district leased a portion of the former elementary school building to the City of Minburn and the public library relocated to the school complex, allowing for an increase in their collection and programming. Housing turnover resulted in rehabilitation and improvements to the current housing stock throughout the community and new housing construction in the rural areas of the city. City parks have undergone improvements and upgrades.

As of 2022, the café south of the downtown business district is being renovated and a new three-plex business incubator complex is under construction on Highway 169 immediately north of the Heartland Cooperative fuel station. These business locations will be available for leasing.

Community Lifelines

Transportation

Minburn's major transportation corridors include U.S. Highway 169 and County Highway F31. The most traveled route is Highway 169 with an average of 2,290 vehicles daily, 304 of which are trucks.¹⁶ The city Public Works shop, an identified critical facility, is located along Highway F-31 west of town. According to the local planning team, agricultural chemicals such as anhydrous, fertilizers, pesticides, and fuels are regularly transported along local routes. Minor fuel spills have occurred at the Heartland Cooperative and the Fire Department has responded to chemical spills outside of city limits. The 2020 derecho winds cause Highway 169 to be blocked by power lines and trees, causing the highway to be shut down and detours run through town. Minor flooding is a concern of the local planning team but has historically occurred outside city limits.

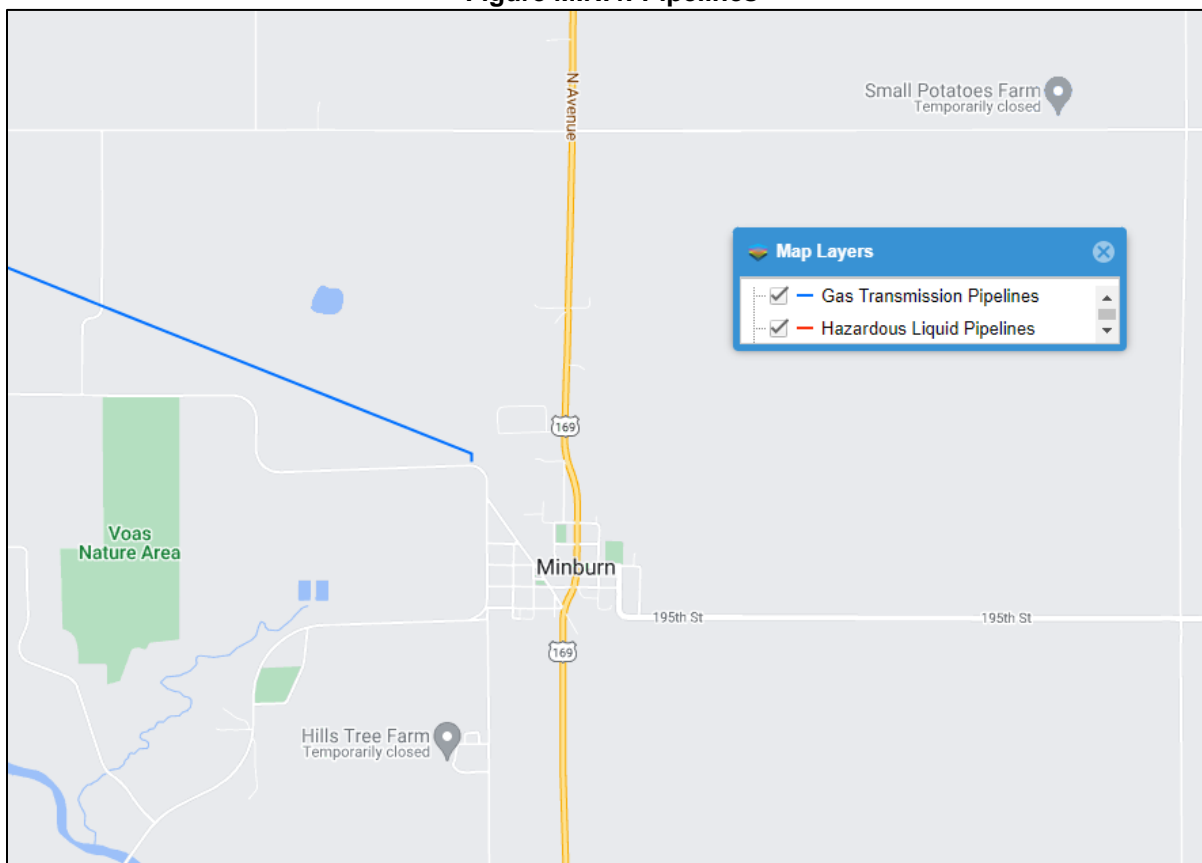
The nearest airport, Perry Municipal Airport, is located about eight miles northwest of Minburn. The Raccoon River Valley Trail intersects the town from Southeast to Northwest. The trail brings thousands of cyclists and other users such as snowmobilers and pedestrians through the community each year. The Fire Department's Rescue unit has responded to several emergency incidents along the trail. 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.

¹⁶ Iowa Department of Transportation. 2020. "Iowa Traffic Data". Accessed May 2022.
<https://iowadot.maps.arcgis.com/apps/MapSeries/index.html?appid=0cce99afb78e4d3b9b24f8263717f910>.

Hazardous Materials

A gas transmission pipeline travels near the city and can be seen as a blue line in the figure below.

Figure MIN.4: Pipelines



Source: National Pipeline Mapping System¹⁷

According to the Tier II System reports submitted to the Iowa Department of Natural Resources, there are three chemical storage sites in Minburn 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 MIN.4: Chemical Storage Sites

Facility Name	Address	Located in Floodplain?
Heartland Co-op Minburn Acres	22709 187th Road	No
Heartland Co-op Minburn Main Location	500 Walnut Street	No
Minburn Telephone Company	416 Chestnut Street	No
Stine Seed Company	22555 Laredo Trail	No

Source: Iowa Department of Natural Resources¹⁸

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

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

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

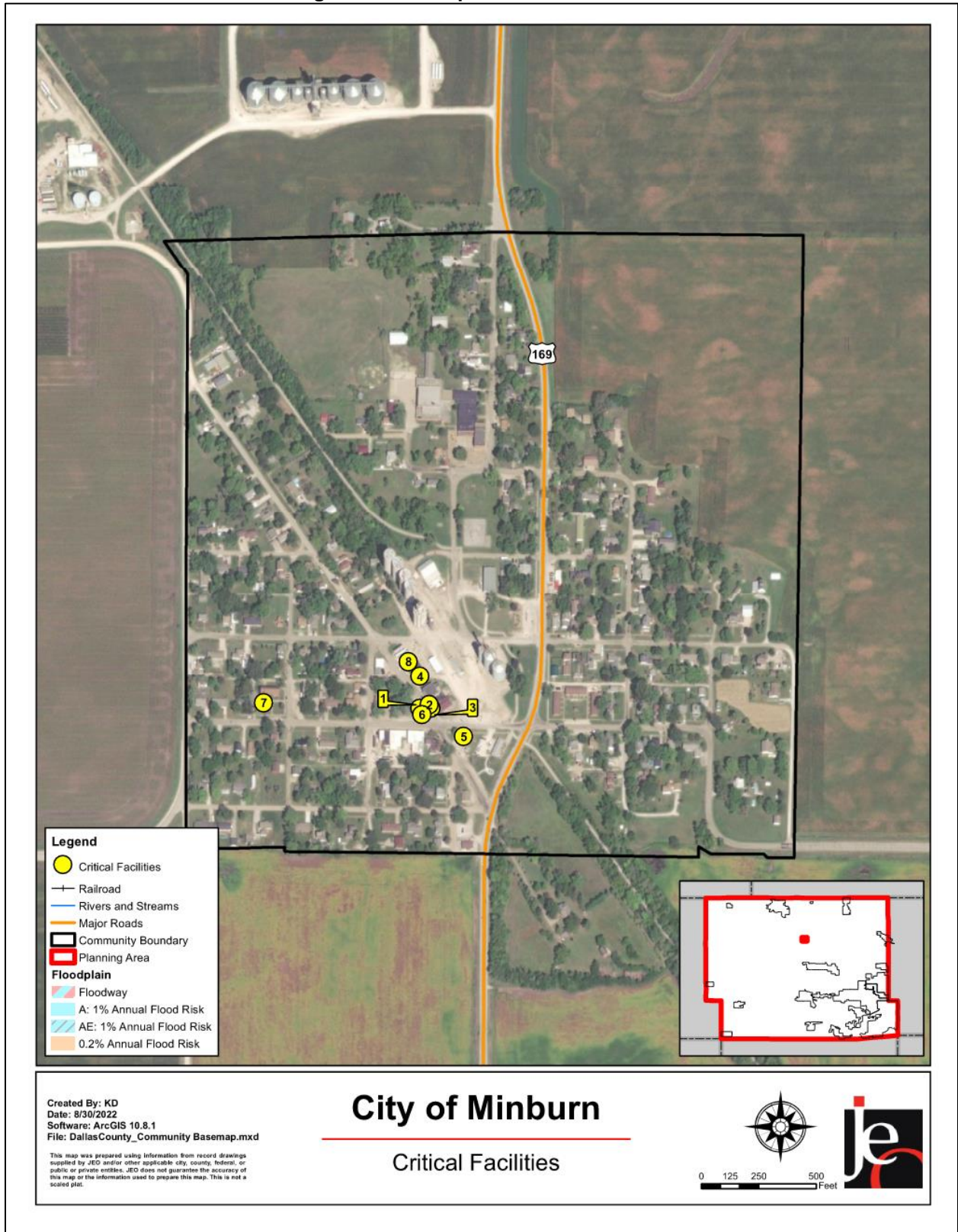
The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original 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 MIN.5: Critical Facilities

CF #	Name	Mass Care (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Minburn City Hall	No	No	No
2	Minburn Public Library (former school)	Yes	No	No
3	Minburn Fire Department	No	Yes (Portable)	No
4	Heartland Co-Op, Minburn Main Location	No	No	No
5	Minburn Communications	No	Yes	No
6	Minburn Water Tower	No	No	No
7	Minburn Methodist Church	Yes	No	No
8	Minburn American Legion	Yes	No	No
9*	Washington Township School	Yes	No	No

**Washington Township School is not mapped but is located approximately four miles southwest of the city.*

Figure MIN.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 MIN.6: Minburn 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
191	\$22,224,840	0	-	-

Source: County Assessor, 2022

Table MIN.7: Minburn 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
191	\$22,224,840	0	-	-

Source: County Assessor, 2022

Table MIN.8: Minburn Flood Map Products

Type of Product	Product ID	Effective Date	Details
FIS Report	19049CV000B	12/7/2018	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*.

Hazardous Materials Release

The city has experienced minor releases of anhydrous ammonia at the Heartland Cooperative's facility north of town. These occur when nurse tanks are not properly shut off or vented when threshold temperatures are reached. The top concern of the local planning team is the storage of significant volumes of chemicals and fuels within their facilities both in town and at Minburn Acres. Concerns are associated with the impact of any potential release or a fire at the facility. To help reduce these risks, the Minburn Fire Department conducts walk throughs of the facility every other year and discusses emergency planning with the cooperative. Additional pre-planning for incident management and running mock drills or exercises with the fire department and other responding agencies are future actions the city can take to reduce risk to the community.

Infrastructure Failure

The city's water distribution system has suffered several broken mains requiring repairs throughout the past five years. The city has issued boil water orders that resulted in the local population having difficulty procuring safe drinking water without boiling water or purchasing bottled water. Due to the fragility of the infrastructure and low flow rates, the fire department is unable to use the water distribution system for fire protection services. In the event of a structure fire within the community, water must be trucked into town via tankers. The lack of fire protection and potential health hazards resulting from a lack of clean, safe drinking water during system breakages is a top concern of the local planning team. In 2021 the water tower standpipe required significant repairs and was fully renovated in 2022. The city has met with an engineering firm to develop a long-range plan for upgrades to the water distribution system. In the future, the city hopes to upgrade or replace the entire water system with projects such as increasing the main connecting the community to the Xenia network, increasing the water main capacity and upgrading hydrants, adding loops to improve flow and mitigate leaks, and possibly replacing the city water tower.

Severe Winter Storms

Severe winter storms are a regular part of the climate and weather for Minburn. Severe winter storms include blizzards, ice accumulation, heavy snow, and winter storms. These storms can cause power outages during bitterly cold temperatures, road closures, and economic impacts. According to the NCEI, there were 79 winter storm events in Dallas County from 1996 to 2021. These events resulted in \$6,613,680 in property damages, with no injuries or deaths reported. Additionally, the USDA Risk Management Agency reported almost \$375,000 in crop damages from severe winter storm events from 2000 to 2021.

Significant concerns identified by the local planning team are pro-longed power outages that impact residents through loss of heat, food, or other needs. Another concern is that some smaller facilities in town have generators for power, but locations that are designated as potential mass-care shelters do not have generators. To reduce risk to the community, the city has identified potential shelter locations. Securing a location with a permanent generator or a portable generator that can heat a warming center is a potential project for the future to reduce risk.

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 four tornados in Minburn. The first occurred in 2000 with a brief F0 tornado touching down in open country, resulting in no reported damage. In 2005, a tornado event with a total of eleven tornado resulted in a total of \$2,500,000 of damage, one tornado touched down one mile west of Minburn and produced F0-F1 damage. In 2014 an EF0 tornado touched down in rural area and resulted in minimal damage. The final tornado occurred in 2019 and was rated an EFU. This tornado did not produce any damage and remained in open cropland east and northeast of Minburn. The planning team's top concerns include sufficient warning and notification and the potential impacts to homes and business owners and infrastructure. According to the local planning team, the community has felt notable impact from the 2020 derecho which resulted in significant damage to structures, trees, and electrical infrastructure. The Heartland Cooperative complex north of town required the reconstruction of several grain bins that were destroyed by the derecho. Several homes required repair and tree debris removal was required.

To minimize the effects of tornadoes and windstorms, the city's emergency operations plan was updated to improve the city's response to this hazard. The city has promoted Dallas County's RAVE alerting system to residents to ensure adequate warning times are received. Two storm sirens have been installed in the city, with one still functioning. Upgrading the city's outdoor warning sirens will help reduce risk to the community.

Mitigation Strategy

New Mitigation and Strategic Actions

New Mitigation Action	Backup Generator for Shelter Location
Description	Additional planning, including securing a location with generator power (or a portable generator that could be sufficient to heat a warming center) are potential projects to consider.
Hazard(s)	All hazards
Estimated Cost	\$15,000
Funding	City General Fund, HMA
Timeline	1-2 Years
Priority	Medium
Lead Agency	City Hall

New Mitigation Action	Pre-planning/Mock Drills for Hazardous Material Incidents
Description	Additional pre-planning of how to manage an incident would be a useful activity to pursue, particularly for the fire department and other responding agencies. A mock drill or exercise may also be useful.
Hazard(s)	Hazardous Materials Release
Estimated Cost	\$200
Funding	City General Fund, HMA
Timeline	1-2 Years
Priority	Medium
Lead Agency	Fire Department

New Mitigation Action	Storm Siren
Description	The city has two storm sirens but only one functions. The city is considering an upgrade to the towns outdoor warning sirens. Replace with newer technology that will better integrate with county's automated siren infrastructure.
Hazard(s)	Tornado and Windstorm
Estimated Cost	\$30,000
Funding	City General Fund, HMA, Grants
Timeline	1-2 Years
Priority	Medium
Lead Agency	City Hall

New Mitigation Action	Water System Upgrade/Replacement
Description	The city's water system needs a significant upgrade/replacement, including increasing the size of the main feeding the community from the Xenia network; increasing water main capacity and upgrading hydrants within the community; adding "loops" to the water mains to improve flow and mitigate against leaks; and potentially even considering replacement of the city's water tower to improve capacity and pressure of the system.
Hazard(s)	All Hazards
Estimated Cost	\$10,000,000-\$15,000,000
Funding	City General Fund, HMA, Grants
Timeline	3-5 Years
Priority	High
Lead Agency	City Hall
Status	Engineering study is underway.

Continued Mitigation and Strategic Actions

Mitigation Action	Public Awareness and Education
Description	Outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards.
Hazard(s)	All hazards
Estimated Cost	\$1,000-\$2,000
Funding	City General Fund, HMA
Timeline	1 year
Priority	High
Lead Agency	City Hall
Status	The Fire Department has started to make better use of social media to share helpful tips and information to assist the community in preparation for hazards. The city set up a Minburn specific RAVE alerting group so that city officials can better communicate emergency information to residents.

Removed Mitigation and Strategic Actions

Mitigation Action	Generator Hookup at City Hall
Description	Install a transfer switch to enable a portable generator to be hooked up to City Hall. Have a qualified electrician install the switch.
Hazard(s)	All hazards
Reason for Removal	This project was never started and currently is not on hold. It is not a high priority project at this time.

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Mitigation Action	Safe Room
Description	Construct a safe room by the Depot (once moved to the trail head)
Hazard(s)	Tornado, Severe Thunderstorm
Reason for Removal	The city is currently in the process of selling the depot to a private owner.

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, the City Clerk, and the Fire Chief. The plan will be reviewed annually. The public will be included in the review and revision process via city newsletters, social media, and city council meetings.