



LAFAYETTE COUNTY HAZARD MITIGATION PLAN

2022-2027

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This hazard mitigation plan is owned by Lafayette County Emergency Management.
Plan support was provided by Southwestern Wisconsin Regional Planning Commission.

Executive Summary

What is Hazard Mitigation Planning?

A hazard is a situation that poses a threat to the life, health, prosperity, or the environment of a community. Hazard Mitigation is any sustained action taken to eliminate or reduce the long-term risk to human life and property from natural and technological hazards. The objective of this plan is to explore which hazards pose the greatest risk to Lafayette County and recommend action to mitigate future risk.

According to the Disaster Mitigation Act of 2000, local governments must prepare, adopt, and update a Hazard Mitigation Plan in order to be eligible for post-disaster FEMA assistance. This plan works to assess risk, decrease impact, and prevent future damages. The organization and contents of this plan are driven by the requirements of the FEMA and the input of local residents.

Lafayette County's Planning Process

The county prepared its previous hazard mitigation plan in 2016. Lafayette County Emergency Management (LCEM) and Southwestern Wisconsin Regional Planning Commission (SWWRPC) guided the development of the 2022 plan update through existing knowledge of the communities, research, and local input. Local input was gained through three public meetings and two stakeholder meetings. Chapter 1 outlines the methods, participants, and practices used to develop the plan.

Lafayette County Hazard Mitigation Goals

The following goals describe the desired long-term outcomes from hazard mitigation planning:

- Protect human lives and ensure environmental health, both today and for future generations, and empower people to protect themselves.
- Protect utilities, infrastructure, and critical facilities, including police, fire, and EMS stations.
- Build resilience to long-term risks through collaboration and proactive planning and action.
- Maximize the use of state and federal funds and promote county-wide planning that invests in reduction of future risk, and which avoids transferring risk from one community to another.

Action Recommendation Development

Chapters 5 and 6 outline local and county-wide action recommendations. These actions were developed by the planning team with input from stakeholders, local officials, and local residents. The actions intend to reduce or avoid long-term vulnerabilities to the people, economy, infrastructure, and environment of Lafayette County. Each action was developed with a brief description of priority, expense, responsibility, and timeline to accomplish.

Approval and Implementation

The completed plan was sent to Wisconsin Emergency Management (WEM) on September 19th, 2022. Following approval by WEM and FEMA, the plan was adopted at the county level on December 20th, 2022. After the county adopted the plan, cities and villages within the county had one year to adopt the plan. Adoption of this plan provides Lafayette County a framework of actions to prioritize hazard mitigation. Using the plan, the county and local communities will coordinate to undertake the identified actions.

Chapter 1: Plan Goals and Process

Purpose of the Plan

Every natural disaster takes a toll on the social, environmental, and economic well-being of local communities and residents. Many natural disasters have occurred in Lafayette County, including heavy snows and ice storms in 1976 and 2011; drought in 1976; heavy rains and flooding conditions in 1969, 1978, 1990, 1993, 2000, 2004, 2008, and 2017; and the COVID-19 pandemic beginning in 2020. This plan works to address the many hazards Lafayette County is susceptible to and mitigate the potential damages from those hazards.

Hazard Mitigation Goals

The following goals describe the desired long-term outcomes from hazard mitigation planning:

- Protect human lives and ensure environmental health, both today and for future generations, and empower people to protect themselves.
- Protect utilities, infrastructure, and critical facilities, including police, fire, and EMS stations.
- Build resilience to long-term risks through collaboration and proactive planning and action.
- Maximize the use of state and federal funds and promote county-wide planning that invests in reduction of future risk, and which avoids transferring risk from one community to another.

Disaster Mitigation Act of 2000

The development and update of the Lafayette County Hazard Mitigation Plan is a response to the passage of the Disaster Mitigation Act of 2000 (DMA), which was signed into law on October 30th, 2000, with the **goal of reducing losses and future public and private expenditures and improving response and recovery from disasters**. This act, Public Law 106-390, amended the Robert T. Stafford Relief and Emergency Assistance Act. The following is a summary of the portions of the DMA that relate to local governments:

- Local governments and tribal organizations must prepare a multi-hazard mitigation plan in order to be eligible for funding from the FEMA Pre-Disaster Mitigation Assistance Program and Hazard Mitigation Program.
- Natural hazards need to be addressed in a risk assessment and vulnerability analysis sections of the multi-hazard mitigation plan. Assessment of human-caused hazards such as hazardous waste spills is encouraged but not required.
- Authorizes up to seven percent of Hazard Mitigation Grant Program funds available to a state following a federal disaster declaration to be used for development of state, local, and tribal organization multi-hazard mitigation plans.
- Without an up-to-date multi-hazard mitigation plan, local governments and tribal organizations cannot obtain funds from the Pre-Disaster Mitigation Grant Program.

Local Context

In order to comply with Section 322 of the Disaster Mitigation Act of 2000 and qualify for future hazard mitigation grant awards, Lafayette County must develop a county-wide hazard mitigation plan. LCEM received a Building Resilient Infrastructure and Communities (BRIC) program planning grant from WEM

in February of 2022. In March of 2022, LCEM partnered with SWWRPC to complete the update to the Lafayette County Hazard Mitigation Plan.

Per FEMA requirements, this hazard mitigation plan includes a description of the following:

Planning Process: A general description of the purpose of the plan and what is included in the plan. This section includes an identification of the county and municipalities included in the plan, a description of plan development, public involvement and input process, and coordination with other plans.

Planning Area: A description of the geography of the planning area. This section documents the demographic and economic characteristics of the planning area.

Risk Assessment: Includes a hazard identification and a risk/vulnerability assessment. Each of the hazards affecting the planning area are addressed in the risk assessment. The risk assessment documents the history and impact of the hazard's occurrence in the planning area, the vulnerability of the planning area to each risk, and the probability and potential cost associated with future occurrences.

Mitigation Strategy: Incorporates the mitigation goals, actions, and projects into the local communities and county-wide. Strategies identify how the mitigation goals identified will be prioritized, implemented, and administered by the local jurisdictions in Lafayette County.

Plan Maintenance Process and Adoption: Describes the method and schedule that will be used to monitor, evaluate, review progress, make revisions and update the Mitigation Plan within a five-year cycle and how public participation will be sought in this plan maintenance process. The plan approval process describes and documents how the plan was formally adopted by the governing bodies within the planning area.

Work on the Lafayette County Multi-Hazard Mitigation Plan began in March 2022. FEMA and WEM determined the plan met requirements on November 4th, 2022. The plan was adopted by the Lafayette County Board on December 20th, 2022.

Planning Process

Planning Team

The first step in the planning process was to identify and organize a planning team made up of professional staff and county officials with expertise related to effective planning and hazard mitigation. See Table 1 for a list of planning team members and their organizational affiliation. Planning team members met throughout the planning process to review the previous plan, prepare and review outreach efforts, and work on developing strategies for the updated 2022 Plan.

Table 1 - Hazard Mitigation Planning Team	
Name	Title
Theresa Burgess	Director, LCEM
Troy Maggied	Executive Director, SWWRPC
Ellen Tyler	Community Resiliency Planner, SWWRPC
Matt Honer	Senior Planner, SWWRPC

Outreach

The planning team prioritized the need for community outreach in creating a successful hazard mitigation plan. In order to create plans that result in useful action, a planning process should involve both those with knowledge about needed actions, as well as those who have agency to implement those actions. To accomplish this, the planning team convened a stakeholder group for two workshop sessions and gathered input from local representatives and residents during three public meetings, as described in the following paragraphs. See Appendix A for dates, attendance, and content of the stakeholder group and public meetings.

Stakeholder Group

A stakeholder group was convened by the planning team to gather an informed perspective on the many facets of community life in Lafayette County. This group was comprised of interdisciplinary community leaders with a variety of knowledge domains, ranging from school district superintendents to local non-profit leaders. The planning team also made an effort to include Hispanic and Amish representatives in the stakeholder group. The Amish community declined to participate but has a strong internal community network to pursue their desired mitigation actions. See Table 2 for a list of stakeholder group members and their organizational affiliation. Members of this group met for two workshop sessions, once before and once after the public meetings, and they each attended one of the public meetings.

Table 2 - Hazard Mitigation Stakeholder Group	
Name	Organization
Ashley Kleiber	Pec Time Tubing, Inc.
Beau Buchs	Belmont Community School District
Cale Jackson	Darlington Community School District
Dan Rielly	Lafayette County Highway Dept.
Dionicio Aleman	Mexican Cheese Producers, Inc.
Erica Sauer	Lafayette County Land Conservation and Planning & Zoning
Jason King	Darlington Police Department
Jeremy Williams	Darlington Public Works Department
Josh Kamps	UW Extension-Lafayette County
JR Kingery	Gratiot Fire and EMS
Julie Leibfried	Lafayette County Health Department
Keith Hurlbert	Iowa County Emergency Management
Max Blackbourn	Lafayette County Land Conservation and Planning & Zoning
Nick Webster	WI DNR - Division of Public Safety and Resource Protection
Scott Buttchen	Darlington Community Fire Department

Municipal Representatives

Each municipality participating in the plan was required to send at least one representative to a hazard mitigation public meeting. At the public meetings, representatives moved through five stations where they learned about and provided input related to the following topics: previous hazard events in the county, future hazard risk, identification of local assets and risks based on community-specific maps, vulnerable populations, flooding, tornadoes and severe storms, strategies for action, and climate change.

Table 3 – Participating Jurisdictions and Community Representatives		
Community	Name, Title	Meeting Attended
Town of Argyle	Larry Flannery, Chairman	July 19 th , Argyle
Town of Argyle	Terry Hawkinson, Supervisor	July 19 th , Argyle
Village of Argyle	Thomas Moore, President	August 11 th , Platteville*
Town of Belmont	Pete Bonin, Chairman	June 21 st , Belmont
Town of Belmont	Julie McGuire, Clerk	June 21 st , Belmont
Village of Belmont	Brad Bockhop, President	June 21 st , Belmont
Village of Belmont	Julie Abing, Clerk/Treasurer	June 21 st , Belmont
Village of Belmont	Kathy Riechers, Trustee	June 21 st , Belmont
Village of Belmont	Dennis Popp, Trustee	June 21 st , Belmont
Town of Benton	Ronald Wallenhorst, Supervisor	June 21 st , Belmont
Village of Benton	Gary McCrea, President	June 21 st , Belmont
Town of Blanchard	Barbara Geissbuhler, Supervisor	July 19 th , Argyle
Village of Blanchardville	Amy Barnes, Clerk/Treasurer	July 19 th , Argyle
City of Darlington	Ray Spellman, Alderman	June 21 st , Belmont
Town of Darlington	Robert Gabel, Supervisor	July 21 st , Darlington
Town of Elk Grove	Duane Klein, Supervisor	June 21 st , Belmont
Town of Fayette	Bob Hermanson, Chairman	July 19 th , Argyle
Town of Gratiot	Tim Halbach, Supervisor	July 21 st , Darlington
Village of Gratiot	Chris McGlynn, Clerk/Treasurer	July 21 st , Darlington
Village of Gratiot	Drew McGlynn, Village Trustee	July 21 st , Darlington
Town of Kendall	Mark Rehmstedt, Chairman	July 21 st , Darlington
Town of Lamont	Steve Fleming, Supervisor	July 21 st , Darlington
Town of Monticello	Theresa Burgess, Clerk/Treasurer	June 21 st , Belmont
Town of New Diggings	Ronda Pedley, Clerk	July 21 st , Darlington
Town of Seymour	Tim McComish, Chairman	June 21 st , Belmont
City of Shullsburg	Verne Jackson, Mayor	July 21 st , Darlington
Town of Shullsburg	Ted Wiegel, Chairman	July 21 st , Darlington
Village of South Wayne	Phil Carroll, Clerk	July 21 st , Darlington
Town of Wayne	Louis Schulz, Chairman	July 21 st , Darlington
Town of White Oak Springs	Becky Upmann, Clerk	July 21 st , Darlington
Town of Willow Springs	Virginia Burbach, Clerk	June 21 st , Belmont
Town of Wiotia	Vickie Pratt, Clerk	July 19 th , Argyle

*An additional meeting was held in Platteville with the public meeting material to ensure all municipalities could be included in the planning process.

Public Outreach

In addition to the municipal representatives and stakeholder group members, the general public was invited to participate in the public meetings. Flyers for the public meetings were distributed by planning team members, stakeholder group members, and every municipal clerk in the county (Appendix A). In addition, press releases about the meetings were run in local newspapers. All attendees followed the same exercises as the municipal representatives (described above). Attendance over the three public meetings of municipal representatives, stakeholder group members, and the general public totaled 50 people.

Public Comment

The plan was made available to the public via the LCEM website on September 19th, 2022. Municipal clerks were notified of the opportunity to send proposed revisions and comments, and were encouraged to review the sections of the plan most relevant to them, at a minimum. All edit suggestions were reviewed by the planning team and incorporated into the plan as appropriate. The plan was presented for public comment and official adoption at the Lafayette County Board Meeting on December 20th, 2022.

Incorporated Plans

The following is a list of references used to determine planning area characteristics, identify risk, and develop strategies for this plan.

- Wisconsin State Hazard Mitigation Plan (2021)
- State of Wisconsin Threat and Hazard Identification and Risk Assessment (2021)
- Lafayette County Hazard Mitigation Plan (2016)
- Lafayette County Emergency Response Plan
- Darlington Comprehensive Plan Process (2022)
- Shullsburg Comprehensive Plan Process (2022)
- Hazardous Material Strategic Plan
- Monroe County Climate Readiness and Rural Economic Opportunity Assessment – Wisconsin’s Green Fire (2022)
- Wisconsin’s Changing Climate: Impacts and Solutions for a Warmer Climate – WICCI (2021)

Current Mitigation Efforts

Assistance Programs: According to LCEM, the county coordinates state and federal disaster relief assistance to victims in affected areas. This assistance could include the Individual and Households Program, the Small Business Administration's loan programs, FEMA Public Assistance, Wisconsin Disaster Fund and various other disaster relief programs available for both presidential declared and non-presidential declared disasters.

Education and Outreach: Since the early 1990s, an annual state-wide Tornado and Severe Weather Awareness Week is practiced in March or April. Among other events, this week includes extensive public education through the media, as well as a tornado safety drill in all county facilities. Media information packets and social media posts re-emphasize and alert the public to tornado warning procedures. Lafayette County Emergency Management regularly meets with local governments to educate and inform residents about emergency response and hazard mitigation.

Emergency Response and Mutual Aid: Initial emergency response in Lafayette County is the responsibility of the full-time sheriff and police agencies. However, these agencies have a limited number of personnel on duty at any given time and are spread over a wide land-area. Local community fire and EMS services are often initial responders. Emergency services, including fire and EMS manned by volunteers, are located in every area throughout the county as well as neighboring communities that provide services to areas within Lafayette County. Currently, all local fire departments within Lafayette County maintain a formal mutual aid agreement through the Mutual Aid Box Alarm System (MABAS), as does LCEM through the Wisconsin Statewide Mutual Aid Compact for Emergency Management (WiSMAC) agreement with surrounding county emergency management departments. LCEM also has access to incident management teams through WEM and WIDNR. Police have access to the Emergency Police Services (EPS) system through Wisconsin Emergency Management.

Warning Systems: An effective warning system is the single most important method for alerting the public of severe weather hazards. In addition to the use of local radio stations and National Oceanic and Atmospheric Administration (NOAA) weather radio warnings, LCEM uses warning sirens and Emergency Mass Notification Systems to broadcast warnings. Below are more detailed explanations of each:

Local Two-Way Radio: Radio is used to link all police, fire, and EMS agencies within the county to one another and the Sheriff's Communications Center. The communications center provided by the county is the core to the county's public safety two-way communications and paging system on multiple channels.

The county-hosted two-way radio communication system links all highway vehicles and is available to interested towns and villages, while Lafayette County cities also have individual two-way radio systems for local use.

National Oceanic and Atmospheric Administration: NOAA Weather Radio continuously broadcasts National Weather Service (NWS) forecasts, warnings, and other critical weather information. NOAA Weather Radio also provides direct warnings to the public for natural, man-made, or technological hazards, and it is the primary trigger for activating the national Emergency Alert System on commercial radio, television, and cable systems.

Mass Notification: Lafayette County uses a mass notification. It is free of charge and can send email, voice, and/or text messaging emergency notifications. This public safety alert system provides notices regarding weather safety, road safety, or other notices pertaining to keeping the public informed and safe.

Sirens: Warning sirens are located in every city and village in Lafayette County. Some have more than one. Significant development in townships and unincorporated areas means that much of the recent development in Lafayette County is being done outside of the reach of warning sirens. Warning sirens are tested and maintained by individual municipalities.

National Flood Insurance Program Participation (NFIP): Table 4 lists the jurisdictions that participate in NFIP. Participating in this program requires the jurisdiction to follow state and federal floodplain zoning requirements and undertake substantial damage analysis following natural hazard events. Townships participate through the county.

Table 4 - National Flood Insurance Program Participating Jurisdictions ¹	
Community	Participation
Lafayette County	Yes
Village of Argyle	Yes
Village of Belmont	Yes
Village of Benton	Yes
Village of Blanchardville	Yes
Village of Gratiot	Yes
Village of South Wayne	Yes
City of Darlington	Yes
City of Shullsburg	Yes

Existing Policies, Procedures, and Ordinances: Lafayette County has a Floodplain Zoning Ordinance that regulates floodplain development throughout the townships and is administered by the county planning and zoning department. All cities and villages have their own floodplain zoning ordinances that are administered at the municipal level. Additional ordinances regarding shore land protection at the county level mitigate potential flooding risks. Lafayette County and the municipalities within the county also follow the Wisconsin Uniform Dwelling Code which requires all buildings be built to coded specifications. No municipality in Lafayette County is required to utilize a Municipal Storm water system permit and no municipalities currently have an ordinance or permit.

Emergency operations plans identify local government official roles and responsibilities before, during, and after hazard events. The only community in Lafayette County with an up-to-date (completed in the last five years) Emergency Operations Plan (EOP) is the City of Darlington. When asked about an EOP, many communities were unsure whether there was any previous plan in existence, indicating that activity around the topic has likely been low in the past five years. In the action recommendation section for each municipality, those without an EOP have a corresponding action recommendation.

¹ FEMA. Community Status Book Report for Wisconsin. Accessed on 8/26/2022 via <https://www.fema.gov/cis/WI.pdf>.

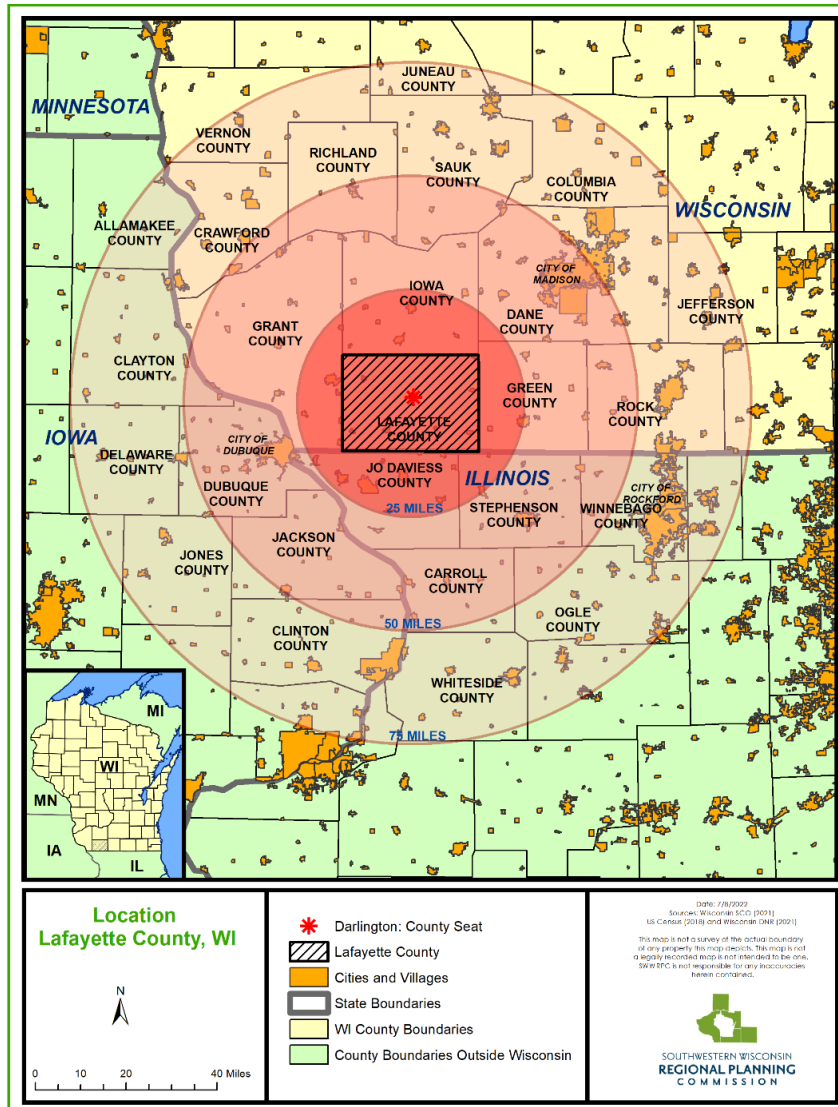
According to the Wisconsin Comprehensive Planning Law, all communities in Lafayette County that wish to adopt land use regulation are required to have comprehensive plans that address issues related to the following list of elements. Within these elements, communities are able to create and implement policies, procedures, and ordinances on hazard mitigation.

1. Issues and Opportunities
2. Housing
3. Transportation
4. Utilities and Community Facilities
5. Agricultural, Natural and Cultural Resources
6. Economic Development
7. Intergovernmental Cooperation
8. Land Use
9. Implementation

Chapter 2: Planning Area

Lafayette County is a rural county located in southwestern Wisconsin. It is approximately 633.59 square miles, of which approximately 2 square miles are water (lakes, streams, or rivers).² The county is bordered by Grant, Iowa, and Green Counties in Wisconsin, and the Illinois Counties of Jo Daviess and Stephenson to the south. Figure 1 shows the location of Lafayette County in the context of surrounding states, counties, and large cities. The estimated population based on the 2020 census was 16,611³.

Figure 1: Lafayette County Location⁴



² U.S. Census Bureau (2011). *2010 Decennial Census*. <https://data.census.gov/cedsci/>, Lafayette County (2015). *Lafayette County Outdoor Recreation Plan*.

³ U.S. Census Bureau (2021). *2020 Decennial Census*. <https://data.census.gov/cedsci/>.

⁴ U.S. Census Bureau (2021). *Cities and Villages*. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.

U.S. Census Bureau (2021). *Counties*. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.

U.S. Census Bureau (2021). *States*. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.

Physical Geography

Lafayette County is located in a portion of Wisconsin called the “Driftless Area” because it was not covered by glaciers during the last glaciation. Without glaciers, many hills and valleys remain intact in the area when they were eroded to the north and east of the region. The resulting topography has some of the most diverse and distinct elevation changes in the state. The highest point in Lafayette County is North Platte Mound with an elevation of 1440 feet.⁵

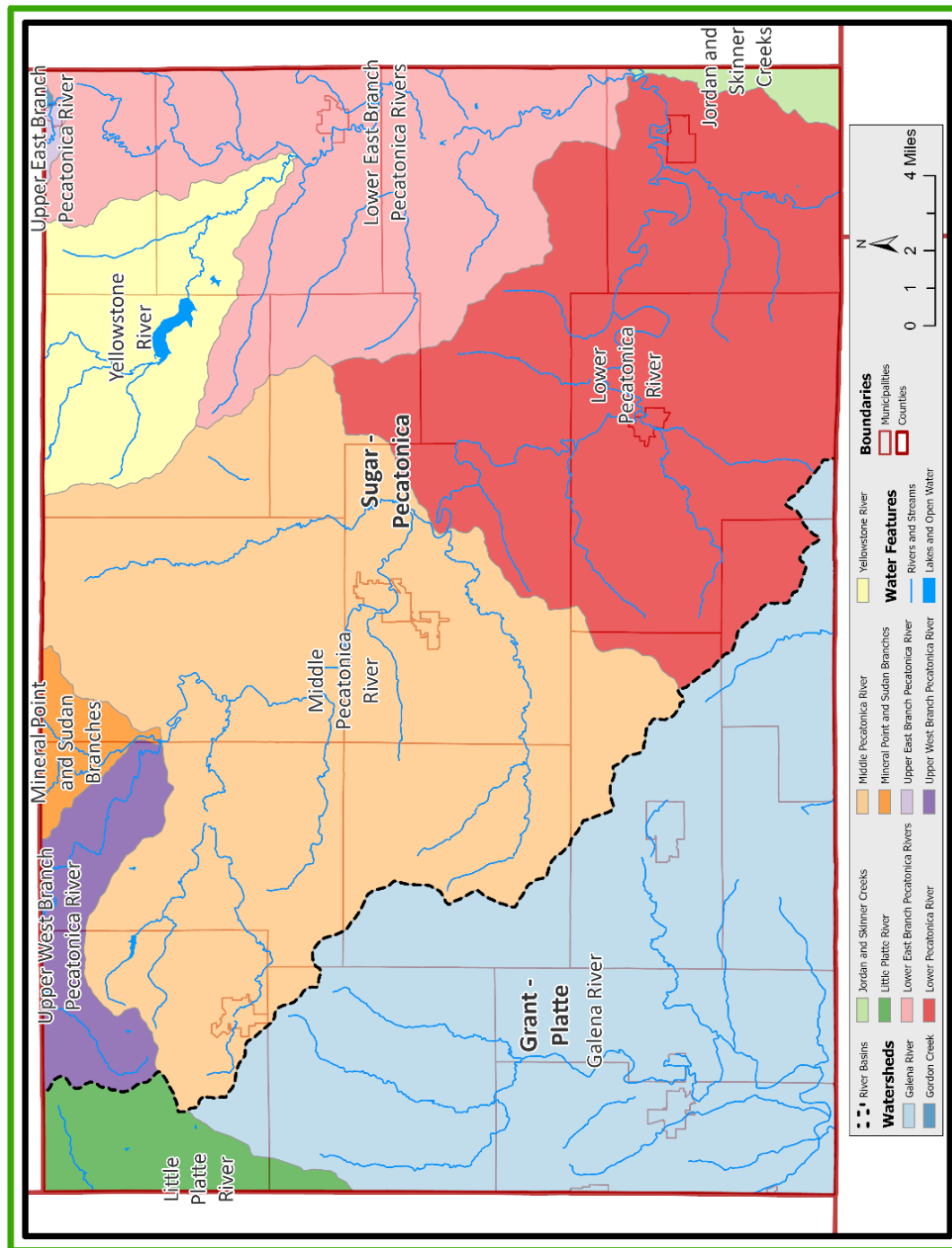
A prominent topographical feature in Lafayette County is the two large mounds in the northwest corner of the county. These mounds are the site of the highest elevation in Lafayette County.

Lafayette County overlaps two major river basins: The Sugar-Pecatonica Basin primarily, and the Grant-Platte Basin in the west. These two basins are subdivided into smaller watersheds depicted on the map in Figure 2.

There are no natural lakes in Lafayette County. Yellowstone Lake, the largest body of water in the county, is a 455-acre reservoir in the Upper East Branch of the Pecatonica River. The largest waterways in Lafayette County are Galena River in the southwest and the Pecatonica River branches running across the northern and eastern parts of the county.

⁵ State Cartographer’s Office. *Wisconsin High Points*. <https://www.sco.wisc.edu/wisconsin/high-points/>

Figure 2: Lafayette County Watersheds and River Basins⁶



⁶ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.

US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

US Census. *Lakes and Open Water*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

US Census. *Rivers and Streams*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

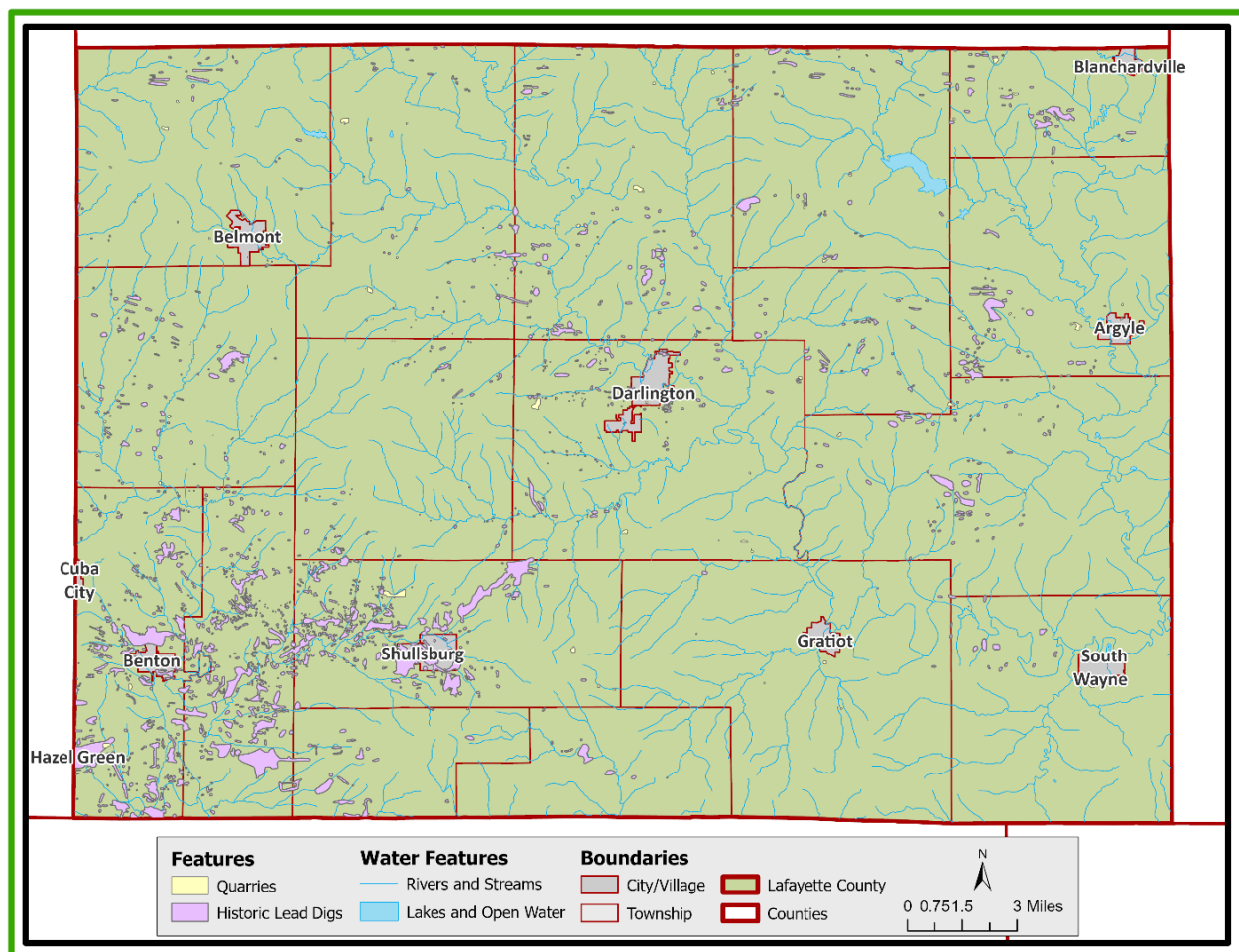
Wisconsin DNR. *River Basin Boundary*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.

Wisconsin DNR. *Watersheds*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.

Geology

Lafayette County's land surface elevations range from 650 to 1,440 feet above mean sea level. The majority of the county sits on top of the Tama soil group. Tama soils are defined as deep and silty, underlain by limestone. Being formed under prairie grasses, with a deep depth-to-bedrock and being found on broad ridgetops and moderate slopes, these soils are highly productive for agriculture. Metallic resources in the region include lead and zinc. Both metals have played an important role in the history of the county. Early settlers came to what is now Lafayette County to mine lead in the Shullsburg area in 1818. Today, Lafayette County no longer mines lead or zinc. Presently, non-metallic mines actively mine sand, sandstone, and limestone. Limestone is one of the most significant geological resources in the area and is used in construction and agricultural operations. See Figure 3 for the mining areas of Lafayette County.

Figure 3: Lafayette County Mining Areas⁷



⁷ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.

US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

US Census. *Lakes and Open Water*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

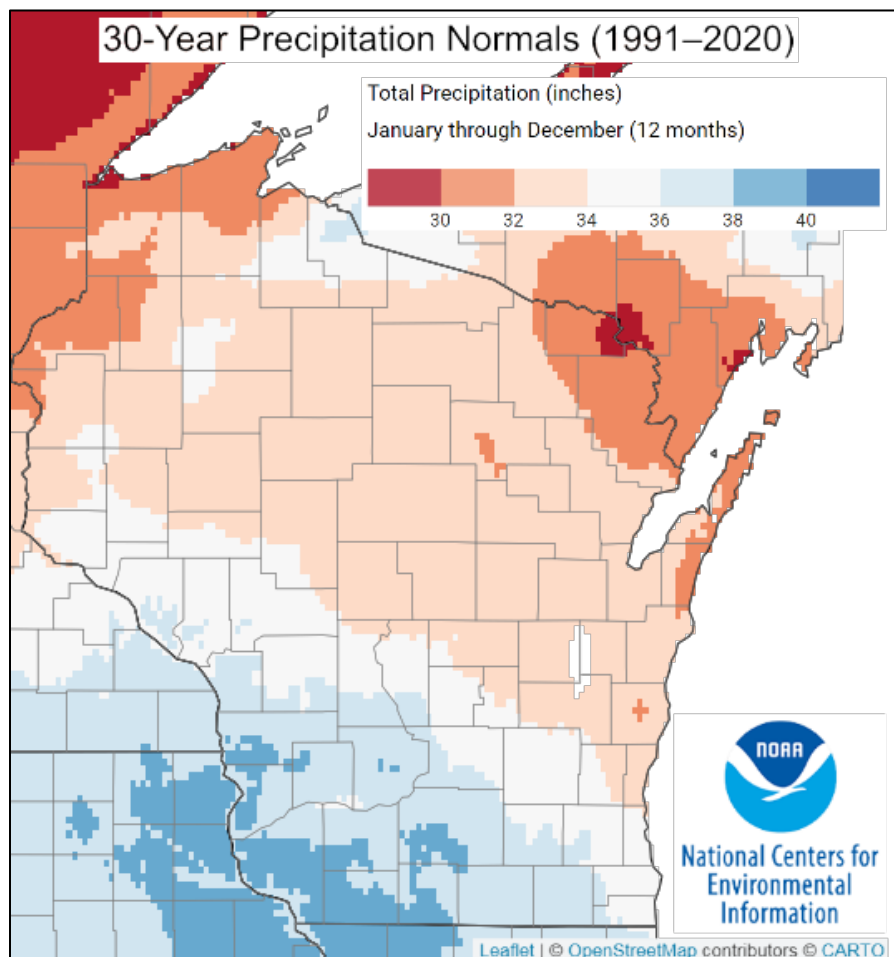
US Census. *Rivers and Streams*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

Climate

The climate of Lafayette County is considered continental. This means Lafayette County has cold enough winters to have fixed periods of snow and moderate precipitation in the summers. The county experiences wide changes of temperature in all seasons, with about five months of temperatures above 50 degrees Fahrenheit and winters with about three months below 32 degrees Fahrenheit.

Precipitation is distributed evenly throughout the county, approximately two-thirds of which falls during the growing season. Lafayette County's 30-year average annual precipitation, 1991- 2020 was 37.61 inches of precipitation. During this time frame, the annual precipitation ranged from 26.8 inches in 2012 up to 53.7 inches in 2018. 2018 was the wettest year since 1895 when recording began for Lafayette County. The anticipated trend toward wetter years is further discussed in Chapter 3: Climate Change. On average, annual snowfall for Lafayette County has been under 40 inches.⁸ Figure 4 shows the 30-year average annual precipitation throughout the state of Wisconsin.

Figure 4: Wisconsin 30-Year Average Annual Precipitation 1991 - 2020⁹



⁸ National Oceanic and Atmospheric Administration. National Centers for Environmental Information. *U.S. Climate Normals* (2021). <https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/>

⁹ National Oceanic and Atmospheric Administration. *U.S. Climate Normals (1991-2020)*. <https://ncei-normals-mapper.rcc-acis.org/>

Political Jurisdictions

Government units within the county include two cities, six villages, and eighteen townships. The county seat is at Darlington, located near the center of the county. Darlington is the largest city, with a 2020 population of 2,462. Darlington is located half-way between Madison, WI and Dubuque, IA.

Demographics

The overall population of Lafayette County shrank by 1.3% between 2010 and 2020, from 16,836 to 16,611. In the same decade, the percentage of the population younger than 18 increased from 19.2% to 24.2%, and the percentage of the population over the age of 65 increased from 15.7% to 18.9%. Lafayette County is still very homogenous, with 91.7% of the county's population being white. There is also a rapidly growing Hispanic population, going from 522 (3.1% of the population) in 2010 to 1,089 (6.6% of the population) in 2020. The Amish population has also experienced growth; it is estimated that from 2020 to 2021 the Amish population between Platteville and Darlington grew from 1,195 to 1,265. Across the State of Wisconsin from 2000 to 2021, the Amish population has shown significant growth from 9,390 to 23,195 (147%).¹⁰

Municipalities with the highest growth rate between 2010-2020 include Blanchard Township (13.6%), Darlington Township (5.5%), and Gratiot Township (4.5%). Municipalities with the greatest decrease in population 2010-2020 include Seymour Township (12.1%), Shullsburg Township (11.9%), and Kendall Township (11.5%).¹¹

Development Trends

Development in Lafayette County is primarily concentrated in the cities and villages and their surrounding townships. The municipalities with the largest amount of new construction from 2016 to 2021 were the City of Darlington, the Village of Belmont, Darlington Township, and the City of Shullsburg.¹²

Housing

Housing stock in the county increased from 7,240 total housing units in 2015 to 7,325 units in 2020. The occupancy rate in 2020 was 92.5%, with 77.3% of units being owner-occupied. Of the total housing units in Lafayette County, 34.2% were built prior to 1940, and 126 units were built after 2014. The median value of owner-occupied housing units in 2020 was \$143,600, up 15.8% from \$124,000 in 2015. The median rent in 2020 was \$722, up 13.7% from \$635 in 2015. Renters paying more than 35% of their household income increased from 22.6% in 2015 to 25.5% in 2020. The number of mobile homes in Lafayette County has decreased by 4.2%, from 383 in 2015 to 367 in 2020.¹²

¹⁰ Young Center for Anabaptist and Pietist Studies, Elizabethtown College. *Amish Population, 2021*. Retrieved from <http://groups.etown.edu/amishstudies/statistics/population-2021/>.

¹¹ U.S. Census Bureau (2021). *2020 Decennial Census P.L. 94-171 Redistricting Data*.

U.S. Census Bureau (2011). *2010 Decennial Census Summary File 1*.

U.S. Census Bureau (2022). *2020 American Community Survey 5-year estimates (2016-2020)*.

U.S. Census Bureau (2016). *2015 American Community Survey 5-year estimates (2011-2015)*.

Retrieved from <https://data.census.gov/cedsci/>

¹² Wisconsin Department of Revenue (2017, 2021). *Net New Construction Reports*. Retrieved from <https://www.revenue.wi.gov/SLFReportsassessor/>

Education and Employment

According to the American Community Survey, 19.4% of Lafayette County's population over the age of 25 had a bachelor's degree or higher in 2020. This is slightly higher than 2015 (17.5%), but lower than the state as a whole (30.8%). The percentage of the population in Lafayette County with a high school degree, equivalent, or higher was 91.5% in 2020, up slightly from 89.7% in 2015.

The per-capita income of Lafayette County in 2020 was \$28,843, up 14.2% from \$25,258 in 2015, although lower than the state per-capita income of \$34,450 in 2020. Unemployment reached historic lows in 2020, estimated to be 1.8%. While that has fallen slightly from 3.6% in 2015, the percentage of the population 16 and older in the labor force has decreased slightly from 68.7% in 2015 to 65% in 2020.¹¹

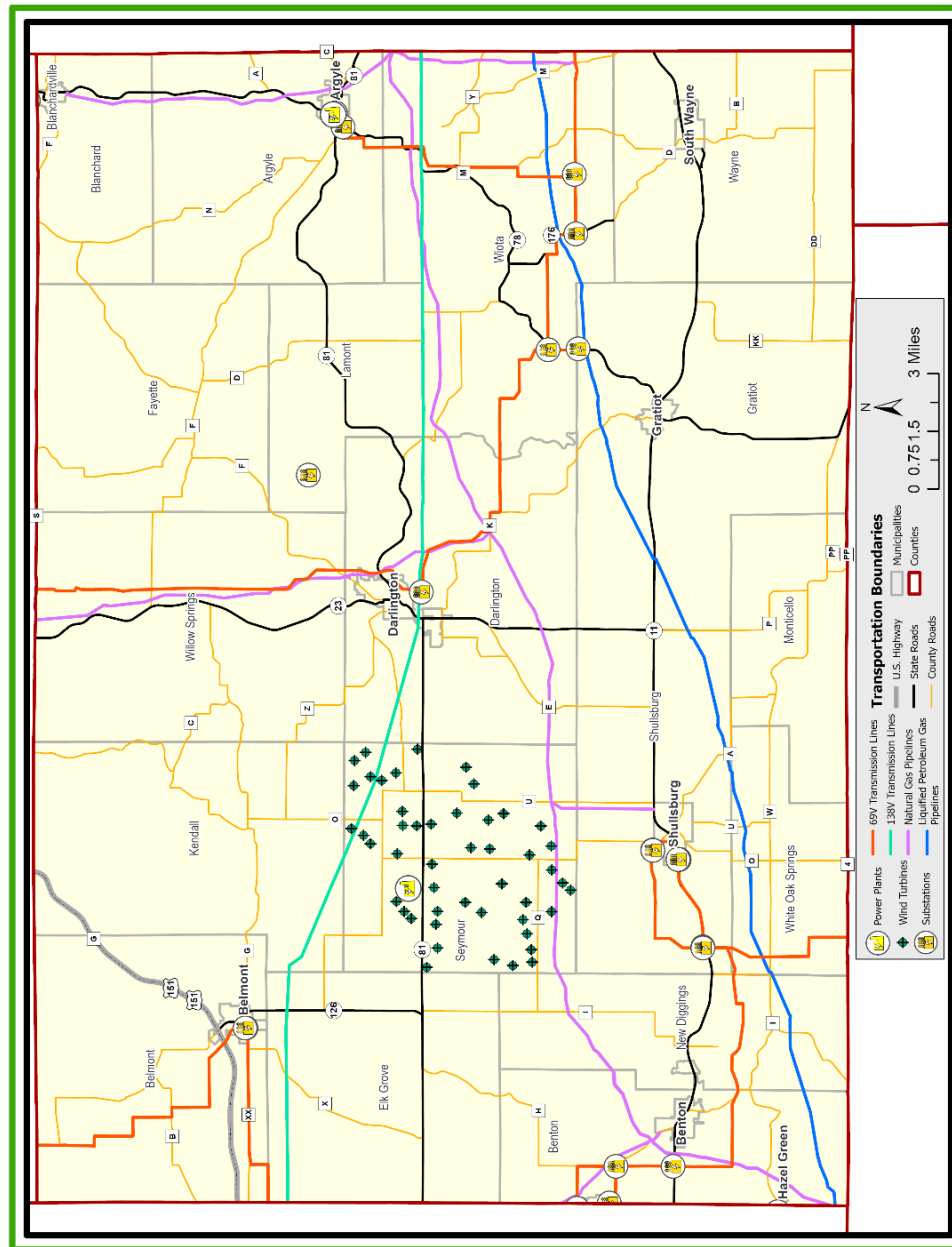
Utilities

Communication, water and sewer, natural gas, and electricity infrastructure are critical functions of everyday life and critical to emergency response operations. These utilities are vulnerable to a variety of hazards, creating a risk if the utilities were to be restricted or damaged by natural or man-made hazards.

Cell phone reception in the county is reliable but can be limited in the deeper valleys in more rural areas of the county. Broadband coverage has been cited as an issue during the public meetings, which poses significant challenges for emergency services to those areas.

Lafayette County has one 138-volt power line through the county. Natural gas pipelines run across the county, and a petroleum gas pipeline travels east-west in the county. There are two power plants and numerous electric stations throughout the county, and windfarms are located in the Town of Seymour (Figure 5). Lafayette County is served by both public and private water systems.

Figure 5: Lafayette County Gas and Electric Infrastructure¹³



¹³ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email.*

US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.*

US Census. *Roads*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>.*

US Department of Homeland Security. *Substations*, 2021. <https://hifld-geoplatom.opendata.arcgis.com/search?collection=Dataset>.*

US Department of Transportation. *Gas Pipelines*, 2022.

<https://www.npms.phmsa.dot.gov/PipelineDataRequest/DataRequestForm.aspx>.*

US Energy Information Administration. *Power Plants*, 2021. https://www.eia.gov/maps/layer_info-m.php.*

US Energy Information Administration. *Transmission Lines*, 2021. https://www.eia.gov/maps/layer_info-m.php.*

US Geological Survey. *Wind Turbines*, 2021. <https://apps.nationalmap.gov/downloader/>.*

*All sources accessed 25 August 2022.

Transportation Infrastructure

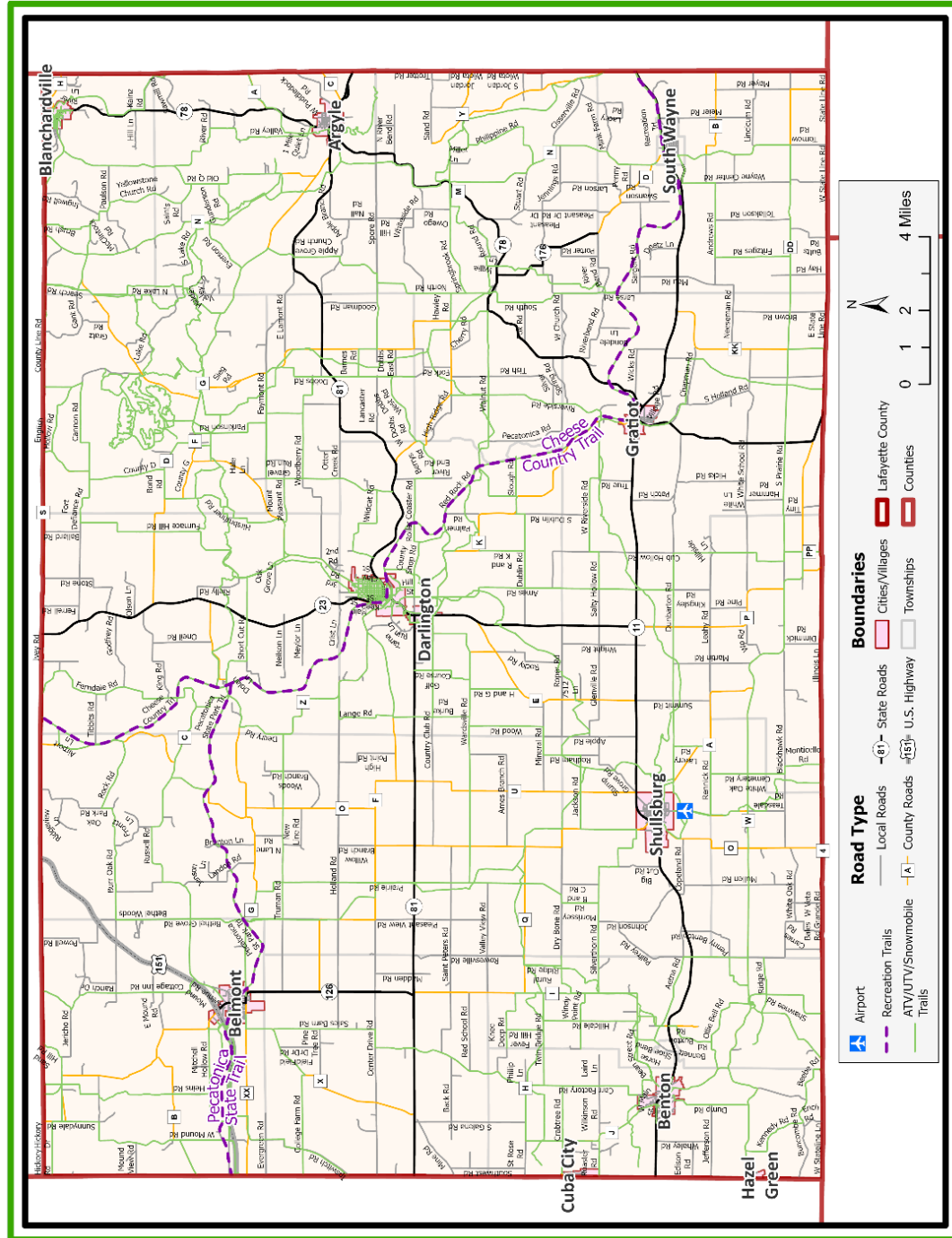
Lafayette County has 1,033.91 miles of roads: 272.23 county miles and 761.68 municipal miles. The county maintains 125 miles of roads on the state system. US Highway 18/151 is a major highway running through Lafayette County connecting southwest Wisconsin to Madison to the east, and to Dubuque to the west. US Highway 18/151 is a major arterial in the northwest corner of the county. State Highways 126, 81, 23, 11, 78, and 176 connect many of the cities and villages and are central routes of transportation. The most heavily used county roads are County W, XX, G, and F north of Darlington. Information collected at the public meetings indicated that many hazardous materials are transported on roads in the county for agricultural use, posing potential hazards should spills or other accidents occur.¹⁴

There is active recreational transportation use in Lafayette County, indicated on the map (Figure 6) both by the ATV/UTV routes, as well as the many recreational trails available in the county (note the Cheese Country Trail and the Pecatonica State Trail). There are some traffic safety concerns for mixed-vehicle use of the roads, which is relevant for designing signage, policy, and road infrastructure. The county has no active rail lines, however Cheese Country Trail is rail-banked and owned by the Pecatonica Rail Transit Commission. This trail is managed by the Tri-County Trail Commission and local ATV/UTV/snowmobile groups.

Lafayette County has one privately-owned airport in Shullsburg. The Dubuque Regional Airport, Chicago Rockford International Airport, and Dane County Airport are all within 100 miles of the county. See Figure 6 for transportation infrastructure.

¹⁴ Lafayette County Highway Department. *DOT Wisconsin Information System for Local Roads*. January 1, 2022.

Figure 6: Lafayette County Transportation Infrastructure¹⁵



¹⁵ Lafayette County GIS Data. *ATV/URV/Snowmobile Trails*, 2022. Obtained directly via email. 25 August 2022.
 Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.
 US Census. *Airport*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Roads*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 Wisconsin DNR. *Recreation Trails*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.

Emergency Services

The Sheriff's Office, Emergency Management and Coroner's Office all operate out of the Lafayette County Courthouse.

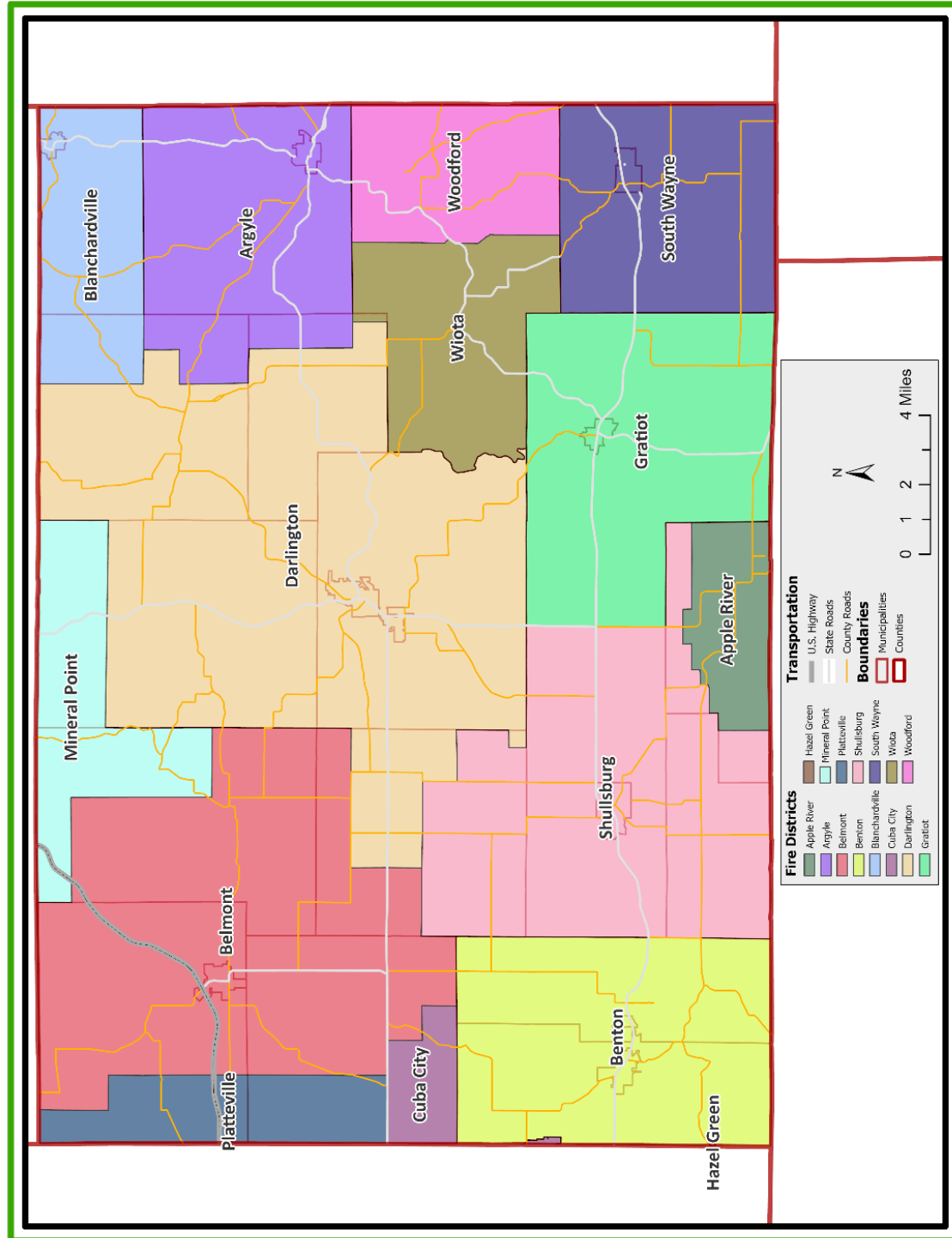
Lafayette County's Emergency Management Office is staffed by a half-time director. The agency concentrates its efforts on the planning, preparedness, response, recovery, and mitigation areas of Emergency Management. The county Emergency Operations Center (EOC) is operated by the agency as well and is located in the Lafayette County Ames Multi-Purpose Building.

The Lafayette County Sheriff's Office provides 24-hour dispatch services for law, fire, and EMS. They provide primary law enforcement for all rural areas of the county, providing service to those communities that do not have a police department. They have contracted with small communities for more direct coverage at times. The Sheriff's Office also staffs and manages the county jail.

Lafayette County is serviced by 14 fire departments and 10 EMS departments. Five communities have first responder agencies (communities with medically trained personnel, but without an ambulance): Woodford, Wiota, Gratiot, South Wayne, and Benton. The fire and EMS agencies of Lafayette County have an established mutual aid agreement with MABAS-WI, forming Mutual Aid Box Alarm System (MABAS) Division 125, giving access to mutual aid resources from across the state. The county uses the MABAS to coordinate fire and EMS response to incidents that require more resources than the primary response agency has. Every municipality in Lafayette County has fire and emergency medical services coverage (see Figures 7 and 8).

Additionally, the county contracts primarily with Jo Daviess/Grant/Lafayette County Emergency Management, and secondarily with Vernon County Emergency Management, for hazardous material response through a cross-county consortium agreement. This agreement has established a response trailer with a full complement of response equipment. There are a number of volunteer firefighters in the county trained as hazardous materials technicians and operate on a paid, on-call status. The team is a Level III response unit. Additionally, Lafayette County has provided training for Wide Area Search and Technical Rescue Response.

Figure 7: Lafayette County Fire Department Service Areas¹⁶



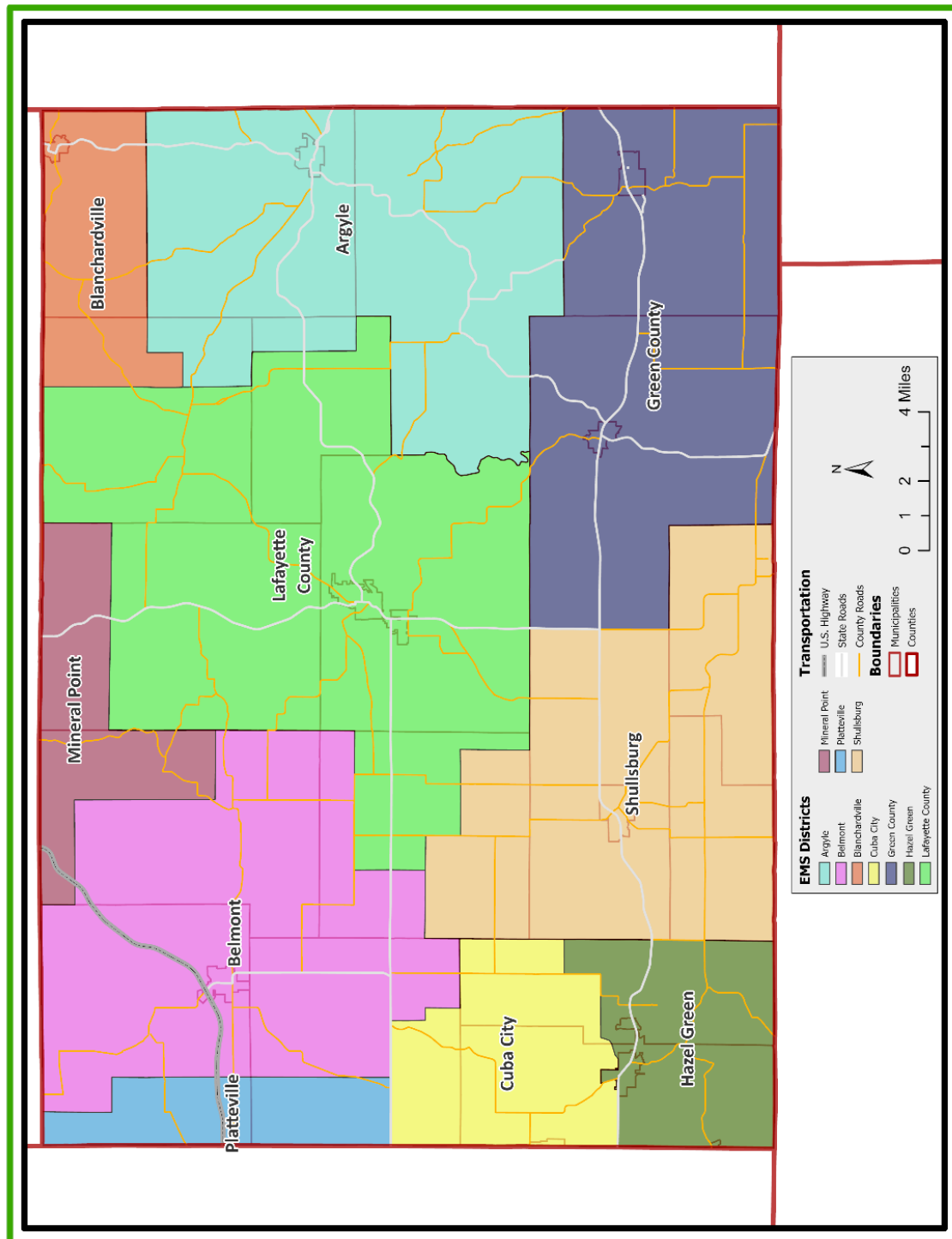
¹⁶ Lafayette County GIS Data. *Fire Districts*, 2022. Obtained directly via email. 25 August 2022.

Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.

US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

US Census. *Roads*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

Figure 8: Lafayette County Emergency Medical Service Areas¹⁷



¹⁷ Lafayette County GIS Data. *EMS Districts*, 2022. Obtained directly via email. 25 August 2022.

Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.

US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

US Census. *Roads*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.

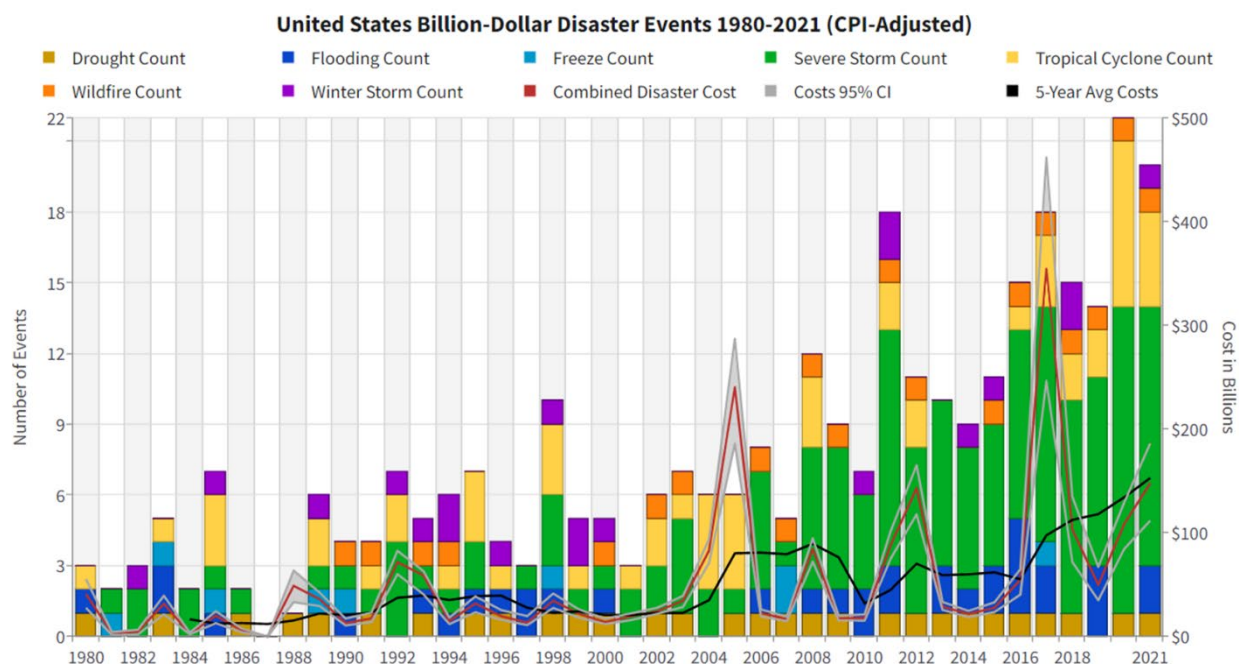
Chapter 3: Climate Change

Background

Proficient preparation for future hazard events requires an informed understanding of climate change and analysis of climate change impacts, as evidenced by historic climate trends and scientific research. Climate change has altered the severity, frequency, and types of hazard events experienced globally and in Lafayette County. Research indicates that climate change will have an even greater impact in the future.

Already, the U.S. has been majorly impacted by climate change. Disaster events are becoming more severe and costly (Figure 9), and communities across the world have struggled to adapt to changing weather patterns and storm occurrences.

Figure 9: U.S. Billion-Dollar Disaster Events, Adjusted for Inflation¹⁸



In Lafayette County, the average temperature has risen by an average of 0.4°F per decade over the last 50 years (Figure 10), and precipitation has increased by an average of 1.18 inches per decade (Figure 11). Research from the Wisconsin Initiative on Climate Change Impacts (WICCI) has found that southern Wisconsin experienced a dramatic increase in precipitation over the last decade, and very extreme precipitation events will become more frequent in the future.¹⁹ This is recognizable locally by the many flooding incidents experienced in Lafayette County in recent years (see Table 13 for previous flooding

¹⁸ NOAA National Centers for Environmental Information (2022). *U.S. Billion-Dollar Weather and Climate Disasters*. <https://www.test.ncei.noaa.gov/access/billions>

¹⁹ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

events). Nationally, the cost of the National Floodplain Insurance Program (NFIP) has become unsustainable, as payouts from the program have exceeded the premiums paid in. The NFIP lost an estimated \$50 billion since its inception as of March 2021, which lead to an overhaul of the program in 2022 in an effort to more accurately, equitably, and sustainably maintain NFIP.²⁰

Figure 10: Lafayette County Annual Average Temperature, 1895-2022, with 50-Year Trendline (1973-2021)

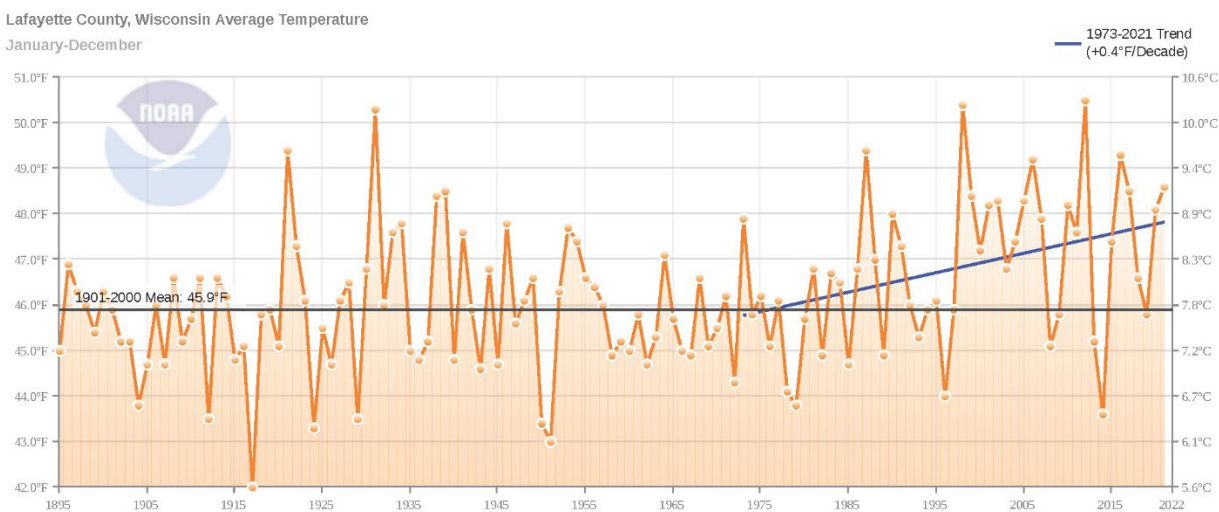
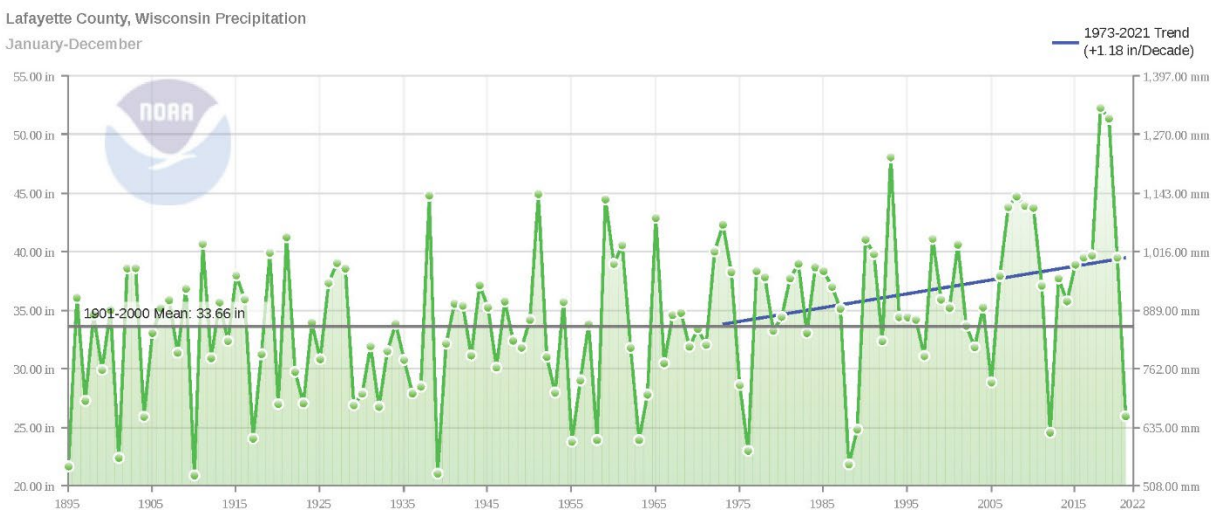


Figure 11: Lafayette County Annual Precipitation, 1895-2022, with 50-Year Trendline (1973-2021)



²⁰ Forbes (2021). *FEMA's Upcoming Changes Could Cause Flood Insurance to Soar at the Shore.*

Anticipated Impacts

In order to effectively plan for future hazard events, some of the anticipated impacts of climate change identified by WICCI are listed below.²¹ These impacts inform expectations of the future, which in turn inform recommended actions for hazard mitigation:

- More frequent and severe weather events
- More flooding
- More frequent and severe heat days
- More freeze/thaw cycles, posing issues for existing infrastructure
- Changing habitat for plants and animals, potentially resulting in loss of native species and introduction of new pests
- Water quality degradation from flooding runoff

In addition to direct local impacts, Lafayette County should also anticipate the global knock-on effects from climate change. For example, though a hurricane in Savannah, Georgia may not have local direct impacts to Wisconsin, it is a major trade port location, and could result in supply chain issues that would affect Lafayette County residents. Other potential knock-on effects from climate change could include:

- Climate refugees relocating to Wisconsin
- Less stable power grid
- Global supply chain issues
- Economic volatility
- Changing federal environmental regulation
- Changing FEMA funding as national disaster events increase

Vulnerable Populations

Hazard events tend to have disproportionately negative impacts on vulnerable populations, and climate change is anticipated to worsen this by way of making hazard impacts more frequent and severe. Vulnerable populations include those with less access to financial resources; those with limited mobility and access to transportation such as rural populations, elderly populations, disabled populations, and children; those experiencing communication barriers with local resources such as non-English speakers; stigmatized communities such as undocumented immigrants and previously-incarcerated populations; and those who are more exposed to weather elements, such as populations who are recreating outdoors, unhoused populations, and populations residing in mobile homes, tents, or other vulnerable housing.

The Lafayette County community is home to many vulnerable populations, and one way that the county can prepare for worsening impacts of climate change is by putting emphasis on protecting and serving those who will likely be most severely affected. During the hazard mitigation public meetings, attendees were asked to consider the unique needs and risks of several vulnerable populations, and share their ideas for how to address those needs. Table 5 shows attendees' responses to this exercise.

²¹ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

Table 5 – Responses to Public Meeting “Vulnerable Populations” Grid

Vulnerable Population	Unique Needs or Risks	Ideas for Addressing Unique Needs/Risks
Elderly	Transportation, mobility, fixed income, isolation, access to resources, difficulty relocating	Make sure they have power, A/C, transportation, and food access. Publicize information, expand ADRC services, educate them to prepare for emergencies, know where they are, communicate risks
Children	Lack of understanding (i.e. siren meaning), waiting at bus stops, separation for parents or caregivers, river danger	Educate, establish gathering spot, information campaign on social media, adult supervision near bus stops
Non-English Speakers	Translation, communication issues, safe evacuation of trailer parks, communication with emergency services, siren meaning understanding, lack of healthcare	Make a plan for translation services in emergencies, housing supplied by employer/temp agency, broadband, translators
Medically or Chemically Dependent	Transportation to medical facilities, dialysis, may be altered physically or mentally during emergency due to medication, access to medication and care	Plow their roads when needed, train EMS to know how to handle their situations, more volunteers
Low-Income	No savings, no insurance, no healthcare, poor or no housing, can't borrow money (credit), get really sick before going for care, live in less protected areas, limited money for repairs and preparation	Job skills programs, grants and loans, education for accessing resources, financial literacy, programs targeting their needs, community fundraisers
New Residents to the Area	Don't know who to go to for help in case of emergency, lack of local knowledge including local hazards	Make sure that needed info is available on website and social media, educate on land use and ag practices, signage, include a newsletter with the tax bill, partner with realtors
Physically or Mentally Disabled	Medical equipment, wheelchair accessibility, dietary needs, may have difficulty communicating, isolation, electricity disruptions are a big risk, mobility	Have generators/batter backup, have a plan to reach out, know where they are, understand their unique needs, plan ahead (have a plan B, stock up), hospice care, Meals on Wheels, Hodan
Recreating Outdoors	Shelter, emergency services access, cell service issues, unexpected storms	Shelter and signage for major weather event, securing emergency response at popular locations, landline or other ways to call emergency services

Perspectives from Lafayette County

During the public meetings, attendees were presented with information about climate change and asked to share their expectations for how climate change will impact them. Of the 50 attendees who answered the prompt “In the next ten years, I expect that climate change...”, 8 attendees selected “will majorly impact my life,” 37 attendees selected “will have some impact on my life,” and 5 attendees selected “will not affect my life at all.” Attendees were then asked to explain why they chose the corresponding statement. Tables 6, 7, 8, and 9 summarize the responses of public meeting attendees.

Table 6 – Responses to Public Meeting Climate Change Expectations Exercise		
“In the next ten years, I expect that climate change...”		
...will not affect my life at all	...will have some impact on my life	...will majorly impact my life
5 votes	37 votes	8 votes

Table 7 – Climate Change Will Not Affect My Life at All
“In the next ten years, I expect that climate change will not affect my life at all.”
“Fake news, not real” “Retired”

Table 8 – Climate Change Will Have Some Impact on My Life
“In the next ten years, I expect that climate change will have some impact on my life.”
“Farming practices will change when more extreme weather events come along.” “Response to changing pest management [illegible text].” “Road maintenance” “Cost of food and other goods will rise.” “Weather extremes” “Costs rises drive condition, crop issues.” “[illegible text] of water, high costs of everything” “Cost of living” “Utility costs, medical costs” “Farming implications” “Food” “Family” “Storms” Job” “Extreme weather”

Table 9 – Climate Change Will Majorly Impact My Life
“In the next ten years, I expect that climate change will majorly impact my life.”
“Shift my scope of work to education about [illegible text].” “Food costs will rise – goods will be harder to receive.” “Food and water shortages” “Grain farming, ag-production” “Increased taxes” “Added costs” “Health – heat”

By anticipating the impact of climate change, Lafayette County officials and residents can be more prepared for future hazard events and the context in which hazard events will occur. In the next section, hazards that threaten Lafayette County are explored, many of which are expected to worsen due to climate change.

Chapter 4: County-Wide Risk Assessment

Hazard Identification

Lafayette County is susceptible to many hazards due to its climate, unique geography, and population. This chapter identifies the natural and man-made hazards most likely to occur or most likely to have severe impacts in the county. Identifying these hazards is an important and necessary step to informing and developing the mitigation strategies and priorities.

One way to identify potential hazards is to review past FEMA disaster declarations. These are important indicators of future high-hazard susceptibility. Lafayette County has experienced 14 Federal Disaster Declarations since 1953 (Table 10), most of which relate to severe storms and flooding.

Table 10 - Lafayette County Federal Disaster Declarations ²²	
Declaration Date	Description
July 11 th , 1969	Severe Storms & Flooding
June 17 th , 1976	Drought
March 23 rd , 1976	Severe Storms, Icing, Wind & Flooding
July 7 th , 1978	Severe Storms, Flooding, Hail, & Tornadoes
July 13 th , 1990	Severe Storms, Tornadoes & Flooding
July 2 nd , 1993	Severe Storms, Tornadoes & Flooding
June 24 th , 2000	Severe Storms, Tornadoes & Flooding
June 18 th , 2004	Severe Storms & Flooding
September 13 th , 2005	Hurricane Katrina Evacuation
June 14 th , 2008	Severe Storms, Tornadoes & Flooding
April 5 th , 2011	Severe Winter Storm & Snowstorm
October 7 th , 2017	Severe Storms, Straight-line Winds, Flooding, Landslides, and Mud
March 13 th , 2020	COVID-19 Pandemic
April 4 th , 2020	COVID-19 Pandemic

While Federal Disaster Declarations highlight the most severe disasters in Lafayette County, they do not capture all of the natural hazards to which Lafayette County is exposed. In exploration of these hazards the following sources were consulted:

- NOAA National Climatic Data Center
- National Weather Service
- Lafayette County Emergency Management
- Wisconsin Department of Natural Resources
- U.S. Geological Survey
- Participation from local government officials, key stakeholders, and the public

Hazard events are generally unpredictable. Any number of events can occur in any given year. Climate research indicates that natural hazard events will become more severe, longer in duration, and more unpredictable in the foreseeable future due to climate change (see Chapter 4 for further discussion of

²² Federal Emergency Management Agency (FEMA) (2022). *List of Federal Disaster Declarations*. <https://www.fema.gov/disaster/declarations>

climate change).²³ Given these challenges, understanding the frequency and severity of past natural events is a first step in assessing future hazards. Table 11 shows the history of hazards in Lafayette County as collected by the NOAA and WIDNR during the years 1950-May of 2022. This is the largest and best available collection of hazard event data. Not all hazards were collected until recent decades, so the data may only reflect a recent history of hazards.

Hazard	Years Collected	# of Past Events	Deaths	Injuries	Property Damage (\$)	Crop Damage (\$)	# of Events per Year
Wild/Forest Fires (minor incidents included)	1982-7/2022	2	Unknown	Unknown	Unknown	Unknown	0.05
Thunderstorm Winds	1955-5/2022	156	0	2	\$4,676,500	\$1,250,000	2.33
Blizzard/ Winter Storms/ Heavy Snow	1996-5/2022	173	1	5	\$10,000	0	6.65
Fog	1999-5/2022	68	0	0	\$0	\$0	2.96
Hail	1969-5/2022	42	0	0	\$581,550	\$12,890,000	0.79
Tornado	1958-5/2022	23	0	12	\$9,111,000	\$260,000	0.36
Extreme Heat	1998-5/2022	36	0	0	\$0	\$0	1.5
Extreme Cold/ Wind Chill	1996-5/2022	32	1	0	\$1,000	\$0	1.23
Drought	2002-5/2022	17	0	0	\$0	\$100,000	0.85
Flood /Flash Flood	1996-5/2022	41	0	0	\$2,759,660	\$2,987,000	1.58
Lightning	1997-5/2022	7	0	0	\$74,200	\$0	0.28
Earthquake	-	0	0	0	0	0	0

²³ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

²⁴ Wisconsin Department of Natural Resources (WIDNR). (2022). *Wildfire Dashboard*. https://dnrm.wisconsin.gov/WAB/WildfireOccurrence_Dashboard/; NOAA. (July 2022). *Storm Events Database*. <https://www.ncdc.noaa.gov/stormevents/>

Hazard Assessment in Public Meetings

During the public meetings, attendees were asked to vote for three hazards they believe will pose the biggest risk to Lafayette County in the next ten years. The results, shown in Table 12 below, provide a snapshot of the concerns of public officials and residents in Lafayette County. Overall, the most frequently chosen hazards were “Flooding” and “High Winds and Tornadoes.”

Table 12 - Public Meeting Vote Responses: “Which three hazards do you believe will pose the biggest risk to Lafayette County in the next ten years?”

Hazard	Public Meeting			
	Belmont 6/21/22	Argyle 7/19/22	Darlington 7/21/22	Total
Flooding (including due to precipitation, water table increase, and other)	17	9	11	37
High Winds and Tornadoes	19	7	8	34
Winter Storms and Extreme Cold	15	2	3	20
Cyber-Attack	6	1	11	18
Drought and Extreme Heat	4	8	6	18
Disruption of Life Lines (electric, fuels, water, wastewater)	10	1	0	11
Climate Change	4	1	3	8
Lightning, Thunderstorms, and Hail	2	2	2	6
Food and Agriculture Emergencies	4	1	0	5
Domestic Terrorism (including active shooter incidents and anti-government movements)	0	0	2	2
Emerging Infectious Diseases (including pandemics)	0	0	1	1
Landslides and Land Subsidence	0	1	0	1
Hazardous Materials Incident and Radiological Release	0	0	1	1
Wildfires	0	0	0	0
Dam Failure and Other Infrastructure Failure	0	0	0	0

Vulnerability Assessment

The following section provides a more detailed assessment of risk associated with each of the natural and man-made hazards that have historically affected, or may affect, Lafayette County. The vulnerability assessment includes the following for each hazard:

- A description of the hazard
- An overview of the historical occurrences of the hazard in Lafayette County
- An assessment of vulnerability to the hazard throughout Lafayette County
- A projection of the future probability and potential damages of the hazard in Lafayette County

Flooding

Flooding is defined as “a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area.”²⁵ Flood events are the most common natural hazard in the U.S. and frequently occur in Lafayette County. Several types of flooding affect/may affect Lafayette County, including:

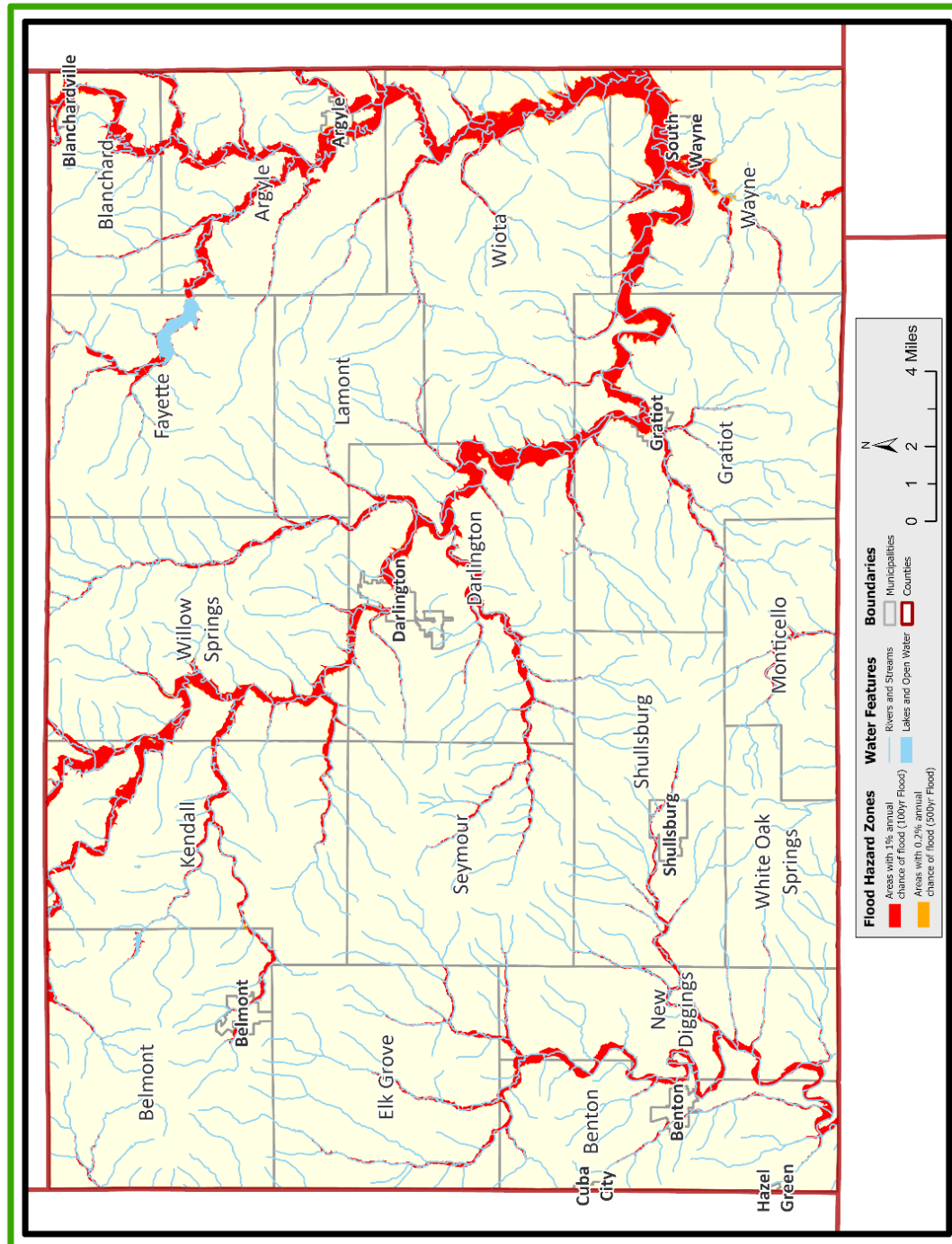
- Dam or Levee Failure: Dam failure causes flooding downstream of the dam. Prolonged rainfall is the most common cause of dam failure. See Figure 13 for a map of dam vulnerability.
- Flash Flooding: Flash floods are defined as rapid and extreme flow of water into a normally dry area, or a rapid rise in water-level, above a predetermined flood level, in a stream or creek. Flash floods define the rate of flooding and can be caused by other flood types, such as intense rainfall, dam failure, or an ice jam. Ongoing flooding can intensify to flash flooding in cases where intense rainfall results in a rapid surge of rising flood waters. Flash flood vulnerability is not perfectly indicated by FEMA floodplain maps (see Figure 12 for Lafayette County flood zones), as data gathered at the public meetings indicated that residents have experienced flooding in areas outside of the current maps.
- Local Drainage Floods: This type of flood occurs outside of recognized drainage channels or delineated flood plains and is caused when water has no place to travel. Heavy precipitation, a lack of infiltration, inadequate facilities for drainage and storm-water conveyance, and increased surface runoff can result in this flood type. These events frequently occur in flat areas and particularly during winter and spring in areas with frozen ground. They also occur in urbanized areas with large impermeable surface.
- Riverine: Also known as overbank flooding, riverine flooding is caused by a flooding river. In steep valleys, riverine flooding is usually rapid and deep, but short in duration. In flat areas, riverine flooding is typically slow, relatively shallow, and may last for long periods. Riverine flooding is typically caused by prolonged periods of rainfall that saturate the ground and overload streams and reservoirs.
- Storm-water: Storm-water flooding occurs when water from a storm event exceeds the capacity of local drainage systems, either man-made or natural.
- Groundwater Flooding: Flooding due to increased recharge causing the water table to rapidly rise, either forcing water to flood above the ground surface or forcing water by hydraulic pressure through cracks and crevices and into basements.²⁶ See Figure 14 for a water table map of Lafayette County.

The heaviest flooding in Lafayette County occurs during spring due to snow melt and heavy rains, and occasionally in the summer and fall. Streams in the county that occasionally produce flooding include the Galena River (Fever River), the Yellowstone River, the east branch of the Pecatonica River, and the main branch of the Pecatonica River. The Pecatonica is notorious for its significant and frequent flooding events. The East Branch of the Pecatonica rejoins the Main Branch just outside of South Wayne, and eventually drains south into the Rock River. See Figure 12 for floodplains located in Lafayette County.

²⁵ FEMA (2022). *National Flood Insurance Program Terminology Index*. <https://www.fema.gov/flood-insurance/terminology-index>

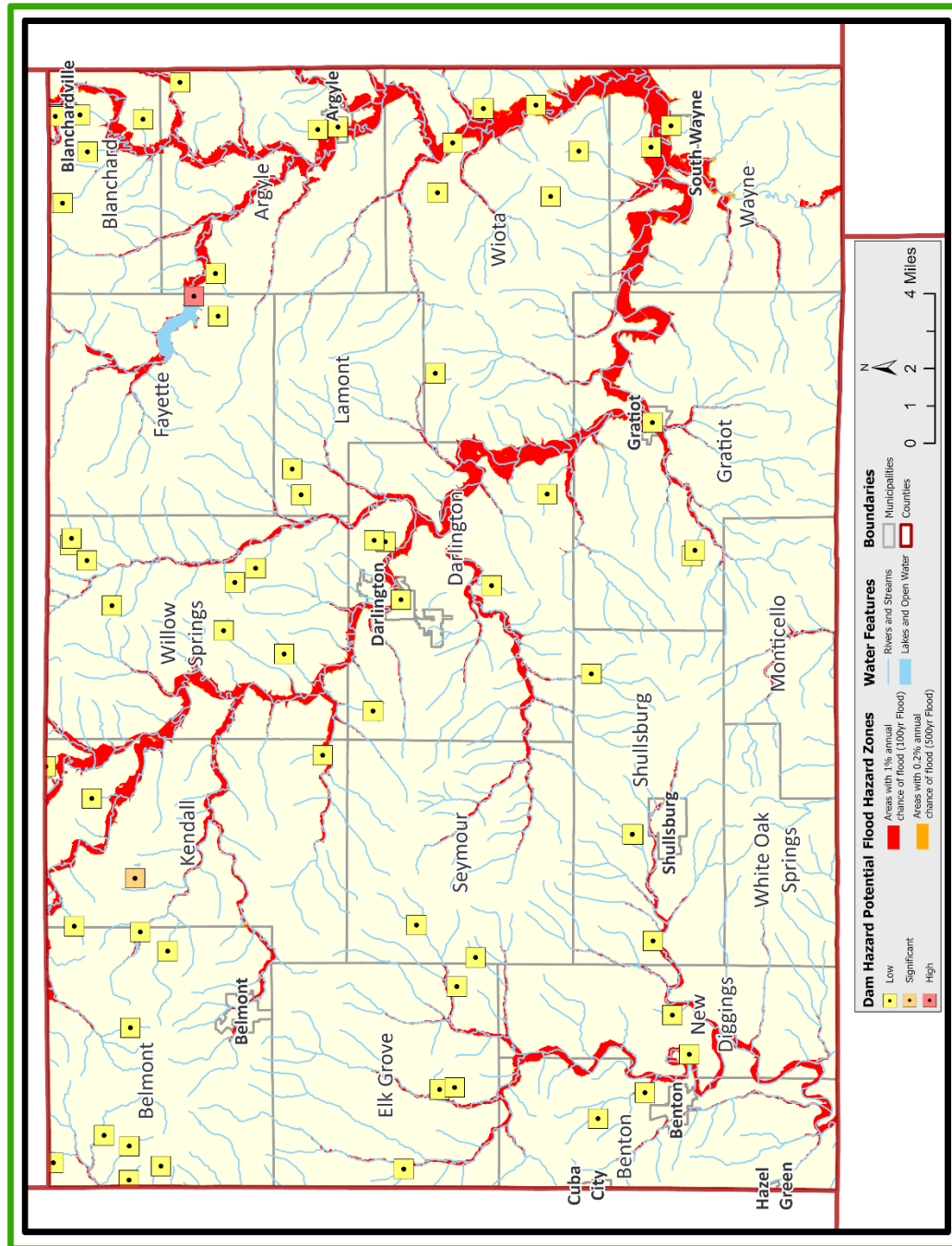
²⁶ WDHS (2014). *Wisconsin Flood Toolkit*. <http://www.co.grant.wi.gov/docview.asp?docid=18516&locid=147>

Figure 12: Lafayette County Floodplain²⁷



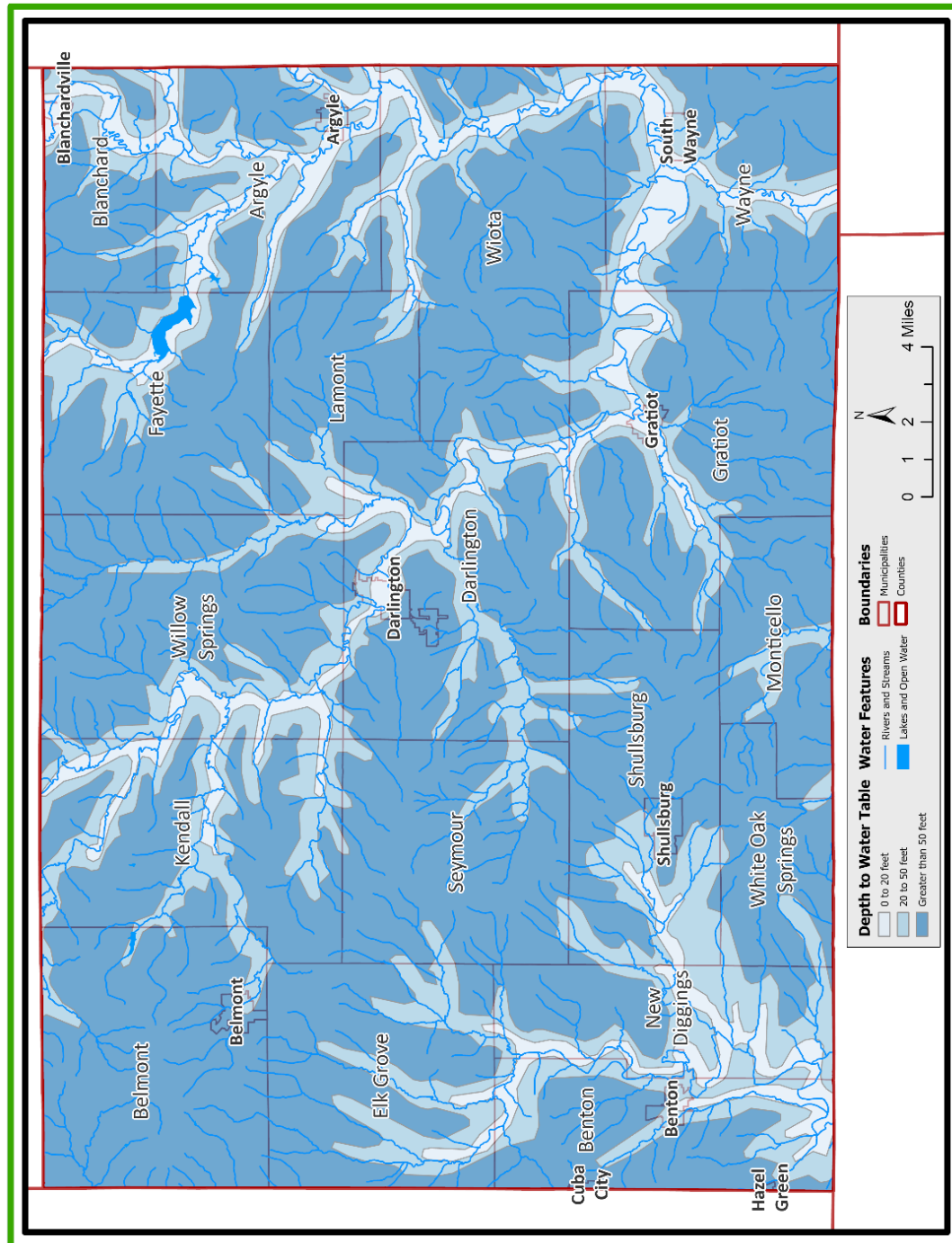
²⁷ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.
 US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Lakes and Open Water*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Rivers and Streams*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 Wisconsin DNR. *Floodplain*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.

Figure 13: Dam Vulnerability in Lafayette County²⁸



²⁸ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.
 US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Lakes and Open Water*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Rivers and Streams*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 Wisconsin DNR. *Dams*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.
 Wisconsin DNR. *Floodplain*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.

Figure 14: Depth to Water Table in Lafayette County²⁹



²⁹ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.
 US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Lakes and Open Water*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Rivers and Streams*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 Wisconsin DNR. *Water Table*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. 25 August 2022.

Historic Flooding Events

According to NOAA, FEMA, and local records, Lafayette County experienced 35 major flood events between 1996 and 2019 (see Table 13). The total damages caused by these flooding events were \$2.76M in property damage and \$2.99M in crop loss/damage. On average, that is approximately \$169,000 in damages per flooding event in the county.

Location	Date	Flood Type	Property Damage (\$)	Crop Damage (\$)
Blanchardville	7/18/1996	Flash Flood	\$480K	\$100K
Countywide	2/18/1997	Flood	\$5K	\$10K
Calamine	3/30/1998	Flood	\$0	\$0
Elk Grove	6/18/1998	Flood	\$0	\$0
Countywide	4/23/1999	Flood	\$5000	\$0
South Portion	5/16/1999	Flash Flood	\$250K	\$500K
South Portion	5/31/2000	Flash Flood	\$50K	\$50K
Argyle	9/11/2000	Flash Flood	\$10K	\$0
Darlington	6/4/2002	Flash Flood	\$5K	\$0
Benton	8/22/2002	Flood	\$0	\$0
Countywide	5/22/2004	Flash Flood	\$150K	\$250K
Countywide	6/1/2004	Flood	\$500K	\$1M
Darlington	8/18/2007	Flash Flood	\$100K	\$500K
Shullsburg	8/22/2007	Flash Flood	\$50K	\$200K
Darlington	6/12/2008	Flash Flood	\$462K	\$300K
Benton	7/10/2008	Flash Flood	\$10K	\$0
New Diggings	7/24/2009	Flash Flood	\$40K	\$0
Belmont	7/27/2009	Flash Flood	\$30K	\$0
New Diggings	8/9/2009	Flash Flood	\$20K	\$50K
South Wayne/ Yellowstone Lake State Park	3/11/2013	Flood	\$10K	\$2K
Yellowstone Lake State Park	6/22/2013	Flood	\$8K	\$5K
South Wayne	6/11/2015	Flash Flood	\$1K	\$1K
Elk Grove	6/28/2017	Flash Flood	\$0	\$0
Yellowstone Lake State Park	7/20/2017	Flood	\$1K	\$0
Darlington/ Meekers Grove	7/21/2017	Flash Flood	\$496K	\$0
Benton/ Darlington/ Yellowstone Lake State Park	2/20/2018	Flood	\$15K	\$0
Yellowstone Lake State Park	9/5/2018	Flood	\$1K	\$0
Belmont	9/20/2018	Flash Flood	\$2K	\$0

³⁰ NOAA. (July 2022). *Storm Events Database*. <https://www.ncdc.noaa.gov/stormevents/>

Table 13 Continued - Lafayette County NOAA Recorded Flood Events 1996 – 2022 ³¹				
Location	Date	Flood Type	Property Damage (\$)	Crop Damage (\$)
Darlington	10/2/2018	Flood	\$20K	\$15K
Yellowstone Lake State Park	10/6/2018	Flood	\$1K	\$0
Darlington	10/11/2018	Flood	\$2K	\$4K
Calamine/ Wiota/ Yellow Stone Lake State Park	3/13/2019	Flood	\$28K	\$0
Benton	9/12/2019	Flash Flood	\$5K	\$0
Darlington	9/14/2019	Flood	\$1K	\$0
Calamine/ Yellow Stone Lake State Park	10/2/2019	Flood	\$11K	\$0
TOTAL			\$2.76M	\$2.99M

*NOAA estimates do not reflect actual FEMA damages due to these events.

Vulnerability Assessment

The most common type of flooding in Lafayette County is flooding due to the debris and blockages building up along the major river ways causing bridges and culverts to become inundated during heavy rain events. Flooding along the Pecatonica River is a regular occurrence, with five major flooding events in the last 5 years. Storm-water flooding is an additional likely occurrence in cities and villages without a dedicated storm-water system. Lafayette. Aspects of Lafayette County infrastructure and services most vulnerable to floods include:

- Agricultural Industry – Loss of crop, livestock illness and possible death, soil erosion
- Business/Industry Infrastructure – Property damage, loss of income
- Emergency Services – Warning systems; access to vulnerable populations such as older, low-income, children, disabled, recreational park users, and visitors
- Environmental – Soil erosion, water contamination, loss of wildlife habitat, wildlife illness, and possible death
- Residential Infrastructure – Flooded basements, collapsed foundations, damaged septic systems, collapsed wells, and destroyed/severely damaged homes
- Public Health – Harmful molds, water contamination
- Public Infrastructure (including utilities) – Property damage, downed transmission lines and poles, damaged transformers and telecommunication networks, damaged water treatment systems, diminished water quality from overflow and backup of sanitary sewer, roadway infrastructure including culvert and bridge damage which can impact commutes and school bussing capability

³¹ NOAA. (July 2022). *Storm Events Database*. <https://www.ncdc.noaa.gov/stormevents/>

Future probability and potential loss

On average there were 1.4 major flooding events per year in Lafayette County between 1998 and July of 2022. The majority of those events were flash floods, due to large rainfall events. Climate trends and research suggest that the frequency of future large rain events will increase and become more severe.³² Since flash-flooding is localized in nature, risk will vary throughout the county, with locations of lower elevations being more vulnerable.

The average cost of a flooding event in Lafayette County between 1996 and July of 2022 was approximately \$164K. With increased frequency and severity of flooding events, this expense is likely to increase. There are 12 repetitive loss structures in Lafayette County, 11 of which are in the City of Darlington, and the other in the City of Shullsburg. Two of these structures are single family homes, and the others are non-residential. Only one of the structures is considered severe repetitive loss.

Property damage and potential loss are likely to be higher than the previous average cost in the event of a dam failure. One dam in the county is considered “High Hazard.” See Figure 13 for a dam vulnerability map of Lafayette County. The hazard ratings are not based on physical attributes, quality, or strength of the dam itself, but instead that the failure of these dams would likely result in the loss of life and significant property damage.

³² WICCI (2021). *Wisconsin’s Changing Climate: Impacts and Solutions for a Warmer Climate*.

Severe Thunderstorms

The National Weather Service (NWS) definition of a severe thunderstorm is a thunderstorm producing a tornado, winds of at least 58 mph, and/or hail at least 1 inch in diameter. Structural wind damage may imply the occurrence of a severe thunderstorm. A thunderstorm wind equal to or greater than 40 mph and/or hail of at least ½" is defined as approaching severe. A thunderstorm travels approximately 30-50 mph and runs its course within 30 minutes. Heavy rain, lighting, hail, tornadoes, and severe winds occur separately and in combination during severe thunderstorm events. Data from NOAA and LCEM indicate that there have been 21 significant thunderstorm events since January of 2017.³³ The following four hazards: hail, lightning, thunderstorm winds, and tornadoes are associated with thunderstorms. The entire area of Lafayette County is at risk for these hazards.

Severe Thunderstorms – Hail Event

The NWS defines hail as precipitation in the form of irregular pellets or balls of ice more than 1/8 inches in diameter. Hail risk is considered severe once it is larger than 3/4 inches in diameter. Hail can develop within thunderstorms when strong currents of rising air, known as updrafts, carry water droplets high within the storm. The cold air loft causes the water droplets to freeze. As the frozen droplet begins to fall toward the ground, rising currents within the storm lift the ice again. The hailstone gains an ice layer and grows increasingly larger with each ascent. Eventually, the hailstone becomes too heavy for the updraft to support, and it falls to the ground. Injury and loss of life are rarely associated with hailstorms, however, extensive property damage is possible, especially to crops.

Historical Hail Events

According to NOAA records, Lafayette County experienced 41 hail events between 1969 and July of 2022. The total damages caused by hail in these events was \$5.82M in property damage and \$12.89M in crop loss/damage. On average, that is approximately \$456K in damages per hail event in Lafayette County. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to hail:

- Agricultural Industry – Loss of crop, livestock injury and possible death
- Business/industry infrastructure – Property damage (roof and vehicle damage), debris cleanup
- Emergency Services – Warning systems, access to vulnerable populations such as older, poor, children, park users, and visitors
- Environmental – N/A
- Residential Infrastructure – Property damage (roof and vehicle damage), debris cleanup
- Public Health – Dangerous road conditions
- Public Infrastructure (including utilities) – Property damage, downed transmission lines and poles, damaged transformers and telecommunication networks debris cleanup, road damage

³³ NOAA Storm Events Database for the events "hail, lightning, thunderstorm winds, tornadoes."
<https://www.ncdc.noaa.gov/stormevents/>

Future Probability and Potential Loss

According to NOAA, on average there were 0.77 hail events per year between 1969 and July of 2022. Trends and research suggest an increase in large storm events during the spring and fall, when hail events are most likely to occur. From previous occurrences and an expected increase in events, Lafayette County can expect to have more than 0.77 hail events per year on average. The average cost in property and crop damages of a significant hail event in Lafayette County between 1969 and July of 2022 was \$456K on average.

Severe Thunderstorm – Lightning Event

Lightning is a phenomenon associated with thunderstorms and occurs when the rising and descending air separates and builds up positive and negatively charged areas. Lightning results when the built-up energy is discharged between the two areas. Lightning damage occurs when humans and animals are electrocuted, fires are caused by a lightning strike, materials are vaporized along the lightning path, and/or sudden power surges cause damage to electrical or electronic equipment.

Historical Severe Lightning Events

According to NOAA records, Lafayette County experienced seven significant and damaging lightning events between 1997 and July of 2022. The total damages caused by lightning in these events was \$74K in property damage. On average, that is approximately \$10.6K in damages per significant lightning event in Lafayette County. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to lightning:

- Agricultural Industry – Loss of crop, livestock injury and possible death
- Business/industry infrastructure – Property damage
- Emergency Services – Warning systems, access to vulnerable populations such as older, low-income, children, disabled, recreational park users, and visitors
- Environmental – Habitat loss due to wildfires
- Residential Infrastructure – Property damage
- Public Health – Large crowds in open areas
- Public Infrastructure (including utilities) – Downed and damaged electrical lines, poles and antennae, damaged transformers, telephone lines and interrupted radio communications, debris clean-up, and road damage

Future Probability and Potential Loss

According to NOAA, on average there were 0.28 lightning events per year in Lafayette County between 1997 and July of 2022. Trends and research suggest an increase in large storm events during the spring and fall, when lightning events are most likely to occur.³⁴ From previous occurrences and an expected increase in events, Lafayette County can expect to have more than 0.28 lightning events per year on average. The average cost in property and crop damages of a significant lightning event in Lafayette County between 1996 and July of 2022 was \$10.6K.

³⁴ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

Severe Thunderstorm – Thunderstorm Wind Event

Thunderstorm winds are winds of 58 mph or more and can cause extensive damage. They are most common between April and September and tend to peak in June. Fast-moving bands of thunderstorms with destructive winds, called derechos, move in straight lines rather than the spirals of a tornado. Derechos are rare events that may multiply the severity of and damage from single-event thunderstorms.

Historical Severe Thunderstorm Events

According to NOAA records, Lafayette County experienced 115 thunderstorm wind events between 1955 and July of 2022. Total damages caused by these events was \$4.09M in property damage and \$1.15M in crop loss/damage. On average, that is approximately \$45.6K in damages per significant thunderstorm wind event in Lafayette County. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to thunderstorm winds:

- Agricultural Industry – Loss of crop, livestock injury and possible death
- Business/Industry Infrastructure – Property damage (roof and vehicle damage), property loss, debris clean-up
- Emergency Services – Warning systems, access to vulnerable populations such as older, low-income, children, disabled, recreational park users, and visitors, possible human injury and/or death
- Environmental – Tree damage, pollution due to hazardous waste spills
- Residential Infrastructure – Property damage (roof and vehicle damage), property loss, debris clean-up
- Public Health – Significant risk of bodily harm due to flying debris and hazardous driving conditions
- Public Infrastructure (including utilities) – Property damage, downed transmission lines and poles, damaged transformers and telecommunication networks debris clean-up, road damage

Future Probability and Potential Loss

According to NOAA, on average there were 1.72 thunderstorm wind events per year in Lafayette County between 1955 and July of 2022. Trends and research suggest an increase in large storm events during the spring and fall, when thunderstorm events are most likely to occur. From previous occurrences and an expected increase in events, Lafayette County can expect to have more than 1.72 thunderstorm wind events per year on average. The average cost in property and crop damages of a significant thunderstorm wind event in Lafayette County between 1955 and July of 2022 was \$45.6K.

Severe Thunderstorm – Tornado Event

A tornado is a violently rotating funnel shaped column of air that touches the ground. Using the new Enhanced Fujita Scale wind speeds can vary from as low as 65 miles per hour for an EF0 tornado to over 200 miles per hour for an EF5 tornado. Tornado paths are generally not wider than 1/4 a mile and not longer than 16 miles. A tornado's destructive power comes from its high wind and sudden pressure changes. Tornadoes are associated with storm systems and are usually accompanied by hail, torrential rain, and intense lightning. In the U.S., tornadoes are classified according to the Enhanced Fujita Scale and generally land into one of six intensity categories, EF0-EF5³⁵.

Historical Occurrence

According to NOAA records, Lafayette County experienced 23 tornadoes between 1958 and July of 2022. Total damages caused by the 23 tornado events in Lafayette County was \$9.11M in property damage and \$260K in crop loss/damage. On average, that is approximately \$407K in damages per tornado event in Lafayette County. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to tornadoes:

- Agricultural Industry – Loss of crop, livestock injury and possible death
- Business/Industry Infrastructure – Property damage and loss
- Emergency Services – Warning systems, access to vulnerable populations such as older, low-income, children, disabled, recreational park users, and visitors, possible human injury and/or death
- Environmental – Habitat loss
- Residential Infrastructure – Property damage and loss
- Public Health – Potential injury or death due to flying debris, downed powerlines, or collapsed structures
- Public Infrastructure (including utilities) – Property damage, downed transmission lines and poles, damaged transformers and telecommunication networks debris clean-up, road damage

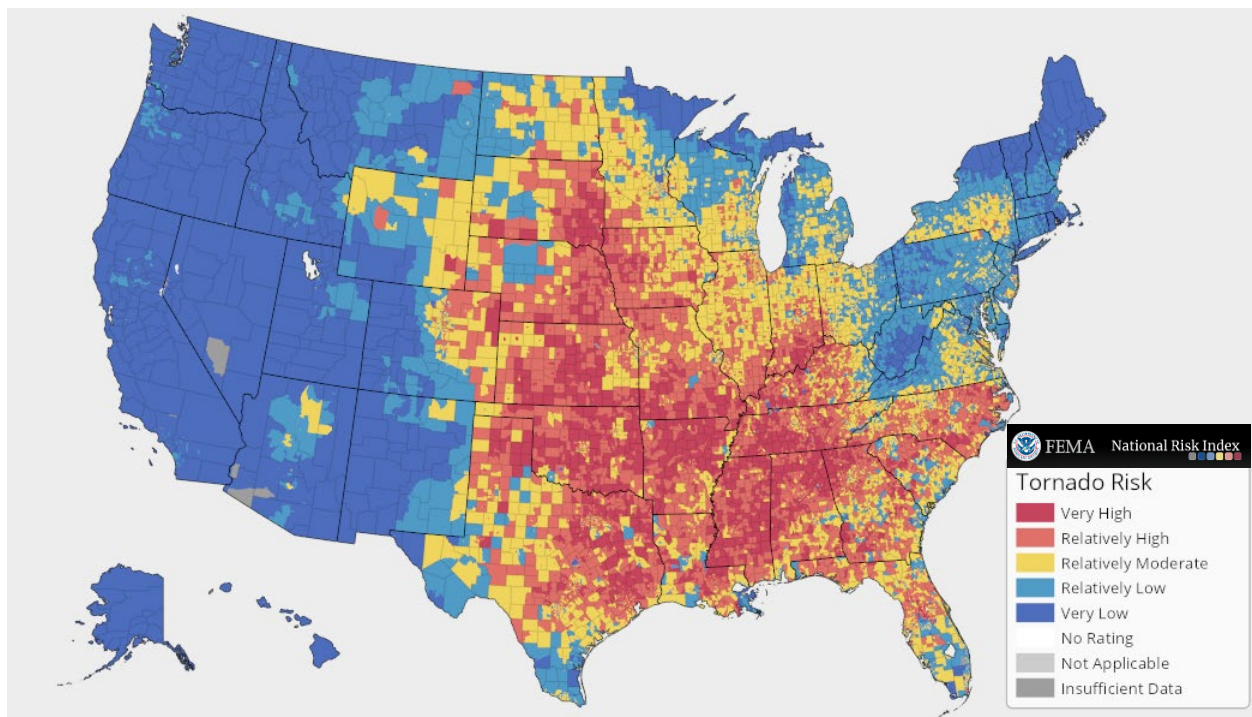
Future Probability and Potential Loss

According to NOAA, on average there were 0.36 tornado events per year in Lafayette County between 1958 and July of 2022. Trends and research suggest an increase in large storm events during the spring and fall, when tornado events are most likely to occur.³⁶ From previous occurrences and an expected increase in storm events, Lafayette County can expect to have more than 0.36 tornado events per year on average. According to FEMA's National Risk Index (see Figure 15), Lafayette County has relatively moderate risk for tornadoes.

³⁵ National Weather Service. *The Enhanced Fujita Scale*. <https://www.weather.gov/oun/efscale>

³⁶ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

Figure 15: FEMA Tornado Risk in the United States



Severe Winter Storms

Winter storms include heavy snowstorms, blizzards, and ice storms. Winter storms cover broad geographical areas, and one storm can impact entire regions of the state. The winter storm season in Wisconsin is from October to March. However, severe winter weather has occurred as early as September and as late as April and the early part of May in some areas of the state. Winter storms frequently result in problems of drifting snow and hazardous roadway conditions. According to the Wisconsin State Hazard Mitigation Plan (2021), there are six elements that make up hazardous winter weather³⁷:

- Heavy snowfall: Accumulation of four or more inches of snow in a 12-hour period or six or more inches in a 24-hour period
- Blizzard: Sustained wind or frequent wind gusts of at least 35 mph accompanied by considerable falling and/or blowing snow
- Ice Storm: Freezing rain produces significant or damaging accumulations of ice, usually ¼" or thicker
- Freezing Drizzle/Freezing Rain: Drizzle or rain that falls as a liquid but freezes into glaze upon contact with the ground or objects with a temperature of 32°F or below
- Sleet: Pellets of ice composed of frozen or mostly frozen raindrops or refrozen partially melted snowflakes
- Wind Chill: Measure of accelerated heat loss from exposed skin due to increased wind speeds

³⁷ Wisconsin Emergency Management (December 2021). *Threat & Hazard Identification and Risk Assessment* https://wem.wi.gov/wp-content/library/Mitigation/Appendix_A_THIRA.pdf Page 216

Historical Occurrences

According to NOAA records, Lafayette County experienced 153 severe winter storms between 1998 and July of 2022. The total damages caused by the 153 winter storm events in Lafayette County was \$10K in property damage. Considering the frequency of these storms and the potential damages due to heavy snow and closed roads, it is likely that the number for property damage is under-reported and that loss of services/income is not included in that estimate. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to severe winter storms:

- Agricultural Industry – Livestock injury and possible death
- Business/Industry Infrastructure – Property damage (roof and vehicle damage), property loss, income loss, transportation breakdown
- Emergency Services – Warning systems, access to vulnerable populations such as older, low-income, children, disabled, recreational park users, and visitors, possible human injury and/or death
- Environmental – N/A
- Residential Infrastructure – Property damage (roof), property loss, debris clean-up
- Public Health – Loss of electricity and natural gas services
- Public Infrastructure (including utilities) – Property damage, downed transmission lines and poles, damaged transformers and telecommunication networks debris clean-up, road damage, school closures, workforce impacts from school and business closures and commute impacts

Future Probability and Potential Loss

According to NOAA, on average there were 6.38 severe winter storm events per year in Lafayette County between 1998 and July of 2022. Trends and research suggest a decrease in the time of freezing conditions necessary for severe winter storms, but suggest greater precipitation in the forms of both snow and rain, leading to an unknown future probability of ice storm events.³⁸ From previous occurrences Lafayette County may expect to have, on average, 6.38 severe winter storm events per year.

Wildland and Forest Fires

A forest fire is any uncontrolled fire that occurs in a woodland outside of the limits of an incorporated village or city. A wildfire is any instance of uncontrolled burning in brush, marshes, grasslands, or field lands. Types of fires include:

- *Interface or intermix fires* occur in areas where both vegetation and structures provide fuel. These are also referred to as wildland-urban interface fires.
- *Firestorms* occur during extreme weather (e.g. high temperatures, low humidity, and high winds) with such intensity that fire suppression opportunities are limited. These events typically burn until the weather or fuel conditions change, reducing fire behavior.

³⁸ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

Prescribed fire is the intentional application of fire to wildland natural fuels, under specific environmental conditions, to accomplish planned land management objectives. It is a commonly suggested management strategy and one of the most complicated and complex operations to implement.

Historical Occurrences

According to records from the WI-DNR, Lafayette County experienced 3 wildland and forest fires between 1982 and July of 2022. The total damage to property and crops is unknown. See Appendix E: Lafayette County Fire Events.

Vulnerability Assessment

See Figure 16 for a map of wildfire risk in the county. Aspects of Lafayette County infrastructure and services most vulnerable to wildfires and forest fires:

- Agricultural Industry – Loss of Crop, loss of agricultural and industry buildings, livestock injury and possible death
- Business/industry infrastructure – Property damage, property loss, income loss, transportation breakdown
- Emergency Services – Warning systems, access to vulnerable populations such as older, poor, children, recreational park users, and visitors, possible human injury and/or death, stress on volunteer fire departments and volunteer networks
- Environmental – Loss of wildlife habitat, wildlife illness and possible death, soil erosion
- Residential Infrastructure – Property damage, property loss, debris clean-up
- Public Health – Ash and smoke inhalation, fire debris, illness and loss of life
- Public Infrastructure (including utilities) – Property damage, downed transmission lines and poles, damaged transformers and telecommunication networks debris clean-up, road damage and closure, railroad track damage

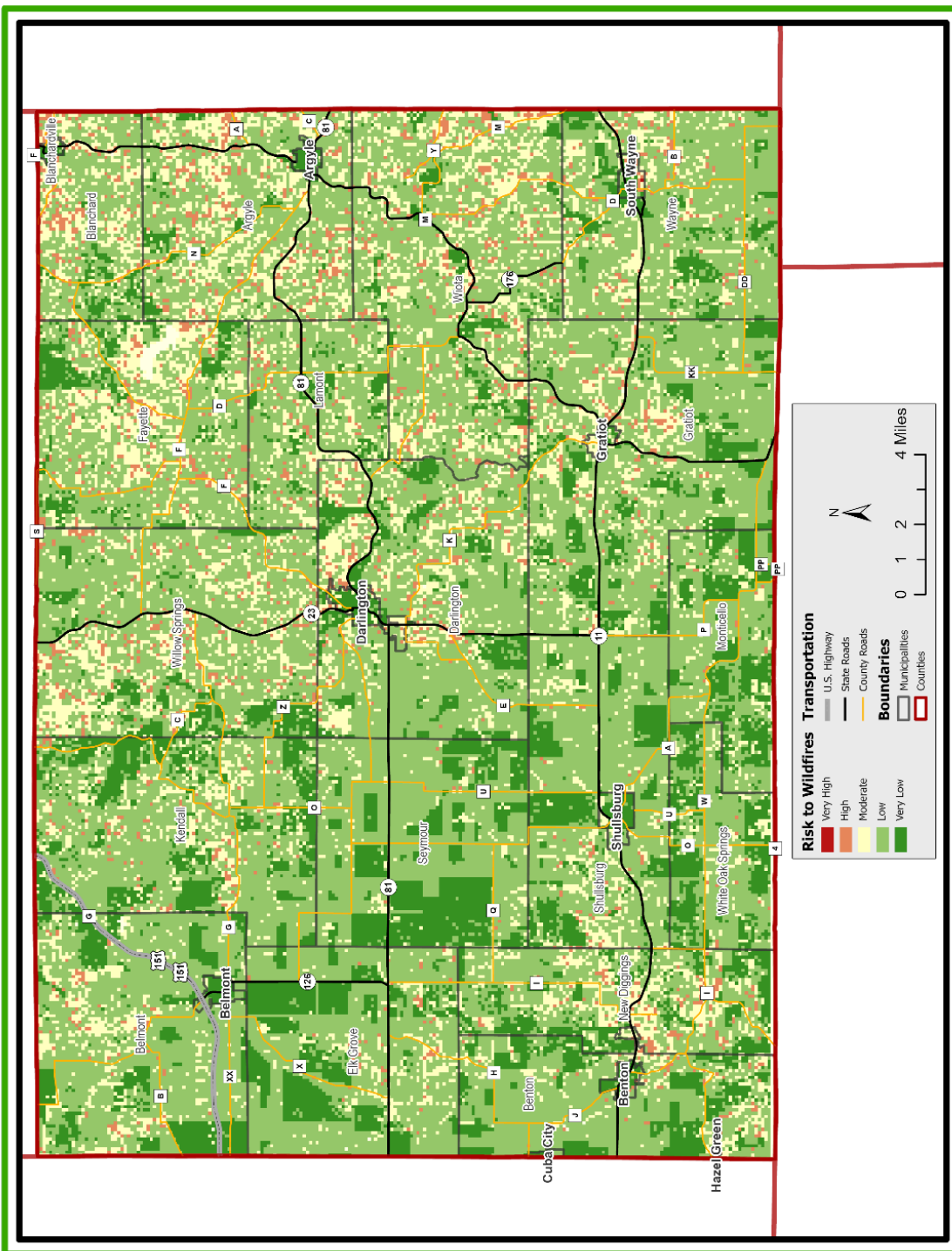
Future Probability and Potential Loss

According to the Wisconsin Department of Natural Resources, on average there were 0.05 wildfire and forest fire events per year, between 1982 and July of 2022. Trends and research suggest that an increase in temperatures and droughts could increase the risk and severity of wildfires in the future.³⁹ According to the Risk Factor tool created by the nonprofit First Street, there are 5,980 properties in Lafayette County that have some risk of being affected by wildfire over the next 30 years. This represents 27% of all properties in Lafayette County.⁴⁰ Forest and wildfires can be naturally created through cycles of growth and death in prairies and forests. Events of greater severity could decrease the future probability of events, with underbrush being removed due to fire. Historically, events in Lafayette County have been small, infrequent, and the cost of damages is unknown.

³⁹ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

⁴⁰ First Street Foundation, Risk Factor (August 2022) https://riskfactor.com/county/lafayette-county/55065_fsid/fire

Figure 16: Wildfire Risk in Lafayette County⁴¹



⁴¹ Lafayette County GIS Data. *Municipalities*, 2022. Obtained directly via email. 25 August 2022.
 US Census. *Counties*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 US Census. *Roads*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. 25 August 2022.
 USDA Forest Service. *Wildfire Risk*, 2017. <https://www.fs.usda.gov/rds/archive/Catalog/RDS-2020-0016>. 25 August 2022.

Fog

Fog, at its most basic definition, is a cloud on the ground rather than in the atmosphere. Fog occurs when the air near the ground is saturated with moisture and condenses on tiny particles suspended in the air. Once condensation occurs on these tiny surfaces, the resulting liquid drops can remain suspended in the air because their weight causes them to descend slowly to the ground or be carried by wind. Fog is often hazardous when the visibility is reduced to ¼ mile or less. While all of the county may experience fog, the most significant fog hazard concern is vehicle transportation, so transportation paths are likely the largest risk.

Historical Occurrences

According to NOAA records, Lafayette County experienced 68 dense fog events between 1999 and July of 2022. The total damages caused by dense fog in these events is unknown. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to fog:

- Agricultural Industry – N/A
- Business/industry infrastructure – N/A
- Emergency Services – Warning systems, possible human injury and/or death due to accidents
- Environmental – N/A
- Residential Infrastructure – N/A
- Public Health – Possible injury/death due to vehicle crashes
- Public Infrastructure (including utilities) – N/A

Future Probability and Potential Loss

According to NOAA, on average there were 2.96 dense fog events per year between 1999 and July of 2022. Fog is a regional event that affects the entire county. The largest vulnerability attributed to fog in Lafayette County is automobile crashes. According to the Wisconsin Department of Transportation, fog contributed to 240 car crashes in Lafayette County between 1994 and 2021. During these crashes one person was killed, 101 were injured and 165 crashes caused property damage.⁴² From previous occurrences Lafayette County can expect to have, on average, 2.96 dense fog events per year.

⁴² Wisconsin Traffic Operations and Safety (TOPS) Laboratory. Wisconsin MV4000 crash data, Lafayette County crashes 1994-2016. Available from the *WisTransPortal Data Hub*, <http://transportal.cee.wisc.edu/>. Wisconsin Department of Transportation. Retrieved August 2017.

Drought

Drought is a deficiency in precipitation over an extended period, usually a full season or more, resulting in a water shortage, causing adverse impacts on vegetation, animals, and/or people. The severity of a drought depends upon the degree of moisture deficiency, the duration, and the size of the affected area. According to NOAA, droughts are described in four ways: meteorological, agricultural, hydrological, and socioeconomic. These drought types can occur at the same time.⁴³

- *Meteorological drought* is based on the degree of dryness (rainfall deficit) and the length of the dry period.
- *Agricultural drought* is based on the impacts to agriculture by factors such as rainfall deficits, soil water deficits, reduced ground water, or reservoir levels needed for irrigation.
- *Hydrological drought* is based on the impact of rainfall deficits on the water supply such as stream flow, reservoir and lake levels, and ground water table decline.
- *Socioeconomic drought* is based on the impact of drought conditions (meteorological, agricultural, or hydrological drought) on supply and demand of some economic goods. Socioeconomic drought occurs when the demand for an economic good exceeds supply as a result of a weather-related deficit in water supply.

Historical Occurrences

According to NOAA records, Lafayette County experienced 17 drought events between 2002 and July of 2022. According to their records, Lafayette County experienced \$100,000 in crop damages during these events. NOAA's figure is likely incomplete, as drought damages are generally reported to the United States Department of Agriculture, insurance companies, or go unreported. A Federal drought emergency was officially declared in Wisconsin in 1976. See Appendix D: Storm Events.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to extreme temperatures:

- Agricultural Industry – Crop failure, livestock illness, and possible death. Particularly of concern are agricultural lands that are not irrigated
- Business/Industry Infrastructure – Limited water for industrial uses
- Emergency Services – Water for use in firefighting may be scarce
- Environmental – Wildlife illness and possible death
- Residential Infrastructure – Limited water for residential uses
- Public Health – Loss of potable water
- Public Infrastructure (including utilities) – Diminished water levels in municipal wells

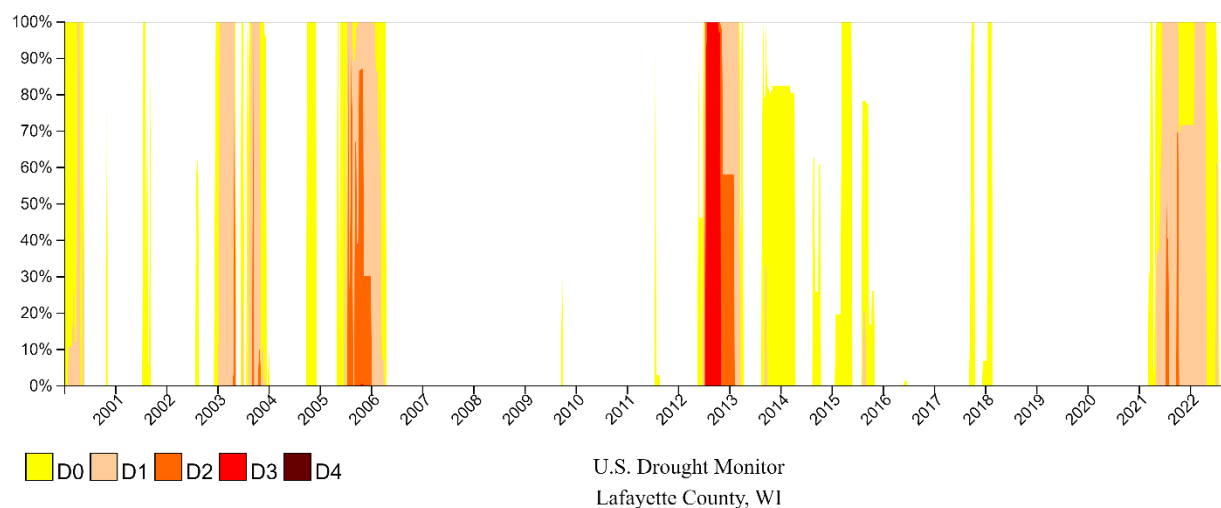
Further, drought can lead to an increased risk of flooding (due to a loss of vegetation that stabilizes the earth in times of runoff) and increased risk of fire. The entire county is at risk of drought.

⁴³ NOAA. *Drought*. (June 2018). https://www.weather.gov/media/owlie/2018_Drought.pdf

Future Probability and Potential Loss

According to NOAA, on average there were 0.85 drought events per year in Lafayette County between 2002 and July of 2022. Trends and research suggest both an increase in regularity and total precipitation throughout the year in Wisconsin. However, droughts are complex natural occurrences and their severity and duration are difficult to predict. Short severe droughts may cause very large crop damages if they occur during the growing season, as can long droughts that last for periods of months or years.

Figure 16: Historic Drought Conditions in Lafayette County



D0=Abnormally Dry, D1=Moderate Drought, D2=Severe Drought, D3=Extreme Drought, D4=Exceptional Drought

Extreme Temperatures

Extremely high and extremely low temperatures pose dangers to the health of people and animals. Extreme heat is an especially dangerous threat due to the combination of its impact on vulnerable populations and economic productivity with the frequency of its occurrence. Duration of extreme heat is an important factor in its danger, as longer periods of extreme heat offer no respite or opportunity for recovery.

Historical Occurrences

According to NOAA records, Lafayette County experienced 67 extreme temperature events between 1996 and July of 2022. Extreme temperature events are regional and can vary in severity and duration. See Appendix D: Storm Event Database.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to extreme temperatures:

- Agricultural Industry – Loss of crop, livestock illness, and possible death
- Business/Industry Infrastructure – Increased heating and cooling cost
- Emergency Services – Human illness and death (heat stroke, dehydration, frostbite, hypothermia), particularly vulnerable are older, low-income, children, and disabled populations, and those that are isolated and do not have access to adequate heating or cooling sources

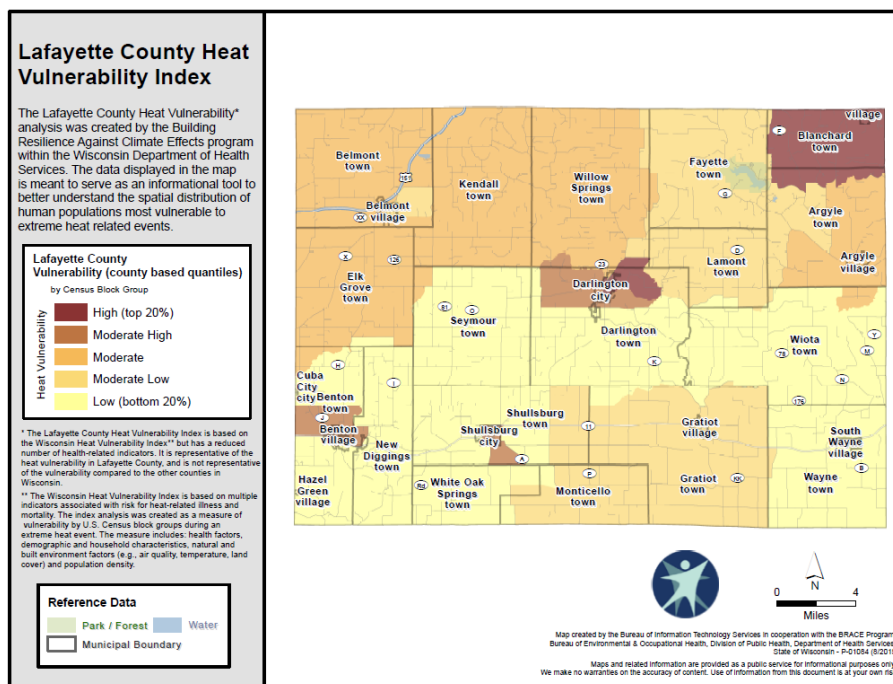
- Environmental – Wildlife illness and possible death, plant and tree damage
- Residential Infrastructure – Increased heating and cooling costs, frozen water pipes, roof damage
- Public Health – Increased air contamination levels
- Public Infrastructure (including utilities) – Diminished operations of public facilities and schools, frozen pipes, increased heating and cooling costs, increased electricity demand, and possible large scale power outages, road damages

Future Probability and Potential Loss

According to NOAA, on average there were 1.2 extreme cold and 1.4 extreme heat events per year in Lafayette County between 1996 and July of 2022. Potential loss from extreme temperature events are under-reported and have not often taken into account higher energy consumption, road damages, or closing facilities. At the residential level, extreme temperatures present issues of human safety and property damage.

The Wisconsin Department of Health Services developed a Heat Vulnerability Index (HVI) that takes into account population density, health factors, demographic and socioeconomic factors, and natural and built environment factors. Figure 17 shows areas of Lafayette County where the population is more vulnerable to extreme heat events. The map can help identify high-risk neighborhoods and populations to receive targeted messaging related to heat events and additional resources during extreme heat events. This county map is representative of Lafayette County alone, and is not comparable to HVI maps for other counties in Wisconsin.⁴⁴

Figure 17: Heat Vulnerability Map for Lafayette County



⁴⁴Wisconsin Department of Health Services. *Vulnerability Indices*. Accessed July, 2022.
<https://www.dhs.wisconsin.gov/climate/wihvi.htm>

Biological Hazards: Epidemics, Infestations, and Blight

An epidemic is the unusual increase in the number of cases of an infectious disease which already exists in a certain region or population. It can also refer to the appearance of a significant number of cases of an infectious disease in a region or population that is usually free from that disease. Insect infestations are the influx and detrimental development of insects that negatively affect humans, animals, and/or crops and materials. Blight is a biological plant disease, spread from infected plants and then deposited on soil by fungal spores that are carried by insects, wind, water, and animals.

Historical Occurrences

Biological hazards have occurred on a regular basis in Lafayette County. Biological hazards change based upon climate and weather patterns, as well as social patterns. The COVID-19 global pandemic has resulted in 13,186 confirmed deaths in Wisconsin as of July 19th, 2022.⁴⁵ The COVID-19 pandemic also resulted in major disruptions to systems and lifestyles, including supply chain issues, workforce shortages, school closures, hospital service shortages, and mental health decline in the general public.

Other examples of biological hazards include the highly pathogenic avian influenza, which was identified in Wisconsin in 2022. As of 2022, Lafayette County is a confirmed area with Emerald Ash Borer, which is an invasive beetle that attack ash trees. The county is being treated for the Spongy Moth (formerly known as the gypsy moth) as of 2022. Chronic wasting disease has been long established in Lafayette County's whitetail deer population. Oak wilt and Dutch elm disease are also present and ongoing threats to trees in the area. Additionally, many invasive land and aquatic plants are currently established in Lafayette County.⁴⁶

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to biological hazards:

- Agricultural Industry – Loss of crop, livestock illness, and possible death
- Business/Industry Infrastructure – Business closure, workforce shortage, supply shortage
- Emergency Services – Human illness and death, particularly vulnerable are older, low-income, children, and those that are isolated
- Environmental – Wildlife illness and possible death, plant and tree damage, ecosystem damage
- Residential Infrastructure – Insect infestations
- Public Health – Human illness and possible death
- Public Infrastructure (including utilities) – N/A

⁴⁵ Wisconsin Department of Health Services (2022). *COVID-19: Wisconsin Deaths*.

⁴⁶ Wisconsin Department of Agriculture, Trade, and Consumer Protection (2022). *Highly Pathogenic Avian Influenza Confirmed in Rock County Backyard Flock*.

Wisconsin Department of Agriculture, Trade, and Consumer Protection (2022) *Wisconsin's Emerald Ash Borer Information Source*.

Wisconsin Department of Agriculture, Trade, and Consumer Protection (2022). *Spongy Moth Aerial Spraying to Begin in May*.

Wisconsin DNR (2021). *Oak Wilt Detections in Wisconsin*.

Wisconsin DNR (2021) *Chronic Wasting Disease Locations of Wild Deer in Wisconsin and Illinois*

Future Probability and Potential Loss

As of this plan's writing, the impacts of the COVID-19 pandemic still continue after two years. Pandemics have long been predicted by experts, and remain a threat to the residents of Lafayette County and broader world. It is likely that infestations of invasive insects, plants, and animals will continue to establish themselves in Lafayette County, and climate change will increase the range and severity of disruptive pests and diseases.⁴⁷ Blights will continue to cause problems in years with heavy rainfall. Infestations, blights, and epidemics have the potential to cause large losses to environmental resources, crop damages, and human illness and possible death.

⁴⁷ WICCI (2021). *Wisconsin's Changing Climate: Impacts and Solutions for a Warmer Climate*.

Landslides and Embankment Failures

The term landslide includes a wide range of ground movements such as rock falls, deep failure of slopes and shallow debris flows. Although gravity acting on an over-steepened slope is the primary reason for a landslide, there may be other contributing factors, including erosion by rivers or lakes, the weakening of rock and soil slopes through saturation by snowmelt or heavy rains, excess weight from the accumulation of rain or snow, stockpiles of rock or ore, waste piles, earthquakes, or from man-made structures stressing a weak slope. Landslides may include any combination of natural rock, soil, or artificial fill and are classified by their type of movement and material.

Historical Occurrences

The U.S. Geological Survey (USGS) keeps detailed records on when and where landslides occur. According to their records, Lafayette County has no reported landslides. However, a mudslide was reported nearby in Boscobel in 2013. Landslides cause on average \$1 to \$2 billion in damages and more than 25 fatalities annually. Landslides are known to occur along limestone and sandstone bluffs of rivers and streams.⁴⁸ While no data is available for embankment failures, they have occurred on a relatively small scale in Lafayette County in the past.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to landslide and embankment failures:

- Agricultural Industry – Loss of crop, livestock injury, soil erosion, possible death
- Business/industry infrastructure – Property damage
- Emergency Services – Warning systems, possible human injury and death
- Environmental – Loss of habitat
- Residential Infrastructure – Property damage
- Public Health – Pollution
- Public Infrastructure (including utilities) – Property damage, road damages and closures, utility service disruption

Future Probability and Potential Loss

Despite a lack of landslide occurrences on record in Lafayette County, there is still a chance that a large landslide may happen in the county. The future probability of embankment failures is greater than that of landslides. According to the Highway Department, smaller road embankment washouts generally cost around \$1,000 - \$2,000 per occurrence.

⁴⁸ United States Geological Survey (2017) *Landslide Hazard Program*. <https://www.usgs.gov/programs/landslide-hazards>

Sinkholes and Subsidence

The United States Geological Survey (USGS) defines subsidence as “the loss of surface elevation due to removal of subsurface support.” Sinkholes occur where subsurface conditions of limestone, carbonate rock, salt beds, and/or rocks naturally dissolves by ground water circulation. As the rock dissolves, spaces and caverns develop underground. Sinkholes are dramatic because the land usually stays intact until the underground spaces expand too far and suddenly collapse.

Historical Occurrences

While no sinkholes have been recorded, small sinkholes happen frequently in areas with freeze thaw cycles. Lafayette County is also at risk of experiencing sinkholes because of the large quantity of carbonate bedrock in the county. The majority of Lafayette County bedrock is carbonate, and relatively close to the surface. These areas are susceptible to sinkholes, subsidence and karst hazards. Potential danger of sinkholes is also possible in areas of the county that were previously mined.⁴⁹ Lafayette County has a history of lead, copper, aggregates, limestone and zinc mining. Some mining shafts have been opened in areas where development occurred.⁵⁰

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to sinkholes and subsidence:

- Agricultural Industry – Loss of crop, soil erosion, livestock injury or death
- Business/Industry Infrastructure – Property damage
- Emergency Services – Warning systems, possible human injury and death
- Environmental – Damage to natural habitats
- Residential Infrastructure – Property damage
- Public Health – Vulnerable population injury or death
- Public Infrastructure (including utilities) – Property damage, road damages and closures, utility service disruption

Future Probability and Potential Loss

Lafayette County is at risk for sinkholes because of the large quantity of carbonate bedrock and a long history of mining and in the past. As development happens in the county, more mines will be discovered. The potential for loss due to sinkholes and subsidence can be significant, and is a risk that should be accounted for in development and emergency planning. An estimate for potential loss is unavailable since there is no recorded precedent in the county.

⁴⁹ Wisconsin Geological and Natural History Survey (2009) *Karst and sinkholes*. <https://wgnhs.wisc.edu/water-environment/karst-sinkholes/>

⁵⁰ Hudson Institute of Mineralogy (2022) *Regional History*. <https://www.mindat.org/loc-22548.html>

Earthquake

An earthquake may be caused by slipping plates that make up the earth's crust or by human activity, such as mining and fluid injection-related activities. Earthquakes can result in a violent shaking or trembling of the ground. An earthquake does not need to be of large magnitude to cause extensive damage. Areas that are less prone to this hazard are usually less prepared, which can result in significant damage.

Historical Occurrences

NOAA records earthquake events at their exact location. According to their records, no previous earthquakes have been centered in Lafayette County.⁵¹ Most earthquakes that occur in Wisconsin are very low in intensity and barely felt. These very minor earthquakes are fairly common, occurring every few years.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to earthquakes are the following:

- Agricultural Industry – Storage infrastructure damage, livestock injury or death
- Business/industry infrastructure – Property damage, disruption of services and goods
- Emergency Services – Warning systems, possible human injury and death
- Environmental – N/A
- Residential Infrastructure – Property damage
- Public Health – N/A
- Public Infrastructure (including utilities) – Property damage, damage and disruption to utilities including gas, electric, and water, road damage, and possible disruption of service

Earthquakes are able to cause a range of other disasters including fires.

Future Probability and Potential Loss

Most earthquakes that affect Lafayette County are very low in intensity and are not likely to cause any damage or be felt in any way. It is likely that low intensity earthquakes similar to those of the past will happen in the future. Yet, if a moderate to high intensity event were to happen in Lafayette County, it would cause a large range of significant damage, as buildings and infrastructure in Lafayette County were not built to withstand high intensity earthquakes.

⁵¹ NOAA. *US Earthquake Intensity Database*. Accessed July, 2021. <https://www.ngdc.noaa.gov/hazard/eq-intensity.shtml>

Hazardous Material Incident

A hazardous material incident is any uncontrolled release of an item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

Historical Occurrences

According to WEM, hazardous material incidents are often the result of the transportation of hazardous materials. In Lafayette County, between 2001-August of 2022, there were 2 hazardous materials incidents reported by the US Department of Transportation on highways, neither of which resulted in fatalities, or evacuations. These incidents took place Shullsburg and Belmont respectively.⁵²

PFAS (per-and polyfluoroalkyl substances which are long-lasting chemicals that are harmful to human and animal health) have been identified in water, air, fish, and soil, as well as in consumer, commercial, and industrial products nationally and worldwide, including in Lafayette County.⁵³ Groundwater and drinking water contamination due to agricultural runoff, decaying infrastructure, incorrect hazardous waste disposal including medical product disposal, and other sources are ongoing concerns for the region. Lafayette County is especially threatened by runoff and spillage from agricultural sources due to the large presence of agricultural industry.

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to hazardous material incidents:

- Agricultural Industry – Crop damage, damage to soil and productivity, livestock damage
- Business/Industry Infrastructure – Property damage, disruption of services and goods
- Emergency Services – Possible human injury and death
- Environmental – Loss of habitat, air, water, and soil contamination
- Residential Infrastructure – Property damage, evacuation, injury and possible death
- Public Health – Air, water, food, and soil contamination resulting in quality-of-life reduction and potential death
- Public Infrastructure (including utilities) – Property damage, damage and possible disruption of service

Future Probability and Potential Loss

Areas of greatest future probability in Lafayette County include highly travelled roadways. These important transportation networks have large amounts of hazardous or potentially hazardous materials traveling on them. Possible events could include the spill of manure from a manure transport vehicle on a local road, and the spill of a large amount of hazardous material at a local business. Potential losses vary greatly depending on the extent and severity of the material.

⁵² U.S. Department of Transportation. *Office of Hazardous Materials Safety - Incident Reports Database Search*. Accessed August, 2022. <https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics>

⁵³ EPA. *PFAS Explained*. <https://www.epa.gov/pfas/pfas-explained>. Accessed August, 2022.

Cyberattack

WEM defines a cyberattack as “the hostile use of information technology by individuals or groups for the purpose of financial gain or as an action to further a social or political agenda. This includes the use of information technology to threaten, exchange information, and/or organize and execute attacks against networks, computer systems, and infrastructure.” Possible incidents include unauthorized access to networks, computer viruses, shutting down websites, and taking over public infrastructure such as electrical networks or communication networks.

Historical Occurrences

A cyberattack is an evolving man-made technological hazard that has much lower relevance to geography than most other hazards, due to the fact that cyberattacks do not happen in a location, but rather through online networks. These incidents have increased over time, and the FBI has recorded 2.76 million complaints globally in the last five years, resulting in a loss of \$18.7 billion. Ransomware attacks have affected the following sectors most frequently: healthcare and public health, financial services, information technology, critical manufacturing, and government facilities.⁵⁴ See Figures 18 and 19 for more information.

Vulnerability Assessment and Future Probability

Aspects of Lafayette County infrastructure and services most vulnerable to a cyberattack incident:

- Agricultural Industry – Loss of communications, financial theft
- Business/Industry Infrastructure – Disruption of service, hostile takeover/ransom of website, theft of business sensitive data, financial theft
- Emergency Services – Warning systems network compromised, loss of communications
- Environmental – Protection systems and networks compromised
- Residential Infrastructure – Property damage, evacuation, injury and possible death
- Public Health – Hostile takeover/ransom of private computers, theft of personal information including banking information
- Public Infrastructure (including utilities) – Power failure, utility shut down, disruption of services, loss of services

Future Probability and Potential Loss

As technology advances, cyber attacks will likely become more sophisticated and damaging. Given that the victim losses reported to the Internet Crime Complaint Center in 2021 alone totaled \$51.8 million in Wisconsin¹, the potential loss due to cyberattacks is extremely high. This may affect individuals, businesses, government agencies, and all other entities with information stored and transferred online.

⁵⁴ Federal Bureau of Investigation, 2021. *Internet Crime Report 2021*.

Figure 18: FBI Internet Crime Complaint Center Complaints and Losses over the Last Five Years

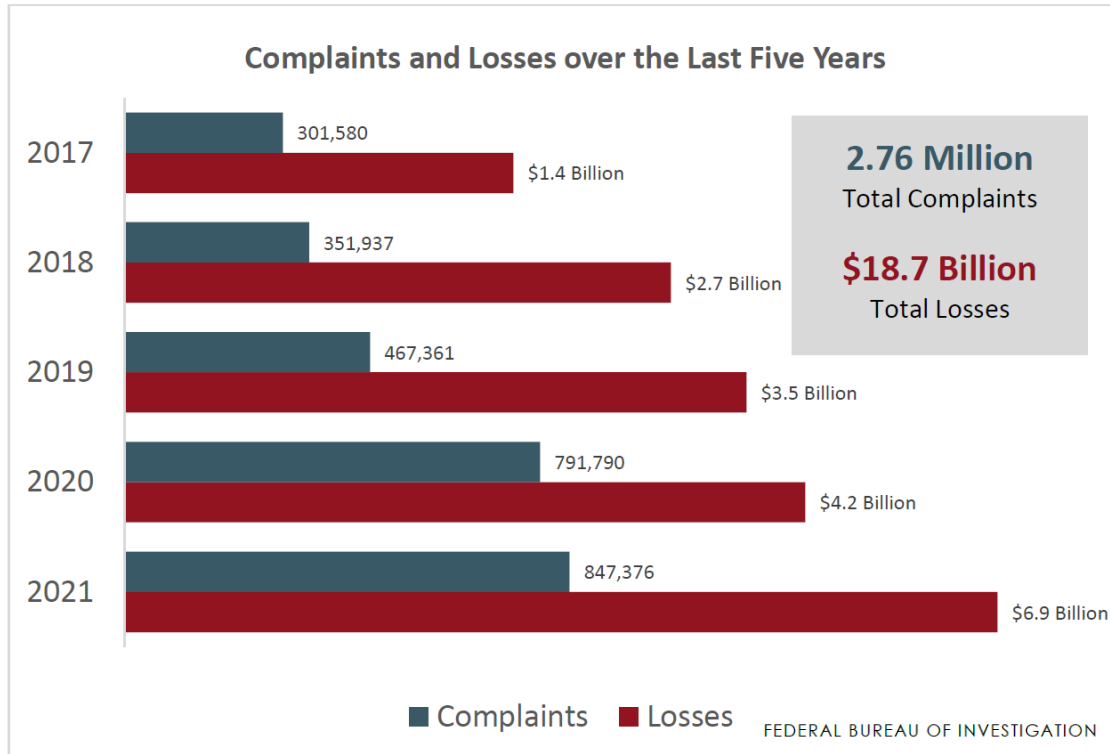
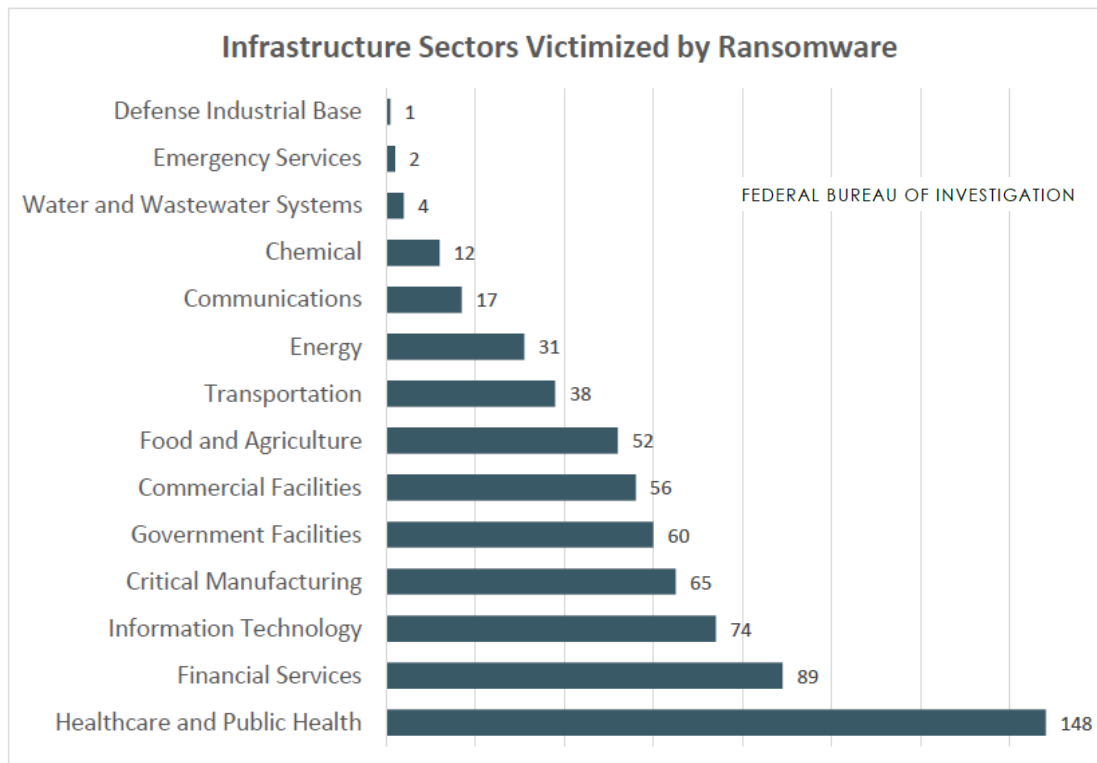


Figure 19: FBI Internet Crime Complaint Center Infrastructure Sectors Victimized by Ransomware



Domestic Terrorism

According to WEM, terrorism is the threat or use of violence to create fear for the purpose of furthering or achieving a political goal.⁵⁵ Examples of domestic terrorism include active shooter incidences, anti-government demonstrations, and riots.

Historical Occurrences

On August 5, 2012 an active shooter incident at the Sikh Temple of Wisconsin in Oak Creek resulted in six deaths and four injuries.⁵⁶ On January 6th, 2020, following the presidential election, several Wisconsinites participated in a breach of the U.S. Capitol, and have since been criminally convicted. Domestic terrorism has been identified as a growing threat in the U.S., and Figure 20 shows the types of terrorist attacks recorded over a 25-year time period.⁵⁷

Vulnerability Assessment

Aspects of Lafayette County infrastructure and services most vulnerable to a domestic terrorism incident:

- Agricultural Industry – N/A
- Business/Industry Infrastructure - Disruption of service, theft, property damage
- Emergency Services – Human injury or death
- Environmental – Possible damage to ecosystems
- Residential Infrastructure: Property damage, evacuation, injury and possible death
- Public Health – Human injury or death, mental health damage including PTSD
- Public Infrastructure (including utilities) – Disruption of services, loss of services, cost to update school and other infrastructure in efforts to protect against domestic terrorism issues.

Future Probability and Potential Loss

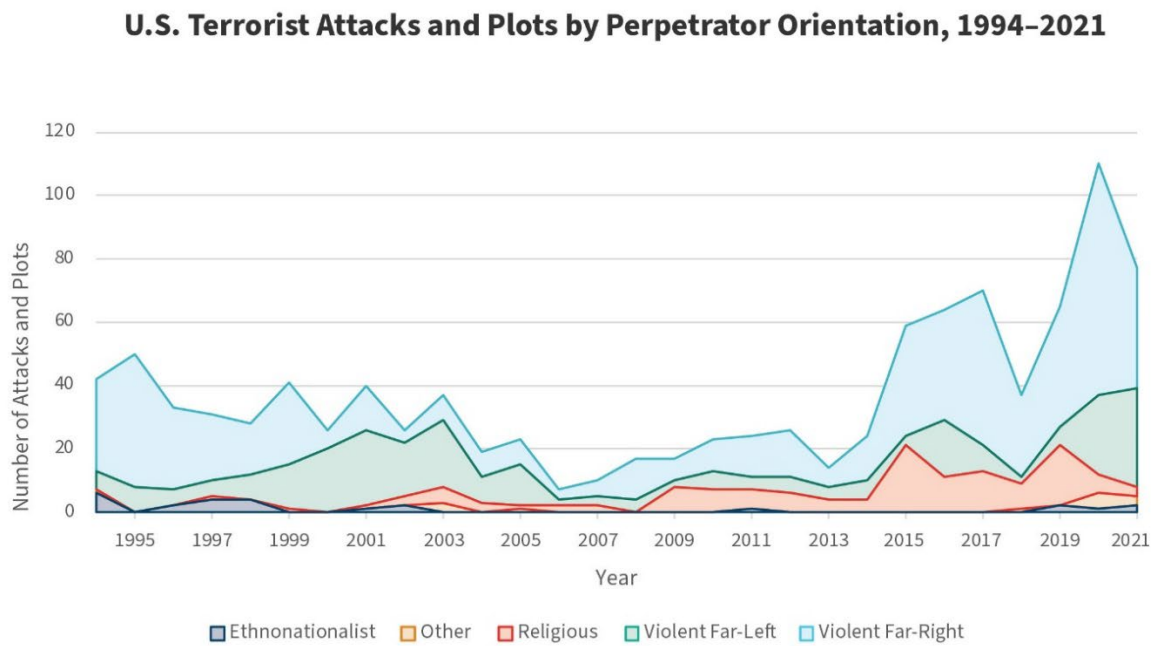
As demonstrated in Figure 20, instances of domestic terrorism have increased in recent years, indicating that the probability of future events is high. Loss of life is the primary concern when anticipating domestic terrorism. In 2021 alone, there were 30 fatalities due to domestic terrorism in the United States. Property damage, theft, and other violations are also threats from this hazard.

⁵⁵ WEM, 2021. *Threat & Hazard Identification and Risk Assessment (THIRA)*. https://wem.wi.gov/wp-content/library/Mitigation/Appendix_A_THIRA.pdf

⁵⁶ Federal Bureau of Investigation. *Active Shooter Incidents in the United States from 2000-2018*. <https://www.fbi.gov/file-repository/active-shooter-incidents-2000-2018.pdf/view>

⁵⁷ Center for Strategic & International Studies (2020). *The Escalating Terrorism Problem in the United States*. <https://www.csis.org/analysis/escalating-terrorism-problem-united-states>

Figure 20: Number of Terrorist Attacks and Plots in the U.S.⁵⁸



Source: Data compiled by CSIS Transnational Threats Project.

CSIS | TRANSNATIONAL THREATS PROJECT

⁵⁸ Center for Strategic & International Studies (2020). *The Escalating Terrorism Problem in the United States*. <https://www.csis.org/analysis/escalating-terrorism-problem-united-states>

Chapter 5: Summary of Local Risks and Mitigation

The following section summarizes recent local hazards and recommended actions for each community. The Village of Hazel Green and the City of Cuba City were not included in Lafayette County's Plan; those Villages are included in Grant County's Hazard Mitigation Plan. Local actions were identified by the planning team through a compilation of public input, local knowledge, and the county-wide risk assessment. Once local input was summarized, the planning team determined estimated costs, implementation responsibility, timeline for completion, and priority.

Estimated Costs

Actions were developed with the understanding that financial and human resources are the greatest obstruction to communities undertaking hazard mitigation actions. In the final review of each community's actions, estimated costs were considered in prioritization. For high-cost actions, such as storm shelters and addressing public infrastructure, this plan encourages advanced preparation by undertaking studies to clearly identify needs and to prepare grant narratives ahead of time in order to maximize the use of state and federal funds. In several instances, the extent or severity of hazard related problems are not known at this time.

Implementation Responsibility

Each action is associated with a responsible party. In most cases, hazard mitigation is the responsibility of local government. In other instances, hazard mitigation is under the jurisdiction of the state or county, and at times hazard mitigation is required by local business and land owners. In all cases, assistance in implementing the hazard mitigation action is provided by LCEM.

Timeline

Each action has a unique timeline depending on complexity, location, and available resources. In general, timelines are based upon the estimated time it would take the responsible party to complete the action.

Action Prioritization

Actions are prioritized based upon the risk assessment, local input, estimated costs, availability of local and county resources, and impact. Local hazard mitigation actions are organized into high, medium, and low priority.

- High Priority: Planning and implementation on the action should begin as soon as possible.
- Medium Priority: Implementation should begin following completion of high priority actions, following the initiation of high priority actions, or as new resources become available.
- Low Priority: The action should be considered according to context and opportunity following consideration of high and medium priority actions.

Maps

The sources for the municipal map data are listed in Appendix F.

City of Darlington

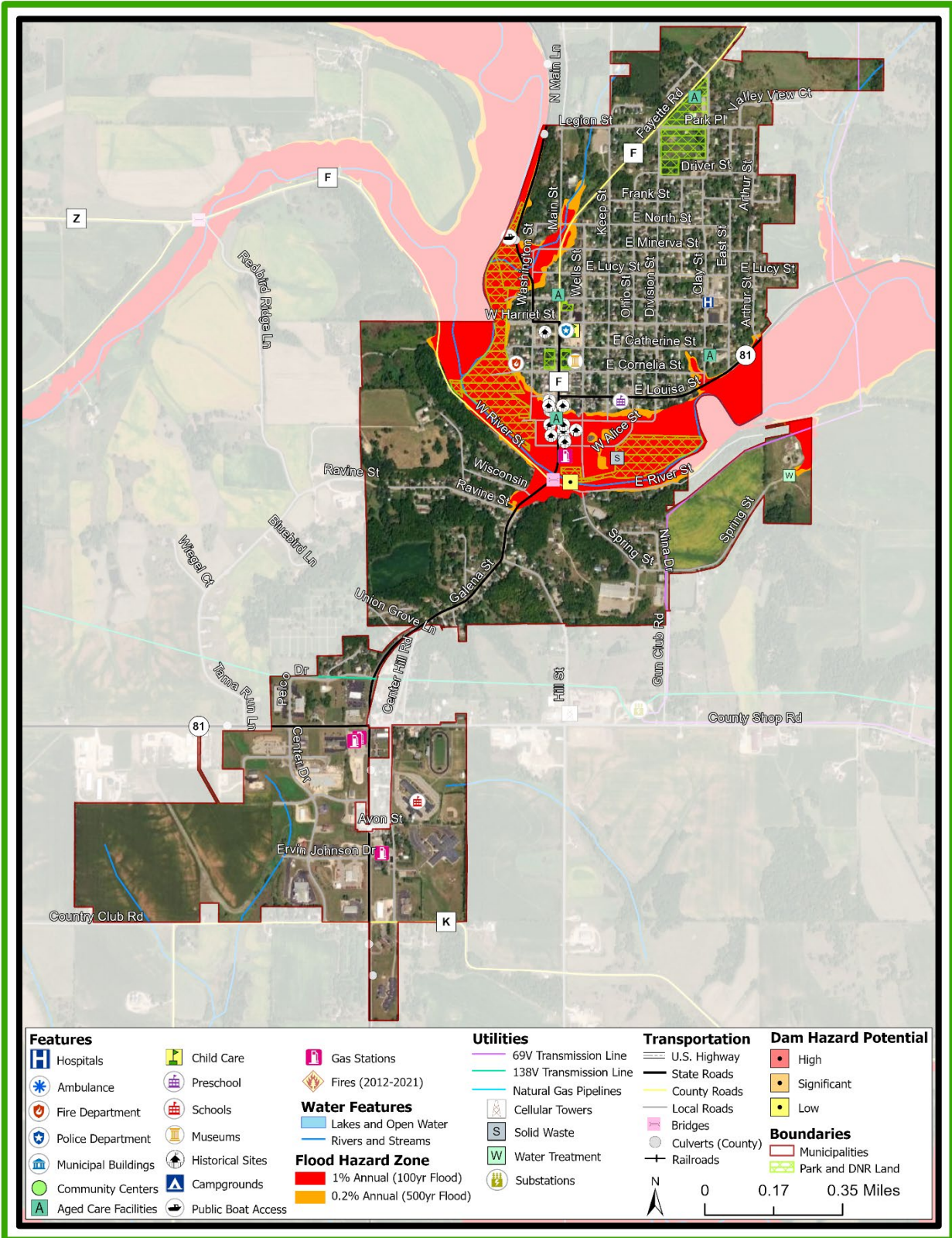
The City of Darlington is located in the central part of Lafayette County. The population was estimated to be 2,462 in 2020⁵⁹. A key concern for Darlington is the separation of the north and south parts of the city by the river, connected only by one bridge. During a major flood event, or in case of bridge failure, essential functions of the city would be unable to aid alternative parts of the city. Public meeting input held in May, 2022 for the city comprehensive plan update was incorporated for local action recommendations.

Table 14: City of Darlington Local Action Recommendation

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	2 years	City Council/ Fire Dept/ LCEM/ Highway Dept	Unknown	BRIC Grant, ARPA Funds, City Budget	Establish transportation, resources, and emergency services between north and south sides of the river, in case of flooding or other bridge failure.
High	2 years	City Council/ LCEM	Unknown	BRIC Grant, City Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	2 years	City Council	Varies	City Budget	Invest in cyber protection system.
High	5 years	City Council/ LCEM	\$25K per generator	City Budget, ARPA Funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	City Council/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	2 years	City Council	Existing staff time	City Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	5 years	City Council/ LCEM	\$10k	Hazard Mitigation Grant Program	Explore the feasibility of purchasing and installing flood gauges at the Pecatonica River at Calamine.
Medium	5 years	City Council	Existing staff time	BRIC Grant, City Budget	Explore relocation of the county fairgrounds out of the floodplain.
Medium	5 years	City Council	\$5K - \$10K	City Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.
Medium	5 years	City Council	Unknown	BRIC Grant, ARPA Funds, City Budget	Pursue carbon-neutral or reduced footprints of local government, including solar power and energy efficiency.

⁵⁹ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 21: City of Darlington Map



City of Shullsburg

The City of Shullsburg is located in the south-central part of Lafayette County. The population was estimated to be 1,173 in 2020.⁶⁰

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	City Council	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	City Council/LCEM	Unknown	BRIC Grant, City Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	2 years	City Council	Varies	City Budget	Invest in cyber protection system.
High	5 years	City Council/LCEM	\$25K per generator	City Budget, ARPA Funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	City Council/LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	1 year	City Council	Unknown	BRIC Grant, City Budget	Evaluate the city's mowing and brushing demands. Create a plan to limit frequency of mowing and establishing limited maintenance landscapes that are native to the region, such as prairies.
Medium	2 years	City Council	Existing staff time	City Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	5 years	City Council	Unknown	BRIC Grant, City Budget	Pursue wastewater treatment facility discharge compliance with WIDNR. Evaluate riparian and landscape restoration versus streambank stabilization through riprap alone.
Medium	5 years	City Council	\$5K - \$10K	City Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.
Medium	5 years	City Council	Unknown	BRIC Grant, ARPA Funds, City Budget	Pursue carbon-neutral or reduced footprints of local government, including solar power and energy efficiency.

⁶⁰ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

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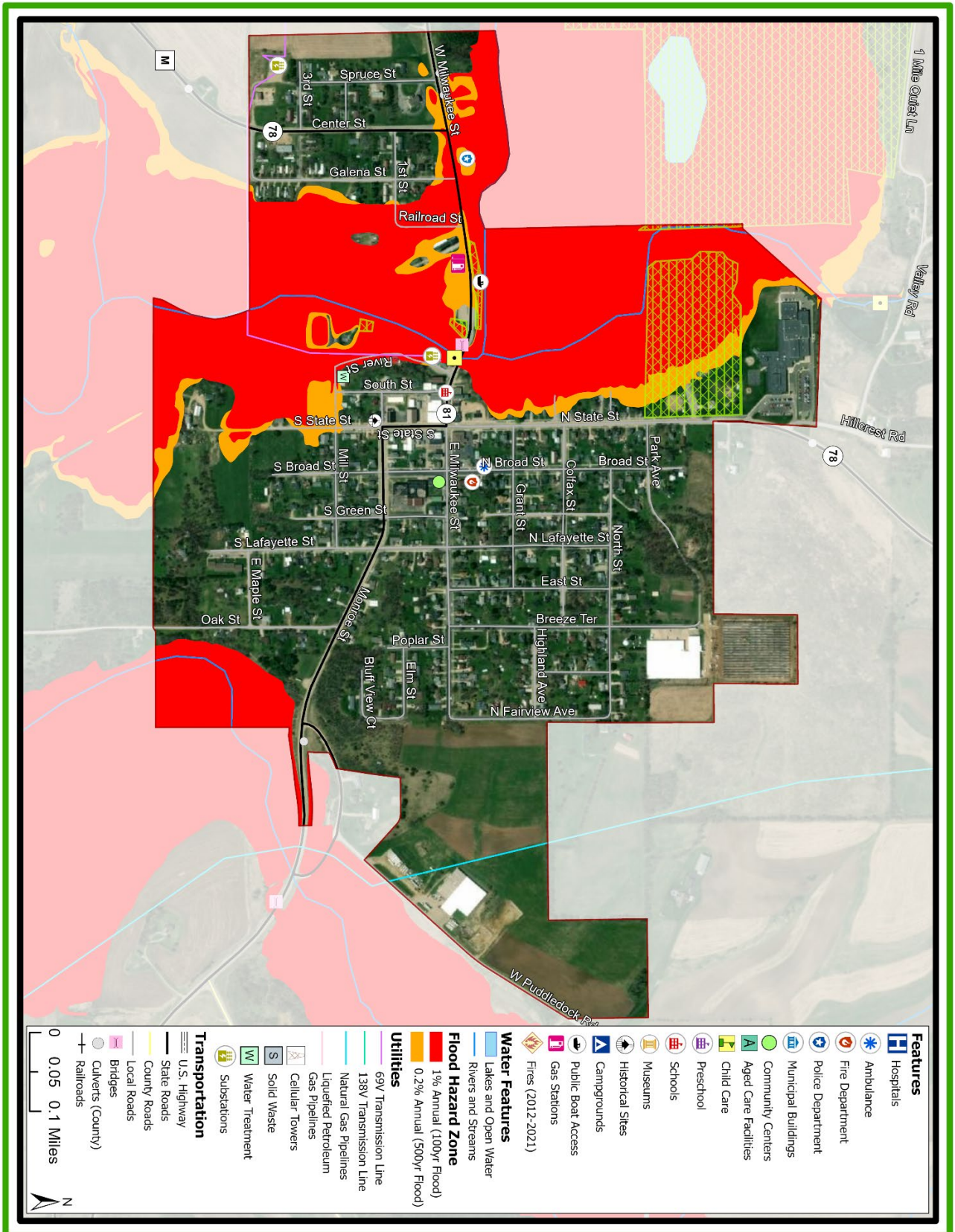
Village of Argyle

The Village of Argyle is located near the eastern border of Lafayette County. The population was estimated to be 783 in 2020⁶¹.

Table 16: Village of Argyle Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Village Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	Village Board /LCEM	Unknown	BRIC Grant, Village Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	5 years	Village Board /LCEM	\$25K per generator	Village Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Village Board /LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Village Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Village Board	\$5K - \$10K	Village Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶¹ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 23: Village of Argyle Map



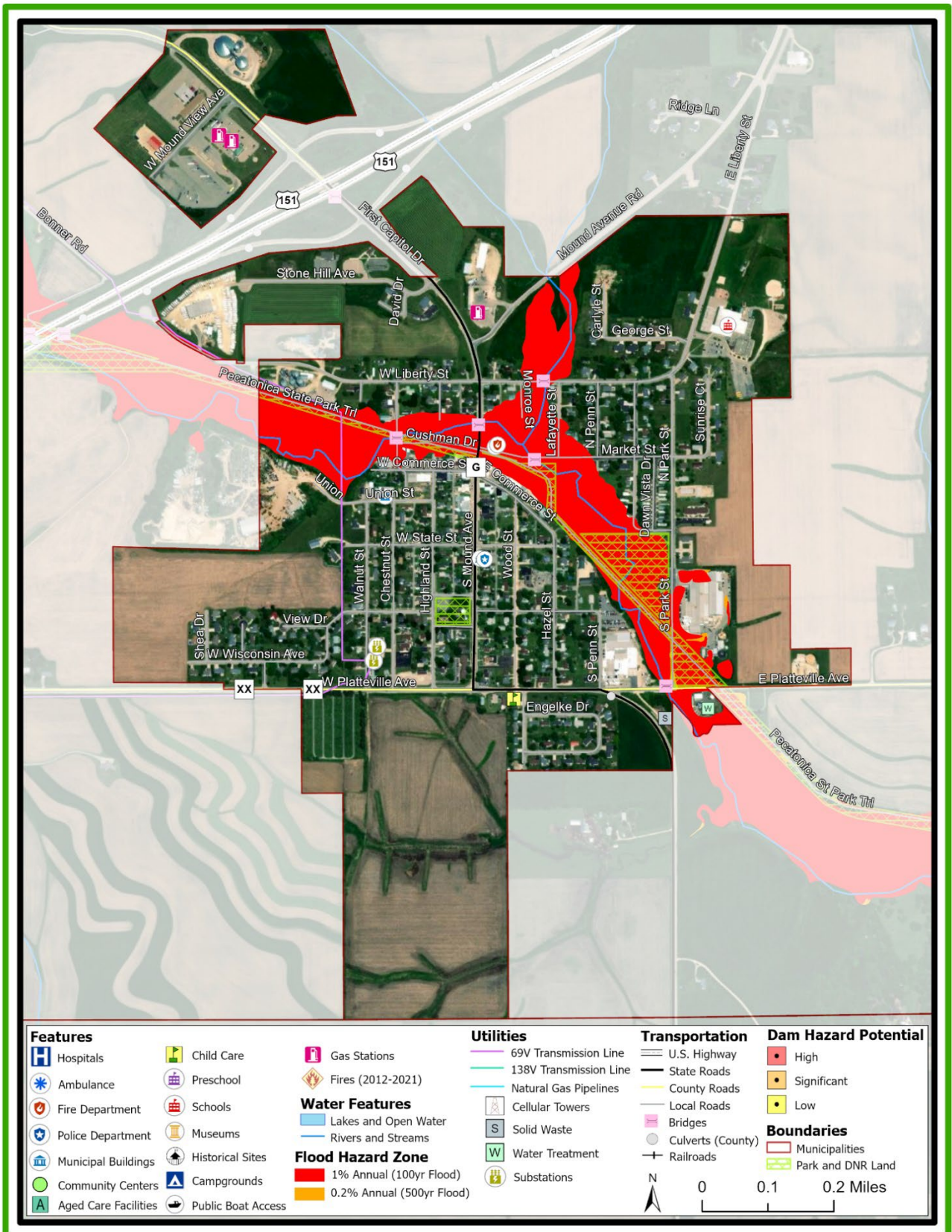
Village of Belmont

The Village of Belmont is located in the northwestern corner of the County. The population was estimated to be 989 in 2020⁶².

Table 17: Village of Belmont Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Village Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	Village Board /LCCEM	Unknown	BRIC Grant, Village Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	5 years	Village Board /LCCEM	\$25K per generator	Village Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Village Board /LCCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Village Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Village Board	\$5K - \$10K	Village Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.
Medium	5 years	Village Board	Unknown	BRIC Grant, ARPA Funds, Village Budget	Pursue carbon-neutral or reduced footprints of local government, including solar power and energy efficiency.

⁶² U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 24: Village of Belmont Map



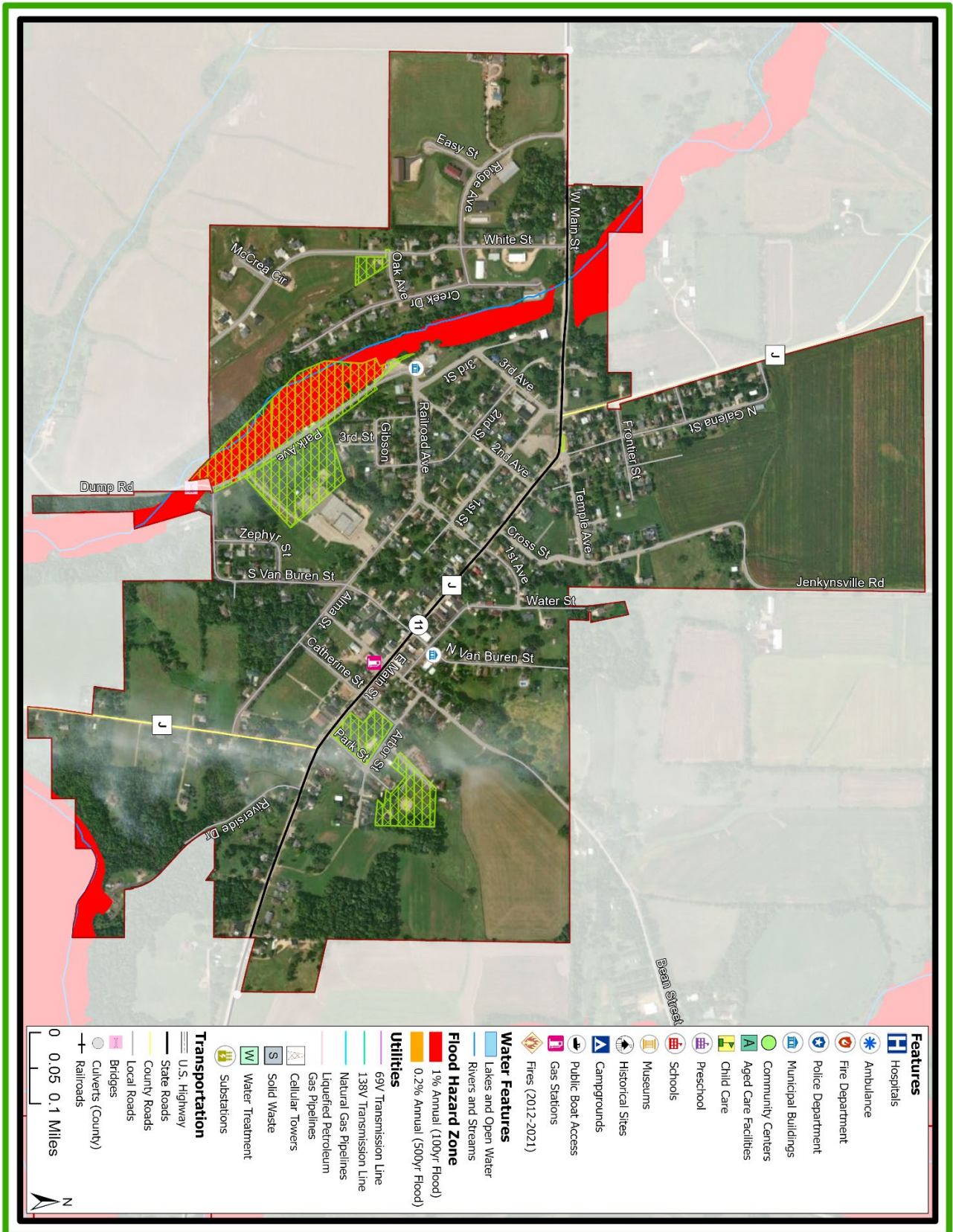
Village of Benton

The Village of Benton is located in the southwestern corner of Lafayette County. The population was estimated to be in 946 in 2020⁶³.

Table 18: Village of Benton Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Village Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	Village Board/ LCEM	Unknown	BRIC Grant, Village Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	5 years	Village Board /LCEM	\$25K per generator	Village Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Village Board /LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Village Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Village Board	\$5K - \$10K	Village Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶³ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 25: Village of Benton Map



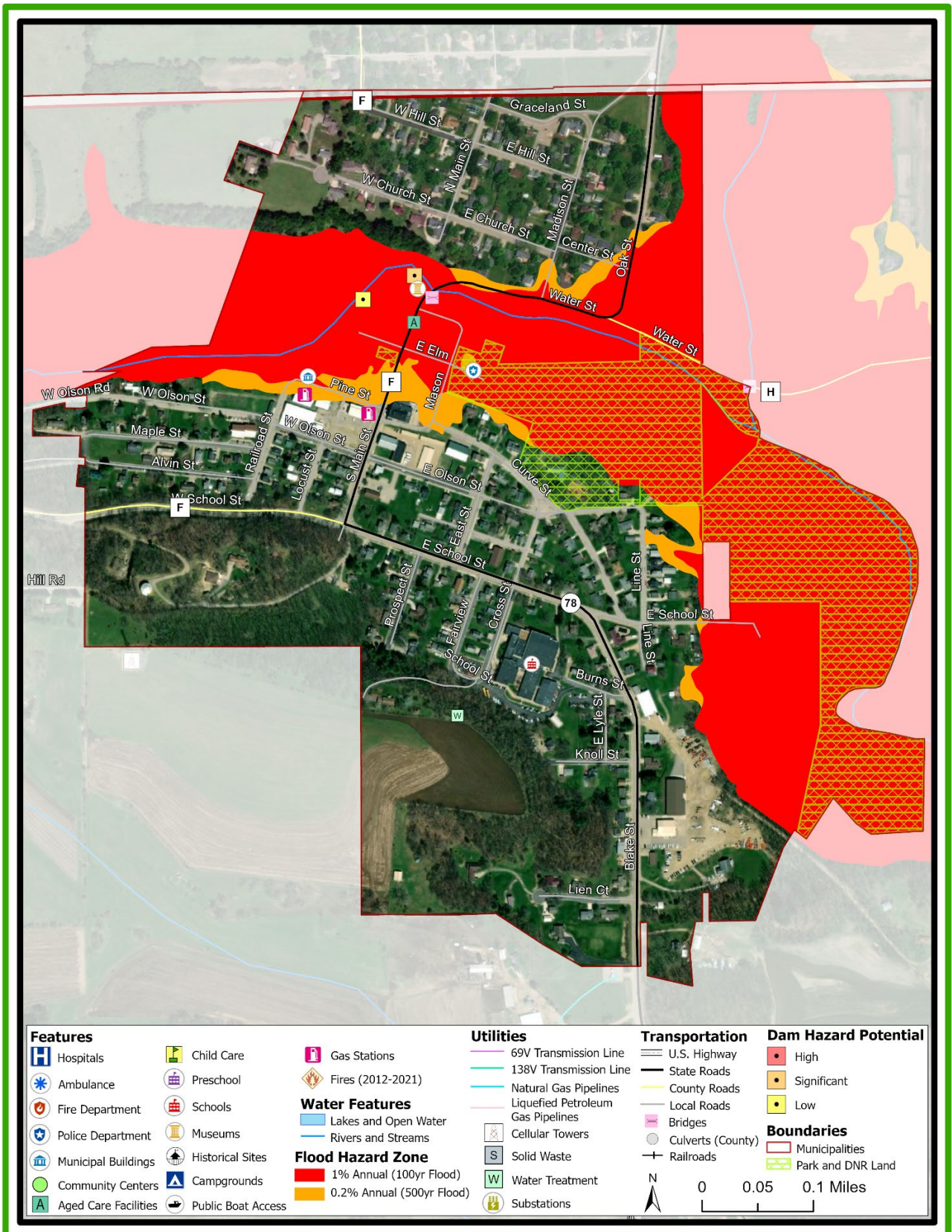
Village of Blanchardville

The Village of Blanchardville is located near the far northeastern border of the county. The population was estimated to be 613 in 2020⁶⁴.

Table 19: Village of Blanchardville Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Village Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	Village Board /LCCEM	Unknown	BRIC Grant, Village Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	5 years	Village Board /LCCEM	\$25K per generator	Village Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Village Board /LCCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	2 years	Village Board	Existing staff time	Village Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	3 years	Village Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Village Board	\$5K - \$10K	Village Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.
Medium	5 years	Village Board	Unknown	BRIC Grant, ARPA Funds, Village Budget	Pursue carbon-neutral or reduced footprints of local government, including solar power and energy efficiency.

⁶⁴ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 26: Village of Blanchardville Map



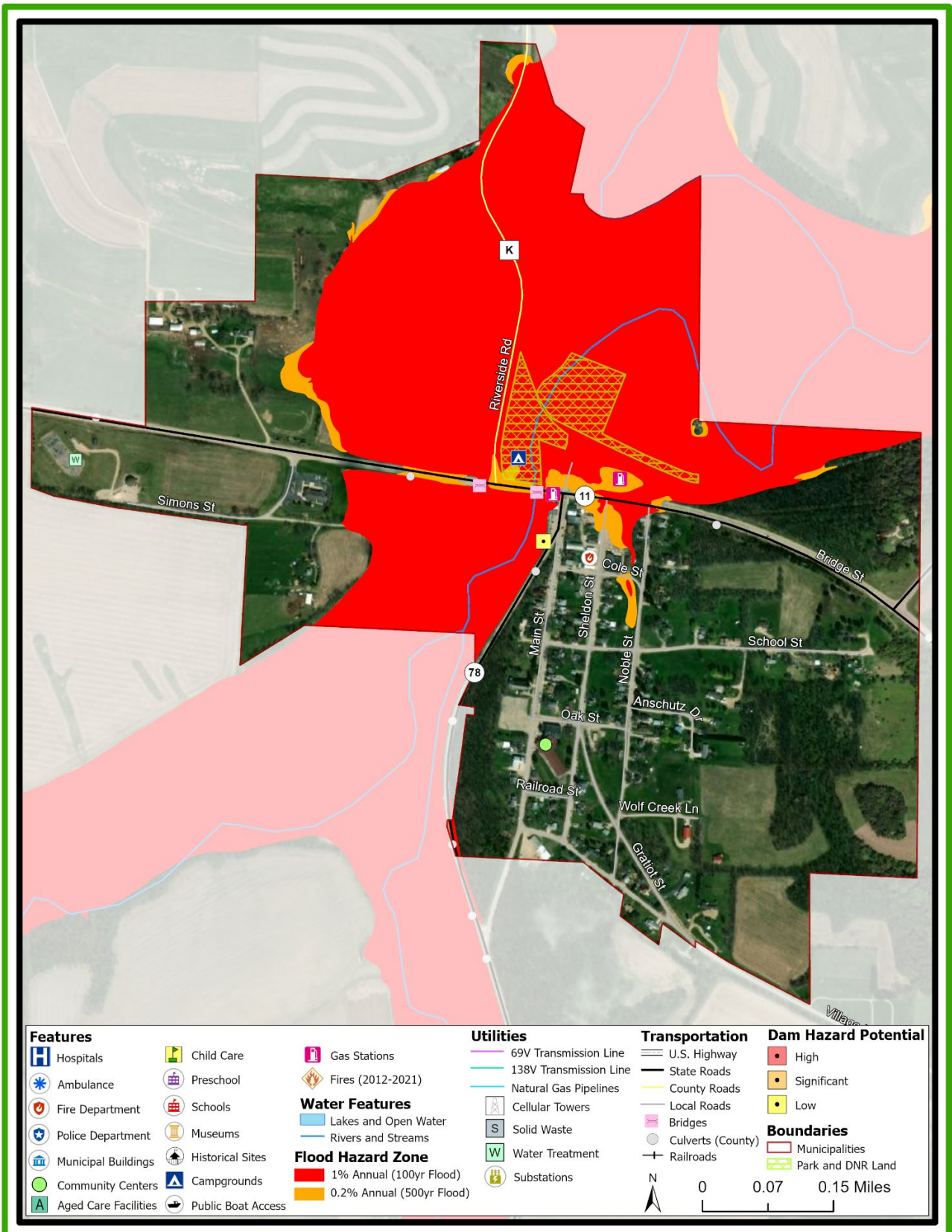
Village of Gratiot

The Village of Gratiot is located in the south-central part of Lafayette County. The Village's population was estimated to be 224 in 2020⁶⁵.

Table 20: Village of Gratiot Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Village Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	Village Board /LCEM	Unknown	BRIC Grant, Village Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	5 years	Village Board /LCEM	\$25K per generator	Village Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Village Board /LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Village Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Village Board	\$5K - \$10K	Village Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶⁵ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 27: Village of Gratiot Map



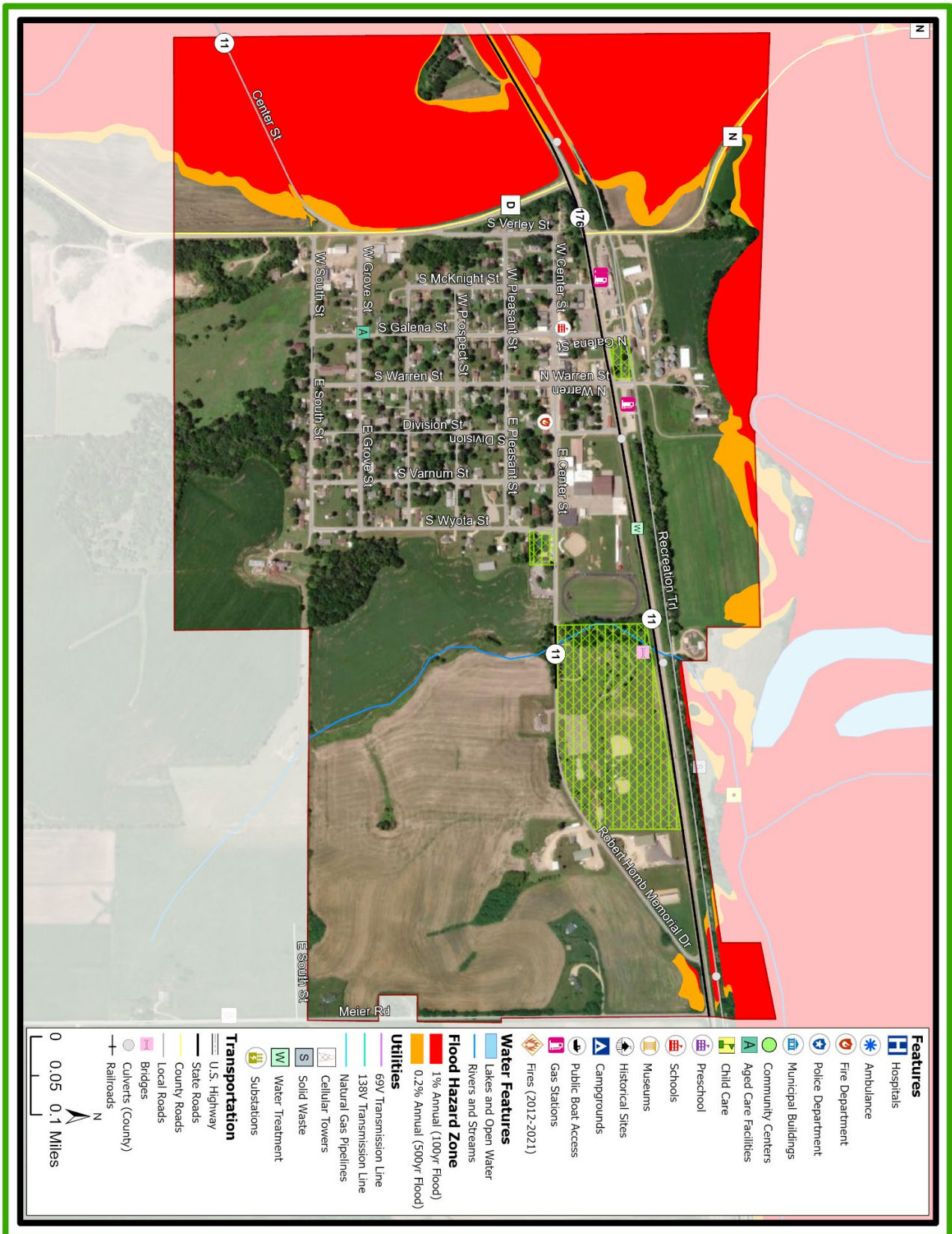
Village of South Wayne

The Village of South Wayne is located in the southeastern corner of Lafayette County. The Village's population was estimated to be 444 in 2020⁶⁶.

Table 21: Village of South Wayne Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Village Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	2 years	Village Board /LCCEM	Unknown	BRIC Grant, Village Budget	Update outdoor warning siren(s) for automated activation of tornado/high wind threat.
High	5 years	Village Board /LCCEM	\$25K per generator	Village Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Village Board /LCCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Village Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Village Board	\$5K - \$10K	Village Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶⁶ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 28: Village of South Wayne Map



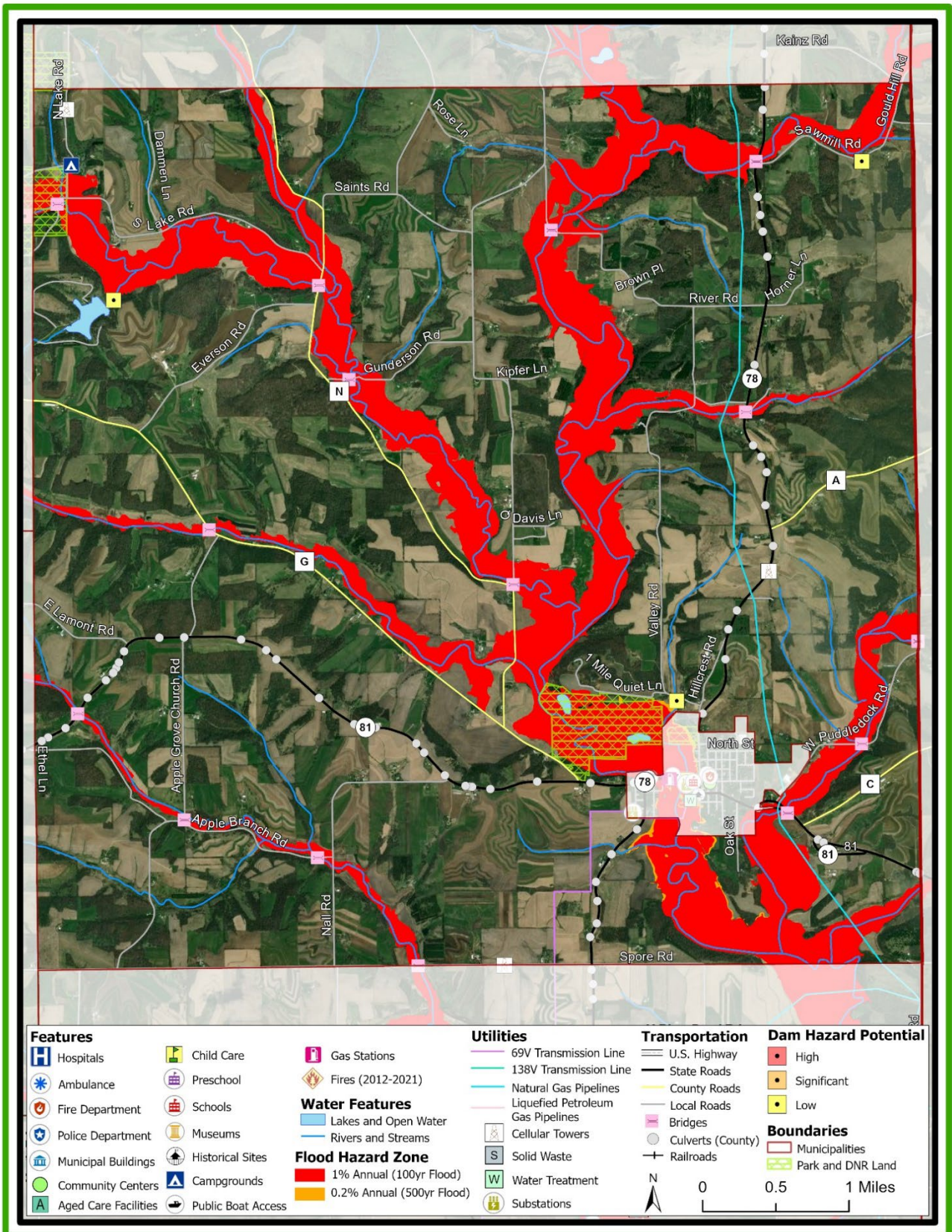
Town of Argyle

The Town of Argyle is located along the eastern border of Lafayette County. The Town's population was estimated to be 449 in 2020⁶⁷.

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶⁷ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 29: Town of Argyle Map



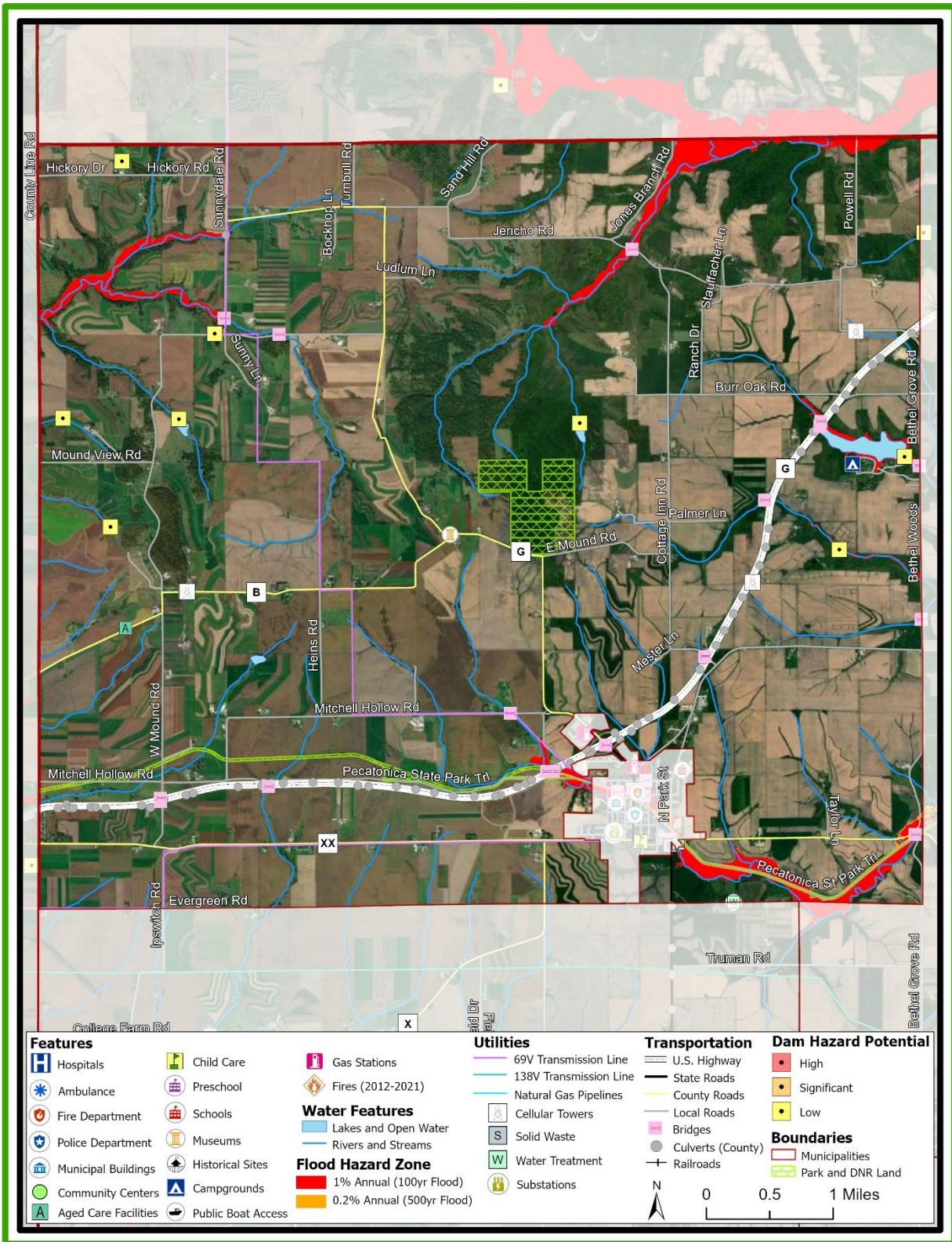
Town of Belmont

The Town of Belmont is located along the northwestern border of Lafayette County. The Town's population was estimated to be 794 in 2020⁶⁸.

Table 23: Town of Belmont Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶⁸ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 30: Town of Belmont Map



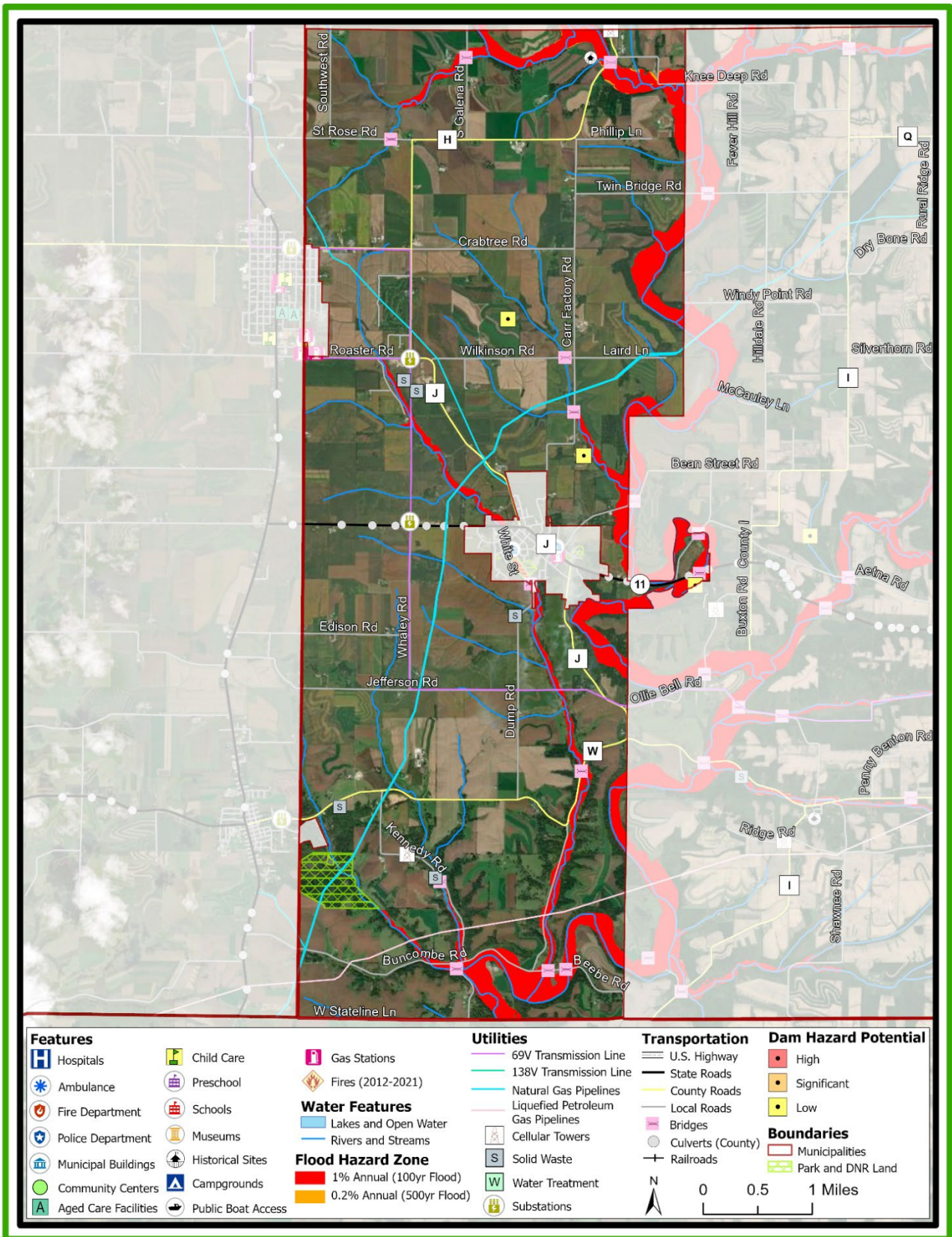
Town of Benton

The Town of Benton is located along the southwestern corner of Lafayette County. The Town's population was estimated to be 474 in 2020⁶⁹.

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁶⁹ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 31: Town of Benton Map



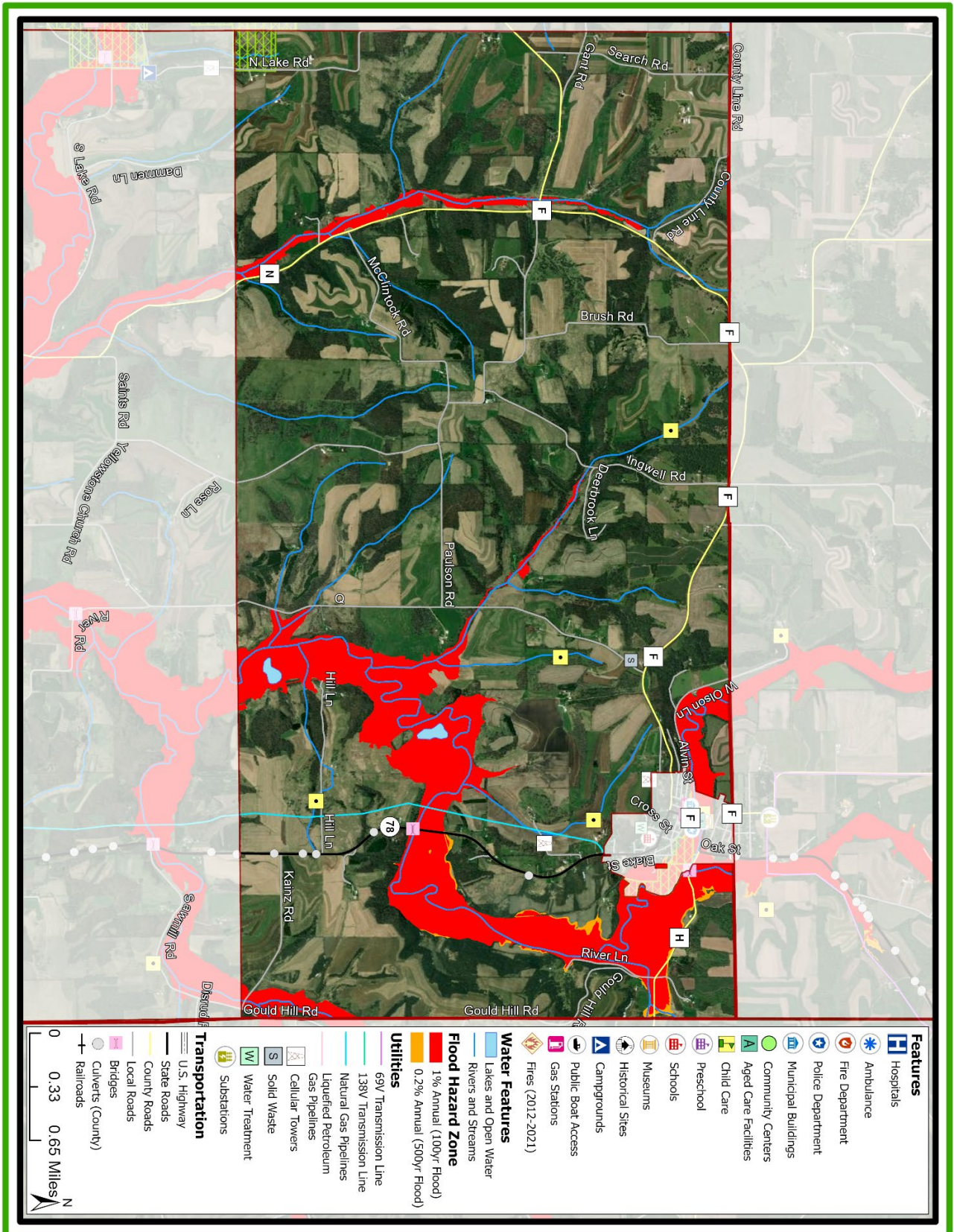
Town of Blanchard

The Town of Blanchard is located along the northeastern corner of Lafayette County. The Town's population was estimated to be 300 in 2020⁷⁰.

Table 25: Town of Blanchard Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	2 years	Town Board	Existing staff time	Town Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁰ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 32: Town of Blanchard Map



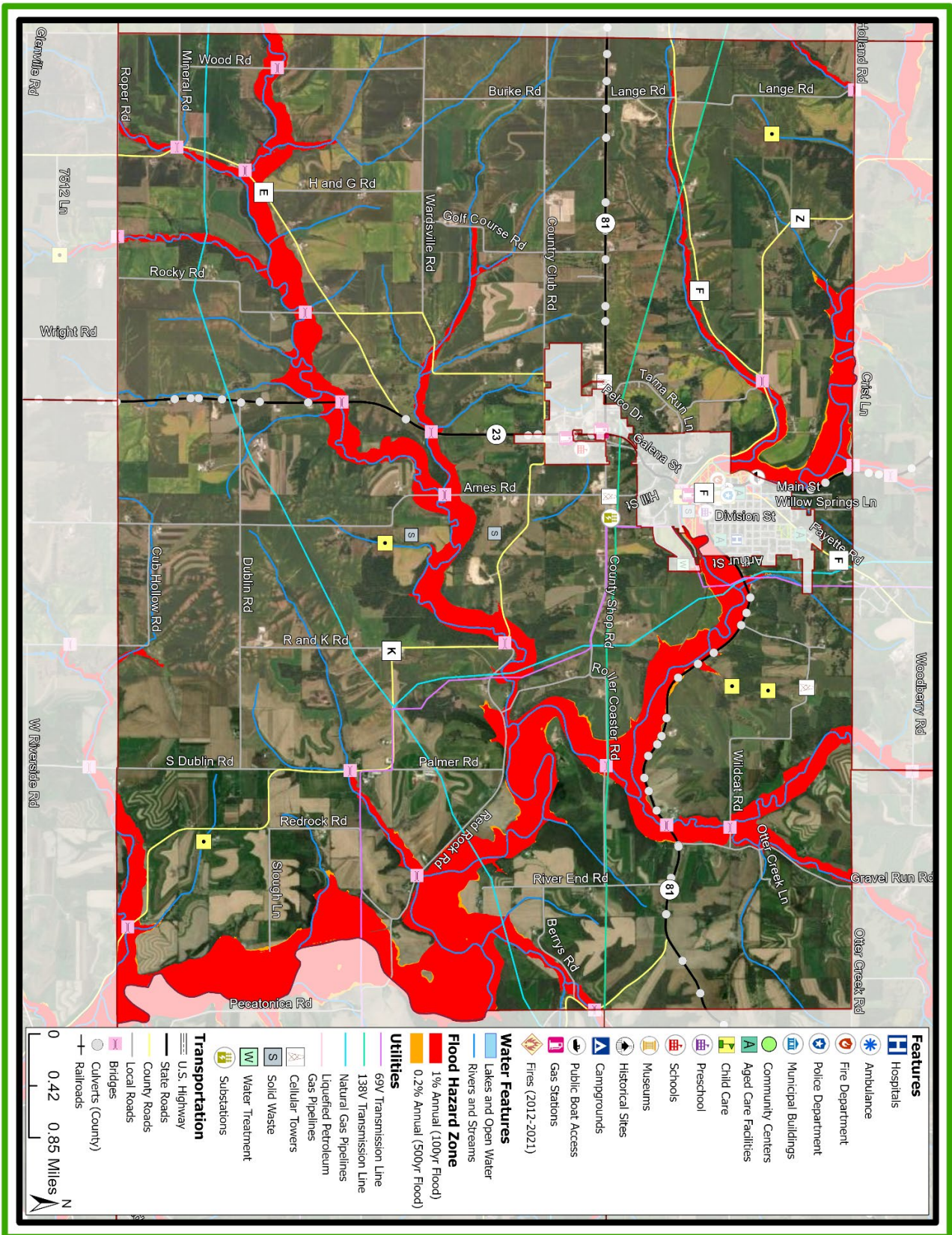
Town of Darlington

The Town of Darlington is located in the center of Lafayette County. The Town's population was estimated to be 923 in 2020⁷¹.

Table 26: Town of Darlington Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	2 years	Town Board	Existing staff time	Town Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷¹ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 33: Town of Darlington Map



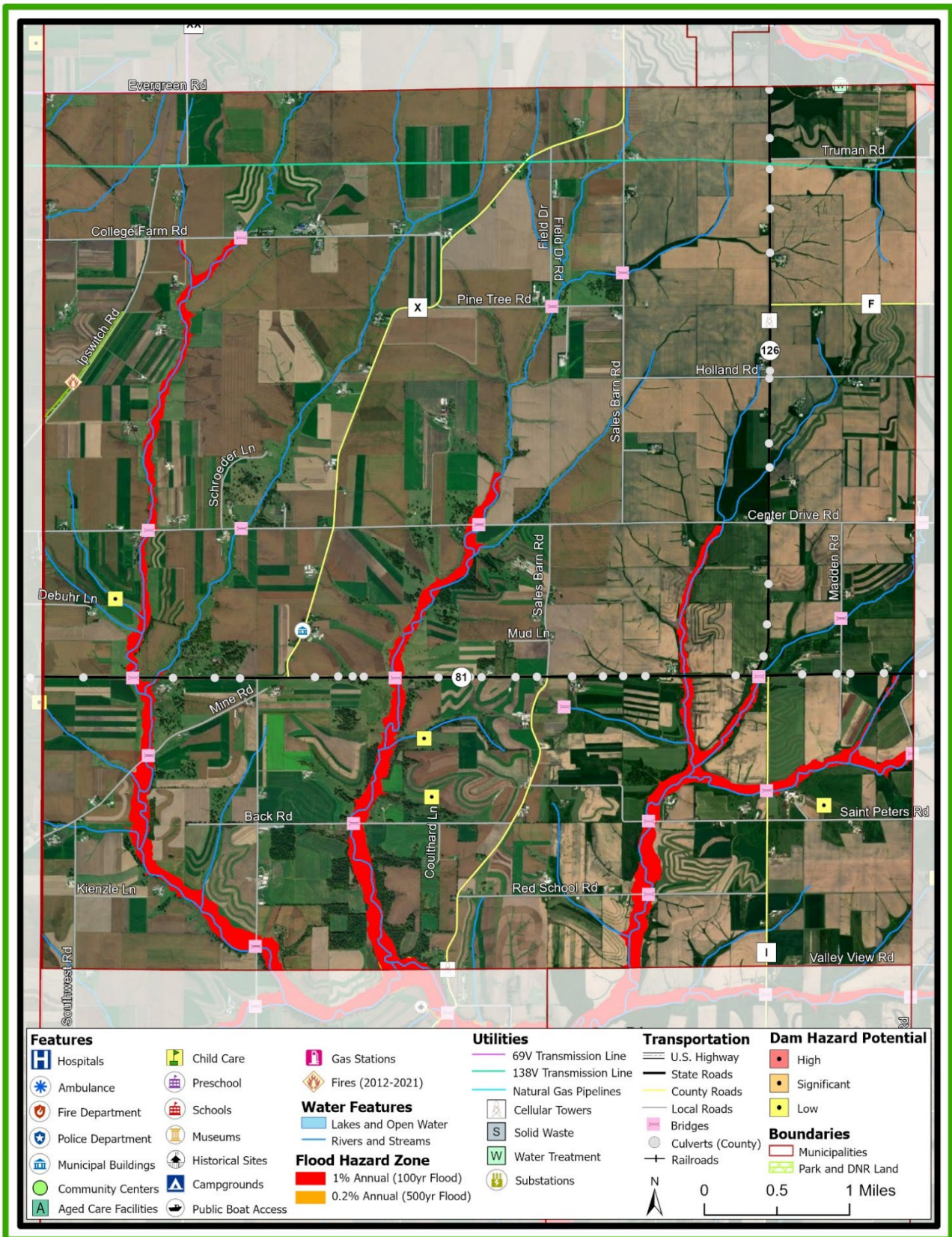
Town of Elk Grove

The Town of Elk Grove is located along the western border of Lafayette County. The Town's population was estimated to be 566 in 2020⁷².

Table 27: Town of Elk Grove Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	2 years	Town Board	Existing staff time	Town Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷² U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 34: Town of Elk Grove Map



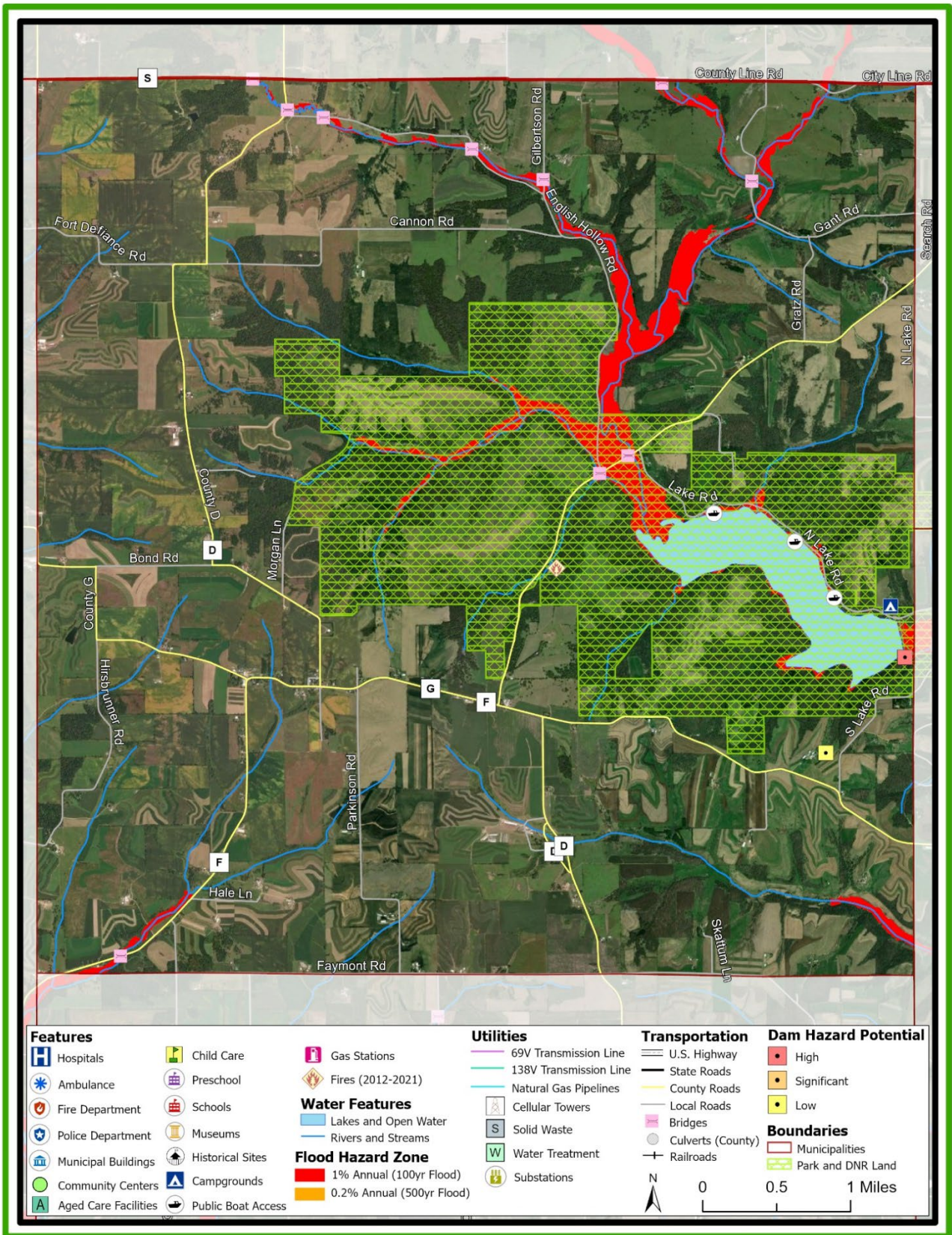
Town of Fayette

The Town of Fayette is located along the northern border of Lafayette County. The Town's population was estimated to be 381 in 2020⁷³.

Table 28: Town of Fayette Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷³ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 35: Town of Fayette Map



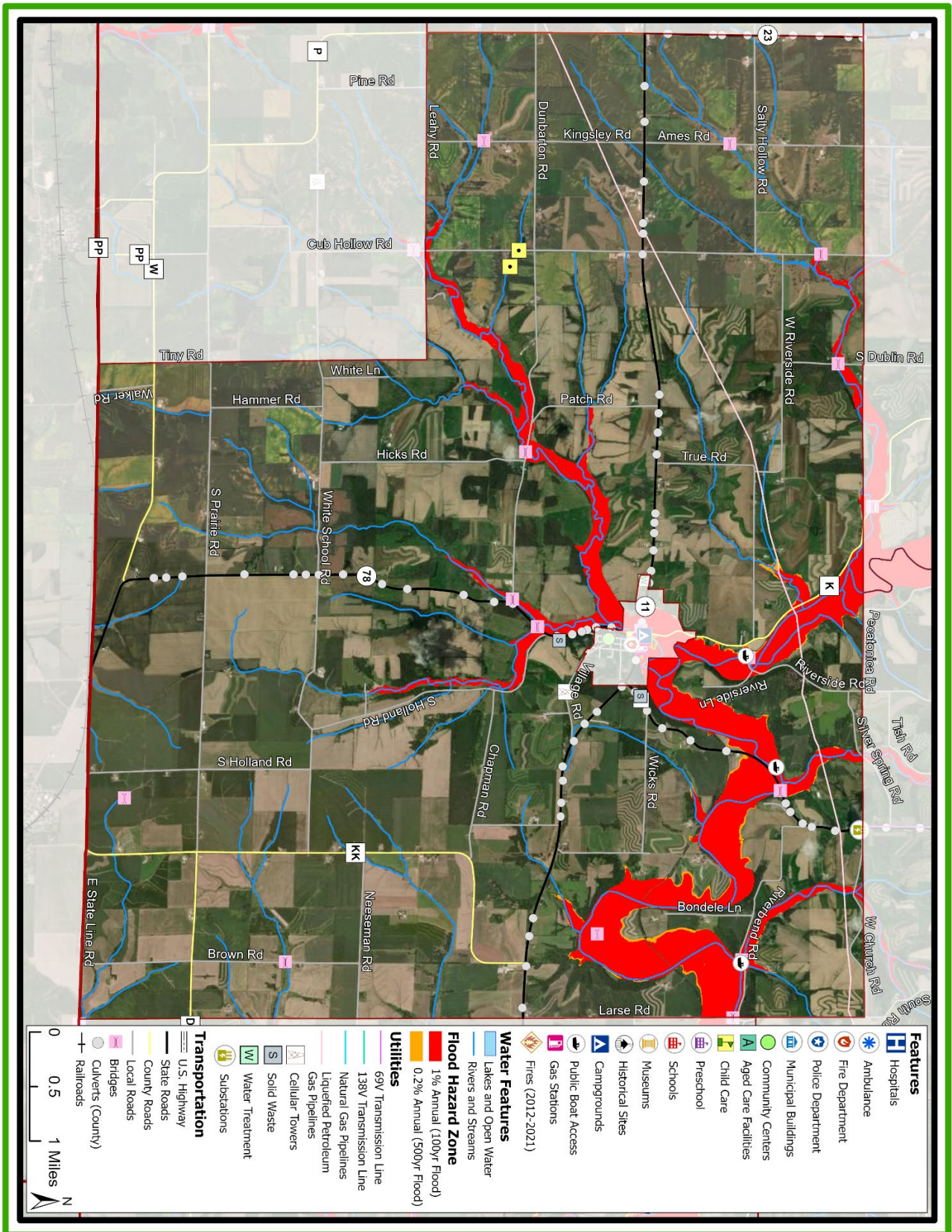
Town of Gratiot

The Town of Gratiot is located along the southern border of Lafayette County. The Town's population was estimated to be 575 in 2020⁷⁴.

Table 29: Town of Gratiot Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁴ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 36: Town of Gratiot Map



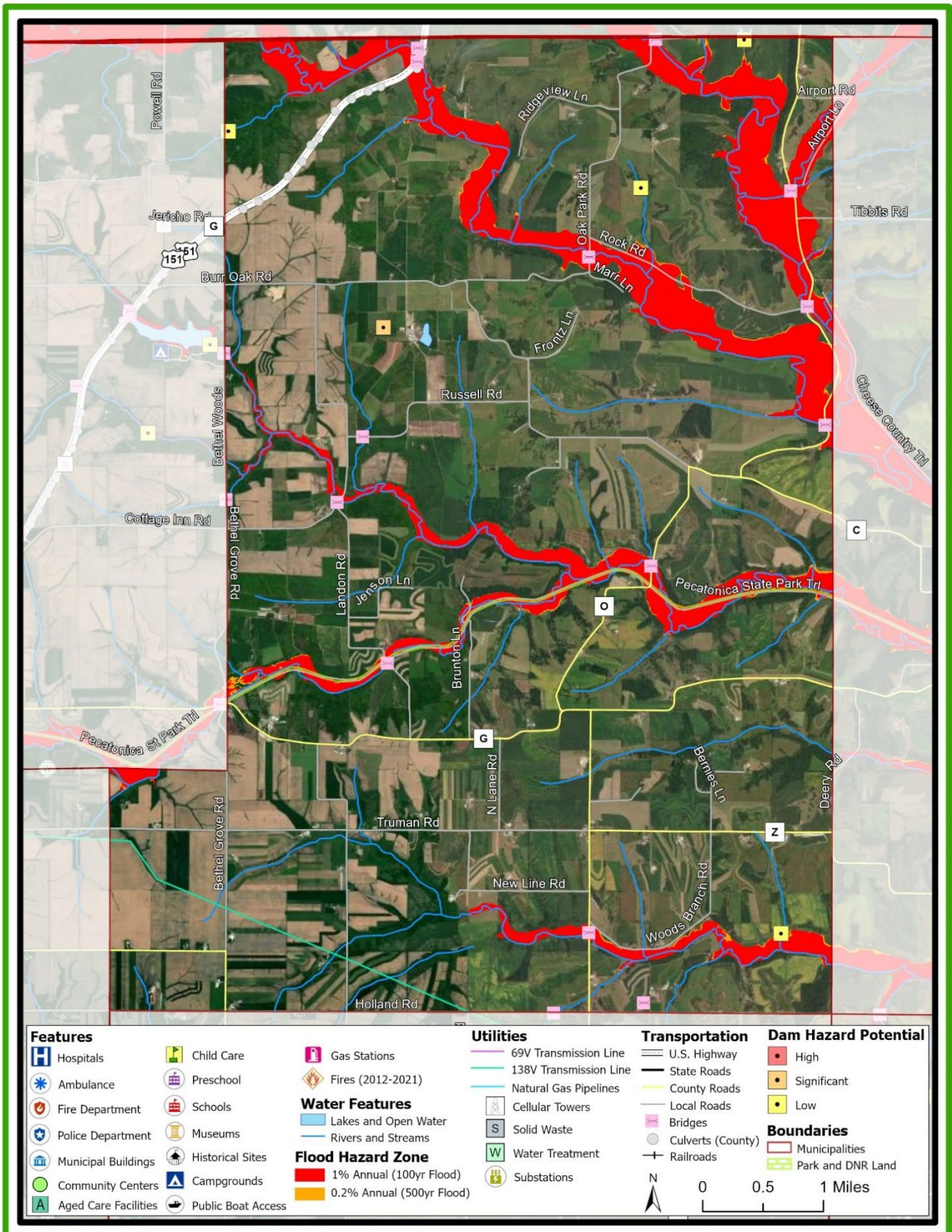
Town of Kendall

The Town of Kendall is located along the northern border of Lafayette County. The Town's population was estimated to be 402 in 2020⁷⁵.

Table 30: Town of Kendall Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events. This includes the identification and designation of weather shelters.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁵ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 37: Town of Kendall Map



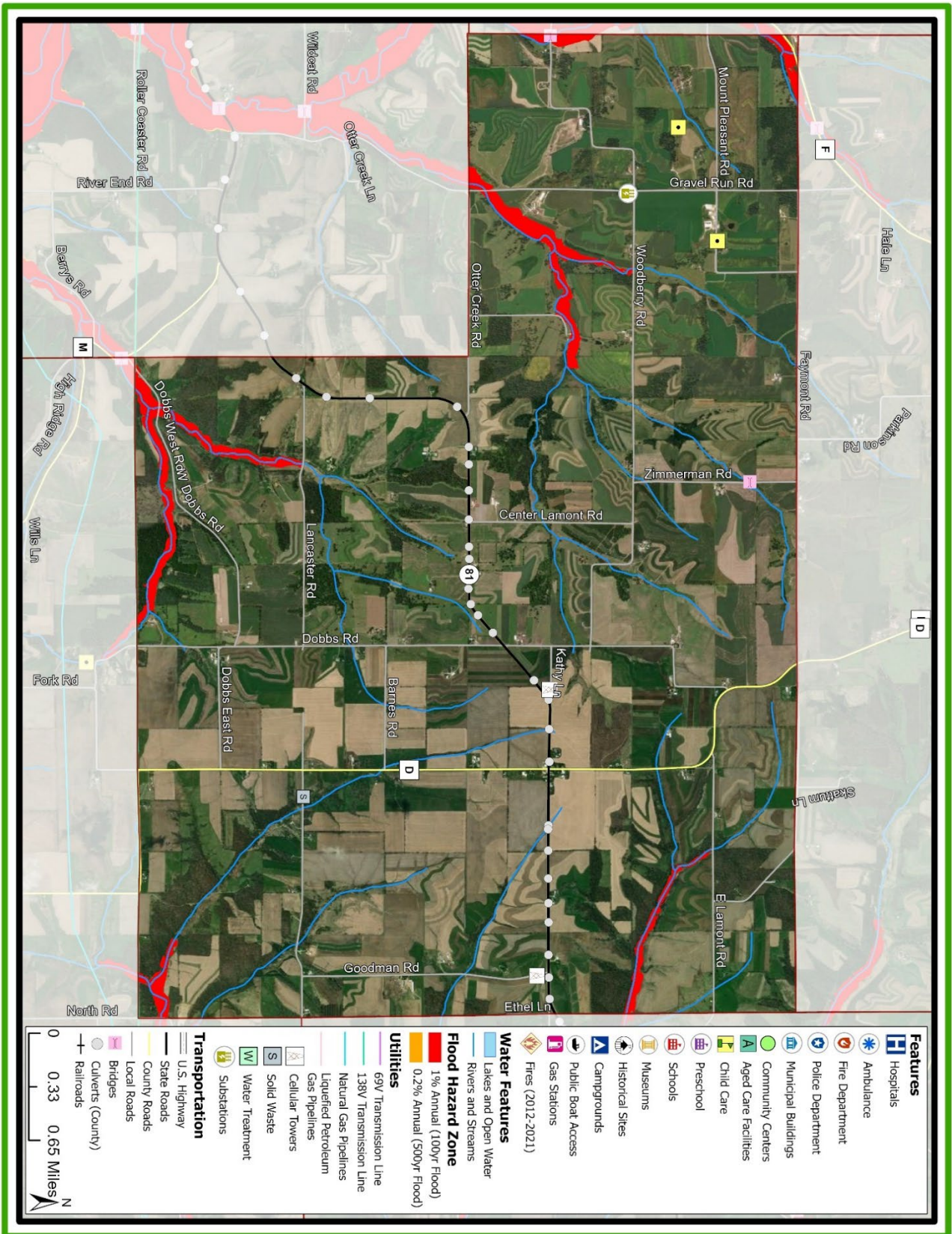
Town of Lamont

The Town of Lamont is located in the northeast part of Lafayette County. The Town's population was estimated to be 313 in 2020⁷⁶.

Table 31: Town of Lamont Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁶ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 38: Town of Lamont Map



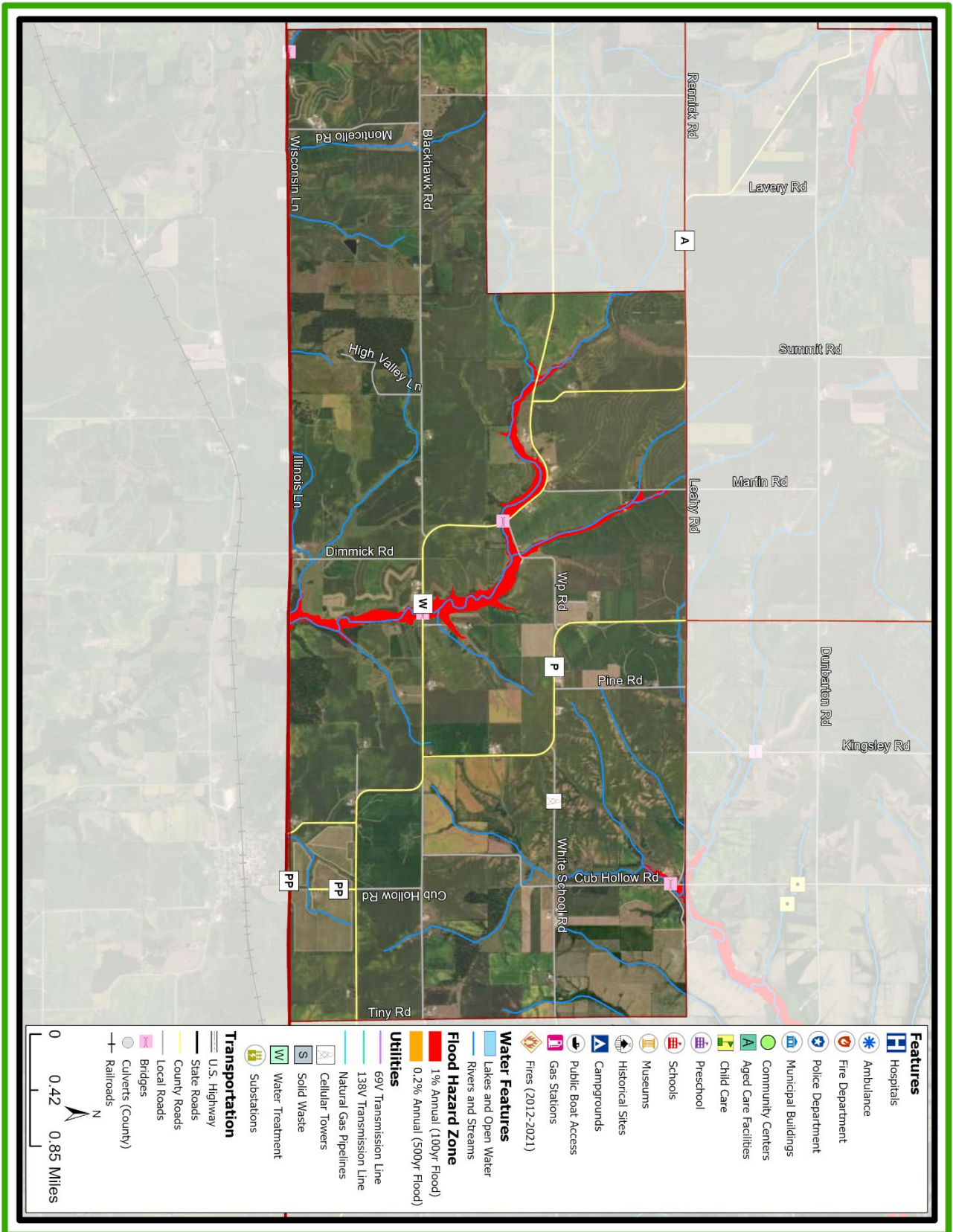
Town of Monticello

The Town of Monticello is located along the southern border of Lafayette County. The Town's population was estimated to be 138 in 2020⁷⁷.

Table 32: Town of Monticello Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁷ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 39: Town of Monticello Map



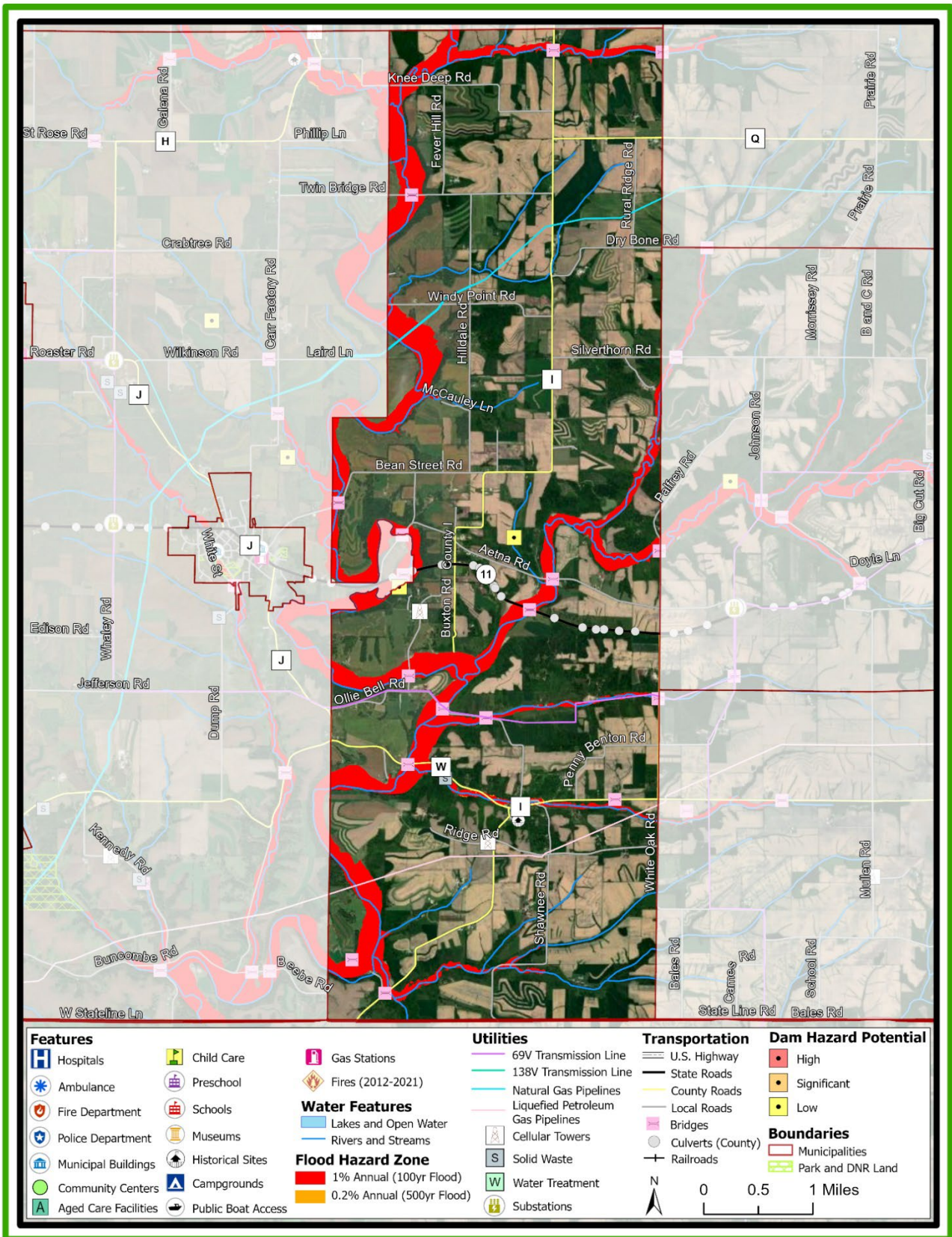
Town of New Diggings

The Town of New Diggings is located along the southern border near the southwestern corner part of Lafayette County. The Town's population was estimated to be 486 in 2020⁷⁸.

Table 33: Town of New Diggings Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁸ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 40: Town of New Diggings Map



Town of Seymour

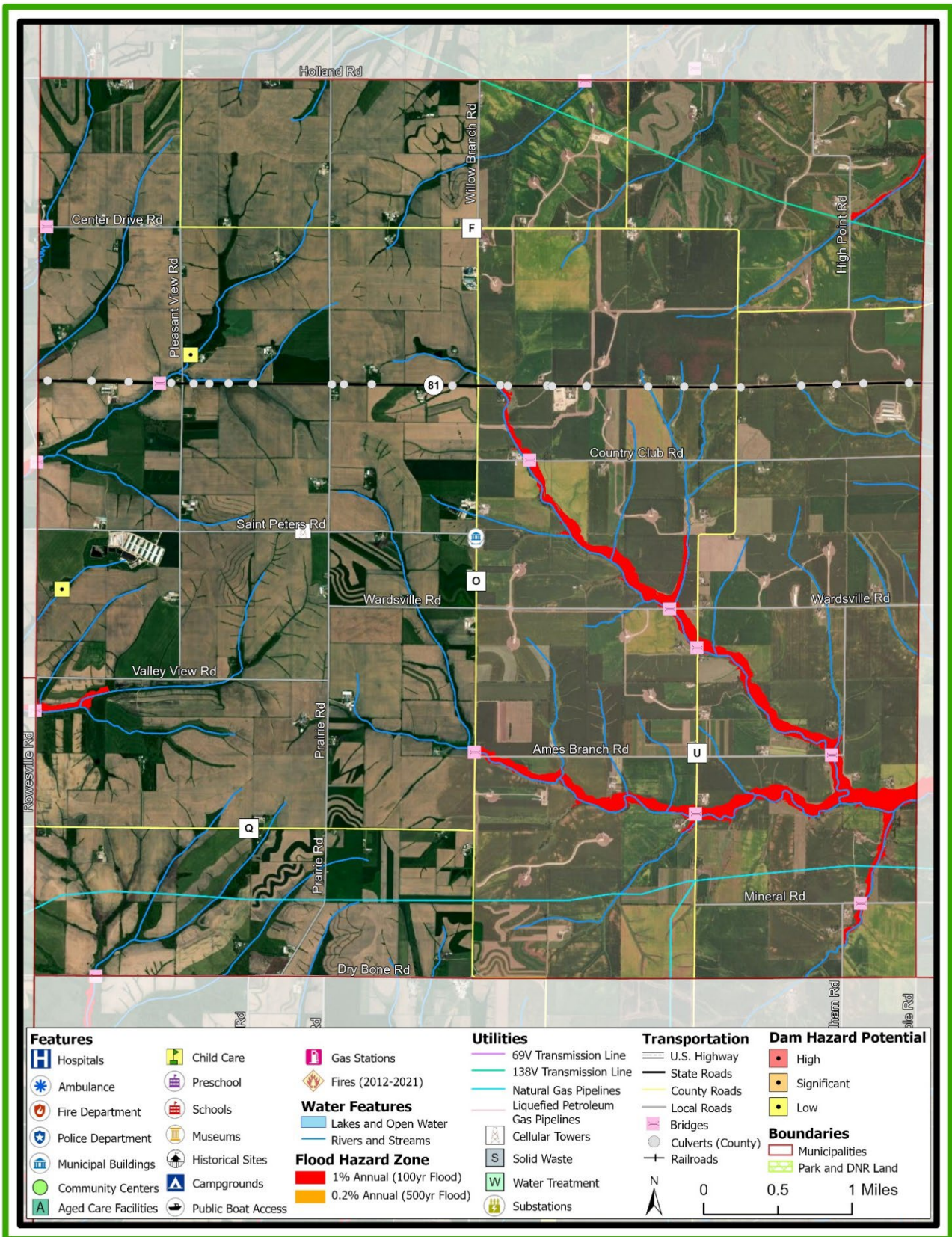
The Town of Seymour is located in the western-central part of Lafayette County. The Town's population was estimated to be 392 in 2020⁷⁹.

Table 34: Town of Seymour Local Action Recommendation

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁷⁹ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 41: Town of Seymour Map



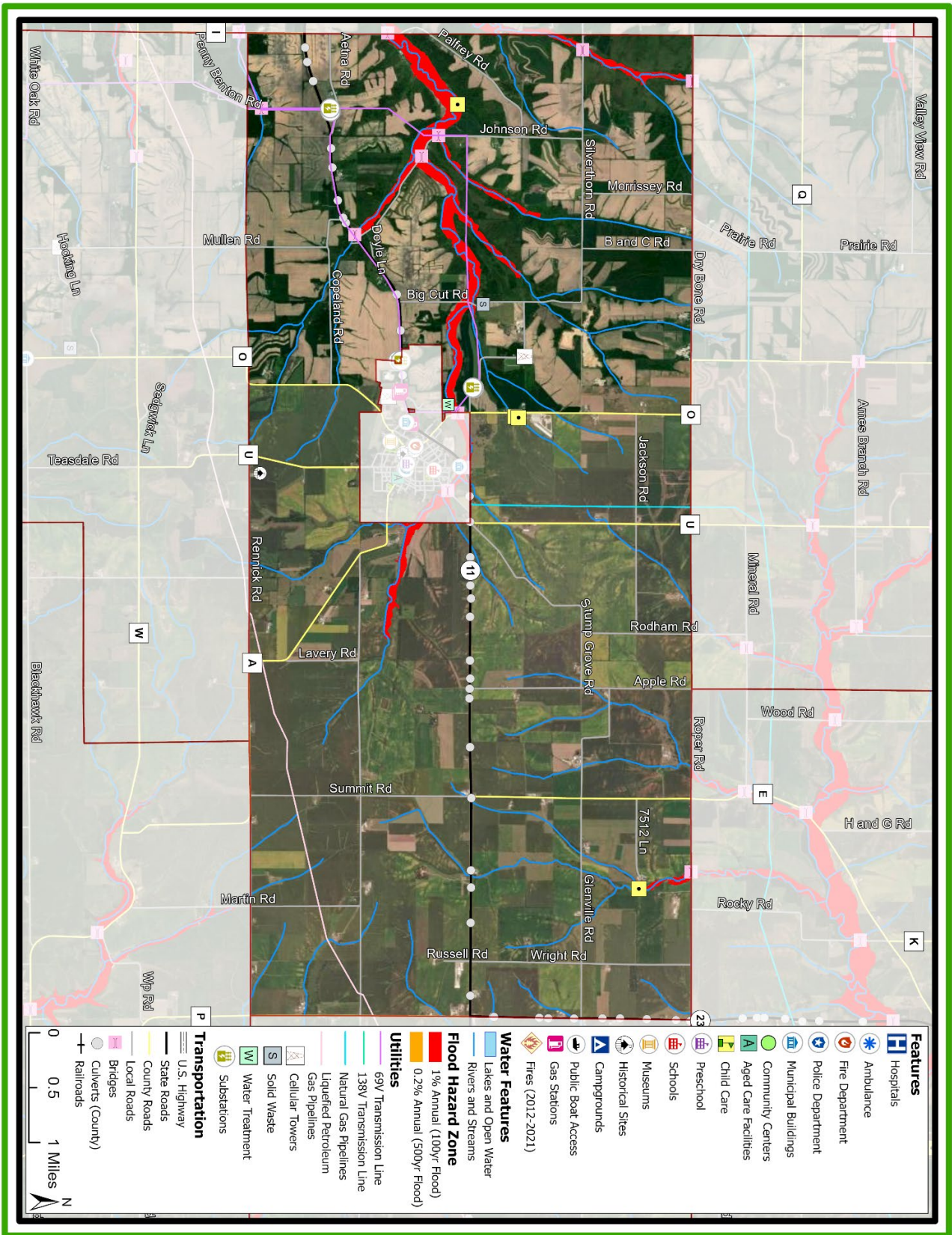
Town of Shullsburg

The Town of Shullsburg is located in the south-central part of Lafayette County. The Town's population was estimated to be 312 in 2020⁸⁰.

Table 35: Town of Shullsburg Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁸⁰ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 42: Town of Shullsburg Map



Town of Wayne

The Town of Wayne is located along the southeastern corner of Lafayette County. The Town's population was estimated to be 474 in 2020⁸¹.

Table 36: Town of Wayne Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	2 years	Town Board	Existing staff time	Town Budget	Establish new intergovernmental mutual aid agreements for sharing services and resources.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁸¹ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

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Town of White Oak Springs

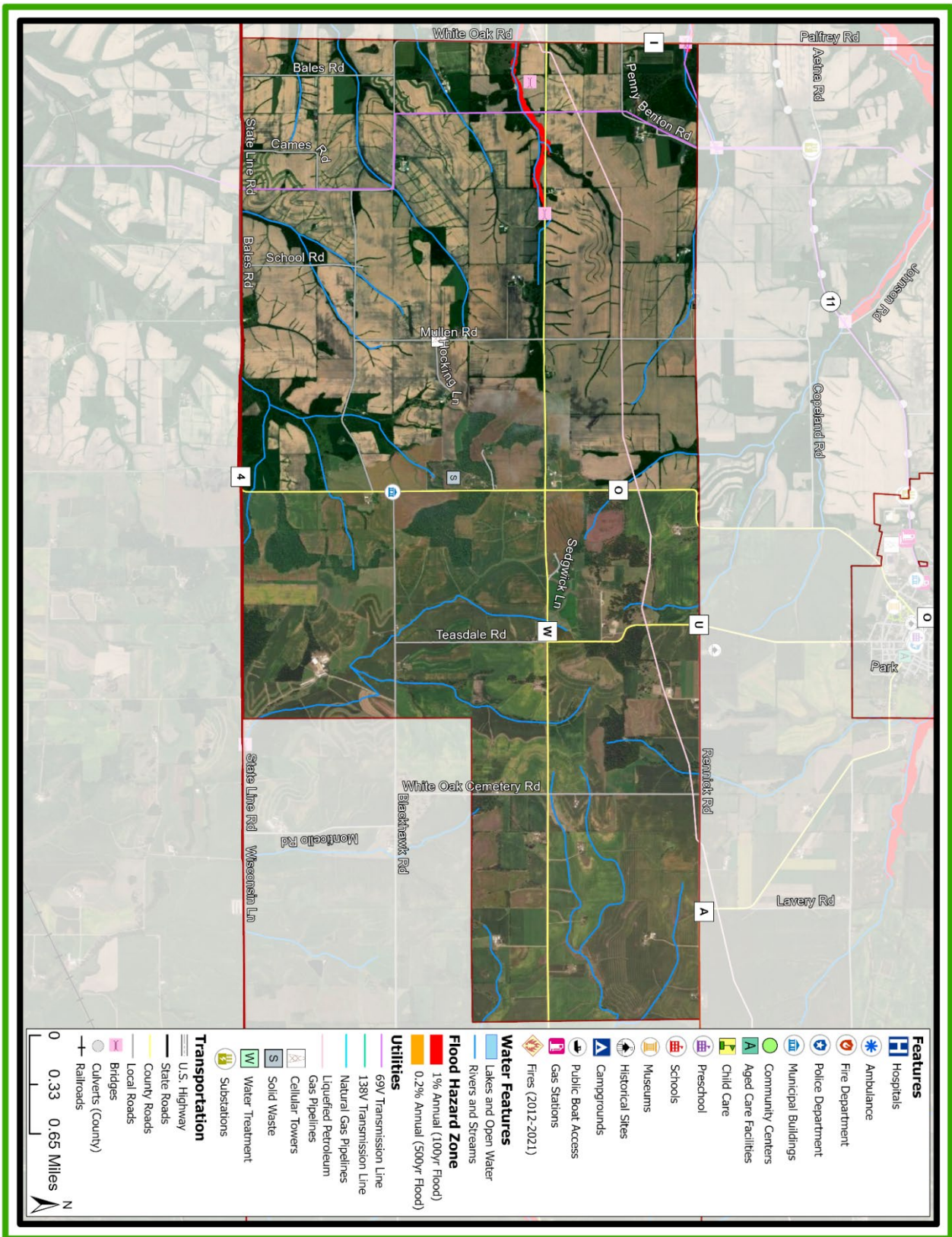
The Town of White Oak Springs is located along the southern border of Lafayette County. The Town's population was estimated to be 109 in 2020⁸².

Table 37: Town of White Oak Springs Local Action Recommendation

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁸² U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 44: Town of White Oak Springs Map



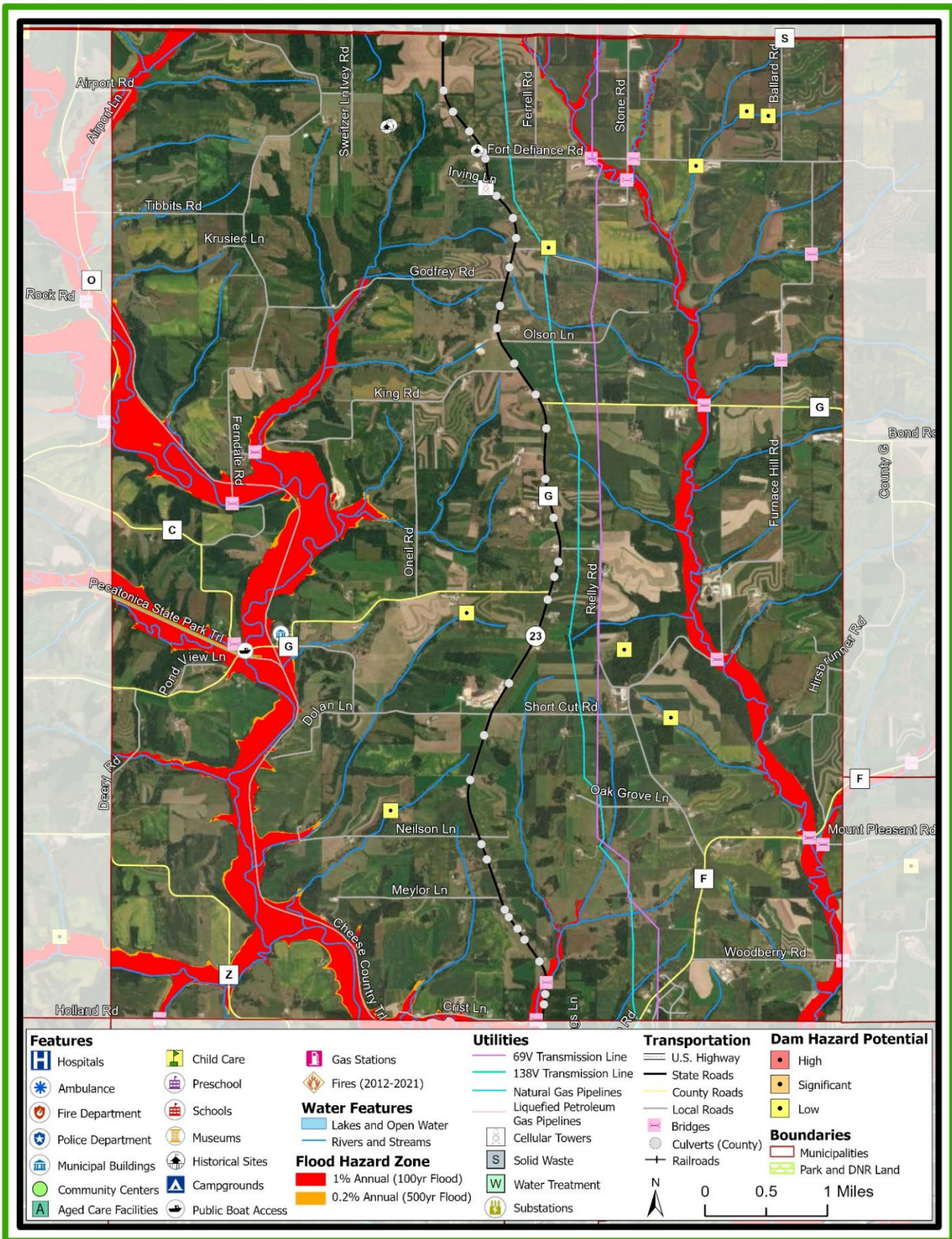
Town of Willow Springs

The Town of Willow Springs is located along the northern border of Lafayette County. The Town's population was estimated to be 789 in 2020⁸³.

Table 38: Town of Willow Springs Local Action Recommendation					
Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/ LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/ LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/ DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.

⁸³ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 45: Town of Willow Springs Map



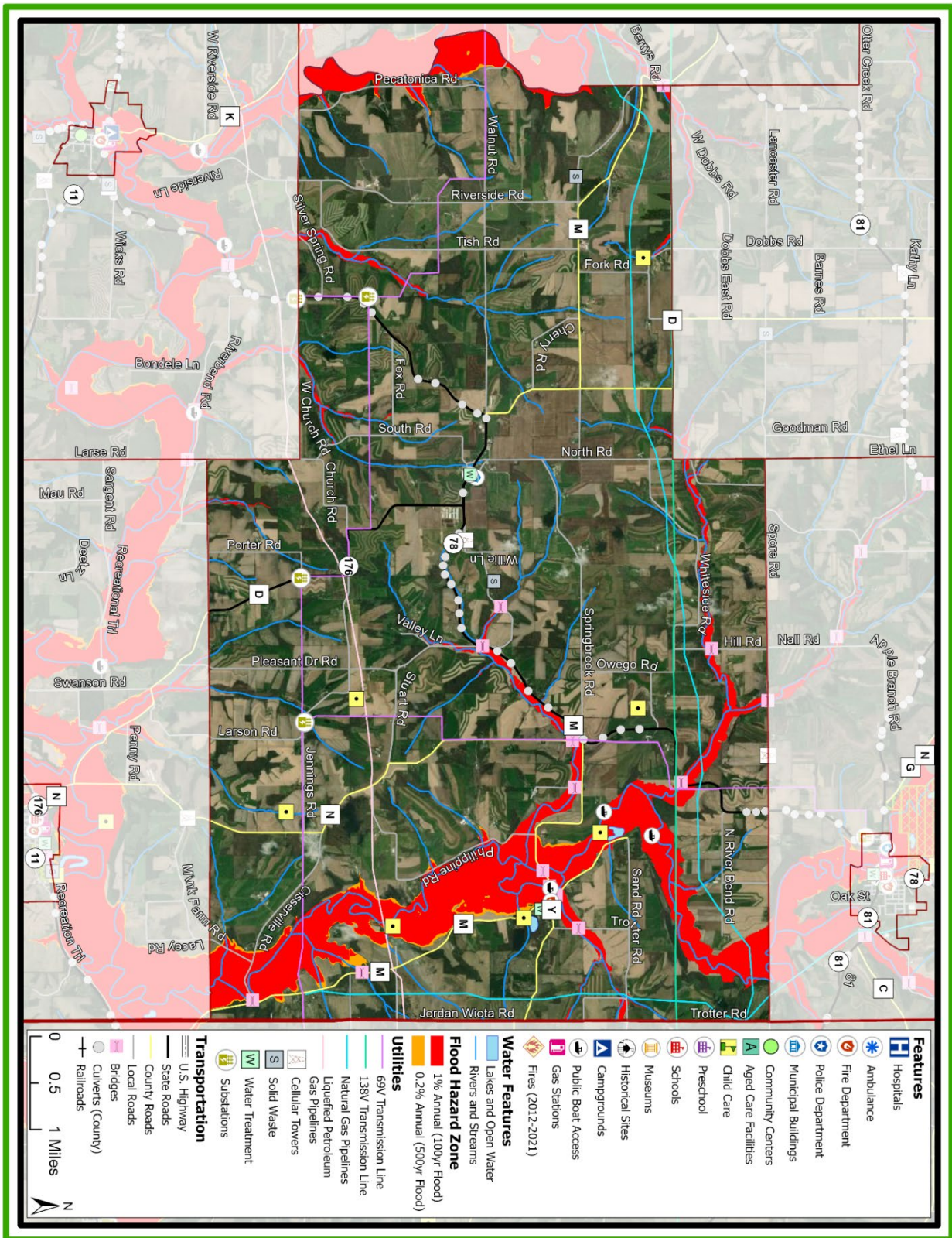
Town of Wiota

The Town of Wiota is located along the eastern border of Lafayette County. The population was estimated to be 830 in 2020⁸⁴.

Priority	Timeline	Responsibility	Est. Cost	Potential Funding	Strategy
High	1 year	Town Board	Existing staff time	None needed	Create an emergency response plan to identify local government official roles and responsibilities before, during, and after hazard events.
High	5 years	Town Board/LCEM	\$25K per generator	Town Budget, ARPA funds	Install and maintain backup power at local critical infrastructure sites.
Medium	1 year	Town Board/LCEM	Existing staff time	Hazard Mitigation Grant Program	Identify and designate weather shelters by type in the community and communicate to residents.
Medium	3 years	Town Board	Existing staff time	None needed	Support and advocate for county and state expansion of rural broadband.
Medium	5 years	Town/ Fire Dept.	\$8K	DNR Forest Fire Protection (FFP) Grant	Identify relevant sites and install dry hydrants for filling tenders for firefighting.
Medium	5 years	Town Board/DNR	Unknown	DNR Budget, Town Budget	Construct and protect wetlands.
Medium	5 years	Town Board	Existing staff time	None Needed	Develop stricter driveway ordinance to accommodate emergency equipment, referencing model provided by the county.
Medium	5 years	Town Board	\$5K - \$10K	Town Budget	Develop Continuity of Operations and Continuity of Government Plans that include planning for cyber-attacks.
Medium	5 years	Town Board	Unknown	BRIC Grant, ARPA Funds, Town Budget	Pursue carbon-neutral or reduced footprints of local government, including solar power and energy efficiency.

⁸⁴ U.S. Census Bureau (2021). 2020 Decennial Census. <https://data.census.gov/cedsci/>

Figure 46: Town of Wiota Map



Chapter 6: County-Wide Mitigation Actions

Similar to the local mitigation actions identified in Chapter 5, county-wide actions were developed to reduce or avoid long-term vulnerabilities to the people, economy, infrastructure, and environment of Lafayette County.

County-Wide Actions

Table 40: Lafayette County Action Recommendations					
Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
High	5 years	\$0 - \$500K per site.	ARPA funds	LCEM/ Local Gov., Hazard Mitigation Grant Program	Work with local governments to identify locations that can serve as public shelters in emergency situations (thunderstorms, hail, lightning, high winds, and tornadoes) and/or explore building public storm shelters.
High	5 years	\$2K	Wisconsin DNR Forest Fire Protection (FFP) Grant	LCEM/ Local Fire Depts.	Develop and implement plan to utilize dry hydrants and possible irrigation hook-ups in areas with high wild-fire vulnerability.
High	5 years	Unknown	Hazard Mitigation Grant Program, BRIC, DNR Surface Water Grant	Land Conservation, Planning, and Zoning Dept./ Land Conservation Groups/ DNR	Conduct planning and restoration projects along upstream rivers and tributaries and their associated floodplains that will reduce the impact of flooding due to improved wetlands and watersheds. These include restoring upper watershed wetlands and reconnecting floodplains.
High	5 years	\$55k	LCEM Budget	LCEM/ County Board	Hire additional staff support for LCEM due to understaffing and need for EM capacity.
Medium	5 years	Varies	DNR Clean Water Fund Program	Highway Dept. /LCEM /Land Conservation, Planning, and Zoning Dept.	Conduct infrastructure studies, including stormwater management, green infrastructure projects, and long-term water management needs.

Table 40 Continued: Lafayette County Action Recommendations					
Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
Medium	1 year	Existing staff time	None needed	Health Dept.	Identify HIPPA influence on capabilities of/plan for developing "Functional Need Database."
Medium	5 years	Existing staff time	Dept. Budgets	LCEM/ Public Health Dept./ ADRC	Develop a "Functional Need Database" identifying the locations of isolated, vulnerable, or special need populations in Lafayette County.
Medium	5 years	\$10K	Land Conservation, Planning, and Zoning Dept. Budget	Land Conservation, Planning, and Zoning Dept.	Consider adopting a county-wide storm water ordinance. Encourage local municipalities to do the same; encouraging those who already have an ordinance to enforce it.
Medium	5 years	Varies	Local Budget + DOT Grants	Highway Dept.	Identify the locations where snow fencing is needed and install fencing where needed.
Low	5 years	Existing staff time	None needed	LCEM/ Local businesses	Encourage and work with businesses to undertake continuity of operations plans.
Low	5 years	Existing staff time	None needed	Land Conservation, Planning, and Zoning Dept./ County Board	Consider amending county code to restrict development on wetlands less than five acres.

Table 41: Lafayette County Ongoing Action Recommendations					
Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
High	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant/ EPCRA Grant	LCEM	Maintain planning facility Emergency Response Plans annually including hazardous material spill and radiological release.
High	Ongoing	Existing staff time	LCEM Budget & Computer Hazmat & Equipment Grant	LCEM	Maintain support for level 3 Hazardous Material Response Team and equipment.

Table 41 Continued: Lafayette County Ongoing Action Recommendations					
Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
High	Ongoing	Existing staff time	LCEM Budget/Local Law/Fire/ EMS budget	Law/Fire/ EMS/LCEM	Develop and implement Rescue Task Force training and exercises for domestic terrorism.
High	Ongoing	Existing staff time	LCEM budget and School District Budget	Law/LCEM	Continue to assist schools with development of active killer response plans.
High	Ongoing	Existing staff time	None needed	Law Enforcement	Maintain awareness of domestic terrorism threats through State & Federal Advisory programs and local sharing of information.
High	Ongoing	Existing staff time	LCEM Budget/Local Law/Fire/ EMS budget	Law/Fire/ EMS/LCEM	Participate in training, classes, and exercises to maintain with current domestic terrorism practices.
High	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant	LCEM	Maintain Memorandum of Understanding (MOU's) with private/public resources for life line disruptions.
High	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant	LCEM	Maintain contact information for lifeline providers for the purpose of information dissemination.
High	Ongoing	Existing staff time	Land Conservation, Planning, and Zoning Dept. & DNR Budgets	Land Conservation, Planning, and Zoning Dept.	Maintain DAM Emergency Plans and inundation mapping of DAM failures.
High	Ongoing	Existing staff time	None needed	Land Conservation, Planning, and Zoning Dept.	Maintaining ordinances that restrict development within inundation zones.
High	Ongoing	\$6K/Year	LCEM Budget/ EMPG Grant	LCEM	Maintain and support the Grant/ Jo Daviess County hazardous material response units
High	Ongoing	Existing staff time \$2K	LCEM Budget & School Districts	LCEM	Continue to assist local governments and school districts to develop and maintain emergency response plans.
High	Ongoing	Existing staff time \$1K	LCEM Budget/ EMPG Grant	LCEM	Promote emergency wireless mass-notification system throughout the county.

Table 41 Continued: Lafayette County Ongoing Action Recommendations					
Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
High	Ongoing	Varies	County IT Budget	Information Technology Dept.	Maintain and support effective technology to prevent successful cyber-attacks on county network.
High	Ongoing	Existing staff time	None needed	Information Technology Dept.	Continue to educate county employees on safe computer operations for cyber security.
High	Ongoing	Existing staff time	None needed	Land Conservation, Planning, and Zoning Dept.	Continue to actively promote and participate in the National Flood Insurance Program.
High	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant	LCEM	Public education and outreach on winter storms and extreme cold hazards and safety, as well as drought and extreme heat hazards and safety.
High	Ongoing	Existing staff time	None needed	LCEM	Maintain current Memorandum of Understanding (MOU's) with establishments to provide warming shelters. Add new MOU's as opportunities are presented.
High	Ongoing	Existing staff time	None needed	Local Fire Depts.	Encourage Fire Departments in partnership with their governing entities to create and distribute information via social media on "reducing structural ignitability" and "emergency preparedness" relevant to wildfires.
High	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant	LCEM	Develop and maintain a plan for livestock emergency transport response.
High	Ongoing	Existing staff time	Health Dept. Budget	Health Dept.	Update existing Public Health Emergency Preparedness Plan.
High	Ongoing	Existing staff time	None needed	Health Dept./LCEM	Continue communication with Health Department and LCEM staff to discuss current and emerging public health issues and mitigation strategies.
High	Ongoing	Existing staff time	None needed	LCEM	Outreach through DATCP on emerging issue affecting food supply and livestock producers.

Table 41 Continued: Lafayette County Ongoing Action Recommendations

Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
High	Ongoing	Existing staff time \$1K	County agency budgets	County agencies	Maintain continuity of operations plans for all county departments that includes planning for cyber attacks.
Medium	Ongoing	Existing staff time	None needed	LCEM	Participate in emergency awareness events including tornado and severe weather awareness.
Medium	Ongoing	Existing staff time	None needed	LCEM	Encourage and maintain the county and local community fire & EMS use of a Mutual Aid Box Alarm System (MABAS).
Medium	Ongoing	Existing staff time	None needed	Highway Dept./ Local Gov.	Support mutual aid agreements among local government and the county, as well as across counties, to address emergency priorities and share equipment.
Medium	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant/ EPCRA Grant	LCEM	Work with communities to develop a Hazardous Material Response Plan for manure spill event and educate first responders.
Medium	Ongoing	Existing staff time	None needed	LCEM	Post emergency awareness information to the Lafayette County Website and Sheriff's Office social media.
Medium	Ongoing	\$15k-\$25k	County GIS, WLIP Grant	County GIS	Continue to invest in technologies such as county wide Light Detection & Ranging (LiDAR) on floodplains to improve local knowledge of floodplain areas.
Medium	Ongoing	Existing staff time	None needed	Land Conservation, Planning, and Zoning Dept./ WIDNR	Work with WIDNR and private landowners to inspect, address, and maintain dams.
Medium	Ongoing	\$60K	WLIP grant	County GIS	Obtain digital orthophotography every 3 years for determining structures in hazard areas (e.g. floodplain).

Table 41 Continued: Lafayette County Ongoing Action Recommendations					
Priority	Timeline	Est. Cost	Potential Funding	Responsibility	Action
Medium	Ongoing	\$100K (est. for 2 sirens)	Local Budget + BRIC grant	LCEM/ Villages/Cities	Work with local communities to support, maintain, and expand the use of warning sirens throughout the county.
Medium	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant/ EPCRA Grant	LCEM/ Local Gov.	Work with local fire and EMS departments to develop and train on hazardous material spill response plan.
Medium	Ongoing	Existing staff time	LCEM Budget/ EMPG Grant	LCEM	Continue with outreach, storm spotter training with NWS to educate the public.
Medium	5 years	Existing staff time	DNR Funding programs	USDA-NRCS/ Land Conservation, Planning, and Zoning Dept.	Encourage more landowners to apply for cost-sharing for stream bank stabilization projects to mitigate damage from flooding.
Medium	5 years	Existing staff time	USDA-NRCS assistance programs	USDA-NRCS/ Land Conservation, Planning, and Zoning Dept.	Encourage greater adoption of managed grazing and cover cropping to capture rainfall on cropland and prevent it from contributing to flooding.

Chapter 7: Plan Adoption and Implementation

Plan Adoption

This plan must be adopted by the Lafayette County Board as well as the incorporated areas (cities and villages) of Lafayette County. Cities and villages must adopt the plan within a year of the WEM meets requirements letter in order to receive hazard mitigation grant funds. According to FEMA, townships must participate in the county plan process, but do not have to formally adopt the plan to be eligible to receive mitigation grants, since the county can apply for grants on their behalf. Adoption of the Lafayette County Hazard Mitigation Plan accomplishes the following:

- Confirms the commitment of community leaders and citizens to mitigate the effects of disasters.
- Provides a definitive guide for community leaders and officials of the county and local jurisdictions to initiate changes that will decrease damages incurred from disasters.
- Ensures the long-term continuity of mitigation policies and programs through changes in political leadership, county and municipal staff, and community decision makers.
- Provides confirmation to WEM and FEMA that the plan's recommendations were assessed and approved by the governing authority of Lafayette County.

Prior to the plan being adopted by the Lafayette County Board and the cities and villages of Lafayette County, it is reviewed by WEM to ensure compliance with the Disaster Mitigation Act of 2000. Once approved, WEM sends the plan to FEMA for their review and approval. When both WEM and FEMA approve the plan, it is then sent to the Lafayette County Board and Lafayette County cities and villages for their approval.

Plan Implementation

After county approval on December 20th, 2022, the plan was placed on the county website. LCEM and SWWRPC informed all participating jurisdictions and stakeholders of the plan approval and distributed copies.

LCEM, in conjunction with the Lafayette County Land Conservation, Planning, and Zoning Department, takes the lead on plan implementation, including assuring the plan is referenced by future planning efforts and is used to provide guidance on political decisions, public expenditures, and policy directives.

All jurisdictions included in this plan will review and integrate this plan into any future planning processes of their jurisdiction. This plan and recommended hazard mitigation actions are used to inform future decisions of the participating jurisdictions in planning efforts including capital improvement plans, comprehensive plans and updates, long-range plans, and any plan that may review and make recommendations related to topics identified and discussed in this plan. Since the previous plan's publishing, all jurisdictions have had access to the review and incorporate it into other planning mechanisms.

LCEM will work to prioritize mitigation projects and work with communities to secure financing for local mitigation strategies. Such efforts include preparation of state, federal, and non-profit grant funding opportunities.

County and local jurisdiction staff and elected officials ensure that the recommended mitigation strategies are considered in budgets. In addition to grant opportunities discussed in this plan, as political will dictates, administrators and elected officials will contemplate the use of volunteer efforts, bonds, loans, fees, and taxes to finance high priority mitigation projects.

Plan Monitoring, Evaluation and Update

Planning is an ongoing process, and for this hazard mitigation plan to remain current and applicable, periodic updates will be necessary. The Disaster Mitigation Act of 2000 requires that local mitigation plans are evaluated and updated at least every five years. To expedite this process, Lafayette County will begin to maintain a record of disaster related damages that will help to further improve the vulnerability and risk assessments, and will track mitigation projects to determine implementation progress and results. Vulnerability, risk, and mitigation recommendations will be reviewed following a disaster to determine if any changes are warranted based on degrees of damage and patterns of the event. The county board must approve all additions and updates to the plan, and all updates will include public involvement and stakeholder outreach. The plan will be updated in 2027 by LCEM and planning support as they see fit.

The plan is monitored through a biannual survey of each community. LCEM is responsible for surveying each community and tracking progress on each community's strategies. Surveys are done by email or by phone. Regular monitoring assists LCEM in directing communities towards funding opportunities as they become available. Following disaster events, LCEM will collect relevant information to be included in the next plan update. The plan identifies mitigation strategies focused on education and engaging public audiences as a mitigation effort. During these education-focused efforts, LCEM continues to seek public input and incorporate it into mitigation efforts.

LCEM will review the plan to evaluate progress and create a written record for the next plan update. To do this, the planning team suggested that LCEM utilize a progress worksheet. The worksheet is included in Appendix E and should be completed bi-annually.

Appendix

Appendix A: Public Meeting Information

Appendix B: LCEM Evaluation of Previous Plan Mitigation Measures

Appendix C: Lafayette County Storm Event Database

Appendix D: Lafayette County Wild and Forest Fire Events

Appendix E: Lafayette County Annual Mitigation Worksheet

Appendix F: Municipal Map Sources

Appendix G: Adoption Resolutions of Participating Jurisdictions

Appendix A: Public Meeting Information

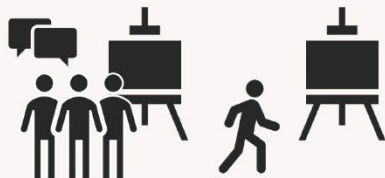
2022 Lafayette County Hazard Mitigation Plan Outreach Meetings			
Meeting	Date	Location	Purpose
2022 Planning Process Kickoff Meeting (Planning Team Meeting #1)	March 29 th	Lafayette County Sherriff's Department Office	Kickoff meeting to determine participants, to debrief the 2016 process, and to collect ideas for the 2022 process.
Planning Team Meeting #2	April 28 th	Virtual Meeting	Convene planning team to discuss planning process strategy for 2022.
Stakeholder Meeting #1	June 9 th	Lafayette Ames Multi-Purpose Building	Convene stakeholders to discuss goals, strategy, and content of plan.
Public Participation Meeting #1 (Western)	June 21 st	Belmont School Commons Area	Convene stakeholders, municipality representatives, and public to contribute to hazard mitigation planning.
Public Participation Meeting #2 (Eastern)	July 19 th	Argyle High School Commons Area	Convene stakeholders, municipality representatives, and public to contribute to hazard mitigation planning.
Public Participation Meeting #3 (Central)	July 21 st	Lafayette Ames Multi-Purpose Building	Convene stakeholders, municipality representatives, and public to contribute to hazard mitigation planning.
Stakeholder Meeting #2	August 10 th	Lafayette Ames Multi-Purpose Building	Discuss and evaluate plan content following public outreach.
Planning Team Meeting #3	August 15 th	Virtual Meeting	Debrief stakeholder and public meetings and discuss final draft.
Lafayette County Board Meeting	December 20 th	Lafayette County Courthouse	Present draft plan to the Lafayette County Board.

Do you live in Lafayette County?

Drop in anytime from 4-8 pm.

The Lafayette County Hazard Mitigation Planning Team will host three interactive, drop-in style meetings where you can learn and give input about the risks facing your community.

- Tuesday, June 21st:
Belmont School Commons Area
- Tuesday, July 19th:
Argyle School Cafetorium
- Thursday, July 21st:
Ames Multi-Purpose Building, Darlington



Darlington, 2019



Argyle, 2018



2022 Avian Flu

Hosted by Lafayette County Emergency Management and Southwestern Wisconsin Regional Planning Commission
Questions? Contact Ellen Tyler at e.tyler@swwrpc.org or (608) 348-5606

Appendix B: LCEM Evaluation of Previous Plan Mitigation Measures

LCEM completed the following evaluations of the mitigation measures listed in the 2016 Lafayette County Hazard Mitigation Plan.

LCEM Evaluation of 2016 Mitigation Measures		
Mitigation Measure	Completion	Notes
Continue to promote the increased use of National Oceanic and Atmospheric Administration (NOAA) weather radios.	No	Still relevant, ongoing
Fire Department will promote NOAA weather radio sales	No	Still relevant
Explore upgrading area early warning siren, as need arises and funding is available: • Belmont has 2 • Benton has 2 • Argyle has 1 • Blanchardville has 1 • South Wayne has 1 • Wiotra has 1 • Shullsburg has 1 • Gratiot has 1 • Darlington has 3 • Woodford has 1	Yes	Benton increased to 5 sirens (previously had 2), Shullsburg increased to 2 sirens (previously had 1).
Create an Emergency Management Department webpage within the current county webpage with links to the ARC, Homeland Security/FEMA, WEM especially focusing on preparedness bulletins. Publicize the website to show the community what is there.	Yes	Done on the county website under Sheriff Office.
Conduct a feasibility study and cost benefit analysis for installing a Reverse 9-1-1 communications system in the county.	No	Maybe relevant depending on other priorities.
Replace countywide communications EMS, public works and first responders, including mobiles and portables; put computers in all response vehicles; no towers) equipment (all communications equipment for fire, law enforcement, EMS, public works and first responders, including mobiles and portables; put computers in all response vehicles; no towers).	Somewhat	Action was taken, but there is a need for update again, as current radios are no longer serviceable.

LCEM Evaluation of 2016 Mitigation Measures		
Mitigation Measure	Completion	Notes
Provide a link on the county disaster preparedness website to the National Weather Service.	Yes	County website is robust and has these resource links
County should be prepared to provide information to farmers during times of drought.	No	This is done through UW-Ext. if anywhere.
Inform farmers on purchasing crop insurance.	Yes	Still relevant, ongoing
Place a link on the EM Dept. website for flood preparedness material and monitoring.	Yes	There is a ribbon placed on the county website home page during flooding conditions for direct link to information.
Identify, study and implement (as funding allows) improvements to reduce flooding on roadways, possibly including Main Street (State Highways 23 and 81) in the City of Darlington. Possible solutions include: - Shut-off valves - Engineering on bridge	Yes	We will have to see how the new bridge and street work in progress now to be completed October 2022 effect flooding conditions. Shut-off valves were not implemented and bridge approaches did not change much.
Identify, study and implement (as funding allows) improvements to reduce flooding on roadways, possibly including: - County H in Blanchardville - Possible solutions include: - Road elevation / McKellor Park - McKellor Pool - Cement wall around pool with a stainless steel door Cheese Country Recreational Trail – isolated spots tend to flood. Possible Solutions include: - Cap existing grade (thin concrete with stone) so water can flow over. - Had LIDAR flight in 2012 (whole county) – 2' contours. 6" resolution orthos	No	Issues still exist
Continue increasing the county's GIS mapping capabilities. (e.g., update official floodplain maps, collect information on flood prone areas).	Yes	EM is a member of the LIC and there have been great improvements, but always room for updates in the GIS world.
Explore the feasibility of purchasing and installing flood gauges at the Pecatonica River at Calamine.	No	Still a need

LCEM Evaluation of 2016 Mitigation Measures		
Mitigation Measure	Completion	Notes
Complete amendments/revisions to the Flood Rate Insurance Maps (FIRMs) as necessary.	Yes	Flood plain maps were updated in 2020.
Continue to explore if residents express an interest in flood mitigation measures (e.g., buyouts, elevations, floodproofing, etc.) countywide. One potential target area includes the relocation of county fairgrounds.	Somewhat	Southwest Wisconsin Ag Innovation Center and Expo group has formed.
Provide information to citizens about the purchase of flood insurance.	Yes	Still relevant, ongoing
Review and update preparedness measures (plans, training, exercising, public information) regarding county dams.	Yes	Ongoing updates each year for Yellowstone Lake and Hidden Valley.
Keep the Pecatonica River clear of debris.	Yes	Still relevant, ongoing
Continue to work with and support the DNR as they provide education to the municipalities regarding restrictions on development/road work in floodplains.	Yes	Still relevant, ongoing
Continue to provide outreach efforts to homeowners on protecting homes and structures from wildfires.	No	Still relevant, ongoing, somewhat managed by Fire districts as part of 2% dues educational programs.
Provide ample training for volunteer fire fighters for larger fires.	No	Still relevant, ongoing, always a need for more training support.
Continue public informational campaigns about severe weather on the website and during Winter and Heat Awareness Weeks.	Yes	Still relevant, ongoing
Place hail storm safety materials on the website and during severe weather week.	Yes	Social media posts are made and will continue.
Place lightning safety materials on the website and during severe weather week.	Yes	Social media posts are made and will continue.
Place thunderstorm safety materials on the website and during severe weather week.	Yes	Social media posts are made and will continue.
Promote tornado awareness, including safety measures.	Yes	Still relevant, ongoing
Continue to provide annual Weather Spotter training.	Yes	Still relevant, ongoing

LCEM Evaluation of 2016 Mitigation Measures		
Mitigation Measure	Completion	Notes
Explore upgrading or building tornado shelters in areas where deficient, especially in mobile home parks and campgrounds. Locations for study include: - Sunset Terrace - McKeller Park	No	Still a need
Promote winter hazards awareness, including home and travel safety measures (including website).	Yes	Social media posts are made and will continue.
Review power needs for emergency operations and provide generators/hook-ups as needed to critical infrastructure. Locations of concern include: - County/City EOC located at 627 Main Street in the CI Darlington. - Village Hall has no generator for power outage. Explore installing a panel.	Yes	EOC has been relocated to Ames Road Multipurpose building where there is generator support.

Appendix C: Lafayette County Storm Event Database

Lafayette County Storm Event Database, 2017- 2022 (Source: NOAA)		
Location (if Available)	Date	Event
	1/3/2017	Winter Weather
	1/10/2017	Winter Weather
	1/16/2017	Winter Weather
	1/24/2017	Winter Weather
	2/24/2017	Winter Weather
FAYETTE	3/6/2017	Thunderstorm Wind
	3/8/2017	High Wind
	3/12/2017	Winter Weather
YELLOWSTONE LAKE STATE PARK	3/23/2017	Hail
DARLINGTON	5/15/2017	Thunderstorm Wind
ARGYLE	5/15/2017	Thunderstorm Wind
DARLINGTON	5/15/2017	Thunderstorm Wind
BELMONT	5/17/2017	Thunderstorm Wind
SHULLSBURG	6/14/2017	Thunderstorm Wind
SOUTH WAYNE	6/15/2017	Thunderstorm Wind
PLATTE MOUNDS	6/28/2017	Thunderstorm Wind
ELK GROVE	6/28/2017	Flash Flood
IPSWICH	7/19/2017	Thunderstorm Wind
SOUTH WAYNE	7/19/2017	Thunderstorm Wind
YELLOWSTONE LAKE STATE PARK	7/20/2017	Flood
MEEKERS GROVE	7/21/2017	Flash Flood
DARLINGTON	7/21/2017	Flood
ARGYLE	8/10/2017	Thunderstorm Wind
	12/4/2017	Strong Wind
	12/25/2017	Cold/Wind Chill
	1/1/2018	Cold/Wind Chill
	1/14/2018	Winter Weather
	2/3/2018	Winter Weather
	2/5/2018	Winter Weather
	2/8/2018	Winter Weather
YELLOWSTONE LAKE STATE PARK	2/20/2018	Flood
DARLINGTON	2/20/2018	Flood
BENTON	2/20/2018	Flood
	3/5/2018	Winter Weather
	4/3/2018	Winter Weather
	6/16/2018	Heat

PLATTE MOUNDS	6/26/2018	Tornado
ARGYLE	6/26/2018	Tornado
	6/29/2018	Excessive Heat
YELLOWSTONE LAKE STATE PARK	6/30/2018	Thunderstorm Wind
	7/4/2018	Heat
DUNBARTON	7/13/2018	Thunderstorm Wind
GRATIOT	7/13/2018	Thunderstorm Wind
SOUTH WAYNE	7/13/2018	Thunderstorm Wind
SOUTH WAYNE	7/13/2018	Thunderstorm Wind
GRATIOT	7/13/2018	Thunderstorm Wind
BENTON	9/2/2018	Thunderstorm Wind
YELLOWSTONE LAKE STATE PARK	9/5/2018	Flood
BELMONT	9/20/2018	Flash Flood
DARLINGTON	10/2/2018	Flood
DARLINGTON	10/2/2018	Flood
YELLOWSTONE LAKE STATE PARK	10/6/2018	Flood
DARLINGTON	10/11/2018	Flood
	12/28/2018	Winter Weather
	1/18/2019	Winter Weather
	1/22/2019	Winter Weather
	1/27/2019	Winter Weather
	1/29/2019	Extreme Cold/Wind Chill
	2/5/2019	Winter Weather
	2/7/2019	Winter Weather
	2/11/2019	Winter Storm
	2/17/2019	Winter Weather
	2/19/2019	Winter Weather
	2/23/2019	Winter Weather
	2/24/2019	Strong Wind
	2/26/2019	Winter Weather
WIOTA	3/13/2019	Flood
CALAMINE	3/13/2019	Flood
YELLOWSTONE LAKE STATE PARK	3/13/2019	Flood
	4/27/2019	Winter Weather
BELMONT	6/30/2019	Thunderstorm Wind
NEW DIGGING	6/30/2019	Thunderstorm Wind
	7/19/2019	Heat
FAYETTE	7/20/2019	Thunderstorm Wind
SHULLSBURG	9/3/2019	Thunderstorm Wind

SHULLSBURG	9/3/2019	Thunderstorm Wind
DARLINGTON	9/12/2019	Thunderstorm Wind
BENTON	9/12/2019	Flash Flood
DARLINGTON	9/14/2019	Flood
TRUMAN	10/1/2019	Thunderstorm Wind
CALAMINE	10/1/2019	Thunderstorm Wind
YELLOWSTONE LAKE STATE PARK	10/2/2019	Flood
CALAMINE	10/2/2019	Flood
	10/28/2019	Winter Weather
	10/30/2019	Winter Weather
	11/10/2019	Winter Weather
	11/27/2019	Strong Wind
	1/10/2020	Winter Weather
	1/17/2020	Winter Weather
	1/31/2020	Winter Weather
	2/9/2020	Winter Weather
	2/17/2020	Winter Weather
ELK GROVE	4/7/2020	Hail
DARLINGTON	4/7/2020	Hail
DARLINGTON ARPT	4/7/2020	Hail
GRATIOT	4/7/2020	Hail
SOUTH WAYNE	4/7/2020	Hail
SHULLSBURG	7/11/2020	Thunderstorm Wind
IPSWICH	8/10/2020	Thunderstorm Wind
DARLINGTON	8/10/2020	Thunderstorm Wind
	11/24/2020	Winter Weather
	12/11/2020	Winter Weather
	12/27/2020	Winter Weather
	12/29/2020	Winter Storm
	1/16/2021	Winter Weather
	1/25/2021	Winter Storm
	1/30/2021	Winter Weather
	2/4/2021	Winter Weather
	2/7/2021	Cold/Wind Chill
	2/11/2021	Winter Weather
	2/13/2021	Cold/Wind Chill
	2/13/2021	Winter Weather
	3/15/2021	Winter Weather
GRATIOT	7/28/2021	Thunderstorm Wind
BELMONT	8/10/2021	Thunderstorm Wind
SHULLSBURG	8/24/2021	Thunderstorm Wind

DARLINGTON	9/20/2021	Thunderstorm Wind
	12/15/2021	High Wind
	12/28/2021	Winter Weather
	12/31/2021	Winter Weather
	1/1/2022	Winter Weather
	1/22/2022	Winter Weather
	1/24/2022	Winter Weather
	1/25/2022	Cold/Wind Chill
	2/22/2022	Winter Weather
	2/24/2022	Winter Weather
	3/6/2022	Winter Weather
	3/31/2022	Winter Weather
	4/14/2022	Strong Wind
MEEKERS GROVE	4/30/2022	Hail

Appendix D: Lafayette County Wild and Forest Fire Events

Lafayette County Wild and Forest Fire Events, 1999-2022 (Source: WIDNR)			
Date	Location	Cause	Acres Burned
3/30/1999	Fayette Township	Debris Burning	60
3/15/2018	Elk Grove Township	Miscellaneous	0.2
11/7/2020	Fayette Township	Debris Burning	2

Appendix E: Lafayette County Mitigation Worksheet

Year: _____

Disaster History

Damages: \$

Hazard Mitigation Efforts Completed:

Q1	Q2	Q3	Q4

Lessons Learned/Proposed Updates to Hazard Mitigation Plan:

Appendix F: Municipal Map Sources

Google Maps. *Child Care*, 2022. Obtained directly. Accessed 25 August 2022.

Google Maps. *Community Centers*, 2022. Obtained directly. Accessed 25 August 2022.

Google Maps. *Gas Stations*, 2022. Obtained directly. Accessed 25 August 2022.

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Lafayette County GIS Data. *Aged Care Facilities*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Ambulance*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Cellular Towers*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Fire Department*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Hospitals*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Municipal Buildings*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Museums*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Police Department*, 2022. Obtained directly via email. Accessed 25 August 2022.

Lafayette County GIS Data. *Schools*, 2022. Obtained directly via email. Accessed 25 August 2022.

Municipal Representative(s). *Culverts*, 2022. Obtained directly via feedback. Accessed 25 August 2022.

US Census. *Lakes and Open Water*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. Accessed 25 August 2022.

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US Census. *Rivers and Streams*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. Accessed 25 August 2022.

US Census. *Roads*, 2021. <https://www.census.gov/cgi-bin/geo/shapefiles/index.php>. Accessed 25 August 2022.

US Department of Homeland Security. *Bridges*, 2021. <https://hifld-geoplatform.opendata.arcgis.com/search?collection=Dataset>. Accessed 25 August 2022.

US Department of Homeland Security. *Substations*, 2021. <https://hifld-geoplatform.opendata.arcgis.com/search?collection=Dataset>. Accessed 25 August 2022.

US Department of Transportation. *Gas Pipelines*, 2022. <https://www.npms.phmsa.dot.gov/PipelineDataRequest/DataRequestForm.aspx>. Accessed 25 August 2022.

US Energy Information Administration. *Transmission Lines*, 2021. https://www.eia.gov/maps/layer_info-m.php. Accessed 25 August 2022.

Wisconsin DNR. *Campgrounds*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. Accessed 25 August 2022.

Wisconsin DNR. *Floodplain*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. Accessed 25 August 2022.

Wisconsin DNR. *Public Boat Access*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. Accessed 25 August 2022.

Wisconsin DNR. *Solid Waste*, 2018. <https://data-wi-dnr.opendata.arcgis.com/>. Accessed 25 August 2022.

Wisconsin DNR. *Wildfires*, 2021. <https://data-wi-dnr.opendata.arcgis.com/>. Accessed 25 August 2022.

Wisconsin DOT. *Culverts*, 2021. <https://data-wisdot.opendata.arcgis.com/>. Accessed 25 August 2022.

Wisconsin Historical Society. *Historical Sites*, 2021. <https://www.wisconsinhistory.org/Records/Article/CS4091>. Accessed 25 August 2022.

Appendix G: Adoption Resolutions of Participating Jurisdictions

Completed Adoption Resolutions	
Jurisdiction	Resolution Number
Lafayette County (see next page)	46-22
City of Darlington	2023-01
City of Shullsburg	2023-01
Town of Argyle	1-2023
Town of Belmont	2023-01
Town of Benton	2023-01
Town of Blanchard	2023-1
Town of Darlington	1-2023
Town of Elk Grove	2023-01
Town of Fayette	23-01
Town of Gratiot	2023-01
Town of Kendall	2023-01
Town of Lamont	12-2022
Town of Monticello	23-1
Town of New Diggings	2023-01
Town of Seymour	2023-01
Town of Shullsburg	23-01
Town of Wayne	1-1-23
Town of White Oak Springs	2023-01
Town of Willow Springs	2023-01
Town of Wiota	2023-01
Village of Argyle	2-2023
Village of Belmont	2023-1
Village of Benton	2023-01
Village of Blanchardville	2023-002
Village of Gratiot	01-03-23-1
Village of South Wayne	2023-01

Resolution 46 - 22

UPDATE TO LAFAYETTE COUNTY MULTI-HAZARD MITIGATION PLAN

WHEREAS, Lafayette County recognizes the threats posed by natural hazards to people and property; and

WHEREAS, undertaking hazard mitigation actions *before* disasters occur will reduce the potential for harm to people and property and save taxpayer dollars; and

WHEREAS, an adopted multi-hazard mitigation plan is required as a condition of future grant funding for mitigation projects; and

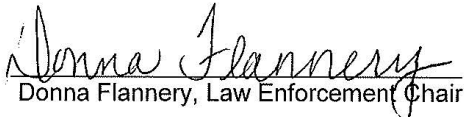
WHEREAS, the multi-hazard mitigation plans require regular updates every five years to be current; and

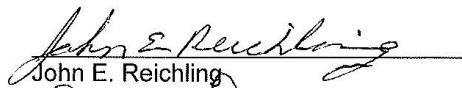
WHEREAS, Lafayette County participated jointly in the planning process with other local units of government, within the County, to update the multi-hazard mitigation plan; and

WHEREAS, the Wisconsin Department of Emergency Management and the Federal Emergency Management Agency, have reviewed the plan and determined that the plan meets state and federal requirements.

NOW, THEREFORE, BE IT RESOLVED, that Lafayette County hereby adopts the updated Lafayette County Multi-Hazard Mitigation Plan as an official plan.

Respectfully Submitted
Lafayette County Law Enforcement Committee


Donna Flannery, Law Enforcement Chair


John E. Reichling

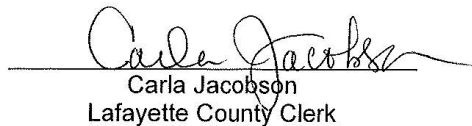

Carmen McDonald


Luke McGuire

FISCAL NOTE:

LEGAL NOTE: Within County Board Authority

I, Carla Jacobson, Clerk of the County of Lafayette, State of Wisconsin, do certify that this resolution was adopted by the Lafayette County Board of Supervisors, at a meeting held on December 20, 2022.


Carla Jacobson
Lafayette County Clerk

