

Annex J Liberty County

J.1 Mitigation Planning and County Planning Team

This County Annex builds on previous versions of the Liberty County Hazard Mitigation Plan completed in 2013. As part of the regional planning process, the County established a County Planning Team (CPT) to develop the mitigation plan and identify potential mitigation projects. The following incorporated communities participated in the DMA planning process with the County:

- Town of Chester.

More details on the planning process followed and how the counties, municipalities and stakeholders participated can be referenced in Chapter 3 of the base plan. A full list of local government departments and stakeholders that participated can be found in Appendix A.

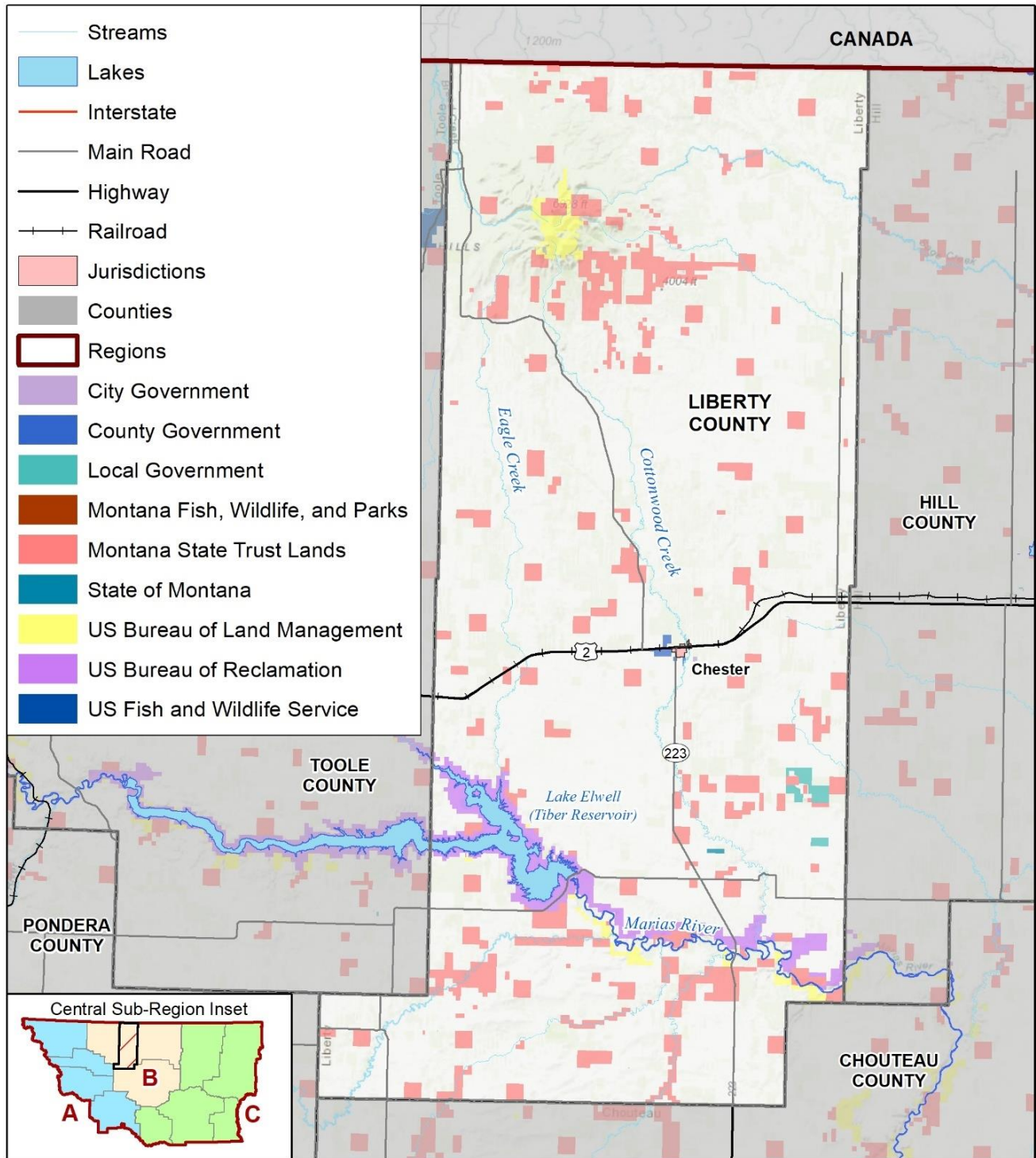
J.2 Community Profile

J.2.1 Geography and Climate

Liberty County is situated in the north-central part of the state and is bordered by Canada to the north. The county seat is the Town of Chester and other communities within its boundaries include Joplin, Whitlash, and Lothair. The county has a total area of 1,458 square miles (3,775 km²), with a population of around 2,400 people, making it one of the least populated counties in Montana. The landscape of Liberty County is characterized by rolling plains, grasslands, and agricultural fields, and the county is known for its farming, ranching, and oil production industries.

Liberty County is located east of the Continental Divide in Montana and subject to continental weather patterns. It is characterized by its semi-arid climate, including hot summers, cold winters, and low precipitation throughout the year. The county experiences four distinct seasons, with average temperatures ranging from 13.5°F in January to 66.0°F in July (NCEI, 2023). The area receives an average of 12 inches (305 mm) of precipitation annually, with most of it falling as snow during the winter months. Despite the low precipitation, the county has several water sources, including the Marias River and numerous creeks and reservoirs. The area is prone to occasional severe weather events such as thunderstorms, hail, and blizzards.

Figure J-1 Liberty County Base Map and Land Stewardship



Map compiled 9/2022;
intended for planning purposes only.
Data Source: Montana State Library

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J.2.2 Population Trends

According to the 2020 U.S. Census, Liberty County has an estimated population of 2,026 people. The county has a relatively low population density of around 1.5 people per square mile. Most of the county's population resides in the Town of Chester, which serves as the county seat, and its surrounding areas. Table J-1 below shows the population trends for Toole County and its incorporated communities over the last 40 years. The County's population has remained relatively stable over the years, with small fluctuations due to migration and natural population changes.

Table J-1 Population Trends in Liberty County 1980-2020

Jurisdiction	1980	1990	1980-1990 Change	2000	1990-2000 Change	2010	2000-2010 Change	2020	2010-2020 Change
Liberty County	2,340	2,287	-2.3%	2,158	-5.6%	2,339	8.4%	1,959	-16.2%
Town of Chester	-	944	-	871	-7.7%	847	-2.8%	847	0.0%

Source: US Census 1980-2020

J.2.3 Demographics

The 2016-2020 American Community Survey (ACS) reports demographic estimates for Liberty County, summarized in the table below.

Table J-2 Demographic Estimates for Liberty County (2016-2020 ACS)

Characteristic	Liberty County	State of Montana
Percentage of persons below 150% poverty estimate	30.3%	24.1%
Unemployment Rate estimate	0.0%	4.0%
Percentage of housing cost-burdened occupied housing units with annual income less than \$75,000 (30%+ of income spent on housing costs) estimate	5.6%	21.4%
Percentage of persons with no high school diploma (age 25+) estimate	1.2%	7.5%
Percentage uninsured in the total civilian noninstitutionalized population estimate	6.6%	9.6%
Percentage of persons aged 65 and older estimate	21.2%	22.1%
Percentage of persons aged 17 and younger estimate	22.4%	21.3%
Percentage of civilian noninstitutionalized population with a disability estimate	17.6%	15.6%
Percentage of single-parent households with children under 18 estimate	1.8%	3.9%
Percentage of persons (age 5+) who speak English "less than well" estimate	0.7%	0.3%
Minority (other than white non-Hispanic) estimate	1.6%	14.6%

Characteristic	Liberty County	State of Montana
Percentage of housing in structures with 10 or more units estimate	5.5%	3.3%
Percentage of mobile homes estimate	5.0%	13.1%
Percentage of occupied housing units with more people than rooms estimate	0.0%	2.1%
Percentage of households with no vehicle available estimate	6.5%	4.9%
Percentage of persons in group quarters estimate	0.9%	2.8%
Percentage Female estimate	56.1%	49.7%
Median Age estimate	40.1	40.1
Median Gross Rent estimate	\$580	\$836
Median House Value estimate	\$101,600	\$244,900
Percent Unoccupied Housing Units estimate	19.8%	15.3%

Source: ACS 2016-2020

J.2.4 Social Vulnerability

Social vulnerability is broadly defined as the susceptibility of social groups to the adverse impacts of natural hazards, including disproportionate death, injury, loss, or disruption of livelihood. Social vulnerability considers the social, economic, demographic, and housing characteristics of a community that influence its ability to prepare for, respond to, cope with, recover from, and adapt to environmental hazards. Additional details on social vulnerability and the NRI can be found in Section 4.1.1.5 of the Base Plan.

The NRI ranked the social vulnerability in Liberty County as "Very High", with a score of 63.1. This is higher than 5% of counties in Montana. Refer to HIRA for more information on social vulnerability. Demographic factors that can influence the social vulnerability rating are displayed in Table J-2. The ACS reports that a significant portion of the population in Liberty County (around a third) is below the 150% poverty level. Nearly a quarter of the population is aged 17 and younger, indicating that many individuals are still dependent on a caretaker.

The CPT noted vulnerability concerns in jurisdictions across the County, including low-income residents, elderly residents, and Hutterite colonies. Additionally, it was noted that about half of the Town of Chester resides in the 100-year floodplain.

J.2.5 Development Trends

In recent years, there has been no significant residential, commercial, or industrial development in either Liberty County or the Town of Chester. Although the unincorporated county has seen some changes in its population, the population of Chester has remained relatively stable. However, despite the lack of development, the CPT noted that a significant amount of Chester's residential area falls within the 100-year floodplain.

J.2.6 Economy

Table J-3 below provides a brief overview of economic characters in Liberty County. The following information is provided by the U.S. Census Bureau American Community Survey (ACS) 5-year estimates from 2016-2020.

Table J-3 Liberty County Economic Profile

Economic Characteristic	Liberty County
Families Below Poverty Level	15.3%
Individuals Below Poverty Level	22.2%
Median Home Value	\$101,600
Median Household Income	\$46,750
Per Capita Income	\$46,198
Population > 16 Years Old in Labor Force	60.3%
Population Employed	60.3%

Source: U.S. Census Bureau ACS 5-year estimates, 2016-2020

Table J-4 below shows the breakdown of employment in Liberty County by the industry sector. According to the ACS, the leading employment sectors in the County are Agriculture, forestry, fishing and hunting, and mining, which composes nearly a quarter of the total employment in the County, followed by Retail trade.

Table J-4 Liberty County Occupation by Industry Profile

Industry	Population Employed	Percent of Labor Force
Agriculture, forestry, fishing and hunting, and mining	454	38.1%
Construction	53	4.5%
Manufacturing	0	0.0%
Wholesale trade	22	1.8%
Retail trade	117	9.8%
Transportation and warehousing, and utilities	16	1.3%
Information	19	1.6%
Finance and insurance, and real estate and rental and leasing	28	2.4%
Professional, scientific, and management, and administrative and waste management services	58	4.9%
Educational services, and health care and social assistance	234	19.6%
Arts, entertainment, and recreation, and accommodation and food services	25	2.1%
Other services, except public administration	33	2.8%
Public administration	132	11.1%

Source: U.S. Census Bureau ACS 5-year estimates, 2016-2020

J.3 Hazard Identification and Risk Assessment

J.3.1 Identified Hazards

The CPT reviewed significant hazards for inclusion in the hazard mitigation plan. Liberty County's Overall Hazard Significance* Summary Table provides a summary of the overall hazard significance for the hazards

evaluated in this plan, showing variability by jurisdiction in Table J-5 below. More details on hazards can be found in Chapter 4 of the base plan.

Table J-5 Liberty County Overall Hazard Significance by Hazard and Jurisdiction*

Hazard	Liberty County	Town of Chester
Communicable Disease	Medium	Medium
Cyber-Attack	Medium	Medium
Dam Failure	Low	Low
Drought	High	High
Earthquake	Low	Low
Flooding	Medium	High
Hazardous Materials Incident	Low	Low
Landslide	Low	Low
Severe Summer Weather	High	High
Severe Winter Weather	Medium	Medium
Human Conflict	Low	Low
Tornadoes & Windstorms	Medium	Medium
Transportation Accidents	High	High
Volcanic Ash	Low	Low
Wildfire	Low	Low

*Significance based on a combination of Geographic Extent, Potential Magnitude/Severity and Probability as defined below.

<p>Geographic Extent</p> <p><u>Negligible</u>: Less than 10 percent of planning area or isolated single-point occurrences</p> <p><u>Limited</u>: 10 to 25 percent of the planning area or limited single-point occurrences</p> <p><u>Significant</u>: 25 to 75 percent of planning area or frequent single-point occurrences</p> <p><u>Extensive</u>: 75 to 100 percent of planning area or consistent single-point occurrences</p> <p>Potential Magnitude/Severity</p> <p><u>Negligible</u>: Less than 10 percent of property is severely damaged, facilities and services are unavailable for less than 24 hours, injuries and illnesses are treatable with first aid or within the response capability of the jurisdiction.</p> <p><u>Limited</u>: 10 to 25 percent of property is severely damaged, facilities and services are unavailable between 1 and 7 days, injuries and illnesses require sophisticated medical support</p>	<p>Probability of Future Occurrences</p> <p><u>Unlikely</u>: Less than 1 percent probability of occurrence in the next year or has a recurrence interval of greater than every 100 years.</p> <p><u>Occasional</u>: Between a 1 and 10 percent probability of occurrence in the next year or has a recurrence interval of 11 to 100 years.</p> <p><u>Likely</u>: Between 10 and 90 percent probability of occurrence in the next year, or has a recurrence interval of 1 to 10 years</p> <p><u>Highly Likely</u>: Between 90 and 100 percent probability of occurrence in the next year or has a recurrence interval of less than 1 year.</p> <p>Overall Significance</p> <p><u>Low</u>: Two or more of the criteria fall in the lower classifications or the event has a minimal impact on the planning area. This rating is also sometimes used for hazards with a minimal or unknown record of occurrences/impacts or for hazards with minimal mitigation potential.</p>
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that does not strain the response capability of the jurisdiction, or results in very few permanent disabilities. <u>Critical</u> : 25 to 50 percent of property is severely damaged, facilities and services are unavailable or severely hindered for 1 to 2 weeks, injuries and illnesses overwhelm medical support for a brief period of time or result in many permanent disabilities and a few deaths. overwhelmed for an extended period of time or many deaths occur. <u>Catastrophic</u> : More than 50 percent of property is severely damaged, facilities and services are unavailable or hindered for more than 2 weeks, the medical response system is overwhelmed for an extended period of time, or many deaths occur.	<u>Medium</u> : The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is also sometimes utilized for hazards with a high impact rating but an extremely low occurrence rating. <u>High</u> : The criteria consistently fall along the high ranges of the classification and the event exerts significant and frequent impacts on the planning area. This rating is also sometimes utilized for hazards with a high psychological impact or for hazards that the jurisdiction identifies as particularly relevant.
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J.3.2 Building Inventory and Assets

People, property, critical facilities/infrastructure, and other important assets in Liberty County are exposed to the hazards identified in this plan. Table 7 summarizes the property inventory for the County and each participating jurisdiction, based on improvement value (i.e., structures) and includes the building count and value grouped by parcel type and jurisdiction. This is an assessment of the overall property exposed within the County and by jurisdiction.

Assets inventoried to determine vulnerability include people, structures, critical facilities, and natural, historic, or cultural resources. For the regional planning process, locally available GIS databases were utilized. Parcel and assessor data was obtained through Montana's MSDI Cadastral website. This Statewide database provided the basis for building exposure and property types. The focus of the analysis was on "improved" or developed parcels. These parcels were identified based on an improvement value greater than zero. Property Types were used to identify occupancy types as shown in the following table, which includes summations of total improved value for the various property types.

Table J-6 Liberty County Building Inventory and Value by Jurisdiction

Jurisdiction	Improved Parcels	Improved Value	Content Value	Total Value
Town of Chester	443	\$47,788,309	\$26,956,590	\$74,744,899
Liberty County	650	\$118,545,703	\$120,990,607	\$239,536,310
Total	1,093	\$166,334,012	\$147,947,196	\$314,281,208

Source: MSDI Cadastral database, <https://msl.mt.gov/geoinfo/msdi/cadastral/>

Total building exposure within Liberty County based on an analysis of improved parcels is nearly \$315 million, with over \$166 million in improved value properties and \$147 million of contents at-risk. Of the nearly \$315 million of total building exposure in Liberty County, the Town of Chester accounts for \$75 million (31.2%). Agricultural properties represent the greatest portion of structures in the County, accounting for \$105 million (33.3%).

Table J-7 Liberty County Total Exposure by Jurisdiction and Property Type

Jurisdiction	Property Type	Improved Parcels	Improved Value	Content Value	Total Value
Town of Chester	Exempt	15	\$6,124,870	\$6,124,870	\$12,249,740
	Residential	428	\$41,663,439	\$20,831,720	\$62,495,159
	Total	443	\$47,788,309	\$26,956,590	\$74,744,899

Jurisdiction	Property Type	Improved Parcels	Improved Value	Content Value	Total Value
Liberty County	Agricultural	414	\$52,258,810	\$52,258,810	\$104,517,620
	Exempt	11	\$17,399,580	\$17,399,580	\$34,799,160
	Industrial	6	\$26,137,580	\$39,206,370	\$65,343,950
	Residential	218	\$21,247,773	\$10,623,887	\$31,871,660
	Vacant	1	\$1,501,960	\$1,501,960	\$3,003,920
	Total	650	\$118,545,703	\$120,990,607	\$239,536,310
Grand Total		1,093	\$166,334,012	\$147,947,196	\$314,281,208

Source: MSDI Cadastral database, <https://msl.mt.gov/geoinfo/msdi/cadastral/>

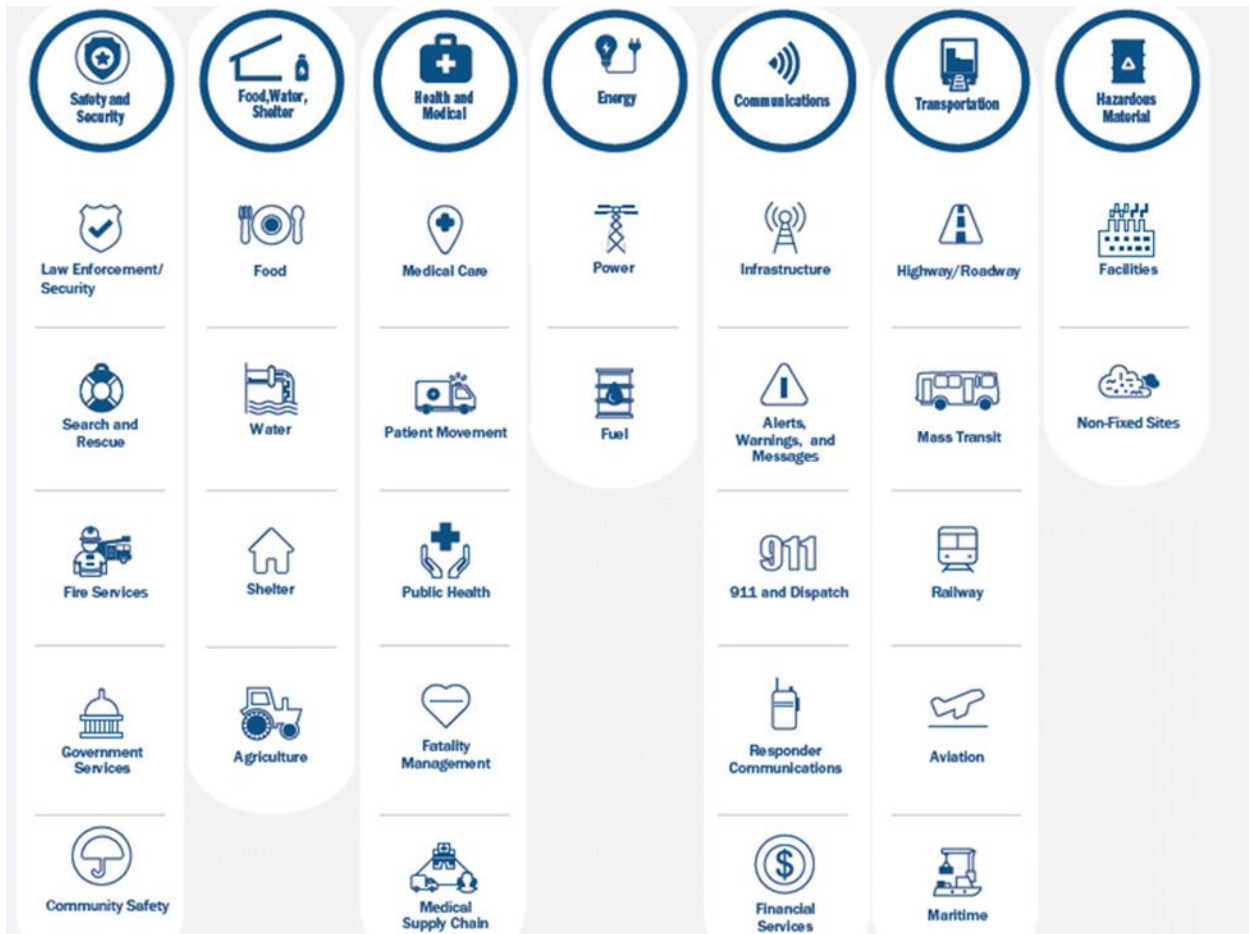
Critical Facilities, Infrastructure, and Other Important Community Assets

A critical facility is defined as one that is essential in providing utility or direction either during the response to an emergency or during the recovery operation. Much of this data is based on GIS databases associated with the 2022 Homeland Infrastructure Foundation-Level Data (HIFLD). Other critical facility databases were also used, such as the National Bridge Inventory (NBI), with supplementation from the HMPC. Where applicable, this information was used in an overlay analysis for hazards such as dam failure, flood, and wildfire.

FEMA organizes critical facilities into seven lifeline categories as shown in Figure J-2. These lifeline categories standardize the classification of critical facilities and infrastructure that provide indispensable service, operation, or function to a community. A lifeline is defined as providing indispensable service that enables the continuous operation of critical business and government functions, and is critical to human health and safety, or economic security. These categorizations are particularly useful as they:

- Enable effort consolidations between government and other organizations (e.g., infrastructure owners and operators).
- Enable integration of preparedness efforts among plans; easier identification of unmet critical facility needs.
- Refine sources and products to enhance awareness, capability gaps, and progress towards stabilization.
- Enhance communication amongst critical entities, while enabling complex interdependencies between government assets.
- Highlight lifeline related priority areas regarding general operations as well as response efforts.

Figure J-2 FEMA Lifeline Categories



Source: FEMA

Table J-8 below summarizes the number of critical facilities by jurisdiction. Figure J-3 and Figure J-4 displays the location of critical facilities by FEMA Lifeline in Liberty County and the Town of Chester.

Table J-8 Liberty County Critical Facilities by Jurisdiction

Jurisdiction	Communications	Energy	Food, Water, Shelter	Hazardous Material	Health and Medical	Safety and Security	Transportation	Total
Town of Chester	-	-	-	-	-	5	1	6
Liberty County	10	11	3	-	1	6	12	43
Total	10	11	3	0	1	11	13	49

Source: HIFLD 2022, MT DES, National Bridge Inventory

Figure J-3 Liberty County Critical Facilities

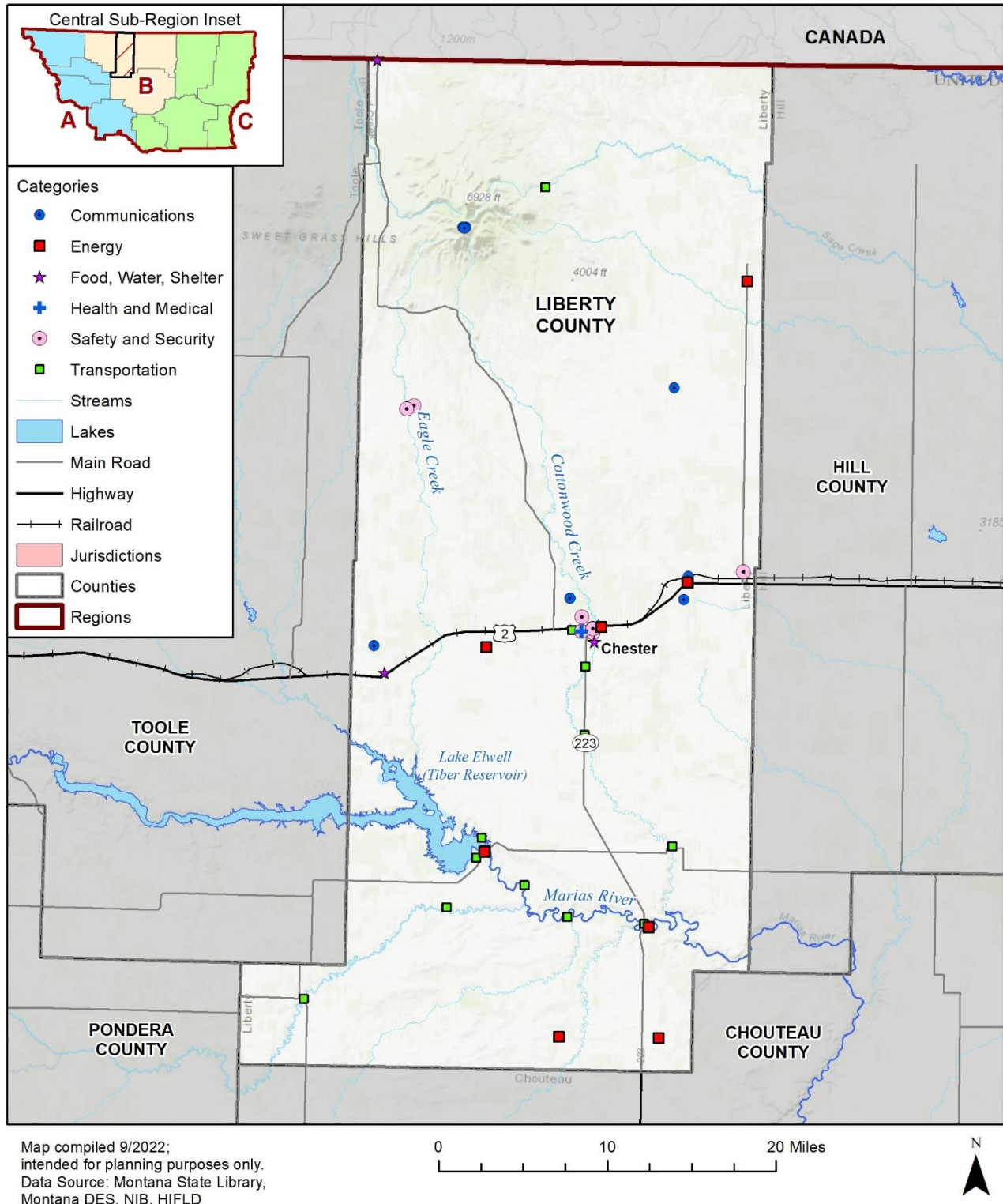
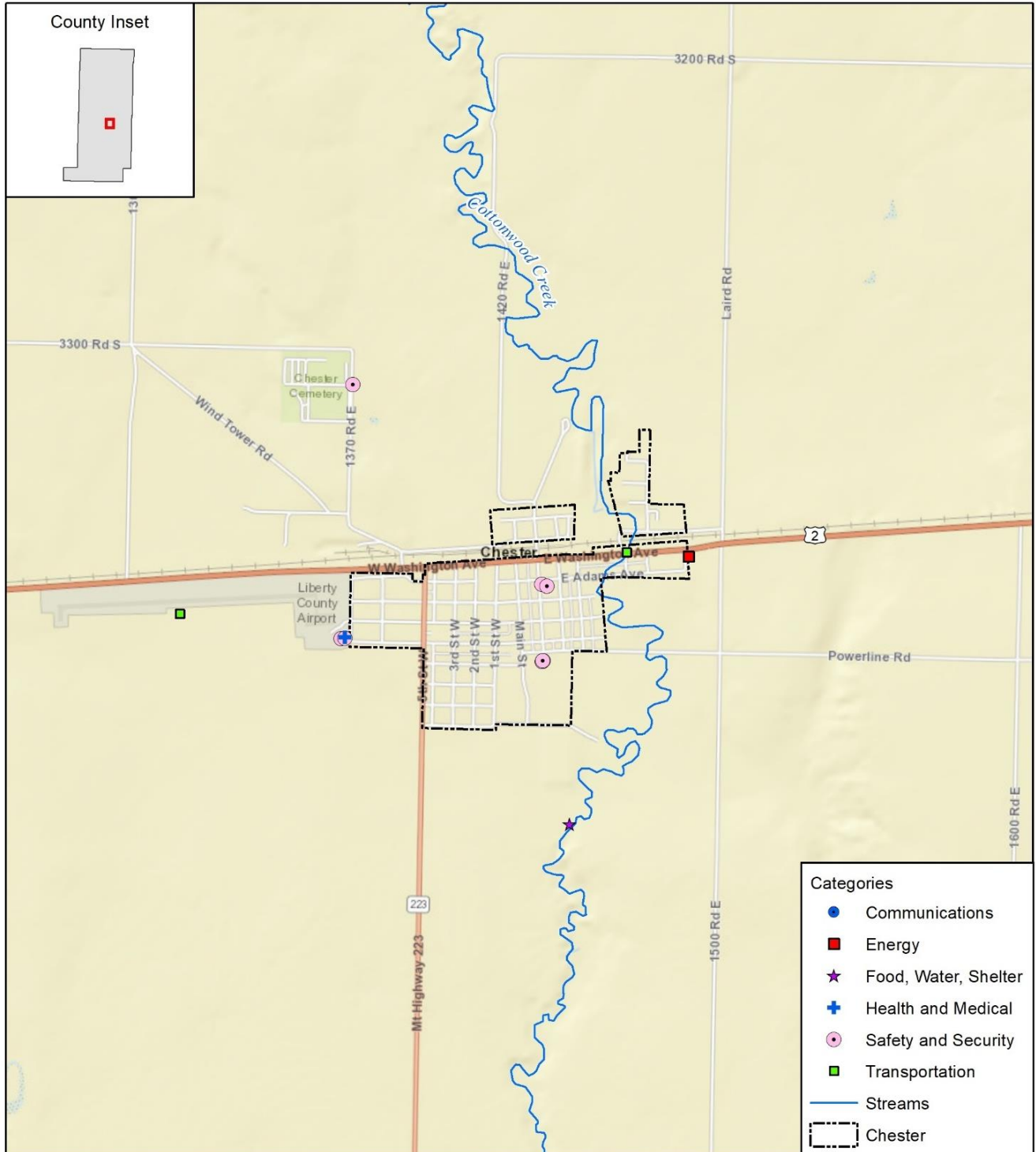


Figure J-4 Town of Chester Critical Facilities



Natural, Historic, and Cultural Assets

Assessing the vulnerability of Liberty County to hazards also involves inventorying the natural, historical, and cultural assets of the area. This step is important for the following reasons:

- The community may decide that these types of resources warrant more protection due to their unique and irreplaceable nature and contribution to the overall economy.
- If these resources are impacted by a hazard, knowing so ahead of time allows for more prudent care in the immediate aftermath, when the potential for additional impacts are higher.
- The rules for reconstruction, restoration, rehabilitation, and/or replacement are often different for these types of designated resources.
- Natural resources can have beneficial functions that reduce the impacts of natural hazards, such as wetlands and riparian habitat, which help absorb and attenuate floodwaters.

Historic and Cultural Assets

By definition, a historic property not only includes buildings or other types of structures, such as bridges and dams, roads, byways, historic landscapes, and many other features. The National Register of Historic Places, managed by the National Park Service and U.S. Department of Interior, is the nation's official list of cultural resources worthy of preservation. Table J-9 below lists the properties that are identified as having cultural and historic significance in Liberty County as recorded by the National Register of Historic Places.

Table J-9 Historic Properties and Districts on National Registers

Property Name	City/Town	Location	Date Listed
First Episcopal Methodist Church of Chester	Chester	Jct. of Second St. and Madison	8/29/97
First State Bank of Chester	Chester	Jct. of Washington Ave. and First St. E	8/29/97
Moffitt Bridge	Chester	6 mi. SE downstream of the Tiber Dam across the Maria River	Eligible, Not Listed
Puglsey Bridge	Chester	Local rd. across the Marias River, 3 mi. SE of the Tiber Dam	Eligible, Not Listed
Archeological Site 24-LT-26	Unlisted	Unlisted	Eligible, Not Listed
Sweetgrass Hills Historic District	Sweetgrass	E of Sweetgrass	Eligible, Not Listed

Source: National Register of Historic Places, <https://irma.nps.gov/DataStore/Reference/Profile/2210280>

Natural Resources

Natural resources are important to include in benefit-cost analyses for future projects and may be used to leverage additional funding for projects that also contribute to community goals for protecting sensitive natural resources. Awareness of natural assets can lead to opportunities for meeting multiple objectives. For instance, protecting wetlands preserves sensitive habitats as well as attenuates and stores floodwaters.

Located in the southwest area of the county, Lake Elwell/Tiber Dam was constructed on the Marias River between 1952-1956 for irrigation purposes. The dam stands at 211 feet tall and has a total capacity of 1.5 million acre-feet of water. It has become a popular destination for fishing and recreation. The Marias River covers most of the County, including drainages south of Highway 2. The Willow Creek Watershed runs along the west of Liberty and east of Toole counties. Sage Creek flows diagonally from the north of the Sweet Grass Hills towards Hill county. The Upper Milk Watershed dips into the northwest and northeast corners of Liberty.

Endangered Species

A table of endangered and threatened species in the State of Montana, as identified by the U.S. Fish and Wildlife Service, Montana Ecological Services Field Office, can be found in the Assets Summary Section in Chapter 4 of the base plan.

J.4 Vulnerability to Specific Hazards

This section details vulnerability to specific hazards, where quantifiable, only where it differs from that of the Region as a whole. The results of detailed GIS analyses used to estimate potential for future losses are presented here, in addition to maps of hazard areas and details by jurisdiction and building type. For a discussion of the methodology used to develop the loss estimates, refer to Chapter 4 of the base plan. In many cases Chapter 4 contains information that differentiates the risk by county thus the information is not duplicated here. For most of the weather-related hazards the risk does not vary significantly enough from the rest of the Region and thus the reader should refer to Chapter 4. Only unique issues or vulnerabilities are discussed, where applicable.

- Communicable Disease
- Cyber-Attack
- Dam Failure
- Drought
- Earthquake
- Flooding
- Hazardous Materials Incident
- Landslide
- Severe Summer Weather
- Severe Winter Weather
- Human Conflict
- Tornadoes & Windstorms
- Transportation Accidents
- Volcanic Ash
- Wildfire

J.4.1 Communicable Disease

All populations are vulnerable to communicable disease. Elder populations, young children, and individuals with pre-existing medical conditions are more likely to face long lasting impacts from communicable disease. While areas of high population density, such as the Town of Chester, are likely to experience a greater number of cases due to a larger population, these larger towns and cities also have greater access to medical resources. Communicable disease is ranked as medium for all counties in the Central Region and there were no noted differences in ranking of communicable disease by jurisdiction in Liberty County.

Refer to Chapter 4 for a discussion of the communicable disease risk relative to Liberty County and the Central Region.

J.4.2 Cyber-Attack

All servers, networks, and users are vulnerable to cyber-attacks in Central Montana. Liberty County is ranked as medium, along with most other counties in the Region. There have been no recorded cyber-attack events in Liberty County, however, it is common for small cyber-attack events such as phishing emails to go unreported.

Refer to Chapter 4 for a discussion of the cyber-attack risk relative to Liberty County and the Central Region.

J.4.3 Dam Failure

Dam failure in Liberty County is ranked as low significance overall. There are two federally owned high hazard dams and two significant hazard dams located in Liberty County. The table below identifies the dams and details about the nearest downstream communities which could be potentially impacted in a dam failure incident, the nearest of which is located in unincorporated Chouteau County. Figure J-5 below also illustrates the locations of these dams in Liberty County. It is important to note there are also several dams

located upstream of Liberty County along the Marias River, with mapped inundation zones extending into the Lake Elwell Reservoir. In the event of a failure of an upstream dam, additional water flowing into Lake Elwell might put additional strain on the Tiber or Tiber Dike dams and in an extreme scenario could lead to an incident or failure at one of these dams. However, in this instance most risk would be to communities downstream in neighboring counties. Any potential risk to Liberty County would be limited to State Highway 223 which crosses the river, as well as a handful of structures along the Marias River.

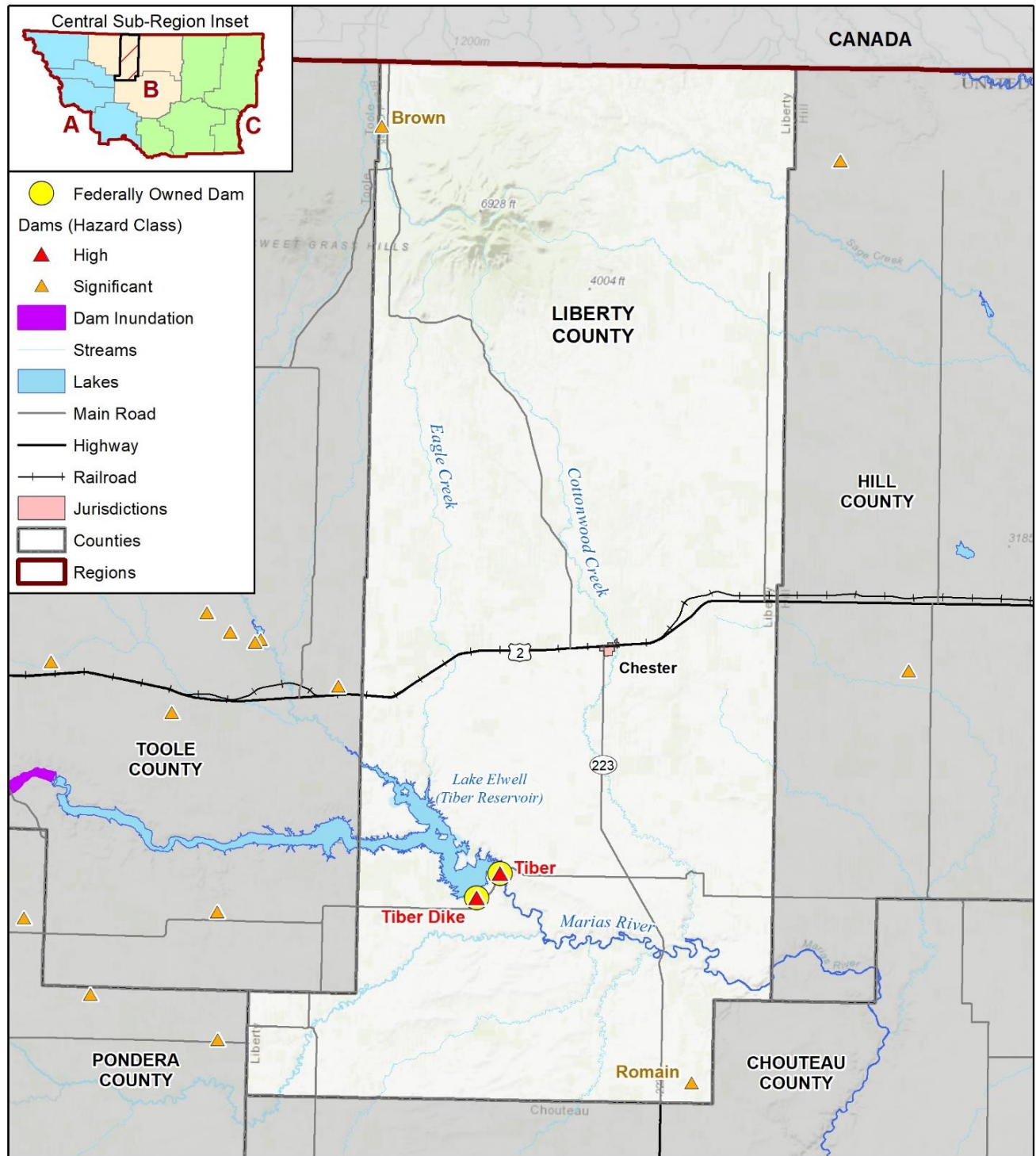
The Town of Chester is not located downstream of any of any high or significant dams and as such does not have any vulnerable structures or critical facilities located in mapped inundation zones. Refer to Chapter 4 for a discussion of the dam failure risk relative to Liberty County and the Central Region.

Table J-10 Dams in Liberty County

Hazard Class	Dam Name	Owner	River	Nearest Downstream City	Distance to Nearest Downstream City (Miles)	Emergency Action Plans (EAP)
High	Tiber Dike	Bureau of Reclamation	Marias River	Loma	59	Yes
High	Tiber	Bureau of Reclamation	Marias River	Loma	59	Yes
Significant	Romain	Clarence Romaine	Dead Indian Creek	Loma	10	N/A
Significant	Brown (Liberty)	Irvin E Brown	Tr-Breed Creek	None	0	N/A

Source: National Inventory of Dams (NID)

Figure J-5 Liberty County Dam Inundation



Map compiled 9/2022;
intended for planning purposes only.
Data Source: Montana State Library,
Montana DES, NIB, HIFLD

0 10 20 Miles



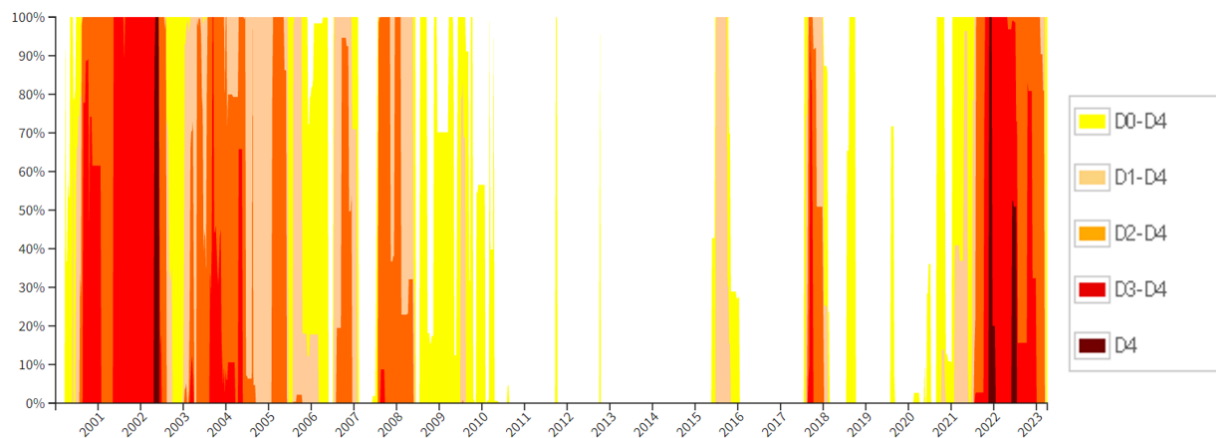
J.4.4 Drought

Drought was rated as a hazard of high concern in Liberty County. Between 2012 and 2021, Liberty County experienced 6 USDA emergency drought declarations, which is the lowest number of declarations in the Central Region, however, the HMPC identified this to be a high-risk hazard in the county. The Town of Chester created a Water Protection Plan in 2018 to address drought concerns and impacts, as well as identify other management measures which could be implemented to protect the town water system. The Drought Impact Reporter (2000-2021) reported that Liberty County had 12 reported drought impacts in the county.

The U.S. Drought Monitor (USDM) is a national data set released weekly, showing the severity of drought in locations across the nation. A time series showing the severity of drought in Liberty County between 2000 and 2023 (since the USDM came into being) is shown below. This graph indicates that Liberty County experienced the most severe drought conditions (D4) in the years 2002 and 2022.

Refer to Chapter 4 for a discussion of the drought risk relative to Liberty County and the Central Region.

Figure J-6 USDM Drought Timeseries for Liberty County



Source: USDM; www.drought.gov

J.4.5 Earthquake

There are several known fault systems throughout the State of Montana, mostly concentrated in the Western Region. However, large magnitude earthquakes that occur in the Western Region may still cause impacts to counties in the Central Region. The potential severity of shaking and impacts to casualties and damage is not uniform across the Central Region and is likely to impact counties along the Western portion of the Region, possibly including Liberty County. Earthquake hazards in Liberty County are therefore ranked as low overall significance.

According to a Hazus probabilistic loss analysis conducted for a scenario with 2% in 50 years recurrence, Liberty County could potentially experience an estimated \$2 million in total direct losses. Older and historic buildings will be more vulnerable to earthquake shaking.

Refer to Chapter 4 for a discussion of the earthquake risk relative to Liberty County and the Central Region.

J.4.6 Flooding

Table J-11 below summarizes the building counts and improved value of parcels in the County that fall within the 1% chance floodplains, broken out by jurisdiction. The table also summarizes loss estimate values, which are calculated based upon the improved value and estimated contents value and assumes a two-foot

deep flood which usually results in 25% of the total value, based on FEMA depth-damage curves. Liberty County has no mapped FEMA floodplain data currently. Therefore Hazus floodplain data was used as a substitute to perform the analysis. Table J-11 indicates the greatest flood losses in each applicable jurisdiction in Liberty County. Most notably in 2018 portions of Central Montana received a state of emergency declaration due to snowmelt. This occurred when melting snow caused the Marias and Milk Rivers to reach record heights of 13.93 feet. The Town of Chester and Glacier County were affected by this flooding event. The state of emergency allowed for resources on the state level to protect health, safety and to preserve lives and property.

Table J-11 Liberty County Parcels at Risk to 1% Flood Hazard by Jurisdiction

Jurisdiction	Property Type	Improved Parcels	Improved Value	Content Value	Total Value	Estimated Loss	Population
Chester	Residential	120	\$9,610,657	\$4,805,329	\$14,415,986	\$3,603,996	316
	Total	120	\$9,610,657	\$4,805,329	\$14,415,986	\$3,603,996	316
Liberty County	Agricultural	17	\$2,901,610	\$2,901,610	\$5,803,220	\$1,450,805	
	Residential	12	\$905,250	\$452,625	\$1,357,875	\$339,469	32
	Total	29	\$3,806,860	\$3,354,235	\$7,161,095	\$1,790,274	32
Grand Total		149	\$13,417,517	\$8,159,564	\$21,577,081	\$5,394,270	347

Sources: DNRC, Hazus, FEMA NFHL

Liberty County has a total of 11 critical facilities located in the 1% annual chance floodplain. five are transportation lifelines, five are transportation lifelines, four are located in the energy sector and two are safety and security. This is shown in Table J-12 below.

Table J-12 Liberty County Critical Facilities at Risk to 1% Annual Chance Flood Hazards by Lifeline

County	Jurisdiction	Communications	Energy	Food, Water, Shelter	Hazardous Materials	Health and Medical	Safety and Security	Transportation	Total
		Liberty	Chester	-	-	-	-	-	1
	Liberty County	-	4	-	-	-	1	4	9
	Total	0	4	0	0	0	2	5	11

Source: Montana DNRC, FEMA, HAZUS, HIFLD 2022, MT DES, NBI

Both Liberty County and the Town of Chester contain structures located in the floodplain, as seen below in Figure J-8 and Figure J-9.

Figure J-7 Liberty County Flood Hazard

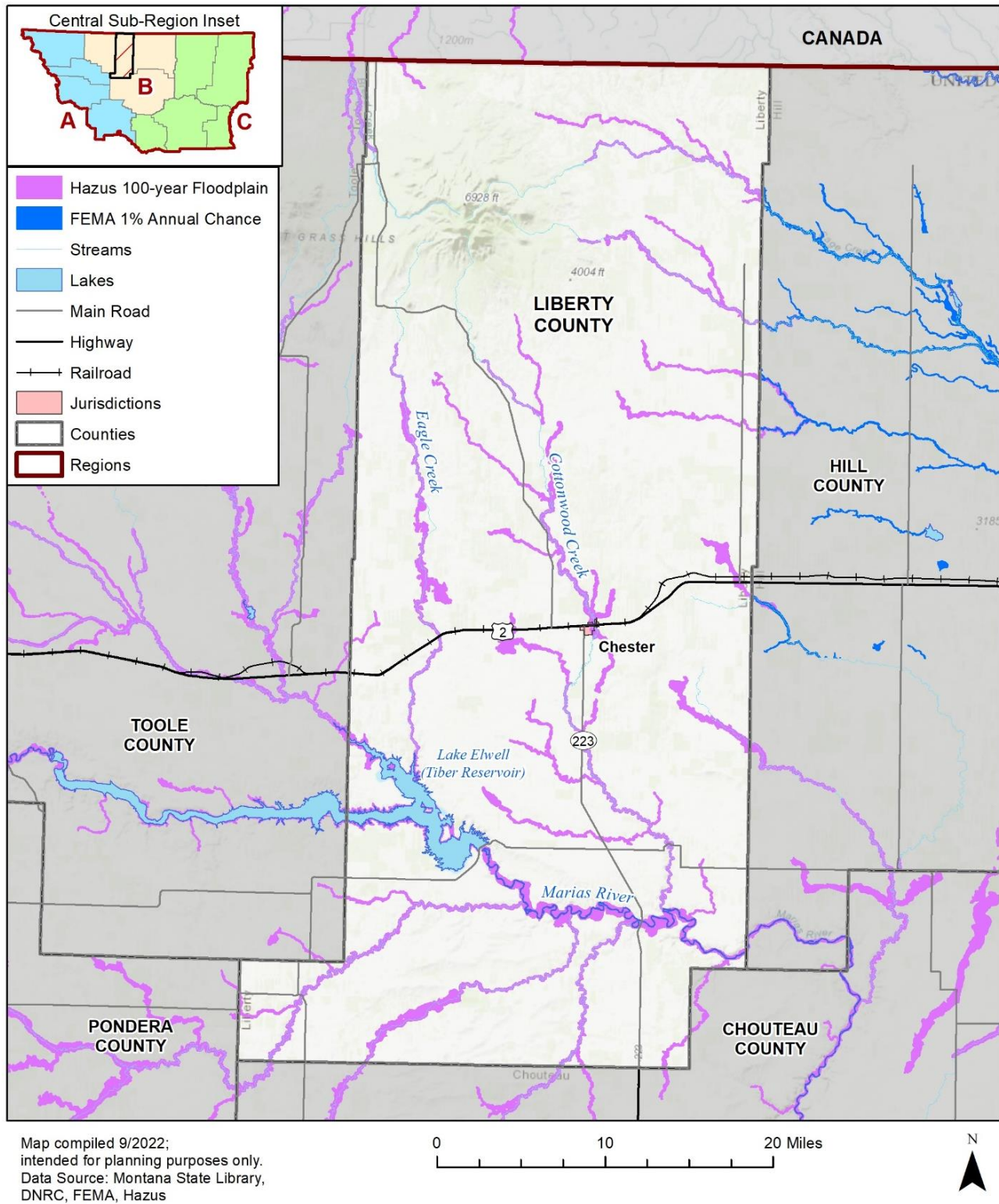
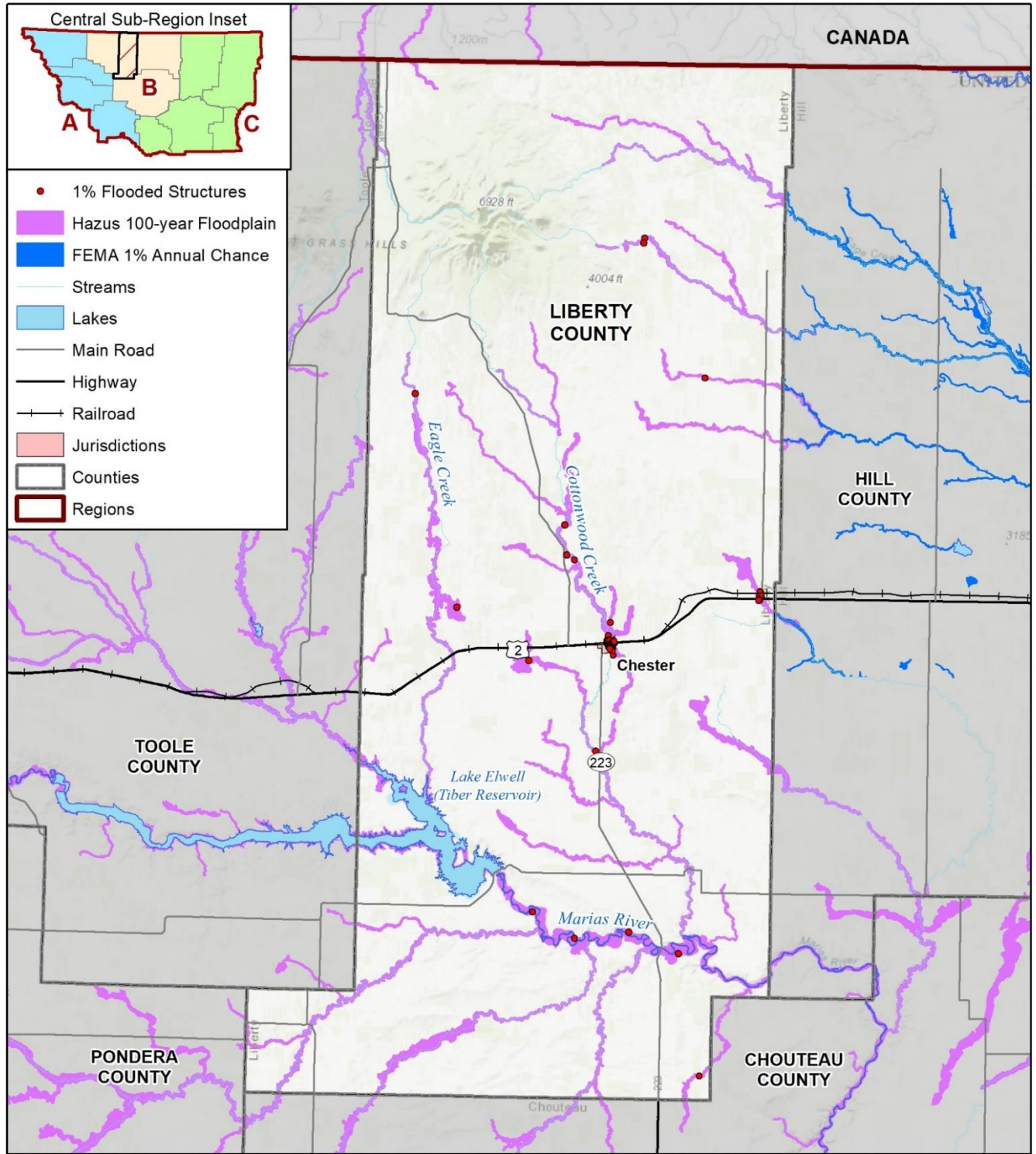


Figure J-8 Liberty County Flood Hazard and Structures

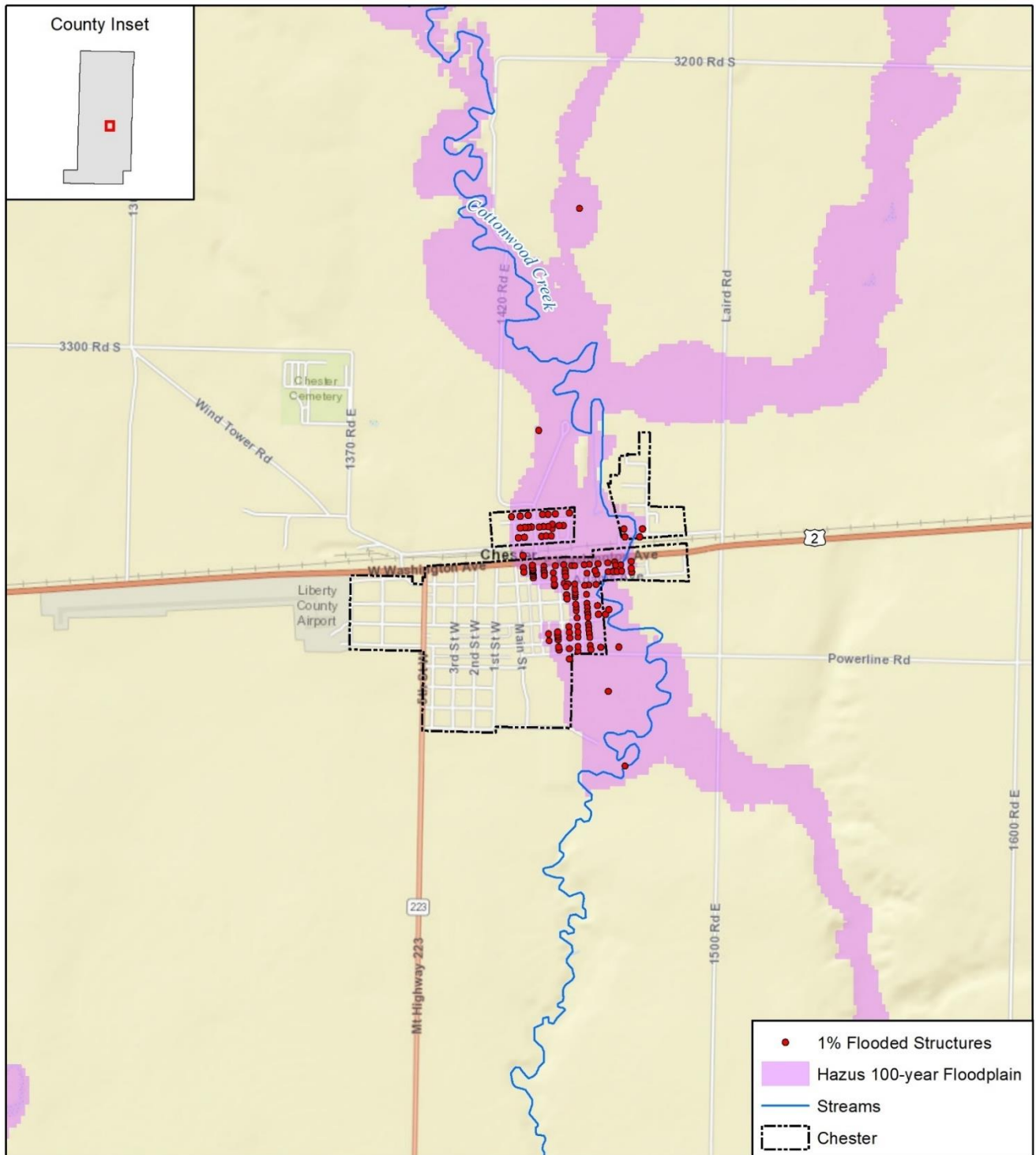


Map compiled 9/2022;
intended for planning purposes only.
Data Source: Montana State Library,
DNRC, FEMA, Hazus

0 10 20 Miles



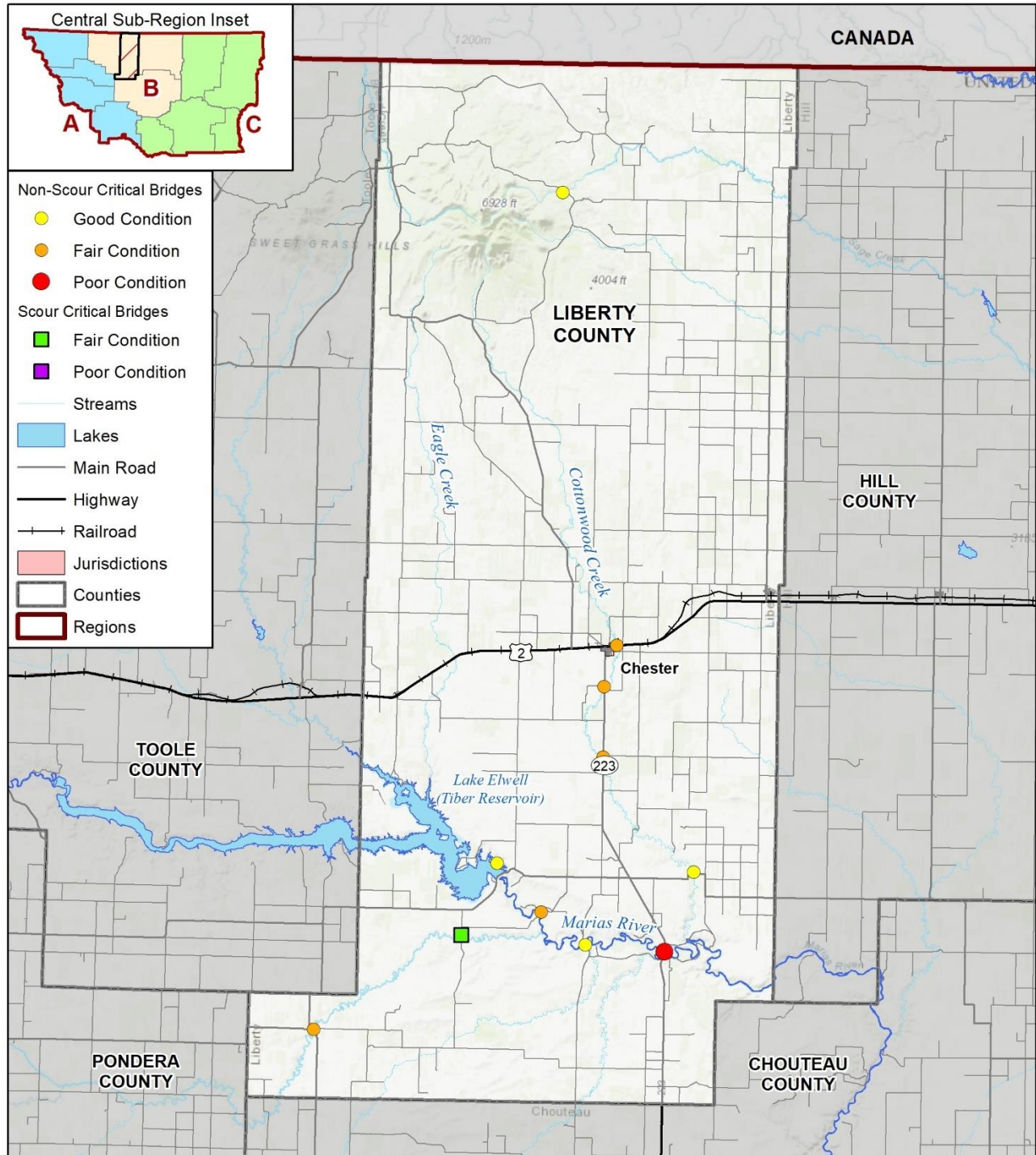
Figure J-9 Town of Chester Flood Hazard and Structures



Map compiled 10/2022;
intended for planning purposes only.
Data Source: Montana State Library,
DNRC, FEMA, Hazus

Figure J-10 below displays the location of bridges in Liberty County and their condition. Refer to Chapter 4 for a discussion of the flood risk relative to Liberty County and the Central Region.

Figure J-10 Liberty County Bridges



Map compiled 10/2022;
intended for planning purposes only.
Data Source: Montana State Library,
National Bridge Inventory

0 10 20 Miles



J.4.7 Hazardous Materials Incident

Liberty County has had 13 hazardous material incidents reported to the National Response Center since 1990. Liberty County currently has no RMP facilities in its study area. Refer to Chapter 4 for a discussion of the hazardous materials incident risk relative to Liberty County and the Central Region.

J.4.8 Landslide

Landslides are ranked as a low overall significance hazard in Liberty County. There has been no recorded instance of landslides in the County, therefore, annualized losses were found to be relatively low. There were no documented differences in landslide vulnerability between jurisdictions in Liberty County. Refer to Chapter 4 for a discussion of the landslide risk relative to Liberty County and the Central Region.

J.4.9 Severe Summer Weather

Liberty County ranked severe summer weather as a high overall significance hazard. Liberty County experienced the lowest total number of summer weather events in the Central Region; however, the county was recorded to have an estimated \$56,000 in property losses and \$53,000 in crop losses from 1955 to March 2022. While the county experienced a relatively low number of events in comparison to the rest of the Central Region, the HMPC noted that due to the potential for future losses, severe summer weather should be ranked as high.

Refer to Chapter 4 for a discussion of the severe summer weather risk relative to Liberty County and the Central Region.

J.4.10 Severe Winter Weather

Liberty County ranked severe winter weather as a medium overall significance hazard. The Liberty Zone experienced a low number of winter weather events when compared to the rest of the Central Region (33 events since 1996) and no losses were recorded in this zone. The NRI rated Liberty County as having a "relatively low" risk index for winter weather and a "very low" annual loss rating from winter weather events. Despite low numbers of historic winter weather events, exposed people and property are vulnerable to future losses from severe winter weather events.

Refer to Chapter 4 for a discussion of the severe winter weather risk relative to Liberty County and the Central Region.

J.4.11 Human Conflict

Human conflict is ranked as an overall low significance for Liberty County, along with nearly all other counties in the Central Region. None of the 23 recorded human conflict events recorded in the Central Region occurred in Liberty County.

Refer to Chapter 4 for a discussion of the human conflict risk relative to Liberty County and the Central Region.

J.4.12 Tornadoes & Windstorms

Liberty County ranked tornadoes and windstorms as a medium overall significance hazard. The Liberty Zone experienced 121 high wind and strong wind events, which is slightly above average compared to other counties in the Central Region. Liberty County experienced the third lowest number of thunderstorm wind events in the Region and only four tornado events from 1950 to March 2022. Nearly \$1 in combined property and crop losses were recorded in the county due to thunderstorm wind and tornadoes since 1950. The NRI ranked Liberty County as a "very low" risk index rating for both tornadoes and strong wind, along with most other counties in the Central Region.

Refer to Chapter 4 for a discussion of the tornadoes and windstorms risk relative to Liberty County and the Central Region.

J.4.13 Transportation Accidents

Liberty County ranked transportation accidents as an overall high significance. While Liberty County only had 54 reported roadway crashes from 2016-2020, the lowest in the Central Region, the county did experience an Amtrak derailment in September of 2021 near the town of Joplin. The derailment resulted in three fatalities and dozens of injuries when eight of the train's ten cars left the rail.

Due to this event and the potential for future losses due to the BNSF railway and US Highway 2 located in the county, the HMPC rated the transportation hazard as high.

Refer to Chapter 4 for a discussion of the transportation accident risk relative to Liberty County and the Central Region.

J.4.14 Volcanic Ash

All counties in the Central Region and all jurisdictions within Liberty County ranked volcanic ash as an overall low significance hazard. Vulnerability throughout the county is largely uniform and dependent on the scale of volcanic activity impacting the region. Refer to Chapter 4 for a discussion of the volcanic ash risk relative to Liberty County and the Central Region.

J.4.15 Wildfire

Liberty County ranked wildfire as a low significance hazard, while the Central Region as a whole ranked the hazard medium. Figure J-11 below displays the wildfire risk in Liberty County. While the vast majority of the County is medium to low risk for wildfire, there are areas of high and very high wildfire risk around the Town of Chester and near Lake Elwell. Most of the at-risk structures and population in Liberty County are located in the Town of Chester. There is a total of \$140.7 million in property value in the county at risk to high, very high, or extreme wildfire, and a total of approximately 1,608 residents. Despite this, Liberty County still makes up a very small proportion of the total risk in the Central Region, with approximately 1% of the property values at risk regionwide located in Liberty County.

Table J-13 below summarizes the estimated exposed value of improvements in each wildfire risk category. Of the 719 properties at risk, 85% are residential and 11% are agricultural. Wildfires typically result in a total building loss including contents. See Chapter 4 in the base plan for details on the methodology of this analysis.

Table J-13 Liberty County Parcels at Risk to Wildfire by Jurisdiction and Risk Rating

At Risk Rating	Jurisdiction	Improved Parcels	Improved Value	Content Value	Total Value	Population
At Risk to Extreme Wildfire Hazards	Chester	1	\$151,218	\$75,609	\$226,827	3
	Liberty County	5	\$327,900	\$163,950	\$491,850	13
	Total	6	\$479,118	\$239,559	\$718,677	16
At Risk to Very High Wildfire Hazards	Chester	413	\$44,778,368	\$25,408,959	\$70,187,327	1,049
	Liberty County	141	\$12,876,846	\$8,178,903	\$21,055,749	339
	Total	554	\$57,655,214	\$33,587,862	\$91,243,076	1,389

At Risk Rating	Jurisdiction	Improved Parcels	Improved Value	Content Value	Total Value	Population
At Risk to High Wildfire Hazards	Chester	18	\$1,585,134	\$835,227	\$2,420,361	45
	Liberty County	141	\$25,212,987	\$21,075,334	\$46,288,321	158
	Total	159	\$26,798,121	\$21,910,561	\$48,708,682	203
Grand Total		719	\$84,932,453	\$55,737,982	\$140,670,435	\$1,608

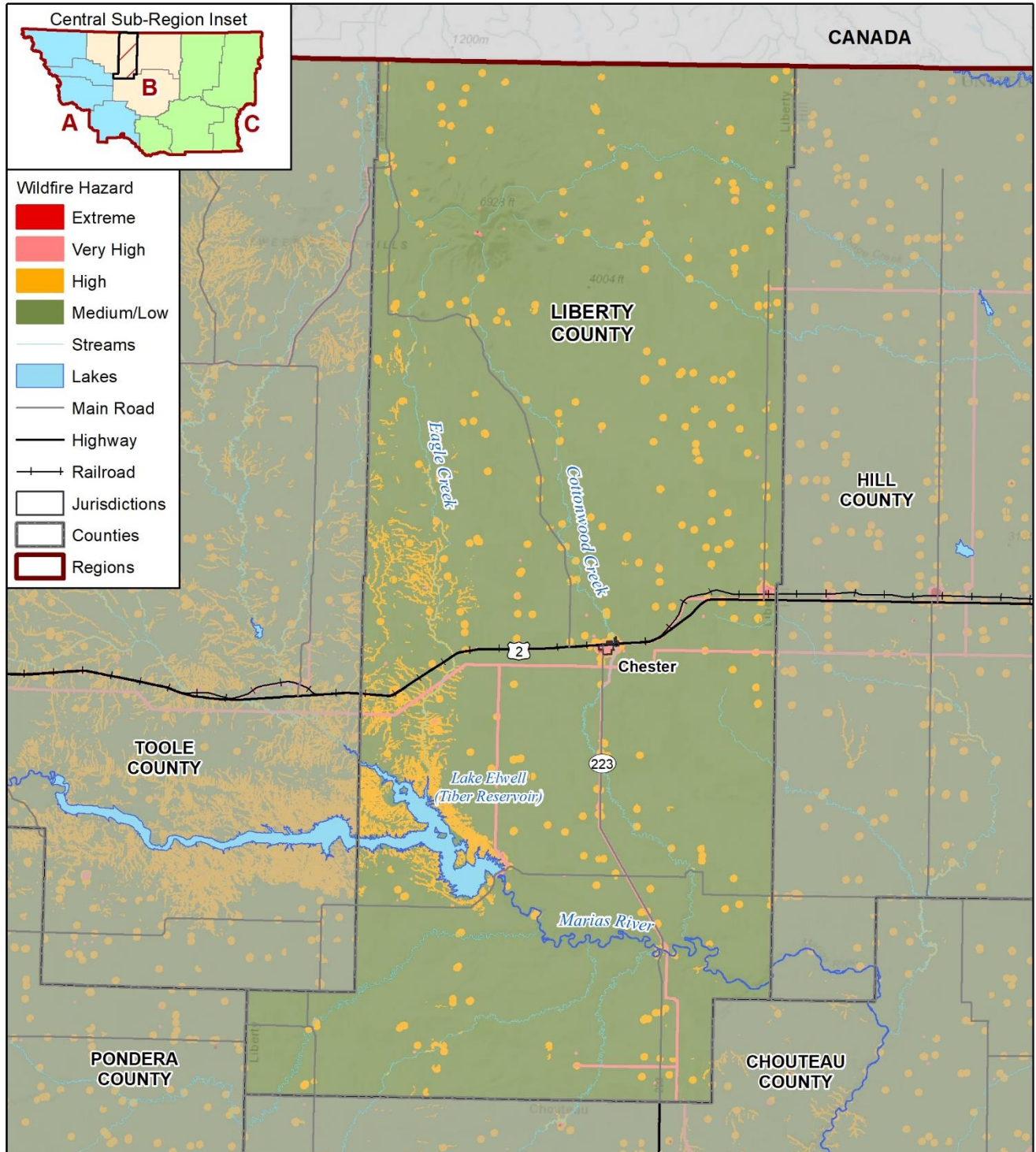
Table J-14 summarizes the potential impact of wildfire on critical facilities and lifelines in Liberty County and its associated jurisdictions. The table highlights the type and number of facilities in each jurisdiction in the County that are in Low/Moderate, High, Very High, or Extreme Wildfire risk areas. See Chapter 4 for the methodology of the critical facilities at risk analysis.

Table J-14 Liberty County Critical Facilities at Risk to Wildfire Hazards by Jurisdiction, Facility Type, and Risk Rating

At Risk Rating	Jurisdiction	Communications	Energy	Food, Water, Shelter	Hazardous Materials	Health & Medical	Safety & Security	Transportation	Total
At Risk to Very High Wildfire Hazards	Chester	-	-	-	-	-	5	1	6
	Liberty County	5	11	-	-	1	3	1	21
	Total	5	11	0	0	1	8	2	27
At Risk to High Wildfire Hazards	Liberty County	2	-	2	-	-	-	7	11
	Total	2	0	2	0	0	0	7	11
At Risk to Medium/Low Wildfire Hazards	Liberty County	3	-	1	-	-	3	4	11
	Total	3	0	1	0	0	3	4	11

Source: HIFLD 2022, MT DES, NBI, MWRA

Figure J-11 Liberty County Wildfire Hazard



Map compiled 10/2022;
intended for planning purposes only.
Data Source: Montana State Library, MWRA

0 10 20 Miles



J.5 Mitigation Capabilities Assessment

As part of the regional plan development, the Region and participating jurisdictions developed a mitigation capability assessment. Capabilities are those plans, policies and procedures that are currently in place that contribute to reducing hazard losses. Combining the risk assessment with the mitigation capability assessment results in “net vulnerability” to disasters and more accurately focuses the goals, objectives, and proposed actions of this plan. The CPT used a two-step approach to conduct this assessment. First, an inventory of common mitigation activities was made using a matrix. The purpose of this effort was to identify policies and programs that were either in place or could be undertaken, if appropriate. Second, the CPT conducted an inventory and review of existing policies, regulations, plans, projects, and programs to determine if they contribute to reducing hazard related losses.

J.5.1 Regulatory Mitigation Capabilities

Table J-15 lists planning and land management tools typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the Central Region and each participating jurisdiction.

Table J-15 Liberty County and Jurisdictions Regulatory Mitigation Capabilities

Plans and Regulations	Liberty County	Town of Chester
Building Codes	No	No
Building Codes Year	N/A	N/A
BCEGS Rating	N/A	N/A
Capital Improvements Program (CIP) or Plan	No	No
Community Rating System (CRS)	No	No
Community Wildfire Protection Plan (CWPP)	No	No
Comprehensive, Master, or General Plan	No	No
Economic Development Plan	Yes	Yes
Elevation Certificates	No	No
Emergency Operations Plan (EOP)	Yes	Yes
Erosion/ Sediment Control Program	No	No
Floodplain Management Plan	No	Yes
Flood Insurance Study	Requested but not done	Requested but not done
Floodplain Management Ordinance	No	No
National Flood Insurance Program (NFIP) Participant	No, NSFHA	Yes, Joined 6/1/86
Growth Management Ordinance or Policy	No	No
Other Hazard-Specific Ordinance or Plan (Steep Slope, Wildfire)	No	No
Site Plan Review Requirements	No	No
Stormwater Program, Plan, or Ordinance	No	Yes
Zoning Code or Ordinance	No	The Airport in Chester is the only place with zoning

The CPT noted that the opportunities to expand or enhance the mitigation capabilities listed above were limited due to the availability of staff and funds.

Discussion on Existing Regulatory Mitigation Capabilities

Both Liberty County and the Town of Chester have economic development plans. An economic development plan is a strategic blueprint that outlines the actions that a community, city, or region will take to stimulate economic growth. Economic development plans can help to create a more vibrant and sustainable local economy that benefits residents, businesses, and the community as a whole by attracting new businesses and industries, creating jobs, and increasing the income of residents and local governments. Economic development plans can also help to diversify the local economy, making it more resilient to economic shocks. Furthermore, a well-crafted economic development plan can help to attract private investment to an area, stimulate economic growth, and increase competitiveness by improving the local business environment.

Additionally, both jurisdictions have emergency operation plans (EOPs) in place. EOPs are designed to outline the procedures and protocols that each jurisdiction and its agencies will follow in the event of an emergency or disaster. Following an EOP can help to ensure effective communication and coordination among different agencies and organizations involved in emergency response efforts and can ensure that emergency responders, such as police, fire, and medical personnel, are organized and coordinated in their response efforts. The plan can help to save lives and mitigate the impact of an emergency on critical infrastructure, such as transportation, communication, and power systems by providing a clear framework for responding to emergencies.

The Town of Chester also has a floodplain management plan, a comprehensive document that outlines the strategies and policies to reduce the risk of flooding and minimize the impact of floods on people and property. Floodplain management plans ensure new development are built in a way that minimizes the risk of flood damage and minimizes economic losses by identifying flood-prone areas and establishing floodplain regulations. A floodplain management plan can help to protect natural resources, such as wetlands, rivers, and streams, by promoting sustainable land use practices and protecting environmentally sensitive areas.

Discussion on NFIP Participation and Compliance

Liberty County entered the NFIP on August 2, 1997. While the County is a participant in the program, they are noted as being a non-special flood hazard area (NSFHA). A NSFHA is an area that is in a moderate-to-low risk flood zone and is not in any immediate danger from flooding caused by overflowing rivers or hard rains. However, as about a quarter of all NFIP flood claims occur in these areas, Liberty County has elected to voluntarily participate in the program. The County's participation in the NFIP is overseen by the County's DES Coordinator.

The Town of Chester has been a member of the NFIP since 1986. As part of the NFIP standards for floodplain management ordinances, the Town of Chester is required to consider flood hazards when reviewing and approving subdivisions within the special flood hazard area. A floodplain administrator, who is officially appointed and the responsibility of the Town of Chester Office of Public Works Director, is in charge of administering and implementing the provisions of the NFIP and meeting and maintaining commitments pursuant to 44 CFR 59.22(a) to FEMA when FEMA flood insurance was made available in Chester.

The Town of Chester code of ordinance states that floodplain administrators should review their subdivision ordinances to ensure that flood hazards outside of regulated flood hazard areas are also addressed in development proposals. For instance, the Montana model subdivision regulations recommend that if any part of a proposed subdivision is within 2,000 horizontal feet and 2 vertical feet of a stream that drains an area of 25 square miles or more, and no official floodplain studies of the stream have been made, the subdivider may be required to conduct a flood hazard evaluation study. The State department of Natural Resources and Conservation may review the flood hazard analysis on the merit of its technical adequacy, if requested, and make a recommendation back to the floodplain administrator.

J.5.2 Administrative and Technical Mitigation Capabilities

Table J-16 identifies the County and participating jurisdictions personnel responsible for activities related to mitigation and loss prevention in Liberty County.

Table J-16 Liberty County Jurisdictions Administrative/Technical Mitigation Capabilities

Administrative and Technical	Liberty County	Town of Chester
Emergency Manager	Yes, DES Coordinator	Yes, DES Coordinator
Floodplain Administrator/Position/Department	Yes, Ashley Wickum – Town of Chester	Yes, Ashely Wickum – Town of Chester
Community Planning:	No	No
- Planner/Engineer (Land Development)	No	No
- Planner/Engineer/Scientist (Natural Hazards)	No	No
- Engineer/Professional (Construction)	No	No
- Resiliency Planner	No	No
- Transportation Planner	Yes, Glenda Hason – Liberty County Transit	Yes, Glenda Hason – Liberty County Transit
Full-Time Building Official	No	No
GIS Specialist and Capability	No	No
Grant Manager, Writer, or Specialist	Yes, Bear Paw Development is Contracted with the County	Yes, Bear Paw Development is Contracted with the County
Housing Authority	No	No
Warning Systems: (list the hazards each system is used for)		
- Sirens	No	Yes
- Reverse 911	Yes	Yes
- IPAWS/Wireless Emergency Alerts (WEA)	No	No
- Opt-In Notifications (CodeRed, Everbridge, etc.)	No	No
- Other system	Yes, E-Dispatch for EMS and Fire	Yes, E-Dispatch for EMS and Fire

J.5.3 Financial Capabilities

Table J-17 identifies the County and participating jurisdictions financial tools or resources that the jurisdictions have access or are eligible to use and could potentially be used to help fund mitigation activities.

Table J-17 Liberty County Jurisdictions Financial Capabilities

Financial Capabilities	Liberty County	Town of Chester
Ability to fund projects through Capital Improvements funding	Yes	Yes
Ability to incur debt through general obligation bonds	Yes	Yes
Ability to incur debt through private activities	Yes	Yes
Ability to incur debt through special tax bonds	Yes	Yes

Financial Capabilities	Liberty County	Town of Chester
Authority to levy taxes for a specific purpose with voter approval	Yes	Yes
Authority to withhold spending in hazard prone areas	No	No
Community Development Block Grants	Yes	Yes
FEMA Hazard Mitigation Assistance grants	Yes	Yes
FEMA Public Assistance funds	No	No
Stormwater Service Fees	No	No
System Development Fee	Yes	Yes
Utility fees (water, sewer, gas, electric, etc.)	Yes	Yes
Gas Tax/BaRSAA (Roads and Streets)	No	No
Montana Coal Endowment Program (MCEP)	No	No
State Revolving Fund	No	No
Department of Natural Resources & Conservation	No	No

FEMA and Other Grant Funding Leveraged for Hazard Mitigation

Funding for the proposed mitigation projects may come from a variety of sources. Below is a list of funding possibilities. This list is not tied directly to each proposed project; however, these programs could work for specific projects or multiple projects.

- FEMA Hazard Mitigation Assistance Grants including:
 - Building Resilient Infrastructure and Communities (BRIC)
 - Pre-Disaster Mitigation (PDM).
 - Flood Mitigation Assistance Program (FMA).
 - Hazard Mitigation Grant Program (HMGP).
 - Notice of funding availability typically released in June with applications due in October/November of each year.
 - HMGP is dependent on federally declared disasters within the State and funding amount is based on a percentage of disaster relief costs.
- US Army Corp of Engineers funding
- USDA Environmental Quality Incentive Program.
- USDA Conservation Reserve and Conservation Reserve Enhancement Program.
- USDA Small Watersheds (NRCS).

Liberty County and its jurisdictions have not received funding through these programs in the past based on FEMA OpenData information, but they are potential options for funding resources in the future. There are many more potential funding opportunities available to the municipalities and county. Funding research will be done during the scoping process for each project. New funding mechanisms may be present that were not before.

J.5.4 Education and Outreach Capabilities

Table J-18 below summarizes the existing education and outreach capabilities available to Liberty County and its jurisdictions.

Table J-18 Liberty County Education and Outreach Capabilities

Education & Outreach Programs	Liberty County	Town of Chester
Ongoing public education programs (fire safety, responsible water use, household preparedness, etc.)	Yes	Yes
Local citizen groups that communicate hazard risks	Yes, LEPC	Yes, LEPC
Firewise or other fire mitigation program	No	No
National Weather Service StormReady	Yes, NWS training	Yes, NWS training

J.5.5 Non-Governmental Organizations (NGOs) and Mitigation Partnerships

Table J-19 shows the local chapters partnered with the County and participating jurisdictions. The West Great Falls Flood Control & Drainage District (WGFFCDD) was created by the Montana Eighth Judicial District Court to cooperate with the Federal government for construction, preservation, protection, and keeping in repair the (west) Great Falls, Montana Flood Protection Project. The WGFFCDD serves as the non-Federal Local Sponsor for the Project designed, engineered, constructed, and annually inspected by the U.S. Army Corps of Engineers

Table J-19 Liberty County Non-Governmental Organizations (NGOs)

Non-Governmental Organizations (NGOs)	Liberty County	Town of Chester
American Red Cross	Yes, North Central Red Cross	Yes, North Central Red Cross
Chamber of Commerce	Yes	Yes
Community Organizations (Lions, Kiwanis, etc.)	Yes, Lionettes, Community Development Committee, Joplin Commercial Club, Bears Den Homemakers	Yes, Lionettes, Community Development Committee, Joplin Commercial Club, Bears Den Homemakers
Environmental Groups	No	No
Homeowner Associations	No	No
Neighborhood Associations	No	No
Salvation Army	No	No
Veterans Groups	Yes, American Legion	Yes, American Legion
Other?	Yes, Boy Scouts, Girl Scouts, 4-H, FFA, FCCLA	Yes, Boy Scouts, Girl Scouts, 4-H, FFA, FCCLA

J.5.6 Opportunities for Enhancement

Based on the capabilities assessment, Liberty County has several existing mechanisms in place that already help to mitigate hazards. There are also opportunities for the County to expand or improve on their policies, programs and fiscal capabilities and further protect the community. Future improvements may include providing training for staff members related to hazards or hazard mitigation grant funding in partnership with the County and DHSEM. Additional training opportunities will help to inform County and local government staff members on how best to integrate hazard information and mitigation projects into their

departments. Continuing to train staff on mitigation and the hazards that pose a risk to Liberty County will lead to more informed staff members who can better communicate this information to the public.

Another opportunity for enhancement is to increase public education and outreach on hazards. Creating ongoing public education programs or becoming Firewise and StormReady communities can increase the community's preparedness for hazard events. Improved cross-jurisdictional communication on evacuation and awareness to mitigate life safety impacts during dam incidents, floods, or wildfires including the development of brochures and using existing communication capabilities through social media or other media. Other specific opportunities for improvement include:

- Liberty County:
 - Consider adopting building codes to improve structure resilience to hazards.
 - Additional partnerships with area agencies to further develop hazard mitigation programs.
 - Increase City Fire (GFFR) staffing and stations to meet response standards set by NFPA and ISO rating by Safety Levy.
 - Consider an opt-in system for warning notifications to reach high risk individuals.
 - Consider updating CWPP.
- Town of Chester:
 - Consider adopting building codes to improve structure resilience to hazards.
 - Consider joining the CRS to lower the cost of flood insurance through enhanced floodplain management and flood loss reduction activities.
 - Recover compliance with the National Flood Insurance Program. (Community Status book indicates on probation as of Jan 30, 2023)

J.6 Mitigation Strategy

This section describes the mitigation strategy and mitigation action plan for Liberty County. See Chapter 5 of the base plan for more details on the process used to develop the mitigation strategy.

J.6.1 Goals

During the creation of the 2023 Regional Plan, the counties in the Montana Central Region decided to collaborate and develop a set of new, uniform goals, which were adopted by all counties in the Region and move away from hazard-specific goals. The adopted goals are as follows:

- Goal 1: Reduce impacts to people, property, the environment, and the economy from hazards.
- Goal 2: Protect community lifelines and critical infrastructure to ensure the continuity of essential services.
- Goal 3: Increase public awareness and participation in hazard mitigation.
- Goal 4: Sustain and enhance jurisdictional capabilities to enact mitigation activities.
- Goal 5: Integrate hazard mitigation into other plans, processes, and regulations.
- Goal 6: Promote regional cooperation and leverage partnerships in mitigation solutions where possible.

J.6.2 Progress on Previous Actions

During the 2023 planning process, the Liberty County Planning Team reviewed all the mitigation actions from the 2013 plan. As shown in Table J-20, of their 13 mitigation actions from 2013, two have been completed and two more were deleted; eight are in progress or are implemented annually, demonstrating ongoing progress and building the community's resiliency to disasters.

Table J-20 Completed and Deleted Actions

2013 ID	Mitigation Action	Hazards Mitigated	Jurisdiction	Status/Implementation Notes
1.2	Replace the one existing siren for the city, enhance coverage for whole city.	All	Chester	Completed
2.5	Complete rural addressing system and install fireproof road signs.	All	Liberty County	Completed
2..7	Purchase radios for Joplin.	All	Liberty County	Completed
2.9	Provide information on natural hazards at the Liberty Co fair.	All	Liberty County	Deleted
2	Provide information on natural hazards at the Health Fair.	All	Liberty County	Deleted

J.6.3 NFIP Continued Compliance.

Also important to reducing losses to future development is continued compliance with the NFIP. All the jurisdictions will continue to make every effort to remain in good standing with the program. This includes continuing to comply with the NFIP regarding adopting floodplain maps and implementing, maintaining, and updating floodplain ordinances. See Section 5.4.2 in the base plan for more discussion on NFIP compliance.

J.6.4 Mitigation Action Plan

As a part of the 2023 regional planning process, the CPT developed an updated list of hazard mitigation actions or projects specific to Liberty County and its jurisdictions. The process used to identify, develop, and prioritize these actions is described in Chapter 5 of the base plan. One new mitigation action was added to the eight actions carried over from the 2013 HMP.

Table J-21 represents Liberty County's Mitigation Action and Plan. The CPT identified and prioritized the following mitigation actions based on the risk assessment and goals, and objectives. It is grouped by hazard(s) mitigated). Background information as well as information on how the action will be implemented and administered, such as ideas for implementation, responsible office, partners, potential funding, estimated cost, and timeline also are described. Per the DMA requirement, actions have been identified that address reducing losses to existing development as well as future development.

The Cost Estimate column describes the estimated project costs using the following categories:

- Little to no cost
- Low: Less than \$10,000
- Moderate: \$10,000-\$100,000
- High: \$100,000-\$1,000,000
- Very High: More than \$1,000,000

The Timeline column describes the estimated time of completion for each project using the following categories:

- Short Term: 1-2 years
- Medium Term: 3-5 years
- Long Term: 5+ years
- Ongoing: action is implemented every year

The Status/Implementation Notes column describes the progress made on the actions so far using the following categories:

- Not Started: project is carried over from the 2013 Plan; little to no work has been completed.
- In Progress: project is carried over from the 2013 Plan; work has begun on the project and is proceeding.
- Annual: project is carried over from the 2013 Plan and is implemented every year on an ongoing basis.
- New in 2023: The action is new to this plan update; little to no work has been completed.

Table J-21 below lists a count of mitigation actions by hazard and jurisdiction in Liberty County. All jurisdictions have developed mitigation actions for each identified hazard in the HMP. Two new mitigation actions have been added in 2023.

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Table J-21 Mitigation Actions by Hazard and Jurisdiction

ID	Action Name & Description	Hazard(s) Mitigated	Jurisdiction	Lead Agency and Partners	Cost Estimate	Potential Funding	Timeline	Priority	Status/ Implementation Notes
1	Address repeated road and property flash flooding by enhancing storm-water drainage system	Flooding	Chester	Town of Chester Floodplain Administrator	High	Town of Chester, MT DES, FEMA	Ongoing	High	In Progress: Replaced large portion of valley gutters
2	Continue participation in NFIP. Find assistance to administer regulations so that development complies	Flooding	Chester	Town of Chester Floodplain Administrator, County DES	Moderate	Town of Chester, MT DES, CO DES	Ongoing	Medium	In Progress: County Relationships developed
3	Identify methods, adopt, and educate people on how to receive warning/alert information.	Com. Disease, Cyber, Dam Failure, Drought, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/ Wind, Transp. Accident, Volcanic Ash, Wildfire	Liberty County, Chester	County Commissioners, Town of Chester, LEPC, County DES	Low	Existing Budgets	Ongoing	High	In Progress: Talked with communication about towers
4	Manage forest fuels on Mt. Royal communications site to reduce impacts to critical infrastructure	Wildfires	Liberty County	County Fire Warden, County Commissioners	Moderate	DNRC, County, MT DES	Ongoing	High	In Progress
5	Update the hazardous materials flow study	Hazmat	Liberty County	LEPC, County DES	Moderate	FEMA, MT DES, County DES	Ongoing	High	In Progress: Still developing relationships to find data
6	Offer a CPR and First Aid course	Com. Disease, Cyber, Dam Failure, Drought, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/ Wind, Transp. Accident, Volcanic Ash, Wildfire	Liberty County	Hospital, LEPC	High	Hospital Attendees	Ongoing	Medium	In Progress: Need to train another CPR Instructor
7	Continue to enhance radio availability.	Com. Disease, Cyber, Dam Failure, Drought, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/ Wind, Transp. Accident, Volcanic Ash, Wildfire	Liberty County	County DES	Moderate	County DES and Fire, MT DES, DNRC	Ongoing	High	In Progress: Continuing to build relationships with Mobil servers

ID	Action Name & Description	Hazard(s) Mitigated	Jurisdiction	Lead Agency and Partners	Cost Estimate	Potential Funding	Timeline	Priority	Status/ Implementation Notes
8	Educate school children on what to do during a natural disaster	Com. Disease, Cyber, Dam Failure, Drought, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/ Wind, Transp. Accident, Volcanic Ash, Wildfire	Liberty County	County DES, LEPC	Low	Existing Budgets	Ongoing	Medium	In Progress: School provided LEPC dates of ongoing drill schedules
9	Identify potential hazards to train derailments.	Transp. Accident	Liberty County, Chester	County DES and Roads, Town of Chester, Amtrack, BNSF, DEQ, Emergency Services, Connected counties (Toole, Hill), Hazmat	Low	Grant funding, Private sector event	Medium Term	High	New in 2023
10	Cottonwood Creek Clean-up. Identify and remove potential hazards that could block the flow of Cottonwood Creek and result in flooding.	Flooding	Liberty County, Town of Chester	County DES, Department of Environmental Quality	Moderate	Private funding, Existing Budget, FEMA HMA Grant	Short Term	High	New in 2023

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J.7 Plan Implementation and Maintenance

Moving forward the Liberty County CPT will use the mitigation action table in the previous section to track progress on implementation of each project. Implementation of the plan overall is discussed in Chapter 6 of the base plan.

J.7.1 Incorporation into Existing Planning Mechanisms

As described in the capability assessment, the County already implements policies and programs to reduce losses to life and property from hazards. This plan builds upon the momentum developed through previous and related planning efforts and mitigation programs and recommends implementing actions, where possible, through these other program mechanisms. Where applicable, these existing mechanisms could include:

Liberty County:

- Liberty County Emergency Operations Plan
- Economic Development Plan

Town of Chester:

- Floodplain Management Plan
- Stormwater Plan

The process for incorporation of the Regional Hazard Mitigation Plan into other planning mechanisms can be as simple as cross-referencing the Hazard Mitigation Plan where applicable. Integrated planning is a key to building community resiliency. The CPT noted that Liberty County has not had opportunity to incorporate information from their current HMP into other community planning mechanisms; however, in the future they will have opportunity to incorporate the new HMP through tabletops and other emergency preparedness activities. The Town of Chester has integrated their current HMP through updating PER for water RPA grants.

J.7.2 Monitoring, Evaluation and Updating the Plan

Liberty County will follow the procedures to review and update this plan in accordance with Montana Central Region as outlined in Chapter 6 of the Regional Plan. The County and municipalities realize that it is important to review and update this plan regularly and update it on a five-year cycle. The Liberty County Annex to the Montana Central Region Plan will be evaluated on a regular basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities.

Continued public involvement will be followed as outlined in Chapter 6 of the base plan, with an emphasis on vulnerable populations or groups that could have been missed during the 2023 process.