

Addendum S Richland County Hazard Mitigation Plan

S.1 Mitigation Planning

This Addendum serves to update the 2022 Richland County Multi-Hazard Mitigation Plan (MHMP), which was approved on January 5, 2023. The 2022 MHMP includes a strategy for plan implementation and maintenance that includes a monitoring schedule, formal updates, plan evaluation, continued public outreach, and incorporation into existing planning mechanisms. This strategy allows the County to evaluate the effectiveness of the plan and make any necessary changes.

Because this plan was recently approved, Montana Disaster and Emergency Services (MT DES) and the Federal Emergency Management Agency (FEMA) Region VIII determined that it would only be necessary to provide implementation updates associated with the mitigation strategy in an Addendum rather than conducting new analysis in an Annex. The Addendum discusses the following topics, as each relates to plan implementation and maintenance:

- Natural hazard events that have occurred since the 2022 Plan was approved,
- Changes in risk exposure within the planning area,
- Review of the mitigation action plan and progress on mitigation actions,
- Changes in capabilities that could impact plan implementation, and
- Recommendations for changes/enhancement.

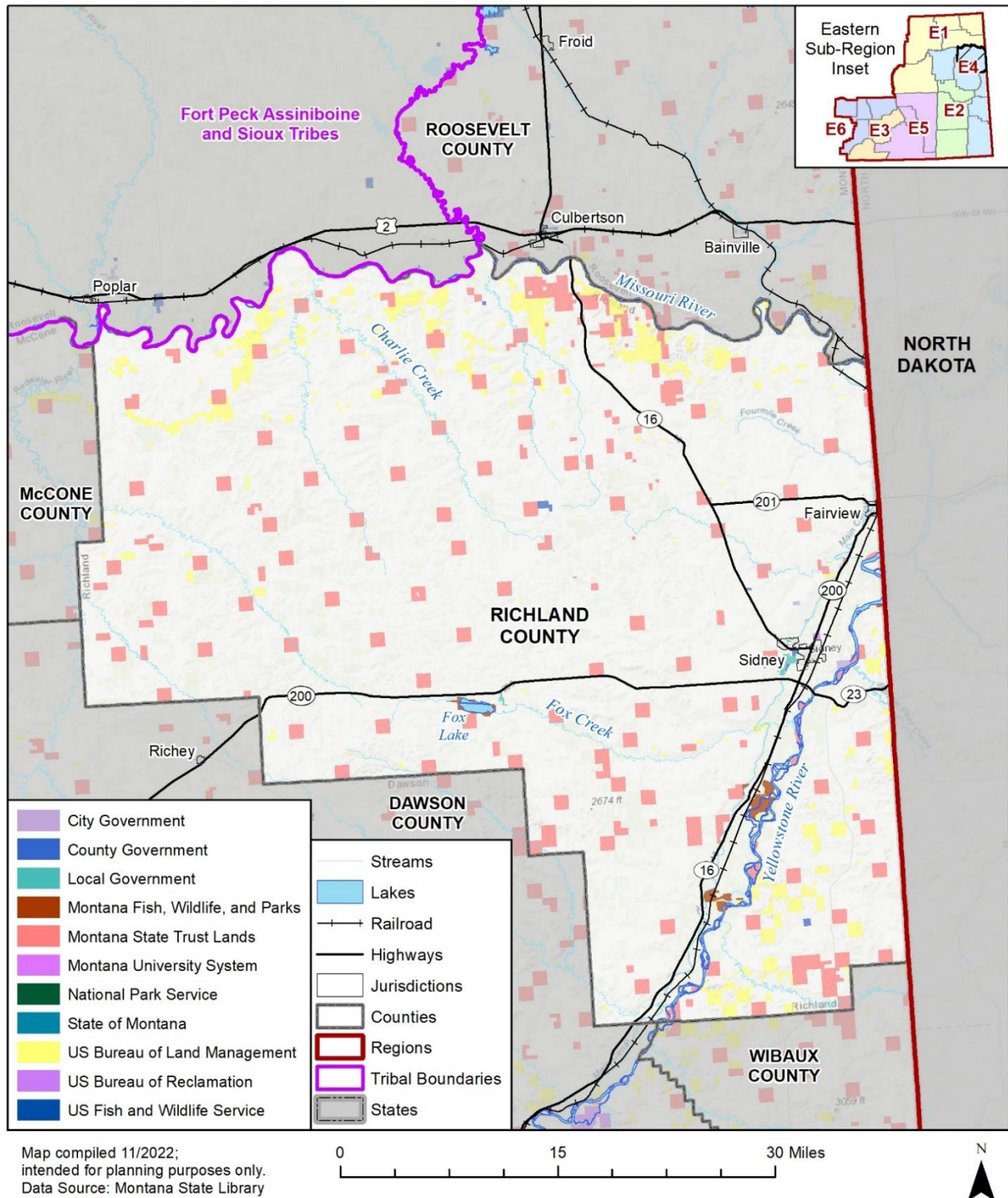
This Addendum also updates the 2022 MHMP to be in full compliance with FEMA's updated *2022 Local Mitigation Planning Policy Guide*, which became effective April 19, 2023. Data and analysis added and described in this Addendum to meet the new policy and element requirements include:

- Including a broader range of stakeholders, to consist of agencies that regulate land use and building codes, academia partners, climate change experts, agencies that support underserved communities, and community lifeline stakeholders.
- Describing targeted outreach opportunities to underserved communities.
- Considering the effects of climate change and other future conditions.
- Addressing requirements of the High Hazard Potential Dam (HHPD) grant program to include all dam risks (see Hazard Identification and Risk Assessment [HIRA] Section 4.2.5 Dam Failure).
- Describing building codes and land use and development ordinances.

The Town of Fairview and City of Sidney participated in the Disaster Mitigation Act (DMA) planning process with the County. As part of the regional planning process, the County established a County Planning Team (CPT) to update the status of previous mitigation projects and identify opportunities for additional projects. This included consulting representatives from a broad range of sectors, to include community lifelines, academia, and non-profits that support underserved communities. Stakeholders included Roosevelt, McCone, Dawson, and Wibaux counties; McKenzie county in North Dakota, Holy Rosary Hospital, and Faith Lutheran Home. More details regarding how the counties, municipalities and stakeholders participated in the 2023 planning process can be found in Chapter 3 of the base plan. A full list of local government departments and stakeholders that participated can be found in Appendix A.

A map showing Richland County land stewardship is displayed in Figure S-1.

Figure S-1 Richland County Base Map and Land Stewardship



S.2 Summary Overview of the 2022 Plan's Progress

The County MHMP has targeted 34 hazard mitigation initiatives to be pursued during the five-year performance period. The following overall progress can be reported:

- 25 out of 34 initiatives (38%) reported ongoing action toward completion.
- 8 out of 34 initiatives (35%) reported no action taken.
- 1 out of 34 initiatives (2%) were reported as completed or deleted.

S.3 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. Refer to HIRA for more information on social vulnerability.

The National Resilience Index (NRI) assessed Richland County's social vulnerability as 'Relatively low,' giving it a score of 20.81. This indicates that Richland County is more socially vulnerable than 44.60% of the counties in Montana. Additional details on social vulnerability and FEMA's NRI can be found in Section 4.1.1.5 of the Base Plan.

An additional 21 variables from the 2020 American Community Survey (ACS) that can influence the social vulnerability of a community are displayed in Table S-1.

Table S-1 Demographic Estimates for Richland County (2020 ACS)

Characteristic	Richland County	State of Montana
Percentage of persons below 150% poverty estimate	14.8%	24.1%
Unemployment Rate estimate	4.2%	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	18.8%	21.4%
Percentage of persons with no high school diploma (age 25+) estimate	4.6%	7.5%
Percentage uninsured in the total civilian noninstitutionalized population estimate	6.4%	9.6%
Percentage of persons aged 65 and older estimate	16.1%	22.1%
Percentage of persons aged 17 and younger estimate	25.5%	21.3%
Percentage of civilian noninstitutionalized population with a disability estimate	13.6%	15.6%
Percentage of single-parent households with children under 18 estimates	6.0%	3.9%
Percentage of persons (age 5+) who speak English "less than well" estimate	0.2%	0.3%
Minority (other than white non-Hispanic) estimate	7.2%	14.6%
Percentage of housing in structures with 10 or more units estimate	8.8%	3.3%
Percentage of mobile homes estimate	19.1%	13.1%
Percentage of occupied housing units with more people than rooms estimate	1%	2.1%
Percentage of households with no vehicle available estimate	7.9%	4.9%
Persons in group quarters estimate	0.4%	2.8%
Percentage Female estimate	50.0%	49.7%
Median Age estimate	38.3	40.1

Characteristic	Richland County	State of Montana
Median Gross Rent estimate	\$755	\$836
Median House Value estimate	\$229,100	\$244,900
Unoccupied Housing Units estimate	21.7%	15.3%

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

Richland County faces a steady average economic outlook, with 14.8% of its population living below the 150% poverty line, which is lower than the State average of 24.1%. The County's unemployment rate (4.2%) is in line with the State average (4%). Additionally, the County has a demographic distribution that is younger than age of the State norm, with the proportion of residents over 65 being 16.1 % compared to the State average of 22.1%., The percentage of those under 17 years old is 25.5% compared to that State (21.3%). The median age in Richland County is lower at 38.3 years, compared to the State median of 40.1 years. Additional sources of social vulnerability in Richland County encompasses factors such as economic well-being, education access, and healthcare availability.

Table S–2 below provides a brief overview of economic characters in Richland County. The following information is provided by the U.S. Census Bureau ACS 5-year estimates from 2016–2020.

Table S–2 Richland County Economic Profile

Economic Characteristics	Richland County
Families Below Poverty Level	3.1%
Individuals Below Poverty Level	6.9%
Median Home Value	\$236,700
Median Household Income	\$64,158
Per Capita Income	\$30,330
Population > 16 Years Old in Labor Force	57%

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

Table S–3 below shows the breakdown of employment in Richland County by the industry sector. According to the ACS, the leading employment sectors in the County are “Educational services, and health care and social assistance,” which composes 16.5% of the total employment in the County with an estimated 921 people. This is followed by “Agriculture, forestry, fishing and hunting, and mining” with 916 people and “Retail trade” with 621 people.

Table S–3 Richland County Occupation by Industry Profile

Industry	Population Employed	Percent of Labor Force
Agriculture, forestry, fishing and hunting, and mining	916	16.4%
Construction	563	10.1%
Manufacturing	279	5.0%
Wholesale trade	97	1.7%
Retail trade	621	11.1%
Transportation and warehousing, and utilities	400	7.2%
Information	71	1.3%

Industry	Population Employed	Percent of Labor Force
Finance and insurance, and real estate and rental and leasing	376	6.7%
Professional, scientific, and management, and administrative and waste management services	368	6.6%
Educational services, and health care and social assistance	921	16.5%
Arts, entertainment, and recreation, and accommodation and food services	575	10.3%
Other services, except public administration	201	3.6%
Public administration	185	3.3%

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

S.4 Hazard Events within the Planning Area

During the reporting period (November 2021 through October 2023), there was one Statewide emergency declaration and nine natural hazard events within Richland County. A summary of these events is as follows:

- January 19, 2022, Governor Greg Gianforte signed Executive Order 1-2022, declaring a statewide emergency due to increased demand for propane and heating oil caused by harsh winter conditions.
- Between November 1, 2021, and July 31, 2023, there were nine natural hazard events recorded by the National Centers for Environmental Information (NCEI) Storm Events Database, detailed in Table S-4.
- There were no recorded deaths/injuries or property damage.

Table S-4 Hazard Events in Richland County, November 2021-June 2023

Event Type	Number of Events	Deaths	Injuries
Flash Flood	1	0	0
Hail	1	0	0
Heavy Snow	3	0	0
Thunderstorm Wind	4	0	0
Grand Total	9	0	0

Source: NCEI Storm Events Database

S.5 Changes in Risk Exposure in the Planning Area

Temperatures have risen almost 2.5°F in Montana since the beginning of the 20th century (Frankson et al 2022). This temperature increase, combined with shifting precipitation patterns, accelerates soil moisture loss during dry spells, intensifying the occurrence of drought and subsequently increasing the risk of wildfires. These projected increases in drought and wildfire have the capacity to impact the County's agricultural sector.

This warming has, and will continue to, result in the steady receding of Montana's glaciers. This increased run-off, combined with an increasingly variable precipitation regime, will likely lead to more frequent and severe flooding. The primary flooding hazard in the County stems from riverine flooding, notably from Lone Tree Creek, the Yellowstone River, and the Missouri River. Lone Tree Creek courses through the southwest part of Sidney, while both Sidney and Fairview are situated in proximity to the Yellowstone River, presenting the greatest potential impacts.

The variability in precipitation, coupled with climbing summer temperatures, can give rise to more intense summer storms. These storms, often accompanied by severe wind, hail, and heavy rain, are common in the County but can have a greater impact on the vulnerable populations, such as the aging populations and the segment of the population with a disability.

Frequent consequences resulting from strong winds in the County encompass the breakage of trees and branches, harm to agricultural structures, and damage to power poles. For instance, as noted in the 2022 MHMP, in June 2012, a wind incident close to Fairview resulted in the snapping of 21 power poles at their base and the impairment of two additional poles, necessitating replacement. Another incident occurred in June 2015 when a microburst swept through Richland County at a speed of 83 knots (96 mph). The documented effects included the destruction of a roping barn that was only four years old. Based on the National Climatic Data Center (NCDC) Storm Events Database, the estimated property damages amounted to around \$165,000.

Additionally, frigid temperatures are a regular occurrence in Montana, and Richland County is no stranger to extreme cold. The County's record low temperature since 1963 stands at -46 degrees Fahrenheit, recorded in January 1989. Additionally, the lowest average high temperature for a month was 8.3 degrees Fahrenheit in January 1969. The combination of cold temperatures and wind is a common occurrence, leading to dangerously low wind chills persisting throughout much of the winter season. While power loss is infrequent in the County, significant storms have the potential to cause outages. In the event of a major winter storm causing extensive damage or hindering crews' access to affected areas, prolonged power outages could occur. Given past trends and climate change impacts, these events are likely to continue and increase in frequency in the coming years.

S.5.1 Cyber-Attack

Cyber-attack was not included in the 2022 Richland County HMP, however, all servers, networks, and users in Eastern Montana are vulnerable to cyber-attacks. Cyber-attack is a low significance hazard for Richland County, the Town of Fairview, and the City of Sidney. While there have been no recorded cyber-attack events occurring in the County or its jurisdictions, minor cyber-attacks such as phishing emails often go unreported. The elderly population in the U.S. has been disproportionately impacted by losses from cyber-attack events. The population of residents aged 65 and older in Richland County is 16.9% of the total population.

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

S.5.2 Earthquake

Earthquake was not included in the 2022 Richland County HMP, but it is profiled in Section 4.2.6 of the Regional Base Plan. That section provides an analysis of this hazard relative to the Eastern Region including Richland County.

All the Eastern Region could be impacted by earthquakes, but the greatest potential for damaging quakes is in the southwestern portion of the Region. The State of Montana is one of the most seismically active states in the United States according to the US Geological Survey. However, the Eastern Region is less susceptible to earthquake hazards when compared to the Central and Western Region, where large seismic events have centered in the past. Richland County is in an area that has very low potential losses, therefore earthquake is ranked as an overall low significance hazard.

The Hazus model estimates earthquake-related building losses broken out into two categories: direct building losses and business interruption losses. Direct building losses are the costs associated with

repairing or replacing damage to buildings and their contents caused by an earthquake. Business interruption losses include the financial impacts of disrupted business operations due to earthquake damage. These losses also include temporary living expenses for individuals displaced from their homes.

For the 2,500-year probabilistic earthquake scenario, total building related losses for Richland County is estimated at \$1.12 million. Of this total, direct building losses are estimated at \$827,000, shown in Table S-5, and income related losses are estimated at \$294,000, shown in Table S-6.

Table S-5 Richland County Hazus Capital Stock Losses

County	Structural Damage	Non-Structural Damage	Contents Damage	Inventory Loss
Richland County	\$196,000	\$474,000	\$153,000	\$4,000

Source: Hazus 2500 yr probabilistic EQ

Table S-6 Richland County Hazus Income Losses

County	Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss
Richland County	\$115,000	\$52,000	\$70,000	\$57,000

Source: Hazus 2500 yr probabilistic EQ

Due to the low likelihood of exposure to ground shaking, there were not specific areas of concern in Richland County, the Town of Fairview, or the City of Sidney. Additionally, climate change will not affect the physical hazards associated with an earthquake.

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

S.5.3 Transportation Accidents

Transportation accidents was not included in the 2022 Richland County HMP, but it is profiled in Section 4.2.14 of the Regional Base Plan. Transportation accidents are an overall low significance hazard for Richland County, the Town of Fairview, and the City of Sidney.

Between 2016 and 2020, Richland County ranked second in roadway crashes within the Eastern Region, with 1,447 incidents reported by the Montana Department of Transportation, well behind Yellowstone County's 16,475 incidents. While transportation incidents can occur along any type of transportation route, they are more likely to occur in high traffic areas along significant highways in the County, such as Highways 16, 23, and 200.

The County is also currently served by a freight rail line through Sidney operated by the Yellowstone Valley Railroad under a lease from BNSF. The Montana Rail Link, a regional railroad passing through Richland County, ceased operations in January 2024 when BNSF resumed control of the line.

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

S.5.4 Volcanic Ash

Volcanic ash was not included in the 2022 Richland County HMP, but it is profiled in Section 4.2.15 of the Regional Base Plan. That section provides an analysis of this hazard relative to the Eastern Region including Richland County. The frequency and extent of volcanic ashfall is uniform across the Eastern Region and is discussed in Section 4.2.15, subsections *Past Occurrences* and *Frequency/Likelihood of Occurrence*.

All assets are potentially exposed to volcanic ash. Even assets located indoors are exposed when ash penetrates the ventilation system of buildings. Many assets in Richland County are susceptible to damage from volcanic ash, following the pattern described in Section 4.2.10, subsection *Vulnerability Assessment*.

Climate change will not affect exposure to volcanic ash and is not expected to affect susceptibility or vulnerability to this hazard.

All jurisdictions in the Eastern Region, including those jurisdictions within Richland County, ranked volcanic ash as an overall low significance hazard.

S.6 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 to 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 Richland County 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.

S.6.1 Regulatory Mitigation Capabilities

Table S–7 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 Eastern Region and each participating jurisdiction.

Table S–7 Richland County and Jurisdictions Regulatory Mitigation Capabilities

Plans and Regulations	Richland County	Town of Fairview	City of Sidney
Local Building Codes	Yes	Through County	No
Building Codes Year	2021 IBC, IRC, & IFC	2021 IBC, IRC, & IFC	n/a
BCEGS Rating	4.4Y	4.4Y	4.4Y
Capital Improvements Program (CIP) or Plan	Yes	Through County	Through County
Community Rating System (CRS)	No	No	No
Community Wildfire Protection Plan (CWPP)	Yes	Through County	Through County
Comprehensive, Master, or General Plan	Yes	Yes	Yes
Economic Development Plan	No	No	No
Elevation Certificates	Yes	Yes	Yes
Emergency Operations Plan	Yes	Through County	Through County
Erosion/Sediment Control Program	No	No	No

Plans and Regulations	Richland County	Town of Fairview	City of Sidney
Floodplain Management Plan	Yes	Yes	Yes
Flood Insurance Study	Yes, 1985	Yes, 1986	Yes, 1987
Growth Management Ordinance	Yes	Yes	Yes
Hazard-Specific Ordinance or Plan (Floodplain, Steep Slope, Wildfire)	No	No	No
National Flood Insurance Program (NFIP)	Yes, 12/04/85	Yes, 05/15/86	Yes, 12/04/85
Site Plan Review Requirements	Yes	Yes	Yes
Stormwater Program, Plan, or Ordinance	No	No	No
Zoning Code or Ordinance	Yes	Yes	Yes

Discussion of Existing Regulatory Mitigation Capabilities

Richland County adheres to State building codes and has a dedicated department for enforcing these codes. The building department is tasked with reviewing plans prior to construction, issuing building permits, Issuing Certificates of Occupancy, and perform building inspections for Richland County.

Despite the absence of an economic development plan within the County or its jurisdictions, all three maintain a Growth Management Plan with the goal to promote population growth to sustain new businesses and schools at a rate that can be supported with government services and infrastructure. Additionally, while the County drafted a CWPP that encompasses each jurisdiction, rapidly changing environmental conditions coupled with a landscape altered by past fires may necessitate the development of an updated plan to ensure effective and current wildfire management strategies.

S.6.2 Administrative and Technical Mitigation Capabilities

Table S–8 identifies the personnel responsible for activities related to mitigation and loss prevention in Richland County and its jurisdiction.

Table S–8 Richland County Jurisdictions Administrative/Technical Mitigation Capabilities

Administrative and Technical	Richland County	Town of Fairview	City of Sidney
Emergency Manager	Yes	Through County	Through County
Floodplain Administrator/ Position/ Department	Yes	Yes	Yes
Community Planning:			
- Planner/Engineer (Land Development)	Yes	No	No
- Planner/Engineer/ Scientist (Natural Hazards)	No	No	No
- Engineer/Professional (Construction)	No	No	No
- Resiliency Planner	No	No	No
- Transportation Planner	Yes	No	No
Full-Time Building Official	Yes	Yes	Yes
GIS Specialist and Capability	Yes	No	Yes

Administrative and Technical	Richland County	Town of Fairview	City of Sidney
Grant Manager, Writer, or Specialist	No	No	No
Housing Authority	Yes	No	No
Warning Systems: (list the hazards each system is used for)			
- Sirens	No	Yes. Used for weather & HAZMAT emergencies.	Yes. Used for weather & HAZMAT emergencies.
- Reverse 911	Yes. For public safety and missing persons	Through County	Through County
- Integrated Public Alert and Warning System (IPAWS)/Wireless Emergency Alerts (WEA)	Yes. For all emergencies with a threat to life or heavy property damage.	Through County	Through County
- Opt-In Notifications (CodeRed, Everbridge, etc.)	Yes. For non-life-threatening emergencies and moderate property threats, also for general emergency notifications, public safety, and updates.	Through County	Through County
- Other system	Yes	No	No

Discussion on NFIP Participation and Compliance

Richland County, the Town of Fairview, and the City of Sidney have formally adopted the National Flood Insurance Program's (NFIP) minimum floodplain management criteria through the County's 2019 Floodplain Regulations. Richland County and each of the jurisdictions joined the NFIP in 1986-1987, and their current flood insurance rate map (FIRM) became effective on August 15, 2019. Richland County's floodplain regulations are enforced by the County's Director of Public Works. The Town of Fairview's floodplain regulations are enforced by the Town Clerk and the City of Sidney's floodplain regulations are enforced by the Director of Public Works.

By locally enforcing these regulations, which adhere to the NFIP's minimum criteria, FEMA grants access to flood insurance coverage for residents and properties within Richland County, Fairview, and Sidney. The Floodplain Regulations set forth by the NFIP establish baseline standards for development within designated flood hazard areas. These regulations wield a considerable influence on land use decisions, emphasizing the importance of maintaining stringent measures to mitigate flood-related risks and ensure the safety and resilience of each community involved.

Following flood or other damage events, the 2019 regulations enforce a substantial improvement/substantial damage provision by evaluating damaged properties to determine if they meet thresholds requiring them to comply with updated floodplain management standards. If substantial damage is determined, properties must undergo upgrades to meet current floodplain standards before they can be repaired or rebuilt. This process helps to reduce future risk by ensuring that post-event repairs and reconstructions contribute to long-term flood resilience.

S.6.3 Financial Capabilities

Table S-9 identifies the financial tools or resources that the County and its jurisdictions have access to, or are eligible to use, and that could potentially be used to help fund mitigation activities.

Table S–9 Richland County Jurisdictions Financial Capabilities

Financial Capabilities	Richland County	Town of Fairview	City of Sidney
Ability to fund projects through Capital Improvements funding	Yes	Yes	Yes
Ability to incur debt through general obligation bonds	Yes	Yes	Yes
Ability to incur debt through private activities	Yes	Yes	Yes
Ability to incur debt through special tax bonds	Yes	Yes	Yes
Authority to levy taxes for a specific purpose with voter approval	Yes	Yes	Yes
Authority to withhold spending in hazard prone areas	No	No	No
Community Development Block Grants	Yes	Yes	Yes
FEMA Hazard Mitigation Assistance grants	Yes	Yes	Yes
FEMA Public Assistance funds	Yes	Yes	Yes
Stormwater Service Fees	Yes	No	No
System Development Fee	No	No	No
Utility fees (water, sewer, gas, electric, etc.)	Yes	Yes	Yes

The most recent update to the County's MHMP was undertaken to ensure the County and its jurisdictions maintain eligibility for applying for FEMA mitigation grants and funding.

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)
 - Flood Mitigation Assistance Program (FMA)
 - Hazard Mitigation Grant Program (HMGP)
- US Army Corp of Engineers funding
- US Department of Agriculture Environmental Quality Incentive Program.
- USDA Conservation Reserve and Conservation Reserve Enhancement Program.
- USDA Small Watersheds, a program in the Natural Resource Conservation Service (NRCS)

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.

S.6.4 Education and Outreach Capabilities

Table S–10 identifies the education and outreach programs in place that the County and its jurisdictions could use to help promote mitigation activities.

Table S–10 Richland County Education and Outreach Capabilities

Education & Outreach Programs	Richland County	Town of Fairview	City of Sidney
Ongoing public education programs (fire safety, responsible water use, household preparedness, etc.)	Yes	Yes	Yes
Local citizen groups that communicate hazard risks	Yes	Yes	Yes
Firewise or other fire mitigation program	No	No	No

Education & Outreach Programs	Richland County	Town of Fairview	City of Sidney
National Weather Service StormReady	Yes, but not yet recognized as a Weather Ready Nation	No	No

S.6.5 Non-Governmental Organizations (NGOs) and Mitigation Partnerships

Table S–11 shows the local chapters that have partnered with the County and its jurisdictions.

Table S–11 Richland County Non-Governmental Organizations (NGOs)

Non-Governmental Organizations (NGOs)	Richland County	Town of Fairview	City of Sidney
American Red Cross	No	No	No
Chamber of Commerce	Yes	Yes	Yes
Community Organizations (Lions, Kiwanis, etc.)	Yes	Yes	Yes
Environmental Groups	No	No	No
Homeowner Associations	Yes	Yes	Yes
Neighborhood Associations	Yes	Yes	Yes
Salvation Army	No	No	Yes
Veterans Groups	No	Yes	Yes
Other?	Yes	Yes	Yes

S.6.6 Opportunities for Enhancement

While the County of Richland has several plans and mechanisms in place to mitigate hazards and ensure the well-being of its residents, there are several ways these protections can be enhanced. Richland County ranks high in social vulnerability, as defined by the NRI. Addressing this vulnerability may necessitate targeted interventions, focusing on initiatives that support economic development, create employment opportunities, and cater to the specific needs of distinct age groups within the community. One way to address these needs would be through the development of a targeted economic development plan. Such a plan could focus on attracting growth to the County in a way that aims to enhance overall community resilience and reduce social disparities. Additional areas for enhancement could include:

Richland County

- Consider updating the County CWPP to reflect the latest science and environmental conditions, especially since the most recent plan was from 2003.
- Enhance GIS capabilities to inform decision-making related to land use planning, infrastructure development, and emergency response.
- Explore local building codes that could increase the resiliency of future development in the wildland-urban interface.
- Consider the development of an economic development plan.
- Regularly update the Growth Management Plan to understand growth trends and to sustain new businesses and schools at a rate that can be supported with government services and infrastructure.

Town of Fairview

- Participate in the County's update to the 2003 CWPP.
- Regularly update the Growth Management Plan to understand growth trends and to sustain new businesses and schools at a rate that can be supported with government services and infrastructure.

City of Sidney

- Participate in the County's update to the 2003 CWPP.
- Regularly update the Growth Management Plan to understand growth trends and to sustain new businesses and schools at a rate that can be supported with government services and infrastructure.

S.6.7 Monitoring, Evaluation and Updating the Plan

Richland County will follow the procedures to review and update this plan in accordance with Montana Eastern 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 Richland County Addendum to the Montana Eastern 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. Continued public involvement is imperative to the overall success of the plan's implementation, with emphasis on vulnerable populations or groups that could have been missed during the 2023 process. Richland County and the Town of Fairview and the City of Sidney will continue to solicit participation from the public in the following ways:

- Hard copies of the updated HMP will be available at County and municipal offices, with an electronic version available on the County website.
- The public will be invited to LEPC meetings where the HMP is discussed. The meetings will provide the public a forum for which they can express concerns, opinions, or ideas about the plan.
- The DES Coordinator will publicize meetings through newspapers, radio, and the internet.
- The CPT will monitor and evaluate public outreach processes for potential improvements during plan implementation.

The County will also make efforts during plan implementation to increase the participation of underserved communities, particularly rural and isolated communities by holding public meetings in convenient and familiar locations within each municipality. The County will also consider transportation options and meeting times that better accommodate different schedules, such as evening and weekend meetings.

S.6.8 Integration into Existing Planning Mechanisms

The jurisdictions did not meaningfully integrate the 2022 Richland County MJHMP into other planning mechanisms, which has been noted as an area of improvement for the next five years. The CPT has noted that this plan will be useful for future planning and grant opportunities for future development of county assets.

When the opportunity arises, each jurisdiction will follow the process outlined in Section 6.3.3 of the base plan to integrate information from the MJHMP into these mechanisms. This integration may encompass cross-referencing the MJHMP where applicable, or it may involve including data, goals, or actions from the MJHMP. For example, the fire hazard profile from the Base Plan and actions can be leveraged to update the County's CWPP, and mitigation goals and actions can inform the update of the Town of Fairview and City of Sidney's growth ordinances.

Richland County

- Richland County Emergency Operations Plan
- Richland County Growth Ordinance

- Richland County Community Wildfire Protection Plan
- Richland County Floodplain Regulations

Town of Fairview

- Town of Fairview Zoning Regulations
- Town of Fairview Growth Ordinance
- Town of Fairview Subdivision Regulations
- Town of Fairview Floodplain Regulations

City of Sidney

- City of Sidney Zoning Regulations
- City of Sidney Growth Ordinance
- City of Sidney Subdivision Regulations

By ensuring coordination across these mechanisms, the jurisdictions will strengthen the integration of hazard mitigation into their broader planning efforts. The CPT will collaborate with the staff responsible for these plans or programs.

Richland County intends to incorporate its 2021 HMP into various planning mechanisms, although the opportunity to do so has not yet arisen. When the opportunity arises, the County and each jurisdiction will follow the process outlined in Section 6.3.3 of the base plan to integrate information from the HMP into these mechanisms. This integration may involve cross-referencing the HMP where applicable or incorporating data, goals, or actions from the HMP. The CPT will coordinate with the staff responsible for the above plans or programs. Integrated planning is a key to building community resiliency.

S.6.9 Continued Public Involvement

Richland County is committed to engaging the public directly in reviewing and updating the MJHMP. The public will have numerous opportunities to provide feedback, with hard copies of the plan available at County and City offices and an electronic version accessible on the Richland County website. Public participation will be further encouraged through invitations to LEPC meetings where the MJHMP is discussed, offering a forum for expressing concerns, opinions, and ideas. The Montana Disaster and Emergency Services (MT DES) Coordinator will ensure that public meetings are well-publicized using print, broadcast, and social media. Additionally, digital billboards will be used to solicit input and advertise meetings. This strategy allows the County to evaluate the effectiveness of the plan and make any necessary changes based on public input.

Richland County, the Town of Fairview, and the City of Sidney will continue to solicit participation from the public in the following ways:

- Hard copies of the updated HMP will be available at County and municipal offices, with an electronic version available on the County website.
- The public will be invited to LEPC meetings where the HMP is discussed. The meetings will provide the public a forum for which they can express concerns, opinions, or ideas about the plan.
- The DES Coordinator will publicize meetings through newspapers, radio, and the internet.
- The CPT will monitor and evaluate public outreach processes for potential improvements during plan implementation.

The County will also make efforts during plan implementation to increase the participation of underserved communities, particularly rural and isolated communities by holding public meetings in convenient and familiar locations within each municipality. They will ensure the meetings and outreach materials are accessible to a younger population given the higher percentage of this population group present in the

County. The County will also consider transportation options and meeting times that better accommodate different schedules, such as evening and weekend meetings.

S.7 Review of the Mitigation Action Plan

The matrices below review the 35 actions listed in the 2021 Richland County action plan, reporting the status of each initiative. Reviewers of this report should refer to the *2021 Update to the Richland County MHMP* for more detailed descriptions of each initiative and the prioritization process. The summary addresses the status of the action, what elements or tasks of the initiative were conducted during the reporting period based on the plan's maintenance schedule, an explanation if an action was not completed, the timing of additional implementation tasks, the current priority level, and if the initiative was completed, needs to be changed, or removed from the action plan.

S.7.1 Progress on Previous Actions

As shown in Table S-12, of 34 actions in the previous plan, one has been completed.

Table S-12 Completed and Deleted Actions

ID	Jurisdiction	Action Name & Description	Hazards	Status
20	Countywide	Implement wildfire fuel reduction and defensible space program	Wildfire	Completed

S.7.2 Mitigation Action Plan

As a part of the 2023 regional planning process, the Richland County CPT developed an updated list of hazard mitigation actions or projects specific to the County and its jurisdictions. The process used to identify, develop, and prioritize these actions is described in Chapter 5 of the base plan. Richland County carried over 33 uncompleted or ongoing mitigation actions from the previous plan and added an additional three new actions.

Table S-13 lists the mitigation actions for Richland County and its participating jurisdictions. The Richland County 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.

Continued compliance with the NFIP is also important to reducing losses to future development. Currently, the County and its jurisdictions participate in the NFIP; each will continue to make every effort to remain in good standing with the program, including 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.

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 continued from the 2021 Richland County Plan; little to no work has been completed.
- In Progress: project is continued from the 2021 Richland County Plan; work has begun on the project and is proceeding.
- Annual: project is continued from the 2021 Richland County 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.

All jurisdictions have developed mitigation actions for each identified hazard in the MHMP.

Table S-13 Mitigation Action Tracker

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
1	Implement Public Health Mass Notification System	Communicable Disease	Richland County	Richland County Health Department	Richland Sheriff's Office	Moderate	RCHD	Short Term	Medium	In Progress
2	Drought mitigation/resiliency. Develop water conservation plans so when drought occurs cities/towns do not create additional stress to water supply	Drought	Richland County, City of Sidney, Town of Fairview	Sidney Water Commissioner, Fairview Planning Department (both jurisdictions will lead)	County Conservation District, County Public Works	Moderate	NRCS Conservation Programs	Short Term	High	Ongoing
3	Develop water conservation and an emergency back-up plan for small community water supplies (approved by DEQ) that don't have availability to connect to a public water supply, the means to develop a new water supply, or are drawing from a diminishing aquifer	Drought	Richland County	County Planner	Montana DEQ	Very High	BRIC	Long Term	High	Not Started
4	Assess need to enlarge storm drains in targeted areas of Sidney.	Flooding	Sidney	Public Works Director	Sidney Sewer Department	Very High	CWSRF Grants, BRIC, USDA Rural Development Grants, USDA Rural Utilities Service Grants	Medium Term	High	Ongoing
5	Develop real estate disclosure laws/policy to help advise potential buyers about pre-existing flood conditions, current flood plain status of property, and potential hazards (i.e. septic) that could negatively impact	Flooding	Richland County	County Attorney	Floodplain administrators from Fairview, Sidney, and County	Moderate	County General Funds, Staff Time	Short Term	Medium	Not Started

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
	their property in a flooding event.									
6	Study and assess integrity of dams and bridges in the county, and implement appropriate mitigation alternatives to ensure safety and functionality status	Dam Failure, Flooding	Richland County, City of Sidney, and Town of Fairview	County DES, County Transportation	Sidney Public Works, Sidney Streets Department, Fairview Planning	Moderate	HMGP, BRIC	Long Term	Medium	Ongoing
7	Work with the railroad to develop necessary drainage improvements along the right-of-way in Sidney.	Flooding	City of Sidney	City of Sidney Public Works Director	BNSF	Low	Staff Time	Short Term	Medium	Ongoing
8	Study and implement potential flood control projects and protocols to ensure Lone Tree Creek can flow freely.	Flooding	City of Sidney	City of Sidney Public Works Director	County Conservation District	High	EWP - administered by the NRCS, HMGP, FMA, BRIC	Short Term	High	Ongoing
9	Conduct NFIP community workshops to provide information and incentives for property owners to acquire flood insurance.	Flooding	Richland County, City of Sidney, Town of Fairview	Richland County Emergency Manager	DES, Planning Department	Low	Staff time	Medium-Term	Medium	Not Started
10	Mitigate surface and shoulder erosion caused by water on key roads and address issues with culverts, such as, but not limited to: <ul style="list-style-type: none"> • Increasing culvert size • Increasing efficiency of the entrance • Raising the culvert • Adding slurry 	Dam Failure, Flooding, Severe Summer Weather, Severe Winter Weather	Richland County, Sidney, and Fairview	Richland County Transportation, County Public Works (both will lead together)	Sidney Public Works, Sidney Streets Department, Fairview Planning	High	HMGP, BRIC	Long Term	Medium	Ongoing

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
11	Improve mapping and GIS database for all hazardous materials within the County.	Hazardous Materials Incident	Richland County	Richland County DES	County EMS/ Ambulance, County Transportation	Low	County General Funds	Ongoing	High	Ongoing
12	Update subdivision regulations to require oil well setbacks from residential structures.	Hazardous Materials Incident	Richland County, Sidney, Fairview	Richland County Planning, Planner	County Building Department	Moderate	Staff Time	Short Term	Low	Not Started
13	Gain understanding of and plan for large-scale, rail-based, HAZ-MAT incident in Sidney	Hazardous Materials Incident	Sidney	City of Sidney City Planner	BNSF Railroad	High	SHGP	Short Term	Medium	In Progress
14	Increase interagency training/planning for mass casualty incidents	Multi: Dam Failure, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/Wind, Transportation Accidents, Volcanic Ash, Wildfire	City of Sidney	City of Sidney Police and Fire Departments (both will lead together)	County DES, County Sheriff, County EMS/ Ambulance	Low	SHGP	Ongoing	Medium	In Progress
15	Define steep slope/landslide areas in Growth Policy and implement development restrictions in those areas.	Landslide	Richland County	Richland County DES, Emergency Manager	County DES	Moderate	Staff Time	Short Term	Low	Not Started
16	Partner with community to establish, reinforce and stock community shelters in the event of an earthquake, extreme weather, or tornado/windstorm event and or the loss of power and communicate these locations with the public	Multi: Dam Failure, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/Wind, Transportation Accident, Volcanic Ash, Wildfire	City of Sidney, Richland County, Town of Fairview	Richland County Fire Department	City of Sidney Fire Department, Hospital, School Districts	Low	FEMA HMGP, County and City General Funds, Local Businesses	Long Term	Medium	New in 2023

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
17	Implement CodeRED system, and encourage residents to sign-up	Multi: Communicable Disease, Cyber-Attack, Dam Failure, Drought, Earthquake, Flooding, Hazmat, Landslide, Summer Weather, Winter Weather, Human Conflict, Tornado/Wind, Transportation Accidents, Volcanic Ash, Wildfire	Richland County, Fairview, Sidney	Richland County DES	County EMS/ Ambulance, County Planning	Moderate	HSGP, County General Funds	Short Term	Medium	Ongoing
18	Implement storm water drainage mitigation for SE Sidney residential area.	Multi: Flood, Severe Summer Weather, Severe Winter Weather	City of Sidney	City of Sidney Public Works	Sidney City Planner, DES	Very High	BRIC, HMGP, Budget	Short Term	High	In Progress
19	Implement storm water drainage mitigation for 9th Ave SW and the intersection at 11th Street SW	Multi: Flood, Severe Summer Weather, Severe Winter Weather	City of Sidney	City of Sidney Public Works	County DES, Sidney Street Superintendent	High	FEMA/SRF/DNRC	Short Term	High	In Progress
20	Implement storm water drainage mitigation measures at Anderson	Multi: Flood, Severe Summer Weather, Severe Winter Weather	City of Sidney	City of Sidney Public Works	Sidney City Planner, DES	Moderate	BRIC/ARPA	Medium-Term	High	In Progress
21	Implement storm water drainage mitigation at Meadows	Multi: Flood, Severe Summer Weather, Severe Winter Weather	City of Sidney	City of Sidney Public Works	Sidney City Planner, DES	High	BRIC/ARPA	Short Term	High	In Progress
22	Implement storm water drainage mitigation at Wagon Wheel Subdivision	Multi: Flood, Severe Summer Weather, Severe Winter Weather	City of Sidney	City of Sidney Public Works	Sidney City Planner, DES	Very High	BRIC	Short Term	High	In Progress
23	Implement storm water drainage mitigation at 5th Ave	Multi: Flood, Severe Summer Weather, Severe Winter Weather	Richland County	Richland County Public Works	County Transportation, DES	High	ARPA/BRIC	Short Term	High	In Progress
24	Study and install redundant/sustainable power supply, such as 1). generators and hookups and/or 2).	Multi: Cyber-Attack, Dam Failure, Earthquake, Flooding, Summer Weather, Winter Weather, Human	Richland County	Richland County DES, County Public Works	Sidney Public Works, Fairview Planning	Moderate	BRIC, HMGP	Long Term	High	In Progress

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
	sustainable/flexible microgrid solutions at key facilities to ensure continuous and resilient power. These locations include, but are not limited to: Public Works, designated EOC, law enforcement, fire, and designated shelters (Fairgrounds)	Conflict, Tornado/Wind, Volcanic Ash, Wildfire		(both will lead together)						
25	Need for new generators	Multi: Cyber-Attack, Dam Failure, Earthquake, Flooding, Summer Weather, Winter Weather, Human Conflict, Tornado/Wind, Volcanic Ash, Wildfire	Town of Fairview	Town of Fairview Clerk and Recorder	Richland County DES	High	County General Funds	Short Term	Medium	New in 2023
26	Reduce fire hazard within BNSF right-of-way due to dead overgrowth of trees.	Multi: Severe Summer Weather, Severe Winter Weather, Wildfire, Hazardous Materials Incident	City of Sidney	City of Sidney Public Works	BNSF	Moderate	BNSF Railroad	Short Term	High	In Progress - Initiated in 2023
27	Install surge protection on critical infrastructure equipment.	Severe Summer Weather	Richland County, City of Sidney, Fairview	Richland County DES, Emergency Manager	Richland County Public Works	Moderate	HMGP, BRIC	Short Term	Medium	Not Started
28	Expand the use of NOAA weather radios by the general public.	Severe Summer Weather	Richland County, City of Sidney, Town of Fairview	Richland County DES, Emergency Manager	NOAA	Low	MTDES, HMGP	Short Term	Low	Ongoing
29	Require new mobile home/RV parks and workforce housing facilities of a certain size to have	Multi: Dam Failure, Earthquake, Flooding, Hazmat, Landslide, Summer	Richland County, City of Sidney,	Richland County Building	Richland County Sheriff	High	Staff Time	Short Term	Low	Not Started

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
	a safe room or sheltering plan in order to reduce hazard impacts from severe weather and tornado and windstorm events.	Weather, Winter Weather, Human Conflict, Tornado/Wind, Transportation Accident, Volcanic Ash, Wildfire	Town of Fairview	Department, Building Inspector						
30	Continue educating residents about seasonal weather safety.	Multi: Dam Failure, Drought, Flooding, Summer Weather, Winter Weather, Tornado/Wind, Volcanic Ash, Wildfire	Richland County, City of Sidney, Town of Fairview	Richland County DES	Richland County Planning Department	Low	Staff time, NWS	Short Term	Medium	Ongoing
31	Assess need and establish emergency winter shelters in strategic locations.	Severe Winter Weather	Richland County, City of Sidney, Town of Fairview	Richland County Emergency Manager	Sidney Council, Fairview Council	High	Staff Time	Short Term	High	Ongoing
32	Determine parking/shelter area for semi-truck drivers during winter storms.	Severe Winter Weather	Richland County, City of Sidney, Town of Fairview	Richland County Emergency Manager	Richland County Transportation Department	Moderate	Staff Time	Short Term	Medium	Ongoing
33	Install portable generator hook-ups on designated winter shelters.	Severe Winter Weather	Richland County, City of Sidney, Town of Fairview	Richland County Public Works	Richland County DES	Moderate	Staff Time	Short Term	High	Not Started
34	Identify, mark and publicize snow routes.	Severe Winter Weather	Richland County, City of Sidney, Town of Fairview	Richland County DES	Planning departments	Low	Staff Time	Short Term	Medium	Ongoing

ID	Action Name & Description	Hazards Mitigated	Jurisdictions	Lead Agency	Partner Agencies	Cost Estimate	Potential Funding	Timeline	Priority	Status & Implementation Notes
35	Install HVAC systems that meet air quality system specifications for high dust and ash filtration at all designated County emergency shelters to mitigate volcanic ash risk	Volcanic Ash	Richland County, City of Sidney, Town of Fairview	Richland County DES, Emergency Manager	City of Sidney, Town of Fairview	Moderate	County General Funds, EMPG, ARPA Grant, HMA, BRIC, and HMGP Grants	Long Term	Low	New in 2023
36	Drill high-capacity wells or install water storage on west end of Richland County.	Wildfire	Richland County	Richland County Fire Department	County DES, County Public Works	Moderate	BRIC, County General Funds	Short Term	Medium	In Process - Planning Stage

NOTES: Acronyms for lead agency, partners, and funding are defined below:

ARPA – American Rescue Plan Act
 BRIC – Building Resilient Infrastructure and Communities
 DES – Department of Emergency Services
 DNRC – Montana Department of Natural Resources and Conservation
 EMPG – Emergency Management Performance Grant
 EOC – Emergency Operations Center
 EWP – Emergency Watershed Protection
 FEMA – Federal Emergency Management Agency
 FMA – Floodplain Management Assistance
 GIS – Geographic Information Systems
 HMA – Hazard Mitigation Assistance

HSGP – Homeland Security Grant Program
 HMGP – Hazard Mitigation Grant Program
 LEPC – Local Emergency Planning Committee
 NPS – National Park Service
 NRCS – Natural Resources Conservation Service
 NSP – Neighborhood Stabilization Program
 RCHD – Richland County Health Department
 NWS - National Weather Service
 USDA – United States Department of Agriculture
 VFD – Volunteer Fire Department