KOOTENAI COUNTY
OFFICE OF EMERGENCY MANAGEMENT

2026 KOOTENAI COUNTY
MULTI-JURISDICTIONAL ALL HAZARD MITIGATION PLAN

1662 W Wyoming Ave., Hayden, ID 83835



VOLUME 1
COUNTY-WIDE PLAN

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EXECUTIVE SUMMARY

Hazard mitigation uses short- and long-term strategies, such as planning, policy changes, programs, and projects, to reduce the loss of life, injury, and property damage from disasters. While disasters cannot be predicted with certainty, coordinated planning among public agencies, stakeholders, and citizens can significantly reduce their impacts. Responsibility for hazard mitigation is shared by private property owners, businesses, and all levels of government.

The 2026 Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan aims to reduce the physical and economic impacts of natural and man-made disasters on county residents and businesses. It identifies hazards, assesses vulnerabilities, and outlines mitigation projects to minimize future losses. Approved by the Federal Emergency Management Agency (FEMA) Region 10 on February 12th, 2026, the Plan meets the requirements of the Disaster Mitigation Act (DMA) (44 CFR §201.6.)

The DMA requires proactive, pre-disaster planning as a condition for certain federal funds under the Robert T. Stafford Act. It promotes collaboration among state and local governments to identify mitigation needs, expedite funding, and implement cost-effective risk reduction projects. Kootenai County and its local government partners maintain this Plan to reduce disaster risks and to remain eligible for FEMA hazard mitigation grants.

PREVIOUS HAZARD MITIGATION PLANNING IN KOOTENAI COUNTY

Federal regulations require monitoring, evaluation and updating of hazard mitigation plans. An update provides an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a Plan that has expired is no longer in compliance with the DMA.

The 2026 Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan is a FEMA-required revision of the County's 2020 Plan. It was prepared by the Kootenai County Office of Emergency Management with the establishment of a multidisciplinary planning team, the participation of the Local Emergency Planning Committee (LEPC), and input from the public. The Plan includes 33 participants: Kootenai County, 11 municipalities, 11 Fire/EMS districts, 4 school districts, 4 highway districts, a hospital district and Public Health district.

THE KOOTENAI COUNTY PLAN UPDATE EFFORT

The Kootenai County Office of Emergency Management (KCOEM) used the 2026 update process to enhance, expand, and reformat the Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan in both scope and content. The update followed five key phases and integration with other programs that can support or enhance hazard mitigation.

Phase 1 – Organize and Review

A multidisciplinary planning team including KCOEM staff was assembled to lead the update. The planning partnership was reorganized to include 33 local governments (see Table ES-1). A Planning Team of partners, staff, and stakeholders oversaw the process, coordinating with county, state, and federal agencies. This phase included a full review of the previous plan, the Idaho State Hazard Mitigation Plan, and other programs supporting hazard mitigation in Kootenai County.

Phase 2 – Update the Risk Assessment

The team reassessed risks to people, property, and infrastructure from identified natural hazards, along with profiles for other hazards of interest. The process included hazard identification, impact analysis, vulnerability assessment, and damage-cost estimates, in compliance with the DMA (44 CFR §201.6). Updated data and technology were used to produce the most comprehensive risk assessment to date. Phases 1 and 2 occurred concurrently, sharing information to improve accuracy.

Phase 3 – Engage the Public

Public involvement included community meetings, a hazard mitigation survey, community events, a County-hosted Plan update webpage, and social media outreach. These efforts gathered feedback on the risk assessment and mitigation strategies.

Phase 4 – Assemble the Updated Plan

The Planning Team compiled the Plan to meet Disaster Mitigation Act requirements. Volume 1 covers countywide elements applicable to all partners. Volume 2 contains jurisdiction-specific chapters for each participating partner.

Phase 5 – Plan Adoption and Implementation

Following pre-adoption approval from the Idaho Office of Emergency Management and FEMA Region 10, each partner jurisdiction will formally adopt the updated Plan. The Plan maintenance strategy outlines periodic monitoring, evaluation, and a full revision every five years, along with continued public engagement.

PLANNING PARTNERS **TABLE ES -1**

Kootenai County Municipalities	Athol	**Fire Protection Districts/EMS:**	East Side Fire Protection District
	Coeur d'Alene		Hauser Lake Fire Protection District
	Dalton Gardens		Kootenai Emergency Medical Services System
	Fernan Lake Village		Kootenai Fire & Rescue
	Harrison		Mica Kidd Island Fire Protection District
	Hauser		Northern Lakes Fire Protection District
	Hayden		Silver Valley Fire Rescue
	Hayden Lake		Spirit Lake Fire Protection District
	Post Falls		St Maries Fire
	Rathdrum		Timberlake Fire Protection District
	Spirit Lake		Worley Fire Protection District
School Districts	Coeur d'Alene SD #271	**Highway Districts**	East Side HD
	Kootenai SD #274		Lakes HD
	Lakeland SD #272		Post Falls HD
	Post Falls SD #273		Worley HD
		Other Districts	Panhandle Health District Region 1
			Kootenai Health Hospital District

RISK ASSESSMENT

The cornerstone of this Plan is a comprehensive risk assessment that profiles four natural hazards, three technological hazards, two human-caused hazards, and provides background on five additional hazards of interest. The assessment measures potential loss of life, injury, economic impacts, and property damage, helping emergency managers set response priorities by identifying hazards and vulnerable assets. It includes:

- **Hazard identification** – Identifying the natural hazards that impact the planning area, describing their geographic location, extent, frequency, and severity based on historical data and scientific sources.
- **Vulnerability assessment** – Analyzing the exposure and susceptibility of people, buildings, infrastructure, critical facilities, and the environment to identified hazards, estimating potential impacts on life, property, economy, and public services.
- **Cost evaluation** – Estimates the potential dollar losses to vulnerable structures. Loss estimates were developed using the best available data on building counts, replacement values, and hazard impact areas. Generalized cost-per-square-foot values were applied to structures within identified hazard zones.

This assessment meets the requirements of the DMA (44 CFR §201.6(c)(2)).

RISK ASSESSMENT RESULTS

A risk ranking was performed for the hazards of concern described in this Plan. This ranking was determined both at the county-wide level and also for each participating jurisdiction. The risk ranking is a key step in developing an action plan. It allows jurisdictions to compare the impacts of one hazard to another. That comparison provides critical information to use in selecting hazard mitigation actions. The results are used in establishing mitigation priorities. This process is not intended to focus all actions on the hazard with the highest rank, but to ensure that jurisdictions do not forget about hazards that have less but still significant impact. The ranking process also identifies hazards that have little or no impact and can be de-prioritized in consideration for actions. Based on the risk assessment, the hazards of concern were ranked as follows for the risk they pose to the overall planning area:

HAZARD RISK RANKING RESULTS — **TABLE ES-2**

HAZARD	SCORE
Wildfires	20
Winter Storms	20
Windstorms	19
Infrastructure / Utility Failure	19
Thunderstorms	18
Cybersecurity	18
Extreme Temperatures	17
HAZMAT / Transportation Incident	15
Civil Unrest	15
Public Health Emergency	15
Active Shooter / Active Threat	14
Invasive Species	14
Terrorism	14
Flood	13
Earthquake	12
Landslide	11
Drought	11
Radiological / Nuclear	11
Avalanche	10
Crop failure	10
Dam / Levee Failure	10

A quantitative-based risk assessment was conducted for the following natural hazards: flooding, landslides, severe weather (to include windstorms, thunderstorms, winter storms, and extreme temperatures), wildfire, avalanche, drought, and earthquakes. A comprehensive qualitative-based assessment was conducted for the remaining hazards of concern: cybersecurity, HazMat and transportation incidents, infrastructure and utility failure, acts of violence (to include active shooter/threat, civil unrest, and terrorism), levee and dam failure, and radiological material exposure and nuclear events. The reasons for this difference in approach is as follows:

- Non-natural hazard risk assessments tend to focus on threats and consequences, while natural hazard risk assessments focus on probabilities and vulnerabilities.
- It is not a requirement of Title 44 of the Code of Federal Regulations Section 201.6 (44 CFR 201.6) to assess non-natural/human caused hazards; however Kootenai County and the Planning Team deemed it necessary to include a more robust evaluation of certain non-natural/human caused hazards due to the significant impacts they may have.

As previously stated, each planning partner also ranked hazards for its own area following the same methodology applied to the area wide risk ranking.

HAZARD PROFILES AND RISK FACTORS

Hazard profiles and risk factors work together to provide a complete understanding of community risk. The hazard profile captures the qualitative context of each hazard by describing where it occurs, how often it has been experienced, its impacts, expected warning times, and potential secondary effects. Risk factors, on the other hand, quantify that information by scoring perceived risk, historical occurrence, probability, property exposed, and population exposed to produce a comparable hazard rating. By linking descriptive profiles with measurable factors, the Plan creates both a narrative and a numerical basis for prioritizing mitigation actions and strengthening community resilience.

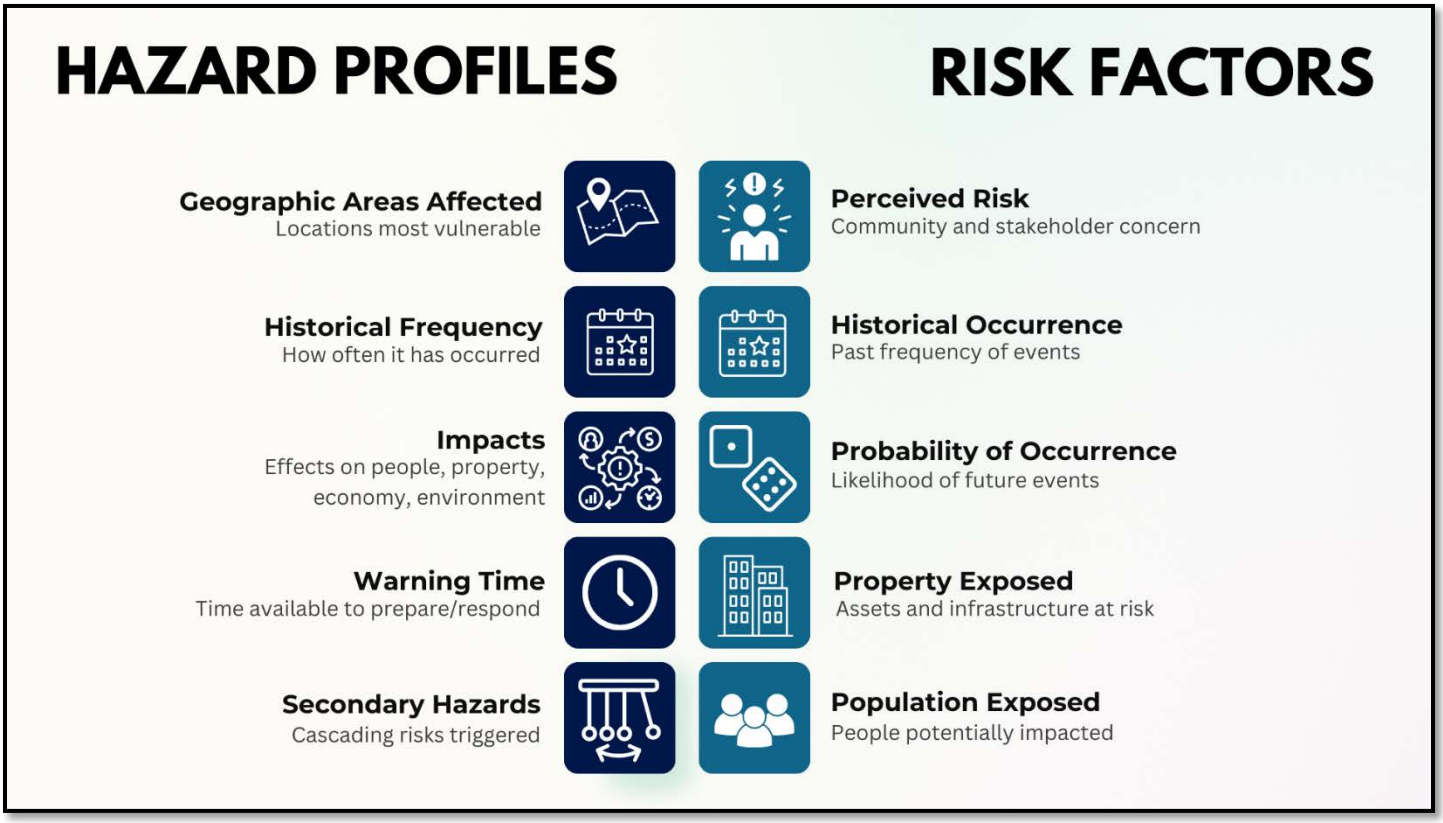


Figure ES-1: Hazard Profiles & Risk Factors

PLAN MAINTENANCE

The Plan includes a comprehensive maintenance strategy to keep it current and effective throughout its 5-year cycle. Key components of the maintenance protocol include:

- Implementation tracking
- Annual progress reporting
- Ongoing public involvement
- Scheduled plan updates
- Integration with other relevant plans and programs

MITIGATION ACTIONS

This update identifies 383 mitigation initiatives aimed at reducing hazard-related losses, detailed in Volume 2. Each initiative was prioritized as high, medium, or low based on a standardized protocol evaluating feasibility, multi-objectivity, cost-effectiveness, funding availability, and timeline.

Of these, 162 (42%) are high priority, 183 (48%) medium priority, and 38 (10%) low priority.

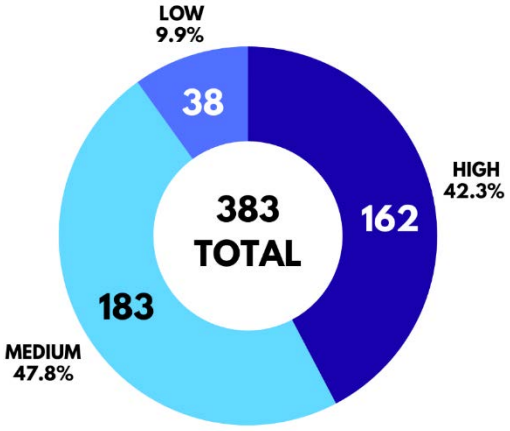


Figure ES-2: Mitigation Action Chart

IMPLEMENTATION

Implementing this Plan's recommendations will require sustained time and resources amid evolving funding opportunities and regulatory requirements. Kootenai County and its partners are committed to adopting and advancing these actions. Broad public support, cultivated through extensive outreach during Plan development, will be vital to the Plan's success.

KOOTENAI COUNTY PREPAREDNESS PLANNING PORTFOLIO

Kootenai County maintains a comprehensive preparedness planning portfolio that addresses the full cycle of emergency management: mitigation, preparedness, response, and recovery.

Figure ES-3: Kootenai County Planning Portfolio

This portfolio consists of five core planning documents:

- **Integrated Preparedness Plan (IPP)** – Developed through the Integrated Preparedness Planning Workshop (IPPW), the IPP establishes a multi-year roadmap for training, exercises, and other preparedness activities. It aligns capability development with the risks identified in the AHMP and the priorities outlined in the EOP and COOP.
- **All Hazard Mitigation Plan (AHMP)** – Provides the foundation for county-wide preparedness by identifying hazards, assessing risks, and establishing long-term strategies to reduce vulnerability to disasters.
- **Continuity of Operations/Continuity of Government Plan (COOP/COG**) – Ensures that essential services and leadership remain functional during and after a disruptive event.
- **Emergency Operations Plan (EOP)** – Serves as the operational framework for coordinating response activities across agencies when an incident occurs.
- **Agency-Specific Standard Operating Procedures (SOPs)** – Provide tactical, step-by-step instructions for carrying out agency responsibilities in alignment with the broader county plans.

The All Hazard Mitigation Plan plays a central role within this portfolio. By establishing a factual basis for risk reduction, the AHMP supports and complements the other plans. The risk and vulnerability analysis it provides informs the COOP/COG, ensuring continuity strategies are grounded in the county's most significant threats. It also shapes the EOP by identifying hazards that drive response priorities and resource needs. At the agency level, the AHMP helps guide the development of SOPs, ensuring that tactical actions align with broader mitigation and preparedness objectives. Finally, through the IPP, Kootenai County ensures its training and exercise programs are directly linked to identified risks and capability gaps, reinforcing and operationalizing the strategies contained within the broader planning framework.

Together, these interdependent plans create a resilient planning framework for Kootenai County—anticipating risks, protecting essential functions, directing coordinated response, and standardizing recovery actions. This integrated approach ensures the county is not only ready to respond effectively when disasters occur but is also working proactively to reduce long-term risk and continuously build capability.

PART 1: THE PLANNING PROCESS

CHAPTER 1
INTRODUCTION TO THE PLANNING PROCESS

WHY PREPARE THIS PLAN?

THE BIG PICTURE

Hazard mitigation is defined as any action taken to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves long- and short-term actions implemented before, during and after disasters. Hazard mitigation activities include planning efforts, policy changes, programs, studies, improvement projects, and other steps to reduce the impacts of hazards.

For many years, federal disaster funding focused on relief and recovery after disasters occurred, with limited funding for hazard mitigation planning in advance. The Disaster Mitigation Act (DMA; Public Law 106-390), passed in 2000, shifted the federal emphasis toward planning for disasters before they occur. The DMA requires state and local governments to develop hazard mitigation plans as a condition for federal disaster grant assistance. Regulations developed to fulfill the DMA's requirements are included in Title 44 of the Code of Federal Regulations (44 CFR).

The responsibility for hazard mitigation lies with many, including private property owners, commercial interests, and local, state and federal governments. The DMA encourages cooperation among state and local authorities in pre-disaster planning. The enhanced planning network called for by the DMA helps local governments articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk-reduction projects.

The DMA also promotes sustainability in hazard mitigation. To be sustainable, hazard mitigation needs to incorporate sound management of natural resources and address hazards and mitigation in the largest possible social and economic context.

KOOTENAI COUNTY'S RESPONSE TO THE DMA

Kootenai County has a strong tradition of proactive emergency management planning. Since 2004, the County has led multi-jurisdictional efforts to meet DMA and 44 CFR requirements, updating its All-Hazard Mitigation Plan in 2009, 2015, 2020 and most recently in 2026. FEMA Region X approved the 2026 update on February 12th. 2026, confirming DMA compliance.

The Plan aligns with Idaho's 2023 State Hazard Mitigation Plan, the Kootenai County Comprehensive Plan and Emergency Operations Plan, integrates the Community Wildfire Protection Plan, and supports FEMA's National Flood Insurance Program (NFIP).

PURPOSE FOR PLANNING

This Hazard Mitigation Plan update identifies resources, information, and strategies for reducing risk from natural hazards. Elements and strategies in the Plan were selected because they meet a program requirement and because they best meet the needs of the planning partners and their citizens. One of the benefits of multi-jurisdictional planning is the ability to pool resources and coordinate activities within a planning area that has uniform risk exposure and vulnerabilities. FEMA encourages multi-jurisdictional planning under its guidance for the DMA. The Plan will help guide and coordinate mitigation activities throughout the planning area and was developed to meet the following objectives:

- Meet or exceed requirements of the DMA.
- Enable all planning partners to use federal grant funding to reduce risk through mitigation.
- Meet the needs of each planning partner as well as state and federal requirements.
- Create a risk assessment that focuses on Kootenai County hazards of concern.

- Create a single planning document that integrates all planning partners into a framework that supports partnerships within the County, and puts all partners on the same planning cycle for future updates.
- Meet the planning requirements of FEMA's Community Rating System (CRS), allowing planning partners that participate in the CRS program to maintain or enhance their CRS classifications.
- Coordinate existing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts are funded and implemented.

WHO WILL BENEFIT FROM THIS PLAN?

All citizens and businesses of Kootenai County are the ultimate beneficiaries of this Hazard Mitigation Plan. The Plan reduces risk for those who live in, work in, and visit the County. It provides a viable planning framework for all foreseeable natural hazards that may impact the County. Participation in development of the Plan by key stakeholders in the County helped ensure that outcomes will be mutually beneficial. The resources and background information in the Plan are applicable countywide, and the plan's goals and recommendations can lay groundwork for the development and implementation of local mitigation activities and partnerships.

HOW TO USE THIS PLAN

This Plan has been set up in two volumes so that elements that are jurisdiction-specific can easily be distinguished from those that apply to the whole planning area:

- **Volume 1—**Volume 1 includes all federally required elements of a disaster mitigation plan that apply to the entire planning area. This includes the description of the planning process, public involvement strategy, goals and objectives, countywide hazard risk assessment, countywide mitigation initiatives, and a plan maintenance strategy.
- **Volume 2**—Volume 2 includes all federally required jurisdiction-specific elements, in annexes for each participating jurisdiction. It includes a description of the participation requirements established by the Planning Team, as well as instructions and templates that the partners used to complete their annexes. Volume 2 also includes "linkage" procedures for eligible jurisdictions that did not participate in the development of this Plan but wish to adopt it in the future.

All planning partners will adopt Volume 1 in its entirety and at least the following parts of Volume 2: the introduction; each partner's jurisdiction-specific annex; and the appendices found in both Volumes.

The following appendices provided at the end of Volume 1 include information or explanations to support the main content of the plan:

- Appendix 1 - A: A glossary of acronyms and definitions
- Appendix 1- B: Planning Partner and Public Participation and Outreach Materials
- Appendix 1 - C: Plan Adoption Resolutions for Participating Jurisdictions
- Appendix1- D: Annual Progress Report Template

PLANNING TIMELINE

The following figure represents an approximate timeline for the planning process from start to finish.

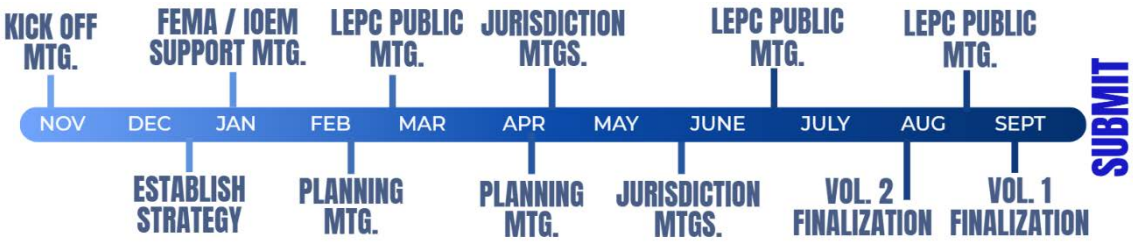


Figure 1-1: Planning Timeline

CHAPTER 2
PLAN UPDATE – WHAT HAS CHANGED

THE PREVIOUS PLAN

The 2020 Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan was a FEMA-required revision and update of the County's 2015 Plan. It was prepared by the Kootenai County Office of Emergency Management, the Local Emergency Planning Committee's standing All Hazard Mitigation Committee and a planning consultant. Participating jurisdictions included Kootenai County and 33 local municipalities, special purpose districts, and planning areas.

The purpose of the Plan was to reduce the physical and economic impacts of natural and man-made disasters or emergency situations on the residents and businesses of Kootenai County and its participating jurisdictions. The Plan identified hazards affecting Kootenai County and the county's vulnerabilities. It provided a countywide strategy of mitigation projects to reduce future disaster losses.

The 2020 Plan addressed the following hazards:

- Avalanche
- Dam Failures
- Droughts
- Earthquakes
- Floods
- Landslides
- Infrastructure/ Utility Failure
- Severe Weather Systems
- Volcanic Ash Fall
- Wildfires
- Cyber-Disruption
- Hazardous Materials Incidents
- Pandemics
- Civil Unrest
- Terrorism
- Invasive Species
- Infestation
- Structural Fire
- Radiological Material Exposure

WHY UPDATE?

Under 44 CFR, hazard mitigation plans must include a schedule for being monitored, evaluated, and updated. This provides an opportunity to reevaluate recommendations, monitor the impacts of actions that have been accomplished, and determine if there is a need to change the focus of mitigation strategies. A jurisdiction covered by a plan that has expired is not able to pursue federal disaster and emergency assistance funding for which a current Hazard Mitigation Plan is a prerequisite.

CHANGES IN DEVELOPMENT

Hazard Mitigation Plan updates must be revised to reflect changes in development within the planning area during the previous performance period of the Plan (44 CFR Section 201.6(d)(3)). The Plan must describe changes in development in hazard-prone areas that increased or decreased vulnerability for each jurisdiction since the last plan was approved. If no changes in development impacted overall vulnerability, then plan updates may validate the information in the previously approved Plan. The intent of this requirement is to ensure that the mitigation strategy continues to address the risk and vulnerability of existing and potential development, and takes into consideration possible future conditions that could impact vulnerability.

The Kootenai County planning area experienced rapid growth in recent years. The County and its cities have adopted comprehensive plans that govern land-use decisions and policy-making in their jurisdictions or have zoning codes that regulate land uses. In addition, many of the municipal planning partners have adopted building codes that promote the resiliency of new construction from potential impacts of hazards assessed in this Plan. Some new development triggered by the increase in population occurred in hazard areas. All such new development was regulated pursuant to local programs and codes, which are addressed in each jurisdiction's annex in Volume 2 under Capability Assessments. Therefore, vulnerability should not have increased even if exposure did.

PROGRESS REPORT ON PREVIOUS PLAN

The 2020 Plan update included a plan maintenance protocol that called for annual review of the Plan and progress reports to be prepared as mitigation actions are implemented. These progress reports were provided to each planning partner participating in the current update. For current planning partners who also participated in the 2020 Plan update, status of prior actions is provided in the jurisdictional annexes in Volume 2.

THE UPDATED PLAN – WHAT IS DIFFERENT?

The following table indicates major changes between the current and previous updates.

CHANGES IN PREVIOUS AND CURRENT PLAN **TABLE 2-1**

44 CFR REQUIREMENT	PREVIOUS PLAN (2020)	UPDATED PLAN (2026)
§201.6(c)(2): Risk Assessment	Presented a comprehensive risk assessment for nine natural hazards, including avalanche, dam failure, drought, earthquake, flood, landslide, severe weather, volcano (ash fall), and wildfire. Included hazard profiles for other hazards of interest. Hazard profiles and data were updated using Hazus-MH v2.2.	Previous hazards were reviewed through a comprehensive risk assessment and involvement of the multi-jurisdictional planning team. A total of 4 hazards were archived. New hazards of interest added such as infrastructure and utility failure and hazmat and transportation incidents. Risk assessments include more robust integration of public perception and social vulnerability data (e.g., CDC SVI).
§201.6(c)(2)(ii): Vulnerability Description	Vulnerability was assessed for all natural hazards, using Hazus-MH models for earthquake and flood. Assets and critical facilities inventoried with GIS data. Wildfire risk zones mapped and exposure calculated. Risk = Probability x Impact on people, property, economy.	Vulnerability analysis expanded to include detailed jurisdiction-level narratives with location-specific risk descriptions. New data sources added (e.g., tax assessor building stock, Idaho Office of Emergency Management). Enhanced exposure analysis integrates social vulnerability and resilience metrics. Wildfire exposure updated to Idaho Department of Lands Wildland Urban Interface (WUI) boundary method.
§201.6(c)(2)(iii): Multi-jurisdictional Risk Assessment	Risk assessment results generated for each planning partner and used to rank hazard risks within their jurisdiction. Risk rankings informed action plan development.	Maintained multi-jurisdictional risk ranking approach with updated datasets and hazard categories. Added emphasis on equitable risk distribution across jurisdictions. Public perception now influences rankings.
§201.6(c)(4)(iii): Plan Maintenance Process	Plan maintenance strategy described, including annual review and public involvement components. Social media used in outreach efforts.	Plan maintenance process expanded with detailed strategies for continuous public engagement, including updated social media and digital platforms. Clearer procedures for monitoring, evaluation, and regular updates documented.

CHAPTER 3
PLAN METHODOLOGY

To develop the Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan, the County followed a process that had the following primary objectives:

- Initiate update process by engaging planning partners and stakeholders
- Form a planning team
- Define the planning area
- Establish a planning partnership
- Coordinate with other agencies
- Review existing programs
- Engage the public

These objectives are discussed in the following sections and documentation is provided. Further documentation that is not included in this portion of the Plan for the sake of readability can be found in Appendix 1-B of this Volume of the Plan.

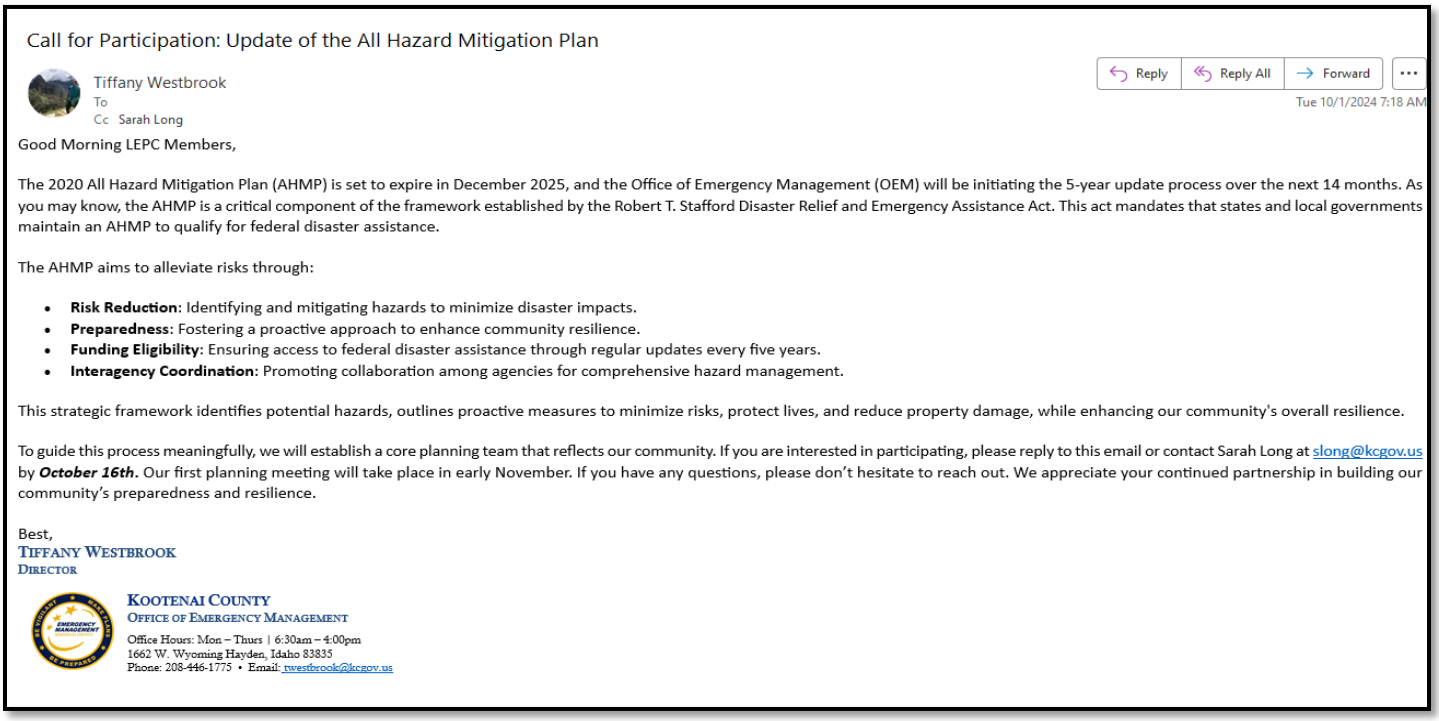
FORMATION OF THE PLANNING TEAM

Kootenai County Office of Emergency Management (OEM) developed the 2026 update of the Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan internally through the support of a multidisciplinary planning team. The project was managed directly by Kootenai County OEM, with members from various county departments and disciplines providing input and expertise throughout the process. Key personnel involved included:

- Tiffany Westbrook, Kootenai County OEM—County Project Manager
- Sarah Long, Kootenai County OEM—Lead Planner
- Bill Deruyter, Coeur d'Alene Fire—Planning Team Member
- Lucas Pichette, Coeur d'Alene Fire—Planning Team Member
- Mike Throckmorton, Panhandle Health District—Planning Team Member
- Dan Ryan, Kootenai County Fire and Rescue—Planning Team Member
- Eric Shanley, Lakes Highway District—Planning Team Member
- Brandon Friis, Rathdrum Police Department—Planning Team Member
- Emily Smith, City of Rathdrum—Planning Team Member
- Jeff Howard, Kootenai County Sheriff's Office—Planning Team Member
- Tyre Holfeltz, Idaho Department of Lands—Planning Team Member
- Terry Zufelt, Idaho Department of Lands—Planning Team Member
- Dustin Howe, Worley Highway—Planning Team Member

DEFINING THE PLANNING AREA

The planning area was defined to consist of the unincorporated areas of Kootenai County and the incorporated jurisdictions therein. All partners to this Plan have jurisdictional authority within this planning area.



Call for Participation: Update of the All Hazard Mitigation Plan

Tiffany Westbrook
To
Cc Sarah Long

Reply | Reply All | Forward
Tue 10/1/2024 7:18 AM

Good Morning LEPC Members,

The 2020 All Hazard Mitigation Plan (AHMP) is set to expire in December 2025, and the Office of Emergency Management (OEM) will be initiating the 5-year update process over the next 14 months. As you may know, the AHMP is a critical component of the framework established by the Robert T. Stafford Disaster Relief and Emergency Assistance Act. This act mandates that states and local governments maintain an AHMP to qualify for federal disaster assistance.

The AHMP aims to alleviate risks through:

- **Risk Reduction**: Identifying and mitigating hazards to minimize disaster impacts.
- **Preparedness**: Fostering a proactive approach to enhance community resilience.
- **Funding Eligibility**: Ensuring access to federal disaster assistance through regular updates every five years.
- **Interagency Coordination**: Promoting collaboration among agencies for comprehensive hazard management.

This strategic framework identifies potential hazards, outlines proactive measures to minimize risks, protect lives, and reduce property damage, while enhancing our community's overall resilience.

To guide this process meaningfully, we will establish a core planning team that reflects our community. If you are interested in participating, please reply to this email or contact Sarah Long at slong@kcgov.us by ***October 16th***. Our first planning meeting will take place in early November. If you have any questions, please don't hesitate to reach out. We appreciate your continued partnership in building our community's preparedness and resilience.

Best,
TIFFANY WESTBROOK
DIRECTOR

KOOTENAI COUNTY
OFFICE OF EMERGENCY MANAGEMENT
Office Hours: Mon – Thurs | 6:30am – 4:00pm
1662 W. Wyoming Hayden, Idaho 83835
Phone: 208-446-1775 • Email: twestbrook@kcgov.us

Figure 3-1: Call for Participation in the 2026 AHMP Update Process

ESTABLISHMENT OF THE PLANNING PARTNERSHIP

The plan maintenance protocol in the 2020 Mitigation Plan established ongoing communication between the KCOEM and the planning partnership through annual progress reporting. The planning partnership was therefore well established when it came time to initiate the 5-year update to the Plan.

KCOEM engaged the planning partnership at a kickoff meeting on November 14th, 2024. The purpose of this meeting was to bring the planning team together to outline a clear strategy for the upcoming planning process. The outline for this meeting consisted of:

- Hazard mitigation overview
- Review of the previous plan
- Municipal and public participation in the process
- Timeline for the update process

FW: AHMP Update: Kick Off Meeting

OC
Sarah Long on behalf of OEM-Calendar
Required

Accept | Tentative | Decline | Propose New Time
Tue 10/22/2024 6:57 AM

As the meeting organizer, you do not need to respond to the meeting.

Thursday, November 14, 2024 1:00 PM-2:00 PM OEM - 1662 W. Wyoming Ave

Good Afternoon,

We are officially kicking off the planning process for the All Hazard Mitigation Plan update. This will serve as a place holder for the meeting, as we get closer we will provide an agenda and any further details needed.

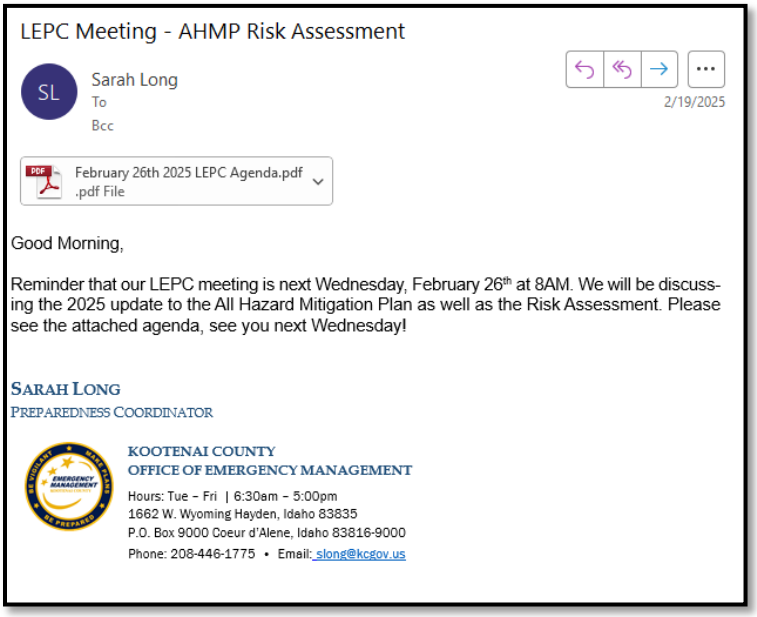
Let me know if you have any questions,

SARAH LONG
PREPAREDNESS COORDINATOR

KOOTENAI COUNTY
OFFICE OF EMERGENCY MANAGEMENT
Hours: Tue – Fri | 6:30am – 5:00pm
1662 W. Wyoming Hayden, Idaho 83835
P.O. Box 9000 Coeur d'Alene, Idaho 83816-9000
Phone: 208-446-1775 • Email: slong@kcgov.us

Figure 3-2: Invite for Planning Team Meeting

A second kickoff meeting was initiated on February 26th, 2025, to offer the public as well as local stakeholders a chance to participate and gain understanding of the Plan. The planning team made a presentation to introduce the update process and define planning partner expectations as well as information regarding the risk assessment process.



LEPC Meeting - AHMP Risk Assessment

SL Sarah Long
To
Bcc
2/19/2025

February 26th 2025 LEPC Agenda.pdf
.pdf File

Good Morning,

Reminder that our LEPC meeting is next Wednesday, February 26th at 8AM. We will be discussing the 2025 update to the All Hazard Mitigation Plan as well as the Risk Assessment. Please see the attached agenda, see you next Wednesday!

SARAH LONG
PREPAREDNESS COORDINATOR

KOOTENAI COUNTY
OFFICE OF EMERGENCY MANAGEMENT
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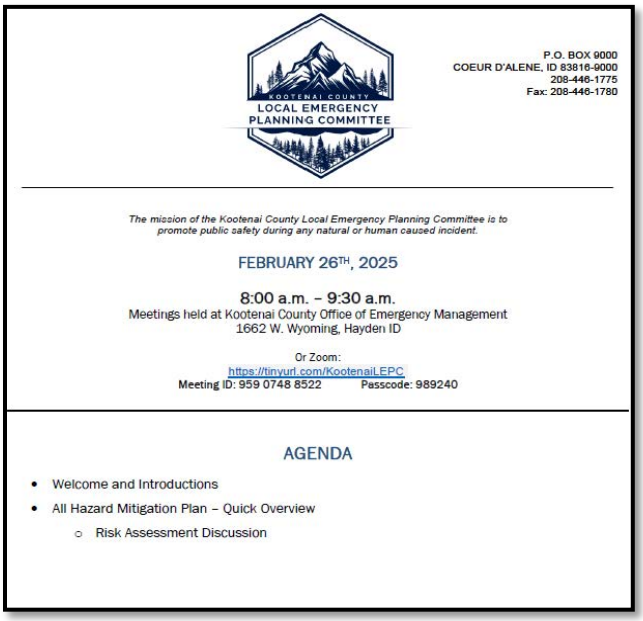
1662 W. Wyoming Hayden, Idaho 83835
P.O. Box 9000 Coeur d'Alene, Idaho 83816-9000
Phone: 208-446-1775 • Email: slong@kcgov.us

Figure 3-3: Invite for LEPC



KOOTENAI COUNTY
LOCAL EMERGENCY PLANNING COMMITTEE

P.O. BOX 9000
COEUR D'ALENE, ID 83816-9000
208-446-1775
Fax: 208-446-1780

The mission of the Kootenai County Local Emergency Planning Committee is to promote public safety during any natural or human caused incident.

FEBRUARY 26TH, 2025

8:00 a.m. – 9:30 a.m.
Meetings held at Kootenai County Office of Emergency Management
1662 W. Wyoming, Hayden ID

Or Zoom:
https://tinyurl.com/KootenaiLEPC
Meeting ID: 959 0748 8522 Passcode: 989240

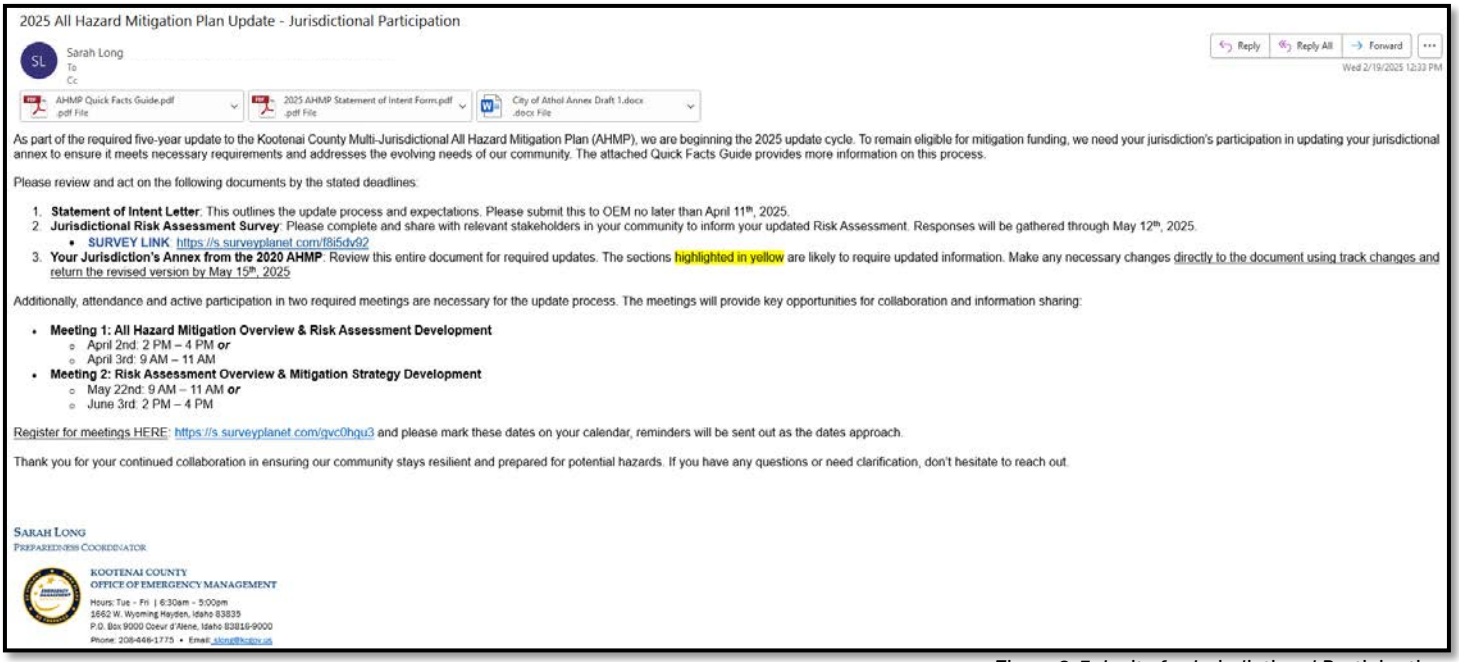
AGENDA

- Welcome and Introductions
- All Hazard Mitigation Plan – Quick Overview
  - Risk Assessment Discussion

Figure 3-4: Agenda for LEPC AHMP Overview and Risk Assessment

Introductory jurisdictional meetings were held on April 2–3, 2025, to outline expectations for planning partners and to provide an overview of the process. Representatives from previous planning partner jurisdictions, along with additional stakeholders, were invited to participate in this meeting. Key meeting objectives were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Describe the reasons for a plan.
- Outline the project work plan.
- Outline planning partner expectations.
- Seek commitment to the planning partnership.
- Review the risk assessment process.



2025 All Hazard Mitigation Plan Update - Jurisdictional Participation

SL Sarah Long
To
Cc
Reply Reply All Forward
Wed 2/19/2025 12:33 PM

AHMP Quick Facts Guide.pdf .pdf File | 2025 AHMP Statement of Intent Form.pdf .pdf File | City of Athol Annex Draft 1.docx .docx File

As part of the required five-year update to the Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan (AHMP), we are beginning the 2025 update cycle. To remain eligible for mitigation funding, we need your jurisdiction's participation in updating your jurisdictional annex to ensure it meets necessary requirements and addresses the evolving needs of our community. The attached Quick Facts Guide provides more information on this process.

Please review and act on the following documents by the stated deadlines:

1. **Statement of Intent Letter**: This outlines the update process and expectations. Please submit this to OEM no later than April 11th, 2025.
2. **Jurisdictional Risk Assessment Survey**: Please complete and share with relevant stakeholders in your community to inform your updated Risk Assessment. Responses will be gathered through May 12th, 2025.
   - **SURVEY LINK**: https://s.surveyplanet.com/t8i5dv92
3. **Your Jurisdiction's Annex from the 2020 AHMP**: Review this entire document for required updates. The sections highlighted in yellow are likely to require updated information. Make any necessary changes directly to the document using track changes and return the revised version by May 15th, 2025

Additionally, attendance and active participation in two required meetings are necessary for the update process. The meetings will provide key opportunities for collaboration and information sharing:

- **Meeting 1: All Hazard Mitigation Overview & Risk Assessment Development**
  - April 2nd: 2 PM – 4 PM *or*
  - April 3rd: 9 AM – 11 AM
- **Meeting 2: Risk Assessment Overview & Mitigation Strategy Development**
  - May 22nd: 9 AM – 11 AM *or*
  - June 3rd: 2 PM – 4 PM

Register for meetings HERE: https://s.surveyplanet.com/gvc0hgu3 and please mark these dates on your calendar, reminders will be sent out as the dates approach.

Thank you for your continued collaboration in ensuring our community stays resilient and prepared for potential hazards. If you have any questions or need clarification, don't hesitate to reach out.

SARAH LONG
PREPAREDNESS COORDINATOR

KOOTENAI COUNTY
OFFICE OF EMERGENCY MANAGEMENT
Hours: Tue – Fri | 6:30am – 5:00pm
1662 W. Wyoming Hayden, Idaho 83835
P.O. Box 9000 Coeur d'Alene, Idaho 83816-9000
Phone: 208-446-1775 • Email: slong@kcgov.us

Figure 3-5: Invite for Jurisdictional Participation

COUNTY AND CITY PLANNING PARTNERS — **TABLE 3-1**

JURISDICTION	POINT OF CONTACT	TITLE
Kootenai County	Tiffany Westbrook	OEM Director
City of Athol	Pete Weigman	Public Works Director
City of Coeur d'Alene	Lucas Pichette	Coeur d'Alene Fire Deputy Chief
City of Dalton Gardens	Curt Jernigan	Mayor
City of Fernan Lake Village	Ray Watkins	Mayor
City of Harrison	Joshua Burg	Public Works Supervisor
City of Hauser	Bill Ray	Mayor
City of Hayden	Ty Kovatch	Deputy Public Works Director
City of Hayden Lake	Tina West	City Clerk
City of Post Falls	Chris Schneider	Staff Engineer
City of Rathdrum	Emily Smith	City Attorney
City of Spirit Lake	Michelle Wharton	City Clerk

SPECIAL PURPOSE DISTRICT PLANNING PARTNERS — **TABLE 3-2**

DISTRICT	POINT OF CONTACT	TITLE
East Side Fire Protection District	Jerry Lynn	Chief
Hauser Lake Fire Protection District	James Neils	Chief
Kootenai County Emergency Medical Services System	Jay Wojnowski	Chief
Kootenai County Fire and Rescue	Jeryl Archer	Fire Marshal
Mica Kidd Island Fire Protection District	Robert Matue	Chief
Northern Lakes Fire Protection District	Kevin Croffoot	Interim Chief
St. Maries Fire Protection District	Michael Patti	Chief
Silver Valley Fire Rescue	Scott Dietrich	Chief
Spirit Lake Fire Protection District	Anne Boisvert	District Administrator
Panhandle Health District	Michael Throckmorton	Planner
Timberlake Fire Protection District	Brandon Hermenet	Chief
Worley Fire Protection District	Scott Campos	Chief
Coeur d'Alene Public Schools (SD 271)	Thomas Gandy	Safety & Security Coordinator
Kootenai School District (SD 274)	Brad Baumberger	Superintendent
Lakeland Joint School District (SD 272)	Rusty Taylor	Superintendent
Post Falls School District (SD 273)	Janelle Baillie	Assistant Superintendent
East Side Highway District	Ben Weymouth	Director
Lakes Highway District	Eric Shanley	Director
Post Falls Highway District	Michael Lenz	Director
Worley Highway District	Kevin Howard	Director
Kootenai Health	Nathan Stielstra	Emergency Management Coordinator

PLANNING PARTNER EXPECTATIONS

The planning team developed the following list of planning partner expectations:

- Each partner will provide a "Letter of Intent to Participate" or functional equivalent indicating a desire to participate in the Plan. The Letter of Intent to Participate can be found in Appendix 2-B in Volume 2 of this Plan.
- Each partner will support and participate in the selection and function of the Planning Team overseeing the development of the update. Support includes allowing this body to make decisions regarding plan development and scope on behalf of the partnership.
- Upon request, each partner will provide support for the public involvement strategy developed by the Planning Team in the form of mailing lists, possible meeting space, and media outreach such as newsletters, newspapers or direct-mailed brochures.
- Each partner will participate in plan update development activities such as: – Planning Partnership meetings – Public meetings or open houses – Workshops and planning partner training sessions – Public review and comment periods prior to adoption. Attendance will be tracked at such activities, and attendance records will be used to track and document participation for each planning partner. No minimum level of participation will be established, but each planning partner should attempt to attend all such activities.
- There will be one mandatory workshop that all planning partners will be required to attend. This workshop will cover the proper completion of the jurisdictional annex template which is the basis for each partner's jurisdictional chapter in the Plan. Failure to have a representative at this workshop may disqualify the planning partner from participation in this effort. The workshop effort to update the Kootenai County Multi-Jurisdictional All Hazard Mitigation Plan; Volume 2—Planning Partner Annexes schedule will be such that all committee planning partners will be able to attend.
- After participation in the mandatory workshop, each partner will be required to complete their template and provide it to the planning team in the time frame in a timely manner. Technical assistance in the completion of these templates will be available from the planning team. Failure to complete the template within a reasonable time frame may lead to disqualification from the partnership.
- Each partner will be asked to review the risk assessment and identify hazards and vulnerabilities specific to its jurisdiction. Contract resources will provide jurisdiction-specific mapping and technical consultation to aid in this task, but the determination of risk and vulnerability will be partially up to each partner.
- Each partner will be asked to review and determine if the mitigation recommendations chosen in the parent plan will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the parent plan recommendations will need to be identified and prioritized and reviewed to determine their benefits vs. costs.
- Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed and when it is estimated to occur.
- Each partner will be required to formally adopt the Plan. Templates and instructions to aid in the compilation of this information will be provided to all committed planning partners. Each partner will be asked to complete their templates in a timely manner. It should be noted that once this Plan is completed, FEMA approval has been determined for each partner, maintaining that eligibility will be dependent upon each planning partner implementing the plan implementation and maintenance protocol established in Volume 1.

PLANNING PARTNERSHIP WORKSHOP

Following the kickoff meetings, each participating jurisdiction was invited to participate in a workshop to learn more about the Hazard Mitigation Plan update process, edit and review their portion of the previous plan, and provide direction for further updates.

Topics included the following:

- DMA
- Kootenai County plan background
- The templates
- Risk ranking
- Developing your action plan

The product of what was accomplished in the workshop, including attendance and plan coverage, can be found in Volume 2 of this Plan. The sign-in sheets and documentation for these workshops can be found in Appendix 1-B in Volume 1 of this Plan.

COORDINATION WITH OTHER AGENCIES

Opportunities for involvement in the planning process must be provided to neighboring communities, local and regional agencies involved in hazard mitigation, agencies with authority to regulate development, businesses, academia, and other private and nonprofit interests (44 CFR, Section 201.6(b)(2)). This task was accomplished by the planning team as follows:

- Planning Partnership Involvement—Agency representatives were invited to participate in the planning partnership.
- Adjacent Counties—Shoshone, Benewah and Bonner Counties in Idaho and Spokane County in Washington were apprised throughout the planning update process and were invited to participate.
- Agency Notification—The following agencies were invited to participate in the Plan development process from the beginning and were kept apprised of plan development milestones:
  - Idaho Office of Emergency Management
  - Idaho Department of Water Resources (State NFIP Coordinating Agency)
  - Idaho Department of Lands
  - Idaho Department of Environmental Quality
  - Idaho Geologic Survey
  - Coeur d'Alene Tribe
  - The University of Idaho

These agencies, including adjacent county representatives, received meeting announcements, meeting agendas, and meeting summaries and documents by email throughout the Plan development process or were contacted directly by the planning team during data acquisition for the Plan update. These agencies supported the effort by attending meetings or providing feedback on issues.

- **Pre-Adoption Review**—All the agencies listed above were provided an opportunity to review and comment on this plan, primarily through the Hazard Mitigation Plan website. Each agency was sent an email message informing them that draft portions of the Plan were available for review. In addition, the complete draft Plan was sent to the Idaho Office of Emergency Management for a pre-adoption review to ensure program compliance.

- **Adoption of the Plan**—Upon FEMA review of the Plan to ensure it meets all requirements of the Title 44 Code of Regulations (CFR) 201.6, FEMA will send a letter indicating the Plan has been approved for adoption by all Planning Partners. Each Planning Partner has an opportunity to individually adopt the updated Plan. Records of adoption are forwarded to IOEM and FEMA. FEMA will send a letter indicating those planning partners that have adopted the Plan and are now eligible for mitigation funding under this Plan.

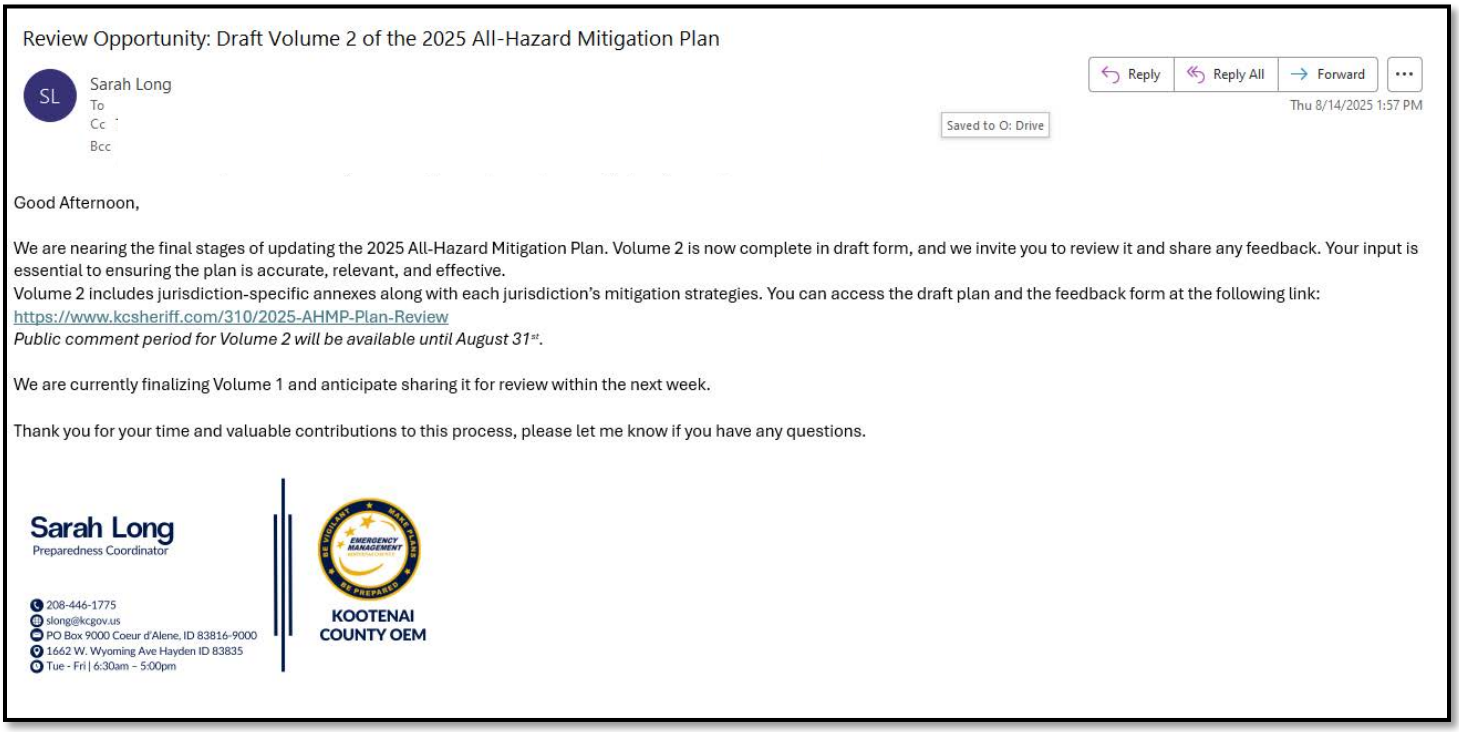


Figure 3-6: Opportunity for Draft Plan Review

REVIEW OF EXISTING PROGRAMS

Hazard mitigation planning must include review and incorporation, if appropriate, of existing plans, studies, reports and technical information (44 CFR, Section 201.6(b)(3)). Volume 1 of this Plan provides a review of laws and ordinances in effect within the planning area that can affect hazard mitigation initiatives. Additional, jurisdiction-specific regulations and ordinances can be found in the municipal annexes is Volume 2 of this Plan.

The table below lists several of the main sources that are foundational to this 2026 HMP update process. The resources below are not an exhaustive list. A complete listing of all references used in this Plan can be found in Appendix 1-E.

KEY SOURCES IN THE FORMATION OF THE 2026 PLAN	TABLE 3-3
SOURCE	**MIGRATION IN PLAN**
2020 Kootenai County Hazard Mitigation Plan	Used as a starting framework upon which the 2020 Kootenai County MJ-AHMP updated. This source helped inform the choice of included hazards, key community profile sections to expand, and provided information for this plan's Existing Mitigation Actions section.
2023 Idaho State Hazard Mitigation Plan	Used to supplement existing hazard descriptions, frequencies, and vulnerability data. This source was also used to provide data for comparing KC vulnerability to numerous hazards to other ID counties.
National Oceanic and Atmospheric Administration (NOAA) Storm Events Database.	Used extensively to determine date, frequency, location, casualty, and cost information for natural hazard events. The Risk Assessment portion of this Plan directly informed the Mitigation Strategies portion of the Plan.
National Inventory of Dams and National Levee Database	Used to map locations of dams and levees throughout the County.
U.S. Census Bureau American Community Survey Data	Used to highlight key demographic information within the Community Profile Section of this Plan
2020 Idaho Department of Lands Fire Action Plan	The risk maps and modeling methodology used in this Plan were integrated into the Kootenai County 2020 Community Wildfire Protection Plan, which was itself integrated into this Hazard Mitigation Plan as an appendix. The 2020 CWPP also serves as the wildfire hazard profile section of this Plan.

In addition, the following laws, plans, and programs can affect mitigation within the planning area:

- United States Constitution
- State of Idaho Constitution
- Kootenai County Comprehensive Plan
- Kootenai County Code (Titles 1-11)
- Kootenai County Emergency Operations Plan
- Comprehensive plans from incorporated planning partners
- Municipal codes from municipal planning partners
- Comprehensive Economic Development Strategy: 2020-2025; Panhandle Area Council

An assessment of all planning partners' regulatory, technical and financial capabilities to implement hazard mitigation initiatives is presented in the jurisdiction-specific annexes in Volume 2.

PUBLIC INVOLVEMENT

Broad public participation in the planning process helps ensure that diverse points of view about the planning area's needs are considered and addressed. The public must have opportunities to comment on disaster mitigation plans during the drafting stages and prior to Plan approval (44 CFR, Section 201.6(b)(1)). The Community Rating System expands on these requirements by making CRS credits available for optional public involvement activities.

STRATEGY

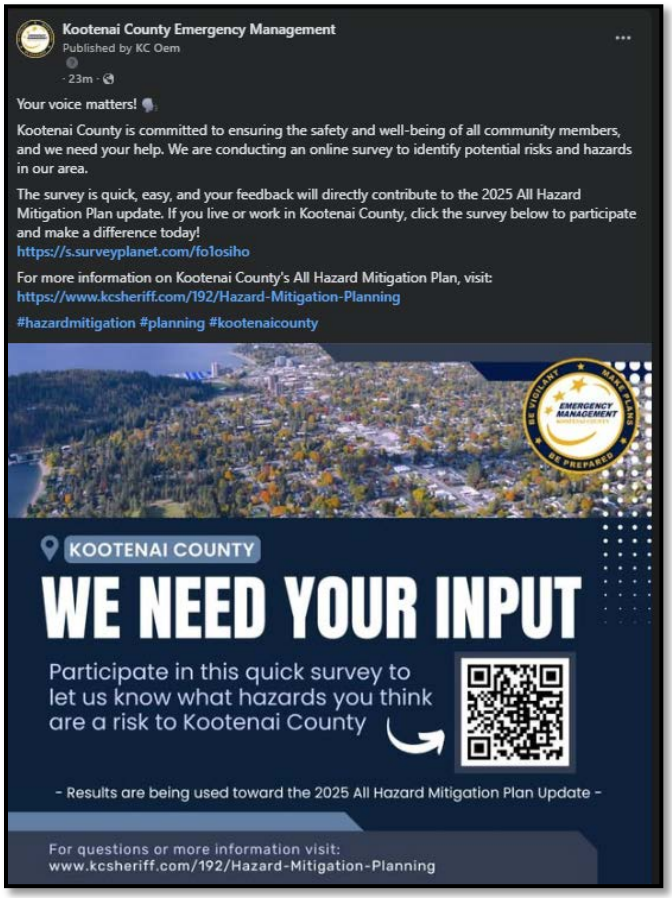
The strategy for involving the public in this Plan emphasized the following elements:

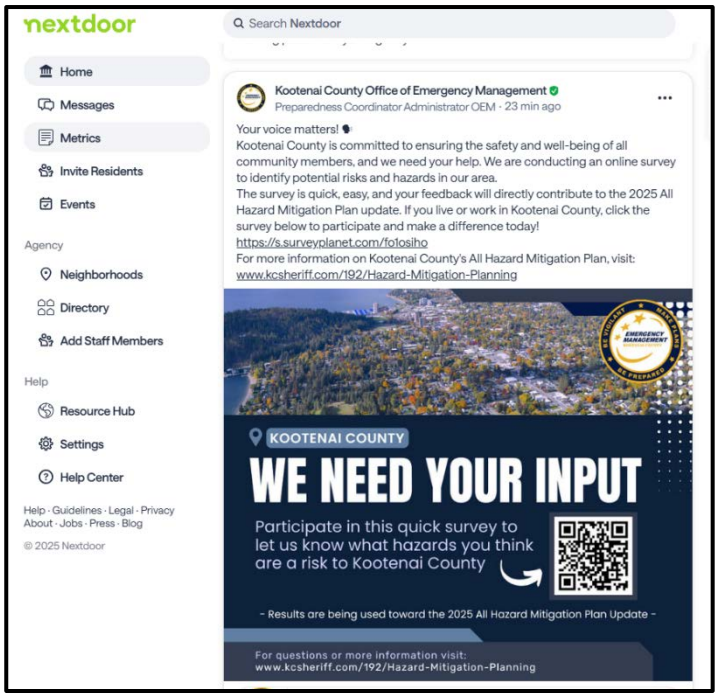
- Use a survey to determine the public's perception of hazard risks in order to validate existing or identify new hazards of concern.
- Comment sections were added to the survey to better understand the priorities from the community.
- Attempt to reach as many planning area citizens as possible using multiple media methods, to inform them of the plan's development and other resources available.
- Identify and involve planning area stakeholders.
- After incorporating the first round of public and planning partner feedback, a draft of the Plan was published on the KCOEM website for public review and further feedback.

PUBLIC INVOLVEMENT AND RESULTS

Survey

A community hazard mitigation survey was developed by the planning team with guidance from KCOEM. The web-based survey was used to gauge perceived risk, historical occurrence, probability of occurrence, property exposure, and population exposure to certain hazards. This survey was designed to help identify high risk hazards to the community based off the aforementioned categories. The survey was published on the social media sites, Nextdoor and Facebook as shown in the following figures.





Figures 3-7 & 3-8: Community Survey on Facebook and Nextdoor

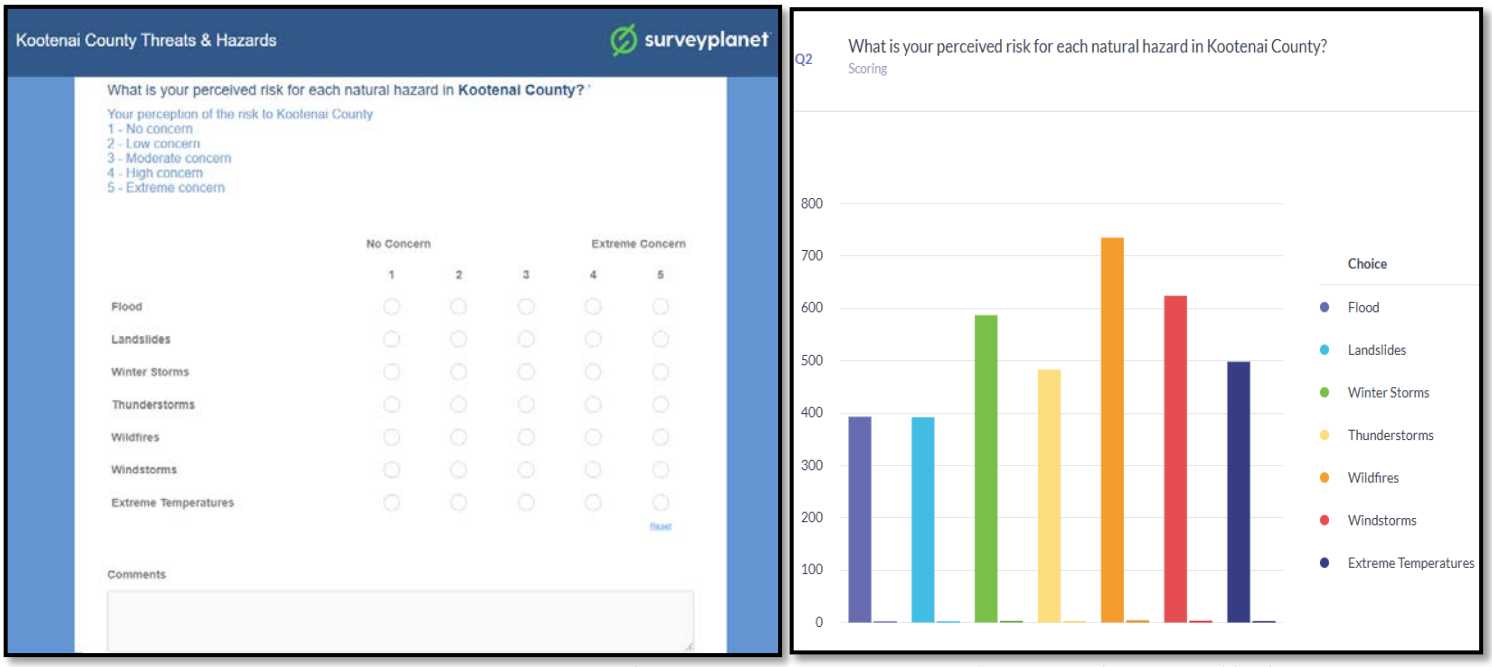


Figure 3-9: Sample Screens from Online Community Hazard Mitigation Survey and Result

The following figure represents score averages based on results from the online Community Hazard Mitigation Survey. A total of 175 submissions were received.

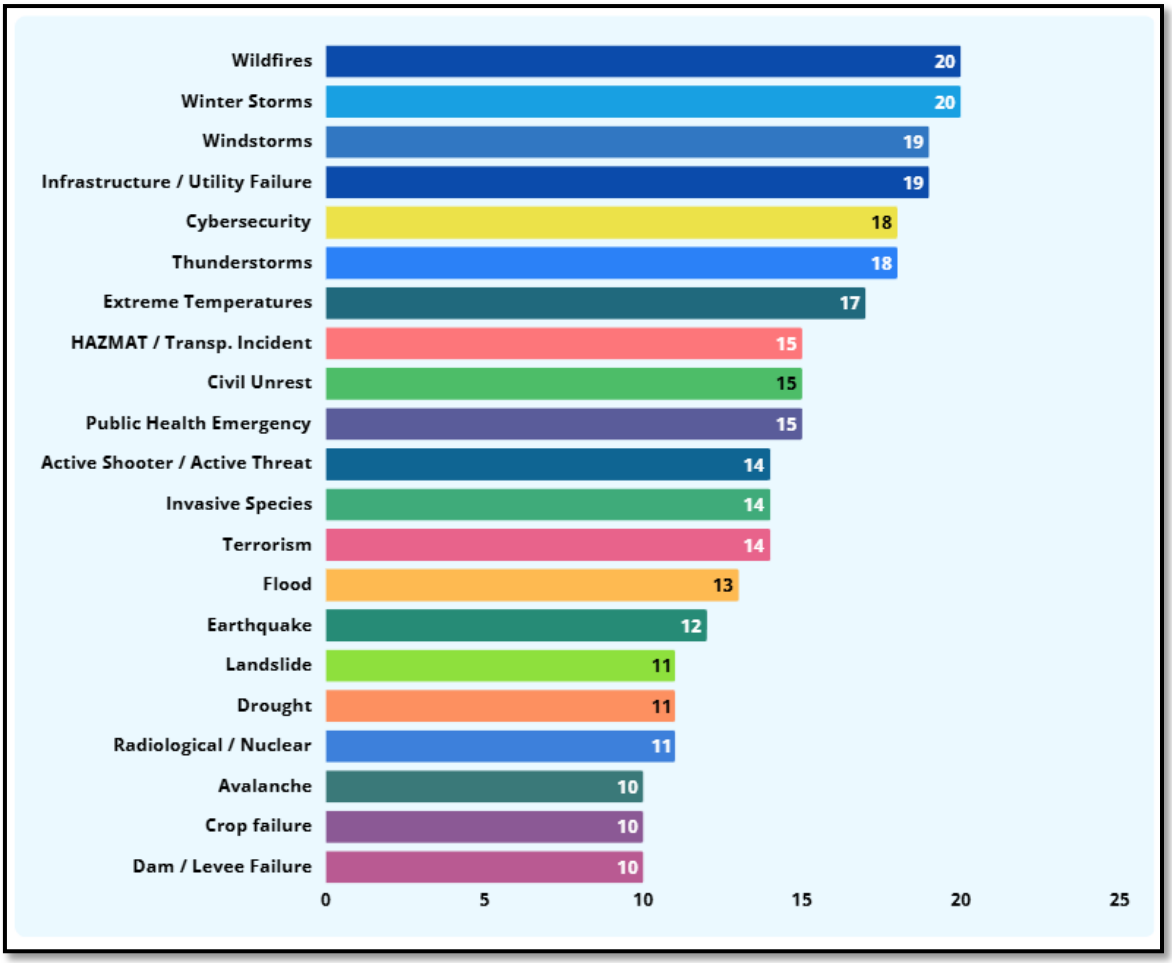


Figure 3-10: Community Hazard Mitigation Score Average

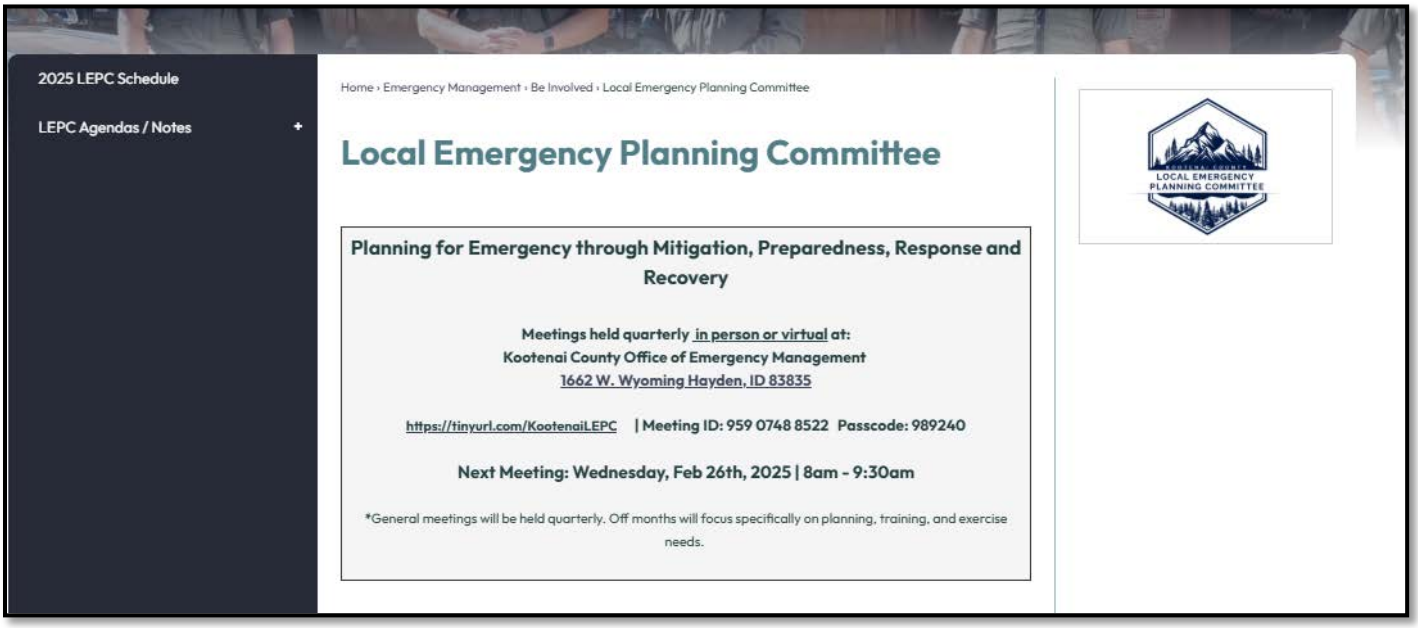
PUBLIC MEETING

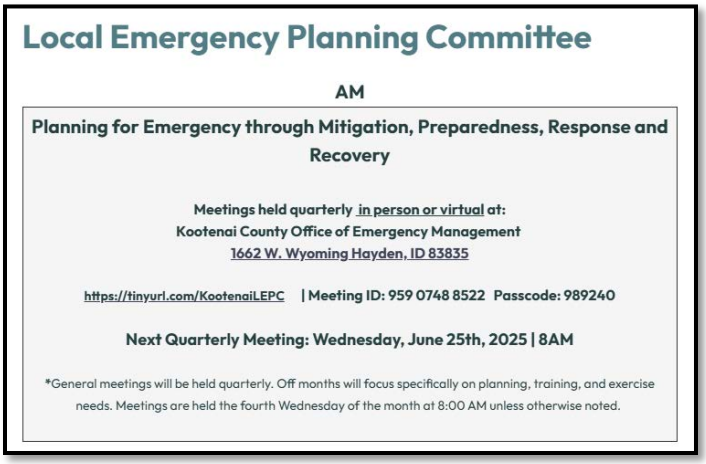
Several public meetings were conducted at key stages of the Plan update process.

- February 26, 2025 (8:00–9:30 AM): The initial public meeting introduced the purpose and components of a hazard mitigation plan, the overall planning process, and the importance of mitigation planning. The meeting also included an overview of how the risk assessment is developed. Attendees were provided with hazard identification and mitigation initiative forms for input.
- June 25, 2025 (8:00–9:30 AM): The second public meeting provided an update on progress to date, including completed sections of the plan, and outlined the anticipated timeline for Plan completion.
- August 27, 2025 (8:00–9:30 AM): The final public meeting presented the draft Hazard Mitigation Plan for review. Attendees were given access to the online feedback form to submit comments.

All public meetings were offered in both in-person and virtual formats to encourage broad participation. All public meetings are available on KCOEM's YouTube Channel for the community to view at their leisure.

KCOEM YouTube Channel: https://www.youtube.com/@kootenaicountyoem8044





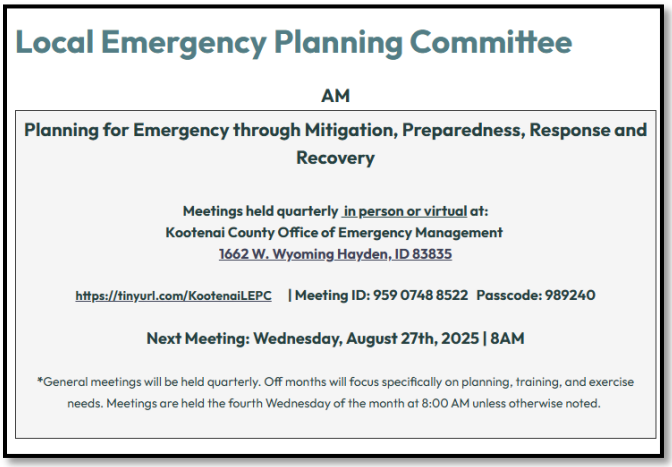


Figure 3-11: Information for Public Meetings

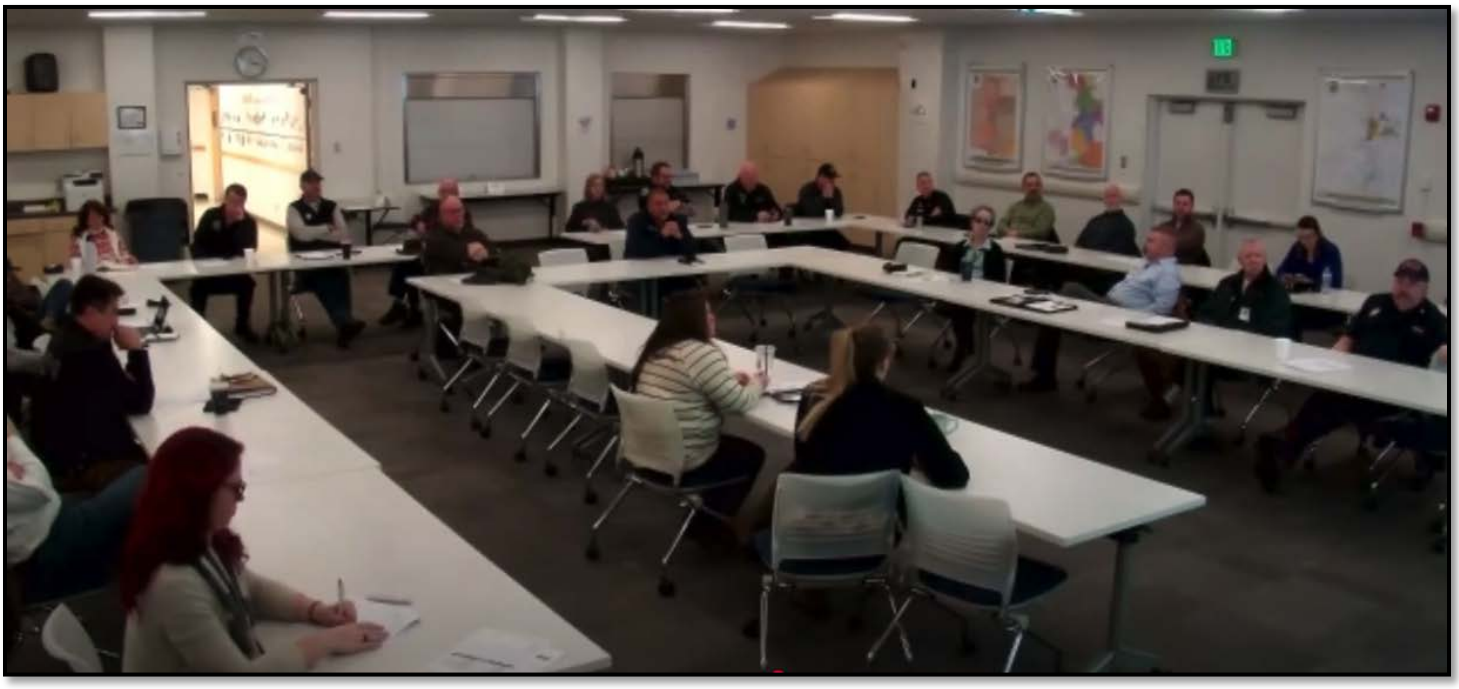


Figure 3-12: LEPC Public Meeting February 26th, 2025

Figure 3-13: LEPC Public Meeting August 27th, 2025

PUBLIC OUTREACH

To maximize public input, feedback was solicited from the community during several public events attended by KCOEM. A "Hazard Chart" was provided, and the public was asked to rank what top 3 hazards they felt were a threat to the community.

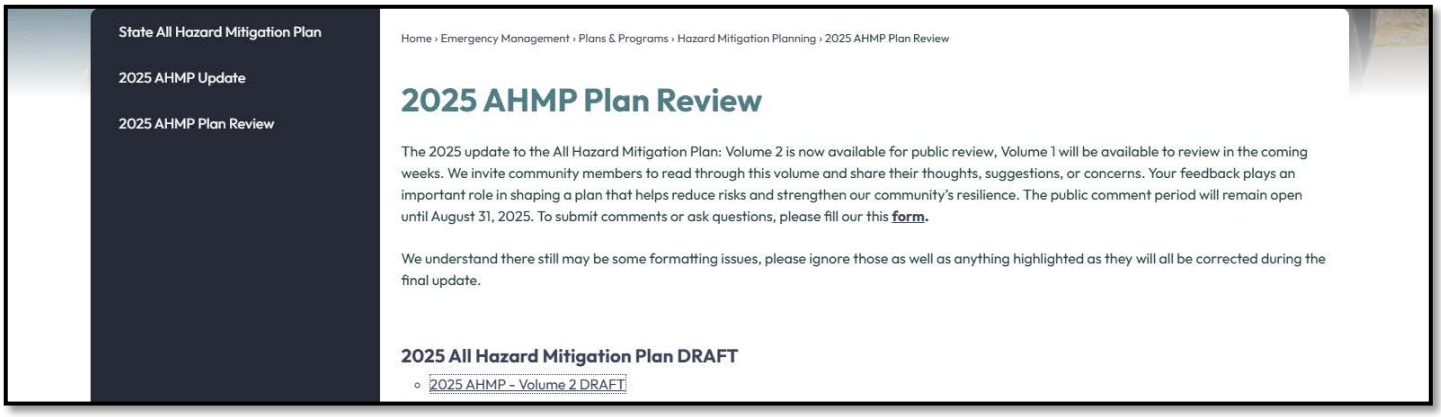
This activity was offered at:

- **Wildfire Preparedness Event** (May 17th, 2025) – New Leaf Nursery, Hayden
- **Living in Wildfire Country, Community Event** (June 7th) – Athol Community Center
- **Community Partnerships Event** (June 21st) – Silverlake Mall, Coeur d'Alene

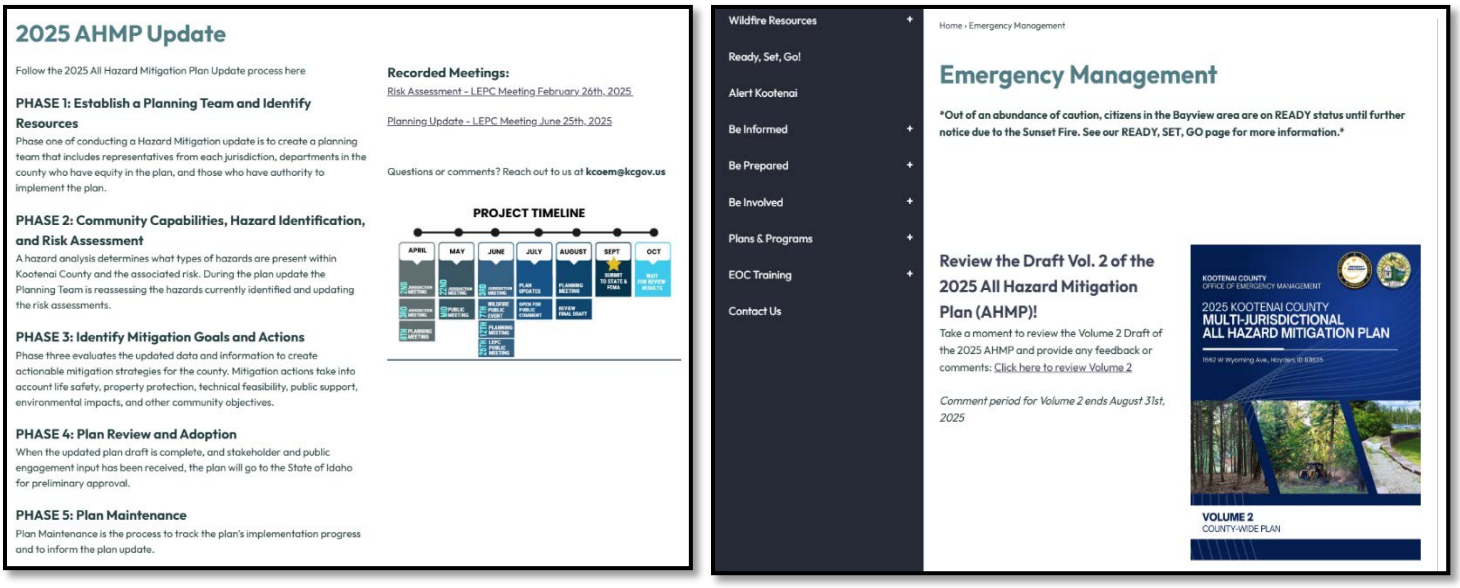
Figure 3-14: Outreach Events Soliciting Hazard Feedback

PUBLIC REVIEW OF THE PLAN

As previously stated, after incorporating the first round of public and planning partner feedback, a draft of the Plan was published on the KCOEM website for further public review and feedback.



Figures 3-15: Website for Plan Review



Figures 3-15: Website for Plan Review

The public may submit feedback through a digital form available on the "2025 AHMP Plan Review" webpage.

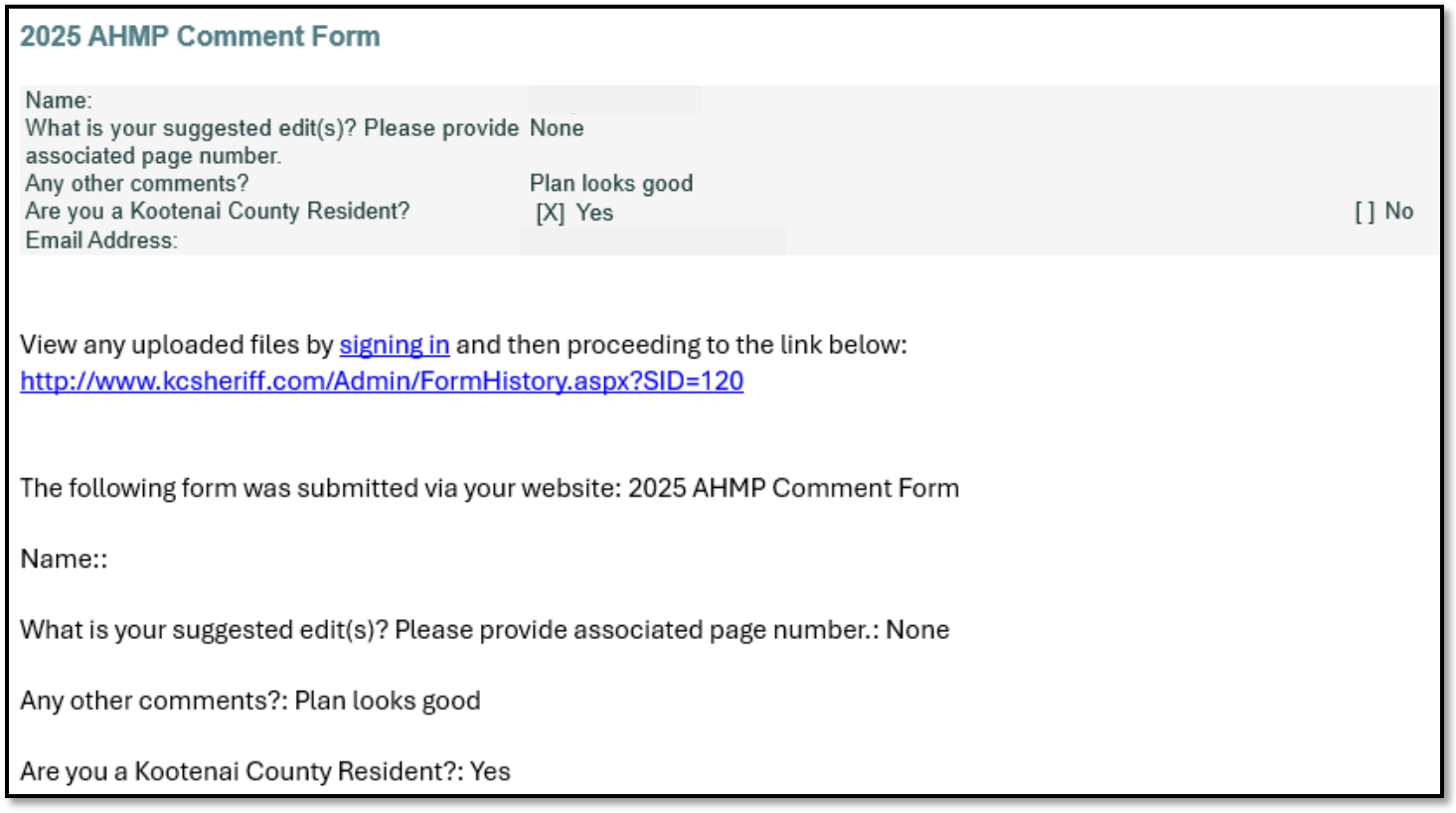


Figure 3-16: Website Form for Plan Review

CHAPTER 4
MISSION, GOALS, AND OBJECTIVES

Hazard mitigation plans must identify goals for reducing long-term vulnerabilities to identified hazards (44 CFR Section 201.6(c)(3)(i)). The Planning Team established a guiding principle, a set of goals and measurable objectives for this plan, based on data from the preliminary risk assessment and the results of the public involvement strategy. The guiding principle, goals, objectives and actions in this Plan all support each other. Goals were selected to support the guiding principle. Objectives were selected that met multiple goals. Actions were prioritized based on the action meeting multiple objectives.

GUIDING PRINCIPLE

The KCOEM reviewed the following mission statement identified for the 2020 Plan and determined that it remains appropriate as a guiding principle for this Plan update:

> *To reduce or eliminate the risk of loss of life and property, encourage long-term reduction of vulnerability and save lives and reduce costly property damage due to natural and/or human caused hazards.*

GOALS AND OBJECTIVES

Four goals and 19 objectives were identified in the 2020 plan, these were revised and updated for the 2026 Plan resulting in three goals and 10 objectives, the changes reduced redundancies and moved some objectives to mitigation action items. All of these planning components support each other, but each stand on its own merits. Selected goals support the guiding principle, selected objectives meet multiple goals, and actions were selected and prioritized based on meeting multiple objectives. This approach gives versatility to the plan, making it flexible to address changing conditions and partnership capabilities.

GOALS

The following are the mitigation goals for this Plan update:

1. Reduce the risks associated with natural, technological, and human-caused hazards through planning and emergency response efforts.
2. Establish a collaborative and cooperative relationship within the community (Kootenai County) for all hazard risk reduction.
3. Implement actions that protect lives and reduce the impact of hazards on our property, environment, and economy.

The effectiveness of a mitigation strategy is assessed by determining how well these goals are achieved.

OBJECTIVES

Each selected objective meets multiple goals, serving as a stand-alone measurement of the effectiveness of a mitigation action, rather than as a subset of a goal. The objectives also help to establish priorities. The objectives are as follows:

1. Establish and maintain a structured information exchange system that enables timely and accurate communication between the Office of Emergency Management, public information officers, first responders, the general public, and media outlet.

2. Develop and promote cooperative agreements between Kootenai County and local jurisdictions, government agencies, stakeholders, and the Tribe that define and implement an ongoing coordinated joint hazard mitigation effort.

3. Develop programs and actions that increase safety, reduce the disruption of services, and decrease property damage from potential hazards.
4. Identify responsible best management practices, (such as building in flood prone areas, steep sloped areas, sensitive wildlife or wetland areas) for land development, recreational activities, and commercial/industrial operations to reduce loss from potential disasters on public and private land in Kootenai County
5. Facilitate partnerships, provide technical guidance, and help secure resources for public and private mitigation projects that lower disaster-related economic losses, tracking annual project completions and funding secured.
6. Develop and prioritize projects in Kootenai County that increase the protection of life, property, environment and historical resources from the impacts of disasters.
7. Identify mitigation action items that minimize the destruction of public utilities and services during and after a hazard event.
8. Review, maintain, and update a comprehensive analysis of natural and human-caused hazards impacting Kootenai County municipalities and local jurisdictions, as needed.
9. Identify areas vulnerable to hazards and document past significant events to inform planning and mitigation efforts.
10. Identify local codes, ordinances and standards to promote the use of appropriate hazard-resistant structural methods and materials for buildings in areas with potential for significant hazard damage.

PART 2: RISK ASSESSMENT

CHAPTER 5
IDENTIFIED HAZARDS OF CONCERN AND RISK ASSESSMENT METHODOLOGY

Risk assessment is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards. It allows emergency management personnel to establish early response priorities by identifying potential hazards and vulnerable assets. The process focuses on the following elements:

- **Hazard identification**—Use all available information to determine what types of disasters may affect a jurisdiction, how often they can occur, and their potential severity.
- **Vulnerability identification**—Determine the impact of natural hazard events on the people, property, environment, economy and lands of the region.
- **Cost evaluation**—Estimate the cost of potential damage or cost that can be avoided by mitigation.

The risk assessment for this Hazard Mitigation Plan update evaluates the risk of natural hazards prevalent in the planning area and meets requirements of the DMA (44 CFR, Section 201.6(c)(2)).

IDENTIFIED HAZARDS

For this Plan, the Planning Team considered the full range of natural hazards that could impact the planning area and then selected hazards that present the greatest concern for assessment. The process incorporated review of state and local hazard planning documents, as well as information on the frequency, magnitude and costs associated with hazards that have impacted or could impact the planning area. Anecdotal information regarding natural hazards and the perceived vulnerability of the planning area's assets to them was also used. Based on the review, this Plan addresses the following hazards of concern:

- Flood
- Landslides
- Severe Weather Systems (extreme temperatures, thunderstorms, windstorm, winter storm)
- Wildfire
- Cybersecurity
- Hazmat and Transportation Incidents
- Infrastructure and Utility Failure
- Acts of Violence (Active Shooter/Threat, Civil Unrest, Terrorism)
- Infectious Disease

Other hazards of interest were identified; however, they did not necessitate a full hazard profile due to their low likelihood of impact. These hazards are noted at the end of each hazard grouping (natural, technological, and human-caused) as hazards of interest and are as follows:

- Avalanche
- Drought
- Earthquake
- Levee and Dam Failure
- Radiological and Nuclear

The planning team determined that four hazards no longer warranted classification as hazards of concern. As such, these hazards have been archived and are as follows:

- Ash Fall – no incidents since 1980 (Mount St. Helens).
- Infestation – no notable incidents on record.
- Invasive Species – no notable incidents on record.
- Structural Fire – considered day to day operations for all fire jurisdictions.

METHODOLOGY

The risk assessments in the following chapters evaluate the risks associated with each identified hazard of concern. Each hazard is described and its risk level communicated through their associated Hazard Profile. The Hazard Profile includes the most affected geographic areas, historical frequency, impacts, expected warning times, and potential secondary hazards.

The overall risk score for each hazard was determined by evaluating these factors:

RISK FACTORS — **TABLE 5-1**

FACTOR	DESCRIPTION
Perceived Risk	Public and stakeholder concern about the hazard
Historical Occurrence	Frequency of past hazard events
Probability of Occurrence	Likelihood of future hazard events
Property Exposed	Amount of property potentially impacted
Population Exposed	Number of people potentially at risk

Plan participants and the public rated each factor on a scale from 1 (lowest risk) to 5 (highest risk) as follows:

RATING SCALE — **TABLE 5-2**

FACTOR	RATING SCALE DESCRIPTION
Perceived Risk	1 = Low concern, 5 = High concern
Historical Occurrence	1 = No occurrences, 5 = Frequent occurrences
Probability of Occurrence	1 = Unlikely, 5 = Very likely
Property Exposed	1 = Low exposure, 5 = High exposure
Population Exposed	1 = Low exposure, 5 = High exposure

The final hazard rating is the sum of the individual factor ratings (maximum score = 25).

FINAL HAZARD RATING EXAMPLE — **TABLE 5-3**

FACTOR	
Perceived Risk	4
Historical Occurrence	3
Probability of Occurrence	4
Property Exposed	5
Population Exposed	4
TOTAL SCORE	**20**

HISTORICAL OCCURRENCE		TABLE 5-4
RATING	**DESCRIPTION**	**NUMBER OF HISTORICAL OCCURRENCES** (WITHIN 50 YEARS)
1	None	Never Occurred
2	Low	1–3 Occurrences
3	Medium	4-7 Occurrences
4	High	8-9 Occurrences
5	Extreme	10+ Occurrences

PROBABILITY OF OCCURRENCE		TABLE 5-5
RATING	**DESCRIPTION**	**CHANCE OF OCCURRENCE**
1	Rare	One or less event in the next 50 years
2	Low	Chance of occurrence in the next 25-50 years
3	Medium	Chance of occurrence in the next 10-25 years
4	High	Chance of occurrence in the next 1-10 years
5	Extreme	Chance of occurrence in the next 1-5 years

PROPERTY EXPOSED		TABLE 5-6
RATING	**DESCRIPTION**	**PERCENT OF PROPERTY EXPOSURE**
1	Negligible	Less than 10%
2	Limited	10% - 25%
3	Significant	25% - 50%
4	Critical	50% - 75%
5	Catastrophic	Most, if not all the County is exposed

POPULATION EXPOSED		TABLE 5-7
RATING	**DESCRIPTION**	**PERCENT OF POPULATION EXPOSURE**
1	Negligible	Less than 5%
2	Limited	5%-10%
3	Significant	10%-25%
4	Critical	25%-50%
5	Catastrophic	More than 50%

The figure below presents the results of the risk assessment for hazards that are addressed in individual annexes of this Plan. These results reflect the relative level of risk associated with each hazard, based on historical data, potential impacts, and community concerns:

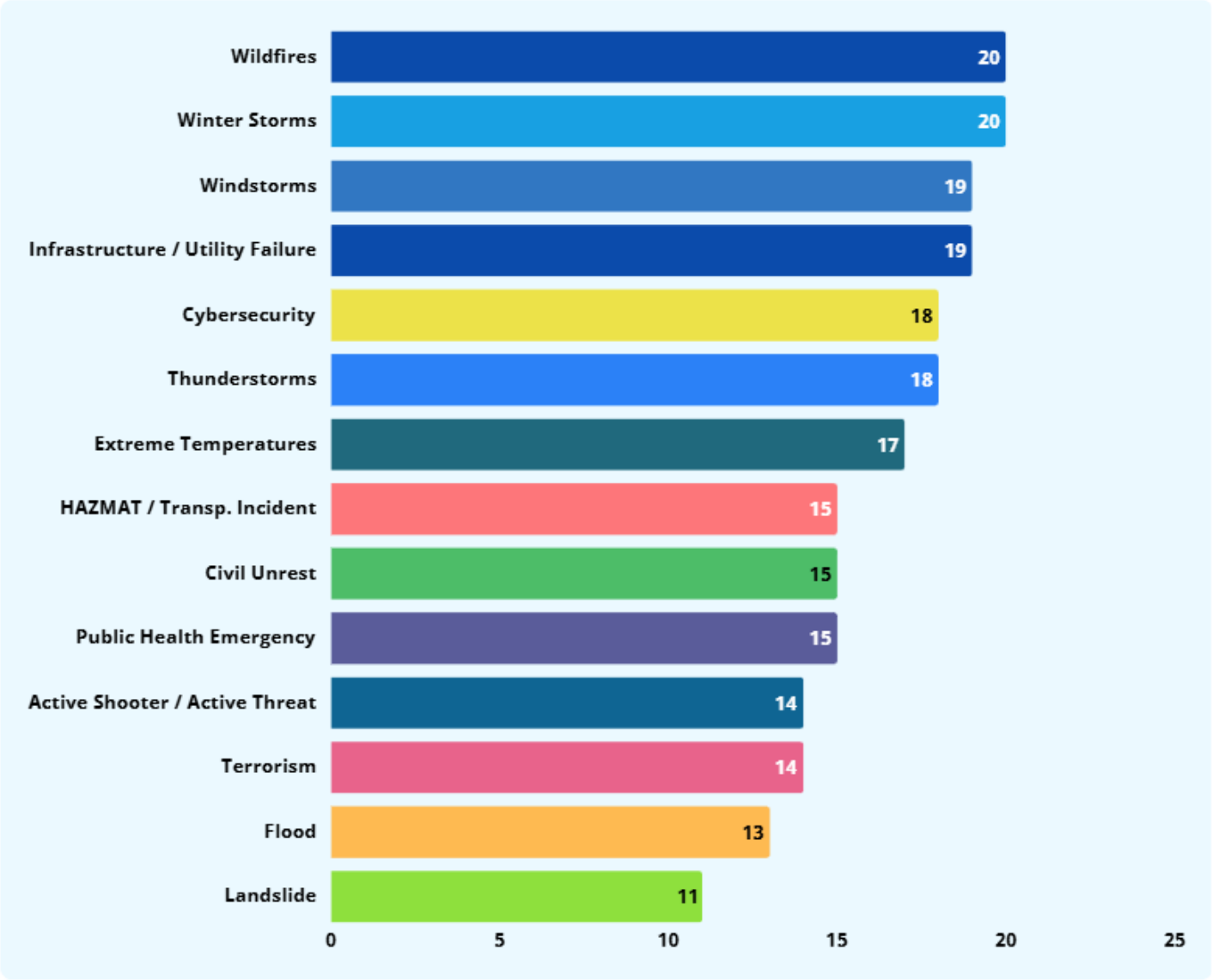


Figure 5-1: Risk Assessment Graph for Hazard Annexes

RISK ASSESSMENT TOOLS

Mapping

A review of national, state and county databases were performed to locate available data for mapping hazards in the planning area. When such data was available, maps were produced using Geographic Information Systems (GIS) software to show the extent and location of hazards. These maps are included in the hazard profile chapters of Volume 1 of this Plan and in the jurisdiction-specific annexes in Volume 2, as available.

ADDITIONAL RESOURCES

For most of the hazards of concern, historical data was not adequate to model future losses. However, areas and inventory susceptible to some of the hazards of concern were mapped by other means and exposure was evaluated. For other hazards, a qualitative analysis was conducted using the best available data and professional judgment. Locally relevant information was gathered from a variety of sources. Frequency and severity indicators include past events and the expert opinions of geologists, emergency management specialists and others. A prominent data source was the Kootenai County GIS, augmented with state and federal data sets. The 2026 risk assessment for Kootenai County incorporates a diverse array of data sources and analytical tools to provide a detailed, spatially informed understanding of hazard risks and vulnerabilities.

Key resources include:

- **SHELDUS Database:** Offers historical records of hazard events and economic losses at the county level.
- **FEMA's National Risk Index:** Combines hazard exposure, social vulnerability, and resilience data to produce standardized risk scores nationwide.
- **GIS Mapping:** Utilized to visualize and analyze spatial relationships between hazards, populations, property, infrastructure, and critical resources, enabling precise identification of high-risk zones.
- **National Weather Service Climate Data Center:** Provides climate and weather data essential for understanding hazard frequency and trends.
- **U.S. Geological Survey (USGS):** Supplies data on geological hazards such as earthquakes, landslides, and floodplains.
- **Idaho Department of Lands & WildfireRisk.org**: Provide wildfire risk assessments and mapping to support wildfire hazard evaluation.
- **Centers for Disease Control and Prevention (CDC) Social Vulnerability Index:** Assesses community vulnerability based on socioeconomic and demographic factors, informing equitable risk reduction.
- **Resilience Analysis and Planning Tool (RAPT):** Offers a framework for evaluating community resilience capabilities and guiding mitigation priorities.
- **U.S. Census Bureau:** Supplies demographic and population data critical for assessing exposure and vulnerability.
- **ClimRR Data:** Provides climate resilience and risk metrics to integrate future climate projections into hazard assessments.

Combining these resources allows for a robust, data-driven approach that integrates historical trends, current conditions, and future projections to comprehensively assess risks and guide effective mitigation planning tailored to Kootenai County's unique needs.

LIMITATIONS

Loss estimates, exposure assessments and hazard-specific vulnerability evaluations rely on the best available data and methodologies. Uncertainties are inherent in any loss estimation methodology and arise in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from the following:

- Approximations and simplifications necessary to conduct a study
- Incomplete or outdated hazard, inventory, demographic or economic parameter data
- The unique nature, geographic extent and severity of each hazard
- Mitigation measures already employed
- The amount of advance notice residents have to prepare for a specific hazard event.

CHAPTER 6
KOOTENAI COUNTY PROFILE

JURISDICTION AND FEATURES

Kootenai County is located in the northern Idaho panhandle. It is the third most populous of Idaho's 44 counties and the 24th largest in area. The County is bordered on the west by the state of Washington, on the north by Bonner County, on the east by Shoshone County, and on the south by Benewah County. It includes 14 incorporated cities:

- Athol
- Coeur d'Alene
- Dalton Gardens
- Fernan Lake Village
- Harrison
- Hauser
- Hayden
- Hayden Lake
- Huetter
- Post Falls
- Rathdrum
- Spirit Lake
- State Line
- Worley

Coeur d'Alene, near the center of the county, is the county seat and largest city. Lake Coeur d'Alene is a major geographic feature in the southern half of the county, and Hayden Lake is a large feature in the northern half. Much of the eastern part of the county is within the Coeur d'Alene National Forest. The southwestern tip of the county is within the Coeur d'Alene Indian Reservation.

HISTORICAL OVERVIEW

Kootenai County contains a significant portion of the center of the Coeur d'Alene tribal homeland, as well as the primary east-west trail system that was used by interior Salishan peoples traveling between the Bitterroot Mountains and the Great Plains. The Lewis and Clark expedition through central Idaho in 1805 was the first recorded exploration by people of European descent. In 1842, the first Jesuit mission was founded near St. Maries. Camp Coeur d'Alene (later changed to Fort Sherman) was established in 1878 at the point where Lake Coeur d'Alene flows into the Spokane River.

A community developed around the fort, but it was not until the discovery of gold in 1883-1884 on the North Fork of the Coeur d'Alene River that many settlers arrived. Mining created an economic basis for future developments in timber, transportation and trade in Kootenai, Benewah and Shoshone Counties. In 1883, the Northern Pacific Transcontinental Railroad crossed North Idaho. Rathdrum developed as an agricultural center and supply point for the mining district and remained a railhead until 1886, when D.C. Corbin built a spur line connecting to Coeur d'Alene. By the beginning of the 20th century, the Inland Empire Railroad electric line train made several trips a day from downtown Spokane to Coeur d'Alene.

After 1900, large lumber companies discovered the region's stands of white pine. Harrison, St. Maries, Rose Lake, Spirit Lake, Twin Lakes, Post Falls, and Coeur d'Alene each developed a large milling industry. By the mid-1920s the lumber industry began to slow down, and many of the smaller mill towns disappeared. World War II saw improvement in the lumber industry; but the days of accessible timber and cheap transportation were over. In the early 1980s an economic decline affected both the forestry and mining economies. Today the County's economy is more diversified and has seen much growth and prosperity.

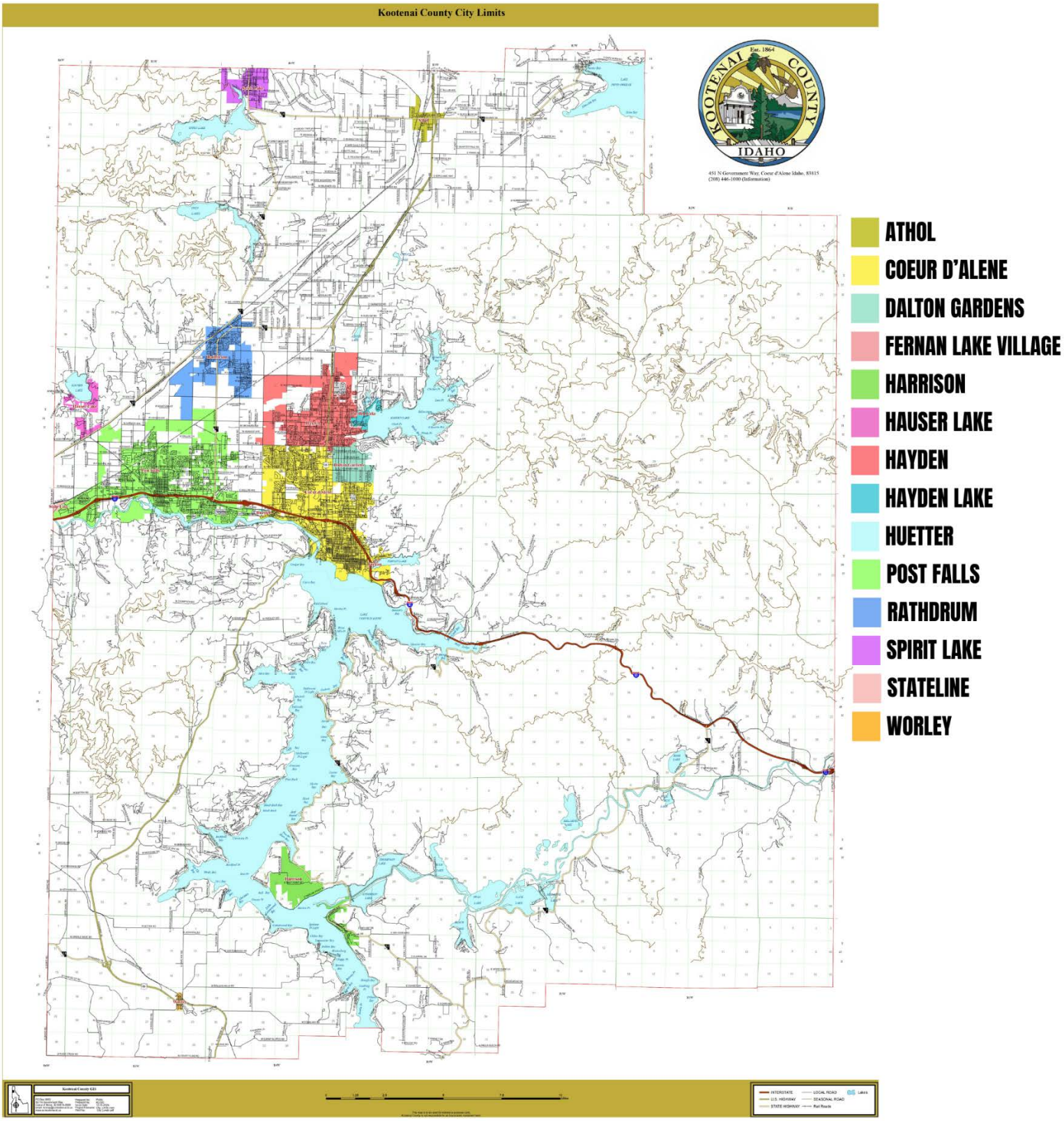


Figure 6-1: City Limits Within the Planning Area

MAJOR PAST HAZARD EVENTS

Disaster declarations are typically issued for hazard events that cause more damage than state and local governments can handle without assistance from the federal government, although no specific dollar loss threshold has been established for these declarations. A disaster declaration puts federal recovery programs into motion to help disaster victims, businesses and public entities. Some of the programs are matched by state programs. The planning area has experienced 21 events since 1956 for which disaster declarations were issued. These events are listed in Table 6-1. Review of these events helps identify targets for risk reduction and ways to increase a community's capability to avoid large-scale events in the future. It is important to note that many natural hazard events do not trigger federal disaster declarations but have significant impacts on their communities. These events are also important to consider in establishing recurrence intervals for hazards of concern.

DISASTER DECLARATIONS FOR HAZARD EVENTS IN THE PLANNING AREA **TABLE 6-1**

TYPE OF EVENT	DISASTER DECLARATION #	DATE
Flood*	DR-55	4/21/1956
Flood*	DR-76	5/27/1957
Wildfires*	DR-105	7/22/1960
Flood*	DR-116	6/26/1961
Flood*	DR-120	2/14/1962
Flood*	DR-143	2/14/1963
Heavy Rains & Flooding	DR-186	12/31/1964
Forest Fires	DR-231	8/30/1967
Severe Storms, Snowmelt & Flooding	DR-415	1/25/1974
Volcanic Eruption, Mt. St. Helens	DR-624	5/22/1980
Severe Storms and Flooding	DR-1102	2/6/1996
Severe Storms, Flooding, Mud and Landslides	DR-1154	11/16/1996
Severe Storms, Snowmelt, Land/Mud Slides, Flooding	DR-1177	3/14/1997
Idaho Hurricane Katrina Evacuation	EM-3244	8/29/2005
Flooding	DR-1781	5/15/2008
Idaho Cape Horn Fire	FM-5088	7/6/2015
Idaho Severe Storm and Straight-Line Winds	DR-4246	11/17/2015
Idaho Severe Winter Storms	DR-4252	12/16/2015
Idaho Severe Storms, Flooding, Landslides, and Mudslides	DR-4313	3/6/2017
Idaho Covid-19 Pandemic	DR-4534	1/20/2020
Straight Line Winds	DR-4589	1/13/2021

** Prior to 1964, federal disaster declaration were not issued specific to counties; pre-1964 declarations listed in this table are for the entire state of Idaho, not Kootenai County specifically*

PHYSICAL SETTINGS

Geology and Soils

Kootenai County consists primarily of forested, mountainous, or hilly terrain. Elevations vary from 2,040 feet above sea level at the Washington-Idaho state line to mountain peaks at elevations above 6,000 feet in the southeastern part of the county.

The Rathdrum Prairie, crossing northern Kootenai County at an elevation of 2,200 feet, is a glacial-outwash plain with soils deposited by melting glaciers. It has level or gently sloping terraces with moderately steep or steep slopes on the terrace breaks. The southwestern portion of Kootenai County includes part of the rolling and hilly loess-covered prairie region called the Palouse area.

The Coeur d'Alene River enters the Lake Coeur d'Alene from the east and the St. Joe River enters the lake from the south, outside the county boundary. The lake's outlet in the center of the county is the Spokane River, which flows west into Washington.

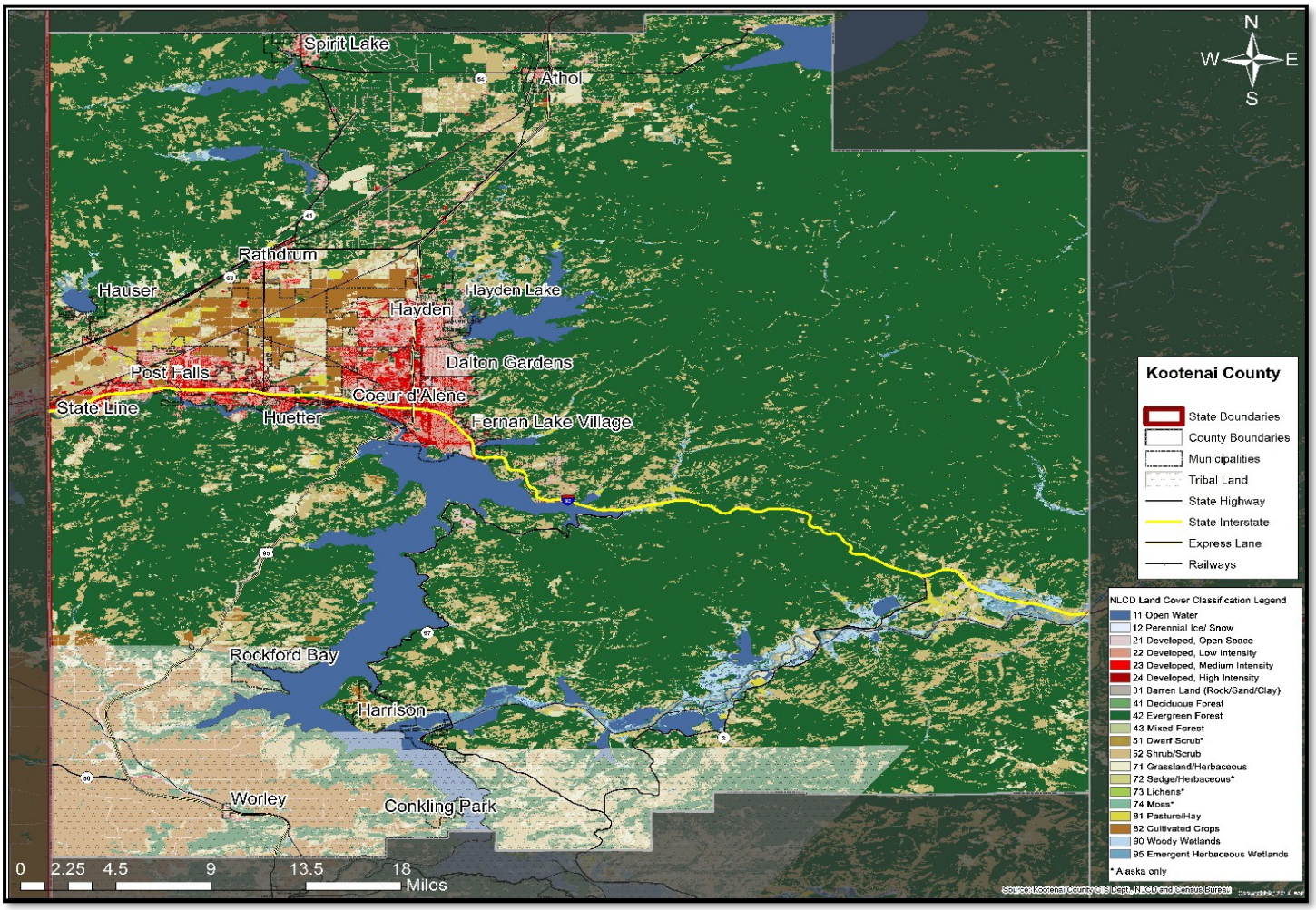


Figure 6-2: Kootenai County Land Cover

Land Use

According to the 2020 update of the Kootenai County Comprehensive Plan (Kootenai County, 2020), Kootenai County has a total area of 1,316 square miles (842,000 acres), of which 71 square miles is water. As of April 2025, incorporated areas in the county covered approximately 35,262 acres, with 74 percent of the county population. At that time, there were 35,952 unincorporated parcels, excluding public lands, averaging 11.47 acres per parcel. There were 11,727 vacant parcels.

There are approximately 363,000 acres of public land in Kootenai County. This land includes federal, tribal, and state lands and municipalities with corporate boundaries. Coeur d'Alene Tribal Trust lands cover 17,080 acres in the county. Kootenai County has approximately 245,000 acres of federal timberland in the Coeur d'Alene National Forest. Remaining timberlands in the county are owned by private tree farmers, timber companies, the State of Idaho, and other government entities.

Table 6-2 shows the land use in the planning area. Land use information is analyzed in this Plan for each identified hazard that has a defined spatial extent and location. For hazards that lack this spatial reference, the following information serves as a baseline estimate of land use and exposure for the planning area. The distribution of land uses within the county will change over time.

LAND USE IN PLANNING AREA **TABLE 6-2**

PRESENT USE CLASSIFICATION	AREA (ACRES)	% OF TOTAL
Agricultural	40,681.92	5.20%
Exempt	342,391.94	43.79%
Grazing	18,098.86	2.31%
Improved Commercial	6,502.61	0.83%
Improved Industrial	1,970.50	0.25%
Improved Residential	80,580.94	10.31%
Miscellaneous Acreage	2,308.69	0.30%
Mixed Commercial / Industrial & Residential	1,630.28	0.21%
Timberland	251,875.99	32.22%
Vacant Commercial	2,469.76	0.32%
Vacant Industrial	1,043.70	0.13%
Vacant Residential	32,299.28	4.13%
TOTAL	**781,854.47**	**100.0%**

Note: Present use classifications assigned using Kootenai County 2025 Assessor data. Commercial, industrial, residential, and rural lots without assessed structures were designated as vacant.

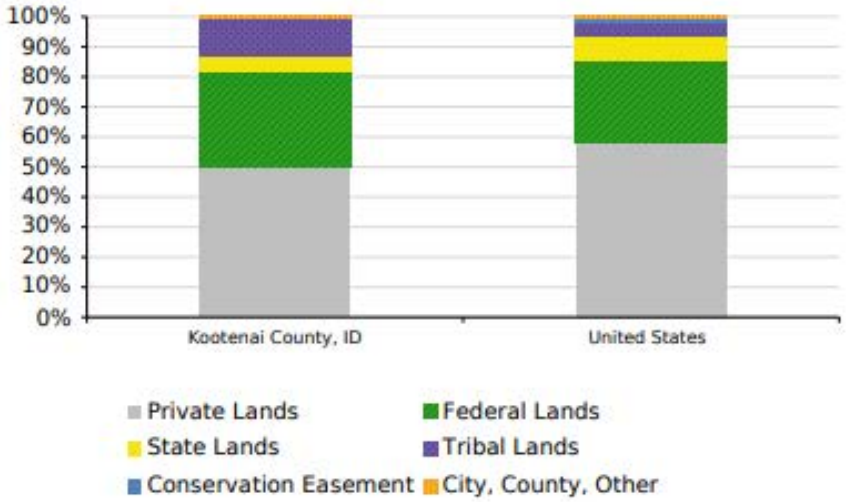
LAND OWNERSHIP

	Kootenai County, ID	United States
Total Acres*	794,123	2,255,912,699
Private Lands	396,994	1,339,427,106
Conservation Easement	1,118	31,813,835
Federal Lands	253,387	622,042,308
Forest Service	241,811	192,007,324
BLM	11,551	241,746,365
National Park Service	0	76,520,318
USFWS	0	84,456,688
Military	25	20,174,195
Other Federal	0	7,137,418
State Lands	43,999	181,586,342
State Trust Lands*	32,574	47,981,215
Other State	11,425	133,605,127
Tribal Lands	98,900	101,033,432
City, County, Other	843	11,823,511
Percent of Total		
Private Lands	50.0%	59.4%
Conservation Easement	0.1%	1.4%
Federal Lands	31.9%	27.6%
Forest Service	30.5%	8.5%
BLM	1.5%	10.7%
National Park Service	0.0%	3.4%
USFWS	0.0%	3.7%
Military	0.0%	0.9%
Other Federal	0.0%	0.3%
State Lands	5.5%	8.0%
State Trust Lands*	4.1%	2.1%
Other State	1.4%	5.9%
Tribal Lands	12.5%	4.5%
City, County, Other	0.1%	0.5%

Land Ownership, Percent of Land Area

*Does not include most water.

- Kootenai County, ID has the largest share of federal public lands (31.9%), and United States has the smallest (27.6%).
- United States has the largest share of state public lands (8%), and Kootenai County, ID has the smallest (5.5%).
- United States has the largest share of private lands (59.4%), and Kootenai County, ID has the smallest (50%).



Data Sources: U.S. Geological Survey, Gap Analysis Program. 2022. Protected Areas Database of the United States (PADUS) version 3.0

Figure 6-3: Land Ownership in Kootenai County
Source: headwaterseconomics.org

CLIMATE

Kootenai County's climate is influenced by maritime air masses from the Pacific Ocean, producing wetter conditions and greater snowfall than the U.S. average. The county experiences approximately 122 days of precipitation annually, compared to about 84 days nationwide, and averages 42 inches of snowfall per year, well above the U.S. mean of 28 inches. Summers are generally warm but moderated relative to national highs, with an average July high of 82 °F compared to the U.S. average of 86.9 °F. Winters bring colder conditions, with a January low of 25 °F, slightly higher than the U.S. average low range of 18–20 °F.

The UV Index in Kootenai County averages 3.2 annually, peaking at 6 in July, which is lower than many U.S. regions that average 4–6. These climatic conditions have direct implications for hazard vulnerability, particularly related to snowpack and spring flooding, wildfire risk during dry summers, and heat/UV exposure during warmer months.

CLIMATE AVERAGES IN KOOTENAI COUNTY, IDAHO **TABLE 6-3**

CLIMATE CATEGORY	KOOTENAI COUNTY AVERAGE	UNITED STATES AVERAGE
Rainfall (annual)	~27 in./year	~30.2 in./year
Snowfall (annual)	~42 in./year	~28 in./year
Precipitation Days	~122 days/year	~84 days/year
Sunny Days	~174 days/year	~213 days/year
Average July High	~82 °F	~86.9 °F
Average January Low	~25 °F	~18–20 °F
Average UV Index	3.2 (annual mean; peaks at 6 in July)	~4–6 (annual mean)

Sources: BestPlaces.net (Coeur d'Alene/Kootenai County Climate Data); Weather-Atlas (UV Index data for Coeur d'Alene); CurrentResults.com (U.S. precipitation averages); Climate.gov (U.S. January temperature summary); ClimatesToTravel.com (U.S. July temperature averages)

Average climate conditions across Kootenai County for temperature, precipitation and wind are shown on Figure 6-4 through Figure 6-7.

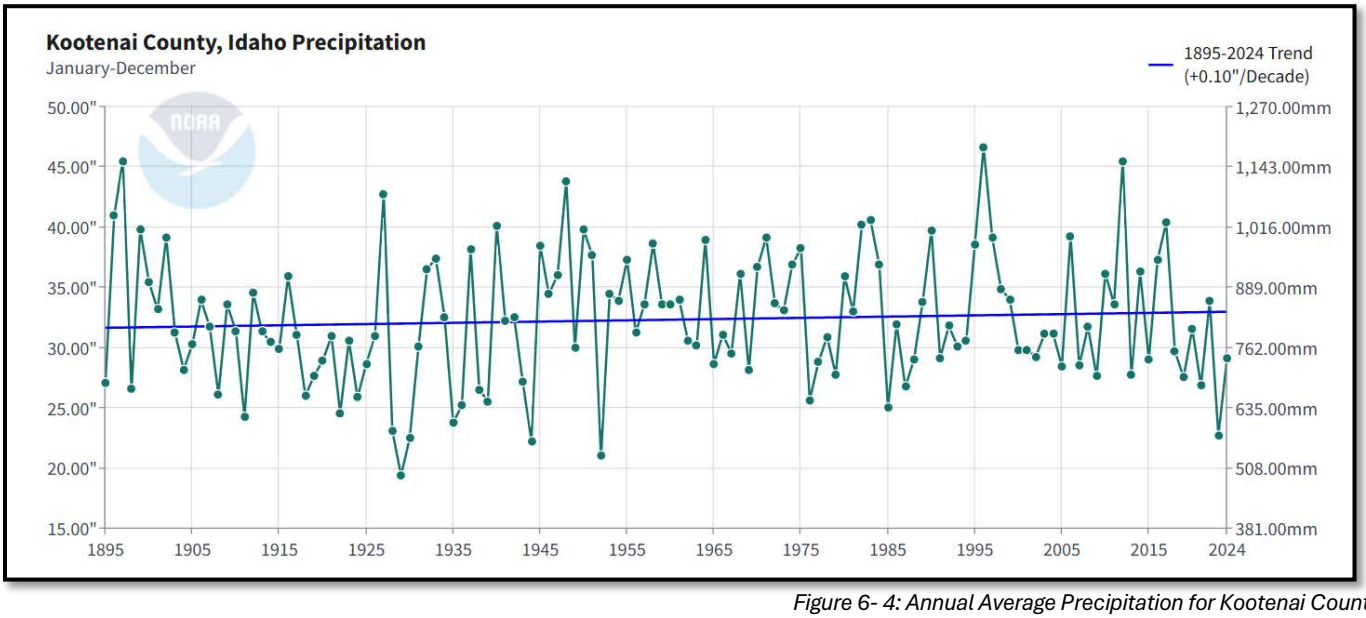


Figure 6- 4: Annual Average Precipitation for Kootenai County

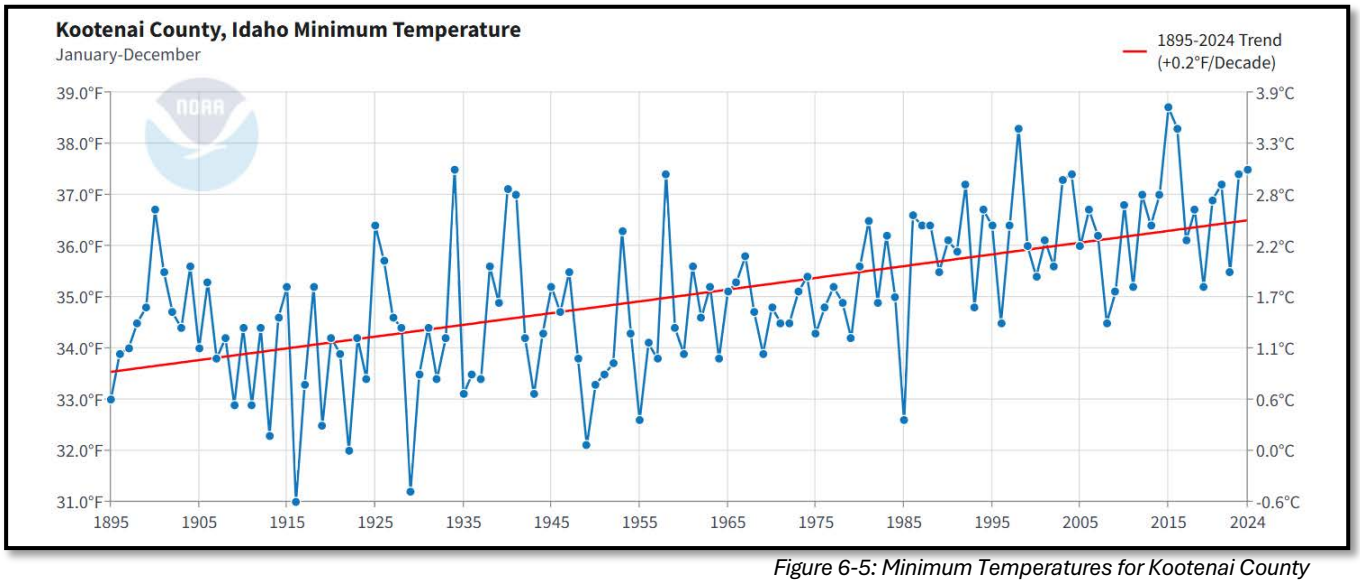


Figure 6-5: Minimum Temperatures for Kootenai County

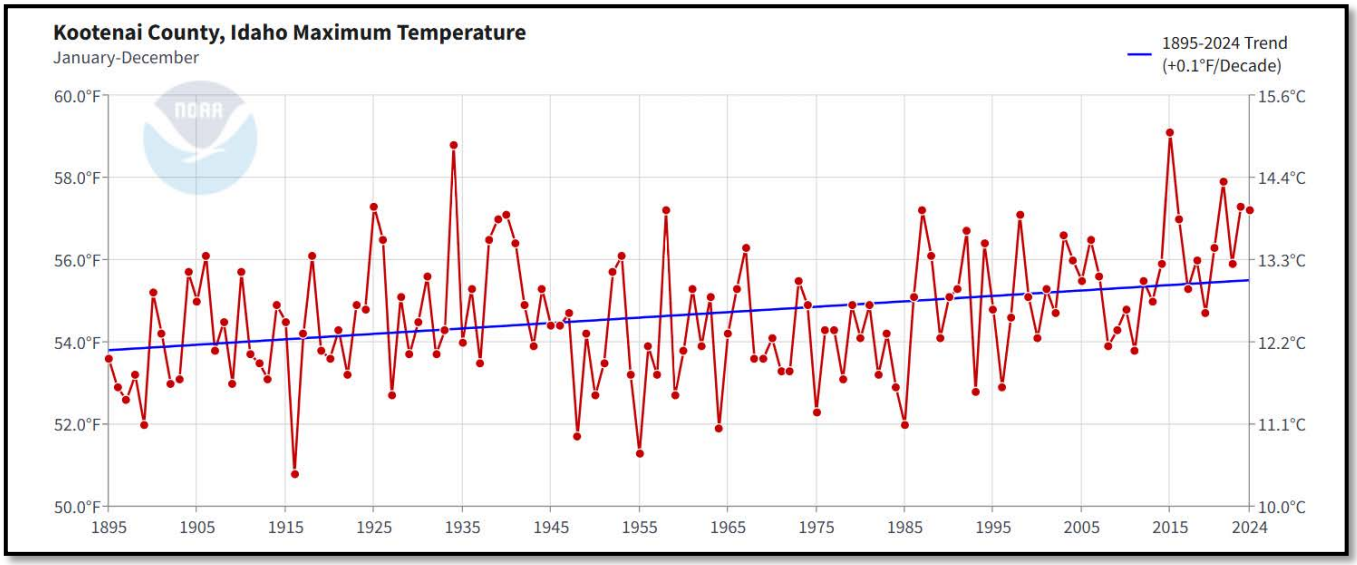


Figure 6-6: Maximum Temperatures for Kootenai County

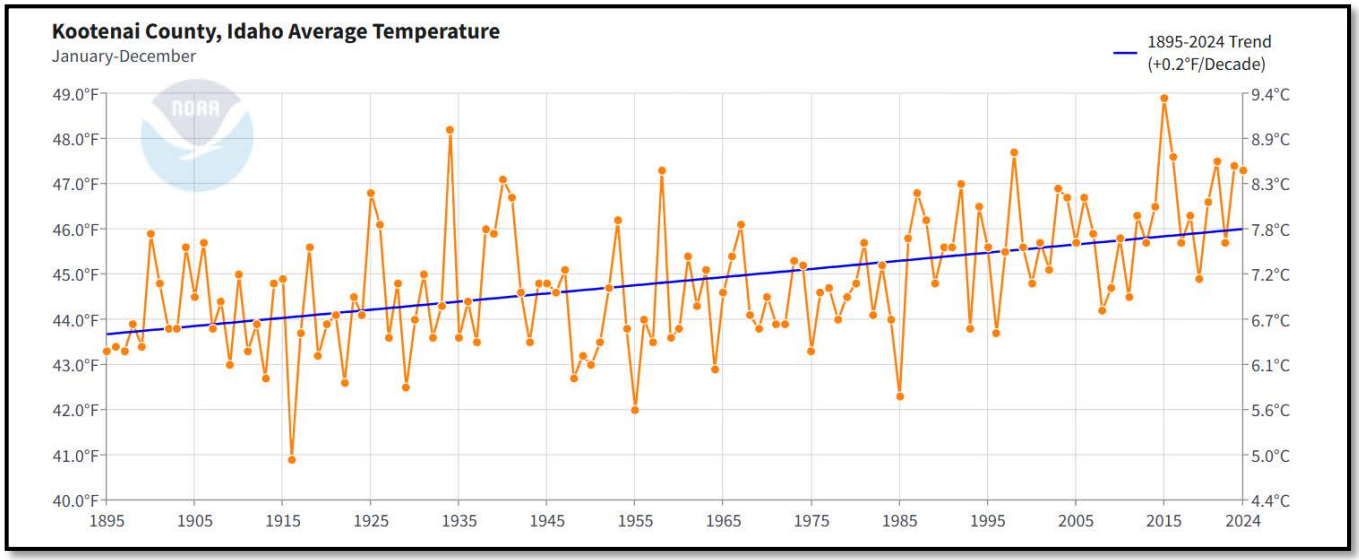


Figure 6-7: Average Temperatures for Kootenai County

CRITICAL FACILITIES AND INFRASTRUCTURE

Critical facilities and infrastructure are those that are essential to the health and welfare of the population. These become especially important after a hazard event. Critical facilities typically include police and fire stations, schools and emergency operations centers. Critical infrastructure can include roads and bridges that provide ingress and egress and allow emergency vehicles access to those in need, and utilities that provide water, electricity and communication services to the community. Also included are "Tier II" facilities and railroads, which hold or carry significant amounts of hazardous materials with a potential to impact public health and welfare in a hazard event. As defined for this Hazard Mitigation Plan update, critical facilities include but are not limited to the following:

- Public and private utilities, infrastructure and transportation systems that are vital to maintaining or restoring normal services to areas damaged by hazard events— communications, water, power, wastewater, roads, bridges, airports, pipelines, etc.
- 9-1-1 centers, police stations, fire stations, vehicle and equipment storage facilities, medical facilities and emergency operations centers that are needed for disaster response before, during and after hazard events
- Structures or facilities that produce, use or store highly volatile, flammable, explosive, toxic or water-reactive materials
- Public gathering places that could be used as evacuation centers during large-scale disasters
- Government and educational facilities central to governance and quality of life along with response and recovery actions taken as a result of a hazard event.

Tables 6-4 and 6-5 show the location of critical facilities and infrastructure in unincorporated areas of the county. Due to the sensitivity of this information, a detailed list of facilities is not provided. The list is on file with each planning partner. Table 6-6 provides summaries of the general types of critical facilities and infrastructure, respectively, in each municipality and unincorporated county areas.

CRITICAL FACILITIES BY JURISDICTION AND CATEGORY **TABLE 6-4**

JURISDICTION	GOVT. FUNCTIONS	SCHOOLS	TRANSP.	MED. / HEALTH	FIRE	POLICE	EMERGENCY OPERATIONS	HAZMAT	TOTAL
Athol	2	1	6	0	4	0	0	0	**13**
Coeur d' Alene	28	48	33	2	12	8	1	11	**143**
Dalton Gardens	1	1	0	0	1	0	0	1	**4**
Fernan Lk. Vill	1	0	0	0	0	0	0	0	**1**
Harrison	1	0	5	0	6	0	0	0	**12**
Hauser	1	0	0	0	1	0	0	0	**2**
Hayden	2	0	6	0	4	1	0	2	**15**
Hayden Lake	1	3	0	0	0	1	0	0	**5**
Huetter	1	0	0	0	0	0	0	0	**1**
Post Falls	0	11	9	3	3	2	1	16	**45**
Rathdrum	4	6	0	0	5	1	0	4	**20**
Spirit Lake	1	3	4	0	2	1	0	0	**11**
Stateline	0	0	0	0	0	0	0	0	**0**
Worley*	3	0	3	0	5	0	0	1	**26**
Unincorporated/ Other	1	0	2	0	4	0	0	8	**15**
TOTAL	**47**	**73**	**68**	**5**	**47**	**14**	**2**	**43**	**313**

**Worley has 14 tribal facilities that are not displayed as a separate column, but are included in the final count of critical facilities.*

CRITICAL INFRASTRUCTURE BY JURISDICTION AND CATEGORY — **TABLE 6-5**

JURISDICTION	BRIDGES	WATER SUPPLY	WASTEWATER	POWER	COMMUNICATIONS	TOTAL
Athol	1	2	0	0	0	**3**
Coeur d' Alene	26	11	22	0	8	**67**
Dalton Gardens	0	0	0	0	0	**0**
Fernan Lk. Vill	0	0	0	0	0	**0**
Harrison	0	6	3	0	0	**9**
Hauser	0	6	0	0	2	**8**
Hayden	0	0	12	0	1	**13**
Hayden Lake	0	0	0	0	0	**0**
Huetter	2	0	0	0	0	**2**
Post Falls	15	5	48	1	0	**69**
Rathdrum	1	5	4	2	0	**12**
Spirit Lake	1	0	3	0	2	**6**
Stateline	0	0	0	0	0	**0**
Worley	1	1	2	0	2	**6**
Unincorporated/ Other	2	389	1	0	6	**398**
TOTAL	**51**	**421**	**95**	**3**	**19**	**593**

BUILDING STOCK

The following table shows the numbers and assessed value of building structures by jurisdiction within Kootenai County. This data was provided by the Kootenai County Tax Assessor Office. Although, for the purposes of this plan, risk assessment values and damage estimates are calculated based on the figures below, they should not be understood as the absolute total number of buildings that exist within the county, due to a large number of unassessed or unassigned properties within the county.

ASSESSED BUILDING STRUCTURES AND PROPERTY VALUE BY JURISDICTION — **TABLE 6-6**

JURISDICTION	NUMBER OF ASSESSED STRUCTURES	TOTAL ASSESSED PROPERTY VALUE
Athol	1,073	$167,514,610
Coeur d' Alene	47,724	$15,393,485,016
Dalton Gardens	4,356	$922,793,344
Fernan Lk. Vill	245	$70,915,928
Harrison	503	$93,150,700
Hauser	1,049	$217,477,423
Hayden	17,731	$4,542,997,237
Hayden Lake	1,478	$536,007,576
Huetter	177	$31,528,002
Post Falls	36,891	$9,647,544,206
Rathdrum	10,149	$2,371,668,075
Spirit Lake	3,233	$537,289,859
Stateline	189	$27,135,441
Worley	104,543	$25,718,176,662
Unincorporated/ Other	306	$35,001,757
TOTAL	**229,647**	**$60,312,685,836**

Note: The numbers in this table should be taken as estimates, due to a large number of currently unassigned and unassessed properties in the tax assessor data. Reasons for non-assignment include buildings being scheduled for demolition, new construction, and unfinished dwelling status, among others.

LOSS VALUES

The all-hazard loss estimates presented in Table 6-7 provide a quantitative measure of the potential financial impacts to structures and property throughout Kootenai County under varying levels of damage (10%, 30%, and 50%). These estimates are derived from assessed property values and represent the scale of potential economic exposure should a disaster/emergency occur. While they do not predict exact outcomes, they serve as a planning tool to illustrate the magnitude of risk and inform decision-making. Incorporating these values into the AHMP helps prioritize mitigation strategies by highlighting jurisdictions with the greatest exposure, supports cost-benefit analyses when evaluating projects, and strengthens the County's ability to justify funding requests for mitigation and preparedness initiatives. In this way, the loss estimates translate hazard data into actionable information, ensuring that mitigation investments are data-driven and aligned with the County's most significant vulnerabilities.

ALL HAZARD LOSS ESTIMATES **TABLE 6-7**

JURISDICTION	EXPOSED VALUE	10% DAMAGE	30 % DAMAGE	50% DAMAGE
Athol	$167,514,610	$16,751,461	$50,254,383	$83,757,305
Coeur d' Alene	$15,393,485,016	$1,539,348,502	$4,618,045,505	$7,696,742,508
Dalton Gardens	$922,793,344	$92,279,334	$276,838,003	$461,396,672
Fernan Lk. Vill	$70,915,928	$7,091,593	$21,274,778	$35,457,964
Harrison	$93,150,700	$9,315,070	$27,945,210	$46,575,350
Hauser	$217,477,423	$21,747,742	$65,243,227	$108,738,711
Hayden	$4,542,997,237	$454,299,724	$1,362,899,171	$2,271,498,619
Hayden Lake	$536,007,576	$53,600,758	$160,802,273	$268,003,788
Huetter	$31,528,002	$3,152,800	$9,458,401	$15,764,001
Post Falls	$9,647,544,206	$964,754,421	$2,894,263,262	$4,823,772,103
Rathdrum	$2,371,668,075	$237,166,808	$711,500,423	$1,185,834,038
Spirit Lake	$537,289,859	$53,728,986	$161,186,958	$268,644,929
Stateline	$27,135,441	$2,713,544	$8,140,632	$13,567,721
Worley	$35,001,757	$3,500,176	$10,500,527	$17,500,879
Unincorporated/ Other	$25,718,176,662	$2,571,817,666	$7,715,453,000	$12,859,088,331
COUNTY WIDE TOTAL	**$60,612,685,836**	**$6,061,268,585**	**$18,183,805,751**	**$30,306,342,918**

DEMOGRAPHICS

Some populations are at greater risk from hazard events because of decreased resources or physical abilities. Elderly people, for example, may be more likely to require additional assistance. Research has shown that people living near or below the poverty line, the elderly (especially older single men), the disabled, women, children, ethnic minorities and renters all experience, to some degree, more severe effects from disasters than the general population. These vulnerable populations may vary from the general population in risk perception, living conditions, access to information before, during and after a hazard event, capabilities during an event, and access to resources for post-disaster recovery.

Indicators of vulnerability, such as disability, age, poverty, and minority race and ethnicity, often overlap spatially and often in the geographically most vulnerable locations. Detailed spatial analysis to locate areas where there are higher concentrations of vulnerable community members would assist the County in extending focused public outreach and education to these most vulnerable citizens.

POPULATION CHARACTERISTICS

Knowledge of the composition of the population and how it has changed in the past and how it may change in the future is needed for making informed decisions about the future. Information about population is a critical part of planning because it directly relates to land needs such as housing, industry, stores, public facilities and services, and transportation. Kootenai County has the third largest population of Idaho's 44 counties. The U.S. Census Bureau estimated the planning area's population at 185,010 as of 2023. There were 75,686 households within the County, an average household size of 2.52, and an average family size of 2.84.

Population changes are useful socio-economic indicators. A growing population generally indicates a growing economy, while a decreasing population signifies economic decline. Figure 6-8 shows the population growth rate in the planning area from 1969 through 2023 (50 years) compared to that of nearby counties, the State of Idaho, and the United States as a whole. The County's population increased 428.5% percent over that period, compared to the state's growth of 177.9 percent. Kootenai County had the highest growth rate within the State of Idaho, over this time span.

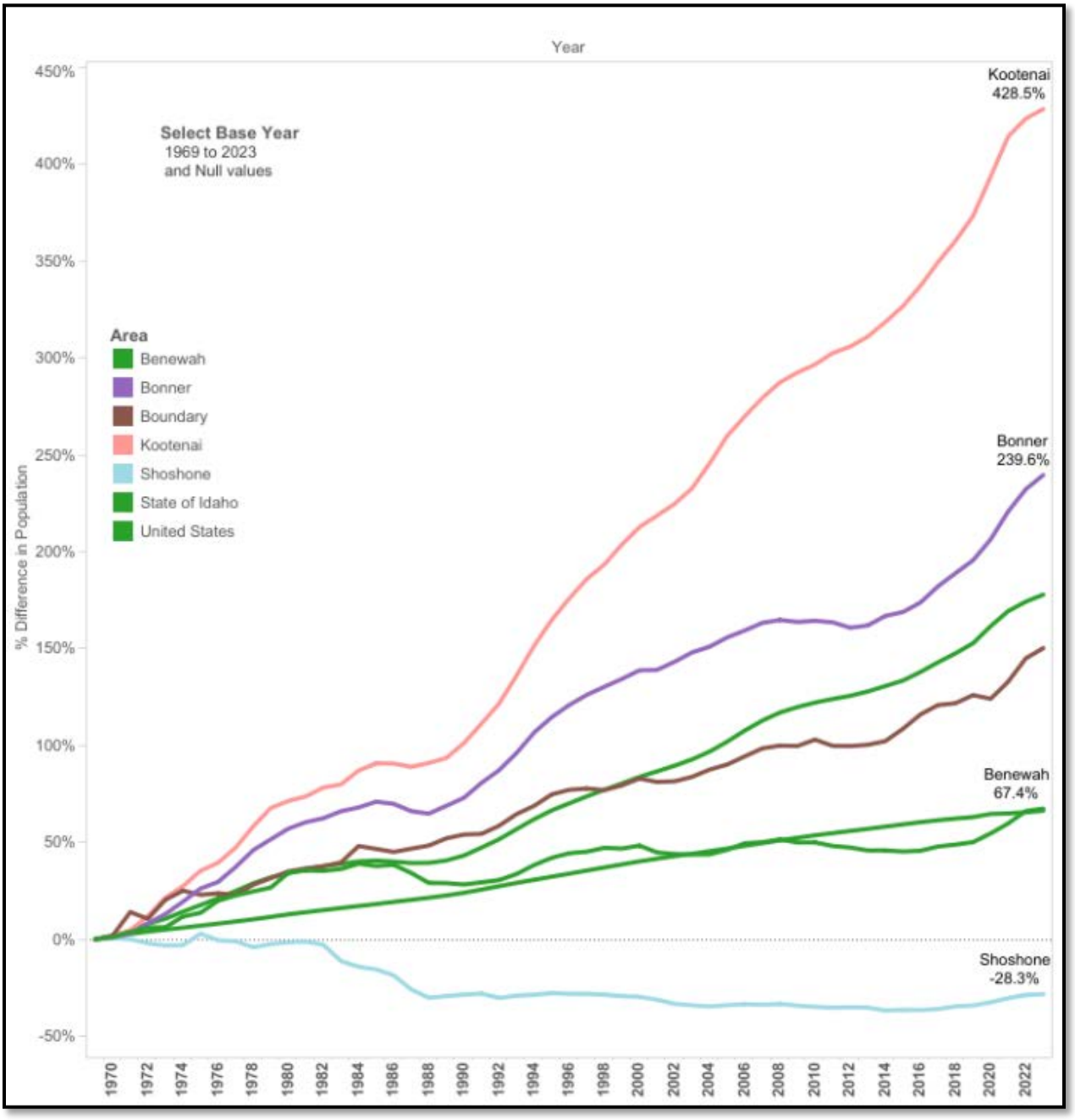


Figure 6- 8: Population Growth in Kootenai County and Surrounding Counties
Source: headwaterseconomics.org

The following table shows the population of incorporated municipalities and the combined unincorporated areas in Kootenai County from 1980 to 2018. In 1980, about 43 percent of the planning area's residents lived outside incorporated areas; by 2018, only 30 percent of the population lived in unincorporated areas.

ANNUAL POPULATION DATA **TABLE 6-8**

JURISDICTION	1980*a*	1990*a*	2000*a*	2010*a*	2020*a*	2023*b*
Athol	312	346	676	692	709	723
Coeur d' Alene	19,913	24,563	34,514	44,137	54,628	56,894
Dalton Gardens	1,795	1,951	2,278	2,335	2,537	2,513
Fernan Lk. Vill	178	170	186	169	164	162
Harrison	260	226	267	203	277	225
Hauser	305	380	668	678	761	861
Hayden	2,586	3,744	9,159	13,294	15,570	16,422
Hayden Lake	273	338	494	574	649	669
Huetter	65	82	96	100	104	102
Post Falls	5,736	7,349	17,247	27,574	38,485	44,798
Rathdrum	1,369	2,000	4,816	6,826	9,211	11,580
Spirit Lake	834	790	1,376	1,945	2,337	2,479
Stateline	26	26	28	38	39	37
Worley	206	182	223	257	253	249
Unincorporated/ Other Kootenai Communities *c*	25,912	27,648	36,657	39,672	45,638	47,296
COUNTY WIDE TOTAL	**59,770**	**69,795**	**108,685**	**138,494**	**171,362**	**185,010**

a. 1980, 1990, 2000, 2010, and 2020 Census populations were retrieved from the Idaho Department of Labor website, Historical Populations of Cities and Counties
b. 2023 Census Population Estimates retrieved from Idaho Department of Labor website
c. The totals in this row are calculated by subtracting the sum of the 14 incorporated cities' populations from the total population recorded for the County.

AGE DISTRIBUTION

As a group, the elderly are more apt to lack the physical and economic resources necessary for response to hazard events and are more likely to suffer health-related consequences making recovery slower. They are more likely to be vision, hearing, and/or mobility impaired, and more likely to experience mental impairment or dementia. Additionally, the elderly are more likely to live in assisted-living facilities where emergency preparedness occurs at the discretion of facility operators. These facilities are typically identified as "critical facilities" by emergency managers because they require extra notice to implement evacuation. Elderly residents living in their own homes may have more difficulty evacuating their homes and could be stranded in dangerous situations. This population group is more likely to need special medical attention, which may not be readily available during natural disasters due to isolation caused by the event. Specific planning attention for the elderly is an important consideration given the current aging of the American population.

Children under 14 are also particularly vulnerable to disaster events because of their young age and dependence on others for basic necessities. Very young children may additionally be vulnerable to injury or sickness; this vulnerability can be worsened during a natural disaster because they may not understand the measures that need to be taken to protect themselves from hazards.

The overall age distribution for the planning area is illustrated in Table 6-9. Based on 2022 American Community Survey estimates, 19.4 percent of the planning area's population is 65 or older, compared to the state average of 16.2 percent. The median age in Kootenai County is 40.7, compared to the median of 36.9 for the State of Idaho and 38.7 for the United States.

AGE DISTRIBUTION **TABLE 6-9**

AGE GROUP	PERCENTAGE OF POPULATION		
	COEUR D'ALENE	KOOTENAI COUNTY	IDAHO
Under 5 years	3.9%	5.6%	6.1%
5 to 14 years	14.0%	12.9%	14.1%
15 to 24 years	11.9%	11.6%	14.5%
25 to 34 years	14.7%	12.6%	12.9%
35 to 44 years	15.2%	12.9%	12.9%
45 to 54 years	10.3%	11.6%	11.3%
55 to 64 years	10.6%	13.5%	11.9%
65 years and over	19.5%	19.4%	16.2%
Median Age (years)	**39.3**	**40.7**	**36.9**

Source: American Community Survey (ACS) 2022 5-Year Estimates, DP05

RACE, ETHNICITY, AND LANGUAGE

Research shows that minorities are less likely to be involved in pre-disaster planning and experience higher mortality rates during a disaster event. Post-disaster recovery can be ineffective and is often characterized by cultural insensitivity. Since higher proportions of ethnic minorities live below the poverty line than the majority white population, poverty can compound vulnerability. According to 2022 American Community Survey (ACS) data, the racial composition of the planning area is predominantly white, at 93.9 percent. The largest minority populations are American Indian/Alaska Native at 1.3 percent and Asian at 1.1 percent. Approximately 5.9 percent of the population are Hispanic or Latino.

The county has a 2.4 percent foreign-born population. Besides English, the most commonly spoken language in the planning area is Spanish. About 0.6 percent of residents speak English "less than very well."

DISABLED POPULATIONS

The 2023 ACS estimates that approximately one-in-eight non-institutionalized Americans with disabilities live in the U.S. People with disabilities are more likely to have difficulty responding to a hazard event than the general population. Local government is the first level of response to assist these individuals, and coordination of efforts to meet their access and functional needs is paramount to life safety efforts. It is important for emergency managers to distinguish between functional and medical needs in order to plan for incidents that require evacuation and sheltering. Knowing the percentage of population with a disability will allow emergency management personnel and first responders to have personnel available who can provide services needed by those with access and functional needs.

According to the 2023 ACS estimates, there are 18,131 individuals with some form of disability within Kootenai County, 9.8 percent of the total. Approximately 20 percent of the County's over-65 population had disabilities of some kind.

VULNERABLE POPULATIONS

Potentially Vulnerable Populations

Populations, 2023*	Kootenai County, ID	United States
Families in poverty	2,847	7,176,933
Households with no car	3,154	10,602,826
Mobile Homes	4,857	6,559,377
People under 5	9,803	18,939,899
People over 65	35,003	55,970,047
People with disabilities	26,383	42,703,063
People with language barriers	360	13,134,090
Percent of Total**		
Families in poverty	6.0%	8.7%
Households with no car	4.6%	8.3%
Mobile Homes	7.0%	5.1%
People under 5	5.5%	5.7%
People over 65	19.7%	16.8%
People with disabilities	15.0%	13.0%
People with language barriers	0.2%	4.2%

High Reliability: Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.
Medium Reliability: Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.
Low Reliability: Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

** Each measure on this page comes from a different subset of the overall population. For example, "poverty status" is not determined for all families. "Households with no car" is determined only for occupied households. "People with disabilities" includes only those people in civilian, noninstitutionalized settings. "Language barriers" is determined only for people five years or older.

Figure 6-9: Potentially Vulnerable Populations in Kootenai County
Source: headwaterseconomics.org

ECONOMY

Income and Employment

In the United States, households are generally expected to use private resources to prepare for, respond to, and recover from disasters. This expectation places those living in poverty at a distinct disadvantage. Lower-income households are more likely to occupy poorly built or inadequately maintained housing. Mobile and modular homes, for instance, are more vulnerable to earthquake and flood damage than other housing types. In urban areas, low-income residents often live in older structures, including unreinforced masonry buildings, which are particularly susceptible to earthquake damage.

Households below the poverty level are also less likely to carry insurance, limiting their ability to recover financially from disaster losses. Consequently, these residents face both higher potential losses and fewer resources to address them. The aftermath of Hurricane Katrina in 2005 underscored how personal financial capacity directly influences evacuation decisions—those unable to afford fuel or transportation were less likely to evacuate.

According to the 2019–2023 ACS per capita income in the planning area is $38,797, with a median household income of $77,034. Approximately 11.09% of households earn over $150,000 annually, while 14.08% earn less than $25,000 (2021 data). About 9.3% of the population lives below the poverty line, including 17.3% of individuals under age 18 and 7.5% of residents age 65 and older.

The 2021 ACS records that approximately, 61.00 percent of Kootenai County's over-16 population (133,889 people) is in the labor force. According to the Idaho Department of Labor, Kootenai County's unemployment rate was lowest in 2007, at 2.3 percent. Unemployment rates rose to a peak of 13.5 percent in 2010 and again to 7.1 percent in 2020, but then declined to approximately 4.2 percent in 2025.

Workforce Profile

Based on the U.S. Census Bureau's tool, OnTheMap, Kootenai County had approximately 67,751 total jobs in 2021, which accounted for about 8.8% of the 773,963 total jobs in the state. An estimated 47.9% of Kootenai County residents were employed outside of the county. Among jobs within the county, 28.4% were held by residents who commuted in from elsewhere in the region.

The largest industries in terms of the number of jobs held by workers in Kootenai County businesses are:

- Health Care and Social Assistance – 11,515 jobs (17.0%)
- Retail Trade – 9,146 (13.5%)
- Accommodation and Food Services – 8,339 (12.3%)
- Construction – 6,175 (9.1%)
- Manufacturing – 5,113 (7.5%)

The largest industries in terms of the number of jobs held by Kootenai County residents (which are both inside and outside of county limits) are:

- Health Care and Social Assistance – 12,448 jobs (17.3%)
- Retail Trade – 9,347 (13.0%)
- Accommodation and Food Services – 7,326 (10.2%)
- Construction – 6,389 (8.9%)
- Manufacturing – 5,991 (8.3%)

Figure 6-10 shows the distribution of jobs by industry for those working inside of Kootenai County, as well as for Kootenai County residents working inside and outside of the county. Health care and social assistance is the biggest industry for all workers.

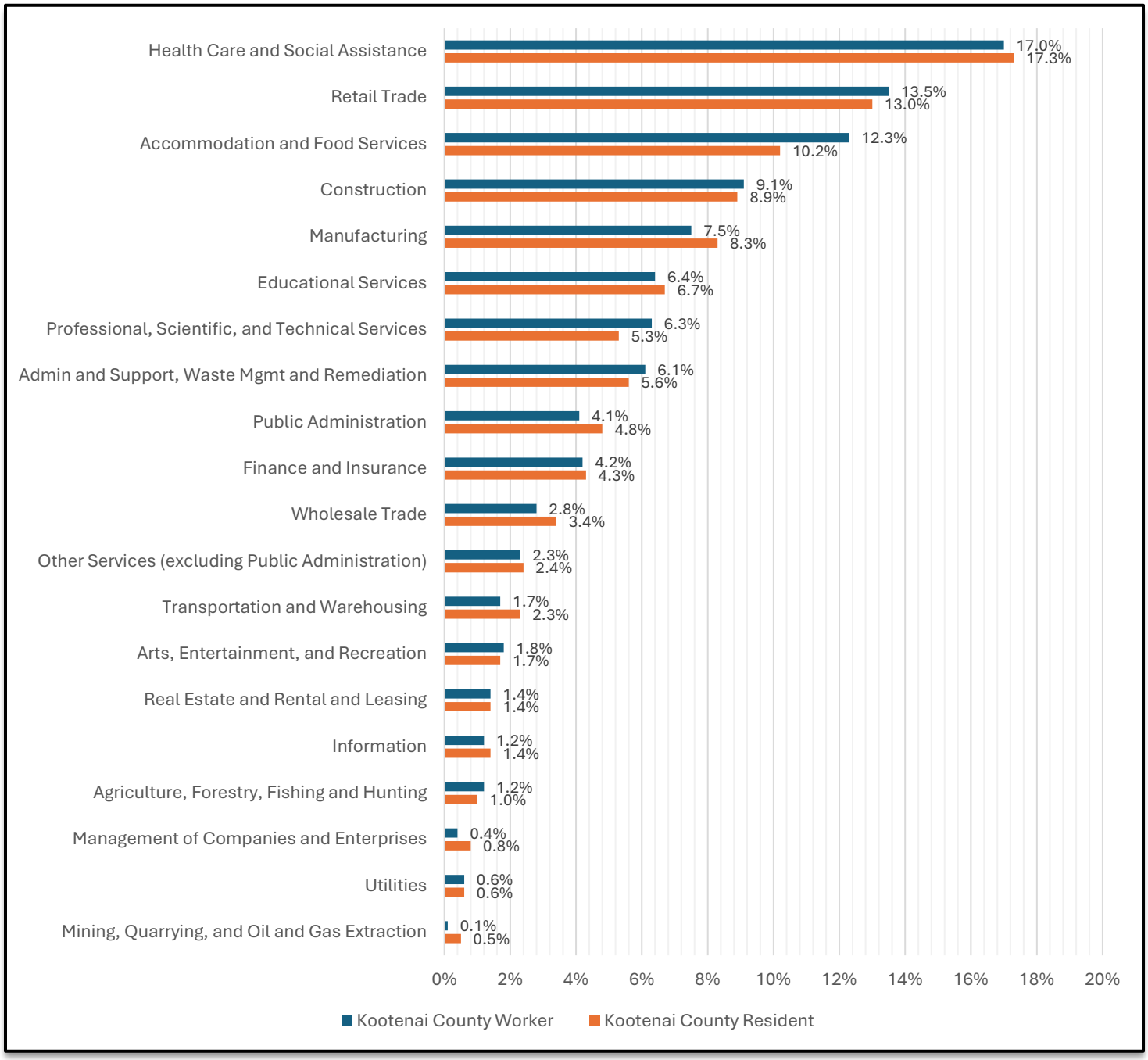


Figure 6-10: Kootenai County Workforce Profile
Source: U.S. Census Bureau

Kootenai County Economic Overview

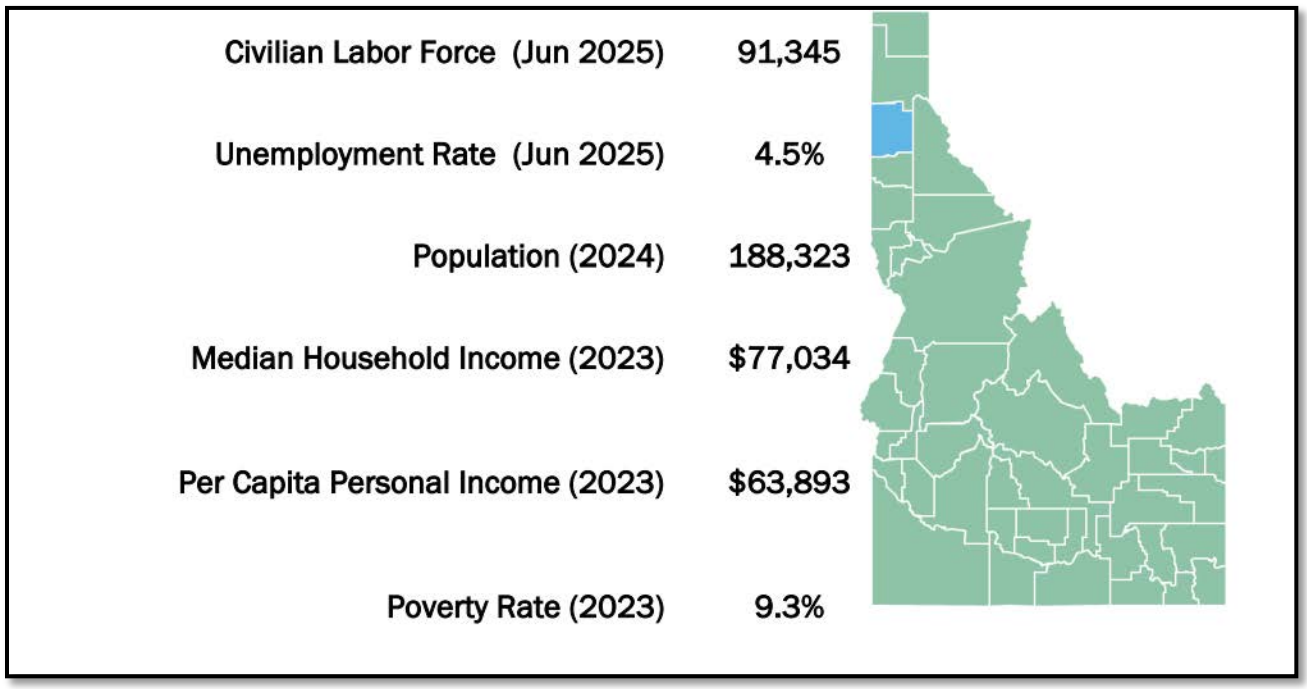
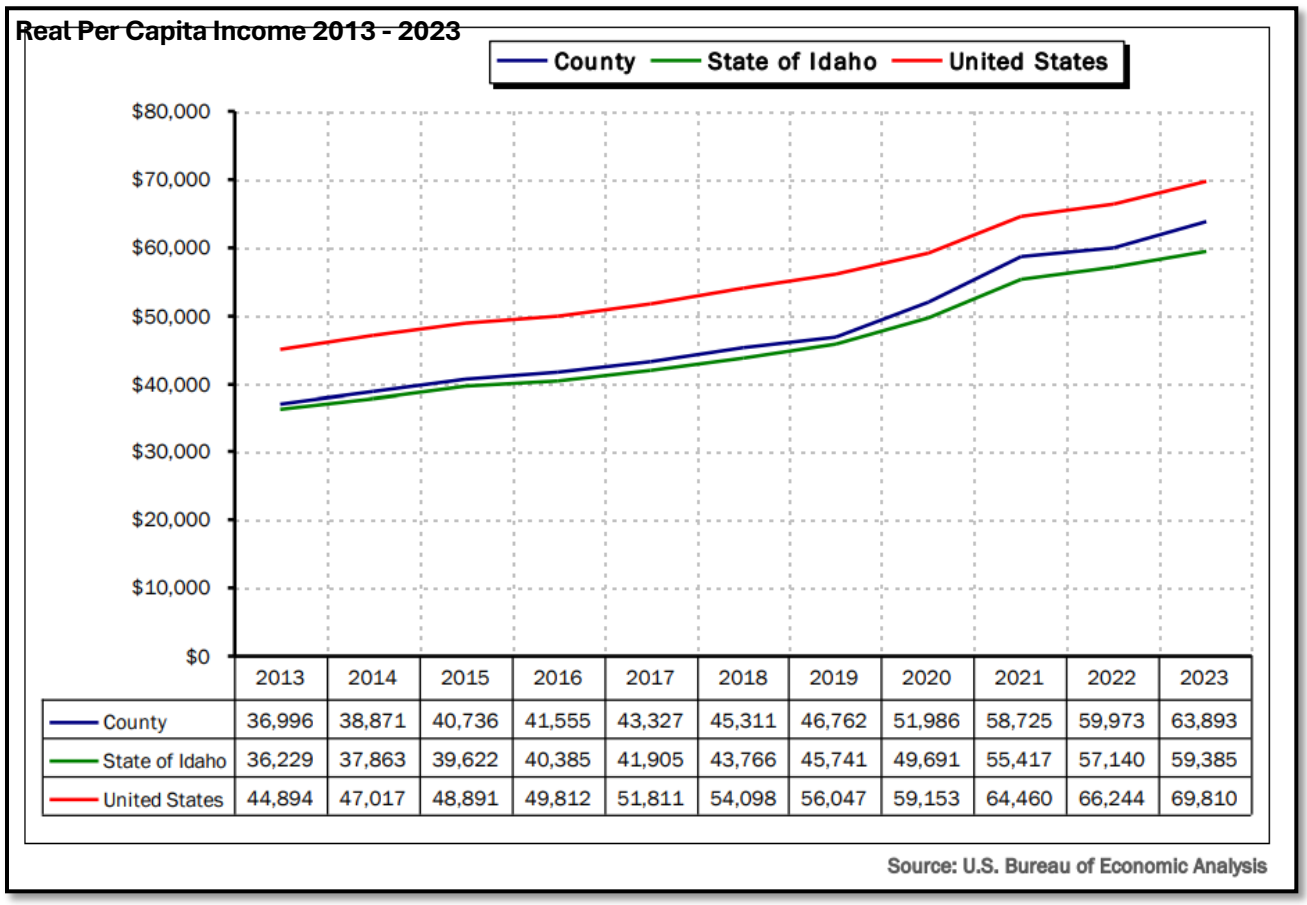


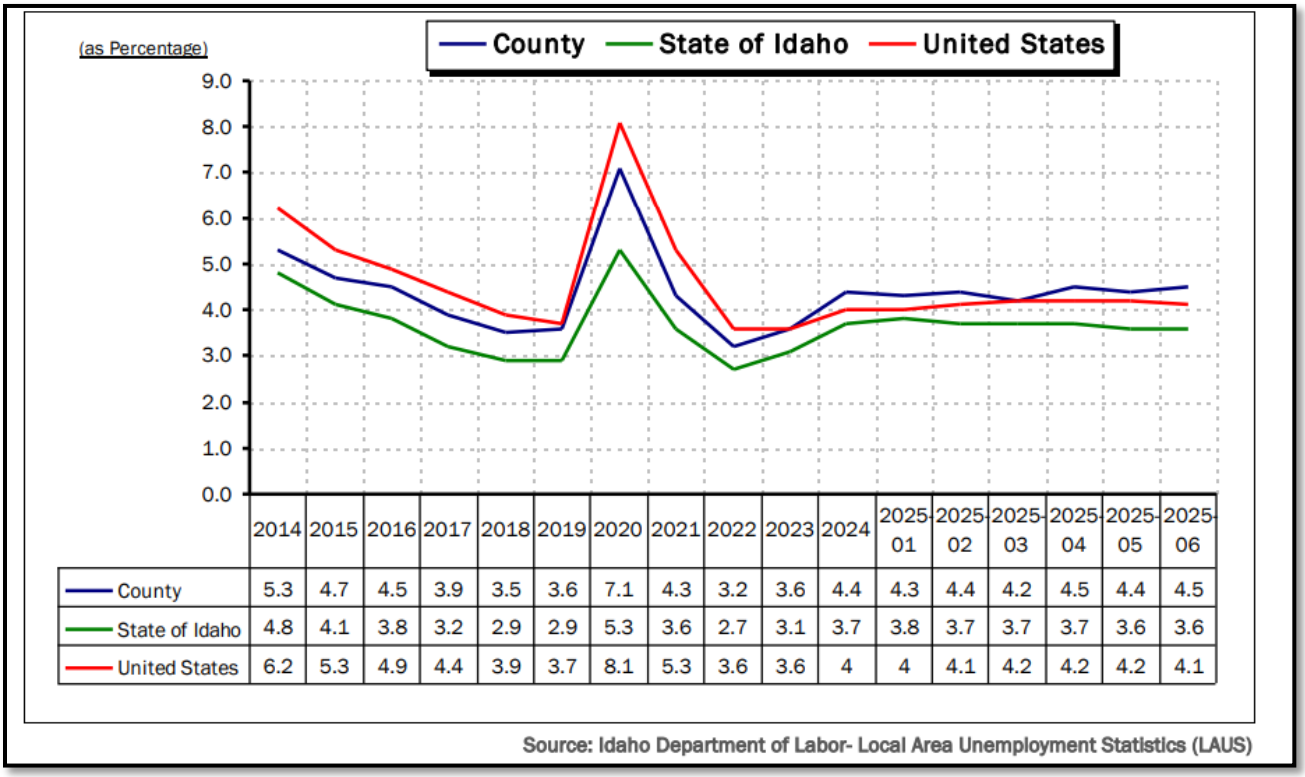
Figure 6-11: Kootenai County Economic Overview | Source: Idaho Department of Labor



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
County	36,996	38,871	40,736	41,555	43,327	45,311	46,762	51,986	58,725	59,973	63,893
State of Idaho	36,229	37,863	39,622	40,385	41,905	43,766	45,741	49,691	55,417	57,140	59,385
United States	44,894	47,017	48,891	49,812	51,811	54,098	56,047	59,153	64,460	66,244	69,810

Figure 6-12: Kootenai County Real Per Capita Income 2013 – 2023 | Source: U.S. Bureau of Labor Statistics

Seasonally Adjusted Unemployment Rate 2014 to June 2025



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025-01	2025-02	2025-03	2025-04	2025-05	2025-06
County	5.3	4.7	4.5	3.9	3.5	3.6	7.1	4.3	3.2	3.6	4.4	4.3	4.4	4.2	4.5	4.4	4.5
State of Idaho	4.8	4.1	3.8	3.2	2.9	2.9	5.3	3.6	2.7	3.1	3.7	3.8	3.7	3.7	3.7	3.6	3.6
United States	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.3	3.6	3.6	4	4	4.1	4.2	4.2	4.2	4.1

Figure 6-13: Seasonally Adjusted Unemployment Rate 2014 to June 2025 | Source: Idaho Department of Labor

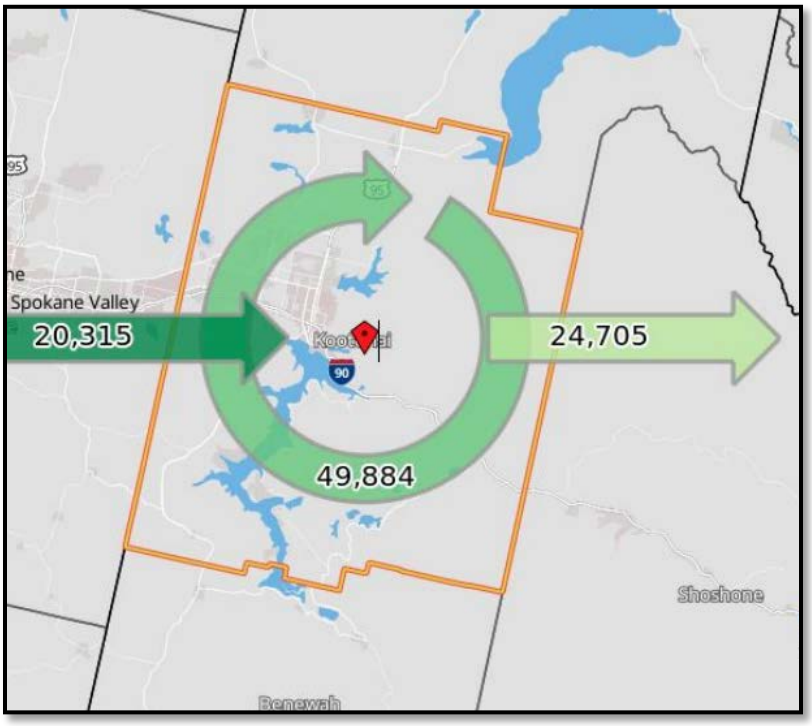


Figure 6-14: Kootenai County Commuting Patterns | Source: U.S. Census Bureau

Labor Force Commuting Patterns

It is estimated that 49,884 workers lived and worked in Kootenai County in 2022. Another 20,315 workers were employed in Kootenai County but lived outside, while 24,705 workers commuted to other counties for work.

INDUSTRY, BUSINESSES AND INSTITUTIONS

The planning area's economy is strongly anchored in the retail trade sector, which employs the largest share of the civilian workforce, closely followed by healthcare. Other significant industries include hospitality, construction, manufacturing, and education. Administrative and professional services also contribute notably to local employment. In contrast, industries such as finance and insurance, government, transportation, and wholesale trade represent smaller portions of the economy. The least represented sectors are utilities, oil and gas/mining, and management. Figure 6-14 illustrates the detailed breakdown of industry employment in Kootenai County. Major employers in the area include Kootenai Health, the Coeur d'Alene Tribal Casino and Resort, Center Partners, Silverwood Theme Park, and North Idaho College.

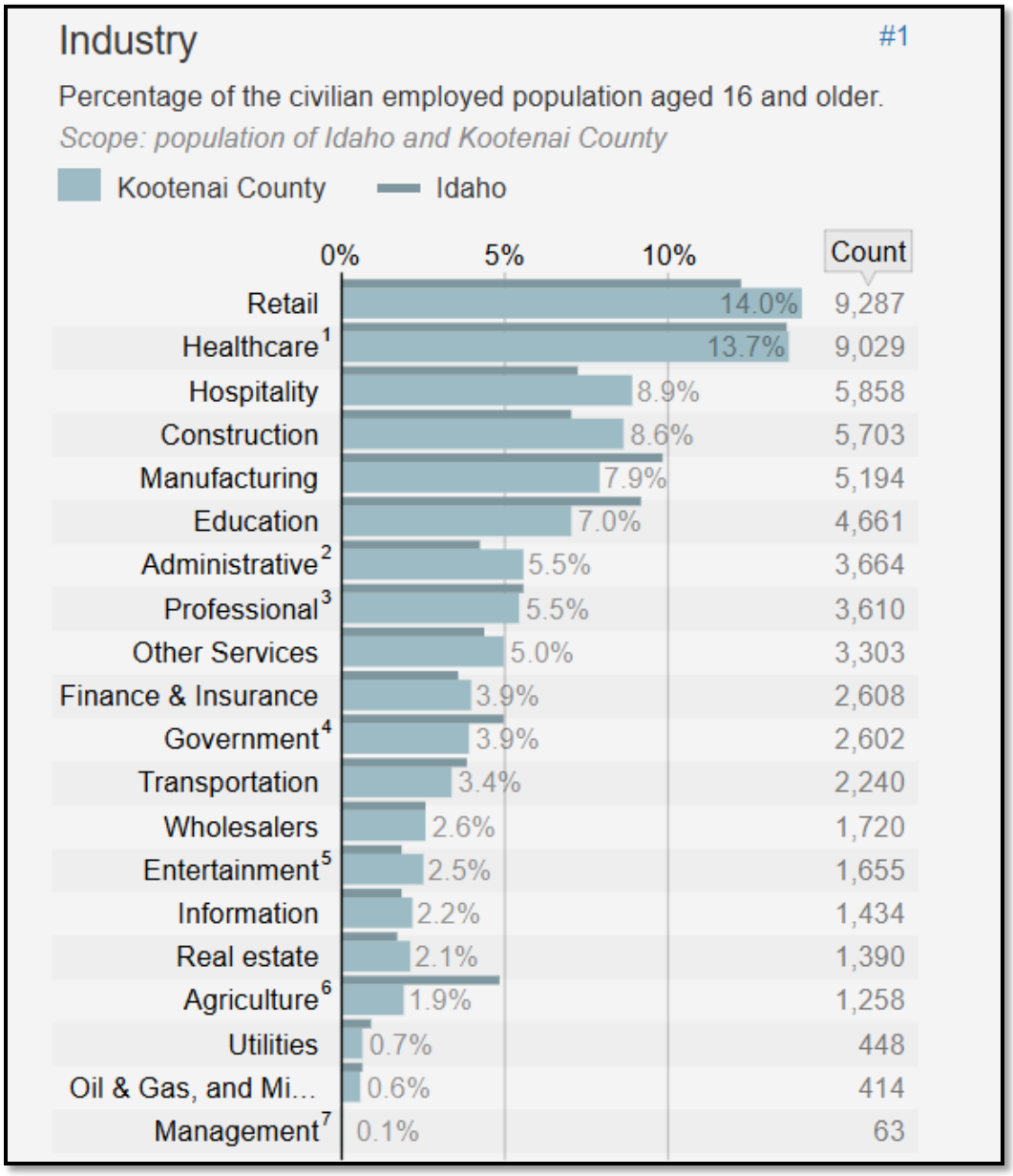


Figure 6-14: Industry in the Planning Area | Source: Statistical Atlas

FUTURE TRENDS IN DEVELOPMENT

Idaho State Code provides guidance on local land use planning (Chapter 65, Title 67). Some of the municipal planning partners have adopted comprehensive plans that govern land use decision and policy making in their jurisdictions. Decisions on land use will be governed by these programs. This Plan will work together with these programs to support wise land use in the future by providing vital information on the risk associated with natural hazards in the planning area. Planning partners with land use planning capability will incorporate this Hazard Mitigation Plan update in their comprehensive plans by reference. This will ensure that future development trends can be established with the benefits of the information on risk and vulnerability to natural hazards identified in this Plan.

LAWS AND ORDINANCES

Existing laws that include the United States and State of Idaho Constitutions, ordinances and plans at the federal, state and local level can support or impact hazard mitigation initiatives identified in this plan. Hazard mitigation plans are required to include a review and incorporation, if appropriate, of existing plans, studies, reports, and technical information as part of the planning process (44 CFR, § 201.6(b)(3)). Pertinent federal and state laws are described below. Each planning partner has individually listed existing local plans, studies, reports, and technical information as part of the capability assessment in its jurisdictional annex, presented in Volume 2 of this Plan.

FEDERAL

Disaster Mitigation Act

The DMA is the current federal legislation addressing hazard mitigation planning. It emphasizes planning for disasters before they occur. It specifically addresses planning at the local level, requiring plans to be in place before Hazard Mitigation Grant Program funds are available to communities. This Plan is designed to meet the requirements of DMA, improving the planning partners' eligibility for hazard mitigation funds.

Endangered Species Act

The federal Endangered Species Act (ESA) was enacted in 1973 to conserve species facing depletion or extinction and the ecosystems that support them. The act sets forth a process for determining which species are threatened and endangered and requires the conservation of the critical habitat in which those species live. The ESA provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered. Provisions are made for listing species, as well as for recovery plans and the designation of critical habitat for listed species. The ESA outlines procedures for federal agencies to follow when taking actions that may jeopardize listed species and contains exceptions and exemptions. It is the enabling legislation for the Convention on International Trade in Endangered Species of Wild Fauna and Flora. Criminal and civil penalties are provided for violations of the ESA and the Convention.

Federal agencies must seek to conserve endangered and threatened species and use their authorities in furtherance of the ESA's purposes. The ESA defines three fundamental terms:

- **Endangered** means that a species of fish, animal or plant is "in danger of extinction throughout all or a significant portion of its range." (For salmon and other vertebrate species, this may include subspecies and distinct population segments.)
- **Threatened** means that a species "is likely to become endangered within the foreseeable future." Regulations may be less restrictive for threatened species than for endangered species.
- **Critical habitat** means "specific geographical areas that are…essential for the conservation and management

Five sections of the ESA are of critical importance to understanding it:

- **Section 4: Listing of a Species**—The National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries) is responsible for listing marine species; the U.S. Fish and Wildlife Service is responsible for listing terrestrial and freshwater aquatic species. The agencies may initiate reviews for listings, or citizens may petition for them. A listing must be made "solely on the basis of the best scientific and commercial data available." After a listing has been proposed, agencies receive comment and conduct further scientific reviews for 12 to 18 months, after which they must decide if the listing is warranted. Economic impacts cannot be considered in this decision, but it may include an evaluation of the adequacy of local and state protections. Critical habitat for the species may be designated at the time of listing.
- **Section 7: Consultation**—Federal agencies must ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed or proposed species or adversely modify its critical habitat. This includes private and public actions that require a federal permit. Once a final listing is made, non-federal actions are subject to the same review, termed a "consultation." If the listing agency finds that an action will "take" a species, it must propose mitigations or "reasonable and prudent" alternatives to the action; if the proponent rejects these, the action cannot proceed.
- **Section 9: Prohibition of Take**—It is unlawful to "take" an endangered species, including killing or injuring it or modifying its habitat in a way that interferes with essential behavioral patterns, including breeding, feeding or sheltering.
- **Section 10: Permitted Take**—Through voluntary agreements with the federal government that provide protections to an endangered species, a non-federal applicant may commit a take that would otherwise be prohibited as long as it is incidental to an otherwise lawful activity (such as developing land or building a road). These agreements often take the form of a "Habitat Conservation Plan."
- **Section 11: Citizen Lawsuits**—Civil actions initiated by any citizen can require the listing agency to enforce the ESA's prohibition of taking or to meet the requirements of the consultation process.

With the listing of salmon and trout species as threatened or endangered, the ESA has impacted most of the Pacific Coast states. Although some of these areas have been more impacted by the ESA than others due to the known presence of listed species, the entire region has been impacted by mandates, programs and policies based on the presumption of the presence of listed species. Most West Coast jurisdictions must now take into account the impact of their programs on habitat.

The Clean Water Act

The Federal Clean Water Act (CWA) employs regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's surface waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

Evolution of CWA programs over the last decade has included a shift from a program-by-program, source- by-source, pollutant-by-pollutant approach to more holistic watershed-based strategies. Under the watershed approach, equal emphasis is placed on protecting healthy waters and restoring impaired ones. A full array of issues are addressed, not just those subject to CWA regulatory authority. Involvement of stakeholder groups in the development and implementation of strategies for achieving and maintaining water quality and other environmental goals is a hallmark of this approach.

National Flood Insurance Program

The National Flood Insurance Program (NFIP) provides federally backed flood insurance in exchange for communities enacting floodplain regulations. Participation and good standing under NFIP are prerequisites to grant funding eligibility under the Robert T. Stafford Act. The County and most of the partner cities for this Plan participate in the NFIP and have adopted regulations that meet the NFIP requirements. Information regarding individual participating jurisdictions' status regarding NFIP compliance can be found in each corresponding annex in Volume 2 of this plan.

STATE

State and Local Building Codes

Idaho's building code largely reflects international codes, with provisions for wind, seismic and snow loading. However, if a community does not want to adopt the building code, it is not required to do so. The only structures required to be reviewed under the building code are modular buildings, schools, and state buildings. One and two family dwellings are exempted from installing mandatory fire sprinkler systems. Building codes are important in hazard prone areas as they ensure that new construction and improved existing construction are more resilient to local hazards and/or improve life safety functions.

Subdivision Regulations

Subdivision regulations form part of the process utilized by local governments to carry out the requirements of their comprehensive plans and zoning ordinances. In Idaho, local governments have the authority to define the term "subdivision" as they prefer. State enabling authority does not contain standards or requirements that would be considered to exceed those commonly found elsewhere, nor are subdivision regulations mandated. Subdivision regulations are important in hazard prone areas as they can specify requirements for layout and location of infrastructure, lots and other facilities as land is developed.

Comprehensive Plans and Zoning

Idaho Code includes a stated, specific purpose of local land use regulation "to protect life and property in areas subject to natural hazards and disasters," (Title 67, Chapter 65). Tools to do this include comprehensive planning and zoning. Consistent with Idaho law, a comprehensive plan provides the policy basis for a community's zoning ordinance, which contains the specific standards and requirements and processes for making land use and development decisions. In Idaho, a comprehensive plan is required to include a section on hazards (Idaho Code §67-6508(g)):

> *The plan with maps, charts, and reports shall be based on the following components as they may apply to land use regulations and actions unless the plan specifies reasons why a particular component is unneeded … Hazardous Areas -- An analysis of known hazards as may result from susceptibility to surface ruptures from faulting, ground shaking, ground failure, landslides or mudslides; avalanche hazards resulting from development in the known or probable path of snow slides and avalanches, and floodplain hazards.*

As part of comprehensive planning, a future land use map is prepared indicating suitable projected land uses for the jurisdiction. The implementation tool to realize the vision in the comprehensive plan is the zoning ordinance. Zoning protects the rights of property owners while promoting the general welfare of the community. By dividing land into categories according to use, and setting regulations for these categories, a zoning ordinance can govern private land use and segregate incompatible uses. The purpose of zoning is to locate particular land uses where they are most appropriate, considering public utilities, road access and the established development pattern.

Floodplain Zoning

Idaho communities are authorized to adopt floodplain zoning to regulate any mapped or unmapped flood hazard area. Additionally, Idaho communities may adopt standards that exceed the minimum standards of the NFIP.

Idaho Disaster Preparedness Act of 1975

The Idaho Disaster Preparedness Act of 1975 created the Bureau of Disaster Services and subsequently the Bureau of Homeland Security, and provided for the creation of local organizations for disaster preparedness (Idaho Code §46-10). According to the Act, it is the policy of the State of Idaho to plan and prepare for disasters and emergencies resulting from natural or manmade causes, enemy attack, sabotage or other hostile action. State law was put into place to do the following:

- Create a bureau of homeland security.
- Prevent and reduce damage, injury, and loss of life and property resulting from natural or man- made catastrophes.
- Prepare assistance for prompt and efficient search, rescue and care.
- Provide for rapid restoration and rehabilitation.
- Prescribe the roles of government in prevention, preparation and response to disaster.
- Authorize and encourage cooperation in disaster prevention, preparation and response.
- Provide for coordination of activities.
- Provide a disaster management system.
- Provide for payment of obligations and expenses incurred by the State of Idaho through the Bureau of Homeland Security.

Idaho Silver Jackets Program

The Silver Jackets Program is the state-level implementation of the Army Corps of Engineers National Flood Risk Management Program. The core member agencies will establish a continuous intergovernmental collaborative team working with other state and federal agencies to do the following:

- Provide assistance in identifying and prioritizing actions to reduce the threat, vulnerability and consequences of flooding in the State of Idaho.
- Facilitate strategic planning and implementation of life-cycle mitigation, response and recovery actions to reduce the threat, vulnerability and consequences of flooding in the State of Idaho.
- Create or supplement a process to collaboratively identify issues and implement or recommend solutions.
- Identify and implement ways to leverage available resources and information between agencies.
- Increase and improve flood risk communication and outreach.
- Promote wise stewardship of the taxpayers' investments.
- Develop more comprehensive state flood risk management policies and strategies.
- Develop advanced hydrologic predictive services to reduce loss of life and property damage from flooding.

CITIES AND COUNTY

Each planning partner has prepared a jurisdiction-specific annex to this Plan (see Volume 2). In preparing these annexes, each partner completed a capability assessment that looked at its regulatory, technical and financial capability to carry out proactive hazard mitigation. Refer to these annexes for a review of regulatory codes and ordinances applicable to each planning partner.

NATURAL HAZARD PROFILE ANNEXES

CHAPTER 7
FLOOD HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- A hazard cascade chart has been implemented to illustrate secondary and tertiary hazards.
- Community Lifelines have been integrated into the flood hazard profile.
- The National Risk index has been incorporated into the flood profile.

HAZARD RISK SUMMARY

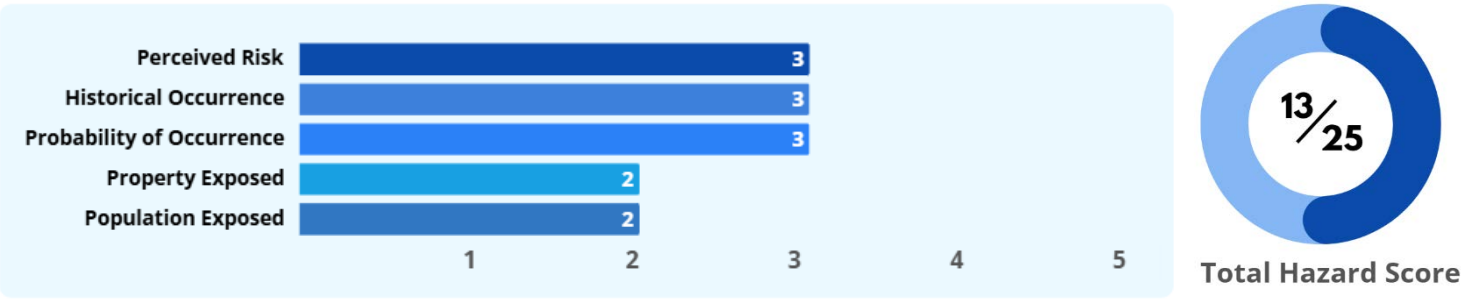


Figure 7-1: Hazard Risk Summary

FEMA'S NATIONAL RISK INDEX — **TABLE 7-1**

HAZARD	EXPECTED ANNUAL LOSS	COMMUNITY RISK FACTOR	RISK VALUE	SCORE
Flood	$344,114	1.08	$324,945	42.6

BACKGROUND

Definition: A **flood** is an overflow of water that submerges usually dry land, caused by excessive rainfall, melting snow, or the failure of man-made structures like dams, ranging from minor to catastrophic events, with **flash floods** being rapid and intense, and **urban floods** occurring due to poor drainage and rapid runoff in cities. Flooding can also be caused by the blocking or failure of man-made structures like dams or levees. Floods can range from minor water accumulation to large-scale, devastating events that damage property, infrastructure, and even cause loss of life.

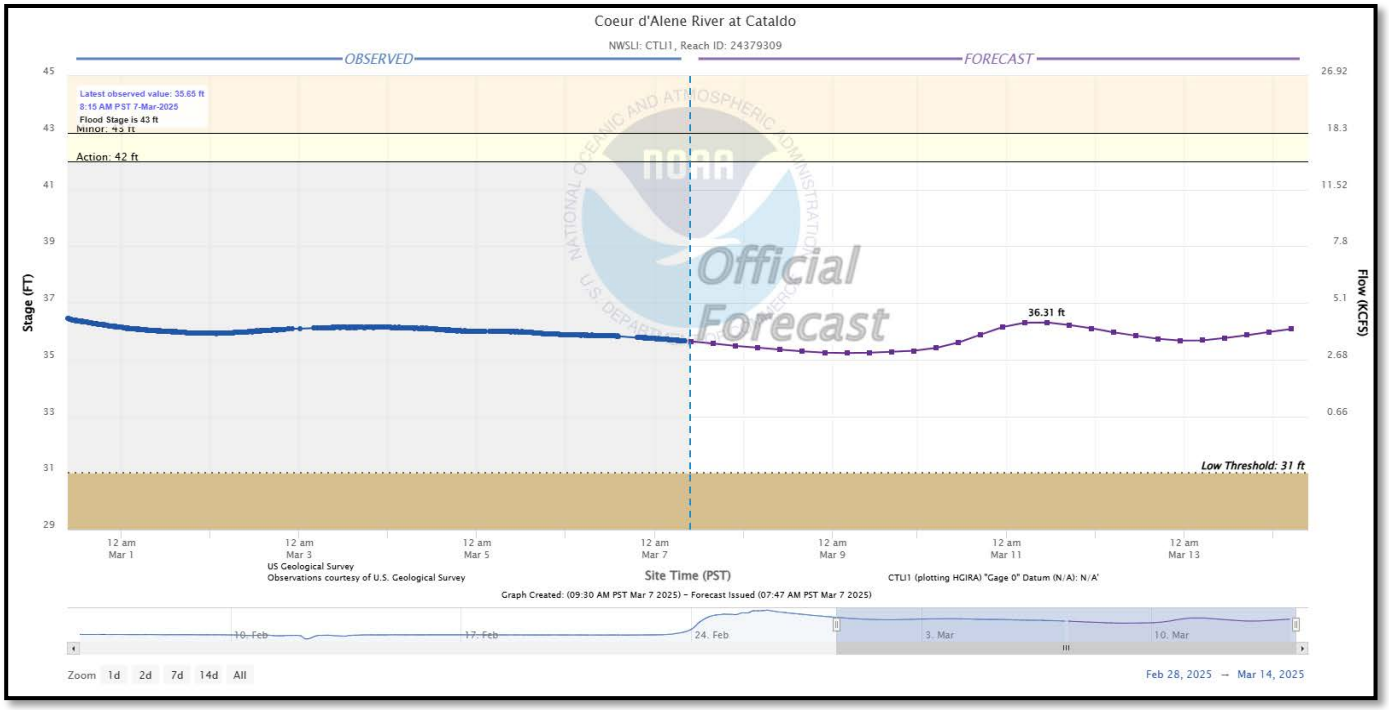
Description: In Kootenai County, major floods typically occur in winter and spring when warm rains fall on melting snow. Winter floods, which are the most severe, result from heavy rainfall combined with snowmelt and can reach extreme levels in just two days. Spring floods, while more frequent, are generally lower and occur mostly in April and May, lasting up to two weeks. Low-lying areas suitable for development are especially vulnerable. The predominant type of flooding in Kootenai County occurs on rivers or lakes due to the spring runoff or rain on snow events.

Flooding is often triggered by intense winter rainstorms between November and March. A series of such storms can overwhelm the County's flood management capabilities, especially if multiple drainage basins flood simultaneously. This could block major roads, isolate residents, and damage infrastructure. High flows can wash out roads, further hindering access and making it difficult for the County to restore critical facilities quickly.

WARNING TIME

Floods typically give some warning due to recognizable weather patterns. Warning time depends on the time between measurable rainfall and flooding. After rainfall ends, water levels rise, peak, and then recede, indicating the flood's progression. Floods are either slow-rise, with warning times of hours to days, or flash floods, which offer little warning and require evacuation within an hour.

Kootenai County's flood recognition system uses precipitation and stream gauges to monitor water levels on the Coeur d'Alene and Spokane Rivers. This data feeds into a USGS forecasting program and is supplemented by the National Weather Service (NWS). The Kootenai County Emergency Operations Plan guides the local response based on this flood threat information. The below hydrograph shows how flooding levels are monitored in Kootenai County.



CATEGORY	STAGE
Major Flooding	50 ft
Moderate Flooding	46 ft
Minor Flooding	43 ft
Action	42 ft

Figure 7-2: NWS River Gauge Levels

FLOODING SOURCES

Kootenai County has seven major lakes, all of which are susceptible to flooding as a result of rain, snowmelt or both. The flood elevations of the lakes are identified in Table 7-2. In addition to lakes, Kootenai County also has numerous rivers, creeks, and gulches that can pose a flooding threat. Table 7-3 lists a summary of the peak discharges within the County during various scenarios.

SUMMARY OF FLOOD ELEVATIONS OF LAKES IN KOOTENAI COUNTY **TABLE 7-2**

LAKE	DRAINAGE AREA (SQUARE MILES)	10-YEAR ELEVATION (FEET)	100-YEAR ELEVATION (FEET)
Lake Coeur d'Alene	3,700	2,135.6	2,139.3
Fernan Lake	19.6	2,137.9	2,139.3
Hauser Lake	21.8	2,191.8	2,195.0
Hayden Lake	62.3	2,244.8	2,246.8
Lake Pend Oreille	25,792	2,064.0	2,073.96
Spirit Lake	39.4	*2,445.8*	2,448.1
Twin Lakes	37.2	2,317.8	2,319.6

Source: 2010 FIS which will reference NAVD 88 Datum.

SUMMARY OF PEAK DISCHARGES WITHIN THE PLANNING AREA **TABLE 7-3**

SOURCE/LOCATION	DISCHARGE (CUBIC FEET/SECOND)			
	10-year	50-year	100-year	500-YEAR
Coeur d'Alene River				
at the Mouth	41,400	73,500	90,000	136,000
French Gulch				
at Cross Section A	200	310	380	540
above Cross Section R	170	260	340	500
Latour Creek				
at the Mouth	1,890	3,020	3,735	5,420
Nettleton Gulch				
above 15th St.	290	430	520	725
Rathdrum Creek				
downstream Corporate Limits	385	542	676	4600[a]
above Pine Ave. Bridge	233	355	424	4250[a]
Spokane River				
at Washington-Idaho Boundary	38,700	46,400	49,000	54,200
Wolf Lodge Creek				
at Mouth	2,250	3,650	4,500	6,550
above Cedar Creek	1,600	2,550	3,150	4,500
above Rutherford at Gulch	1,500	2,350	2,900	4,150
above Marie Creek	850	1,250	1,550	2,150

a. During 500-Year, Twin Lakes would not control flow

HISTORICAL FREQUENCIES

Major floods in Kootenai County occurred in 1894, 1896, 1917, 1933, 1938, 1964, 1974, 1996, 1997 and 2008, and 2017. Detailed damage reports are available for only the most recent floods of 1964, 1974, 1996, 1997, 2008, 2017, and 2025. This data provides a good representation of the damage potential. The winter flood of February 1996 caused widespread damage along streams and lakes, but the flooding was generally short-lived. In contrast, the spring flood of 1997 caused high water from April into June and affected county lakes most severely. Table 4 summarizes flood events in the planning area since 1955, including six federal disaster declaration events, and with total estimated damage exceeding $20 million.

HISTORY OF MAJOR FLOOD EVENTS			TABLE 7-4
DATE	**DECLARATION #**	**DESCRIPTION**	**ESTIMATED DAMAGE**
12/31/1964	DR-186	Heavy Rains & Flooding	$834,972[a]
01/25/1974	DR-415	Severe Storms, Snowmelt, Flooding	$8,438,025[a]
02/11/1996	DR-1102	Storms/Flooding	$10,888,154[a]
01/04/1997	DR-1154	Severe Storms/Flooding	$1,272,641[a]
06/13/1997	DR-1177	Flood	Public Damage = $762,600
07/31/2008	DR-1781	Flooding	Public Damage = $1,501,030
03/06/2017	DR-4313	Severe Storms, Flooding, Landslides	PA Cost = $9,625,389
03/15/2025	2025-31	Flooding led to a damaged culvert	$300,000 - $500,000

a. Data obtained from FEMA or Spatial Hazard Events and Losses Database for the United States

IMPACTS

Many homes in floodplains are at risk of flood damage, worsened by new development in marginal lands near these areas. As development increases, so does storm water runoff and flooding, putting homes outside mapped floodplains at risk. Currently, 35-40% of NFIP claims come from outside mapped floodplains. Development in floodplains should be limited to non-structural uses, such as parks and farms, to minimize damage.

The public should be informed about flood risks, insurance, and mitigation. Local emergency management plans must include procedures for warnings, evacuations, and recovery. The National Weather Service provides flood alerts via multiple channels, and the U.S. Army Corps of Engineers supports flood-fighting and repairs to federal flood control infrastructure (Public Law 84-99). The planning team has identified the following flood-related issues relevant to the planning area:

- The accuracy of FEMA's flood hazard maps in reflecting true flood risk in the planning area is uncertain and needs updating with the best data and technology.
- The flood protection provided by control facilities (dams, levees) is unclear due to lack of national flood protection standards.
- Flood risk overlaps with other hazards like earthquakes and landslides, presenting an opportunity for multi-hazard mitigation.
- There is inconsistency in land-use practices and floodplain management, with Kootenai County the only community in the CRS program.
- More data is needed to support risk-based analysis of capital projects.
- Ongoing collection of historical damage data, such as high-water marks and damage reports, is needed to assess mitigation project effectiveness.
- Flood hazard mitigation will require funding from various sources.
- A coordinated mitigation effort is needed between affected jurisdictions.
- Continued education for floodplain residents on preparedness and available resources is essential.
- Future flood control projects should consider residual risk and inform residents accordingly.
- Promoting flood insurance to protect property owners should remain a priority.
- Agricultural and open space uses in floodplains should be preserved amid growth pressures.
- Economic factors can impact a jurisdiction's ability to manage floodplains, especially with budget cuts.
- A buildable-lands analysis will help guide future development decisions.

PROBABILITY

Flood probability is measured by the likelihood that a specific river discharge (flow) will be equaled or exceeded in any given year. In Kootenai County, stream gages and historic flood records are used to estimate these probabilities.

- A 10-year flood has a 10% chance of occurring in any given year.
- A 100-year flood has a 1% chance.
- A 500-year flood has a 0.2% chance.

These terms are statistical averages—multiple 100-year floods can occur within a short period. The 1% annual chance flood (100-year flood) defines the Special Flood Hazard Area, which serves as the regulatory boundary for floodplain management. FEMA's Flood Insurance Rate Maps show the extent and expected depth of flooding within the Special Flood Hazard Area across the county. Water-surface elevations linked to these probabilities are a key factor for estimating damages and understanding risk. The probability of future flooding in Kootenai County is classified as Low to Moderate, with risk increasing seasonally during spring runoff and periods of sustained precipitation.

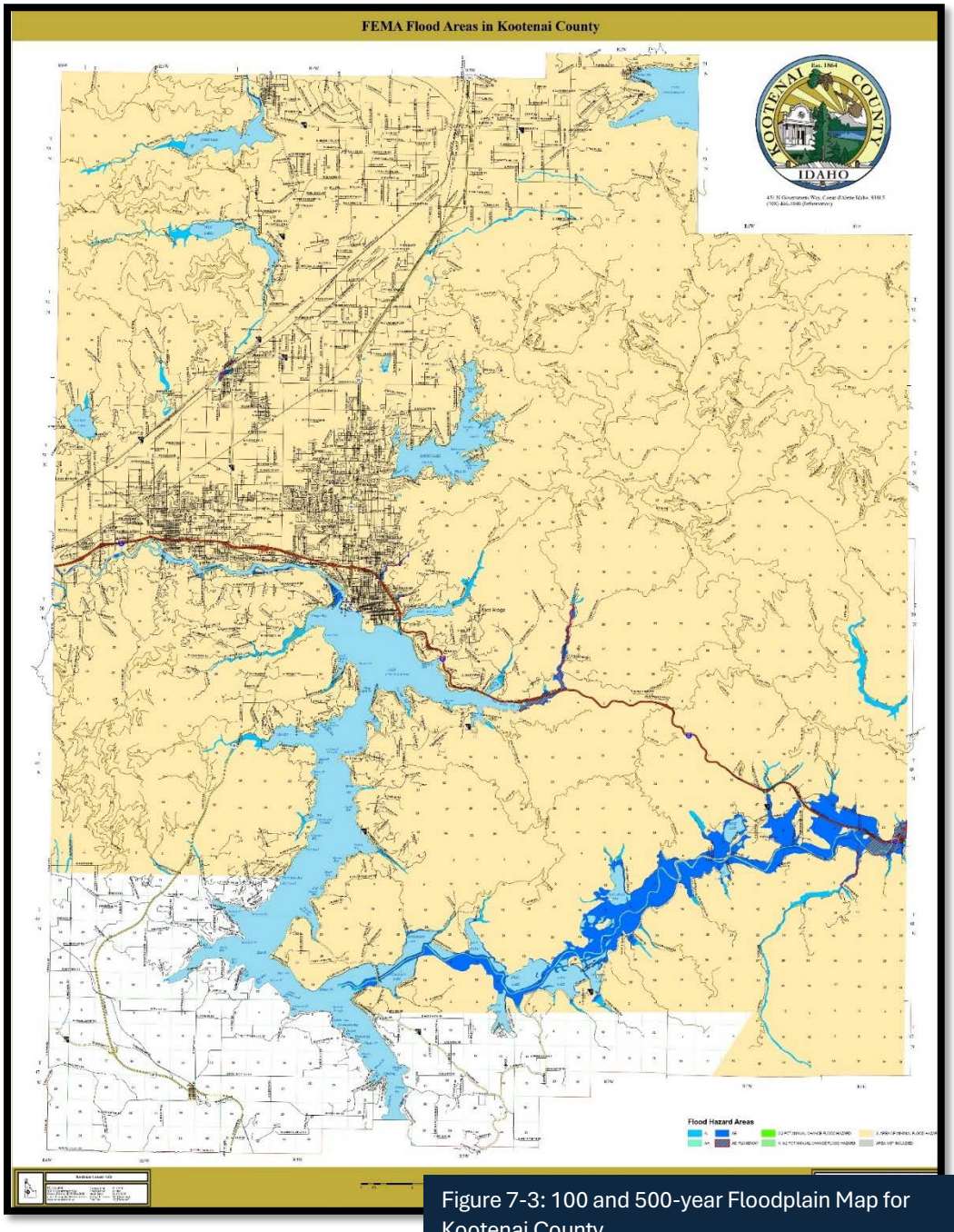


Figure 7-3: 100 and 500-year Floodplain Map for Kootenai County

HAZARD IMPACT SUMMARY

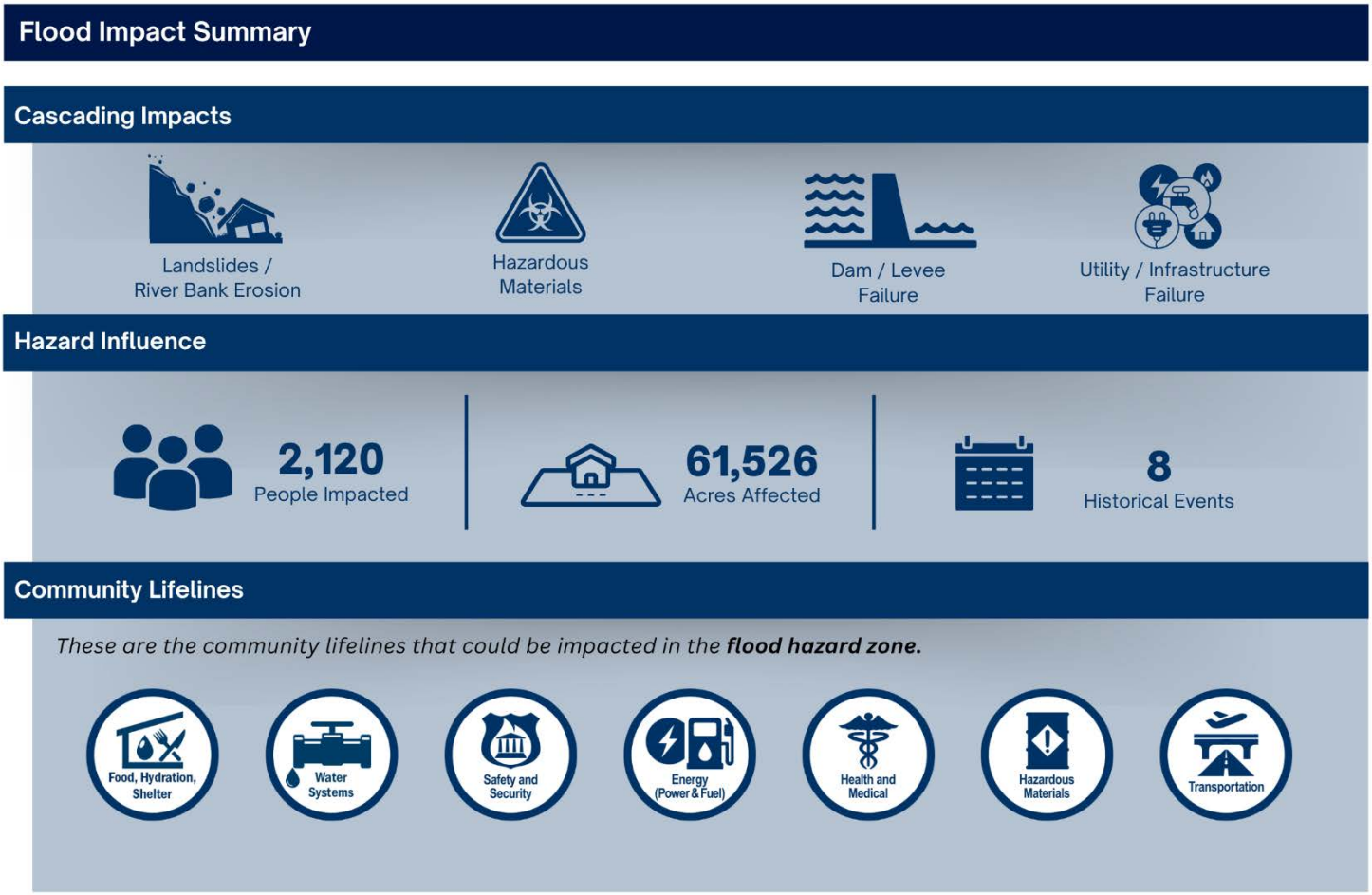
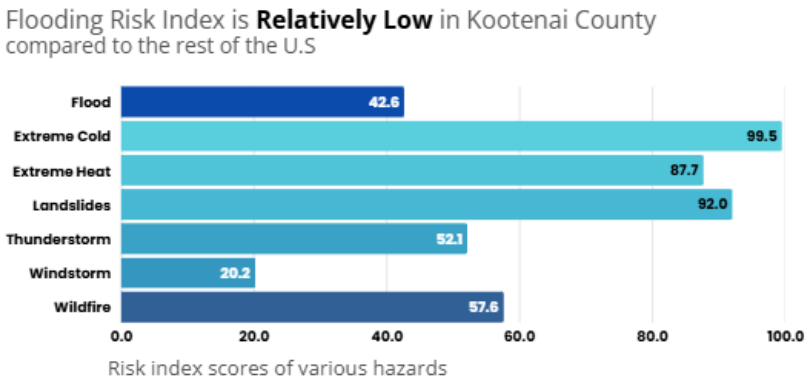
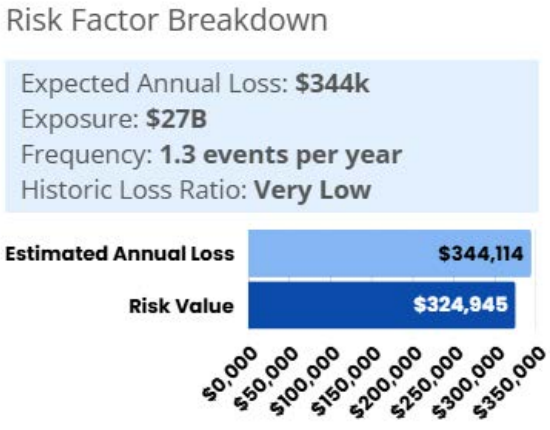


Figure 7-4: Flood Hazard Impact Summary

FLOOD IMPACT RATINGS



Risk Index scores reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.



Expected Annual Loss scores reflect a community's relative expected annual loss for only that hazard type.

Figures 7-5 and 7-6: Flood Impact Ratings

CHAPTER 8
LANDSLIDE HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- A hazard cascade chart has been implemented to illustrate secondary and tertiary hazards.
- Community Lifelines have been integrated into the landslide hazard profile.
- The National Risk index has been incorporated into the landslide profile.

HAZARD RISK SUMMARY

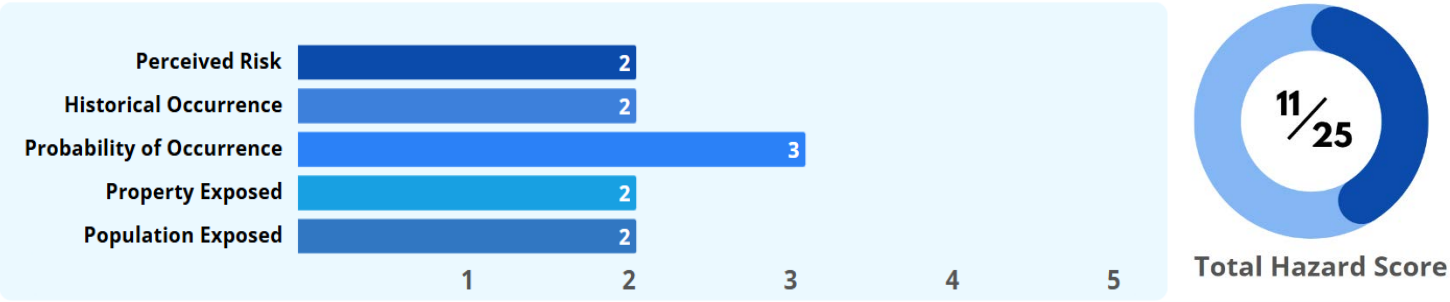


Figure 8-1: Hazard Risk Summary

FEMA'S NATIONAL RISK INDEX — **TABLE 8-1**

HAZARD	EXPECTED ANNUAL LOSS	COMMUNITY RISK FACTOR	RISK VALUE	SCORE
Landslide	$209,995	1.08	$195,468	92

BACKGROUND

Definition: A **Landslide** is the sliding movement of masses of loosened rock and soil down a hillside or slope. Such failures occur when the strength of the soils forming the slope is exceeded by the pressure, such as weight or saturation, acting upon them. A **Mass Movement** is the collective term for landslides, debris flows, falls and sinkholes. A **Mudslide** (or **Mudflow** or **Debris Flow**)—A river of rock, earth, organic matter and other materials saturated with water.

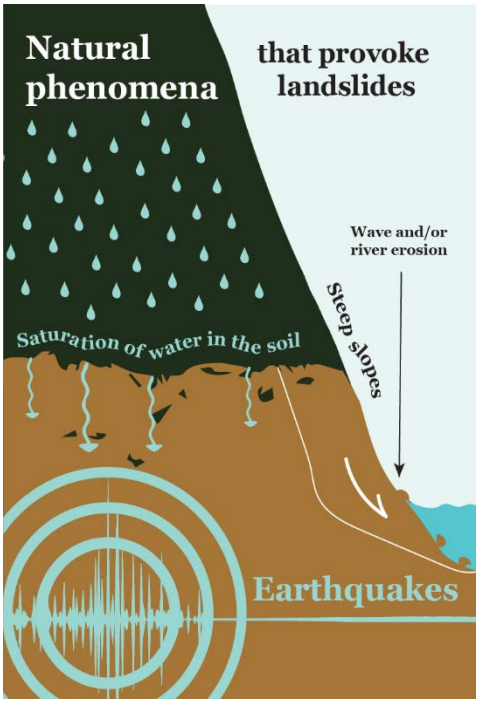
There is little recorded information regarding landslides in Kootenai County. According to the Spatial Hazard Events and Losses Database for the United States (SHELDUS), there have been 15 recorded landslide events in the planning area since 1960. These events occurred in March, 1987, April 1997, January 2006, April 2011, March and May 2012, March 2015, February and March 2017, and March 2018 and were estimated to cause a total of approximately $2,083,425 in property damage. Several of these events involved disaster declarations. There are no records in the County of fatalities attributed to landslides. The table below describes some of the known historical events.

WARNING TIME

Mass movements can occur suddenly or slowly, with speeds ranging from inches per year to feet per second, depending on slope, material, and water content. Monitoring methods can estimate movement types and timing, and assess areas at risk based on geology, vegetation, and predicted precipitation. However, no practical warning system exists for individual landslides. Monitoring is done case-by-case, with response after the event. Common warning signs include:

- Unusual ground saturation, cracks, or bulges in the ground or pavement
- Soil shifting from foundations, tilting structures
- Cracking floors, foundations, and concrete

- Broken water lines and leaning utilities
- Offset fences and sunken roads
- Rapidly changing creek water levels and turbidity
- Sticking doors/windows, sounds of rumbling or cracking trees/rocks



There are two primary categories of causes of landslides: natural and human-caused. Sometimes, landslides are caused, or made worse, by a combination of the two factors.

Natural Occurrences: This category is triggered by water, seismic activity, or volcanic activity, with effects depending on slope, terrain, soil, geology, and nearby structures.

Human Caused: Human activities cause landslides by altering drainage, destabilizing slopes, and removing vegetation. Proper engineering and zoning can reduce these risks.

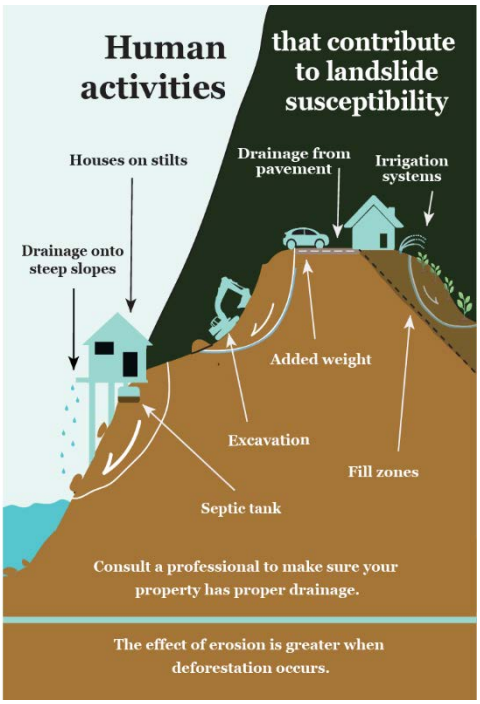


Figure 8-2: Types of Landslides
Source: USGS.gov

HISTORICAL FREQUENCIES

HISTORY OF MAJOR LANDSLIDE EVENTS — **TABLE 8-2**

DATE	DEATHS	INJURIES	PROPERTY DAMAGE
March 1997	Unknown	Unknown	$1,564,118
	Description: *In early March 1997, northern Idaho received 12 to 18 inches of snow on top of existing snowpack that exceeded 150 to 170 percent of the average. A subsequent rainstorm caused a rapid snowmelt. The resulting mudslides lasted for an extended period and damaged many public facilities, including county road systems. The President issued a federal disaster declaration (DR-1177) on June 13, 1997, for Kootenai County and the five north Idaho Counties.*		
January 30, 2000	0	0	$725,400
	Description: *A major landslide occurred on January 30, 2000 on the outskirts of the community of Bayview. This was followed by another slide on February 11, 2000. The landslides blocked Cape Horn Road, the sole access road from Ravens Point to Bayview, and cut off road access to 75 homes. The clearing of 6,300 truckloads of quartzite debris and subsequent reconstruction of the roadway continued through May. The Governor issued a State Declaration. The request for a Presidential Declaration was not approved. However, federal assistance through the USDA Natural Resources Conservation Services stabilized the banks above the lake and removed debris blocking the roadway. The State assisted the County by paying the non-federal match required by NRCS.*		
January 15, 2006	0	0	$7,500
	Description: *A landslide was caused by construction on U.S. Highway 95, north of Worley. It resulted in approximately $7,500 in damage to the project.*		
DATE	**DEATHS**	**INJURIES**	**PROPERTY DAMAGE**

HISTORY OF MAJOR LANDSLIDE EVENTS			TABLE 8-2
March 30, 2011	0	0	$330,000
	***Description**: Two large debris flows occurred around noon along Forest Road 208. The first slide was near the intersection of Lost Creek. The second slide was near the intersection of Clee Circle Road. No injuries were reported; however, 14 residents were trapped due to impassible roads; two of these residents had to be evacuated for medical appointments. A large debris flow that began around noon on March 30 blocked access to six permanent residences. There was an estimated 25,000 cubic yards of rock and mud over the road with the larger slide and 8000 cubic yards associated with the smaller slide. Estimated cost to remove the earth and fix the road was $330,000.*		
April 27, 2011	0	0	$75,000
	***Description**: A landslide along East Hayden Lake Road at mile post 5.5 resulted in half of the road breaking off and sliding down the embankment. Exact cost of road repairs is unknown, but it is thought to be $50,000 to $100,000.*		
March 6, 2017	0	0	$906,040
	***Description**: During early March, 2017, the northern panhandle counties received persistent rainfall and snowmelt that caused widespread flooding, landslides, water over roads, damaged levees and flooding of homes and basements. A State Disaster Proclamation (ID-03-2017) as well as a Federal Declaration (DR-4313).*		

PROBABILITY

Landslides in Kootenai County are most often triggered by heavy rainfall, rapid snowmelt, flooding, or wildfires, and their likelihood is closely tied to the frequency of these hazards. Steep, saturated soils are especially vulnerable following sequential storm events. In the past 35 years, 10 landslides have been recorded in the county, though the historical record likely underrepresents the true number of events. This indicates that while landslides occur infrequently, they remain a recurring hazard. Future risk may increase with development on steep slopes or in areas prone to soil saturation. Overall, the probability of future landslides in Kootenai County is considered Low to Moderate, with higher likelihood during years of above-average precipitation or rapid snowmelt.

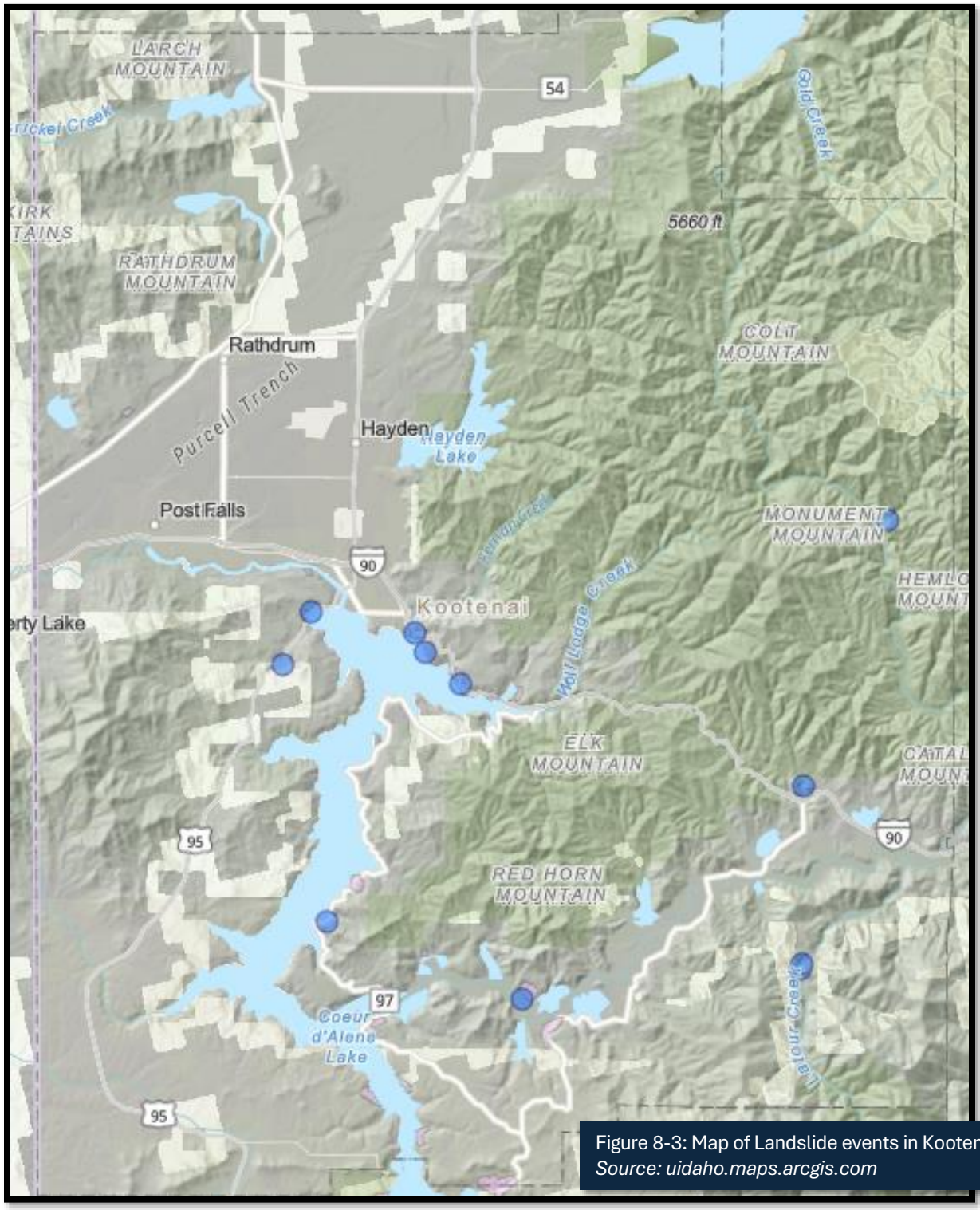
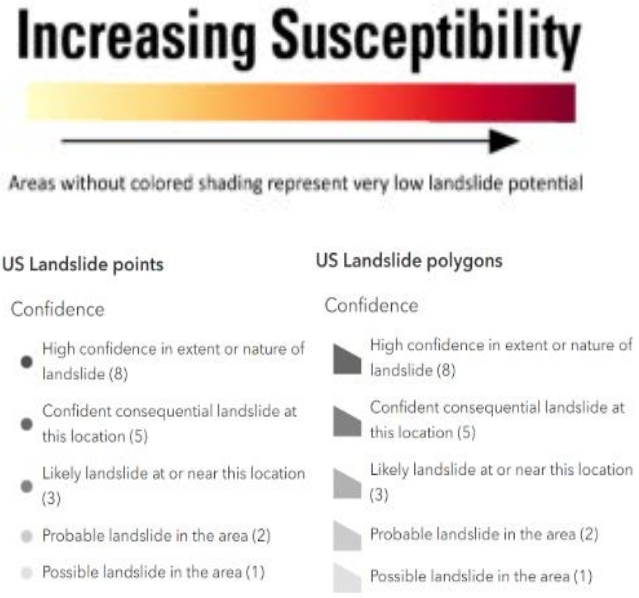


Figure 8-3: Map of Landslide events in Kootenai County
Source: uidaho.maps.arcgis.com

VULNERABILITY

Susceptible areas of the county are likely to include mountain roads and transportation infrastructure. However, the number and type of critical facilities and infrastructure vulnerable to the landslide hazard in the planning area is extremely low.



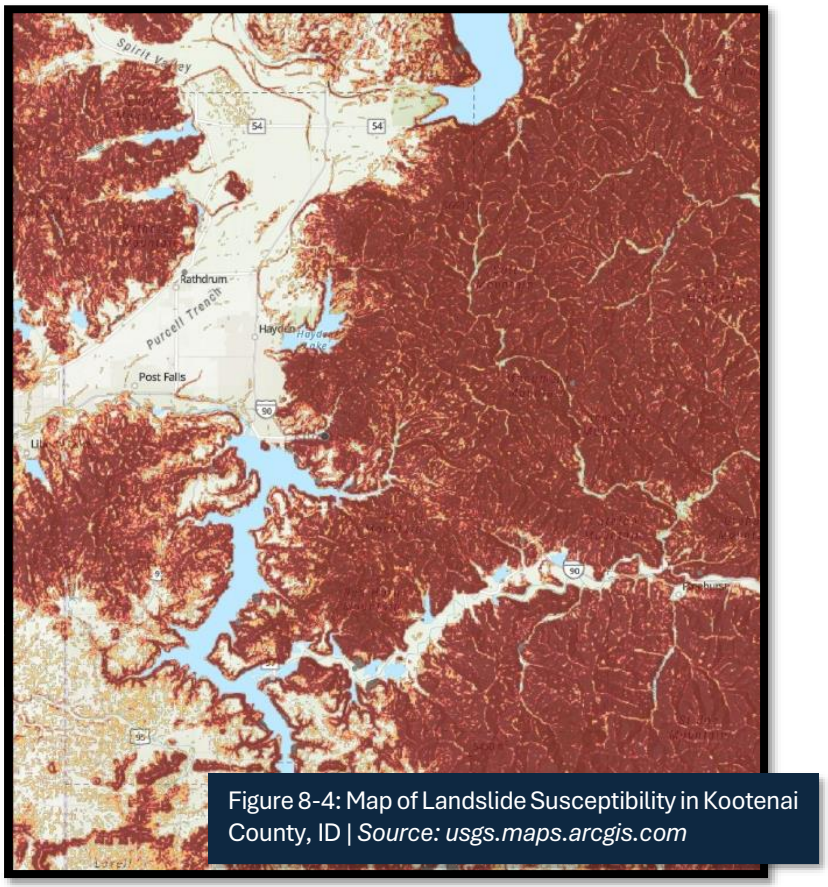
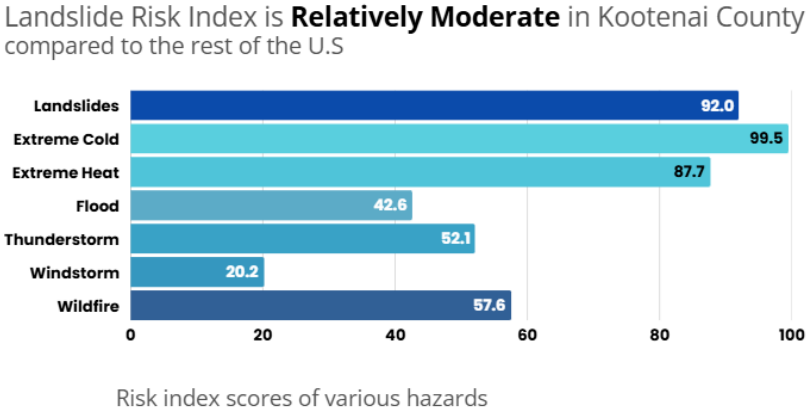
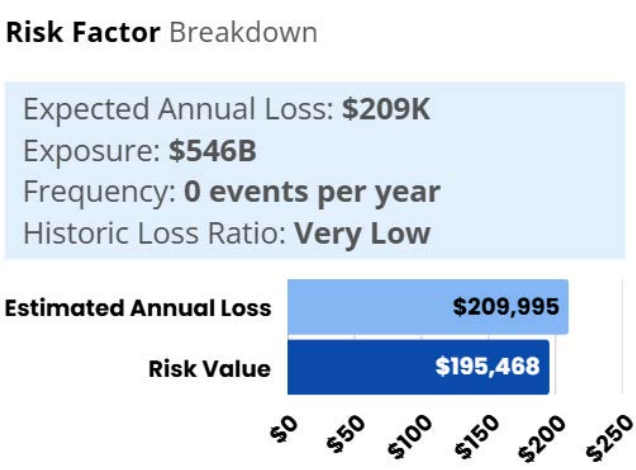


Figure 8-4: Map of Landslide Susceptibility in Kootenai County, ID | *Source: usgs.maps.arcgis.com*

LANDSLIDE IMPACT RATINGS





Risk Index scores reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.

Expected Annual Loss scores reflect a community's relative expected annual loss for only that hazard type.

Figures 8-5 and 8-6: Landslide Impact Ratings

HAZARD IMPACT SUMMARY

Figure 8-7: Landslide Impact Summary

CHAPTER 9
SEVERE WEATHER HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- A hazard cascade chart has been implemented to illustrate secondary and tertiary hazards.
- Community Lifelines have been integrated into the severe weather hazard profile.
- The definition of severe weather has been updated to include windstorms, thunderstorms, winter storms, and extreme temperatures. All data and information related to severe weather now reflect these four categories.

HAZARD RISK SUMMARY

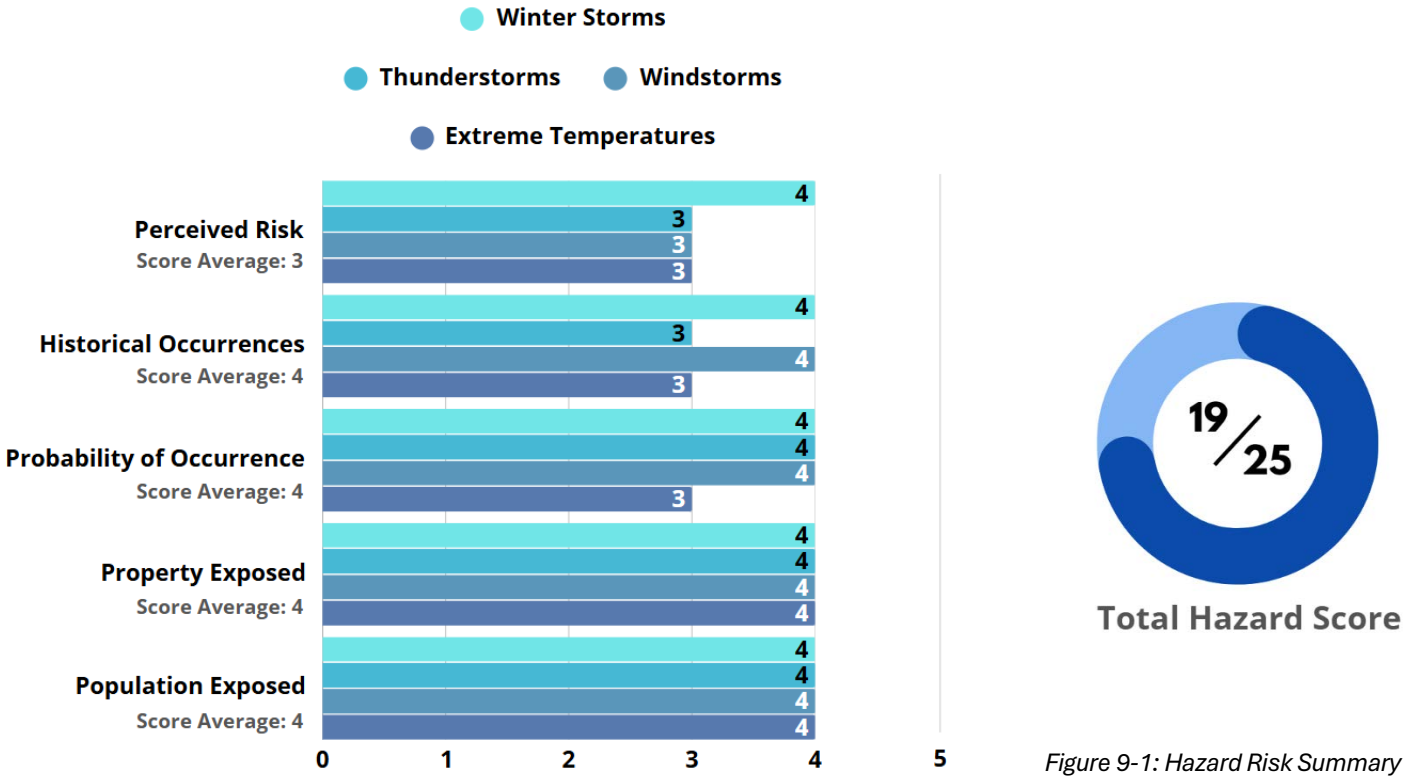


Figure 9-1: Hazard Risk Summary

The Total Hazard Score is calculated by averaging the scores from each severe weather category listed in the chart above.

FEMA'S NATIONAL RISK INDEX — **TABLE 9-1**

HAZARD	EXPECTED ANNUAL LOSS	COMMUNITY RISK FACTOR	RISK VALUE	SCORE
Severe Weather Systems	$ 5,243,815	1.08	$ 5,653,672	55.9

BACKGROUND

Definition:
Severe weather systems are atmospheric phenomena that pose significant threats to public safety, infrastructure, the environment, and economic stability. These systems can occur in various forms and intensities, often developing rapidly and with little warning. Effective mitigation requires proactive planning and response strategies to reduce associated risks and vulnerabilities.

Description:
Severe weather systems encompass a range of hazardous meteorological events, including but not limited to extreme temperatures, thunderstorms, windstorms, and winter storms. Each presents unique risks and challenges and are described in the table below:

SEVERE WEATHER SYSTEMS

WEATHER SYSTEM	DESCRIPTION	
Extreme Temperatures	Extreme temperatures are periods of unusually high or low air temperatures that deviate from normal climate patterns and pose risks to health, infrastructure, and utilities. • Extreme heat generally involves temperatures or heat index values exceeding 100°F for multiple days. • Extreme cold includes sustained temperatures at or below freezing, often worsened by wind chill.	
Thunderstorm	A storm featuring heavy rains, strong winds, thunder and lightning, typically about 15 miles in diameter and lasting about 30 minutes. Hail and tornadoes are also dangers associated with thunderstorms. Lightning is a serious threat to human life. Heavy rains over a small area in a short time can lead to flash flooding.	
Windstorm	A storm featuring violent winds. Southwesterly winds are associated with strong storms moving onto the coast from the Pacific Ocean. Southern winds parallel to the coastal mountains are the strongest and most destructive winds. Windstorms tend to damage ridgelines that face into the winds. A windstorm is characterized by sustained winds of 40 mph or higher, or wind gusts exceeding 58 mph, capable of causing widespread tree damage, power outages, structure impacts, and transportation disruptions.	
Winter Storm	A storm having significant snowfall, ice, and/or freezing rain; or a combination of winter hazards that disrupt normal operations and create risks to life and property. Typical extent thresholds include: • Heavy Snow: 6" in 12 hours or 8" in 24 hours. • Blizzard Conditions: Winds greater than 35 mph with visibility less than ¼ mile for 3+ hours. • Ice Storm: Greater than ¼" of ice accumulation.	

Figure 9-2: Severe Weather Systems

WARNING TIME

Forecasting tools allow meteorologists to identify the potential for severe weather—such as extreme temperatures, windstorms, thunderstorms, and winter storms—several days in advance. However, precise onset timing and severity often remain uncertain, particularly for fast-developing systems.

The National Weather Service (NWS), under National Oceanic and Atmospheric Administration (NOAA), issues tiered alerts (watches, warnings, advisories) to communicate potential and imminent threats. These warnings are distributed through the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), NOAA Weather Radio, and local emergency notification systems.

HISTORICAL FREQUENCIES

This section summarizes severe weather events in Kootenai County dating back to 1950, based on data recorded by the NOAA. Included in this summary are events involving extreme temperatures, thunderstorms, windstorms, and winter storms.

The table below presents documented severe weather events and serves as a general indicator of their relative frequency and impact. It is important to note that this data likely underrepresents the full extent of impacts and occurrences due to historical limitations in reporting and evolving data collection practices over time.

SEVERE WEATHER EVENTS **TABLE 9-2**

WEATHER SYSTEM	EVENTS (DAYS)	YEARLY AVERAGE (DAYS)	DATA YEARS
Extreme Cold	14	0.8 days	1950-2024
Extreme Heat	112	6.6 days	2008-2024
Thunderstorms	75	1.3 Days	1950-2024
Windstorms	36	2	2006-2024
Winter Storms	140	5	1950-2024
Total	**377**	**16.5**	

In comparison to other counties across Idaho, Kootenai County ranks in the top 3 in relation to the number of Presidentially Declared Disasters due to severe weather systems (see map).

SEVERE WEATHER DECLARED DISASTERS

SEVERE WEATHER EVENTS		TABLE 9-3
EVENT TYPE	**DISASTER DECLARATION**	**YEAR**
Severe Storms	DR-415	1974
Severe Storms	DR-1102	Feb. 1996
Severe Storms	DR-1154	Nov. 1996
Severe Storms	DR-1177	1997
Straight-line Winds	DR-4246	Nov. 2015
Winter Storm	DR-4252	Dec. 2015
Severe Storms	DR-4313	2017
Straight-line Winds	DR-4589	2021

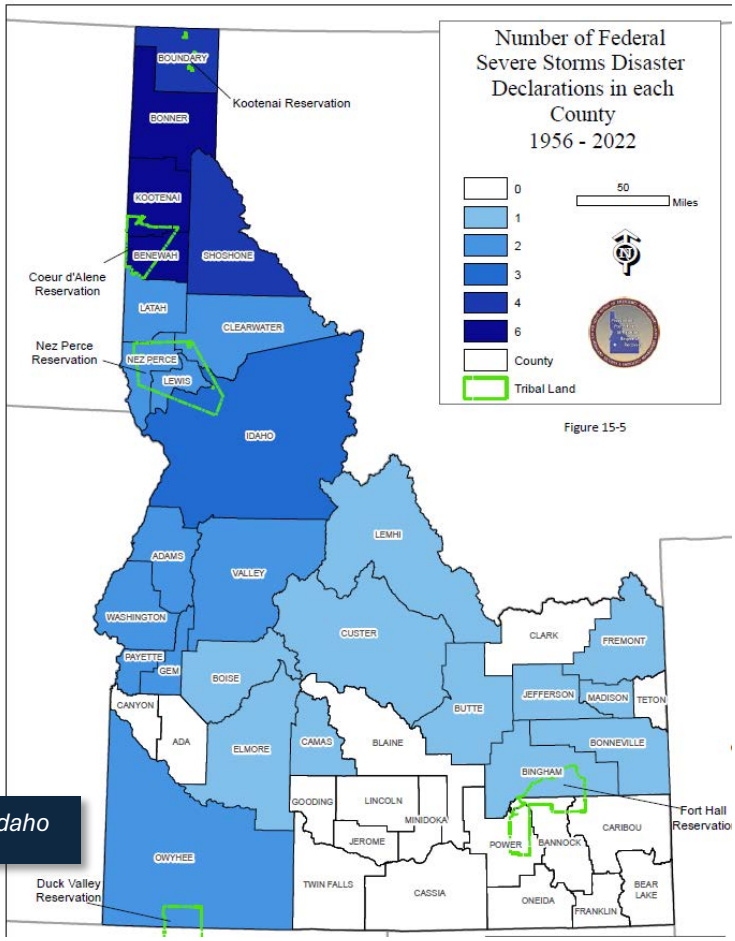


Figure 9-3: Severe Weather Disaster Declarations in Idaho

PROBABILITY

Severe weather systems occur regularly in Kootenai County and are expected to continue with high frequency. Based on historical records, recent event trends, and regional climate data, the overall probability of experiencing one or more significant severe weather events each year is high. Winter storms and wind events are the most consistent, occurring multiple times annually and often causing power outages and transportation disruptions. Thunderstorms and extreme temperatures, though more seasonal, also occur regularly and can lead to public health impacts, localized flooding, and infrastructure strain.

POPULATION

Severe weather events pose increased risks to vulnerable populations, including the elderly, low-income households, non-English speakers, individuals with medical dependencies, and those residing in isolated or difficult-to-access areas. These populations are more likely to experience the most severe consequences of severe weather due to limited access to resources, medical care, or timely emergency communications.

Medically Vulnerable & Isolated Populations

Residents reliant on electrically powered medical devices (e.g., ventilators, dialysis machines) are at high risk during power outages resulting from wind, snow, or ice storms. Isolation caused by blocked roads or downed communication infrastructure may prevent these individuals from receiving timely aid, making this a top concern for emergency response planning.

Linguistically Isolated Populations

Based on the most recent American Community Survey (ACS) estimates, approximately 922 residents in the planning area report speaking English "less than very well," representing about 0.6% of the total population. These individuals may have limited access to hazard warnings, evacuation notices, or safety instructions delivered in English, leaving them especially vulnerable during fast-developing severe weather events.

Population Below the Poverty Line

Approximately 18,433 individuals in the planning area, or 12.1% of the population, live below the poverty threshold (ACS 2018 estimates). Low-income households often lack the financial capacity to prepare for or recover from severe weather events. They may be unable to make structural home improvements, afford temporary relocation, or replace damaged property. In many cases, these households are also uninsured or underinsured, compounding their financial vulnerability post-disaster.

PROPERTY

All structures in Kootenai County are potentially vulnerable to damage from severe weather events, including snow loads, wind, falling trees, ice accumulation, and power line failures. However, certain properties face higher risks due to their location or condition.

High-Risk Property Types:

- Older and poorly maintained buildings are more susceptible to roof collapses from snow accumulation, structural failure from wind, and internal damage due to heating or insulation failures.
- Structures at higher elevations or on exposed ridgelines are more vulnerable to extreme wind conditions and snow accumulation. More data is needed to support risk-based analysis of capital projects.
- Buildings located under or near overhead utility lines or adjacent to large trees face increased danger from falling branches, ice, or downed power lines.

LOCATION

Severe weather events have the potential to impact all areas of Kootenai County. Due to the widespread and unpredictable nature of these hazards, no single location can be identified as being at greater or lesser risk. Countywide preparedness and mitigation efforts are essential, as severe weather can occur anywhere within the jurisdiction.

ISSUES TO CONSIDER

Important issues associated with severe weather in the planning area include the following:

- Older building stock in the planning area is built to low code standards or none at all. These structures could be highly vulnerable to severe weather events such as windstorms.
- Not all municipalities in the planning area have adopted the International Building Code.
- Redundancy of power supply must be evaluated.
- Above-ground power supply lines and telephone lines are susceptible.
- The capacity for backup power generation is limited.
- Some population centers are isolated.
- Continuity of operations of critical facilities is a vital component to community resilience from severe weather hazards.

TRENDS

Kootenai County is experiencing a gradual increase in average temperatures, reflecting a broader trend of climate change in the region. As these shifts continue, the impacts on public health and safety, particularly among vulnerable populations, are becoming more significant. To help mitigate these effects, the implementation of warming and cooling shelters is being considered as a key strategy to provide relief during periods of extreme temperatures and reduce climate-related health risks.

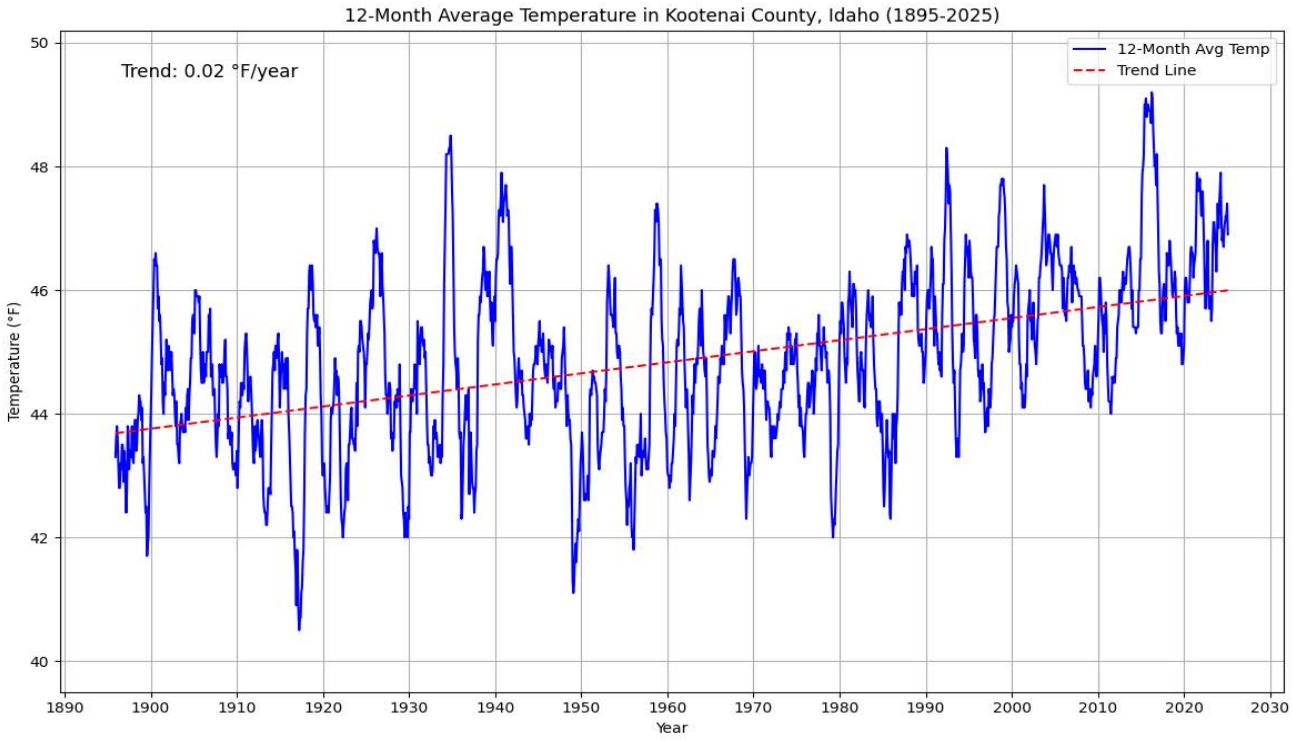


Figure 9-4: www.ncei.noaa.gov/, For more information see the *Coeur d'Alene Community Adaptation Project*

HAZARD IMPACT SUMMARY

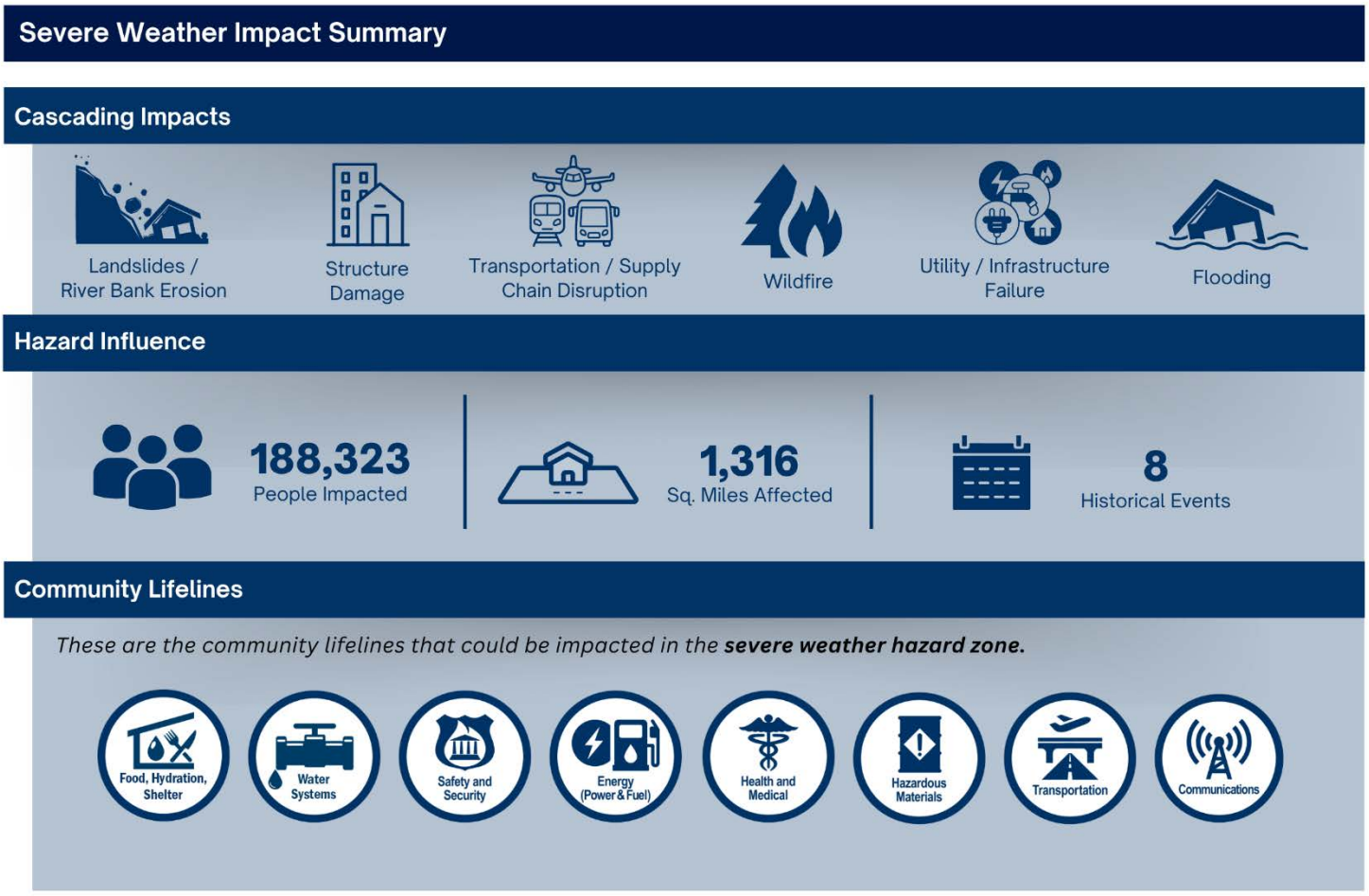


Figure 9-5: Severe Weather Impact Summary

CRITICAL INFRASTRUCTURE

Severe weather events continue to pose significant risks to Kootenai County's transportation infrastructure. The most common transportation failures stem from road closures, often triggered by secondary hazards. Prolonged, heavy rainfall can lead to landslides that block major and minor roadways. Similarly, high winds frequently damage trees and overhead utility lines, resulting in road obstructions, disrupted transportation, isolated communities, and compromised emergency access.

Snowstorms, particularly in the county's higher elevations, can severely disrupt transportation networks and delay the delivery of public safety services. Roads serving remote or vulnerable populations, including the elderly and those in isolated communities, are of special concern during such events.

Long-term road obstructions caused by snow accumulation, landslides, wind-blown debris, can significantly hinder the movement of goods, disrupt regional commerce, and cause substantial economic losses—especially during extended storm periods.

In addition to transportation impacts, severe windstorms, freezing rain, and ice accumulation pose ongoing threats to the county's power and communication infrastructure. Ice and wind can down trees and damage above-ground utility lines, leading to widespread outages. The freezing and snapping of power or communication lines can isolate residents, particularly in rural areas, by cutting off access to emergency services and vital communications.

SEVERE WEATHER IMPACT RATINGS

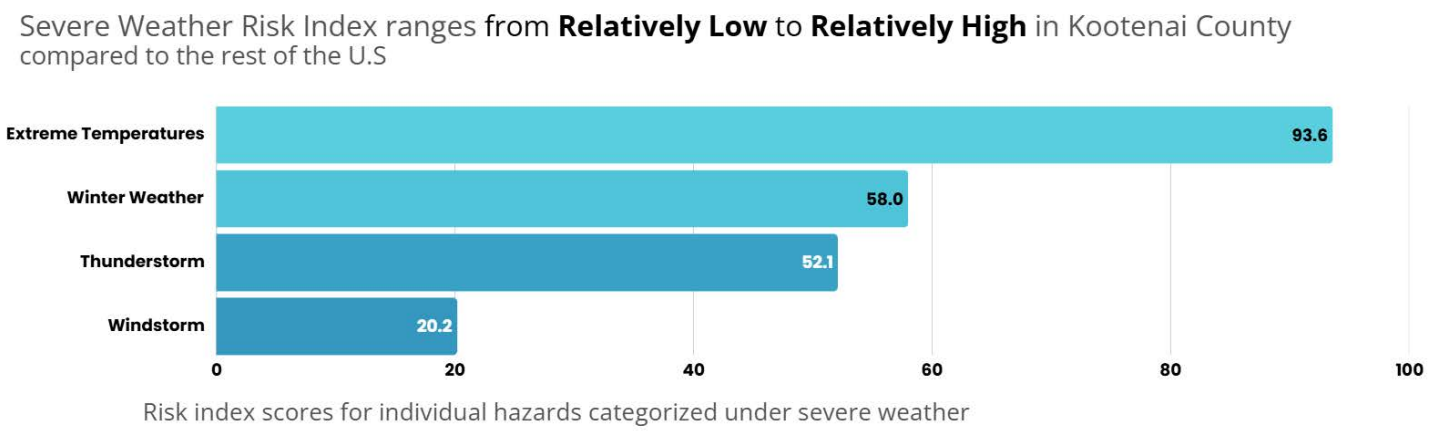
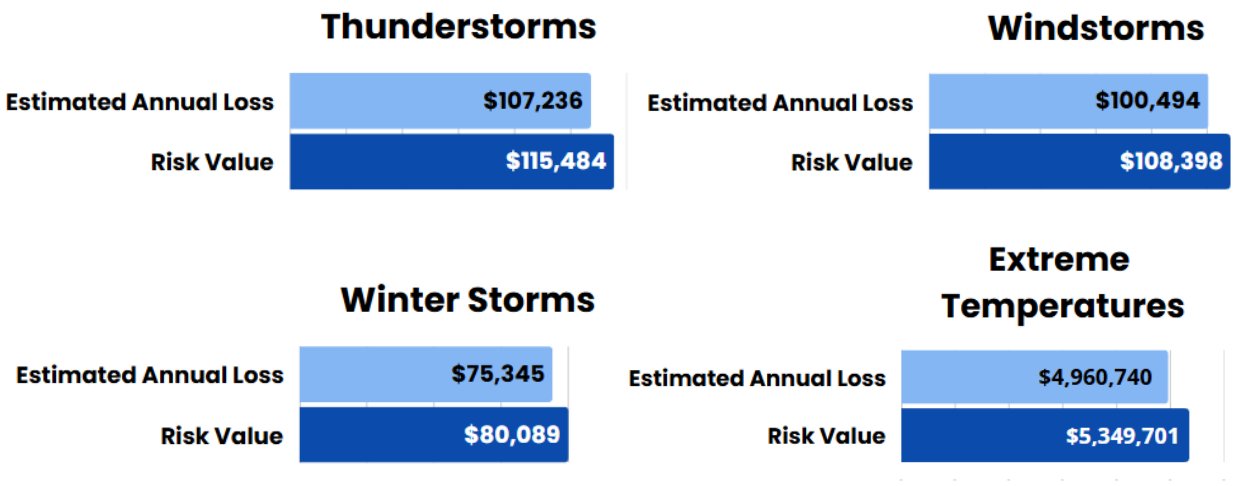


Figure 9-6 and 9-7: Severe Weather Impact Ratings



Risk Index scores reflect a community's Expected Annual Loss value, community risk factors, and the adjustment factor used to calculate the risk value.

Expected Annual Loss scores reflect a community's relative expected annual loss for only that hazard type.

COMMUNITY WILDFIRE PROTECTION PLAN (CWPP)

CHAPTER 10

WILDFIRE HAZARD PROFILE

Community Wildfire Protection Plan

The Wildfire hazard section of the 2026 Kootenai County All-Hazard Multi-Jurisdictional Hazard Mitigation Plan has been integrated with the simultaneous update to the Kootenai County Community Wildfire Protection Plan (CWPP), which fulfills all the requirements for a hazard mitigation plan but can also serve as a stand-alone document.

CHANGES SINCE THE 2020 AHMP

- A hazard cascade chart has been implemented to illustrate secondary and tertiary hazards.
- Comparison of Kootenai County's wildfire risk as it relates to national levels.
- Kootenai County FireSmart initiatives have been integrated into the mitigation action items.

HAZARD RISK SUMMARY

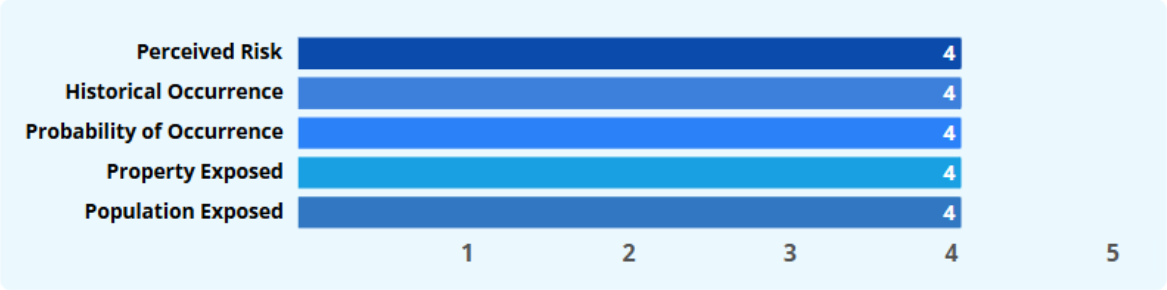


Figure 10-1: Hazard Risk Summary

FEMA'S NATIONAL RISK INDEX				TABLE 10-1
HAZARD	**EXPECTED ANNUAL LOSS**	**COMMUNITY RISK FACTOR**	**RISK VALUE**	**SCORE**
Wildfire	$ 72,410	1.08	$ 67,817	57.6

BACKGROUND

Definition: A **wildfire** is any uncontrolled fire on undeveloped land that requires fire suppression.

Description: Wildfires are typically ignited by lightning or human activities such as campfires, smoking, equipment use, or arson. They occur when heat, dry vegetation, and oxygen come together in wooded or grassy areas.

WILDFIRE TYPES

Wildfires are classified by fuel type:

- **Ground fires** burn underground materials like roots and duff, often smoldering for long periods and easily ignited by spotting.
- **Surface fires** consume vegetation on the ground, including grass, leaves, and shrubs.
- **Crown fires** burn in the canopy, igniting tall trees and suspended fuels. Crowning depends on canopy density, height, continuity, and supporting surface or ladder fires.

FACTORS AFFECTING WILDIFRE RISK

Topography:

Terrain strongly influences wildfire behavior. Features like canyons and gulches can funnel wind, intensifying and accelerating fires. Ridge saddles draw fire due to lower air resistance, while sun-heated south-facing slopes create upslope thermal winds that complicate fire spread.

Fuels:

Fuels vary by type, load (tons per acre), and burn characteristics. Some burn easily or with more intensity—e.g., grass burns fast with low energy, while heavier fuels burn slower but more intensely. Fuel continuity (horizontal and vertical) and moisture levels are critical. Ladder fuels link ground fires to tree crowns, and low moisture increases fire severity. Moisture content changes at different rates depending on fuel size.

Weather:

Weather is the most variable fire behavior factor. High heat, low humidity, and wind drive fire intensity and spread. Winds can shift suddenly, especially with fronts or storms, posing major safety risks. Cooler, humid conditions at night can help calm fires. Most destructive wildfires occur during high wind events.

HISTORICAL FIRE REGIME AND CURRENT CONDITION CLASSIFICATION

To manage ecosystems effectively, land managers must understand historical fire regimes—patterns of fire frequency and severity before major human influence. These regimes guide ecologically appropriate goals and vary across landscapes. Five general categories are used:

- **0–35 years, low to mixed severity:** Frequent surface fires with limited overstory loss (<75%).
- **0–35 years, high severity**: Frequent stand-replacing fires (>75% overstory loss).
- **35–100 years, mixed severity:** Moderate frequency with partial overstory replacement.
- **35–100 years, high severity:** Less frequent, stand-replacing events.
- **>200 years, high severity:** Very infrequent but intense, stand-replacing fires.

Understanding ecosystem departure and how current conditions differ from historical norms is essential for sustainable management. Across the U.S., historical fire regimes have been altered by decades of fire suppression, land development, livestock grazing, pest outbreaks, drought, and invasive species. These changes have affected:

- Vegetation structure and composition
- Fuel loads and continuity
- Fire frequency, severity, and spatial patterns
- Other disturbance dynamics, including disease, insects, and climate stress

Characteristic vegetation and fuels reflect those found under historical fire regimes. Uncharacteristic conditions arise from changes such as the spread of invasive species (e.g., non-native weeds, pests, and pathogens), altered forest structure from selective logging ("high grading"), or overgrazing that reduces grassy fuels below levels needed to carry surface fires.

The Fire Regime Condition Class (FRCC) is a system used to assess how much a landscape has departed from its historical fire regime. It groups wildland areas into three categories:

- **FRCC 1 – Low Departure**: Conditions remain within the historical range; natural fire behavior and ecological processes are largely intact.
- **FRCC 2 – Moderate Departure**: Some changes in vegetation, fuels, and fire frequency/severity; increased risk of uncharacteristic fire.
- **FRCC 3 – High Departure**: Significant deviation from historical conditions; high risk of severe, uncharacteristic fires and disrupted ecosystem processes.

FRCC assessments are based on comparing current fire regime attributes (like frequency, severity, and fuel structure) to historical norms. Understanding these condition classes helps land managers prioritize areas for restoration, fuels reduction, and ecological resilience.

TOOLS FOR ASSESSING FIRE HAZARDS

Two primary indices help assess the likelihood that fire ignitions will become wildfires:

- **Adjective Fire Danger Rating (via the North Idaho Interagency Fire Danger Operating Plan):**
  Based on daily values for:
  - **ERC (Energy Release Component):** Estimates available energy (BTUs per square foot) in the flaming front, influenced by fuel type and moisture levels. Higher ERC means more intense fire potential.
  - **IC (Ignition Component):** Reflects the probability that a single firebrand will start a fire needing suppression.
- **Keetch-Byram Drought Index (KBDI):**
  Used by the U.S. Forest Service, KBDI measures cumulative soil moisture deficit (0–800 scale), factoring in evapotranspiration and precipitation. Higher values indicate drier conditions, deeper soil dryness, and increased fire intensity and suppression difficulty.

Both indices are essential for wildfire preparedness planning, guiding decisions on campfire bans, burn restrictions, fire patrols, lookout staffing, and aircraft readiness. Together, they support proactive fire management by estimating ignition potential, fire growth, and suppression needs.

Wildland Fire Assessment System

The Wildland Fire Assessment System (WFAS) is a web-based tool that offers a national overview of wildfire potential. Developed by the Fire Behavior Unit in Missoula, Montana, and now maintained by the National Interagency Fire Center (NIFC) in Boise, WFAS integrates fire weather data, fuel moisture, and satellite imagery to support situational awareness.

Each day during fire season, WFAS generates national maps using components of the National Fire Danger Rating System (NFDRS). These maps display key fire weather indicators, such as:

- Fire danger ratings
- Fuel moisture levels (live and dead)
- Weather conditions (both current and antecedent)
- Satellite-derived vegetation "greenness"

Local data from field stations, like weather conditions and fuel characteristics, inform the system’s outputs. Fire danger is color-coded to indicate relative risk levels, helping guide response readiness and resource allocation nationwide. WFAS is a critical tool for fire managers, planners, and incident response teams.

U.S FOREST SERVICE FIRE DANGER RATING	TABLE 10-2
FIRE DANGER RATING AND COLOR	**DESCRIPTION**
LOW (Dark Green)	Fuels do not ignite readily from small firebrands although a more intense heat source, such as lightning, may start fires in duff or punky wood. Fires in open cured grasslands may burn freely a few hours after rain, but woods fires spread slowly by creeping or smoldering and burn in irregular fingers. There is little danger of spotting.
MODERATE (Blue)	Fires can start from most accidental causes, but with the exception of lightning fires in some areas, the number of starts is generally low. Fires in open cured grasslands will burn briskly and spread rapidly on windy days. Timber fires spread slowly to moderately fast. The average fire is of moderate intensity, although heavy concentrations of fuel, especially draped fuel, may burn hot. Short-distance spotting may occur, but is not persistent. Fires are not likely to become serious and control is relatively easy.
HIGH (Yellow)	All fine dead fuels ignite readily and fires start easily from most causes. Unattended brush and campfires are likely to escape. Fires spread rapidly and short-distance spotting is common. High-intensity burning may develop on slopes or in concentrations of fine fuels. Fires may become serious and their control difficult unless they are attacked successfully while small.
VERY HIGH (Orange)	Fires start easily from all causes and, immediately after ignition, spread rapidly and increase quickly in intensity. Spot fires are a constant danger. Fires burning in light fuels may quickly develop high-intensity characteristics such as long-distance spotting and fire whirlwinds when they burn into heavier fuels.
EXTREME (Red)	Fires start quickly, spread furiously, and burn intensely. All fires are potentially serious. Development into high-intensity burning will usually be faster and occur from smaller fires than in the very high fire danger class. Direct attack is rarely possible and may be dangerous except immediately after ignition. Fires that develop headway in heavy slash (trunks, branches, and tree tops) or in conifer stands may be unmanageable while the extreme burning condition lasts. Under these conditions the only effective and safe control action is on the flanks until the weather changes or the fuel supply lessens.

Fire Potential Index

The Fire Potential Index (FPI) highlights areas most susceptible to fire ignition based on daily weather and vegetation conditions. It integrates satellite-derived vegetation greenness with weather factors like low humidity, high temperatures, and lack of precipitation. FPI maps, produced daily by the U.S. Forest Service, are scaled from 0 (low) to 100 (high) fire potential.

While separate from the National Fire Danger Rating System (NFDRS), FPI incorporates 10-hour fuel moisture as a key indicator. Fuel moisture reflects how past and present weather affects live and dead vegetation.

- Live fuel moisture changes slowly and is influenced by long-term drought, pest outbreaks, early-season curing, and storm damage.
- Dead fuel moisture responds quickly to weather, absorbing or losing moisture from rain, dew, and humidity. It is strongly influenced by fuel size, structure, and exposure.

Fuel moisture response times are categorized by time-lag classes:

- 1-hour fuels: <0.25" (fine fuels; fast response to weather)
- 10-hour fuels: 0.25"–1" (short-term moisture response)
- 100-hour fuels: 1"–3" (moderate response; 24-hour averages)
- 1,000-hour fuels: 3"–8" (long-term trends; 7-day averages)

Haines Index (Lower Atmosphere Stability Index):

The Haines Index measures the potential for a fire to grow large, based on the stability and moisture of the lower atmosphere. It ranges from 2 (very low potential) to 6 (high potential):

- 2–3: Moist, stable air (very low potential)
- 4: Low potential
- 5: Moderate potential
- 6: Dry, unstable air (high potential for fire growth)

It uses temperature differences between atmospheric layers and dew point spreads to assess the risk of rapid fire growth—especially in areas where surface winds are not the primary driver. The index is adapted for low, mid, and high elevations across the U.S. and is a key tool in predicting fire behavior beyond ignition.

HAZARD PROFILE

Past Events

The table below summarizes severe wildfire events in the planning area since 1910, as recorded by the NOAA and the 2023 State of Idaho Hazard Mitigation Plan.

SIGNIFICANT FIRES IMPACTING PLANNING AREA — **TABLE 10-3**

DATE/LOCATION	DEATHS/INJURIES	PROPERTY DAMAGE	CROP DAMAGE
August 20-21, 1910 *Idaho & Montana*	88	Unknown	Unknown
	Description: The big blowup wildfire of 1910 burned more than 3,000,000 acres in northeastern Idaho and western Montana and killed 88 people. Although the fire was primarily in adjoining Shoshone County, some acreage in Kootenai County was also damaged. The city of Wallace, Idaho was partially destroyed in this fire.		
August 26, 1967 *Kootenai County*	0	$2,255,454	$0
	Description: The fire season of 1967 was one of the worst fire seasons on record, with 59 days of very high or extreme fire danger. Lighting ignited fires throughout the summer. National forests were closed until September 11. On July 12, there were 131 fires. A total of 818 fires were started in August. Several fires began on Sundance Mountain at the end of August. Northeast winds began to blow at more than 60 miles an hour. Humidity was less than 35 percent. The winds then quickly shifted from the southwest. On September 1, the fire on the mountain consumed over 56,000 acres in a single day. DR-231 was declared. Property damage was not equivalent to the 1910 fire.		
October 16, 1991 *Kootenai County*	2	$15,000,000	$0
	Description: Following a warm dry summer and early fall, by October 15, there had been no rain for 42 days. Several small fires caused by downed power lines were fanned into a firestorm near Hauser Lake on October 16. Spokane County suffered the most damage with 92 wildfires causing 2 deaths and $15 million in damage.		
August 12, 1998 *5 miles SW of Coeur d'Alene*	0	$10,000	$15,000
	Description: A truck-sparked fire in wheat field damaged 15 acres and destroyed the truck.		

SIGNIFICANT FIRES IMPACTING PLANNING AREA			TABLE 10-3
DATE/LOCATION	**DEATHS/INJURIES**	**PROPERTY DAMAGE**	**CROP DAMAGE**
August 19, 1998 *2 miles North of Rose Lake*	0	$20,000	$0
	Description: Lightning sparked 20 small fires (acre or less) in Coeur d'Alene National Forest.		
September 14, 1998 *4 miles southeast of Worley*	0	$20,000	$0
	Description: Lightning sparked 20 small fires (acre or less) in Coeur d'Alene National Forest.		
2000 Wildfire Season *Idaho & Montana*	15	$10 Billion (combined)	Unknown
	Description: The 2000 wildfire season was the worst since 1910. Over 7 million acres were burned and 15 firefighters killed. Losses exceeded $10 billion. Total suppression costs for all federal agencies were $1,362,367,000—four times the average over the previous seven years. Over 2 million of these acres were in Central Idaho and Western Montana. Western governors and federal officials lobbied Congress for $2.8 billion for fire prevention. Thus wildfire prevention became a national priority. Included in these budgets were monies for prescribed burns as well as mechanical fuel treatments.		
2015 Wildfire *Kootenai County*	0	$8 Million	Unknown
	Description: 78,571 acres burned, 321 fire starts, 15 IDL incidents required use of 27 incident management teams. Three Emergency Disasters Declared. In Kootenai County: FM-5088, the 2015 Cape Horn Fire started in the early morning hours of July 5th on the southwest shore of lake Pend Oreille above the community of Bayview. The fire is still under investigation but is believed to be human caused. A Type 2 IMT was brought in to assist with fire suppression. Over 1,326 acres burned. Emergency Disaster Declaration FM5088 was declared on July 5th. Eight buildings were destroyed, 287 threatened, the community of Bayview was evacuated. The Not Creative Fire four miles north of Rose Lake, just off I-90, started on August 13th due to a lightning strike. No structures were threatened. 135 acres burned. This fire was contained on August 20th. A type 2 IMT supported this incident. The Monument fire on Monument Mountain just east of Skookum Creek, started on August 21 due to a lightning strike. 412 acres burned. The fire was contained on September 9 and controlled on October 27. A type 3 IMT supported this incident. Lightning sparked 20 small fires (acre or less) in Coeur d'Alene National Forest.		
August 1, 2018 *North Idaho Panhandle*	0	$7.7 Million	$0
	Description: Dry conditions over north Idaho during July and August created dry fuel conditions across the region. Lightning from occasional thunderstorms moving through the region most notably during the last week of July, caused a number of wildfires some of which grew large and long lasting requiring considerable state and federal resources to contain. These large fires were in unpopulated forest land with no structures or homes lost. Smoke from these fires and fires in surrounding states and provinces often severely degraded air quality across eastern Washington and north Idaho during the month of August.		
August 2023 Wildfire Season *Kootenai County*	0	$40,000	$0
	Description: In August 2023, Kootenai County experienced a series of wildfires that underscored the region's ongoing wildfire risk. The Ridge Creek Fire burned approximately 4,300 acres near Hayden Lake in the Idaho Panhandle National Forest, requiring a significant response but causing no structural damage. The Parkway Fire near Post Falls prompted evacuations as it threatened homes, ultimately burning 80 acres without structural loss. Near Athol, the Sarah Loop Fire burned 60 acres and destroyed two outbuildings before being contained. While no injuries or major property losses were reported, these incidents highlighted the need for continued wildfire preparedness and mitigation.		

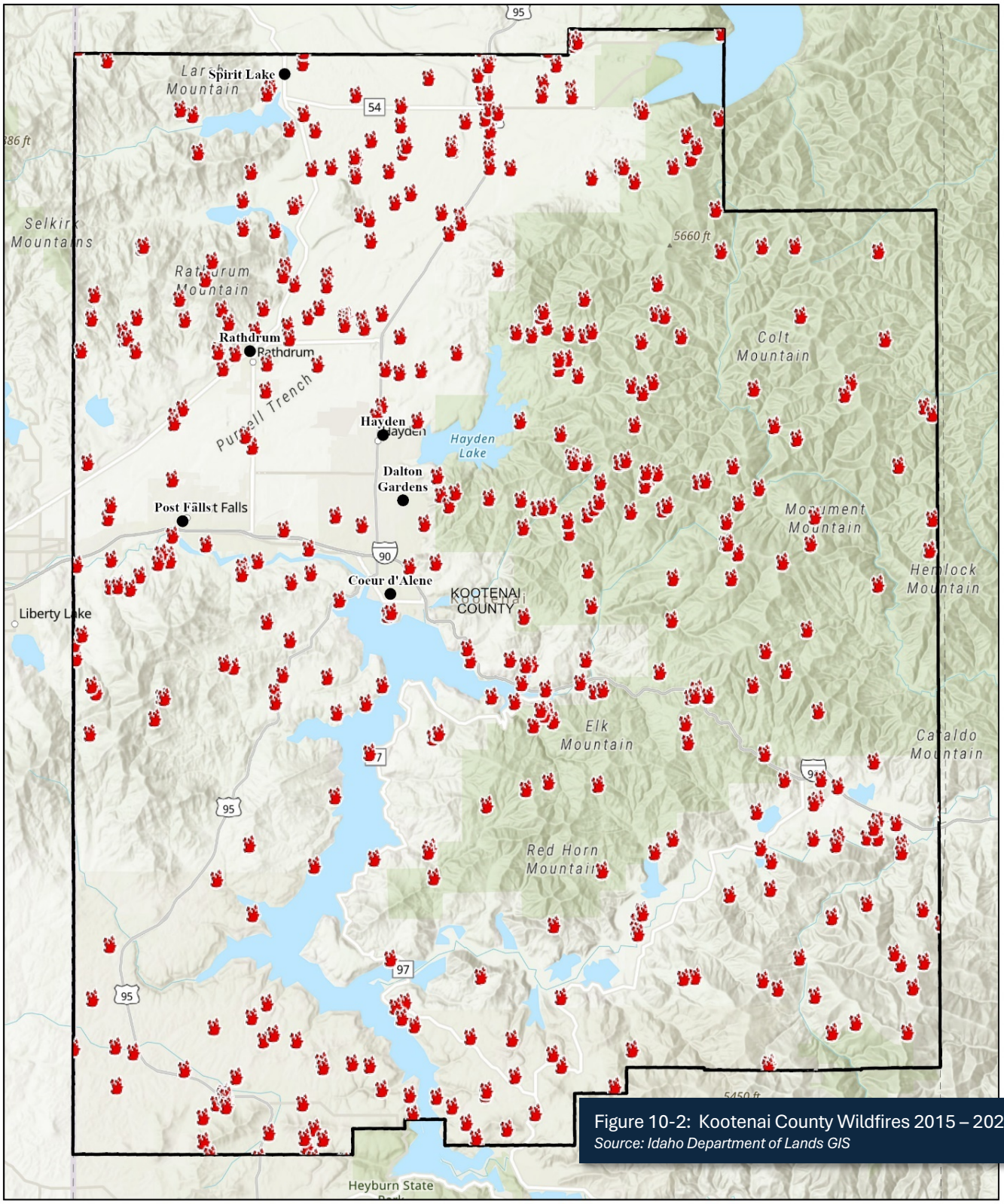
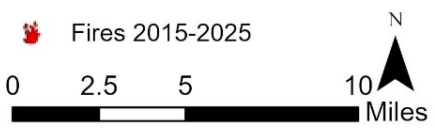


Figure 10-2: Kootenai County Wildfires 2015 – 2025
Source: Idaho Department of Lands GIS



Kootenai Wildfires 2015-2025

LOCATION

Wildfires threaten all of Kootenai County, with the greatest risk to those living in or near the Wildland-Urban Interface (WUI)—areas where homes and infrastructure meet or intermingle with wildland vegetation. In Kootenai County, the WUI encompasses nearly all areas outside of core urban centers. The WUI includes a two-mile buffer around developed areas, adjusted for natural features like ridgelines, roads, and waterways. With continued population growth and development pressure, nearly all non-urban areas—from the Washington border to surrounding state and federal forests—fall within the WUI and remain a priority for wildfire mitigation and emergency planning.

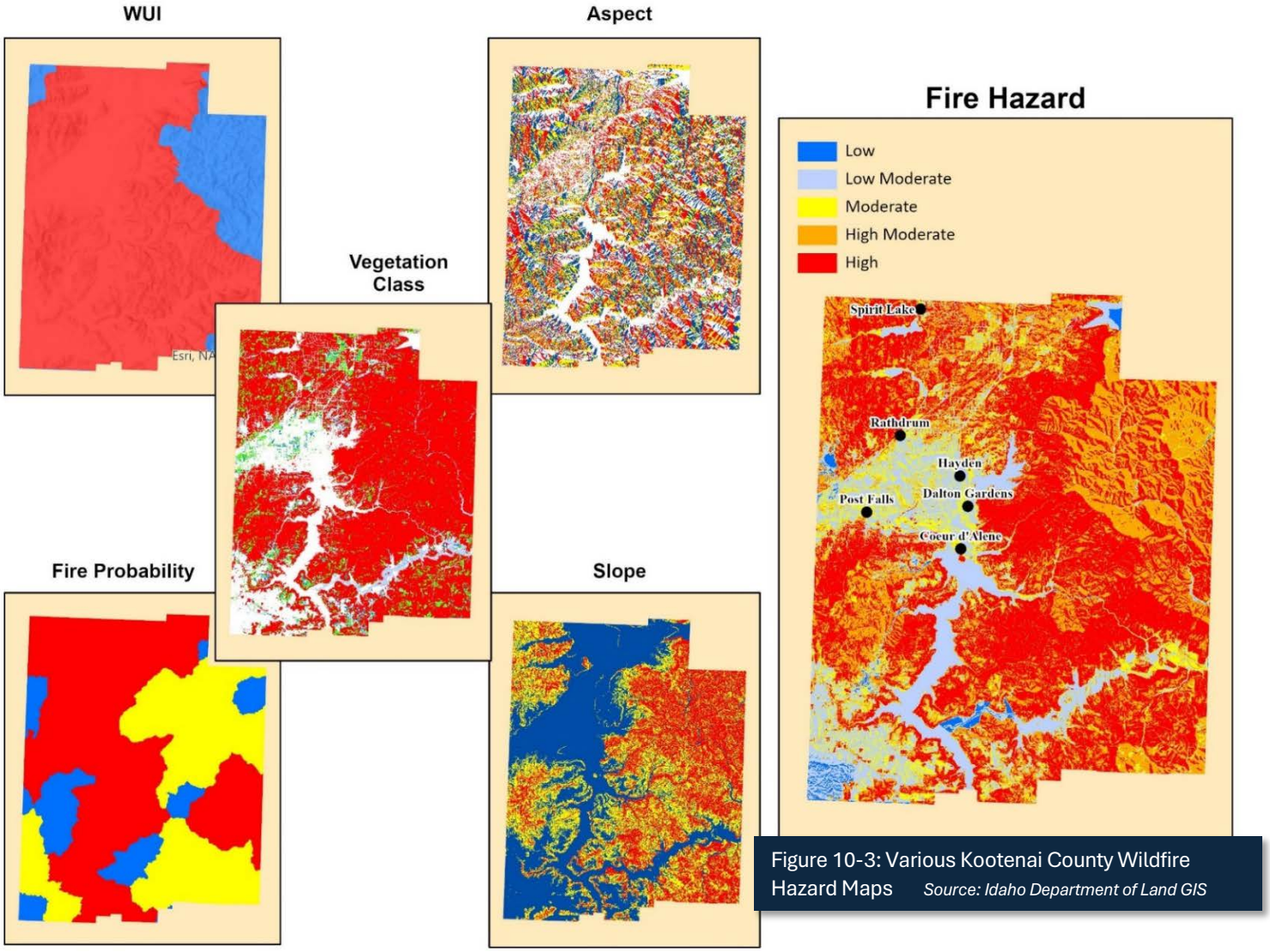


Figure 10-3: Various Kootenai County Wildfire Hazard Maps *Source: Idaho Department of Land GIS*

KOOTENAI COUNTY WILDLAND URBAN INTERFACE (WUI)

To support decision making and better understand infrastructure risks, a housing population map was overlaid on the defined WUI area. The county, which includes a wide range of development types, has established criteria for classifying land as WUI, non WUI vegetated or non-vegetated/agricultural. The WUI is where developed land meets or intermixes with wildland vegetation, creating high wildfire risk. Vegetated WUI areas contain forests or brush that can carry fire into communities, while non-vegetated or agricultural WUI lands—like farms, pastures, or cleared lots—have lower fire risk due to limited natural fuels. This is demonstrated in Figure 10-4 below.

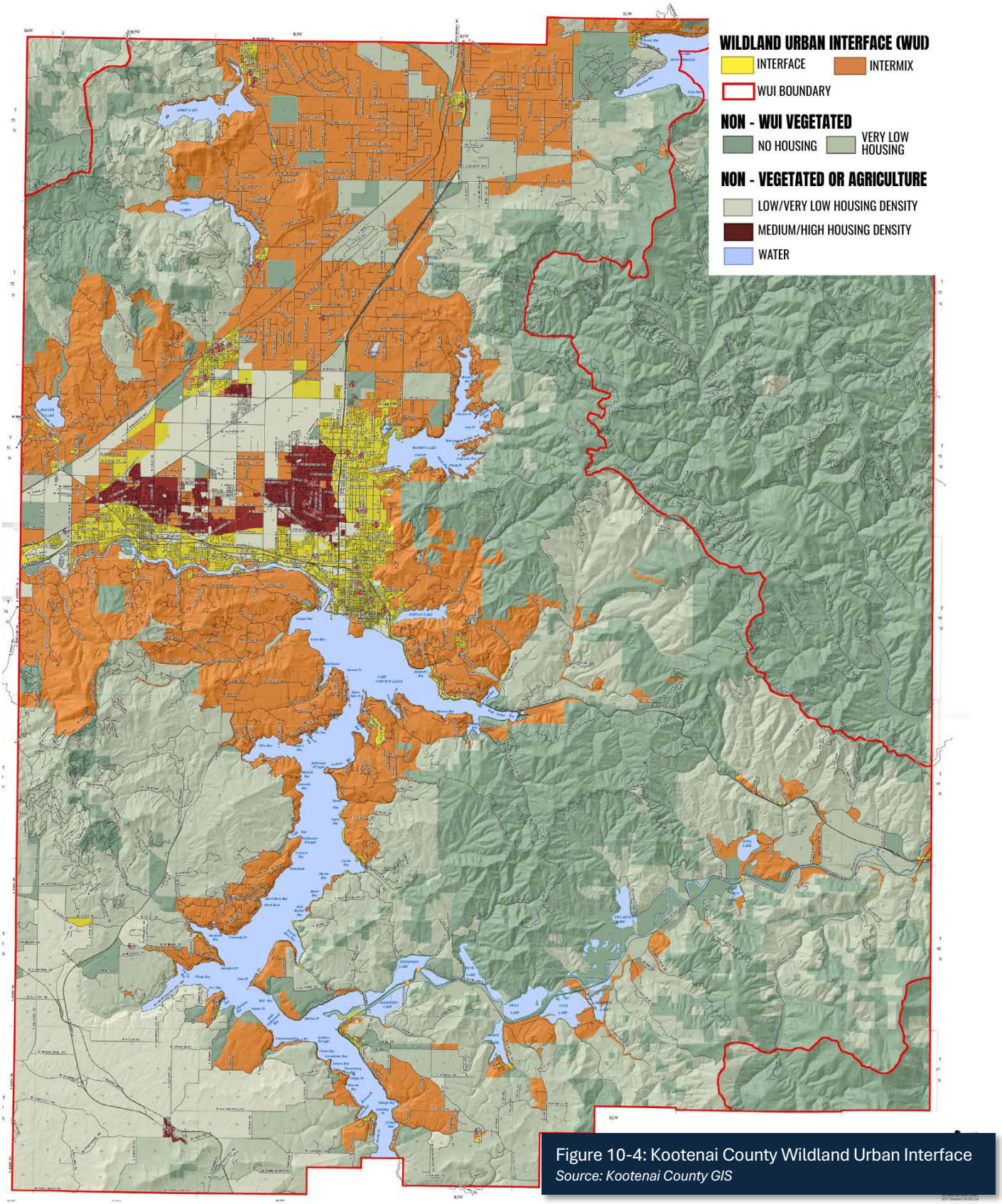


Figure 10-4: Kootenai County Wildland Urban Interface
Source: Kootenai County GIS

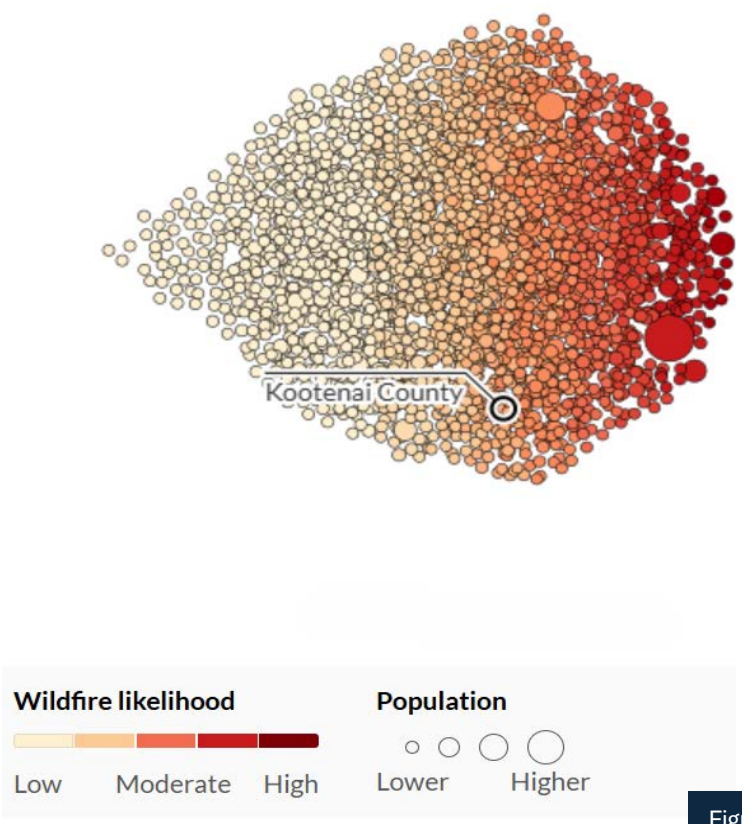


Figure 4: Kootenai County Wildfire Likelihood Compared Nationally
Source: wildfirerisk.org (USDA/USFS)

SEVERITY

Wildfire severity is influenced by weather, terrain, fuel load, human activity, and response time. Factors like wind, recent precipitation, fuel moisture, and fire accessibility determine whether a fire remains manageable or escalates into a major event.

The USDA classifies wildfire burn severity to guide post-fire recovery and soil stabilization efforts. Burn severity affects vegetation regrowth, erosion risk, and soil health. Key indicators include soil color, ash type, root damage, and water repellency (hydrophobicity). Severity is generally categorized as follows:

- **Low Severity (Type III):**
  Found mostly on rangeland. Partial consumption of surface debris, minimal soil heating, low or no hydrophobicity. Natural recovery is rapid (within 1 year), with little erosion risk.
- **Moderate Severity (Type II):**
  Occurs on grassy or lightly timbered slopes. Surface duff consumed; some ash and moderate hydrophobicity present. Root systems below 1 inch often survive. Vegetative recovery takes 1–5 years, with moderate erosion potential.
- **High Severity (Type I):**
  Typically in dense, steep forested areas. Complete duff consumption, white ash, high hydrophobicity, and significant soil and root damage (up to 4 inches deep). Vegetation recovery may take 5–10 years. Soil erosion risk is high, and soil productivity is often reduced.

Following wildfires, trees may be structurally compromised. Burned or shallow-rooted trees can fall without warning—exercise extreme caution when in or near burned areas.

FREQUENCY

It is difficult to estimate the number of devastating wildfires in Kootenai County every year because of the many factors that affect the potential for a fire. Based on available data, wildfire will likely continue to present a risk as the WUI becomes more developed and populated. The likelihood of a fire event starting and sustaining itself should be gauged by professional fire managers on a daily basis. The table below highlights the amount of risk on the landscape on an annual basis due to the various ignition sources of wildfire.

BURNED AREA IN KOOTENAI COUNTY (IDL AND USFS) | 2015 – 2023 (Acres) **TABLE 10-4**

CAUSE	2015	2016	2017	2018	2019	2020	2021	2022	2023
Arson	15.1	69.0	2.6	2.3	0	0.9		0	0.9
Campfire	13.2	0.1	0.6	3.9	0.7	1,376.45	0.9	0	0
Children	0.6	0	0	1.8	0	0.5		0	0.25
Debris Burning	59.9	41.4	9.5	8.0	3.1	0.3	224.03	0	60.46
Equipment	3.6	32.5	0.2	75.05	0	0.1	1.19	0	0
Firearms/ Weapons	0	0	0	0	0	0	0.1	0	0
Incendiary	0	0	0	0	0	0	1	0	1.5
Lightning	835.7	2.0	4.67	0.9	2.35	0.45	96.02	0	0
Miscellaneous	1480.55	1.2	24.6	53.2	1.1	71.94	39.9	8.3	80.6
Natural	0	0	0	0	0	0	0	5.75	6.65
Railroad	0	0	0	0	0.3	0	0	0	0
Smoking	0.2	0	0	0	0	0	0	0	0
Undetermined	0	0	1.1	1.5	14.2	32.4	0.75	3	4,495.41
Total Acres	**2408.85**	**146.2**	**43.27**	**146.65**	**21.75**	**1,483.04**	**363.9**	**17.05**	**4,645.77**

Source: Idaho Department of Lands GIS

WARNING TIME

Most wildfires in Kootenai County are human caused, though dry conditions and lightning, especially during drought or high heat, greatly increase ignition risk. While exact timing is unpredictable, the National Weather Service typically provides 24–48 hours' notice for lightning and red flag warnings.

Wildfires can spread rapidly, especially during peak burn hours (1–6 p.m.), requiring evacuations with little notice. Fortunately, modern alert systems such as cellular, NOAA weather alerts, and local emergency communications, enable faster warning and response times.

HAZARD IMPACT SUMMARY

Wildfires can generate a range of secondary effects, which in some cases may cause more widespread and prolonged damage than the fire itself. Fires can cause direct economic losses in the reduction of harvestable timber and indirect economic losses in reduced tourism. Wildfires cause contamination of reservoirs, destroy transmission lines and contribute to flooding. They strip slopes of vegetation, exposing them to greater amounts of runoff. This in turn can weaken soils and cause failures on slopes. Major landslides can occur several years after wildfire. Most wildfires burn hot and for long durations that can bake soils, especially those high in clay content, thus increasing the imperviousness of the ground. This increases the runoff generated by storm events, thus increasing the chance of flooding.

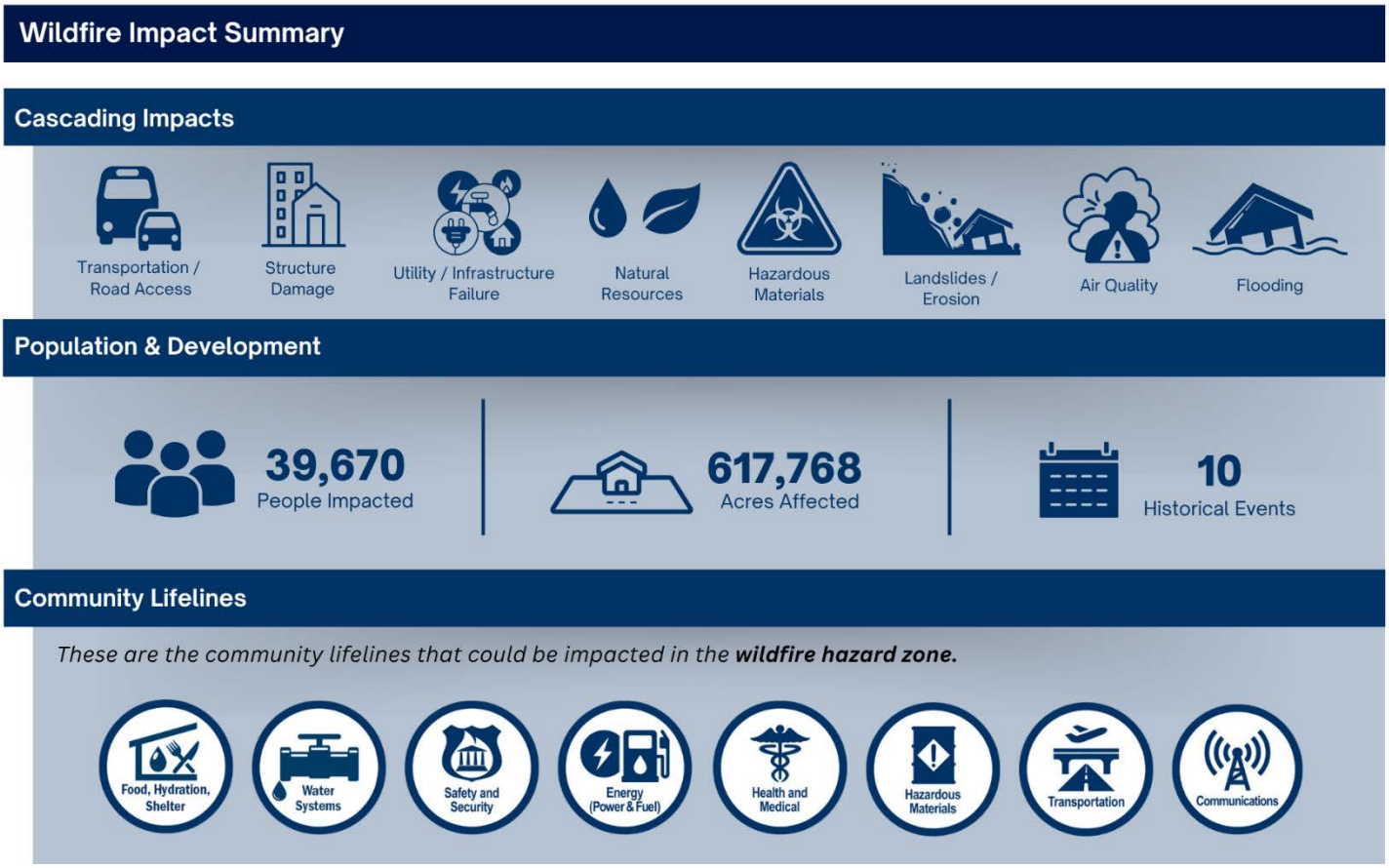


Figure 10-5: Wildfire Impact Summary

PROBABILITY

Kootenai County faces a wildfire risk that is 67% greater than the national average for U.S. counties. Roughly 127 square miles of Kootenai County land fall within the wildfire-exposed WUI – 20% of population exposed in WUI roughly 40,000. The County recognizes the significant wildfire risk to its communities and continues to identify and implement mitigation strategies to reduce this threat. Recently completed projects are detailed in Mitigation Action section below, along with ongoing and planned efforts—including public education, infrastructure improvements, and additional mitigation measures. Wildfire risk is reviewed annually, with new projects added as conditions, development, and priorities evolve.

Risk to homes measures the relative consequence of wildfire to residential structures everywhere on the landscape, whether a home exists there or not.

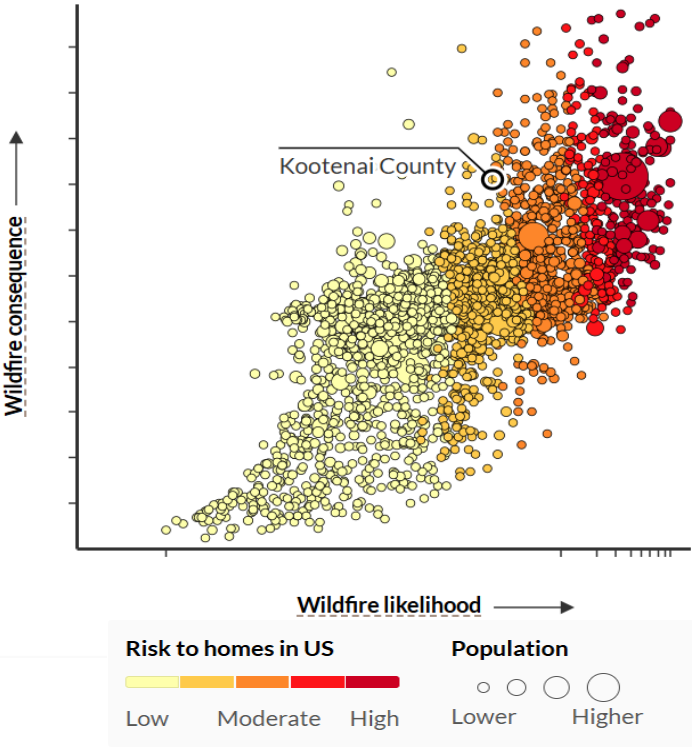


Figure 10-6: Wildfire Risk
Source: wildfirerisk.org

BUILDING EXPOSURE

Kootenai County's building exposure analysis indicates that 37,507 structures, representing 43.6% of all buildings and 41.5% of total assessed value, are directly exposed to wildfire risk. An additional 20,228 buildings (23.5% of structures; 18.5% of value) are indirectly exposed, meaning they face elevated threat levels due to proximity to hazardous fuels or potential ember intrusion pathways. The remaining 28,322 buildings (32.9% of structures; 39.9% of value) are considered minimally exposed, located in areas where wildfire risk is comparatively lower but not absent. These findings underscore that nearly half of the county's building stock, and a significant portion of its property value, remains at high risk from wildfire, emphasizing the importance of targeted mitigation strategies such as defensible space, fuel treatments, and fire-adapted construction practices.

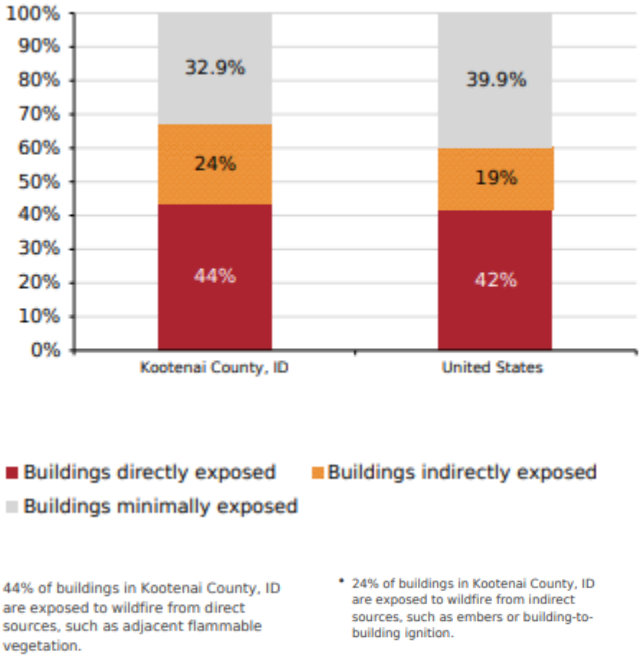


Figure 10-7: Kootenai Building Exposure to Wildfire
Source: Headwaters Economics

CRITICAL FACILITIES AND INFRASTRUCTURE

The table below identifies critical facilities exposed to the wildfire hazard in Kootenai County. According to the Idaho Office of Emergency Management (IOEM), it is possible that the hazardous material containments at these sites could rupture due to excessive heat from a wildfire and act as fuel for the fire, causing rapid spreading and escalating the fire to unmanageable levels. The hazardous materials could leak into surrounding areas, saturating soils and seeping into surface waters, and have a disastrous effect on the environment.

In the event of wildfire, there would likely be little damage to the majority of infrastructure. Most road and railroads would be without damage except in the worst scenarios. Power lines are the most at risk to wildfire because most are made of wood and susceptible to burning. In the event of a wildfire, pipelines could provide a source of fuel and lead to a catastrophic explosion.

CRITICAL FACILITIES AND INFRASTRUCTURE IN KOOTENAI COUNTY — **TABLE 10-5**

CRITICAL FACILITIES	TOTAL	CRITICAL INFRASTRUCTURE	TOTAL
Government Function	47	**Bridges**	51
Schools	73	**Water Supply**	421
Transportation	68	**Waste Water**	95
Medical and Health	5	**Power**	3
Fire	47	**Communications**	19
Police	14	**Bridges**	51
Emergency Operations	2		
Hazardous Materials	43		
Tribal Facilities	14		

Source: Kootenai County GIS

ENVIRONMENT

While fire plays a natural role in shaping forest ecosystems, uncharacteristically severe wildfires can cause significant environmental damage:

- Fisheries Degradation: Sedimentation, higher water temperatures, and nutrient loading threaten aquatic habitats.
- Soil Erosion & Landslides: Loss of vegetation exposes soil, increasing erosion and destabilizing slopes.
- Invasive Species: Burned areas are vulnerable to colonization by non-native plants, which outcompete native species and are costly to manage.
- Insects & Disease: Fire-damaged or stressed trees may attract pests and pathogens, spreading infestations across forested lands.
- Habitat Loss: Fires can destroy critical habitat for endangered or sensitive species.
- Soil Sterilization: High-intensity burns may render topsoil hydrophobic and nutrient-poor, delaying ecosystem recovery for decades.

Most ecosystems in Kootenai County are adapted to specific fire regimes—patterns of frequency, size, and intensity. When wildfire characteristics fall outside these natural ranges, long-term ecological health is jeopardized.

VULNERABILITY

Structures, above-ground infrastructure, critical facilities and natural environments are all vulnerable to the wildfire hazard. There is currently no validated damage function available to support wildfire mitigation planning. Except as discussed in this section, vulnerable populations, property, infrastructure and environment are assumed to be the same as described in the section on exposure.

POPULATION

Except for those living in the center of urban cores, this plan estimates that virtually all of the population of the county is located in the WUI and thus exposed to wildfires. Wildfires in Kootenai County pose significant health risks due to smoke exposure, which can worsen respiratory and cardiovascular conditions, especially among vulnerable groups. Wildfire smoke contains fine particulates, toxic gases, and other pollutants that reduce air quality, visibility, and overall public health. Wildfire also presents serious health risks to first responders, who may experience heat stress, smoke inhalation, and physical injury while combating fires or supporting evacuations.

Key vulnerable populations in Kootenai County include:

- **Children (Under 18):** Representing 22.1% of the population (~41,600), children are more susceptible to respiratory impacts and rely on adults for evacuation and care.
- **Seniors (65+):** Making up 20.4% of residents (~38,400), older adults may face mobility or health challenges during wildfire events and recovery.
- **People with Disabilities (Under 65):** 9.8% of residents under 65 live with a disability, which can limit their ability to respond during emergencies.
- **Residents Living in Poverty:** About 9.3% (~17,500 people) fall below the poverty line, with limited resources for evacuation, mitigation, or post-fire recovery.
- **Non-English Speakers:** Around 3.5% of residents speak a language other than English at home, which may hinder access to emergency information and warnings.

PROPERTY

On average, homes in Kootenai County face a 67% higher risk of wildfire exposure compared to counties across the United States. Figure 6 highlights wildfire risk along the WUI. Wildfire loss estimates account for potential casualties, property damage, and environmental harm. The probability of wildfire occurrence is high, as is the exposure risk to densely populated and urban areas. Each wildfire also brings significant response costs. Given these factors, annual wildfire-related losses in Kootenai County typically reach into the hundreds of thousands of dollars—and could easily escalate into the millions if major damage occurs to homes or businesses.

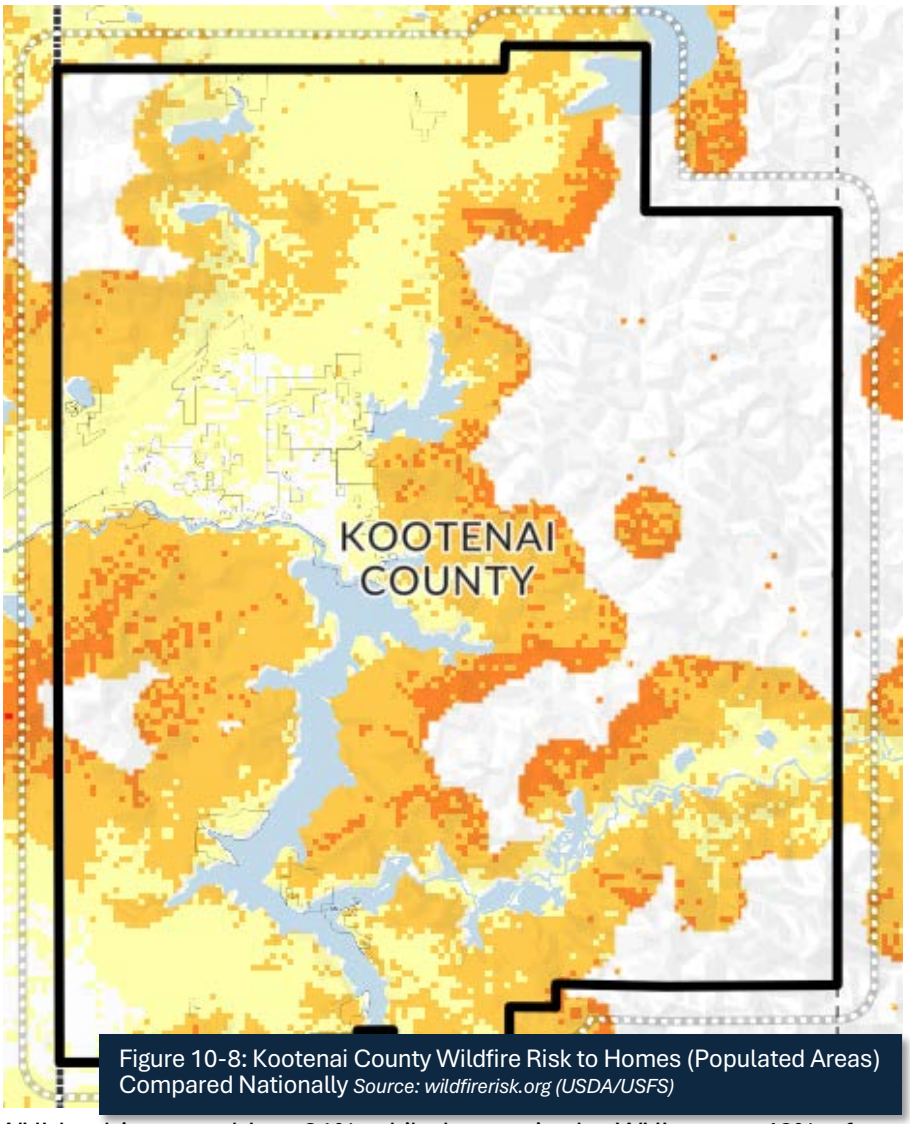


Figure 10-8: Kootenai County Wildfire Risk to Homes (Populated Areas) Compared Nationally *Source: wildfirerisk.org (USDA/USFS)*

FUTURE TRENDS IN DEVELOPMENT

Over long-standing trends, development in the WUI has accelerated wildfire risk:

- Nationally, from 1990 to 2020, WUI land increased by ~31% while homes in the WUI grew ~46%—from ~30 million to ~44 million units.
- Construction in the WUI remains prevalent; one recent report notes 40 % of Idaho's housing (~300,000 homes) are in WUI zones.
- Idaho's northern region—including Kootenai County—has among the state's highest WUI wildfire exposure, both in built-up and undeveloped land.

Kootenai County Specifics:

- Approximately 8,650 homes are currently within the WUI.
- About 29 sq miles (≈23 % of its total WUI area) are already developed; the remaining 77% (≈98 sq miles) remains undeveloped—representing one of Idaho's largest opportunities for future WUI expansion.

This pattern of rapid expansion into fire-prone areas heightens both the current wildfire risk (homes in WUI) and future vulnerability (undeveloped WUI land), reinforcing the need for smart planning, stricter building codes, and fuel-management strategies.

SCENARIO

A major wildfire in Kootenai County often starts with abundant fuels from a wet spring, followed by dry, hot summer conditions and possible insect damage. Lightning strikes or human activity can ignite multiple small fires that rapidly spread as embers travel miles on strong winds, merging into larger, harder-to-control blazes.

Wind-driven fires may burn low fuels before climbing into tree canopies, escaping containment especially when firefighting resources are stretched thin during a busy fire season. Local fire districts, with limited wildfire experience, may struggle to contain initial ignitions.

Post-fire heavy rains can cause severe flooding, landslides, and sediment runoff, altering waterways and floodplains for years. Loss of forest cover increases stream flows, potentially doubling flood frequency and raising floodplain elevations, damaging habitats and infrastructure.

WILDFIRE ISSUES IN KOOTENAI COUNTY

Kootenai County continues to face significant wildfire threats, especially in WUI areas. This section identifies current issues across the four key Threat and Hazard Identification and Risk Assessment (THIRA) capability areas—Preparedness, Mitigation, Response, and Recovery—as recommended for integration into CWPP planning.

Preparedness:

- **Public Education & Engagement**
  Many residents in or near the WUI are unaware of wildfire risks or available resources. Ongoing outreach is needed to promote defensible space, evacuation planning, and wildfire awareness.
  Action Needed: Sustain and expand programs such as FireSmart™, Firewise USA®, and Ready, Set, Go! to engage communities and reduce risk.
- **Fire Personnel Training**
  Local fire departments need consistent wildland-specific training and certification.
  Action Needed: Ensure all personnel meet minimum standards for wildfire behavior, fire weather, and ICS wildland operations (e.g., S-130, S-190, L-180).
- **Mitigation:**
  Land Use Planning & Growth Management
  WUI development continues to expand, increasing exposure to fire hazards.
  Action Needed: Use zoning, subdivision ordinances, and defensible space requirements to guide safer development in interface areas.
- **Hazardous Fuel Reduction**
  Current vegetation management and fuel treatment efforts are inadequate—especially on private property.
  Action Needed: Prioritize high-risk areas, increase treatment acreage, and engage private landowners through incentives or cost-share programs.
- **Building Codes & Structural Hardening**
  Inconsistent adoption of fire-resistant construction standards across jurisdictions increases community vulnerability.
  Action Needed: Promote countywide adoption of enhanced codes—e.g., Class A roofing, ember-resistant vents, and residential sprinkler systems.
- **Response:**
  Water Supply Limitations
  Many WUI areas lack reliable water for firefighting due to fragmented systems or insufficient onsite storage.
  Action Needed: Identify priority areas for hydrant installation, tank upgrades, or cistern placement.

- **Access and Egress Constraints**
  Many homes have limited road access, steep terrain, or dead-end routes that hinder emergency response and evacuation.
  Action Needed: Map and assess egress routes; require dual-access design in future subdivisions.
- **Recovery:**
  Post-Fire Erosion and Flooding
  Burn scars may trigger landslides, debris flows, and long-term sediment loading in streams and lakes.
  Action Needed: Integrate post-fire erosion and debris flow modeling into recovery plans and prioritize slope stabilization and revegetation in high-risk areas.

WILDLAND URBAN INTERFACE FOCUS GROUP

Kootenai County Office of Emergency Management engaged the following local, state and federal organizations in the Wildfire Section update to this All Hazard Mitigation Plan. The focus group consisted of the following members.

PROPOSED PROJECTS

Kootenai County recognizes the ongoing wildfire risk and actively plans mitigation efforts to reduce impacts. Current and ongoing initiatives,including public education and infrastructure improvements, are outlined below and reviewed annually for updates.

Priority projects are scheduled as follows:

- **Priority 1:** Completion in 1–2 years
- **Priority 2:** Completion in 3–5 years
- **Priority 3:** Long-term (5+ years)

Many of these efforts are also detailed in the jurisdiction-specific Annexes in Volume 2 of the All Hazard Mitigation Plan.

WILDLAND URBAN INTERFACE FOCUS GROUP MEMBERS		TABLE 10-6
REPRESENTATIVE	**TITLE**	**ORGANIZATION**
Tiffany Westbrook	Director	Kootenai County Office of Emergency Mgmt
Andrea Littlefield	Grants Administrator	Kootenai County Office of Emergency Mgmt
Jerry Lynn	Fire Chief	East Side Fire Protection District
Craig Etherton	Deputy Chief	City of Coeur d Alene Fire Department
James Neils	Fire Chief	Hauser Lake Fire Protection District
Pete Holley	Division Chief	Kootenai County Fire & Rescue
Tyler Drechsel	Division Chief	Northern Lakes Fire District
Mike Patti	Fire Chief	St. Maries Fire Protection District
Scott Dietrich	Fire Chief	Silver Valley Fire Rescue
Anne Boisvert	Admin Assistant	Spirit Lake Fire Protection District
Kody Wright	Deputy Chief	Timberlake Fire Protection District
Scott Campus	Fire Chief	Worley Fire Protection District
Robert Matue	Fire Chief	Mica Kidd Fire Protection Districts
Tyre Holfeltz	Wildfire Risk Mitigation Program Manager	Idaho Department of Lands
Luke Smith	Fuels AFMO/Fuels Planner	US Forest Service
Jeff Lau	North Idaho Shared Stewardship Coordinator	US Forest Service / Idaho Department of Land
Corey Bonsen	Conservation Team Lead	USDA/NRCS
Ara Andrea	State of Idaho Shared Stewardship Coordinator	Idaho Department of Lands
Andrew Mock	GIS Analyst	Idaho Department of Lands
Isabell Pritchard	Grant Project Coordinator	Idaho Department of Lands
Steve Bloedel	Forester	Inland Forest Management
Elynn Reierson	Forester	Inland Forest Management

COEUR D' ALENE FIRE DEPARTMENT					TABLE 10-7
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
ITD / Armstrong Park	Continue the fuel mitigation treatment that was finished a few years ago on Armstrong Park (South of Fernan Lake) through the ITD property to the Highway.	50 acres	CDAFD, KCFR, City of CDA, private contractor	Grant Dependent Priority 3	**$200,000**
Armstrong / Sky Harbor to Grouse Meadows	Connecting via land property in Sky Harbor at the end of Armstrong Park to Grouse Meadows to the East. Creates secondary egress for three home developments above the Highway and the bordering south facing slope.	300 yards	CDAFD, KCFR, Kootenai County, HOA's	Ongoing	**$100,000**
Tottens Pond	Continued work to connect the projects at Fernan to the projects near Hayden Lake to interconnect all projects on the east side of CDA making a fuel break to the CDA National Forest.	N/A	CDAFD, KCFR, USFS, IDL, Kootenai County	Grant Dependent Priority 1	**Variable**
Type IV Brush Tuck	Purchase of a Type IV Brush Truck for accessible fire suppression in the WUI areas. Additional resource for Wildland Strike Team Assignments.	Purchase of Equipment	CDAFD, City of CDA	Ongoing Priority 3	**$500,000**
FireSmart Outreach	Continued public outreach for already established and new Firewise Communities.	Public Meetings / Hosting of events	CDAFD, City of CDA	Annually Priority 1	**Staff Time**
Ordinance Revision	Consultant and in house updates to the Hillside Ordinance and Subdivision codes to include Firewise requirements. Hire Consultant to assist with rewrites of Hillside ordinance and Subdivision codes.	N/A	CDAFD, City of CDA	2030 Priority 3	**$100,000**

EAST SIDE FIRE DISTRICT					TABLE 10-8
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Public Education	Provide needed information on the ESFD website for wildfire education and prevention and overall community preparedness.	N/A	ESFD	2026 Priority 1	**Staff Time**
Public Education	Provide residents with onsite assistance to help homeowners with fuel reduction plans.	N/A	ESFD	Ongoing Priority 1	**Staff Time**
Water Response Plans	Continue to develop water-based emergency response capabilities to be a county -wide resource that will support life safety and the protection of property, to include the utilization of the District's Fire Boat.	N/A	ESFD	Grant Dependent Priority 2	**$5,000**

HAUSER LAKE FIRE PROTECTION DISTRICT					TABLE 10-9
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Station Expansion	Expand or replace the current fire station to include living quarters for 24/7 manning.	N/A	Hauser Lake Fire Protection District	Next 10 years Priority 3	**$4,800,000**
Replace Mobile Radios	Replace aging mobile radios to ensure interoperability.	N/A	Hauser Lake Fire Protection District	2025 Priority 1	**$30,000**
Additional Radio Equipment	Procure additional radios for all responders to ensure communication during incidents.	N/A	Hauser Lake Fire Protection District	Next 5 years Priority 3	**$50,000**
Hollister Hills	Reduce hazardous fuels in the area and create fire breaks around Summit Loop.	20 acres	Hauser Lake Fire Protection District	2026 Priority 1	**$20,000**
Summit Loop	Reduce hazardous fuels in area and create fire breaks around the Hollister Hills Community.	50 acres	Hauser Lake Fire Protection District	2026 Priority 1	**$50,000**
Right Fork	Reduce hazardous fuels create fire breaks along the only egress and ingress road for this area.	50 acres	Hauser Lake Fire Protection District	2026 Priority 1	**$50,000**

KOOTENAI COUNTY EMERGENCY MEDICAL SERVICES SYSTEM					TABLE 10-10
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Partnerships	KCEMSS will coordinate with fire districts to ensure ambulances, medical equipment, and respiratory protection supplies are planned and staged to support increased EMS demand during wildfire and smoke events.	N/A	KCEMSS	Ongoing / Priority 1	**Staff Time**

KOOTENAI COUNTY FIRE AND RESCUE					TABLE 10-11
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Private Driveway Design Review	Review access for new construction, provide improvement education and approval for final occupancy. information is available on the district's website and Facebook page.	N/A	KCFR in coordination with the County Development and Building Dept.	In Progress / Ongoing Priority 1	**Staff Time**
WUI Education	Provide information and education to homeowners in WUI. Using new construction inspections, contacts made with burn permits, the district's booth at the North Idaho Fair and spring fire prevention programs with the Co-Op in the schools. Information is also kept up to date on our website.	N/A	KCFR, Kootenai County Fire Prevention Co-Op, Idaho Department of Lands.	In Progress / Ongoing Priority 1	**Staff Time**
Winter Access to Rural Homes	Stress the possible access challenges to properties particularly South of the Spokane River. Use any public contacts such as the Fair, burn permit inspections and new construction access review/approval.	N/A	KCFR, Post Falls Highway Dist.	Ongoing Priority 2	**Staff Time**
Partnerships	Maintain and improve relationships with other Fire Districts, the Idaho Dept. of Lands and US Forest Service. Get together in early spring to discuss radio communications, any operational changes and introduce new people to leadership roles.	N/A	County, State and Federal agencies	Ongoing Priority 1	**Staff Time**
WUI Response Plans	As part of Department Duty Chief Training, perform tabletop exercises for wildland fire prone portions of the district. First Due crews to perform annual assessments of their areas to be familiar with access/water opportunities. Identify expected challenges.	N/A	KCFR, Mutual Aid partners and Law Enforcement.	Ongoing Priority 1	**Staff Time**

MIKA KIDD ISLAND FIRE DISTRICT					TABLE 10-12
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Public Education	Identify high risk areas, promote public awareness and then seek to reduce fuel loads on public lands working with appropriate Local, Federal and State agencies.	Events participated in	IDL, MKI Fire	Ongoing Priority 1	**Staff Time**
Educational Pancake Feed	Continue to leverage ongoing public education and awareness programs as a method to inform the public on preparedness, risk and community resilience.	N/A	IDL, MKI Fire	Annually Priority 1	**Staff Time**
Replace Equipment	Replace outdated and obsolete critical equipment. 25 each - New Generation Fire Shelters W/Carry Cases. 25 Wildland Helmets with full face shrouds. 25 Wildland Jackets and bottoms and gloves.	N/A	MKI Fire	Ongoing Priority 2	**Staff Time**
Evacuation	Update evacuation plans annually.	Meetings with HOAs	MKI Fire	Ongoing Priority 1	**Staff Time**
Camp Safety	Promote and engage in localized public education regarding wildland fire risk for incoming tourists and campers.	N/A	MKI Fire	Annually Priority 1	**Staff Time**
Apparatus	Upgrade and replace 1 brush truck. Going to replace it with a mini pumper. Which is rated for wild land and structural.	N/A	MKI Fire	Next 5 years Priority 3	**$350,000**
Public Education	Encourage and support fuel reduction by property owners.	Properties assessed annually	MKI Fire	Annually Priority 1	**Staff Time**

NORTHERN LAKES FIRE DISTRICT					TABLE 10-13
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
New Hires	Hire 10 new firefighters/EMT's	N/A	NLFD	2025 Priority 1	**$500,000**
EoHL Firewise Community	Add 50+ additional properties to EoHL Firewise Community	20	NLFD	2025-2026 Priority 2	**Staff Time**
Replace Equipment	Replace outdated and obsolete critical equipment. 25 each - New Generation Fire Shelters W/Carry Cases. 25 Wildland Helmets with full face shrouds. 25 Wildland Jackets and bottoms and gloves.	N/A	MKI Fire	Ongoing Priority 2	**Staff Time**
Annual Wildfire Education Event	Open house style wildfire preparedness event at New Leaf Nursery in Hayden	N/A	NLFD,OEM	Annually Priority 1	**Staff Time**
Fire Prevention Skits	Visit all schools in Kootenai County with a fire prevention message.	N/A	NLFD, Co-Op Members	Annually Spring Priority 1	**Staff Time**
Elderly Safety Education	Educate the aging population about fall prevention and wildfire prevention at overall home safety. Host event at KC libraries.	N/A	NLFD	Ongoing Priority 1	**Staff Time**
Open House	Safety day open house providing fire prevention messages.	N/A	NLFD	Annually Priority 1	**Staff Time**
National Night Out	Participate in two separate events and Hayden and Rathdrum parks handing out wildfire preparedness and home safety fires along with verbal message.	N/A	NLFD	Annually Priority 1	**Staff Time**
Rathdrum Days	Community wide events teaching fire prevention.	N/A	NLFD	Annually Priority 1	**Staff Time**
Rathdrum Summer Concerts	Five separate concerts are held in Rathdrum, Sponsor NLFD has a tent with fire prevention message.	N/A	NLFD	Annually Priority 1	**$1,000**
Hayden Symmer Concerts	Six separate concerts are held in Rathdrum, Sponsor NLFD has a tent with fire prevention message.	N/A	NLFD	Annually Priority 1	**$1,000**

SILVER VALLEY FIRE RESCUE					TABLE 10-14
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Water Tender	Purchase new water tenders for Medimont Fire Station.	N/A	SVFR	2025-2026 Priority 2	**$400,000**
Brush Truck	Purchase new brush trucks for Rose Lake Fire Station.	N/A	SVFR	2025-2028 Priority 3	**$200,000**
Generators	Install emergency generators at the Fire Stations located in Medimont and Doyle Road.	N/A	SVFR	Grant Dependent Priority 3	**$200,000**
Radios	Improve radio communications down the Highway 3 corridor. Work toward interoperability with other Kootenai County response agencies.	N/A	SVFR	Grant Dependent Priority 3	**$50,000**

SPIRIT LAKE FIRE PROTECTION DISTRICT					TABLE 10-15
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Bonner County Fuel Mitigation	Thinning timber on private property south of Kelso Lake Road and Spirit Lake Cutoff Road, focusing on properties located in Outback Ridge Estates, Edgemere, and Wild Meadows V.	600 acres	SLFD, Private property owners, BonFire	2025 Priority 1	**Grant Funded**
Public Education of Wildfire Risk	Attend regular community center and Grange meetings, HOA meetings, and annual community events, educating citizens about wildfire risks and mitigation practices on their own property.	6 meetings annually	SLFD, Private property owners	Annually Priority 1	**Staff Time**
Spirit Lake Burn Permit Ordinance	Work with City of Spirit Lake on a burn permit ordinance.	Adopting ordinance	SLFD, City of Spirit Lake	Grant Dependent Priority 3	**Staff Time**
Radio Upgrades	Response Enhancement. Upgrade Spirit Lake Fire radios to dual-band radios capable of inter-agency.	New Radios	SLFD	2030 Priority 3	**$120,000**
Home Wildfire Risk Assessment	Walk private properties with owners to identify risk factors and vulnerabilities in case of a wildfire. Spirit Lake Fire will educate homeowners on fuel reduction and home hardening recommendations to reduce risk and increase survival.	Engage with 20 property owners annually	SLFD, Private property owners, Insurance companies	2025 Priority 1	**Staff Time**
Social Media Campaign	Monthly fire prevention messaging on two social media sites, including FireWise messaging.	12 posts monthly	SLFD	Grant Dependent Priority 2	**Staff Time**
Wildland Fire PPE	Response Enhancement: procure 4 complete sets of PPE, including wildland packs, each year.	Four sets of complete PPE annually	SLFD	Annually Priority 1	**$3,000**

ST. MARIES FIRE PROTECTION DISTRICT					TABLE 10-16
15PROJECT NAME	PROJECT DESCRIPTION	MEASURE OF WORK	AGENCY(IES) INVOLVED	TIMELINE / PRIORITY	ESTIMATED COST
Fuels Mitigation	Ongoing education for fuel mitigation and control. Education for Homeowners and restriction of burning that is not permitted or controlled.	N/A	SMFPD, IDL	Ongoing Priority 2	**Grant Dependent**
Education	DEQ/Burn Educational Campaign. Wildland Urban Interface Education for Homeowners. Providing fire safety education at schools of all grades. Education via community events	Citizens engaged with	SMFPD, DEQ, IDL, City of Harrison, Kootenai Schools SMFPD	2025-2028 Priority 3	**Staff Time**
Planning	Burn Permit requirement, Burn Education and Burn regulation enforcement. Assisting with WUI evacuation and planning for homeowners.	N/A	SMFPD	Began 2023, ongoing Priority 2	**Staff Time**
Response Training	Training for firefighters to meet minimum training requirements for Wildland Fire. Minimum training for Wildland S130, S190,RT130, LCS180, ICS 100, ICS 200,ICS 700,ICS 800.	Personnel trained	SMFPD, IDL	Grant Dependent Priority 3	**$50,000**

TIMBERLAKE FIRE PROTECTION DISTRICT					TABLE 10-17
PROJECT NAME	PROJECT DESCRIPTION	MEASURE OF WORK	AGENCY(IES) INVOLVED	TIMELINE / PRIORITY	ESTIMATED COST
Red Cross Firewise	Identify individual landowners needing mitigation evaluations through partner organizations.	Landowners contacted	TFPD, local volunteer groups	March 2026 Priority 2	**Staff Time**
Farragut Trail HFT Tie-In	Firewise outreach and evaluations for landowners near Farragut Trail.	100–1000 acres	TFPD, contractor partners, NRCS EQIP Team	Ongoing Priority 1	**Grant Funded**
Local Contractor Firewise	Collaborate with NFPA/Idaho Firewise contractors to ensure proper mitigation education and materials.	Landowners educated	TFPD, local contractors	March 2024 and ongoing Priority 2	**Landowner responsibility**
TFPD Firewise Team	Hire and equip 1 team of 2 seasonal FF/EMTs for immediate zone mitigation and emergency response.	Make contact with two homes per day	TFPD, WSFM, KC OEM, HFT	June 2026 Priority 2	**Grant funded/self-pay/new budget**
Brush Truck / Wildland Fire Engine	Acquire and deploy new brush truck equipped for wildland firefighting.	New truck purchased	TFPD	July 2025 Priority 3	**$250,000**
Tactical Tender Purchase	Purchase new tactical tender for district operations.	New tender purchased	TFPD	AFG 2026 Priority 2	**$350,000**

TIMBERLAKE FIRE PROTECTION DISTRICT					TABLE 10-17
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Silverwood Firewise Personnel	Sponsor and train 2 Silverwood employees in Firewise evaluation and certification.	Employees become NFPA/IDL Firewise certified	TFPD, Silverwood, IDL, NFPA	January 2026 Priority 1	**$500 per employee (paid by Silverwood)**
Silverwood Firewise	Conduct mitigation on 250 acres, including over 100 buildings, using in-house mastication equipment.	250 acres, 100+ buildings	Silverwood	Ongoing Priority 1	**$350,000**
TFPD/KC IMS Permit Firewise + Ready, Set, Go	Integrate Firewise brochures and Ready-Set-Go materials into final residential inspections.	Every residential permit receives Firewise/RSG education	TFPD	March 2024, ongoing Priority 1	**Staff Time**
TFPD Reader Board	Train staff to engage public on Firewise messaging using station reader board and brochures.	Public invited to engage at stations	TFPD	Ongoing Priority 1	**Grant Funded**
TFPD Social Media Campaign	Weekly social media posts to deliver Firewise/FireSmart messaging.	Weekly messaging	TFPD	Ongoing Priority 1	**Staff Time**
CDA Regional Realtors (CRR)	Host Firewise-focused lunch & learns or CRR meetings.	1–2 events/year	Local districts, Kootenai County Fire Prevention Co-op	ASAP, ongoing Priority 1	**$200 annually**
15 New Wildland Fire Shelters	Purchase wildland shelters to improve firefighter safety. $500 per unit.	15/year for 4 years	TFPD, SAFER Grant	June 2025 Priority 1	**$7,500**
50 New Wildland Coats/Shirts	Acquire protective coats/shirts for wildland crews.	15/year for 4 years	TFPD, SAFER Grant	June 2025 Priority 1	**$5,000**
40 Pairs New Nomex/Wildland Pants	Purchase new Nomex or wildland pants for staff. $200 each.	10/year for 4 years	TFPD, SAFER Grant	June 2025 Priority 1	**$8,000**
TLFD Levy	Increase levy rate to fund new stations, staff, and higher service levels district wide.	New stations, double career staff	TFPD	Passed Nov 2024; begins Jan 2026 Priority 1	**Variable per property**
20 New Wildland Packs	Provide new wildland gear packs to fire personnel. $200 per unit.	5/year for 4 years	TFPD	2025 Priority 1	**$4,000**
25 New Motorola Dual Band Radios	Purchase new radios for TFPD and partner departments.	25 radios	TFPD, SLFD, Hauser, MKI, Worley	2026 Priority 2	**$225,000**

WORLEY FIRE PROTECTION DISTRICT					TABLE 10-18
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Replace Outdate Equipment	Replace outdated fire shelters. with cases. Obtain wildland helmets with full face shrouds. Wildland jackets, pants and gloves.	Replacing old equipment	WFPD	Ongoing Priority 1	**$25,000**
Evacuation	Purchase new brush trucks for Rose Lake Fire Station.	N/A	SCFD #2	Annually Priority 1	**Staff Time**
Apparatus	Convert two pickup trucks by purchasing two slips tanks and replacing 1985 brush truck.	Purchasing of two slip tanks	SCFD #2	Ongoing Priority 1	**$230,000**

UNITED STATES FOREST SERVICE: IDAHO PANHANDLE NATIONAL FOREST (IPNF)					TABLE 10-19
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Fern Hardy	Cataldo Area near Fern Creek and Wall Ridge, north of I-90. Vegetation treatments: timber harvest, fuel breaks, natural fuels burning. Includes 800 acres of prescribed fire within Kootenai County WUI.	800 acres	USFS	Ongoing Priority 1	
North Idaho Highway 95 Joint Chiefs	Treatments on multiple locations within Kootenai County National Forest System Lands adjacent to private land and infrastructure. Hand thinning, mastication, slashing, natural fuels burning across 4,139 acres. Multiple NEPA decisions: Kootenai Fuels, Honey Badger, Deerfoot, Blue Alder.	4,139 acres	USFS	2025 Priority 1	
Red Beauty	Area of Mineral Ridge / Coeur d'Alene Mountain, 4th of July Pass to Thompson Lake. Vegetation treatments: timber harvest, fuel breaks, natural fuels burning, 1,400 acres of prescribed fire within Kootenai County WUI.	1,400 acres	USFS	Ongoing Priority 1	
Honey Badger	Fernan Creek area north to Bunco Road on National Forest System Lands. Treatments include timber harvest, hand thinning/hand pile burning, natural fuels burning across 17,820 acres. Complements other public and private fuels treatments.	IPNF	USFS	Begin 2028 Priority 3	
IPNF Forest Wide Prescribed Fire	Prescribed fire applied across the Idaho Panhandle National Forest, including Kootenai County. Includes hand and mechanical treatments supporting larger burns. Locations based on site-specific natural conditions and fire regimes per IPNF Forest Plan.	IPNF	USFS	2028 Priority 3	
Home and Garden Show	Educational booth with materials and information on fire prevention, home hardening, defensible space for communities.	Community Outreach	Kootenai County Fire Prevention Cooperative, Idaho Firewise	Ongoing Priority 1	**Staff Time**

UNITED STATES FOREST SERVICE: IDAHO PANHANDLE NATIONAL FOREST (IPNF)					TABLE 10-19
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Kootenai County School Program	Fire prevention and education for all 1st grade students in Kootenai County elementary schools. Includes skit on campfire safety, fireworks, evacuation, safe meeting places.	Kootenai County Elementary Schools	Kootenai County Fire Prevention Cooperative	Ongoing Priority 1	**Staff Time**
Arbor Day	Fire prevention education booth in Hayden, Idaho. Demonstrations on campfire safety, human-caused fire prevention, and firefighter roles in reducing fuels to prevent catastrophic wildfires.	Elementary schools in Hayden	USFS	Ongoing Priority 1	**Staff Time**
New Leaf Wildfire Event	Area of Mineral Ridge / Coeur d'Alene Mountain, 4th of July Pass to Thompson Lake. Vegetation treatments: timber harvest, fuel breaks, natural fuels burning, 1,400 acres of prescribed fire within Kootenai County WUI.	Community Outreach	Kootenai County Fire Prevention Cooperative, USFS, Idaho Department of Lands, Idaho Firewise	Ongoing Priority 1	**Staff Time**
National Night Out	Fernan Creek area north to Bunco Road on National Forest System Lands. Treatments include timber harvest, hand thinning/hand pile burning, natural fuels burning across 17,820 acres. Complements other public and private fuels treatments.	Community Outreach	USFS	Ongoing Priority 1	**Staff Time**
Fern Hardy	Cataldo Area near Fern Creek and Wall Ridge, north of I-90. Vegetation treatments: timber harvest, fuel breaks, natural fuels burning. Includes 800 acres of prescribed fire within Kootenai County WUI.	800 acres	USFS	Ongoing Priority 1	
North Idaho Highway 95 Joint Chiefs	Treatments on multiple locations within Kootenai County National Forest System Lands adjacent to private land and infrastructure. Hand thinning, mastication, slashing, natural fuels burning across 4,139 acres. Multiple NEPA decisions: Kootenai Fuels, Honey Badger, Deerfoot, Blue Alder.	4,139 acres	USFS	2025 Priority 1	
Red Beauty	Area of Mineral Ridge / Coeur d'Alene Mountain, 4th of July Pass to Thompson Lake. Vegetation treatments: timber harvest, fuel breaks, natural fuels burning, 1,400 acres of prescribed fire within Kootenai County WUI.	1,400 acres	USFS	Ongoing Priority 1	
Honey Badger	Fernan Creek area north to Bunco Road on National Forest System Lands. Treatments include timber harvest, hand thinning/hand pile burning, natural fuels burning across 17,820 acres. Complements other public and private fuels treatments.	IPNF	USFS	Begin 2028 Priority 3	
IPNF Forest Wide Prescribed Fire	Prescribed fire applied across the Idaho Panhandle National Forest, including Kootenai County. Includes hand and mechanical treatments supporting larger burns. Locations based on site-specific natural conditions and fire regimes per IPNF Forest Plan.	IPNF	USFS	2028 Priority 3	

UNITED STATES FOREST SERVICE: IDAHO PANHANDLE NATIONAL FOREST (IPNF)					TABLE 10-19
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Home and Garden Show	Educational booth with materials and information on fire prevention, home hardening, defensible space for communities.	Community Outreach	Kootenai County Fire Prevention Cooperative, Idaho Firewise	Ongoing Priority 1	**Staff Time**
Kootenai County School Program	Fire prevention and education for all 1st grade students in Kootenai County elementary schools. Includes skit on campfire safety, fireworks, evacuation, safe meeting places.	Kootenai County Elementary Schools	Kootenai County Fire Prevention Cooperative	Ongoing Priority 1	**Staff Time**
Arbor Day	Fire prevention education booth in Hayden, Idaho. Demonstrations on campfire safety, human-caused fire prevention, and firefighter roles in reducing fuels to prevent catastrophic wildfires.	Elementary schools in Hayden	USFS	Ongoing Priority 1	**Staff Time**

COUNTY WIDE: KOOTENAI COUNTY FIRESMART PROGRAM					TABLE 10-20
PROJECT NAME	**PROJECT DESCRIPTION**	**MEASURE OF WORK**	**AGENCY(IES) INVOLVED**	**TIMELINE / PRIORITY**	**ESTIMATED COST**
Canfield	Conduct 60 acres of wildfire fuel reduction work on Canfield Mountain and Cancourse Natural Area.	Canfield Mountain	KCOEM, Coeur d'alene Fire, IDL	2023-2025	**$155,000**
Tubbs Hill	Conduct 58.5 acres of wildfire fuel reduction work on Tubbs Hill.	Tubbs Hill	KCOEM, Coeur d'alene Fire, IDL	2024-2026	**$240,000**
Northern Timber	Conduct 100 acres of wildfire fuel reduction work in the Athol area.	Athol Community	KCOEM, Timberlake Fire, IDL	2025-2027	**$230,000**
Hauser Lake	Conduct wildfire fuel reduction work in the Hauser Lake Community. – Future Project-	N/A	KCOEM, Hauser Fire, IDL	2027-2029	**$230,000**
Worley	Conduct 100 acres of wildfire fuel reduction work in the Cottonwood Bay, Cave Bay, Windy Bay and areas near Worley area– Application submitted-	Worley Community	KCOEM, Worley Fire, IDL	2027-2029	**$240,000**
Highway 95 Corridor	Conduct wildfire fuel reduction in the WUI along the Hwy-95 corridor between Athol and Worley through mastication, hand thinning, landowner education, and outreach to reduce hazardous fuels, improve emergency access, and enhance community wildfire safety.	95 Corridor	KCOEM, Timberlake Fire, Northern Lakes Fire, IDL	2026	**$500,000**
Hayden Community	Conduct 30+ acres of fuel reduction work in the Chicken Point/Gem Shores & Sunset Beach communities of Hayden.	Hayden	KCOEM, Northern Lakes Fire, IDL	2026-2028	**$240,000**
Landowner Assistance Grant	Conduct 100+ acres of fuel reduction work in the Wolf Lodge, Cataldo & Harrison Communities.	Wolf Lodge, Cataldo & Harrison Area	KCOEM, IDL & Local Fire Jurisdictions	2025-2027	**$500,000**
Ready, Set, Go!	Educational material for Ready, Set, Go! and Alert! Kootenai such as interactive mapping and educational videos.	County Wide	KCOEM, IDL & Local Fire Jurisdictions	2025-2026	**$10,000**

COMPLETED PROJECTS (2020 – 2025)

Recently completed projects are listed in the tables below. Projects completed by Fire Jurisdictions are listed in Table 10-21, while projects completed through the Kootenai County FireSmart in coordination with local fire jurisdictions and the Idaho Department of Lands and federal partners are listed in Table 10-22.

FIRE JURISDICTION COMPLETED PROJECTS (2020 – 2025) **TABLE 10-21**

PROJECT NAME	PROJECT DESCRIPTION
Replace Outdate Equipment	Kootenai County Fire and Rescue: Reduce hazardous fuels around microwave transmitter on Best Hill in Coeur d'Alene.
KC 911 Comms	Kootenai County Fire and Rescue: Maintain relationships with wildland agencies to include radio interoperability.
Online Wildfire Resources	Kootenai County OEM: Maintain a website with relevant wildfire resources to include evacuation messaging and provide information regarding overall preparedness actions.
Replace Protective Equipment	Hauser Lake Fire: replace structural personal protective gear and toxic gas detector.
Brush Truck	Northern Lakes Fire: Purchase a new brus truck for response in the Rathdrum area.
Hire Personnel	Northern Lake Fire: Hire three additional response staff FF/EMT/Paramedic.
Address Signage	Northern Lakes Fire: Apply for a grant to receive funds for purchasing of address signs for properties in the fire district to improve identification of addresses.
Procure Additional Equipment	Worley Fire: Purchase a 4x4 brush truck, new generation fire shelters, fire hose replacements and upgrades, wildland equipment and hand tool upgrades along with necessary PPE for response personnel.
Adoption of Ready, Set, Go	County Wide: Kootenai County Fire Chief's Association adopted the national standard of utilizing Ready, Set, Go for messaging of evacuations notices. This moved the County away from levels making messaging clearer to residents during wildfire evacuations.
Emergency Operations Plan	County Wide: Conducted the update of the Kootenai County Operations Plan moving to ESF based model focusing on organization response by incident and support and lead agencies.
Emergency Operations Center (EOC)	County Wide: Locate and establish a centralized EOC that can efficiently and effectively be utilized to support incident response by partner agencies. Notably the new EOC is located in Hayden by the airport and was utilized in the 2023 wildfire season by USFS, IDL and local fire jurisdictions.

WILDAND URBAN INTERFACE MITIGATION PROJECTS COMPLETED (2020 – 2025)	TABLE 10-22
PROJECT NAME	**PROJECT DESCRIPTION**
Loch Haven / Grandview	Private lands requiring hazardous fuel treatment were densely stocked with a mixture of trees and brush. Many homes were scattered across small parcels. The project addressed these conditions through a combination of handwork, pruning of live trees, and the reduction of slash by burning, mulching, and/or biomass removal. This project was done in partnership with Coeur d'Alene Fire and IDL. $94,999.50 and 20.8 Acres of hazardous fuels reduction work was done in the Loch Haven, Grandview, Hayden and Coeur d'Alene communities.
South East Hayden	$52,864.70 and 19.0 Acres of hazardous fuels reduction work done in and around a group of cabins and homes in a densely forested neighborhood on steep slopes next to the southeast shores of Hayden Lake.
Backside of Hayden/ Hayden Lake	$120,591.78 and 74.45 Acres of hazardous fuels reduction work done in the Mokins Bay area from Gem Shores to Henry Point; East English Point Road to Fox Hollow Road; and Southeast Hayden Lake in the Glencairn Neighborhood.
Veterans	$24,961.43 and 10.5 Acres of hazardous fuels reduction work done in the middle of a Fernan Hill subdivision (7.5 acres) along with hazardous fuels reduction work on a popular paved walking/biking trail between Hanley Ave and Kathleen Avenue (3.0 acres) in Coeur d'Alene.
Farragut Trail	$94,419.00 and 79.2 Acres of hazardous fuels reduction work done on Farragut Trail, 43.5 acres, Farragut Trail Adjacent Landowner, 15.2 acres; Northeast Perimeter Road, 13.5 acres; and Walking Horse Lane, 7.0 acres.
Post Falls Community Forest	$122,420.80 and 77.6 Acres of hazardous fuels reduction work done in 4 units of the Post Falls Community Fores along with properties in the Riverview Terrace, Stoneriver areas and a private landowner that tied the fuel break together.
Fernan	$239,665.00 and 73.1 Acres of hazardous fuels reduction work done in the Fernan Lake Natural Area and a chipping project done on Idaho Transportation Department; Private and Idaho Department of Lands between I90 and Armstrong Park and Gifted View Drive.

CWPP PLAN ADOPTION

Adoption by the Kootenai County Commissioners

_____ _____
Leslie Duncan, Kootenai County Commissioner Date

_____ _____
Mark Eberline, Kootenai County Commissioner Date

_____ _____
Bruce Mattare, Chairman Date

Approval by Idaho Department of Lands

_____ _____
Tyre Holfeltz, Community Fire Program Mgr. Date

Approval by Emergency Management

Tiffany Westbrook 2/3/2026
Tiffany Westbrook, Emergency Management Director Date

TECHNOLOGICAL HAZARD PROFILE ANNEXES

CHAPTER 11
CYBERSECURITY HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- Since 2020 Kootenai County has experienced an increase in cybersecurity threats, particularly ransomware attacks and data breaches.
- Increased reliance on digital infrastructure and remote work has further expanded the county's vulnerability to cyber threats.
- Incidents that occurred were incorporated in the hazard profile
- A hazard cascade chart has been implemented to illustrate secondary and tertiary hazards.
- Community Lifelines have been integrated into the cybersecurity hazard profile.

HAZARD RISK SUMMARY

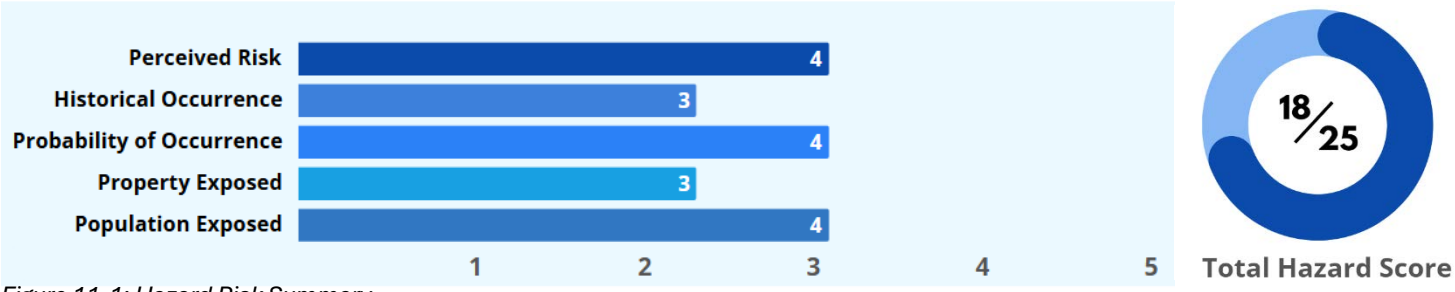


Figure 11-1: Hazard Risk Summary

BACKGROUND

Definition: Cybersecurity threats refer to malicious activities aimed at compromising, disrupting, or gaining unauthorized access to digital systems, networks, and data. Common threat actors include hackers, cybercriminal organizations, and nation-state actors. Cyberattacks can result in stolen sensitive information, financial losses, and operational disruptions, making cybersecurity a critical component of overall hazard mitigation.

The cybersecurity threat landscape in Kootenai County has intensified, with rising attacks on public institutions and critical infrastructure. Future incidents are highly likely, making continued investment in cybersecurity, employee training, and interagency collaboration essential. Strong incident response plans and proactive security measures will be key to reducing risks and ensuring the resilience of the county's digital infrastructure.

WARNING TIME

Unlike natural disasters, cyberattacks typically provide little to no warning. While some threats, such as phishing attempts, may exhibit warning signs, more sophisticated attacks (e.g., ransomware and data breaches) often occur undetected until significant damage has been inflicted. Advanced threat detection systems and employee awareness training are crucial in identifying and mitigating risks before an attack fully unfolds.

TYPES OF CYBER ATTACKS

- **Ransomware** – Malicious software encrypts files, demanding payment for decryption (e.g., Kootenai Health breach 2024).
- **Phishing** – Deceptive emails or messages trick users into revealing sensitive information.
- **Malware** – Software designed to disrupt or damage computer systems (e.g., Coeur d'Alene malware detection 2024).
- **Denial-of-Service (DoS) Attacks** – Overloads systems, causing service disruptions.
- **Data Breaches** – Unauthorized access to sensitive data, often leading to identity theft and financial fraud.

HISTORICAL FREQUENCIES

Cyber incidents have become more frequent in Kootenai County over the past five years. Notable incidents include:

HISTORICAL CYBER INCIDENTS **TABLE 11-1**

DATE	EVENT	DESCRIPTION
2022	**Post Falls Police Department Ransomware Attack**	Resulted in unauthorized data access affecting nearly 1,000 residents.
2024	**Kootenai Health Data Breach**	Exposed the personal information of over 464,000 patients due to a ransomware attack.
2024	**City of Coeur d'Alene Malware Detection**	Malware was discovered in the city's network, prompting temporary system shutdowns.
2025	**Post Falls Police Department Email Scam**	Fraudsters impersonated PFPD in a phishing attack targeting businesses nationwide.

IMPACTS

- **Operational Disruptions** – Government agencies, healthcare facilities, and emergency services may experience system outages, delaying critical services.
- **Financial Losses** – Costs related to data recovery, legal liabilities, and potential ransom payments can be substantial.
- **Data Compromise** – Exposure of sensitive personal and governmental information can lead to identity theft and security risks.
- **Public Safety Concerns** – Cyber incidents affecting emergency response systems or public utilities can have life-threatening consequences.

PROBABILITY

Cyber threats such as ransomware, data breaches, and network disruptions are increasing across public and private sectors. As Kootenai County becomes more reliant on digital systems for emergency services, infrastructure, and daily operations, the risk of disruption grows. Although cyber incidents are not always publicly reported, attempted intrusions are frequent and often target local governments. Past disruptions have been minor, but the threat remains persistent and evolving. The probability of future cyber incidents in Kootenai County is considered Moderate to High, with growing potential for impact as reliance on technology increases.

DEPENDENCIES

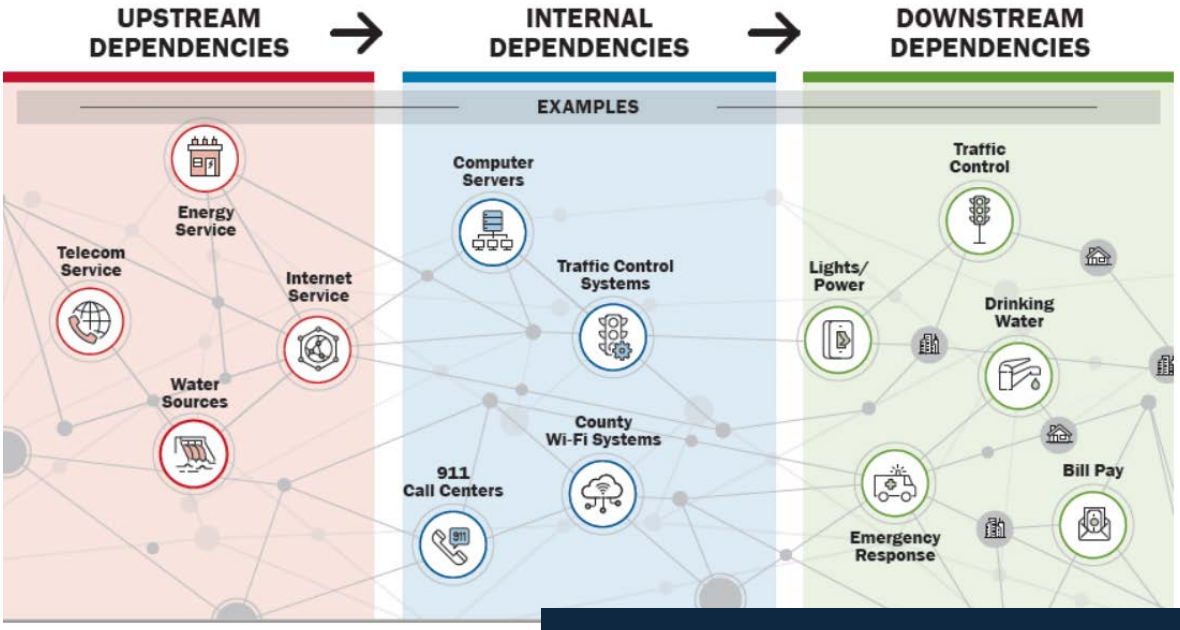


Figure 11-2: Upstream, Internal, and Downstream Dependencies
Source: *FEMA, Planning Considerations for Cyber Incidents: Guidance for Emergency Managers (2023)*

- **Upstream Dependencies**: External services a jurisdiction relies on, such as power, communications, or vendor-supported systems.
- **Internal Dependencies**: Interconnected systems within the jurisdiction, like databases, control systems, and networks.
- **Downstream Dependencies**: Critical services delivered to the public, including vital records, 9-1-1, elections, and utilities.

HAZARD IMPACT SUMMARY

Figure 11-3: Cybersecurity Hazard Impact Summary

FEMA COMMUNITY LIFELINES IMPACT

FEMA identifies seven lifelines that represent critical services essential to public safety and economic security that could be impacted by a cyber incident:

- **Safety & Security** – Over 50 law enforcement and emergency response agencies rely on digital systems that could be compromised by cyberattacks, leading to delays in response times and compromised public safety.
- **Health & Medical** – Healthcare institutions like Kootenai Health, serving 464,000+ patients, along with numerous clinics and care facilities, could face ransomware attacks, disrupting patient care, medical record access, and hospital operations.
- **Energy (Power & Fuel)** – Local utilities serving thousands of residents and businesses could experience disruptions due to cyberattacks targeting power grids or fuel distribution systems.
- **Communications** – A cyber incident affecting internet service providers, cellular networks, or government IT infrastructure could disrupt public information dissemination and emergency alerts, affecting thousands of residents.
- **Transportation** – Cyber threats targeting traffic control systems, railways, and public transit infrastructure could cause travel disruptions and delays, impacting daily commutes and emergency response times.

- **Water & Wastewater Systems** – A cyberattack on water treatment facilities could compromise water safety, affecting over 180,000+ residents in Kootenai County.
- **Food, Water, Shelter** – Disruptions in supply chain logistics due to cyber incidents could impact grocery stores, food banks, and emergency shelters, affecting thousands of residents in need of essential supplies.

Kootenai County must integrate cybersecurity resilience into their all-hazard response planning to ensure these lifelines remain operational during and after a cyberattack.

Sector Impacts:

- **Water/Wastewater**: Attacks could disrupt waste treatment and impact the environment.
- **Data/Telecommunications**: Loss could disable emergency dispatch and infrastructure monitoring.
- **Power/Gas**: Failures can last from seconds to days, requiring emergency response coordination.

FEMA NATIONAL RISK INDEX CONSIDERATIONS

While the National Risk Index (NRI) primarily assesses natural hazards, its evaluation of social vulnerability and community resilience can indirectly inform cybersecurity preparedness:

- **Social Vulnerability:** Communities with higher social vulnerability, based on socioeconomic status, household composition, and access to resources, may face greater challenges in responding to and recovering from cyber incidents. Cybersecurity initiatives should consider these disparities to ensure equitable protection and recovery measures.
- **Community Resilience:** The NRI assesses a community's ability to withstand and recover from hazards. Kootenai County's resilience in natural disasters may translate to its capability to respond to cyber threats. Strengthening local institutions, economic resources, and public awareness will be key to improving cybersecurity resilience.

CHAPTER 12
HAZMAT AND TRANSPORTATION HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- A hazard cascade chart has been implemented to illustrate secondary and tertiary hazards.
- HazMat and Transportation Incidents have been combined to align with the Kootenai County Emergency Operations Plan for consistency across the Planning Portfolio.
- Reported HazMat incidents from State COMM have been incorporated into the historical frequency section.
- Community Lifelines have been integrated into the HazMat and Transportation hazard profile.

HAZARD RISK SUMMARY

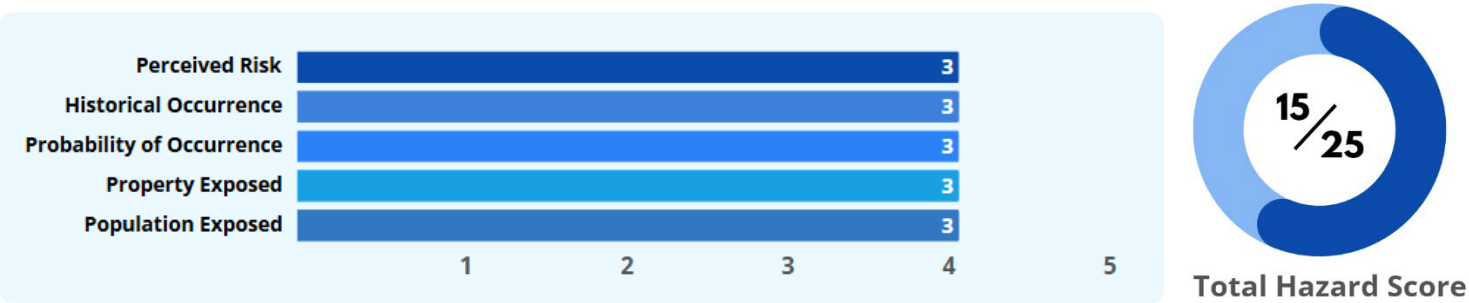


Figure 12-1: Hazard Risk Summary

BACKGROUND

Definition: Hazardous Materials (HazMat) and **Transportation Incidents** refer to events where dangerous substances such as chemicals, fuels, or toxic materials, are accidentally released or threatened to be released during storage or transportation. These incidents may be triggered by vehicle collisions, train derailments, or spills, and can impact public health, safety, infrastructure, and the environment, particularly in areas close to transportation routes or industrial hubs.

Description: These incidents can affect entire communities by causing fires, explosions, contamination, or other hazards following the accidental release of harmful substances. The likelihood and severity of impacts increase in areas with significant industrial activity, major transport corridors, or facilities handling hazardous materials. Minimizing these risks requires rapid and well-coordinated emergency response, strong local preparedness, and special attention to vulnerable populations.

SITUATION

Hazardous materials are regularly transported through Kootenai County via major highways, rail lines, and pipelines.

- **Highways**: Interstate 90 and U.S. Highway 95 are the primary roadways for transporting hazardous materials.
- **Railways**: Trains carrying crude oil and hazardous substances pass through the region, often crossing over lakes and rivers.
- **Pipelines**: Pipelines such as Williams NWP and TransCanada GTN transport natural gas and petroleum products, posing risks of fire, explosion, and environmental contamination.
- **Facilities**: Tier II facilities in Kootenai County report the storage of hazardous materials, but many small businesses and private individuals may store hazardous substances without reporting.

WARNING TIME

The warning time for hazardous material incidents varies significantly depending on the source and nature of the incident.

- **Fixed Facility Incidents**: Can occur suddenly without warning (e.g., explosions) or develop slowly (e.g., leaking containers). Facilities storing extremely hazardous substances are required to notify local officials immediately when an incident occurs.
- **Transportation Incidents:** Vary based on accident conditions. Explosions may occur instantly, leaving little time for warning, while leaks or derailments may allow time for emergency responders to assess and issue warnings.
- **Pipeline Leaks**: Leak detection systems have improved in recent years, allowing for quicker identification and response. However, undetected slow leaks can result in extensive contamination before being noticed.
- **Train Spills**: Rapid response is crucial in minimizing the impact. Incidents often escalate quickly, with fire and explosions posing immediate risks.

HISTORICAL FREQUENCIES

HazMat incidents in Kootenai County occur fairly frequently. Most are handled by the North Idaho Regional Hazardous Material Response Team. The number of HazMat events that the Team responded to each year are as follows:

HISTORICAL HAZMAT INCIDENTS **TABLE 12-1**

DATE	NUMBER OF INCIDENTS	DATE	NUMBER OF INCIDENTS
2002	4 incidents	2014	5 incidents
2003	38 incidents	2015	5 incidents
2004	32 incidents	2016	0 incidents
2005	26 incidents	2017	3 incidents
2006	9 incidents	2018	2 incidents
2007	16 incidents	2019	2 incidents
2008	5 incidents	2020	5 incidents
2009	16 incidents	2021	0 incidents
2010	10 incidents	2022	0 incidents
2011	6 incidents	2023	3 incidents
2012	4 incidents	2024	1 incident
2013	7 incidents		

Number of reported HazMat Incidents reported in Kootenai County by State Comm for the past 5 years is as follows:

HISTORICAL HAZMAT INCIDENTS **TABLE 12-2**

DATE	NUMBER OF INCIDENTS
2020	24
2021	15
2022	21
2023	22
2024	27

Transportation Incidents: Data from the Idaho Transportation Department (2019–2023) shows that Kootenai County's fatal and serious injury crash rates have remained below state safety targets, with a general downward trend in fatalities and serious injuries per 100 million Vehicle Miles Traveled (VMT).

In 2023, the county recorded 17 fatal crashes, including eight during the high-risk "100 Deadliest Days" period. Non-motorized fatalities and serious injuries increased slightly compared to the prior five-year average. Approximately 40% of fatal and serious injury crashes occurred on the state highway system, underscoring risks on key transportation corridors.

PROBABILITY

HazMat incidents can occur during the production, storage, or transport of chemicals and fuels. These events are independent, so a past incident does not reduce the chance of future ones. Given the county's reliance on road, rail, and pipeline systems, such incidents are likely to continue. While pipelines are statistically safer than trucks or rail, failures can cause severe impacts near populated or environmentally sensitive areas. Pipelines often remain in service for decades with varying oversight, while train derailments and truck spills remain a regional and national concern. With increasing fuel and chemical transport through Kootenai County, the probability of future HazMat and transportation incidents is considered Moderate to High.

HAZMAT SOURCES AND TRANSPORTATION ROUTES

Hazardous material sources in Kootenai County include:

- **Superfund Sites**: The Superfund sites in Idaho are legacy sites that have ongoing remediation in place and are well documented and monitored through the Department of Environmental Quality (DEQ), and all are in the cleanup phase.
  - Rathdrum – Site Name: Attcom (Drexler Enterprises)
- **Transportation Routes:**
  - Interstate 90 (west-east through Post Falls and Coeur d'Alene)
  - U.S. Highway 95 (north-south through Athol, Hayden, Coeur d'Alene, and Worley)
  - Railways and pipelines routinely transport hazardous materials
- **Fixed Facilities:**
  - Tier II facilities required to report hazardous materials storage. There are 47 Tier II facilities in Kootenai County. There are also 8 sites in Kootenai County that are Toxic Release Inventory (TRI) sites.
  - Industrial parks and sites storing chemicals and radioactive materials
  - One Superfund site located in Rathdrum
- **Pipeline Infrastructure:**
  - Williams NWP and TransCanada GTN pipelines passing near Kootenai County
  - Pipeline infrastructure transporting natural gas, petroleum, and other hazardous materials

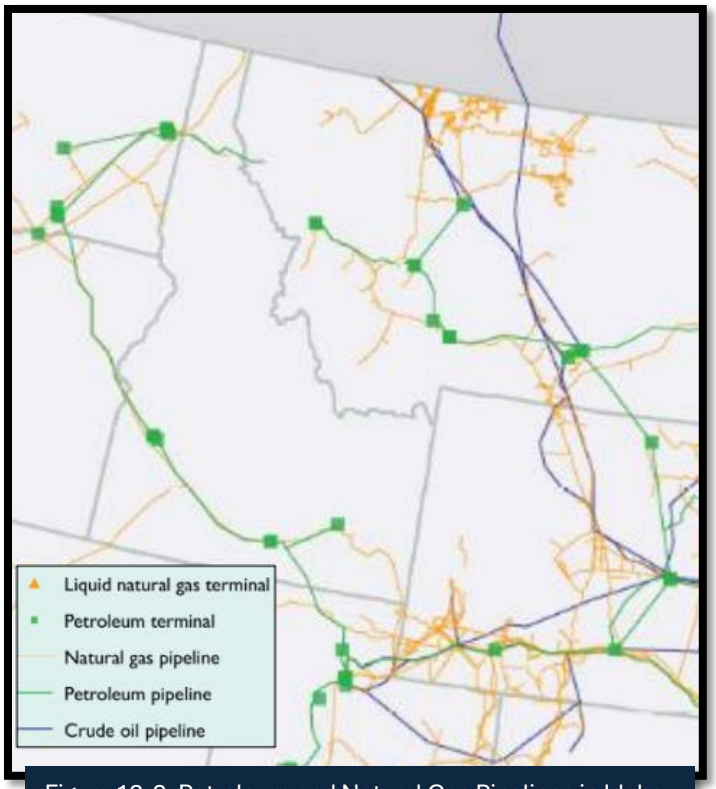


Figure 12-2: Petroleum and Natural Gas Pipelines in Idaho
source: Bureau of transportation statistics

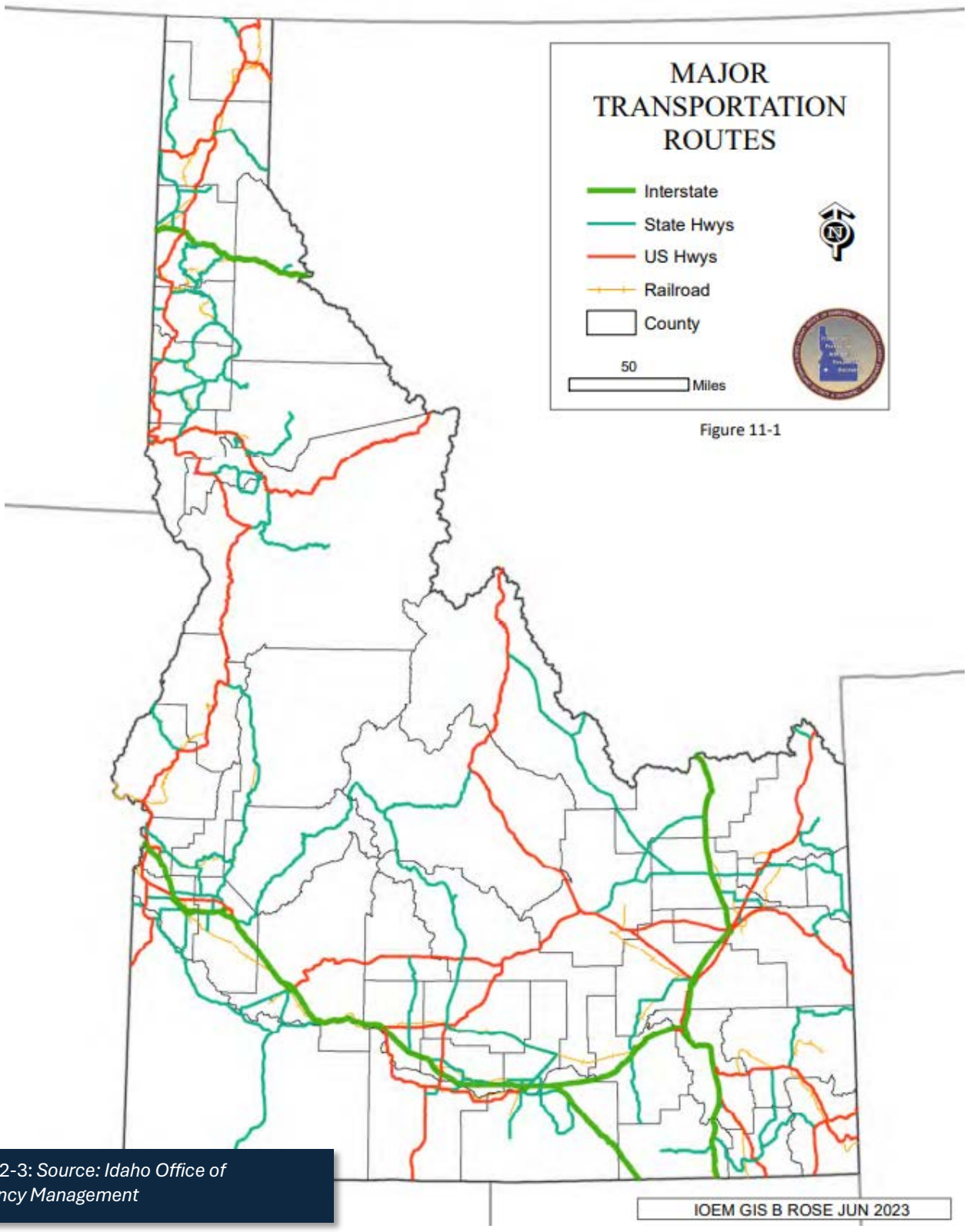


Figure 12-3: *Source: Idaho Office of Emergency Management*

HAZARD IMPACT SUMMARY

Figure 12-4: HazMat and Transportation Incidents Hazard Impact Summary

IMPACTS

HazMat incidents can cause significant impacts on public health, the environment, and infrastructure.

- **Health Impacts**:
  - Acute and chronic health issues from exposure to toxic substances
  - Potential fatalities and long-term public health consequences
- **Environmental Impacts:**
  - Contamination of air, soil, and water systems, leading to ecosystem damage
  - Harm to fish, wildlife, and livestock
  - Contamination of aquifers and drinking water sources
- **Economic Impacts:**
  - Business closures, transportation route disruptions, and loss of property value
  - Cost of cleanup and restoration can reach millions of dollars
  - Economic losses estimated at an average of $17.7 million per year in Idaho
- **Infrastructure Damage:**
  - Damage to transportation systems, bridges, and culverts
  - Closure of key routes leading to significant regional impacts

VULNERABILITY

If a major HazMat or transportation incident occurred in Kootenai County, the consequences for life, safety, infrastructure, and the economy could be significant. These incidents, ranging from chemical spills at facilities to crashes or derailments involving hazardous cargo, can lead to exposures, evacuations, infrastructure damage, fires, or environmental contamination, particularly near major transport corridors or industrial zones.

According to the 2023 Idaho State Hazard Mitigation Plan, between 2018 and 2022, there were 1,303 hazardous materials incidents across Idaho, with an estimated total damage of $30.4 million. This equates to an average of approximately $23,000 in damages per incident statewide, an increase from previous estimates due to inflation, increased cleanup costs, and more stringent environmental and public health standards.

While Kootenai County would bear only a portion of the statewide impact, a single significant incident, whether at a fixed-site facility or during transport, could result in direct costs in the tens of thousands of dollars or more. These costs would be compounded by indirect impacts such as emergency response expenses, business interruptions, environmental remediation, and reduced public confidence.

CHAPTER 13
INFRASTRUCTURE AND UTILITY FAILURE HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- Critical infrastructure and utility failure is a new annex added to the 2026 AHMP update.
- A table of conglomerative Critical Infrastructure has been added.
- A list of historical frequencies has been added.
- Community Lifelines have been integrated into the Infrastructure and Utility Failure hazard profile.

HAZARD RISK SUMMARY

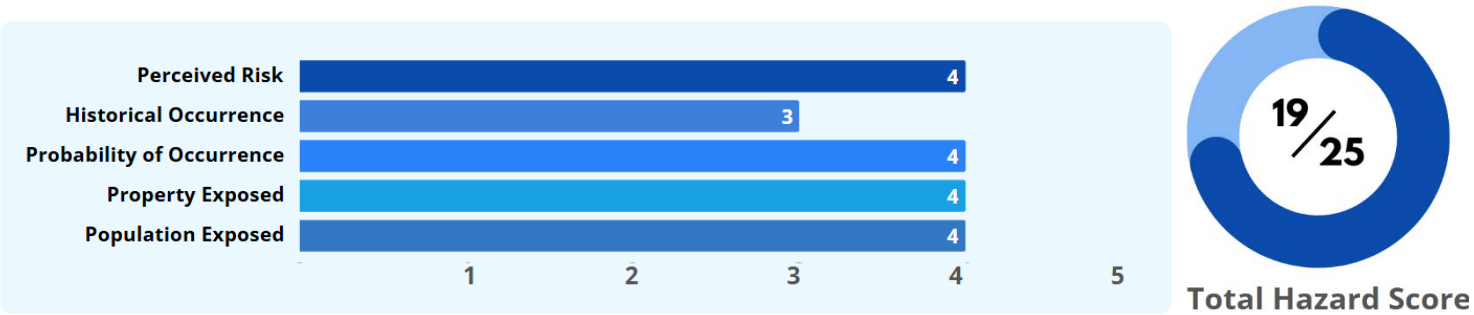


Figure 13-1: Hazard Risk Summary

BACKGROUND

Definition: Infrastructure and Utility Failures are disruptions to critical systems, such as power, water, wastewater, communications, and transportation, that reduce or halt essential services. Causes include aging infrastructure, equipment failure, accidents, severe weather, natural hazards, or cascading effects from related incidents.

Description: In Kootenai County, these failures range from brief, localized outages to large-scale, multi-day disruptions caused mainly by severe weather, equipment issues, or accidents. Common problems include power outages from wind and fallen trees, and water main breaks during freeze-thaw cycles. While most incidents are minor and quickly fixed, major failures can severely affect residents, businesses, and emergency response, underscoring the need for maintenance and emergency planning.

SITUATION

Kootenai County's critical infrastructure, including power, communications, transportation, and water/wastewater systems, is essential to public safety, health, and everyday living. The table below summarizes the number of critical infrastructure assets across the county. Each jurisdiction is responsible for maintaining these assets and developing plans to ensure their protection.

CRITICAL INFRASTRUCTURE IN KOOTENAI COUNTY — TABLE 13-1

CRITICAL INFRASTRUCTURE	TOTAL
Bridges	51
Water Supply	421
Waste Water	95
Power	3
Communications	19
TOTAL	**589**

Source: Kootenai County GIS

Utility failure primarily involves loss of power or communications. Power outages are the most frequent concern and typically result from damage to electrical infrastructure caused by hazards such as high winds, traffic accidents, flooding, or equipment failure. While outages may be inconvenient for many residents, they can be life-threatening for individuals dependent on electrically powered medical devices. Additionally, downed power lines present hazards including fire risk, injury, and fatality. Outages caused by failures at power generating plants have the potential to affect a far larger area than localized infrastructure damage.

Infrastructure failure encompasses damage to roads, bridges, water and wastewater systems, and other critical engineering assets. These failures can occur relatively frequently, often due to natural hazards (flood, wildfire, earthquake), accidents, or normal wear and tear. Minor infrastructure failures typically cause localized disruptions during repairs but rarely lead to severe consequences. However, failures at high-profile or heavily trafficked locations can result in significant traffic delays, emergency response challenges, injuries, and fatalities.

The interdependence of these systems underscores the importance of resilient infrastructure to maintain community safety and continuity of services during hazard events.

WARNING TIME

Utility providers have many, often duplicative monitoring systems to track utility failures such as power and water. This allows them to have instant reporting of these failures and drastically reduce response times. Infrastructure such as roads and bridges are routinely inspected. However, the failure of these built environments can be deadly. A bridge collapse may happen with no warning and cause major damage to life and property.

HISTORICAL FREQUENCIES

Most infrastructure and utility failures are small and do not cause a large impact. While there is the potential for a large-impact event, there have not been many in Kootenai County's recent history. Below are a few recent examples of the frequent, low-level failures that the County experiences regularly, along with a few larger events.

HISTORICAL INFRASTRUCTURE AND UTILITY FAILURES **TABLE 13-2**

DATE	EVENT TYPE	DESCRIPTION
Feb 2017	**Road washout**	Significant washout on Bayview Road from snowmelt and runoff; road closure stranded residents; partial reopening next day.
Nov 2019	**Windstorm**	172 Kootenai Electric customers without power due to high winds in Coeur d'Alene area.
Jan 2020	**Water main break**	Water main break near power line due to freeze-thaw cycle; water shutdown; increased vulnerability during cold weather without snow cover.
Feb 2020	**Windstorm**	1,958 Kootenai County residents without power due to trees/debris on lines; public safety advisories issued.
Oct 2020	**Windstorm**	Gusts over 50 mph; ~8,700 Avista customers without power; restoration completed next day.
Jan 2021	**Windstorm**	Gusts over 70 mph; 24,325 Avista customers without power, many out until Jan 16; 3,100+ KEC customers without power; widespread downed trees, blocked roads, multi-day restoration.
Aug 2022	**Thunderstorm**	Strong storms caused outages for 2,100+ KEC customers in Worley, Rockford Bay, and Plummer; summer storm vulnerability highlighted.
Dec 2022	**Cold snap**	Severe cold led to outages for ~981 KEC customers near Hayden Lake; additional Avista outages; winter weather vulnerability.
Jun 2023	**Thunderstorm & hail**	Hail and winds caused outages for ~1,700 customers in Coeur d'Alene area; restoration completed following day.
Mar 2025	**Road washout**	Heavy spring rains and rapid snowmelt caused a road washout in the Lakes Highway District, leading to road closures, localized flooding, and temporary access issues for residents and emergency services.

PROBABILITY

Kootenai County experiences frequent minor infrastructure and utility failures, such as localized power outages or service interruptions. These are typically low impact. Larger-scale failures are uncommon, but possible, particularly in high-use areas where consequences can be severe. Risk is reduced in some areas by buried power lines, and the county lacks unique vulnerabilities that increase overall risk. Overall, the probability of future infrastructure and utility failures is considered Moderate, with frequent minor events and occasional potential for major disruption.

HAZARD IMPACT SUMMARY

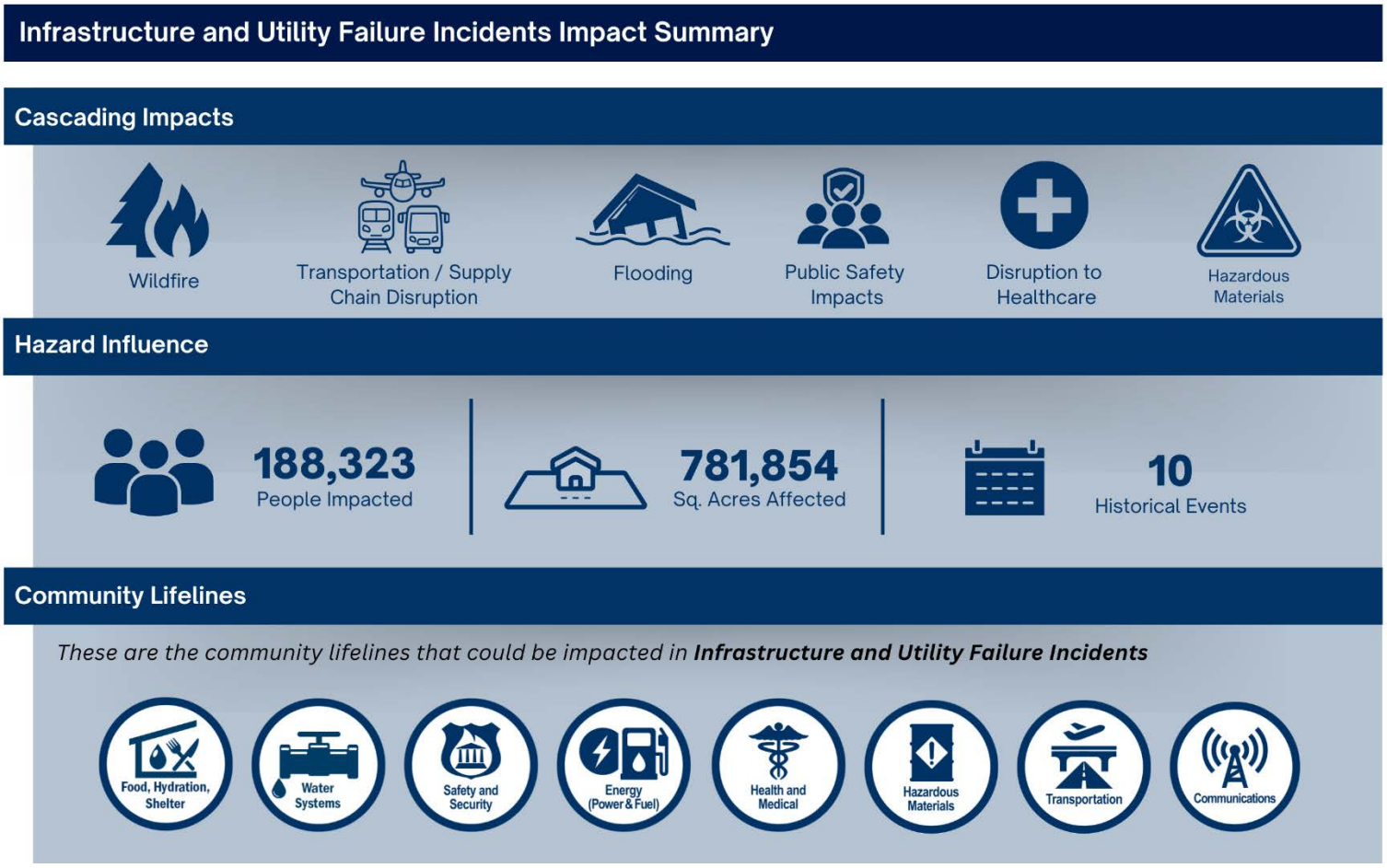


Figure 13-2: Infrastructure and Utility Failure Hazard Impact Summary

IMPACTS

Kootenai County is at risk of infrastructure and utility failures, with areas prone to hazards like flooding and high winds facing greater susceptibility. Because infrastructure is integrated throughout the built environment, failures can occur anywhere in the county. While most failures are small and cause limited disruption, failures in critical or high-use locations can lead to significant impacts, including serious injuries or fatalities.

Infrastructure and utility failures often occur as secondary hazards triggered by primary events such as windstorms, floods, or earthquakes. These failures can escalate incidents, for example, causing transportation disruptions, hazardous materials releases, or other emergencies.

Some parts of the county have reduced risk by burying power lines, lowering the chance of outages from wind or falling debris. Overall, Kootenai County does not have unique vulnerabilities but remains exposed to the cascading effects of infrastructure failure from natural or manmade hazards.

HUMAN CAUSED HAZARD PROFILE ANNEXES

CHAPTER 14
ACTS OF VIOLENCE HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- The acts of violence hazard profile was developed to include active shooter/threat, civil unrest, and terrorism. All data and information related to acts of violence now reflect these three categories.
- An updated list of historical frequencies has been integrated.
- A Hazard Cascade chart was implemented to illustrate secondary and tertiary impacts.
- Community Lifelines have been integrated into the acts of violence hazard profile.

HAZARD RISK SUMMARY

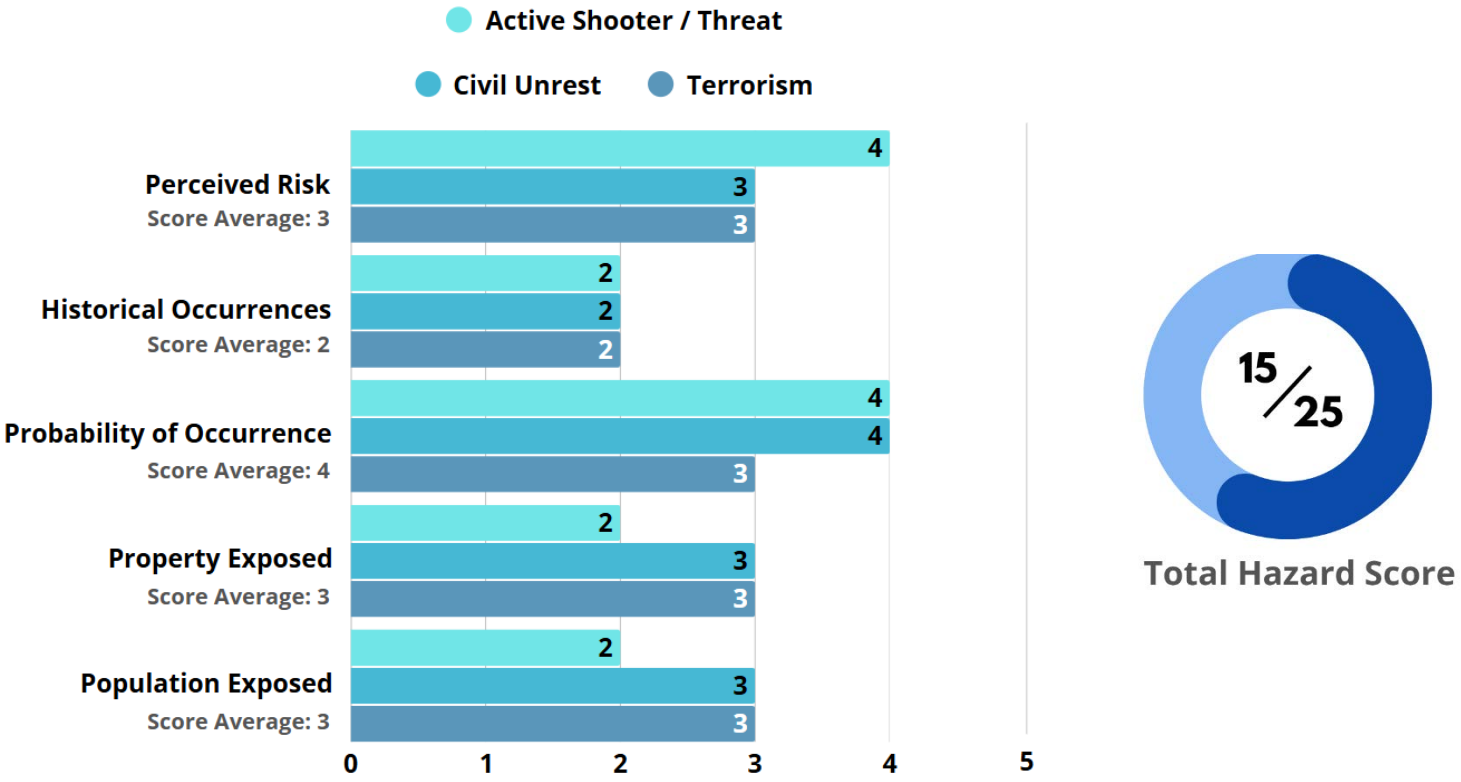


Figure 14-1: Hazard Risk Summary

The Total Hazard Score is calculated by averaging the scores from each acts of violence category listed in the chart above.

BACKGROUND

Description:
Acts of violence include incidents such as active shooter or active threat events, civil unrest, and acts of terrorism. These events involve deliberate human actions that disrupt public safety, threaten lives, and strain emergency response capabilities. They may stem from ideological extremism, political grievances, or social tensions, and can escalate rapidly—ranging from targeted violence and mass casualty attacks to riots, unlawful assemblies, or coordinated acts meant to intimidate or coerce. While peaceful protest and assembly are legal rights, these hazards represent a breakdown in public order and require a swift, coordinated response to protect lives and infrastructure.

ACTS OF VIOLENCE		
HAZARD	**DEFINITION**	
Active Shooter / Active Threat	An active shooter/active threat incident involves one or more individuals actively attempting to kill or harm others in a populated area. These incidents are unpredictable, escalate quickly, and pose an immediate danger to life. While often involving firearms, "active threat" also includes attacks using other weapons or methods (e.g., knives, vehicles, explosives).	
Civil Unrest	Civil unrest refers to public disturbances involving group acts of violence or disruption that threaten public safety, cause property damage, or interfere with normal operations. This may include riots, protests, or demonstrations that escalate beyond lawful assembly.	
Terrorism	Terrorism is the unlawful use of violence or threat of violence, often against civilians, to intimidate or coerce governments or societies—typically to achieve political, religious, or ideological goals. Acts of terrorism may be domestic or international in nature.	

Figure 14-2: Types of Acts of Violence

WARNING TIME

Warning time for acts of violence hazards varies significantly. Active shooter or terrorist incidents often occur with little or no warning, while civil unrest may follow identifiable patterns such as organized protests, publicized events, or escalating tensions observed through law enforcement intelligence or social media monitoring. Early indicators can assist in pre-incident awareness, but rapid escalation remains a common challenge.

HISTORICAL FREQUENCIES

HISTORICAL ACTS OF VIOLENCE **TABLE 14-1**

DATE	EVENT	DESCRIPTION
1976	**Rock Festival, Post Falls**	Attendees burned grandstands and construction equipment, requiring emergency response.
Pre 2000s	**Bayview Fireworks**	Regular alcohol-fueled disturbances during celebrations, prompting policy and enforcement changes.
1980s-1990s	**Hydroplane Races**	High public attendance and alcohol led to repeat disorderly conduct; the event was discontinued.
1980s-2000s	**Aryan Nations Demonstrations**	Rallies by extremist groups in Hayden drew widespread attention and required significant law enforcement presence.
1999	**Car d'Lane, Coeur d'Alene**	Unanticipated unrest during a car show required a county-wide law enforcement response.

HISTORICAL ACTS OF VIOLENCE		TABLE 14-1
June 2022	**Patriot Front Arrests (CDA Pride Parade)**	Thirty-one members of a hate group arrested for extremist activity, foiling potential extremist disruption.
April 2024	**ISIS Support Plot**	An 18-year-old from Coeur d'Alene was arrested for planning an attack on local churches in support of ISIS; the plot was disrupted by federal authorities.
June 2025	**Canfield Mountain Ambush**	A premeditated attack where a shooter intentionally set a wildfire to lure first responders and ambushed them with rifle fire—resulting in two firefighter fatalities and one injured. Local, state, and federal law enforcement, including FBI tactical teams, responded.

PROBABILITY

The probability of acts of violence hazards occurring in Kootenai County is considered moderate to high, based on historical incidents, regional trends, and national threat assessments. Civil unrest and public disturbances are more likely during politically or socially charged events, especially when amplified by social media or large gatherings. Active threat incidents, while less frequent, remain a persistent risk due to their unpredictable nature and potential for mass harm. Although terrorism is less common, recent events, including plots disrupted by law enforcement, underscore the continuing threat from both domestic and international actors. Given Kootenai County's growing population, proximity to ideological activity, and history of high-profile incidents, continued vigilance and preparedness remain essential.

POPULATION

Kootenai County is home to over 180,000 residents and continues to experience rapid growth, particularly in urban areas such as Coeur d'Alene, Post Falls, and Rathdrum. This growth increases the number of people potentially exposed to acts of violence, especially in public venues, schools, government buildings, and during large community events. In addition to general population density, certain groups face elevated vulnerability during incidents involving violence, unrest, or terrorism.

At-risk populations include:

- Children and students (schools, daycares, universities)
- Older adults and individuals with mobility challenges
- People with cognitive, sensory, or behavioral disabilities
- Tourists and event attendees unfamiliar with local emergency protocols
- Non-English speakers and individuals with limited communication access
- Healthcare and congregate care facility residents
- Public-facing personnel (educators, faith leaders, government employees)
- Individuals involved in politically sensitive, high-profile, or advocacy roles

Targeted planning, inclusive alert systems, and accessible protective actions are essential to ensure these populations are considered in preparedness and response efforts.

PROPERTY

In Kootenai County, acts of violence such as civil unrest, active shooter events, and targeted violence have the potential to cause significant property damage and economic disruption, particularly in areas like downtown Coeur d'Alene, Post Falls, and near major public venues, government buildings, and schools. High-traffic summer events, ideological demonstrations, and increasing regional population growth heighten the risk of disruption and associated financial loss. Damage to city infrastructure, schools, and small businesses, particularly those without adequate insurance or continuity planning, could represent a significant burden on both local governments and private property owners. Preparedness investments, recovery funding strategies, and protective planning for public events are essential to reduce long-term financial impact.

ISSUES TO CONSIDER

In Kootenai County, planning for acts of violence must account for several key challenges:

- Rapid escalation of violence or unrest, especially during public events or large gatherings.
- Online and ideological activity that can trigger local demonstrations or threats with little warning.
- High-profile targets such as schools, government buildings, and tourist areas with limited protective infrastructure.
- Limited rural resources, making mutual aid and interagency coordination essential.
- Public trust and communication, especially in politically sensitive situations.
- Long-term recovery needs, including emotional, financial, and reputational impacts on local communities.

HAZARD IMPACT SUMMARY

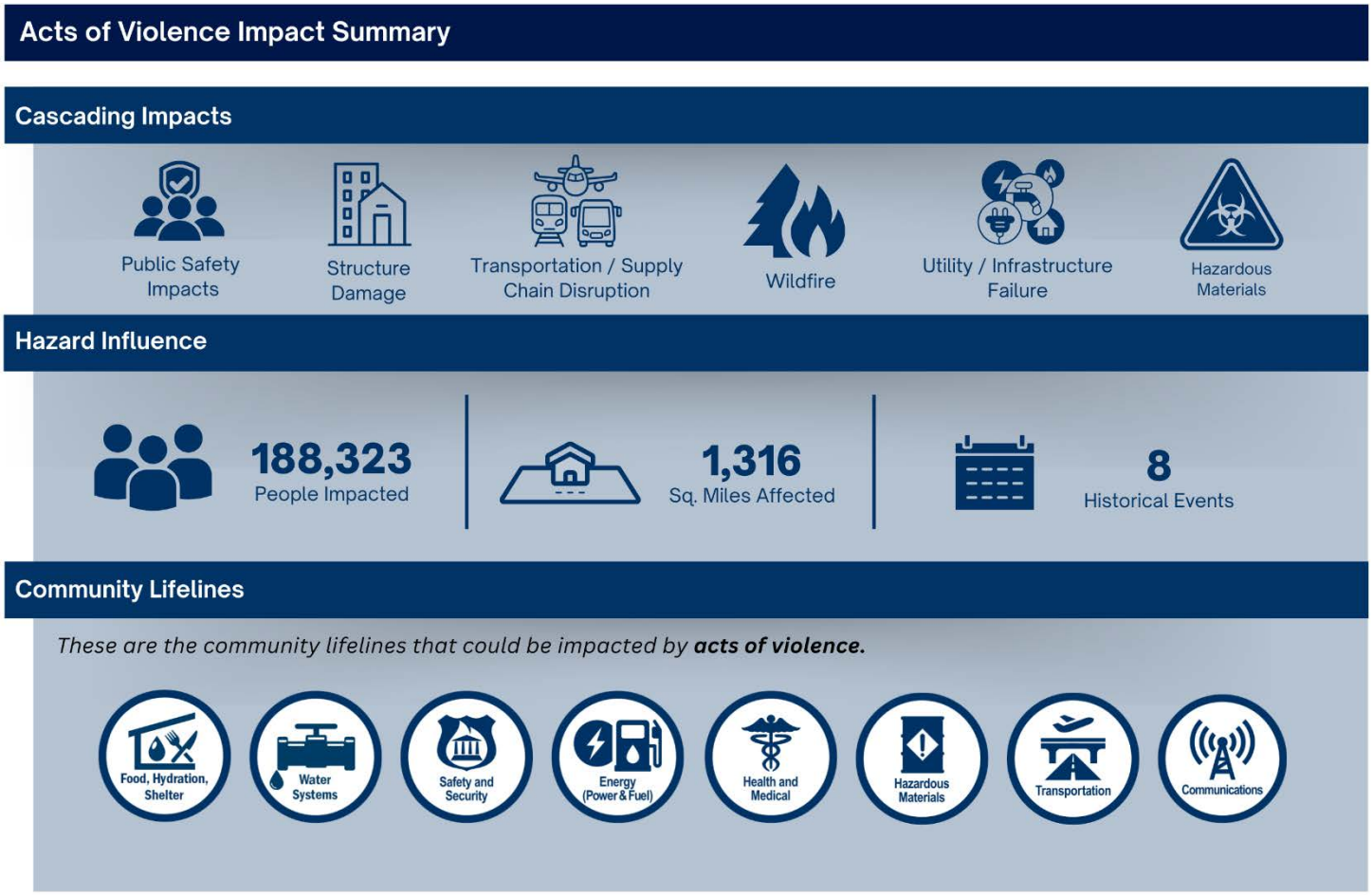


Figure 14-3: Acts of Violence Hazard Impact Summary

CHAPTER 15
INFECTIOUS DISEASE HAZARD PROFILE

CHANGES SINCE THE 2020 AHMP

- An updated list of historical frequencies has been integrated.
- A Hazard Cascade chart was implemented to illustrate secondary and tertiary impacts.
- Community Lifelines have been integrated into the infectious disease hazard profile.

HAZARD RISK SUMMARY

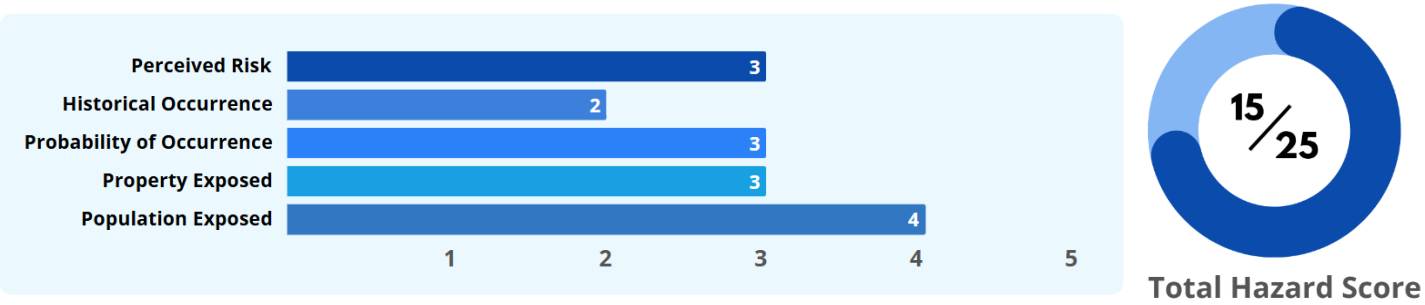


Figure 15-1: Hazard Risk Summary

BACKGROUND

Definition: An **infectious disease** is a disorder caused by pathogenic microorganisms, such as bacteria, viruses, parasites, or fungi, that can be spread, directly or indirectly, from one individual to another, through environmental exposure, or via vectors such as insects or animals. A **pandemic** is an epidemic occurring worldwide or over a very wide area, crossing international boundaries, and usually affecting a large number of people. For the World Health Organization (WHO) to designate a disease as a pandemic, commonly seen with influenza-like illnesses, it must meet three criteria:

- It is capable of infecting humans
- It causes disease in humans
- It spreads easily from human to human

Description: Pandemics can be triggered by various diseases, including influenza, coronaviruses (e.g., COVID-19), cholera, smallpox, typhus, measles, tuberculosis, leprosy, malaria, and yellow fever.

The WHO defines a disease outbreak as the occurrence of disease cases in excess of what is normally expected within a specific population or geographic area. The threshold for what constitutes an outbreak varies based on the disease-causing agent and the context of previous or ongoing exposure. Most outbreaks are the result of infectious agents transmitted through:

- Person-to-person contact
- Animal-to-person transmission
- Environmental exposure or other media

In addition to biological causes, outbreaks can also result from exposure to chemical agents or radioactive materials.

WARNING TIME

Pandemics continue to offer limited warning time, even with improved surveillance systems. In Kootenai County, rapid disease spread is possible due to regional travel routes and proximity to Spokane International Airport. Warning time depends on how quickly a new pathogen is identified and how soon alerts reach local health authorities. Diseases like influenza or new coronavirus variants can spread before symptoms appear, making early containment difficult. In the case of highly transmissible diseases like influenza or coronavirus variants, the warning time for Kootenai County would depend on:

- The origin and speed of identification of the pathogen
- The response time from state and federal public health agencies
- Local capacity to monitor and respond to disease alerts from regional and national sources

Because outbreaks can occur simultaneously across the U.S., Kootenai County may not be able to rely on outside assistance or mutual aid during the early stages of a pandemic, emphasizing the need for local preparedness, stockpiles, and trained personnel.

HISTORICAL FREQUENCIES

Kootenai County has experienced several infectious disease events in recent years, reflecting ongoing risks and challenges in disease control and prevention.

HISTORICAL INFECTIOUS DISEASE EVENTS **TABLE 15-1**

DATE	EVENT	DESCRIPTION
2015	**Mumps**	Kootenai County was affected during the 2015 mumps outbreak that began at the University of Idaho in Moscow and spread within Idaho and to Washington State. By early 2015, 21 cases were confirmed statewide, with Kootenai County among the impacted areas.
2016	**Zika Virus**	Although no local transmission occurred in Kootenai County, the 2016 Zika virus epidemic raised awareness of mosquito-borne diseases and spurred enhancements in vector surveillance and control programs.
2017	**Rabies (Bat variant)**	In 2017, a bat variant of rabies was detected in Kootenai County, consistent with ongoing regional surveillance that highlights the risk of zoonotic diseases transmitted through wildlife.
2019	**Measles**	Though Idaho did not experience a major measles outbreak in 2019, neighboring states reported significant outbreaks of this highly contagious disease, which was declared eliminated in the U.S. in 2000. Prior to widespread vaccination, measles caused thousands of hospitalizations and hundreds of deaths annually. In Idaho, low vaccination rates and a 25% increase in “opt-out” exemptions over the past two years—primarily for religious or personal reasons—heighten the risk of future outbreaks.
2020 – 2023	**COVID – 19 (Pandemic)**	The most significant recent infectious disease event, the COVID-19 pandemic, heavily impacted Kootenai County. Beginning in early 2020, confirmed cases surged, peaking in 2021 with hundreds of cases reported weekly. The pandemic strained healthcare systems, disrupted schools and businesses, and necessitated multiple public health interventions including mask mandates and stay-at-home orders. Vaccination efforts began in late 2020, with ongoing booster campaigns through 2025. Recovery efforts have been supported by federal funding, including ARPA allocations.
2025	**West Nile Virus Case**	In early 2025, a confirmed case of West Nile virus in a Kootenai County resident underscored the continuing threat of vector-borne diseases and the importance of year-round mosquito monitoring and public education.

NORTH IDAHO REPORTABLE DISEASE SUMMARY – NUMBER OF CASES						TABLE 15-2
CAUSE	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
HIV	15	7	8	9	6	5
Measles	0	0	0	0	0	0
Mosquito-borne diseases						
Malaria	0	0	0	1	0	0
Zika virus disease	0	0	0	0	1	0
West Nile Virus Infections	0	0	0	0	1	0
Mumps	0	0	0	0	1	1
Pertussis	48	16	1	3	5	372
Plague (human)	0	0	0	0	0	0
SARS	-	16486	28433	19925	-	-
Tuberculosis (Active)	0	1	0	1	1	1

Source: Panhandle Health District

PHASES OF A PANDEMIC	TABLE 15-3
PHASE	**DESCRIPTION**
	Inter-Pandemic Period
PHASE 1	No new influenza virus subtypes detected in humans. An influenza virus subtype may be present in animals, but risk to humans is low.
PHASE 2	No new human influenza virus subtypes detected. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.
	Pandemic Alert Period
PHASE 3	Human infections with a new influenza virus subtype reported, but no or very limited human-to-human transmission (rare spread to close contacts).
PHASE 4	Small, localized clusters of human-to-human transmission occur, but the virus is not yet well adapted for sustained human transmission.
PHASE 5	Larger, more widespread clusters with limited human-to-human transmission; the virus is becoming increasingly better adapted to humans, indicating a substantial risk of a pandemic.
	Pandemic Period
PHASE 6	Sustained community-level outbreaks in multiple regions, with increased and sustained human-to-human transmission across populations.
	Post-Pandemic Period
	The pandemic wave declines, and virus activity returns to baseline Inter-Pandemic Period levels. Return to Phase 1.

Source: CDC

PROBABILITY

The timing and severity of future infectious disease outbreaks or pandemics are difficult to predict, but such events are expected to continue. Preparedness and response efforts are ongoing at the local, state, and national levels to reduce impacts and improve public health outcomes. Based on recent global events and the potential for emerging diseases, the probability of future infectious disease outbreaks in Kootenai County is considered Moderate to High.

HAZARD IMPACT SUMMARY

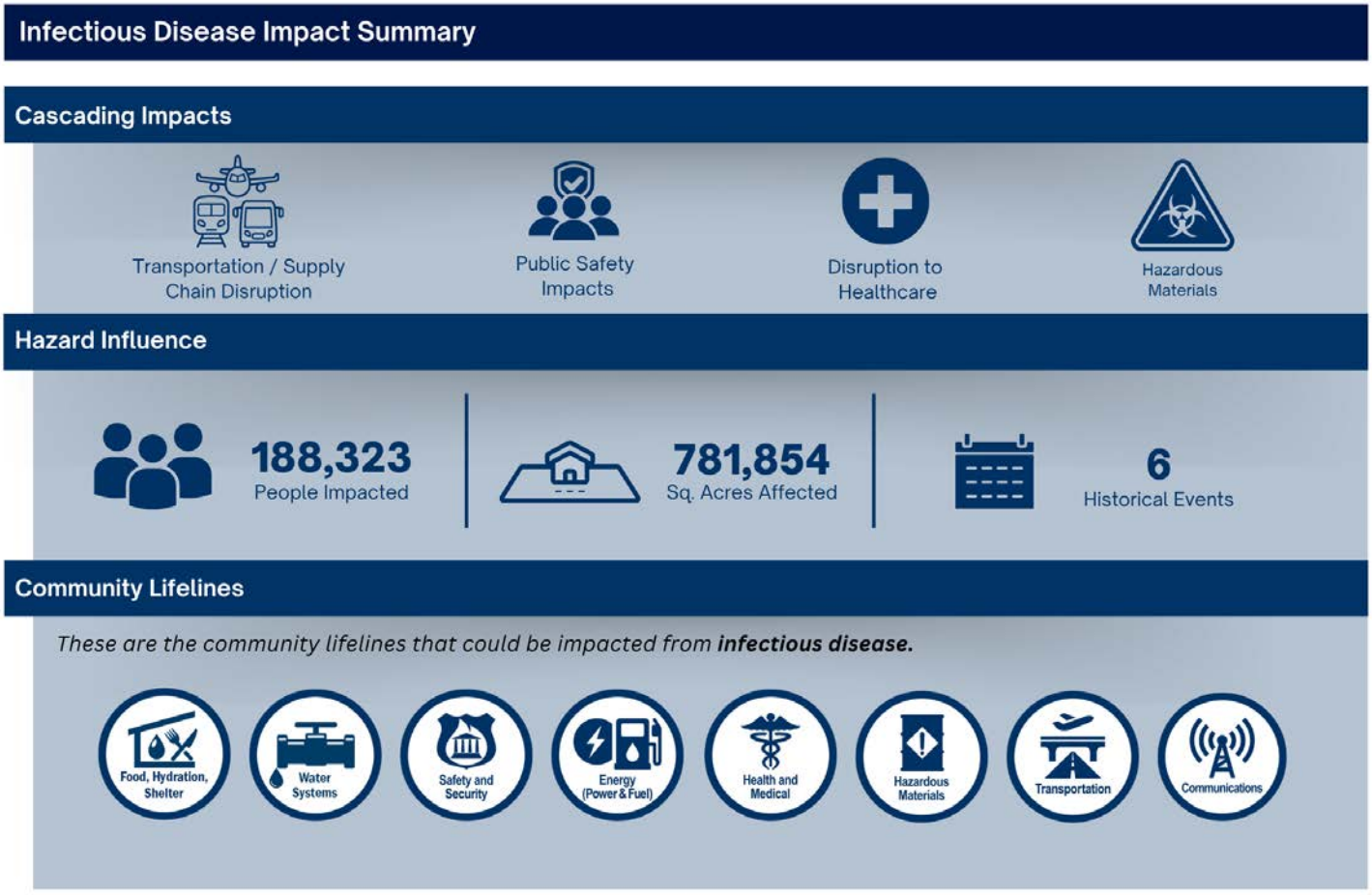


Figure 15-2: Infectious Disease Hazard Impact

IMPACTS

The entire population of Kootenai County is vulnerable to pandemic effect. Densely populated urban areas face higher exposure and transmission risk. Vulnerable groups such as children, the elderly, and those with underlying health conditions are especially at risk.

- **Economic Impact and Workforce Absenteeism**
    - A pandemic would significantly disrupt the local economy, affecting both public safety and essential services.
    - Worker absenteeism would impact local, county, state, and private sector operations.
    - Continuity of government operations would require activation of emergency protocols.
    - According to CDC modeling (U.S. Department of Health and Human Services, 2009):

        - Approximately 10% of the workforce may be absent due to illness or caregiving during peak pandemic periods.
        - Based on the American Community Survey data (U.S. Census Bureau, 2018), with 102,817 workers in Kootenai County, this implies a shortage of roughly 10,282 employees during peak absenteeism.
    - Tourism and related sectors are likely to experience downturns, depending on the pandemic's timing and severity.

- **Environmental Impact**
    - Environmental effects depend on the specific disease characteristics.
    - Zoonotic diseases (transmitted between animals and humans) can impact agriculture and wildlife.
    - Approximately 60% of emerging infectious diseases are zoonotic in origin (CDC, 2020).
    - Risks include infected livestock and poultry populations.
    - Severe pandemics may necessitate mass animal or human burials, potentially impacting soil and water resources (CDC, 2017).

HAZARDS OF INTEREST

CHAPTER 16
AVALANCHE HAZARD PROFILE

BACKGROUND

Definition: An **avalanche** is any mass of loosened snow or ice and/or earth that suddenly and rapidly breaks loose from snowfields and slides down a mountain slope, often growing accumulating additional material as it descends.

Description: Avalanches can occur whenever a sufficient depth of snow is deposited on slopes steeper than about 20 degrees, with the most dangerous coming from slopes in the 35- to 40-degree range. Avalanche-prone areas can be identified with some accuracy, since they typically follow the same paths year after year, leaving scarring on their paths. However, unusual weather conditions can produce new paths or cause avalanches to extend beyond their normal paths.

Avalanches can reach speeds of up to 200 miles an hour and can exert forces great enough to destroy structures and uproot or snap off large trees. Avalanche paths consist of three specific transition zones (2023 Idaho State Hazard Mitigation Plan):

- **Starting Zone:** The zone typically near the top of a ridge, bowl or canyon, with steep slopes of 25 to 50 degrees.
- **Track Zone:** The reach with mild slopes of 15 to 30 degrees and the area where the avalanche will achieve maximum velocity and considerable mass.
- **Run-Out Zone:** The area of gentler slopes (5 to 15 degrees) at the base of the path, where the avalanche decelerates and massive snow and debris deposition occurs.

HISTORICAL FREQUENCIES

This section summarizes severe weather events in Kootenai County dating back to 1950, based on data recorded by the NOAA. Included in this summary are events involving extreme temperatures, thunderstorms, windstorms, and winter storms.

The table below presents documented severe weather events and serves as a general indicator of their relative frequency and impact. It is important to note that this data likely underrepresents the full extent of impacts and occurrences due to historical limitations in reporting and evolving data collection practices over time.

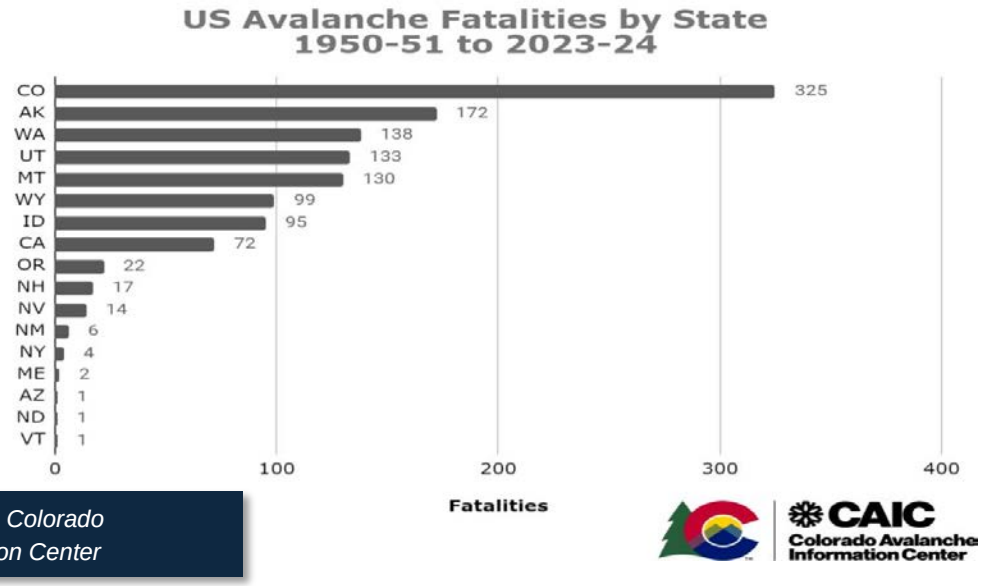


Figure 16-1: *Source: Colorado Avalanche Information Center*

The Idaho Panhandle Avalanche Center indicates that since 2020, 3 events have occurred within the planning area or the immediate region. These have resulted in 3 deaths and 5 injuries.

An avalanche-related Idaho State Disaster Declaration that affected Kootenai County occurred on February 10, 2017. During this time the effects of extraordinary flooding caused by warmer temperatures, rain and rapid snow melt were experienced within the State of Idaho. Of note, FEMA-DR-4313 occurred from this state declaration, but FEMA did not include the avalanche hazard. (2023 Idaho SHMP)

PROBABILITY

Although minor events may occur periodically, avalanche events that are severe enough cause injury or property damage are uncommon in Kootenai County. Minor avalanches resulting in no injuries or damage are likely to continue to occur frequently and go unreported. Major events may become moderately more common due to declining snowpack levels caused by unstable snow pack due to warming trends.

LOCATION

Avalanche hazards in Kootenai County are associated with steep, mountainous terrain such as the Selkirk Mountains, particularly within high-elevation backcountry areas where unstable snowpack can develop during and following heavy snowfall. While conditions can produce avalanches within the county, the majority of avalanche activity in the region typically occurs in adjacent Shoshone County, where steeper terrain and heavier snowfall create higher risk. Avalanche potential remains dependent on weather, snowpack, and slope conditions rather than specific fixed locations.

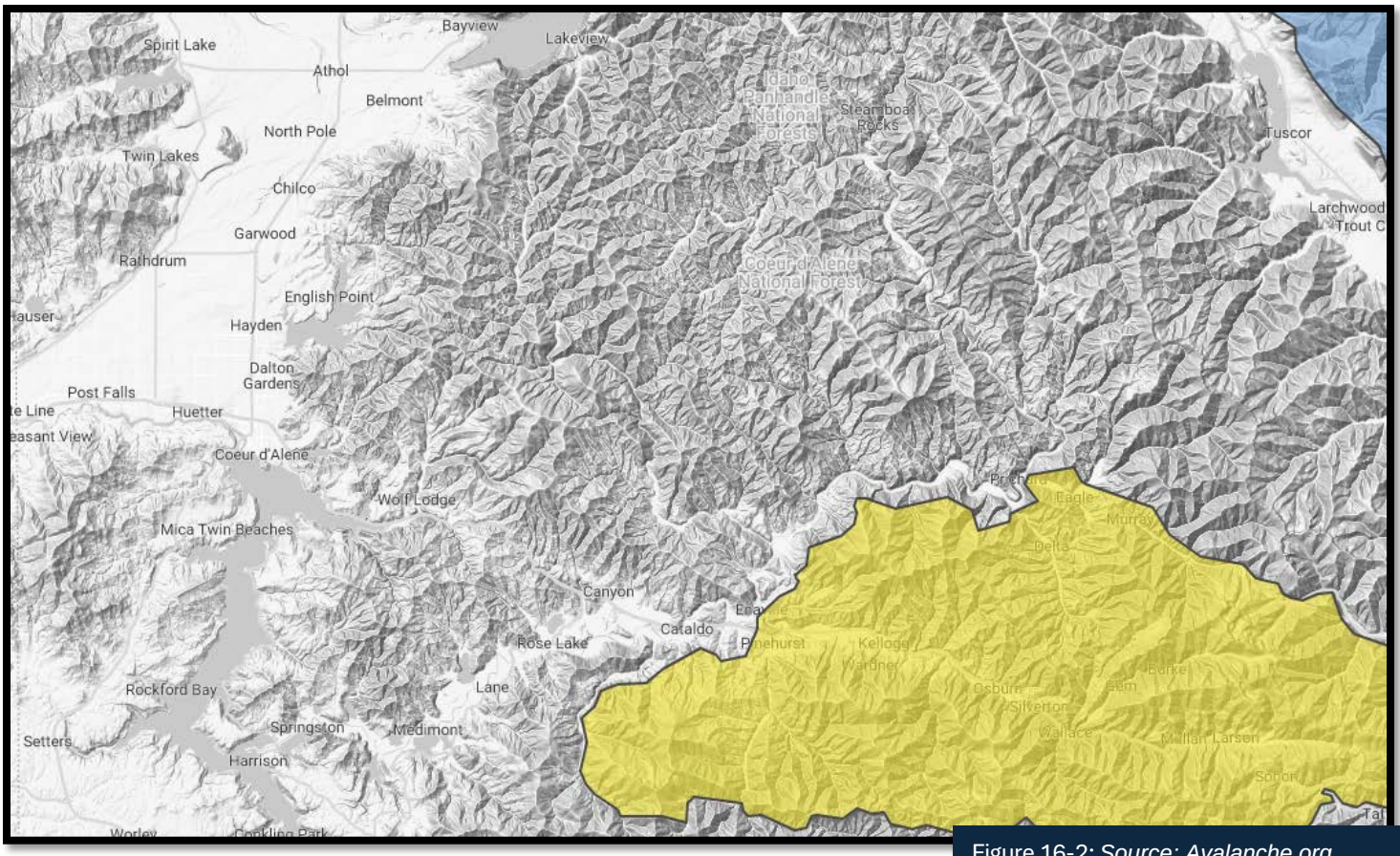
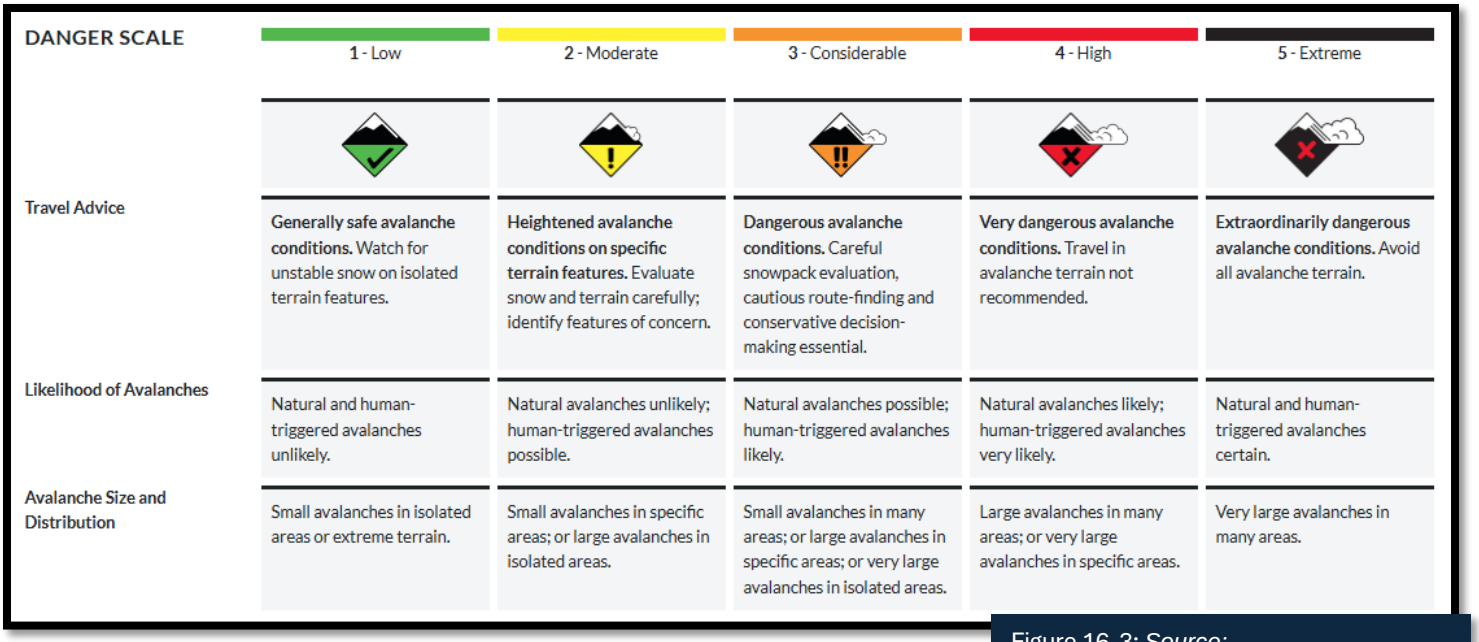


Figure 16-2: *Source: Avalanche.org*



DANGER SCALE	1 - Low	2 - Moderate	3 - Considerable	4 - High	5 - Extreme
Travel Advice	**Generally safe avalanche conditions.** Watch for unstable snow on isolated terrain features.	**Heightened avalanche conditions on specific terrain features.** Evaluate snow and terrain carefully; identify features of concern.	**Dangerous avalanche conditions.** Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.	**Very dangerous avalanche conditions.** Travel in avalanche terrain not recommended.	**Extraordinarily dangerous avalanche conditions.** Avoid all avalanche terrain.
Likelihood of Avalanches	Natural and human-triggered avalanches unlikely.	Natural avalanches unlikely; human-triggered avalanches possible.	Natural avalanches possible; human-triggered avalanches likely.	Natural avalanches likely; human-triggered avalanches very likely.	Natural and human-triggered avalanches certain.
Avalanche Size and Distribution	Small avalanches in isolated areas or extreme terrain.	Small avalanches in specific areas; or large avalanches in isolated areas.	Small avalanches in many areas; or large avalanches in specific areas; or very large avalanches in isolated areas.	Large avalanches in many areas; or very large avalanches in specific areas.	Very large avalanches in many areas.

Figure 16-3: *Source: idahopanhandleavalanche.org*

IMPACTS

Property damage associated with avalanches is a function of several factors. Large external lateral loads can cause significant damage to structures and fatalities. The table below indicates the estimated potential damage for a given range of impact pressures. The measurement kPa represents the kilopascal (kPa) of 1,000 newtons per square meter.

AVALANCHE IMPACT PRESSURES RELATED TO DAMAGE **TABLE 16-1**

KILOPASCAL (kPA)	POUNDS PER SQUARE FOOT (lbs /ft2)	POTENTIAL DAMAGES
2-4	40-80	Break windows
3-6	60-100	Push in doors, damage walls, roofs
10	200	Severely damage wood frame structures
20-30	400-600	Destroy wood-frame structures, break trees
50-100	1000-2000	Destroy mature forests
>300	>6000	Move large boulders

CHAPTER 17
DROUGHT HAZARD PROFILE

BACKGROUND

Definition: A **drought** is defined as a prolonged period of abnormally low precipitation that leads to a shortage of water. This can affect soil moisture, streamflow, groundwater levels, agriculture, ecosystems, and human water use. Depending on context, drought can be categorized as:

- **Meteorological Drought:** A deficit in rainfall compared to the normal average over a certain time period.
- **Agricultural Drought:** When soil moisture becomes insufficient for crop growth.
- **Hydrological Drought**: Decline in surface water (like rivers and lakes) and groundwater levels.
- **Socioeconomic Drought**: When water scarcity impacts human activities, such as agriculture, industry, or daily consumption.

Description: Drought is a normal phase in the climatic cycle of most geographical regions. According to the National Drought Mitigation Center (NDMC), drought originates from a deficiency of precipitation over an extended period, usually a season or more. This results in a water shortage for some activity, group or environmental sector. Drought is the result of a significant decrease in water supply relative to what is "normal" in a given location. Unlike most disasters, droughts normally occur slowly but last a long time. The onset of drought is determined by its impact on water users and available supplies, including stored surface and groundwater. Local agencies use varying criteria to define drought, often issuing drought watches or warnings. Regional or statewide declarations typically consider both hydrologic and water supply factors.

HISTORICAL FREQUENCIES

Idaho's climate is characterized by arid conditions and periodic droughts, with Kootenai County experiencing significant drought events in 1988 and 1992. These events, which were not part of federal disaster declarations, caused several million dollars in crop damage and were likely part of a prolonged drought period from 1987 through 1992.

In recent years, Kootenai County has faced additional drought challenges:

HISTORICAL DROUGHT EVENTS — **TABLE 17-1**

DATE	DESCRIPTION
June 2024	The USDA designated Kootenai County as a primary natural disaster area due to drought conditions, qualifying local producers for emergency loans. (*Farm Service Agency)*.
August 2024	Persistent below-normal precipitation and above-average temperatures led to below-normal streamflow in northern Idaho, including Kootenai County, intensifying drought conditions. (*Drought.gov)*.

These events underscore the recurring nature of drought in the region, highlighting the need for continued monitoring and mitigation efforts.

PROBABILITY

Due to Idaho's arid conditions, drought is a natural but unpredictable occurrence in the state. Therefore, the probability of a future drought in Kootenai County is high. As can be seen in figure 17-1, the County will likely continue to experience drought of at least moderate magnitude at least once per decade.

Drought can have the broadest effect of perhaps all of the County's hazards, sometimes affecting all regions of the entire State of Idaho simultaneously. At minimum, the entire planning area is likely to be impacted by any drought event. The figures below show the drought location and extent for the planning area region during the Kootenai County 2026 Hazard Mitigation Plan planning process.

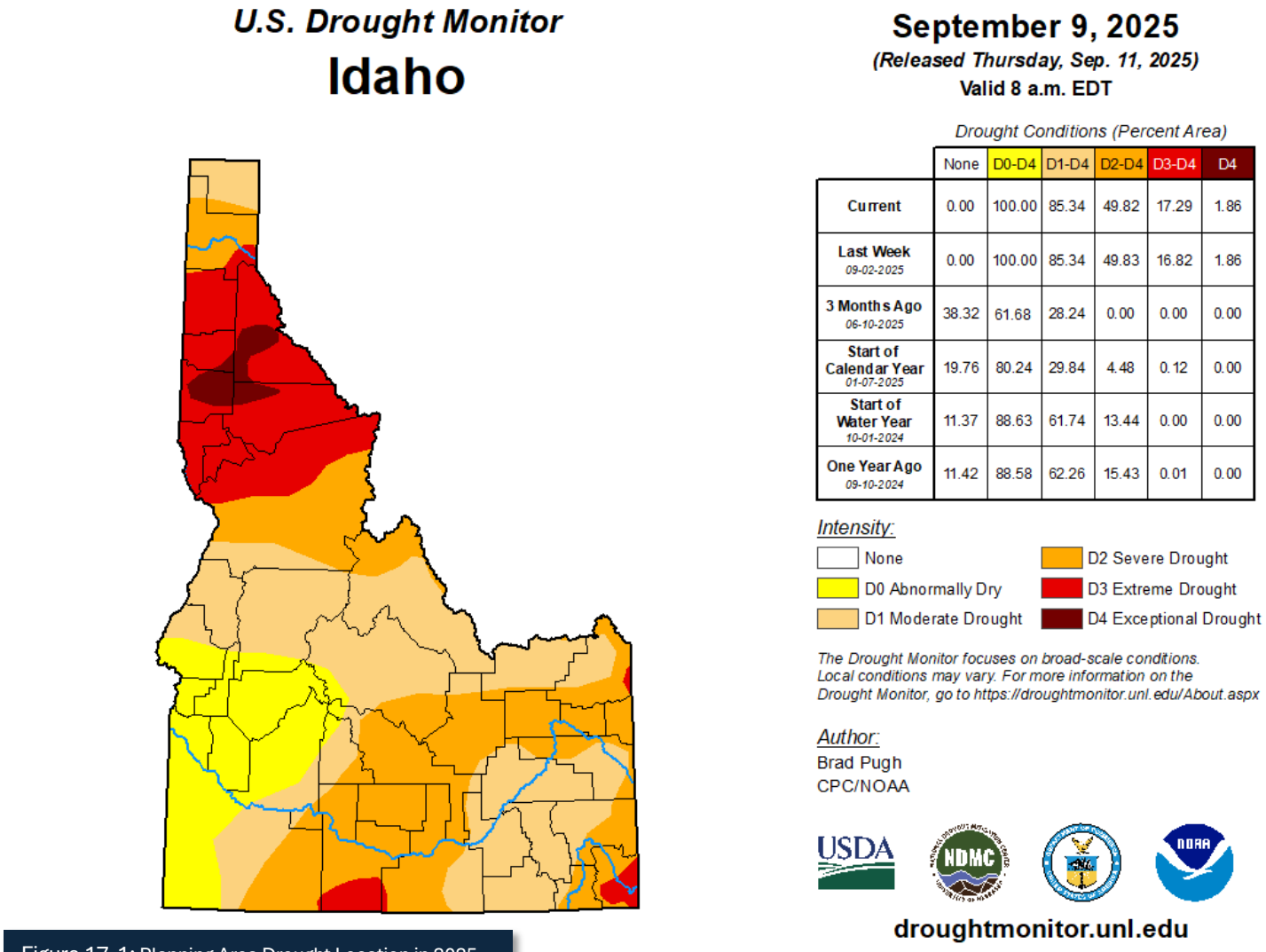


Figure 17-1: Planning Area Drought Location in 2025

IMPACTS

Drought conditions in Kootenai County, Idaho, have had significant environmental, economic, and societal impacts. The county has experienced severe droughts in the past, including notable events in 1988 and 1992, with crop damage and water supply challenges. More recently, droughts in 2024 and continuing into 2025 have stressed agriculture, groundwater resources, and wildfire management. Ongoing impacts include:

- **Agriculture**: The most visible economic impact of drought in Kootenai County is on agriculture. Reduced water availability has led to crop losses, especially in dry years, and increased irrigation costs. This was particularly true during the 1987-1992 drought period and the 2024 drought.

- **Water Supply & Quality**: Drought reduces surface water and groundwater levels, stressing both municipal and agricultural water supplies. Shallow wells are more vulnerable during drought conditions, and extended droughts can lead to permanent reductions in aquifer levels.

- **Wildfire Risk**: Drought increases the likelihood of wildfires due to drier vegetation. In recent years, Kootenai County has seen elevated wildfire risk, compounded by long dry spells.

- **Socioeconomic Effects**: Drought affects local businesses, especially those reliant on water, like tourism (rafting, recreation) and landscaping. Water and fire restrictions, along with increased operational costs, have also disrupted industries, leading to financial strain for affected businesses

Prolonged drought conditions increase vulnerability to soil erosion, loss of vegetation, and the spread of invasive species. The ongoing reduction in groundwater replenishment is a key concern, as it impacts streamflow, agricultural productivity, and municipal water availability. The severity of these impacts is directly linked to the length of droughts. As Kootenai County continues to experience droughts periodically, strategies for mitigating water shortages and managing wildfire risks will be crucial to protect both the environment and the local economy.

CHAPTER 18
EARTHQUAKE HAZARD PROFILE

BACKGROUND

Definition: An **earthquake** is the shaking of the Earth's surface caused by a sudden release of energy in the Earth's crust, typically along fault lines, resulting in seismic waves. This release of energy occurs when stress caused by tectonic plate movement exceeds the strength of rocks, causing them to fracture.

Description: Earthquakes are typically classified in one of two ways: By the amount of energy released, measured as magnitude; or by the impact on people and structures, measured as intensity. Earthquakes can vary in size and impact, from small tremors that go unnoticed to massive events that cause widespread damage and loss of life. The energy released during an earthquake can cause ground shaking, surface rupture, landslides, tsunamis (in coastal areas), and liquefaction (when saturated soil behaves like a liquid). Earthquakes are most commonly associated with tectonic plate boundaries, but they can also occur in areas further from plate edges due to human activities like mining or oil extraction.

Kootenai County lies within a region of moderate seismic hazard. While not directly situated on a major fault line, the county can still experience ground shaking from regional faults, including those associated with the Lewis and Clark Fault Zone, the Cabinet Mountains Faults, and other tectonic structures in the Intermountain Seismic Belt and Northern Rockies.

HISTORICAL FREQUENCIES

Idaho is among the most active states in terms of the number of earthquakes experienced, with hundreds of small earthquakes recorded since observations began in the mid-20th century. Figure 18-1 shows 312 past earthquakes of at least 1.5 magnitude recorded by the United States Geological Survey in and near Kootenai County from 1969 through 2025. The county also has experienced seismic activity from earthquakes farther outside its boundaries. Seismic activity of at least Magnitude-4.0 has been recorded in Kootenai County in almost every decade since the 1910s. While none have caused significant damage within the county itself, regional earthquakes have been felt locally and serve as reminders of seismic vulnerability:

- **1935 Helena, MT Earthquakes** (M6.2–6.3): Shaking felt across northern Idaho, including parts of Kootenai County.
- **2001 Nisqually, WA Earthquake** (M6.8): Felt across the Inland Northwest, including Coeur d'Alene.
- **Occasional low-magnitude quakes** (M2.0–4.0) are recorded within 100 miles of the county nearly every year.

Although damaging earthquakes are infrequent in Kootenai County, the potential for a future significant seismic event remains.

PROBABILITY

According to the U.S. Geological Survey (USGS), Kootenai County is located in an area with a low to moderate seismic hazard, with a 2–5% probability of experiencing strong ground shaking in the next 50 years. This estimate accounts for regional seismic sources and expected ground motion propagation through local geology.

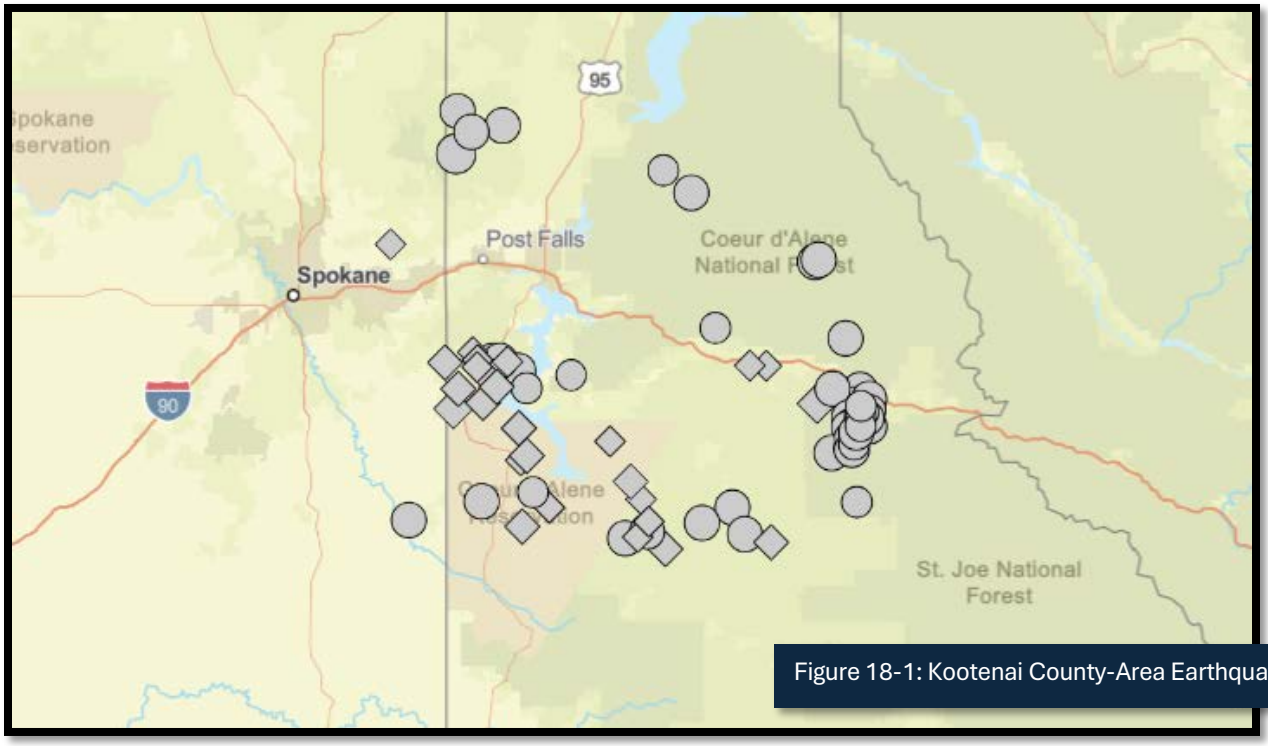


Figure 18-1: Kootenai County-Area Earthquakes

FREQUENCY

Thousands of earthquakes have been recorded in the State of Idaho. Currently, there are no realistic methods to predict earthquakes. According to the Idaho State seismologist, no studies, past or present could create anything more than the general probabilities currently available. The past rate of occurrence is a modest predictor of future occurrence. One possible exception would be increased volcanic activity related to the Yellowstone hotspot. If that occurs, seismic activity would also be likely to increase. Nonetheless, the assessment of seismic risk is significantly impaired by 1) a lack of fault characterization data for Idaho's mapped faults, 2) limited National Earthquake Hazards Reduction Program (NEHRP) soil and liquefaction susceptibility maps, and 3) extremely limited seismic monitoring throughout Idaho.

For the purpose of this Plan update, the probability of future occurrences is defined by the number of events over a specified period of time. Between 1950 and 2017, there have been 3,314 earthquakes (of all magnitudes) with epicenters in Idaho. Based on this data, Idaho may experience an average of 50 earthquakes of any given magnitude each year. This average includes the many aftershocks that occur after large earthquakes. Please note that the number of small earthquakes (magnitude less than 3) is greatly under-reported in Idaho because of limited seismic monitoring.

CASCADIA

In the event of a Cascadia Rising incident—such as a major earthquake and tsunami affecting the Pacific Northwest—Kootenai County is likely to experience a significant and rapid influx of displaced residents from neighboring states. This population surge would place immense strain on local infrastructure, emergency services, housing, healthcare, and supply chains. In addition to addressing local hazards such as earthquakes, wildfires, dam failures, and severe weather, the County's all-hazard mitigation strategy must consider the cascading impacts of regional disasters. Planning for temporary shelter, resource distribution, and coordination with state and federal partners will be critical. Enhancing public awareness, updating emergency operations plans, and strengthening infrastructure resilience are essential steps to ensure the County can effectively absorb and support a sudden increase in population during regional crisis events.

CHAPTER 19
LEVEE AND DAM FAILURE HAZARD PROFILE

BACKGROUND

Definition: Dams are engineered barriers constructed to store or control water flow. They can serve for purposes of flood control, water supply, hydroelectric generation and recreation. Dam failures can occur due to

- Structural deterioration (e.g., aging, cracking, or erosion)
- Overtopping from excessive rainfall or snowmelt
- Foundation failure
- Seepage or internal erosion (piping)
- Earthquakes or landslides

Levees are embankments or walls built along rivers and lakes to contain, control, or divert water. Unlike dams, which typically store water, levees are meant to prevent water from inundating surrounding areas during high flow events. Levee failure may occur due to:

- Prolonged saturation or erosion
- Overtopping from rising water levels
- Animal burrows or tree roots weakening the structure
- Seismic activity or infrastructure failure

Description: Dams and levees are critical infrastructure for water storage, flood protection, irrigation, and power generation. However, failure of these structures, whether through overtopping, structural failure, or operational error, can result in catastrophic flooding, loss of life, economic disruption, and long-term environmental impacts.

DAM FAILURE

There are 28 Idaho Department of Water Resources (IDWR) regulated dams in Kootenai County and two levees. In addition, one dam in Bonner County has the potential to negatively impact Kootenai County. The Idaho Dam Safety Program classifies dams and reservoirs in a three-tier hazard rating system based solely on the potential consequences to downstream life and property that would result from a failure of the dam and sudden release of water (IDWR, 2020):

For a map of dams in Kootenai County, visit IDWR's Website at: maps.idwr.idaho.gov

HIGH HAZARD	SIGNIFICANT HAZARD	LOW HAZARD
• **Post Falls North** • **Post Falls Middle** • **Post Falls South**	• **Avondale Lake** • **Chilco** • **Kiblen West** • **Twin Lakes**	• **Twenty-five dams in Kootenai County are rated as low-hazard dams**

Figure 19-1: 2024 Kootenai County Emergency Operations Plan Hazard Dam Locations

HISTORICAL FREQUENCIES

No major dam or levee failures have been recorded in Kootenai County. Minor dam incidents have been documented in the past but have not led to structural failure or downstream flooding.

PROBABILITY

The probability of dam or levee failure in Kootenai County is low, but not negligible. Contributing factors that increase risk include:

- Aging infrastructure
- Extreme weather (e.g., heavy snowpack, spring runoff, prolonged rainfall)
- Seismic activity (Northern Idaho is a seismically active region)
- Deferred maintenance on non-federally regulated structures

Warning time varies depending on the time of incident. Sudden failures (e.g., due to structural collapse or earthquake) may offer minutes to hours of warning. While slow-developing issues (e.g., seepage or rising water levels) can be monitored over days. Emergency Action Plans (EAPs) are required for high-hazard dams and should guide response.

IMPACTS

Human Health and Public Safety

- Failure of a high-hazard dam or levee could result in flash flooding, property destruction, and loss of life in downstream areas. Flood inundation mapping from the highest risk dam (Avista) indicates minimal impacts to populated areas.

Environmental Impacts

- Sudden releases of water may erode riverbanks and streambeds, displace wildlife and mobilize pollutants (e.g., septic overflow, chemical storage sites). Wetland ecosystems and aquatic habitats could be permanently altered or destroyed.

Infrastructure and Economic Impacts

- Roads, bridges, utilities, and homes in flood zones could be damaged or destroyed. Economic disruptions include business closures, agricultural losses, costly infrastructure repair. Local governments may face extended recovery and cleanup operations.

Kootenai County's vulnerability to dam and levee failure is concentrated in the following areas:

- Post Falls area, which lies downstream of the Post Falls Dam and is near the Spokane River
- Communities adjacent to Lake Coeur d'Alene, where high water levels could exacerbate inundation if a dam or levee fails
- Coeur d'Alene River at Cataldo, where historic flooding has occurred and may be catastrophic should the Cataldo Levee fail.

CHAPTER 20

RADIOLOGICAL MATERIAL EXPOSURE AND NUCLEAR EVENTS HAZARD PROFILE

BACKGROUND

Definition: Radiation is the release of energy from unstable atoms. It occurs in two primary forms:

- **Non-ionizing radiation:** Low-energy radiation used in everyday applications such as microwaves, infrared heating, and radio signals.
- **Ionizing radiation:** High-energy radiation capable of damaging tissue and causing health effects. Common sources include x-rays, radon gas, research reactors, and irradiators.

Radiological Contamination can be dispersed via aerosol sprayers or explosive devices. Hazard duration may range from seconds to years, depending on the isotope. Key exposure factors include:

- Duration of exposure
- Distance from the radiation source
- Level of shielding (natural or structural)

Nuclear Explosions involve the detonation of a nuclear weapon or improvised nuclear device (IND), producing an intense blast, heat, radiation, and long-lasting radioactive fallout. Fallout behavior depends on wind and weather conditions; impacts can be both local and regional.

Description: Radiological and nuclear hazards pose unique risks due to their potential for significant human health, environmental, and economic impacts—even though they are considered low-probability events. Idaho contains both naturally occurring and human-made sources of radioactive material, including uranium deposits, industrial processes, and nuclear research facilities. While no major radiological events have occurred in Kootenai County, proximity to nuclear facilities and uranium-bearing geology makes the region potentially vulnerable to future incidents.

HISTORICAL FREQUENCIES

Kootenai County: No known major radiological or nuclear incidents.

Idaho:

- **1961 – SL-1 Accident (INL):** A criticality incident at the Stationary Low-Power Reactor Number One caused an explosion, released radioactive material within the facility, and killed three operators.
    - The incident was rated INES Level 4 (Accident with local consequences).
    - Since then, no unplanned releases have resulted in off-site contamination

Relevant Facilities

- **Idaho National Laboratory (INL):** Located in Idaho Falls (~500 miles from Kootenai County), home to various nuclear research activities.
- **Pacific Northwest National Laboratory (PNNL):** Located in Richland, Washington (~175 miles away).
- **Uranium Deposits & TENORM**: Idaho has significant uranium reserves and TENORM-producing industries. Waste may be disposed of in the Fighting Creek Landfill in Kootenai County.

PROBABILITY

The probability of a radiological or nuclear event affecting Kootenai County is low, but not zero. Risk may increase due to:

- Population growth and development
- Transportation of radioactive materials
- Presence of uranium and TENORM-generating industries

Warning time for radiological or nuclear events vary significantly no warning for explosive or intentional incidents while gradual development possible for industrial leaks or container breaches.

IMPACTS

Health Impacts

Acute exposure may lead to radiation sickness, cancer, and cellular damage. Long-term psychological and societal impacts were seen in incidents such as Chernobyl and Fukushima, including radiophobia, depression, and increased suicide rates.

Environmental Impacts

Radiological contamination can affect:

- Soil, air, and groundwater (e.g., Harrison Slough)
- Plants, wildlife, livestock, and crops

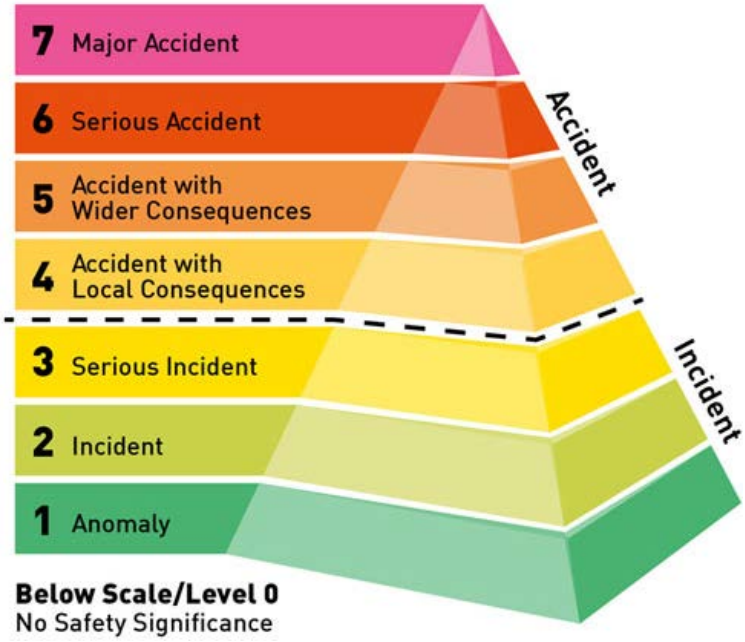
Contamination may persist for decades depending on the isotope and response efforts.

Infrastructure and Economic Impacts

- Radiation contamination could render public infrastructure and private property unusable for extended periods.
- Business interruptions, long-term evacuations, and cleanup costs could result in substantial economic losses.
- There is no reliable method to quantify potential damages due to variability in incident size and location.

Kootenai County's vulnerability is similar to that of other Idaho counties. Key vulnerabilities include:

- Proximity to transportation corridors for radioactive material
- Potential airborne contamination from neighboring state facilities
- Local disposal of TENORM at the Fighting Creek/Farm Landfill



The International Nuclear and Radiological Event Scale (INES) classifies nuclear incidents by severity:

- **Levels 1–3:** Incidents (low to moderate impact)
- **Levels 4–7:** Accidents (high to catastrophic impact)
- **Below Level 0:** Deviation (no safety significance)

Example:

- SL-1 Accident (Idaho, 1961): INES Level 4
- Chernobyl and Fukushima: INES Level 7

INES helps governments, responders, and the public understand the significance of events and promotes global consistency in incident communication.

Figure 20-1: International Nuclear and Radiological Event Scale

PART 3: MITIGATION STRATEGY

CHAPTER 21
MITIGATION ALTERNATIVES

In accordance with the DMA, the Planning Team developed catalogs of hazard mitigation alternatives to provide a comprehensive menu of options for reducing risks in the planning area (44 CFR §201.6(c)(3)(ii)).

A separate catalog was prepared for each hazard of concern, and a combined catalog was developed for all identified hazards of interest. These catalogs are presented in Tables 21-1 through 21-14 and are intended to give planning partners a wide range of possible strategies that can be tailored to local needs.

Each catalog organizes potential mitigation actions in two ways:

1. **By intended effect:**
    - **Manipulate the hazard** – Modify or control the hazard itself.
    - **Reduce exposure** – Limit the number of people, structures, or assets in harm's way.
    - **Reduce vulnerability** – Strengthen people, structures, and systems to better withstand impacts.
    - **Increase preparation/response capability** – Enhance readiness, training, equipment, and coordination.
2. **By primary party responsible:**
    - **Individuals (Personal)** – Actions residents can take on their own properties or in daily life.
    - **Businesses (Corporate)** – Actions private-sector entities can implement for their operations and assets.
    - **Government** – Actions led by public agencies at the local, state, or federal level.

These catalogs serve as a baseline resource for jurisdictions when developing or updating their own hazard mitigation initiatives. They are grounded in the planning process, align with the planning partners' goals and objectives, and are within the general capability of the partners to implement.

Not every strategy listed will be implemented in this plan cycle. An action may be excluded because:

- It is not currently feasible.
- It is already being implemented.
- A more cost-effective or practical alternative exists.
- It lacks public or political support at this time.

By including these catalogs, Kootenai County and its planning partners ensure they have a vetted, FEMA-compliant set of options to guide mitigation planning now and in future plan updates.

NATURAL HAZARDS

MITIGATION ALTERNATIVES - FLOOD	TABLE 21-1
MANIPULATE HAZARD	
Personal	1. Clear and maintain stormwater drains, ditches, and culverts on and around property. 2. Preserve existing natural drainage features.
Corporate	1. Maintain and clear stormwater infrastructure on facility grounds. 2. Incorporate natural flood mitigation features into site design.
Government	1. Regularly maintain and clear public stormwater infrastructure. 2. Construct and maintain levees, floodwalls, retention/detention basins, and revetments where needed. 3. Use nature-based solutions such as wetlands restoration for flood storage. 4. Harden areas prone to erosion and maintain vegetation cover. 5. Integrate regional stormwater control facilities into long-term infrastructure planning.
REDUCE EXPOSURE	
Personal	1. Relocate structures from high-risk flood zones where feasible. 2. Elevate utilities above base flood elevation. 3. Use low impact development (LID) techniques such as rain gardens and permeable pavements.
Corporate	1. Site critical facilities outside mapped flood hazard areas. 2. Implement LID and stormwater infiltration practices on-site.
Government	1. Relocate or acquire repetitive loss properties. 2. Acquire floodplain land or conservation easements to preserve flood storage capacity. 3. Incorporate open space and flood buffers into land use planning. 4. Require flood risk assessments for new developments in proximity to hazard areas. 5. Promote LID practices through development codes and incentives.
REDUCE VULNERABILITY	
Personal	1. Elevate or retrofit homes to exceed base flood elevation requirements. 2. Flood-proof non-residential structures. 3. Install backflow prevention devices on sewer connections.
Corporate	1. Retrofit critical buildings and infrastructure for flood resilience. 2. Install flood barriers or deployable flood protection systems where needed.
Government	1. Upgrade stormwater infrastructure to meet future capacity needs. 2. Adopt higher regulatory standards such as increased freeboard requirements. 3. Implement and enforce stormwater management regulations. 4. Regularly inspect and maintain public flood control infrastructure. 5. Replace undersized culverts and upgrade drainage systems in flood-prone areas. 6. Provide permanent protection for pump stations and critical facilities. 7. Enhance road drainage systems to prevent washouts and ponding.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Maintain adequate flood insurance coverage based on updated risk maps. 2. Prepare an evacuation and communication plan for household members. 3. Keep emergency flood barriers or sandbags on hand.
Corporate	1. Maintain a business continuity and flood emergency response plan. 2. Stage flood protection materials and train staff in deployment.
Government	1. Update and maintain flood hazard maps and make them easily accessible. 2. Conduct regular flood response training and multi-agency exercises. 3. Pre-stage flood response equipment and materials at strategic locations. 4. Maintain a Continuity of Operations Plan (COOP) that addresses flood impacts. 5. Integrate flood mitigation actions into capital improvement programs. 6. Maintain membership in the National Flood Insurance Program and Community Rating System.

MITIGATION ALTERNATIVES - LANDSLIDE	TABLE 21-2
MANIPULATE HAZARD	
Personal	1. Stabilize slopes on private property using retaining walls, terracing, or engineered solutions. 2. Plant and maintain deep-rooted vegetation to anchor soil. 3. Install proper drainage to redirect runoff away from slopes. 4. Avoid placing heavy objects or fill near slope edges.
Corporate	1. Stabilize slopes near business facilities using engineered reinforcements. 2. Incorporate vegetation management into facility maintenance plans. 3. Install subsurface drainage systems to prevent slope saturation.
Government	1. Implement slope stabilization projects on public lands and rights-of-way. 2. Construct retaining walls, rockfall barriers, and terracing in high-risk areas. 3. Install subsurface drainage systems along public roads. 4. Enforce and update grading and erosion control ordinances. 5. Establish slope vegetation restoration programs. 6. Apply bioengineering methods to stabilize slopes and reduce erosion.
REDUCE EXPOSURE	
Personal	1. Avoid new construction in landslide-prone zones. 2. Incorporate defensible landscaping that directs water away from slopes. 3. Consult slope hazard maps before property purchases.
Corporate	1. Site critical facilities outside mapped landslide hazard areas. 2. Incorporate hazard maps into corporate site planning processes. 3. Maintain buffer zones between facilities and unstable slopes.
Government	1. Restrict development through zoning in unstable slope areas. 2. Acquire at-risk properties for open space use. 3. Incorporate landslide hazard mapping into permitting systems. 4. Require drainage and slope stability analysis for developments in moderate hazard zones.
REDUCE VULNERABILITY	
Personal	1. Retrofit homes with deep foundations or soil anchors. 2. Reinforce foundations in existing homes at risk. 3. Install landslide-resistant utility
Corporate	1. Retrofit buildings to improve slope stability and resist movement. 2. Relocate or reinforce access roads in hazard-prone areas. 3. Harden utility infrastructure serving business facilities.
Government	1. Strengthen transportation routes in landslide-prone areas. 2. Undertake utility relocation or reinforcement projects. 3. Adopt and enforce hillside construction standards. 4. Retrofit public buildings and infrastructure to withstand slope failure impacts. 5. Implement debris flow diversion channels where needed.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Sign up for local emergency alert systems. 2. Know evacuation routes and safe zones. 3. Prepare emergency kits for rapid evacuation.
Corporate	1. Develop corporate landslide emergency response plans. 2. Train staff in landslide hazard awareness and evacuation procedures. 3. Maintain access to emergency stabilization contractors.
Government	1. Maintain and update detailed landslide hazard maps. 2. Conduct regular monitoring of high-risk slopes with sensors or inspections. 3. Stockpile slope stabilization and debris removal equipment. 4. Conduct public education campaigns on landslide preparedness. 5. Integrate post-wildfire slope risk assessments into recovery plans.

MITIGATION ALTERNATIVES – SEVERE WEATHER SYSTEMS Includes Windstorms, Thunderstorms, Extreme Temperatures, and Winter Storms for Kootenai County	**TABLE 21-3**
MANIPULATE HAZARD	
Personal	1. Trim or remove hazard limbs/trees near structures; schedule annual arborist inspections. 2. Secure or store outdoor items (furniture, trampolines, signage) ahead of high-wind events. 3. Install roof snow guards or heat cables to reduce ice dams and sudden snow slides. 4. Grade property and manage drainage to prevent sheet ice formation at driveways/walkways.
Corporate	1. Implement campus-wide vegetation management plans near facilities and power lines. 2. Install heated/de-icing systems on critical walkways, docks, ramps, and entrances. 3. Install roof snow retention systems and develop rooftop snow removal plans. 4. Construct windbreaks or snow fences around key operational assets.
Government	1. Operate municipal hazard tree removal and vegetation management programs. 2. Install fixed anti-icing/de-icing systems on priority bridges and steep grades. 3. Deploy roadway snow fences and windbreak plantings to reduce drifting. 4. Install lightning protection systems on critical public facilities and infrastructure. 5. Upgrade stormwater systems to handle heavy rain from severe thunderstorms.
REDUCE EXPOSURE	
Personal	1. Park vehicles away from large trees and overhead lines during severe weather warnings. 2. Close shutters or install temporary storm panels on windows and doors. 3. Avoid non-essential travel during blizzards, ice storms, and severe wind events.
Corporate	1. Relocate critical operations to storm-rated rooms or safe areas during events. 2. Adjust operational schedules to avoid peak hazard times based on forecasts. 3. Route utilities and communications through protected or underground conduits.
Government	1. Designate, sign, and enforce snow emergency routes and wind hazard detours. 2. Close or limit access to hazardous corridors under severe icing or wind conditions. 3. Incorporate hazard mapping into siting of new public facilities and shelters. 4. Acquire properties in high-risk flood/wind corridors for open space uses.
REDUCE VULNERABILITY	
Personal	1. Upgrade roofs to impact-resistant shingles and reinforce roof decking. 2. Install impact-rated doors/windows or permanent shutters. 3. Improve insulation and weatherproofing to handle extreme temperatures.
Corporate	1. Retrofit buildings for increased wind and snow load resistance. 2. Install surge protection devices for critical electrical systems. 3. Strengthen HVAC systems to operate during extreme heat or cold.
Government	1. Retrofit public buildings to meet modern wind, snow, and seismic codes. 2. Install redundant power and heating/cooling systems in shelters and critical facilities. 3. Harden communications systems against lightning and wind damage. 4. Elevate or floodproof critical infrastructure in areas prone to severe storms.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Maintain a 72-hour supply of food, water, medications, and heat source. 2. Keep NOAA weather radio and backup lighting sources. 3. Identify and practice evacuation routes.
Corporate	1. Maintain and exercise business continuity plans for severe weather. 2. Train employees in shelter-in-place and evacuation procedures. 3. Maintain contracts with emergency snow/ice removal providers.
Government	1. Conduct regular severe weather drills for public agencies and schools. 2. Maintain de-icing and debris clearance equipment in operational readiness. 3. Develop agreements for mutual aid in snow removal and storm response. 4. Implement public warning systems with multilingual capability.

MITIGATION ALTERNATIVES – WILDFIRE	TABLE 21-4
MANIPULATE HAZARD	
Personal	1. Create and maintain defensible space (minimum 30 feet clearance) around structures. 2. Regularly remove dead vegetation, leaves, and debris from roofs and gutters. 3. Prune tree limbs at least 10 feet from chimneys and structures. 4. Use fire-resistant landscaping and maintain adequate irrigation during fire season.
Corporate	1. Clear vegetation and combustible materials from around business facilities. 2. Install spark arrestors on industrial chimneys and equipment. 3. Maintain vegetation-free zones near critical infrastructure such as fuel storage areas. 4. Implement prescribed vegetation maintenance programs for corporate campuses.
Government	1. Conduct controlled burns and vegetation thinning in high-risk areas. 2. Maintain fuel breaks along wildland-urban interface (WUI) boundaries. 3. Implement roadside vegetation management along evacuation routes. 4. Remove ladder fuels in public parks and open spaces. 5. Develop and maintain community-wide defensible space programs.
REDUCE EXPOSURE	
Personal	1. Avoid building homes in high wildfire hazard areas when possible. 2. Site new structures to allow multiple evacuation routes. 3. Store flammable materials (firewood, propane) away from structures.
Corporate	1. Site critical operations outside high wildfire hazard zones. 2. Design business sites with defensible space and non-combustible buffers. 3. Plan for on-site shelter-in-place areas if evacuation is not possible.
Government	1. Adopt zoning ordinances that limit development in extreme fire hazard areas. 2. Acquire or convert high-risk properties to open space or low-risk uses. 3. Designate, maintain, and clearly sign multiple evacuation routes from at-risk areas. 4. Integrate wildfire hazard zones into all land-use planning decisions.
REDUCE VULNERABILITY	
Personal	1. Construct or retrofit homes with fire-resistant roofing, siding, and decking. 2. Install ember-resistant vents and tempered glass windows. 3. Upgrade to non-combustible fencing and gates
Corporate	1. Retrofit facilities with fire-resistant materials and ember protection systems. 2. Install on-site water storage and pumping systems for firefighting. 3. Ensure HVAC systems can be shut down quickly to prevent smoke intrusion.
Government	1. Require compliance with International Wildland-Urban Interface (WUI) codes. 2. Retrofit public facilities in hazard zones with fire-resistant construction. 3. Upgrade water supply systems for firefighting capacity in WUI areas. 4. Install and maintain fire breaks around critical infrastructure. 5. Develop redundant communications systems for wildfire response operations.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Assemble and maintain a 'go bag' with essentials for evacuation. 2. Participate in neighborhood evacuation drills. 3. Sign up for emergency alerts and monitor fire weather warnings.
Corporate	1. Develop and regularly exercise wildfire emergency action plans. 2. Train employees on evacuation procedures and shelter-in-place protocols. 3. Maintain agreements with private firefighting contractors where applicable.
Government	1. Conduct regular community wildfire evacuation drills. 2. Invest in wildfire detection systems, such as fire watch cameras. 3. Maintain wildfire response equipment, including engines and water tenders. 4. Coordinate with state and federal agencies for wildfire suppression support. 5. Implement public education campaigns on wildfire safety and prevention.

NATURAL HAZARDS OF INTEREST

MITIGATION ALTERNATIVES - AVALANCHE	TABLE 21-5
MANIPULATE HAZARD	
Personal	1. Avoid creating artificial slopes or removing stabilizing vegetation. 2. Use snow fences to control drifting near property.
Corporate	1. Install snow retention systems on facility roofs in avalanche zones.
Government	1. Conduct controlled avalanche releases in high-risk zones. 2. Install snow sheds or barriers along key transportation corridors.
REDUCE EXPOSURE	
Personal	1. Avoid recreation in posted avalanche hazard areas during warnings.
Corporate	1. Site new facilities outside avalanche hazard areas.
Government	1. Restrict development in mapped avalanche zones.
REDUCE VULNERABILITY	
Personal	1. Retrofit cabins and structures with reinforced roofs for snow load.
Corporate	1. Construct avalanche-resistant entryways and walls for facilities in hazard areas.
Government	1. Reinforce public infrastructure in avalanche-prone zones.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Carry avalanche safety gear when in backcountry areas.
Corporate	1. Train employees in avalanche hazard awareness if operating in risk zones.
Government	1. Maintain avalanche monitoring and early warning systems.

MITIGATION ALTERNATIVES - DROUGHT	TABLE 21-6
MANIPULATE HAZARD	
Personal	1. Install water-efficient landscaping and irrigation systems.
Corporate	1. Incorporate water reuse systems in facility operations.
Government	1. Implement municipal water conservation programs and leak detection systems.
REDUCE EXPOSURE	
Personal	1. Avoid planting high-water-demand vegetation.
Corporate	1. Relocate water-intensive operations to areas with stable supply.
Government	1. Incorporate drought risk into land-use planning.
REDUCE VULNERABILITY	
Personal	1. Install water storage tanks for essential household use.
Corporate	1. Develop redundant water supply sources for critical operations.
Government	1. Upgrade municipal water infrastructure for efficiency.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Follow seasonal water restriction guidelines.
Corporate	1. Develop drought contingency plans for operations.
Government	1. Maintain drought monitoring and public information systems.

MITIGATION ALTERNATIVES - EARTHQUAKE	TABLE 21-7
MANIPULATE HAZARD	
Personal	1. Secure heavy furniture and appliances to walls.
Corporate	1. Anchor heavy equipment and shelving to floors/walls.
Government	1. Upgrade seismic monitoring and public alert systems.
REDUCE EXPOSURE	
Personal	1. Avoid storing hazardous materials in unsecured containers.
Corporate	1. Locate critical facilities outside of known fault zones when possible.
Government	1. Restrict new development in high liquefaction risk areas.
REDUCE VULNERABILITY	
Personal	1. Retrofit homes to meet seismic standards.
Corporate	1. Retrofit critical buildings to withstand seismic forces.
Government	1. Seismically retrofit public infrastructure and utilities.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Keep emergency kits and know drop-cover-hold-on procedures.
Corporate	1. Conduct employee earthquake drills regularly.
Government	1. Develop earthquake response plans and mutual aid agreements.

TECHNOLOGICAL HAZARDS

MITIGATION ALTERNATIVES - CYBERSECURITY	TABLE 21-8
MANIPULATE HAZARD	
Personal	1. Install and regularly update antivirus and anti-malware software. 2. Use strong, unique passwords and change them regularly. 3. Enable multi-factor authentication (MFA) on all critical accounts. 4. Update all software and firmware to the latest security patches.
Corporate	1. Implement enterprise-level intrusion detection and prevention systems. 2. Segment networks to limit access to sensitive data. 3. Deploy advanced endpoint protection on all devices. 4. Conduct regular vulnerability scanning and penetration testing.
Government	1. Establish county-wide cybersecurity monitoring and incident detection systems. 2. Implement secure configurations and patch management for all public systems. 3. Adopt standardized cybersecurity frameworks such as NIST or ISO 27001. 4. Maintain threat intelligence sharing agreements with federal and state partners.
REDUCE EXPOSURE	
Personal	1. Avoid using unsecured public Wi-Fi for sensitive transactions. 2. Limit personal data shared on public or unsecured platforms. 3. Back up important files to secure offline or cloud storage.
Corporate	1. Restrict employee access to sensitive information based on role. 2. Use encrypted communications for all sensitive business transactions. 3. Implement strict mobile device management policies.
Government	1. Enforce encryption for all data in transit and at rest. 2. Limit public-facing services to essential systems only. 3. Adopt secure remote work protocols for government employees.
REDUCE VULNERABILITY	
Personal	1. Educate household members on recognizing phishing attempts. 2. Secure home networks with strong passwords and updated firmware. 3. Use password managers to reduce reuse of credentials.
Corporate	1. Conduct regular employee cybersecurity awareness training. 2. Implement business continuity plans with cyber incident response procedures. 3. Ensure redundancy for critical IT infrastructure.
Government	1. Provide ongoing cybersecurity training for all staff with system access. 2. Develop comprehensive cyber incident response and recovery plans. 3. Harden critical infrastructure systems against cyber threats.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Keep updated contact information for financial institutions in case of breach. 2. Regularly review account activity for suspicious transactions. 3. Create a personal incident response plan for data breaches.
Corporate	1. Maintain an up-to-date cyber incident response team and contact list. 2. Run simulated cyberattack exercises to test readiness. 3. Maintain contracts with third-party cybersecurity specialists.
Government	1. Conduct periodic county-wide cybersecurity exercises with public and private partners. 2. Maintain redundant systems for critical public services. 3. Develop rapid public notification systems for data breach incidents.

MITIGATION ALTERNATIVES – HAZMAT AND TRANSPORTATION INCIDENTS	TABLE 21-9
MANIPULATE HAZARD	
Personal	1. Store household chemicals in labeled, secure containers away from heat sources. 2. Properly dispose of hazardous waste at designated facilities. 3. Avoid transporting hazardous materials in personal vehicles whenever possible.
Corporate	1. Follow all regulatory requirements for storage and transport of hazardous materials. 2. Implement spill prevention and containment systems at facilities. 3. Maintain vehicles and containers to meet hazmat transport safety standards. 4. Label and segregate hazardous materials according to compatibility.
Government	1. Enforce hazardous material storage and transportation regulations. 2. Maintain and upgrade infrastructure for hazardous material transfer points. 3. Conduct regular inspections of facilities handling hazardous materials. 4. Implement roadway and rail infrastructure improvements to reduce transport risks.
REDUCE EXPOSURE	
Personal	1. Avoid proximity to hazmat incidents; follow official evacuation or shelter-in-place orders. 2. Know local evacuation routes and safe zones for hazmat events. 3. Limit storage of hazardous materials at home to essential quantities.
Corporate	1. Locate hazardous material storage away from populated areas and critical infrastructure. 2. Design facilities with controlled access to hazmat storage areas. 3. Schedule transport of hazardous materials during low-traffic periods.
Government	1. Restrict development near major hazardous material transportation routes. 2. Establish buffer zones between hazmat facilities and sensitive land uses. 3. Develop alternate transport routes to divert hazmat shipments from high-risk areas.
REDUCE VULNERABILITY	
Personal	1. Install smoke and gas detectors in homes near industrial or transport corridors. 2. Seal gaps and improve ventilation systems to reduce indoor contamination risk.
Corporate	1. Train employees in hazmat handling and emergency response. 2. Maintain redundant safety systems, such as automatic shut-off valves and fire suppression. 3. Equip transport vehicles with enhanced containment systems.
Government	1. Provide hazmat response training and equipment to local fire and EMS agencies. 2. Pre-position specialized equipment for rapid spill containment. 3. Develop mutual aid agreements for hazmat response across jurisdictions.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Participate in community hazardous materials awareness programs. 2. Keep emergency supply kits with protective equipment (e.g., masks, gloves). 3. Monitor official alerts during hazardous material incidents.
Corporate	1. Maintain and regularly exercise facility emergency response plans for hazmat incidents. 2. Coordinate with local emergency services on joint drills. 3. Ensure access to Material Safety Data Sheets (MSDS) for all hazardous substances.
Government	1. Conduct hazmat incident simulations with multi-agency participation. 2. Maintain a database of hazardous material storage and transport within the county. 3. Develop and maintain public notification systems for hazmat emergencies.

MITIGATION ALTERNATIVES – INFRASTRUCTURE AND UTILITY FAILURE	TABLE 21-10
MANIPULATE HAZARD	
Personal	1. Maintain backup power sources such as generators or battery systems. 2. Install surge protection devices for critical electronics. 3. Ensure plumbing and heating systems are winterized to prevent freeze damage.
Corporate	1. Implement preventive maintenance programs for critical infrastructure components. 2. Install uninterruptible power supply (UPS) systems for essential operations. 3. Develop redundancy for communications and IT networks. 4. Harden utility entry points against physical damage and tampering.
Government	1. Upgrade aging public utility infrastructure to modern standards. 2. Install backup generators for critical public facilities. 3. Maintain redundant communication pathways for emergency services. 4. Harden water, power, and communication infrastructure against physical and cyber threats.
REDUCE EXPOSURE	
Personal	1. Avoid overloading electrical circuits and practice energy conservation. 2. Know locations of utility shut-off points in your home. 3. Report damaged utility lines or infrastructure promptly.
Corporate	1. Site critical operations away from known hazard-prone infrastructure corridors. 2. Limit dependency on a single utility provider where possible. 3. Implement off-site data storage and cloud backups.
Government	1. Encourage development in areas with robust utility infrastructure. 2. Enforce utility corridor setbacks for new construction. 3. Map and monitor critical infrastructure for hazard exposure.
REDUCE VULNERABILITY	
Personal	1. Insulate and protect home water lines and heating systems. 2. Anchor large appliances to prevent damage during seismic or wind events. 3. Install water leak detection and shut-off systems.
Corporate	1. Retrofit facilities to withstand local hazard threats to infrastructure. 2. Implement climate control systems to protect sensitive equipment. 3. Ensure fuel reserves for backup generators are adequate and maintained.
Government	1. Retrofit public utility facilities to modern hazard resistance standards. 2. Replace undersized or outdated water and sewer lines. 3. Increase capacity of stormwater systems to handle peak flows. 4. Install protective barriers around critical infrastructure sites.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Maintain a 72-hour emergency supply of food, water, and essentials. 2. Keep a portable phone charger or solar charging device. 3. Develop a household emergency plan for utility outages.
Corporate	1. Develop and test business continuity and disaster recovery plans. 2. Train employees in manual operations during power or utility outages. 3. Maintain service contracts for emergency repair and maintenance.
Government	1. Conduct regular utility failure response drills with relevant agencies. 2. Maintain mutual aid agreements with utility providers and neighboring jurisdictions. 3. Invest in smart grid technology for faster outage detection and restoration.

TECHNOLOGICAL HAZARDS OF INTEREST

MITIGATION ALTERNATIVES – LEVEE / DAM FAILURE	TABLE 21-11
MANIPULATE HAZARD	
Personal	1. Avoid altering land near levees or dams that could affect stability.
Corporate	1. Coordinate with authorities before modifying land near flood control structures.
Government	1. Maintain and inspect levee and dam structures regularly.
REDUCE EXPOSURE	
Personal	1. Avoid living or building in designated inundation zones.
Corporate	1. Site critical facilities outside potential inundation areas.
Government	1. Restrict new development in high-risk flood control zones.
REDUCE VULNERABILITY	
Personal	1. Purchase flood insurance if living downstream of a dam or levee.
Corporate	1. Develop emergency shutdown procedures for facilities in inundation areas.
Government	1. Retrofit critical infrastructure in inundation zones to withstand flooding.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Know evacuation routes in case of dam or levee failure.
Corporate	1. Train staff on evacuation and shutdown procedures.
Government	1. Maintain early warning and public notification systems.

MITIGATION ALTERNATIVES – RADIOLOGICAL AND NUCLEAR	TABLE 21-12
MANIPULATE HAZARD	
Personal	1. Store any personal radioactive materials securely and legally.
Corporate	1. Follow federal regulations for handling radioactive substances.
Government	1. Maintain secure facilities for storage and disposal of radioactive materials.
REDUCE EXPOSURE	
Personal	1. Avoid entering restricted radiological hazard areas.
Corporate	1. Site operations involving radioactive materials away from populated areas.
Government	1. Restrict development near nuclear or radiological facilities.
REDUCE VULNERABILITY	
Personal	1. Install shelter-in-place kits for radiological emergencies.
Corporate	1. Ensure redundant safety and shielding systems for radioactive materials.
Government	1. Harden public facilities against radiological contamination.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Keep potassium iodide tablets if within risk zones.
Corporate	1. Train staff in radiological emergency procedures.
Government	1. Conduct radiological emergency drills with public and private partners.

HUMAN CAUSED HAZARDS / ACTS OF VIOLENCE

MITIGATION ALTERNATIVES – ACTIVE SHOOTER / THREAT, CIVIL UNREST, TERRORISM	TABLE 21-13
MANIPULATE HAZARD	
Personal	1. Remove or secure potential weapons and hazardous items at home/work (tools, chemicals) where policy allows. 2. Comply with entry screening and prohibited-item policies at facilities and events. 3. Report suspicious behavior, unattended packages, or threats immediately via local reporting channels.
Corporate	1. Apply Crime Prevention Through Environmental Design (CPTED): lighting, clear sightlines, trimmed landscaping. 2. Establish single-point public entry with screening during elevated risk (bag checks, magnetometers where appropriate). 3. Secure hazardous chemicals, vehicles, and keys; implement inventory controls for restricted items. 4. Create vehicle standoff around entrances using fixed/permanent barriers (e.g., bollards) where needed.
Government	1. Designate hard perimeters and minimum vehicle standoff distances at public buildings and venues. 2. Deploy temporary barriers and controlled zones during large events or periods of civil unrest. 3. Remove or secure street furniture and objects that could be used as projectiles along planned demonstration routes. 4. Coordinate targeted-violence prevention programs and pre-incident behavioral intervention pathways.
REDUCE EXPOSURE	
Personal	1. Avoid large gatherings or protest areas when credible threats or unrest are present; follow official advisories. 2. Use remote work/learning options during elevated threat periods. 3. When in public venues, identify multiple exits and seat near escape routes or hard cover.
Corporate	1. Adjust work schedules, shift changes, or event timing to avoid peak risk windows per law enforcement guidance. 2. Relocate high-attendance events to more secure venues or virtual formats when needed. 3. Establish secure receiving/delivery protocols and off-street loading that limits public interaction points.
Government	1. Issue timely public safety advisories and temporary restrictions or reroutes as needed. 2. Plan demonstration routes and buffer zones to separate opposing groups; designate safe assembly areas. 3. Postpone, relocate, or cap attendance for public events when threat levels warrant.
REDUCE VULNERABILITY	
Personal	1. Install solid-core doors, improved locks, and peepholes for shelter-in-place rooms. 2. Apply shatter-resistant window film; install exterior lighting and cameras at entries. 3. Maintain trauma kits at home/workspace and complete 'Stop the Bleed' training.
Corporate	1. Harden entrances with access control, visitor management, and lockdown-capable door hardware. 2. Install ballistic-rated glazing or protective film at main entries and reception areas. 3. Expand CCTV coverage (entries, parking, approaches) with live monitoring and recording retention. 4. Install fixed vehicle barriers at vulnerable approaches to prevent ramming attacks. 5. Provide redundant communications (PA systems, panic buttons, radios) for rapid internal alerts.
Government	2. Harden critical facilities (courthouses, administration, utilities) with controlled vestibules and access control. 3. Install city/county camera systems covering public approaches and gathering areas with appropriate privacy policies. 4. Upgrade perimeter security and vehicle interdiction around high-value targets. 5. Enhance interoperable radio systems and dispatch redundancy; protect PSAPs and EOCs. 6. Retrofit public buildings with door numbering and lockdown capabilities for rapid law enforcement response.

MITIGATION ALTERNATIVES – ACTIVE SHOOTER / THREAT, CIVIL UNREST, TERRORISM	TABLE 21-13
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Complete Active Shooter Response training (e.g., Run–Hide–Fight/Avoid–Deny–Defend) and periodic refreshers. 2. Participate in workplace/school drills; know lockdown, evacuation, and rally point procedures. 3. Enroll in local alert systems; create a family communication and reunification plan.
Corporate	1. Develop and exercise Emergency Action Plan annexes for Active Shooter, Bomb Threat, Civil Unrest, and Suspicious Package. 2. Provide regular training: Run–Hide–Fight, Stop the Bleed, and basic ICS roles for floor wardens. 3. Establish MOUs and pre-incident coordination with law enforcement, sharing floor plans and access protocols. 4. Conduct drills (announced and no-notice) with after-action reviews and corrective action tracking. 5. Implement an anonymous threat reporting system (hotline/app) and behavioral threat assessment team.
Government	1. Maintain multi-disciplinary Threat Assessment Teams and liaison with fusion centers for intelligence sharing. 2. Conduct multi-agency exercises (AS, IED, civil unrest) with schools, hospitals, and private sector partners. 3. Operate mass notification systems (e.g., IPAWS-capable) with pre-scripted messages and multilingual capability. 4. Pre-plan traffic/crowd management (staging, ingress/egress, detours) and family reunification/victim assistance centers. 5. Equip public facilities with bleeding control cabinets and train staff; maintain cache of crowd-management resources. 6. Publish public guidance on safety protocols for events, demonstrations, and threat reporting.

MITIGATION ALTERNATIVES – INFECTIOUS DISEASE	TABLE 21-14
MANIPULATE HAZARD	
Personal	1. Practice regular hand hygiene and proper respiratory etiquette. 2. Follow vaccination recommendations from health authorities. 3. Stay home when ill to prevent spreading infection.
Corporate	1. Encourage and facilitate employee vaccination programs. 2. Install and maintain hand sanitizing stations throughout facilities. 3. Improve ventilation and air filtration systems in workspaces.
Government	1. Operate public health campaigns promoting disease prevention behaviors. 2. Coordinate mass vaccination and prophylaxis programs. 3. Enhance public building ventilation standards and inspections.
REDUCE EXPOSURE	
Personal	1. Avoid close contact with symptomatic individuals when possible. 2. Wear masks or other PPE when recommended during outbreaks. 3. Limit travel to high-risk areas during disease outbreaks.
Corporate	1. Implement remote work policies during high transmission periods. 2. Stagger shifts and reduce in-person meetings to limit contact. 3. Restrict facility access to essential personnel only during outbreaks.
Government	1. Enforce health-based occupancy limits in public facilities when required. 2. Issue timely travel advisories and movement restrictions based on public health data. 3. Establish isolation and quarantine protocols in coordination with healthcare facilities.
REDUCE VULNERABILITY	
Personal	1. Maintain a healthy lifestyle to strengthen immune system. 2. Stock basic medical supplies and non-perishable food at home. 3. Know how to access telehealth services.
Corporate	1. Develop business continuity plans that address workforce absenteeism due to illness. 2. Maintain adequate stock of PPE and sanitation supplies. 3. Cross-train employees to ensure operational continuity.
Government	1. Stockpile PPE, medical supplies, and essential medicines. 2. Enhance surge capacity for local healthcare facilities. 3. Protect critical public service staff through vaccination and PPE priority.
INCREASE PREPARATION OR RESPONSE CAPABILITY	
Personal	1. Enroll in local public health alert systems. 2. Prepare a household plan for isolation, care, and communication. 3. Identify trusted sources for public health information.
Corporate	1. Conduct infectious disease response drills with staff. 2. Establish direct communication channels with local health departments. 3. Maintain contracts with professional cleaning and decontamination services.
Government	1. Conduct multi-agency pandemic exercises with public and private sector partners. 2. Maintain data systems for rapid contact tracing and case reporting. 3. Develop and maintain public health emergency declarations and enforcement capabilities.

CHAPTER 22
ADOPTION AND PLAN MAINTENANCE

PLAN ADOPTION

In accordance with the DMA, this hazard mitigation plan will be formally adopted by the governing body of each jurisdiction requesting federal approval (44 CFR §201.6(c)(5)). For this multi-jurisdictional plan, each participating jurisdiction must pass a resolution adopting the Plan.

The Plan will first be submitted to the Idaho Office of Emergency Management and FEMA Region X for pre-adoption review. Following FEMA's "Approval Pending Adoption" (APA) status, each planning partner will adopt the Plan by resolution.

Copies of all adoption resolutions will be included in Appendix 1-C of this Plan.

No jurisdiction will be eligible for DMA benefits until it has adopted the Plan.

PLAN MAINTENANCE STRATEGY

As required by the DMA, this Plan includes a formal maintenance process to ensure it remains current, relevant, and effective (44 CFR §201.6(c)(4)).

The maintenance strategy addresses:

- Monitoring, evaluating, and updating the Plan over a five-year cycle
- Integrating the Plan into other local planning mechanisms, where appropriate
- Continuing public participation throughout the plan's lifecycle

The KCOEM will lead coordination of the Plan maintenance process, with participation from all planning partners.

MONITORING AND EVALUATION

- The planning partners will review the Plan annually to assess progress on mitigation actions, note any changes in risk, and evaluate the effectiveness of implemented strategies.
- KCOEM will conduct an annual review to touch base with planning partners and make appropriate updates to the Plan to reflect progress that is being made.
- The review will document:
  - Significant hazard events and impacts
  - Completed, in-progress, or deferred actions
  - Obstacles to implementation
  - Opportunities for new actions or funding

ANNUAL PROGRESS REVIEW

Each planning partner will prepare an annual progress report evaluating the implementation of its portion of the Hazard Mitigation Plan. This review will include:

- Summary of hazard events in the past year and their impacts
- Mitigation successes and ongoing projects
- Continuing public involvement activities
- Adjustments to project timelines or priorities
- New project recommendations
- Changes in funding opportunities or resources
- Influence of other planning programs on hazard mitigation

The KCOEM will initiate the reporting process annually, provide a standardized template Appendix 1-D, and compile the results into a single Annual Progress Report.

- The compiled report will be:
- Posted on the Kootenai County hazard mitigation plan webpage
- Presented annually to the Local Emergency Planning Committee
- Used to support participation in programs such as the CRS

PLAN UPDATE

This Plan must be updated, approved, and re-adopted every five years to maintain eligibility for FEMA hazard mitigation assistance (44 CFR §201.6(d)(3)).

The update process will:

1. Be initiated by KCOEM at least 12 months before the plan expiration date.
2. Include a review and update of the risk assessment using the best available data.
3. Evaluate and revise mitigation strategies to reflect progress, changing priorities, or new capabilities.
4. Include opportunities for public review and comment.
5. Result in formal adoption by each participating jurisdiction.

The update cycle may be accelerated if:

- A federally declared disaster significantly impacts the planning area
- A major hazard event causes loss of life or substantial damage
- Significant changes occur in land use planning or development policy

INTEGRATION WITH OTHER PLANNING MECHANISMS

When appropriate, planning partners will integrate hazard mitigation strategies into other local planning mechanisms such as:

- Comprehensive plans
- Capital improvement programs
- Emergency Operations Plans
- Zoning and development codes
- Continuity of Operation Plans
- Community Wildfire Protection Plan

Integration may occur during regularly scheduled updates of these mechanisms or when new projects and policies are developed.

CONTINUED PUBLIC PARTICIPATION

OEM will maintain a hazard mitigation plan webpage on the Kootenai County website as the primary public access point for the plan, updates, and related resources.

Public input will be solicited through:

- Online comment forms
- Public meetings during the annual review or update process
- Notices in local media and social media channels

APPENDICES

APPENDIX 1-A: ACRONYMS AND DEFINITIONS

ACRONYMS

- **AHMP** — All Hazard Mitigation Plan
- **APA** — American Planning Association
- **CDC** — Center for Disease Control
- **CFR** — Code of Federal Regulations
- **CFS** — cubic feet per second
- **CIP** — Capital Improvement Plan
- **COG** — Continuity of Government
- **COOP** — Continuity of Operations Plan
- **COVID** — Coronavirus Disease
- **CRS** — Community Rating System
- **CWA** — Clean Water Act
- **CWPP** — Community Wildfire Protection Plan
- **DEQ** — Department of Environmental Equility
- **DFIRM** — Digital Flood Insurance Rate Maps
- **DHS** — Department of Homeland Security
- **DMA** — Disaster Mitigation Act
- **DR** — Disaster Recovery
- **EAS** — Emergency Alerting System
- **EMS** — Emergency Medical System
- **EOP** — Emergency Operations Plan
- **EPA** — Environmental Protection Agency
- **ERC** — Energy Release Component
- **ESA** — Endangered Species Act
- **FEMA** — Federal Emergency Management Agency
- **FERC** — Federal Energy Regulatory Commission
- **FIRM** — Flood Insurance Rate Map
- **FPI** — Fire Potential Index
- **FRCC** — Fire Regime Condition Class
- **GIS** — Geographic Information System
- **HAZMAT** — Hazardous Materials
- **HMGP** — Hazard Mitigation Grant Program
- **HMP** — Hazard Mitigation Plan
- **IBC** — International Building Code
- **IC** — Ignition Component
- **ICS** — Incident Command System
- **IDWR** — Idaho Department of Water Resources
- **INL** — Idaho National Laboratory
- **IOEM** — Idaho Office of Emergency Management
- **IPP/IPPW** — Integrated Preparedness Plan / Workshop
- **IT** — Information Technology

- **KCOEM** — Kootenai County Office of Emergency Management
- **LEPC** — Local Emergency Planning Committee
- **MM** — Modified Mercalli Scale
- **MT** — Metric Ton
- **NDMC** — National Drought Mitigation Center
- **NEHRP** — National Earthquake Hazards Reduction Program
- **NFDRS** — National Fire Danger Rating System
- **NFIP** — National Flood Insurance Program
- **NID** — National Inventory of Dams
- **NIFC** — National Interagency Fire Center
- **NOAA** — National Oceanic and Atmospheric Administration
- **NRI** — National Risk Index
- **NWP** — Nationwide Permit
- **NWS** — National Weather Service
- **OEM** — Office of Emergency Management
- **PGA** — Peak Ground Acceleration
- **SHELDUS** — Special Hazard Events and Losses Database for the US
- **SHMP** — State Hazard Mitigation Plan
- **TENORM** — Technologically Enhanced Naturally Occurring Radioactivity
- **THIRA** — Threat and Hazard Identification and Risk Assessment
- **TRI** — Toxics Release Inventory
- **USDA** — U.S Department of Agriculture
- **USFS** — U.S. Forest Service
- **USGCRP** — U.S. Global Change Research Program
- **USGS** — United States Geological Survey
- **UV** — Ultraviolet Radiation
- **WEA** — Wireless Emergency Alert
- **WFAS** — Wildland Fire Assessment System
- **WUI** — Wildland Urban Interface

DEFINITIONS

100-Year Flood
The term "100-year flood" can be misleading. It does not necessarily occur once every 100 years; rather, it has a 1% chance of being equaled or exceeded in any given year. FEMA defines it as the 1% annual chance flood, the standard used by most agencies and the NFIP.

Asset
Any man-made or natural feature with value, including people, buildings, infrastructure, and environmental or cultural resources.

Base Flood
The flood having a 1% chance of being equaled or exceeded in any year; also called the "100-year" or "1% chance" flood.

Base Plan
The section of an emergency or hazard mitigation plan that establishes the policy framework, planning assumptions, concept of operations, and roles and responsibilities for responding to, mitigating, and recovering from hazards.

Basin
The land area where all surface water flows to a single water body or watercourse; also called a watershed or drainage basin.

Benefit
A net project outcome, usually in monetary terms, such as reduced property loss or protection of life.

Benefit/Cost Analysis
A systematic method of comparing the projected benefits of a project to its costs to evaluate cost-effectiveness.

Building
A walled and roofed structure fixed to a site, including manufactured homes on permanent foundations.

Capability Assessment
An analysis of a community's current capacity to address hazard threats, including legal, administrative, technical, and fiscal capabilities.

Community Rating System (CRS)
A voluntary NFIP program that rewards communities for exceeding minimum floodplain standards by providing flood insurance discounts.

Critical Facility
Facilities vital to the health, safety, and welfare of the community, including utilities, emergency services, medical facilities, and structures that house vulnerable populations or hazardous materials.

Cubic Feet per Second (CFS)
A measure of discharge or river flow; one cubic foot is ~7.5 gallons.

Dam
An artificial barrier that impounds 10 acre-feet or more of water.

Dam Failure
A partial or complete breach of a dam or levee caused by flooding, equipment failure, earthquakes, or intentional destruction.

Debris Flow / Slide
Water-saturated debris or soil moving rapidly downslope, often triggered by heavy rainfall or snowmelt.

Disaster Mitigation Act of 2000 (DMA)
Federal legislation (Public Law 106-390) that requires proactive hazard mitigation planning as a condition for certain federal disaster assistance.

Drought
An extended period of deficient precipitation resulting in water shortages.

Earthquake
A sudden release of stress in the earth's crust causing ground shaking, potentially resulting in casualties and property damage.

Exposure
The number and value of assets at risk to a hazard.

Extent
The potential severity or magnitude of a hazard event.

Fire Behavior
Physical characteristics of fire as influenced by fuels, topography, and weather.

Flood
A general and temporary condition of partial or complete inundation of normally dry land from overflow of inland or tidal waters, or rapid runoff.

Flood Insurance Rate Map (FIRM)
FEMA's official map designating Special Flood Hazard Areas.

Floodplain
Any land area susceptible to flooding from any source.

Floodway / Floodway Fringe
The channel of a river and adjacent land reserved for floodwaters; floodway fringe is the flood-prone area outside the floodway.

Frequency
How often a hazard of given magnitude is expected to occur.

Fujita Scale
A rating scale for tornado intensity (F0–F5) based on wind speed and damage.

Hazard
A source of potential danger or adverse conditions.

Hazard Mitigation Grant Program (HMGP)
FEMA program funding hazard mitigation projects after disasters.

Hazmat
Hazardous materials that pose risks to health, safety, property, or the environment if released.

Hydrology/Hydraulics
The study of water (hydrology) and its movement (hydraulics).

Intensity
The measure of hazard effects (e.g., shaking severity in earthquakes).

Inventory
A list of assets at risk from hazards.

Infectious Disease
Diseases caused by pathogens (bacteria, viruses, parasites, or fungi) that can spread directly or indirectly from one person to another, potentially creating large-scale public health emergencies.

Infrastructure
The physical systems of a community, including transportation, utilities, water, sewage, and communication networks, that support daily life and economic activity.

Landslide
Downslope movement of rock or soil due to gravity, often triggered by saturation.

Levee
An embankment built alongside a river to prevent flooding of adjacent land.

Lightning
An electrical discharge during thunderstorms that poses significant hazard.

Lifelines
Community services and systems (safety/security, communications, energy, transportation, water, health, and hazardous materials) essential to sustain life and support disaster response and recovery.

Local Government
Any county, municipality, or tribal government.

Magnitude
The measure of earthquake strength, typically by the Richter scale.

Mitigation
Actions taken to reduce or eliminate risk to people and property.

Preparedness
Actions that strengthen a community's ability to respond to disasters.

Radiological
Hazards arising from radioactive materials or nuclear incidents that pose risks to health, safety, and the environment.

Response
Immediate actions taken during or directly after a disaster to save lives, protect property, and meet basic human needs.

Risk
The estimated impact a hazard may have on people, property, and the economy.

Risk Assessment
The process of identifying hazards, exposures, vulnerabilities, and potential losses.

Robert T. Stafford Act
The primary federal law governing disaster assistance.

Stakeholder
Any group or entity with an interest in hazard mitigation.

Sustainable Hazard Mitigation
Mitigation that balances risk reduction with long-term environmental and social sustainability.

Thunderstorm
A storm with lightning and thunder, often producing heavy rain, wind, or hail.

Volume 1
The core or base plan of the AHMP. It provides the overarching framework, policies, planning assumptions, and background necessary to understand and implement the mitigation strategy.

Volume 2
Contains the jurisdiction-specific annexes for cities, special districts, and other participating planning partners. These annexes supplement the base plan by documenting each partner's unique risks, vulnerabilities, and mitigation strategies.

Vulnerability
How susceptible an asset is to damage from hazards.

Watershed
The land area draining to a common point, such as a river or lake.

Wildfire
An uncontrolled fire on undeveloped land, influenced by fuels, topography, and weather.

Windstorm
A short-duration event with damaging straight-line winds over 50 mph.

Zoning Ordinance
A local regulation designating land uses and development standards.

APPENDIX 1-B: PUBLIC OUTREACH AND PARTICIPATION INFORMATION

The following appendix includes:

1. **Public Survey Hazard Risk Rankings and Results**
2. **Jurisdictional Workshop # 1**
    a. Sign in Sheets and Agendas for:
        i. April 2nd, 2025
        ii. April 3rd, 2025
3. **Jurisdictional Workshop # 2**
    a. Sign in Sheets and Agendas for:
        i. May 22nd, 2025
        ii. June 3rd, 2025

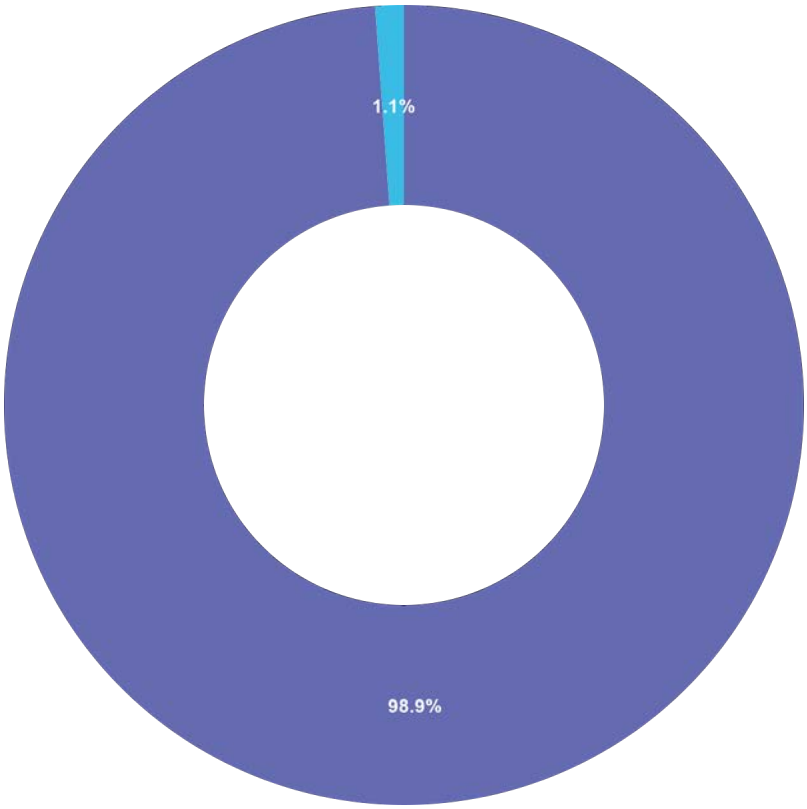
surveyplanet

Kootenai County Threats & Hazards

Please take a few moments to provide your input on what threats and hazards are a risk to Kootenai County, ID.

This survey consists of 15 questions and should take approximately 5-7 minutes to complete.

Q1 Do you live in Kootenai County, ID?*



Answered: 174 **Unanswered:** 1

	Choice	Total
●	Yes	172
●	No	2

Q2 What is your perceived risk for each natural hazard in **Kootenai County?***

Your perception of the risk to Kootenai County

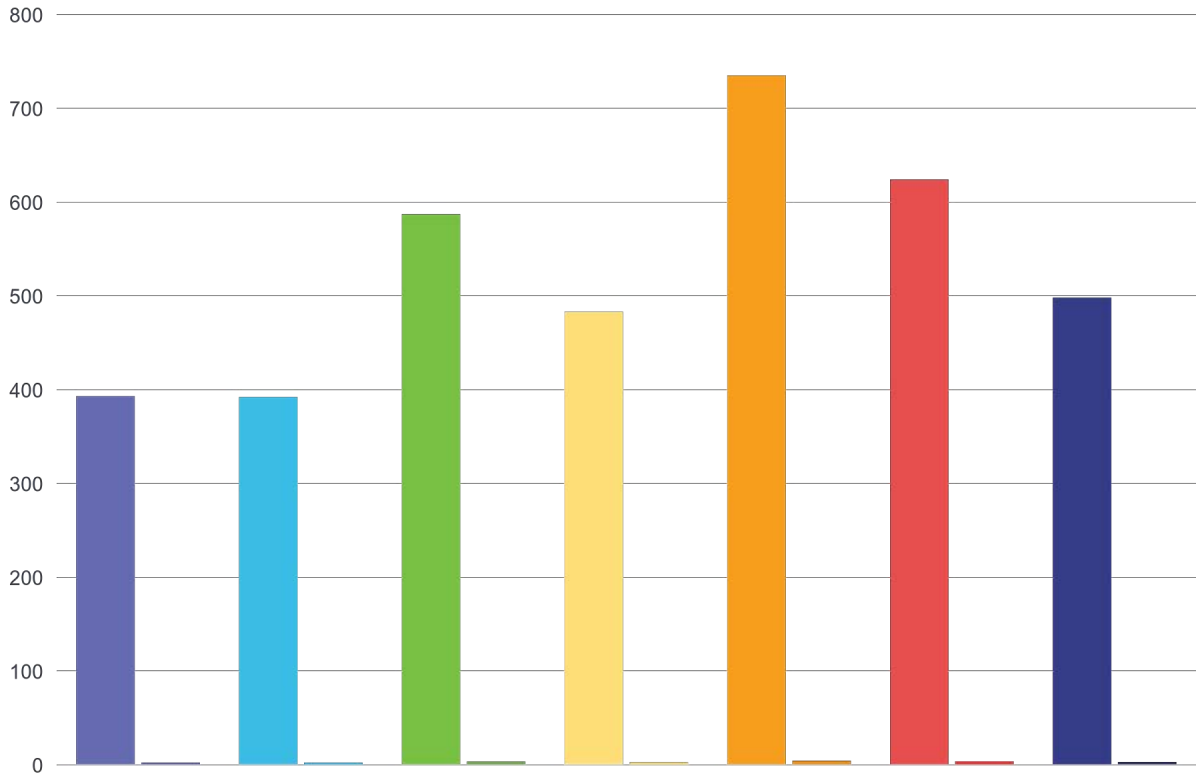
1 - No concern

2 - Low concern

3 - Moderate concern

4 - High concern

5 - Extreme concern



Answered: 175 **Unanswered:** 0

	Choice	Score	Average
	Flood	393	2.25
	Landslides	392	2.24
	Winter Storms	587	3.35
	Thunderstorms	483	2.76
	Wildfires	735	4.2
	Windstorms	624	3.57

Choice	Score	Average
Extreme Temperatures	498	2.85

Q3 What is your perceived risk for each technological hazard in **Kootenai County?***

Your perception of the risk to Kootenai County

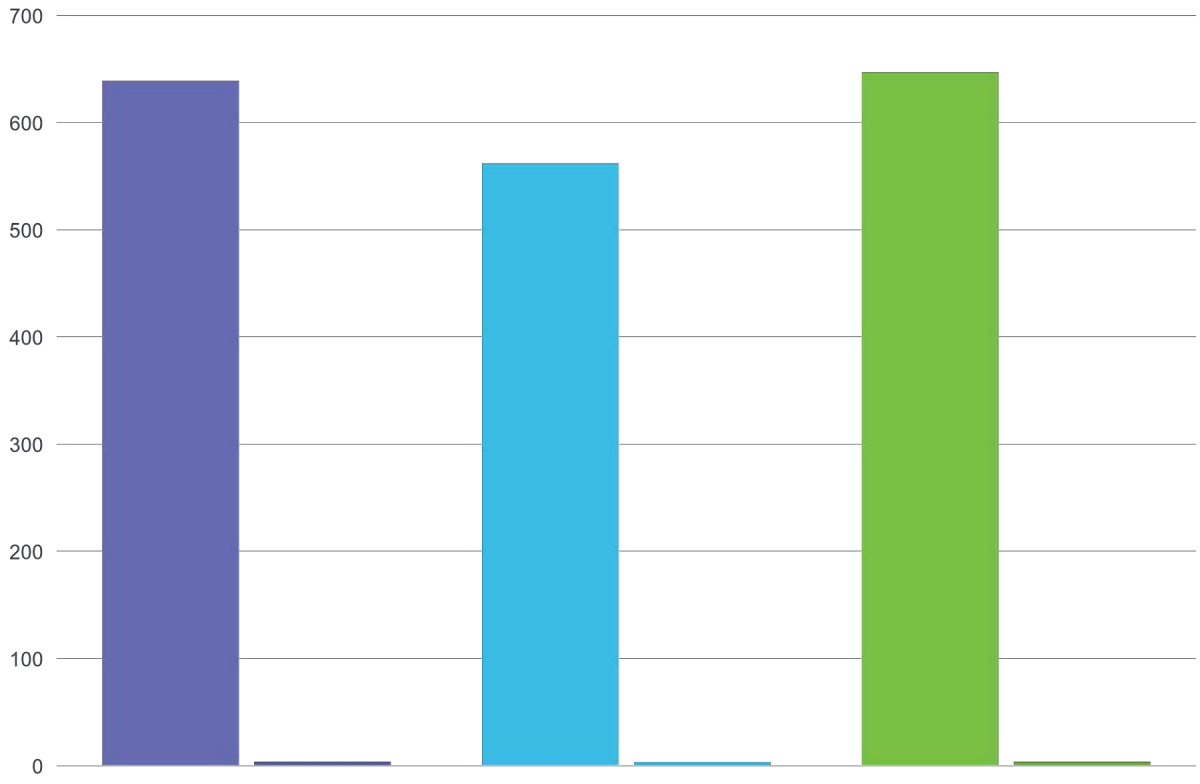
1 - No concern

2 - Low concern

3 - Moderate concern

4 - High concern

5 - Extreme concern



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Cybersecurity	639	3.65
Hazardous Materials	562	3.21
Infrastructure & Utility Failure	647	3.7

Q4 What is your perceived risk for this human caused hazard in **Kootenai County?***

Your perception of the risk to Kootenai County

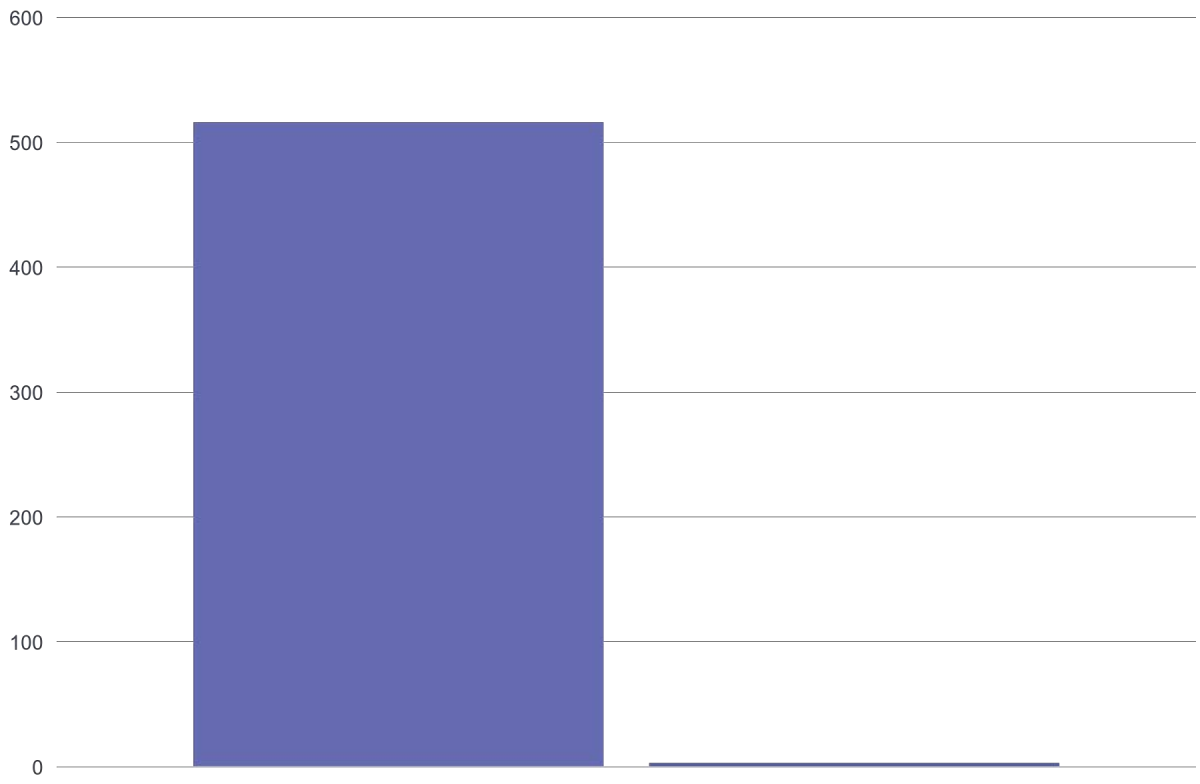
1 - No concern

2 - Low concern

3 - Moderate concern

4 - High concern

5 - Extreme concern



Answered: 175 **Unanswered:** 0

	Choice	Score	Average
●	Active Shooter / Active Threat	516	2.95

Q5 Rate each natural hazard for their Historical Occurrences **in Kootenai County** in the past 50 years:*

Number of Historical Occurrences (within 50 years)

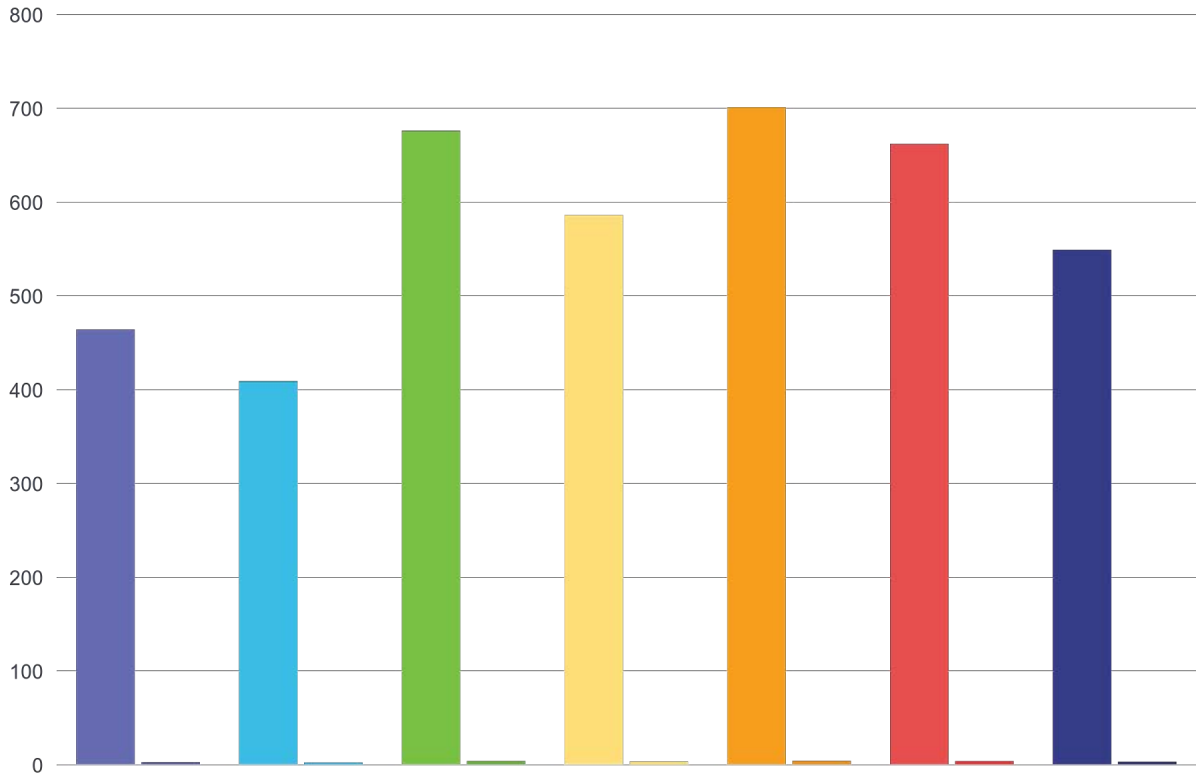
1 - None: never occurred

2 - Low: 1-3 occurrences

3 - Medium: 4-7 occurrences

4 - High: 8-9 occurrences

5 - Extreme: 10+ occurrences



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Floods	464	2.65
Landslides	409	2.34
Winter Storms	676	3.86
Thunderstorms	586	3.35
Wildfires	701	4.01
Windstorms	662	3.78

Choice	Score	Average
Extreme Temperatures	549	3.14

Q6 Rate each technological hazard for their Historical Occurrences **in Kootenai County** in the past 50 years:*

Number of Historical Occurrences (within 50 years)

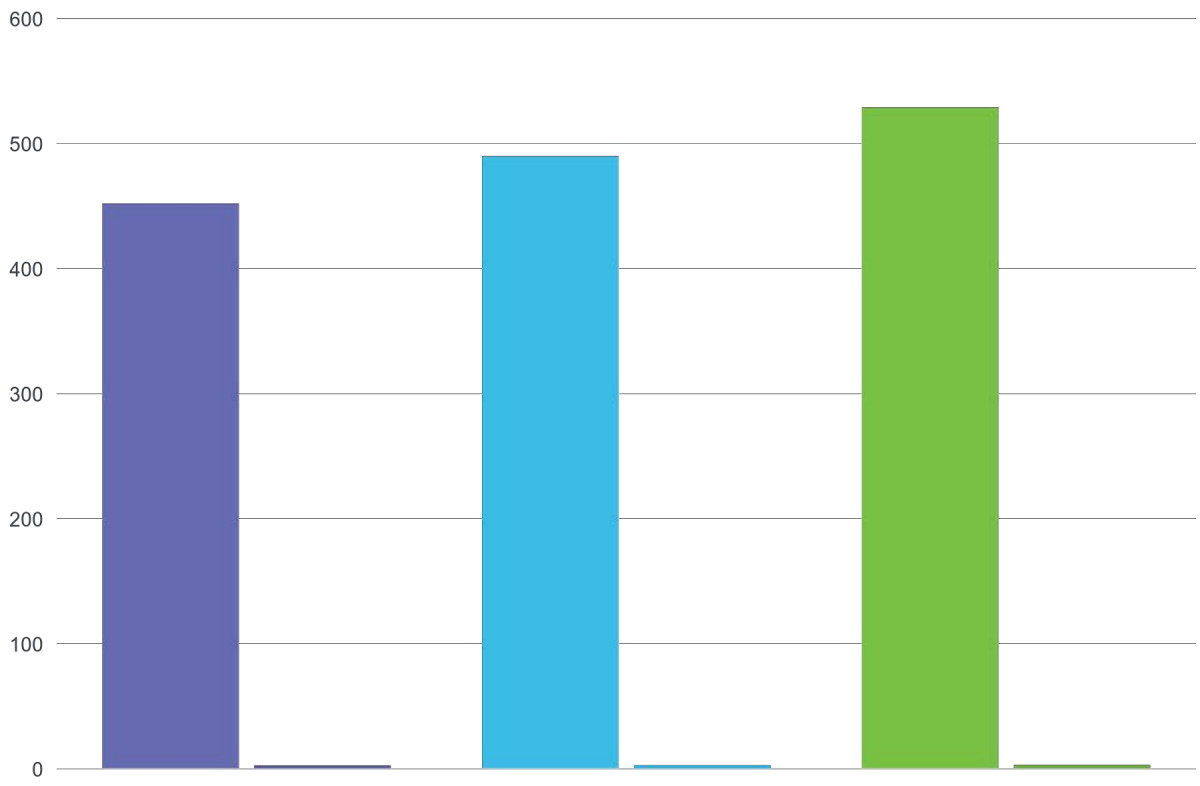
1 - None: never occurred

2 - Low: 1-3 occurrences

3 - Medium: 4-7 occurrences

4 - High: 8-9 occurrences

5 - Extreme: 10+ occurrences



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Cybersecurity	452	2.58
Hazardous Materials	490	2.8
Infrastructure & Utility Failure	529	3.02

Q7 Rate this human-caused hazard for the Historical Occurrences **in Kootenai County** in the past 50 years:*

Number of Historical Occurrences (within 50 years)

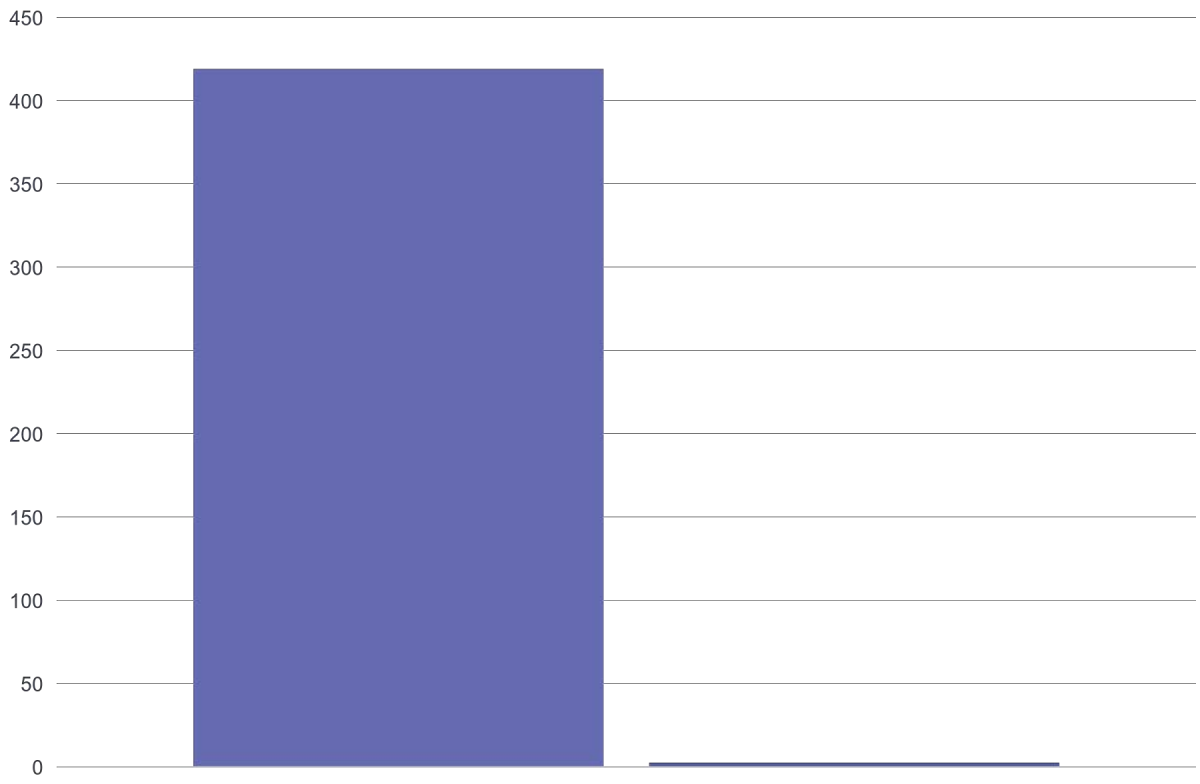
1 - None: never occurred

2 - Low: 1-3 occurrences

3 - Medium: 4-7 occurrences

4 - High: 8-9 occurrences

5 - Extreme: 10+ occurrences



Answered: 175 **Unanswered:** 0

	Choice	Score	Average
●	Active Shooter / Active Threat	419	2.39

Q8 Rate each natural hazard for their Probability of Occurrence **in Kootenai County**:*

Likelihood of Occurrence in Kootenai County:

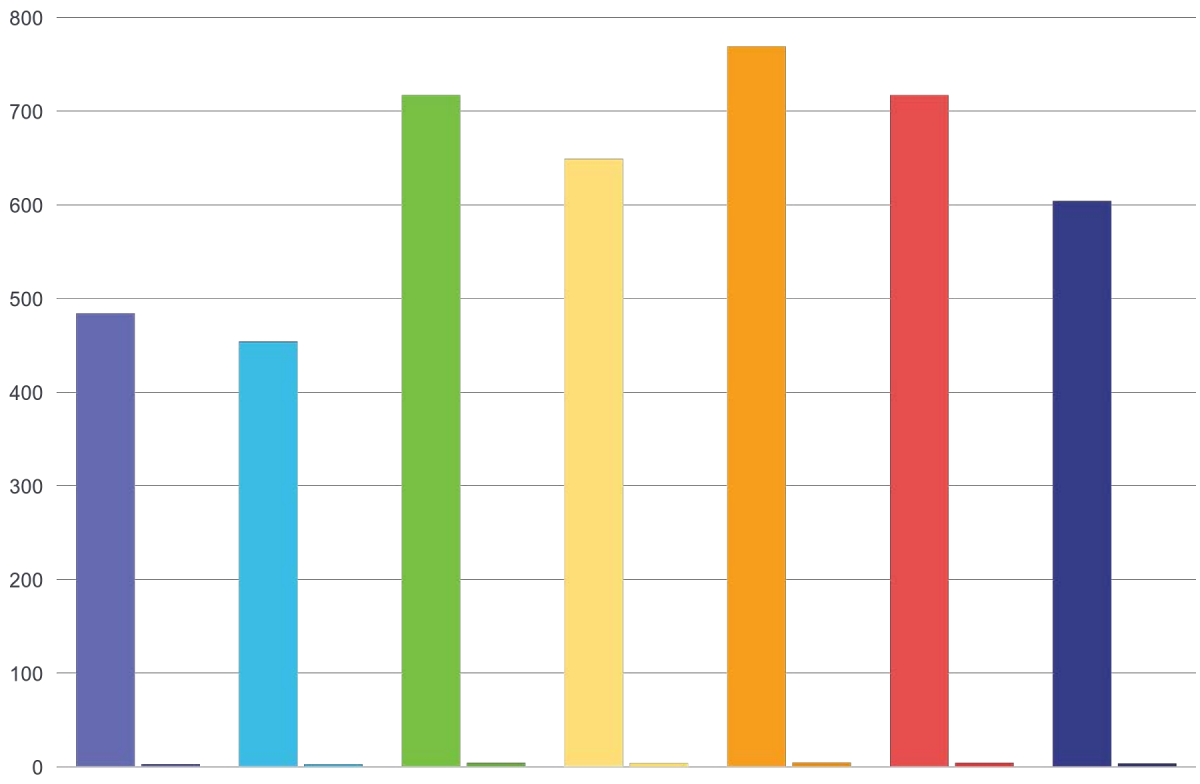
1 - Rare: one or less event in the next 50 years

2 - Low: chance of occurrence in the next 25 -50 years

3 - Medium: chance of occurrence in the next 10-25 years

4 - High: chance of occurrence in the next 1-10 years

5 - Extreme: chance of occurrence in the next 1-5 years



Answered: 175 **Unanswered:** 0

	Choice	Score	Average
	Flood	484	2.77
	Landslide	454	2.59
	Winter Storm	717	4.1
	Thunderstorm	649	3.71
	Wildfire	769	4.39
	Windstorm	717	4.1
	Extreme Temperature	604	3.45

Q9 Rate each technological hazard for their Probability of Occurrence **in Kootenai County**:*

Likelihood of Occurrence in Kootenai County:

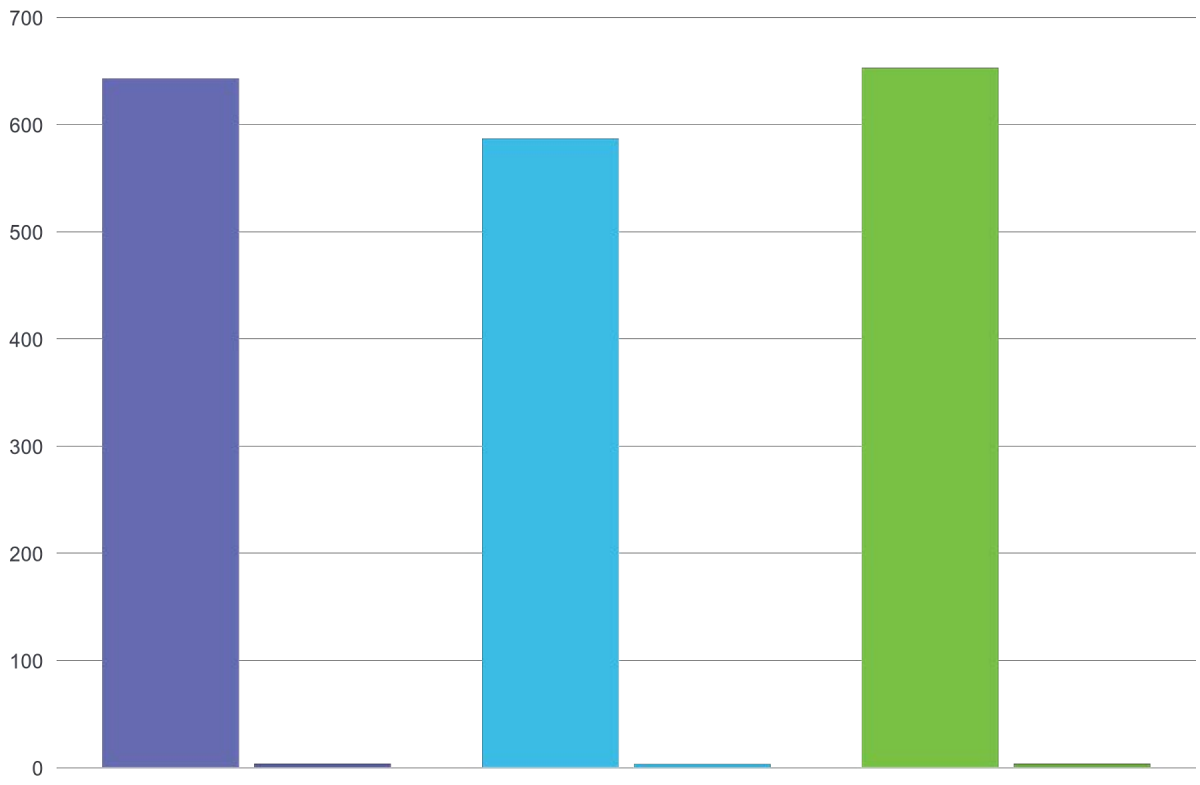
1 - Rare: one or less event in the next 50 years

2 - Low: chance of occurrence in the next 25 -50 years

3 - Medium: chance of occurrence in the next 10-25 years

4 - High: chance of occurrence in the next 1-10 years

5 - Extreme: chance of occurrence in the next 1-5 years



Answered: 175 **Unanswered:** 0

Choice	Score	Average

	Choice	Score	Average
●	Cybersecurity	643	3.67
●	Hazardous Material	587	3.35
●	Infrastructure & Utility Failure	653	3.73

Q10 Rate this human-caused hazard for its Probability of Occurrence **in Kootenai County**:*

Likelihood of Occurrence in Kootenai County:

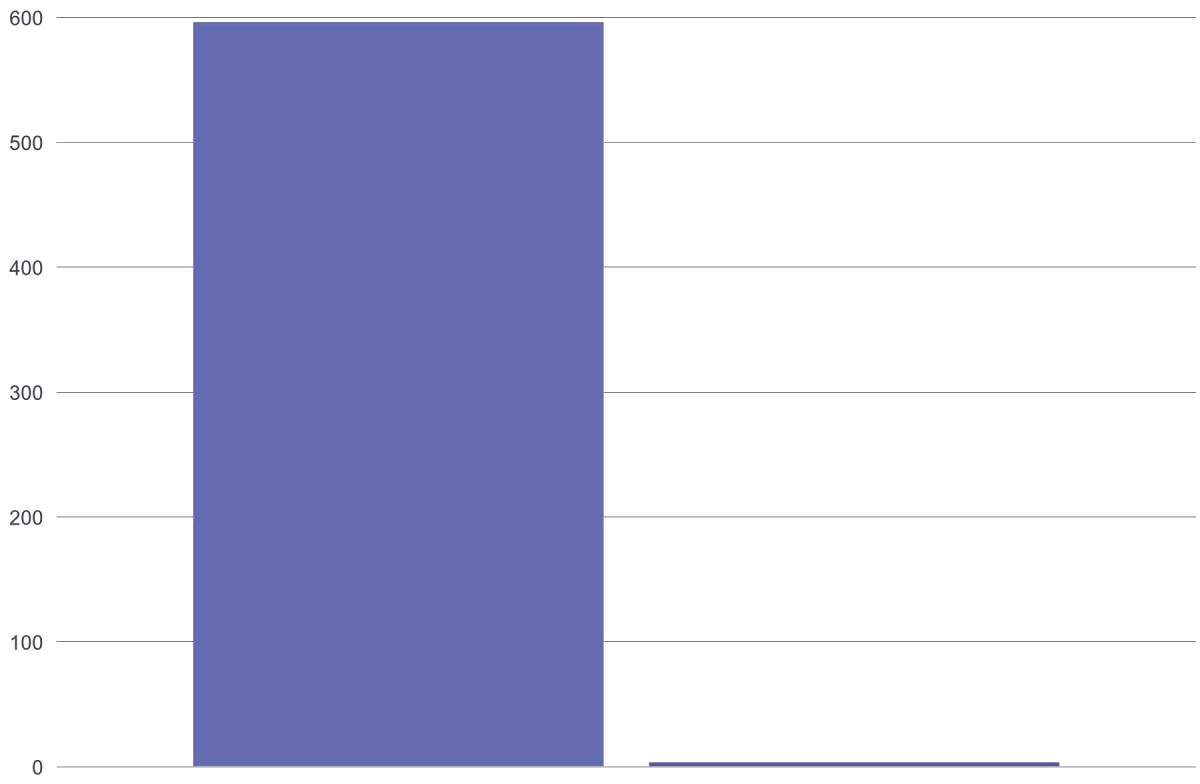
1 - Rare: one or less event in the next 50 years

2 - Low: chance of occurrence in the next 25 -50 years

3 - Medium: chance of occurrence in the next 10-25 years

4 - High: chance of occurrence in the next 1-10 years

5 - Extreme: chance of occurrence in the next 1-5 years



Answered: 175 **Unanswered:** 0

	Choice	Score	Average
●	Active Shooter / Active Threat	596	3.41

Q11 Rate the amount of Property Exposed to each natural hazard **in Kootenai County**:*

Percent of Kootenai County Affected:

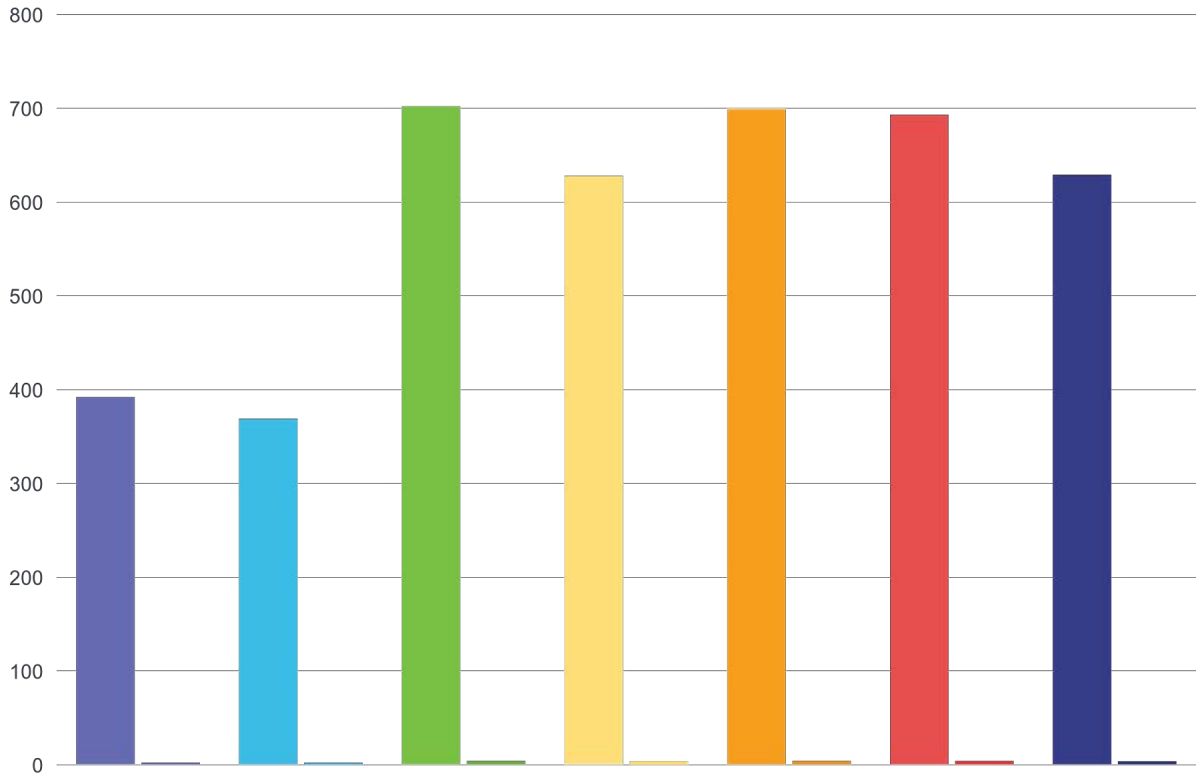
1 - Negligible: less than 10%

2 - Limited: 10% - 25%

3 - Significant: 25% - 50%

4 - Critical: 50% - 75%

5 - Catastrophic: Most, if not all of the County is exposed



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Flood	392	2.24
Landslide	369	2.11
Winter Storm	702	4.01
Thunderstorm	628	3.59
Wildfire	699	3.99
Windstorm	693	3.96

Choice	Score	Average
Extreme Temperature	629	3.59

Q12 Rate the amount of Property Exposed to each technological hazard **in Kootenai County**:*

Percent of Kootenai County Affected:

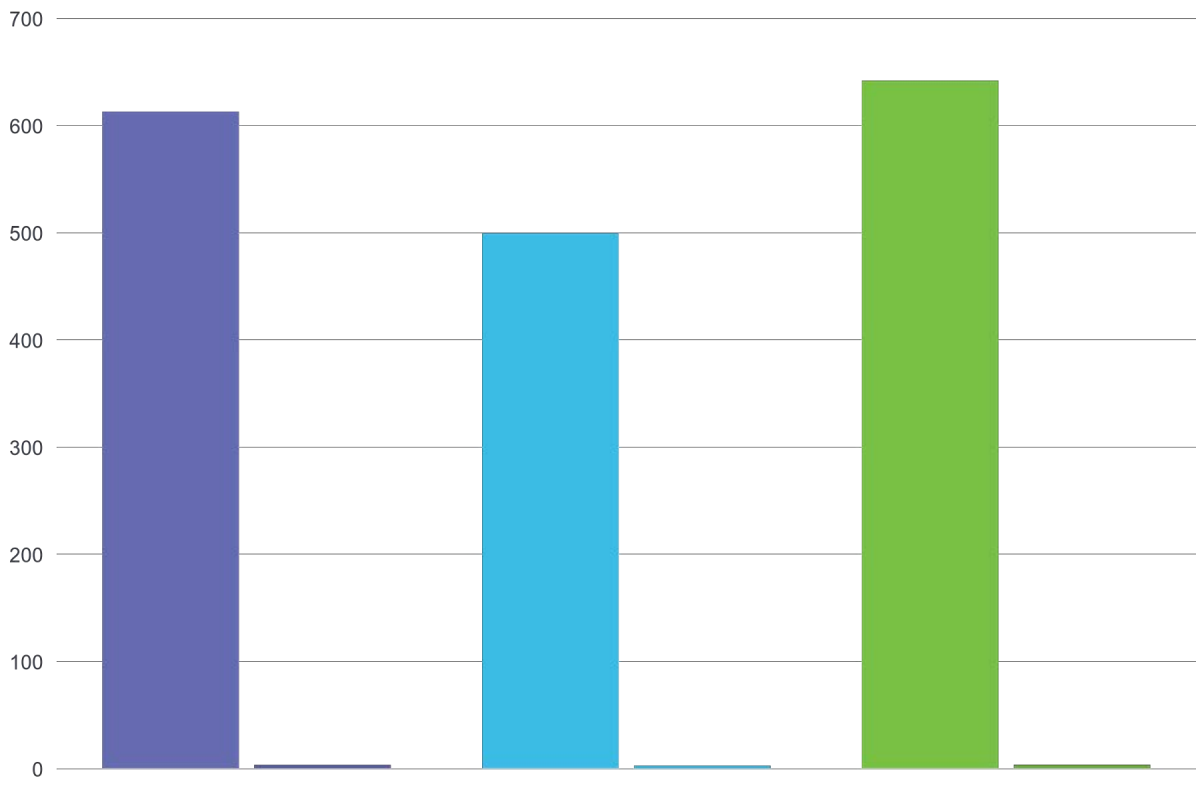
1 - Negligible: less than 10%

2 - Limited: 10% - 25%

3 - Significant: 25% - 50%

4 - Critical: 50% - 75%

5 - Catastrophic: Most, if not all of the County is exposed



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Cybersecurity	613	3.5
Hazardous Material	500	2.86
Infrastructure / Utility Failure	642	3.67

Q13 Rate the amount of Property Exposed to this human-caused hazard **in Kootenai County**:*

Percent of Kootenai County Affected:

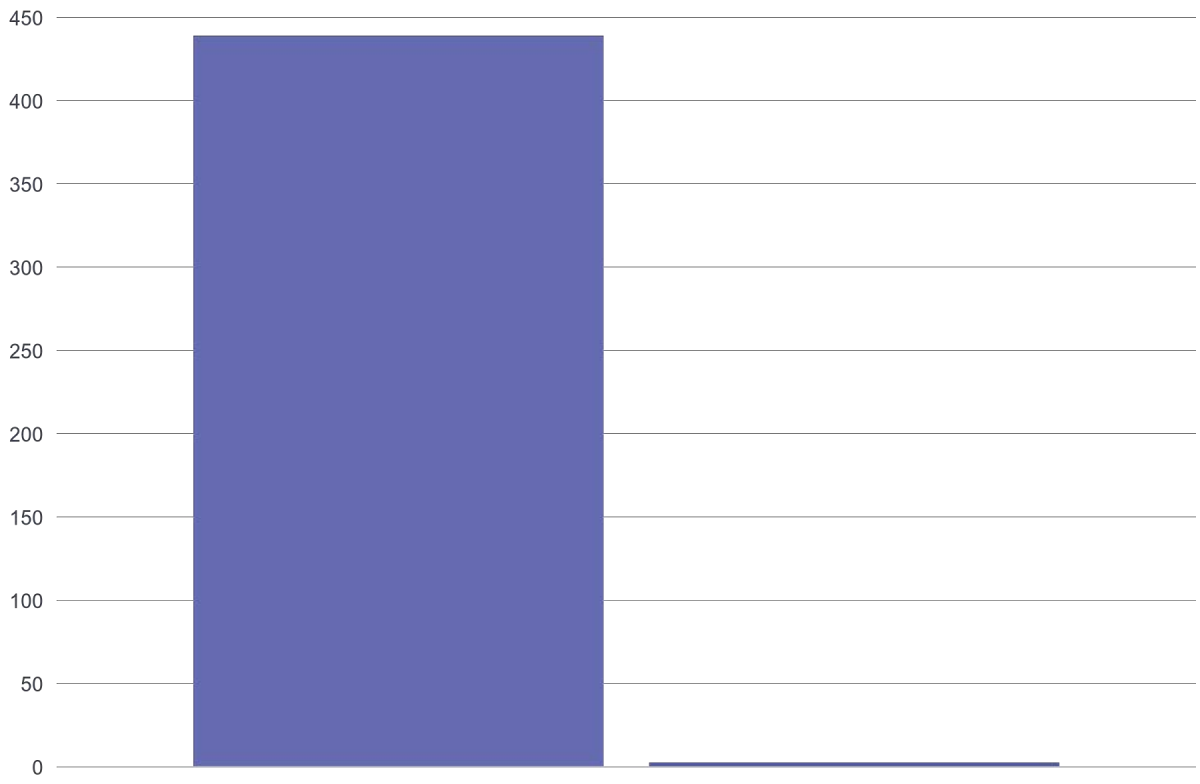
1 - Negligible: less than 10%

2 - Limited: 10% - 25%

3 - Significant: 25% - 50%

4 - Critical: 50% - 75%

5 - Catastrophic: Most, if not all of the County is exposed



Answered: 175 **Unanswered:** 0

	Choice	Score	Average
●	Active Shooter / Active Threat	439	2.51

Q14 Rate the amount of Population Exposed to each natural hazard **in Kootenai County**:*

Percent of People and Property Affected:

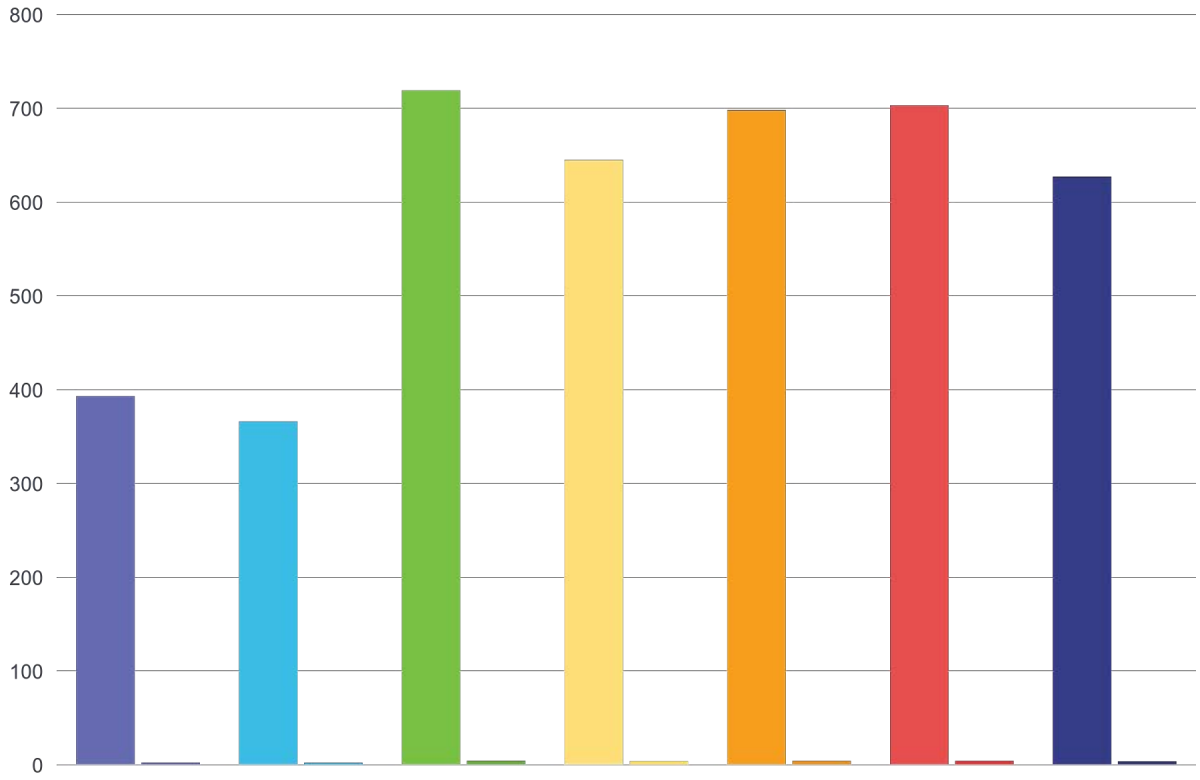
1 - Negligible: less than 5%

2 - Limited: 5% - 10%

3 - Significant: 10% - 25%

4 - Critical: 25-50%

5 - Catastrophic: More than 50%



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Flood	393	2.25
Landslide	366	2.09
Winter Storm	719	4.11
Thunderstorm	645	3.69
Wildfire	698	3.99
Windstorm	703	4.02

Choice	Score	Average
Extreme Temperature	627	3.58

Q15 Rate the amount of Population Exposed to each technological hazard **in Kootenai County**:*

Percent of People and Property Affected:

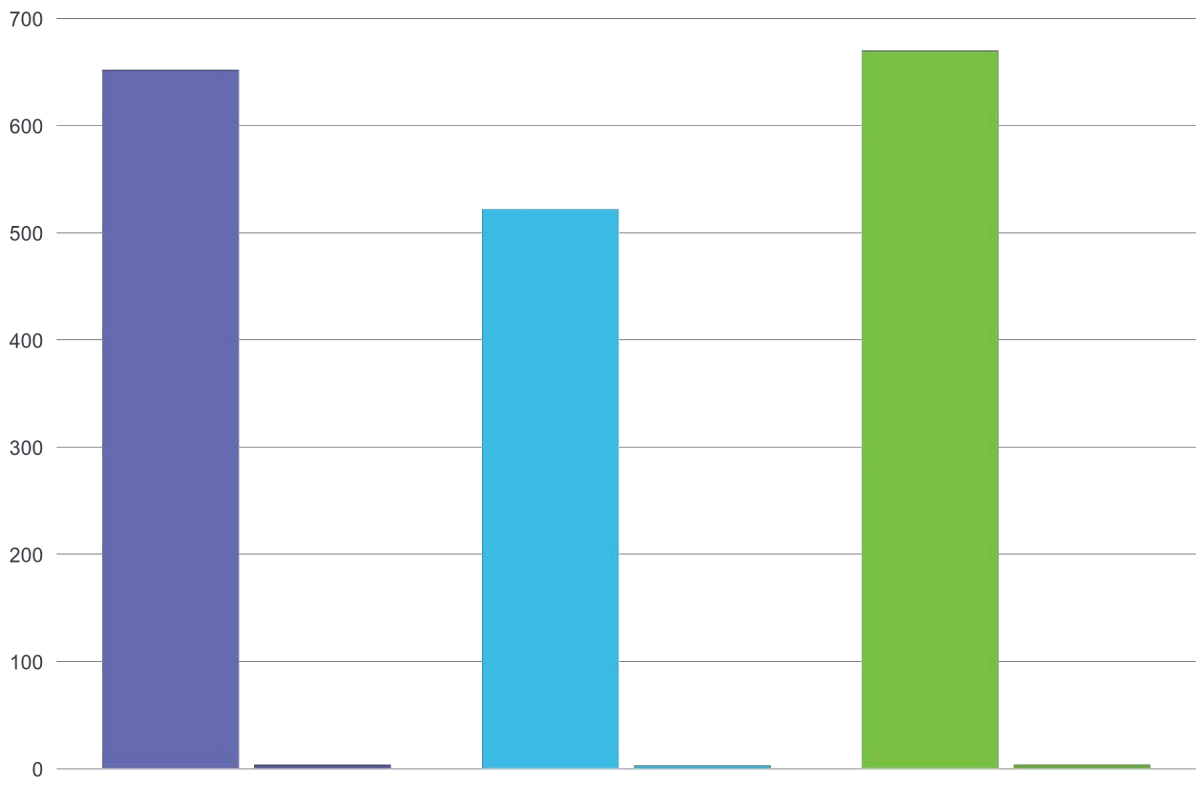
1 - Negligible: less than 5%

2 - Limited: 5% - 10%

3 - Significant: 10% - 25%

4 - Critical: 25-50%

5 - Catastrophic: More than 50%



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Cybersecurity	652	3.73
Hazardous Material	522	2.98
Infrastructure & Utility Failure	670	3.83

Q16 Rate the amount of Population Exposed to this human-caused hazard **in Kootenai County**:*

Percent of People and Property Affected:

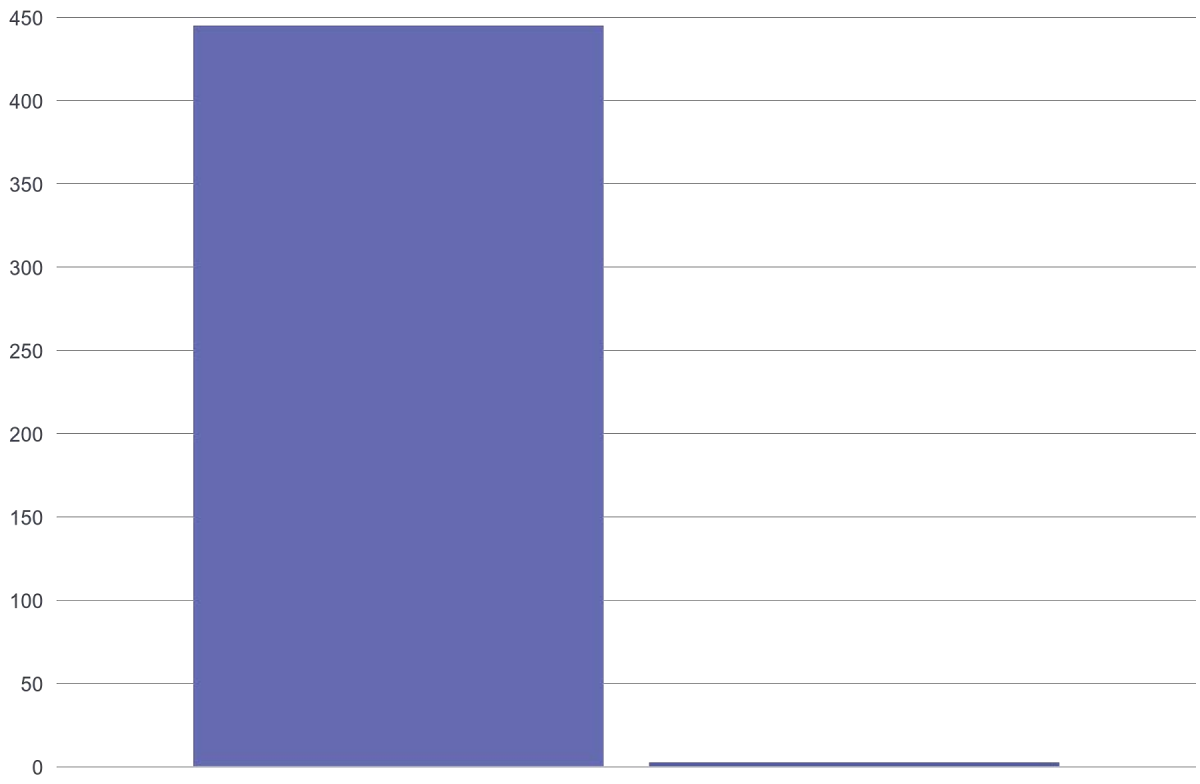
1 - Negligible: less than 5%

2 - Limited: 5% - 10%

3 - Significant: 10% - 25%

4 - Critical: 25-50%

5 - Catastrophic: More than 50%



Answered: 175 **Unanswered:** 0

Choice	Score	Average
Active Shooter / Active Threat	445	2.54

Location: 1662 W. Wyoming Hayden, ID
Date: April 2nd
Time: 2PM – 4PM

Kootenai County
AHMP Multi-Jurisdictional Meeting #1

1. Welcome

2. Defining Hazard Mitigation
    a. Review Previous Update

3. Jurisdiction Goals & Objectives
    a. Risk Assessment
    b. Hazard Survey

4. Community Lifelines
    a. Critical Infrastructure
    b. Assets
    c. Challenges

5. Hazard Profile

6. Historic Hazards

7. Next Steps:
    a. Next Meeting: May 22nd / June 3rd
    b. Location: OEM – 1662 W. Wyoming Ave, Hayden

Location: 1662 W. Wyoming Hayden, ID
Date: April 3rd
Time: 9AM – 11AM

Kootenai County
AHMP Multi-Jurisdictional Meeting #1

1. Welcome

2. Defining Hazard Mitigation
    a. Review Previous Update

3. Jurisdiction Goals & Objectives
    a. Risk Assessment
    b. Hazard Survey

4. Community Lifelines
    a. Critical Infrastructure
    b. Assets
    c. Challenges

5. Hazard Profile

6. Historic Hazards

7. Next Steps:
    a. Next Meeting: May 22nd / June 3rd
    b. Location: OEM – 1662 W. Wyoming Ave, Hayden

Location: 1662 W. Wyoming Hayden, ID
Date: May 22nd
Time: 9AM-11AM

Kootenai County
AHMP Multi-Jurisdictional Meeting #2

1. Welcome

2. Planning Recap
    a. Review Previous Meeting and Planning Updates so far
    b. Timeline

3. Jurisdictional Annex – Draft Layout Review
4. Mitigation Planning Review
    a. What it is
    b. Why it is important
5. Mitigation Strategy
    a. Goals
    b. Process
6. Mitigation Action Development - Activity

7. Next Steps

Location: 1662 W. Wyoming Hayden, ID
Date: June 3
Time: 2PM – 4PM

Kootenai County
AHMP Multi-Jurisdictional Meeting #2

1. Welcome

2. Planning Recap
    a. Review Previous Meeting and Planning Updates so far
    b. Timeline

3. Jurisdictional Annex – Draft Layout Review
4. Mitigation Planning Review
    a. What it is
    b. Why it is important
5. Mitigation Strategy
    a. Goals
    b. Process
6. Mitigation Action Development - Activity

7. Next Steps

APPENDIX 1-C: PLAN ADOPTION STATUS FOR PARTICIPATING JURISDICTIONS

Visit Appendix 2-D in Volume 2 for a copy of the resolutions for each participating jurisdiction.
This chart will continue to be updated as resolutions are received.

JURISDICTION NAME/ PARTICIPANT NAME	REQUIREMENTS MET (Y/N)					
	A. PLANNING PROCESS	B. RISK ASSESSMENT	C. MITIGATION STRATEGY	D. PLAN MAINTENANCE	E. PLAN UPDATE	F. PLAN ADOPTION
Unincorporated Kootenai County	Y	Y	Y	Y	Y	**Y**
City of Athol	Y	Y	Y	Y	Y	**N**
City of Coeur d'Alene	Y	Y	Y	Y	Y	**N**
City of Dalton Gardens	Y	Y	Y	Y	Y	**N**
City of Fernan Lake Village	Y	Y	Y	Y	Y	**N**
City of Harrison	Y	Y	Y	Y	Y	**N**
City of Hauser	Y	Y	Y	Y	Y	**N**
City of Hayden	Y	Y	Y	Y	Y	**N**
City of Hayden Lake	Y	Y	Y	Y	Y	**N**
City of Post Falls	Y	Y	Y	Y	Y	**N**
City of Rathdrum	Y	Y	Y	Y	Y	**N**
City of Spirit Lake	Y	Y	Y	Y	Y	**N**
East Side Fire Protection District	Y	Y	Y	Y	Y	**N**
Hauser Lake Fire Protection District	Y	Y	Y	Y	Y	**N**
Kootenai County Emergency Medical Services System	Y	Y	Y	Y	Y	**N**
Kootenai County Fire and Rescue	Y	Y	Y	Y	Y	**N**
Mica Kidd Island Fire Protection District	Y	Y	Y	Y	Y	**N**
Northern Lakes Fire District	Y	Y	Y	Y	Y	**N**

JURISDICTION NAME/ PARTICIPANT NAME	REQUIREMENTS MET (Y/N)					
	A. PLANNING PROCESS	B. RISK ASSESSMENT	C. MITIGATION STRATEGY	D. PLAN MAINTENANCE	E. PLAN UPDATE	F. PLAN ADOPTION
Silver Valley Fire Rescue (formerly Shoshone County Fire District No. 2)	Y	Y	Y	Y	Y	**N**
Spirit Lake Fire Protection District	Y	Y	Y	Y	Y	**N**
St. Maries Fire Protection District	Y	Y	Y	Y	Y	**N**
Timberlake Fire Protection District	Y	Y	Y	Y	Y	**N**
Worley Fire Protection District	Y	Y	Y	Y	Y	**N**
Coeur d'Alene Public Schools (SD 271)	Y	Y	Y	Y	Y	**N**
Kootenai School District (SD 274)	Y	Y	Y	Y	Y	**N**
Lakeland Joint School District (SD 272)	Y	Y	Y	Y	Y	**N**
Post Falls School District (SD 273)	Y	Y	Y	Y	Y	**N**
East Side Highway District	Y	Y	Y	Y	Y	**N**
Lakes Highway District	Y	Y	Y	Y	Y	**N**
Post Falls Highway District	Y	Y	Y	Y	Y	**N**
Worley Highway District	Y	Y	Y	Y	Y	**N**
Kootenai Health	Y	Y	Y	Y	Y	**N**
Panhandle Health District	Y	Y	Y	Y	Y	**N**

APPENDIX 1-D: PROGRESS REPORT TEMPLATE

JURISDICTION NAME

Return Completed form by _____
To: slong@kcgov.us

Reporting Period: *September 1, 2025– August 31, 2026*

Background: Kootenai County, participating municipalities and special purpose districts in the county developed a multi-jurisdictional hazard mitigation plan to reduce risk from all hazards by identifying resources, information, and strategies for risk reduction. The Disaster Mitigation Act of 2000 provides the legal basis for FEMA mitigation planning requirements for State, Local and Indian Tribal governments as a condition of mitigation grant assistance. The new requirements emphasize the need for State, Local and Indian Tribal entities to closely coordinate mitigation planning and implementation efforts. To prepare the plan, the participating partners organized resources, assessed risks from natural hazards within the county, developed planning goals and objectives, reviewed mitigation alternatives, and developed an action plan to address probable impacts from natural hazards. By completing this process, these jurisdictions maintained compliance with the Disaster Mitigation Act of 2000 and achieved eligibility for mitigation grant assistance opportunities afforded under the Robert T. Stafford Act.
The plan can be viewed on-line: https://www.kcsheriff.com/192/Hazard-Mitigation-Planning.

Summary Overview of the Plan's Progress: The performance period for the Hazard Mitigation Plan became effective February 12th, 2026, with the final approval of the plan by FEMA. The initial performance period for this plan will be 5 years, with an anticipated update to the plan to occur before 2030.
Purpose: The purpose of this report is to provide an annual update for jurisdictions to report on the implementation of action items identified in the All Hazard Mitigation Plan. The objective is to ensure there will be a continuing and responsive planning process that will keep the Hazard Mitigation Plan dynamic and responsive to the needs and capabilities of the partner jurisdictions. This report discusses the following:

- Natural hazard events that have occurred within the last year
- Changes in risk exposure within the planning area (all of Kootenai County)
- Mitigation success stories
- Review of the action plan
- Changes in capabilities that could impact plan implementation
- Recommendations for changes/enhancement.

Review of the Action Plan: The following page includes the Action Plan table to report the status of each initiative. Address the following in the "status" column of the following table:

- *Was any element of the initiative carried out during the reporting period?*
- *If no action was completed, why?*
- *Is the timeline for implementation for the initiative still appropriate?*
- *If the initiative was completed, does it need to be changed or removed from the action plan?*

JURISDICTION NAME

A = Annual Work Completed / Ongoing Project
O = Project Currently in Progress
✓ = Project Completed
X = No progress At This Time

ACTION PLAN REVIEW

ACTION #

D - 1	*Details for the initiative name will go in this box.* **Status:** ☐A ☐✓ ☐ O ☐ X **Planned Completion Date:** _____ **Status: (Give detailed description of progress.)**
D - 2	*Details for the initiative name will go in this box.* **Status:** ☐A ☐✓ ☐ O ☐ X **Planned Completion Date:** _____ **Status: (Give detailed description of progress.)**
D - 3	*Details for the initiative name will go in this box.* **Status:** ☐A ☐✓ ☐ O ☐ X **Planned Completion Date:** _____ **Status: (Give detailed description of progress.)**
D - 4	*Details for the initiative name will go in this box.* **Status:** ☐A ☐✓ ☐ O ☐ X **Planned Completion Date:** _____ **Status: (Give detailed description of progress.)**

Action Plan Completed By:_____ **Date:**_____

For questions and form submissions, contact Sarah Long at slong@kcgov.us

APPENDIX 1-E: REFERENCES

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