



Teton County



All Hazard Mitigation Plan 2022

Teton County, Idaho
Multi-Jurisdiction All Hazard Mitigation Plan

UPDATE

May 2022

Prepared for:

Teton County
150 Courthouse Drive
Driggs, ID 83422

Preface

Teton County Multi-Jurisdiction All Hazard Mitigation Plan 2008

The Teton County All Hazard Mitigation Plan was developed in late fall of 2006 through the spring of 2008. It contains information relative to the hazards and vulnerabilities facing Teton County. The jurisdictions participating in this version of the Plan included Teton County and the cities of Victor, Driggs, and Teton.

Teton County Multi-Jurisdiction All Hazard Mitigation Plan 2016

The Teton County All Hazard Mitigation Plan was updated in 2016. As a requirement of the Disaster Mitigation Act of 2000, this plan is updated every five years.

Teton County Multi-Jurisdiction All Hazard Mitigation Plan 2022

The Teton County Multi-Jurisdiction All Hazard Mitigation was updated again in 2021/22 and represents the most current version of the plan.

Table of Contents

Preface	3
Table of Contents.....	3
Promulgation and Adoption.....	6
Notice of Endorsement & Participation.....	7
Section 1: Introduction.....	8
Introduction.....	8
Plan Organization.....	8
Plan Use.....	9
Hazard Mitigation & Hazards	9
Purpose.....	10
Scope.....	11
Mission Statement.....	11
Section 2: Planning Process.....	11
Planning Process.....	11
Teton County All Hazard Mitigation Planning Committee.....	12
Local Jurisdiction Participation.....	15
Meetings.....	15
Mitigation Workshops.....	15
Public Involvement.....	16

Section 3: Community Profile	18
Location.....	18
Topography and Geography.....	20
Vegetation	21
Geology	22
Climate	22
Land Ownership.....	23
Land Use and Natural Resources	24
History.....	26
Demographics.....	26
Economic Profile.....	28
Section 4: Risk Assessment	30
Hazard Risk Summary.....	30
4.1 Animal Disease.....	37
4.2 Avalanche.....	40
4.3 Dam Failure.....	44
4.4 Drought.....	46
4.5 Earthquake.....	52
4.6 Extreme Cold.....	57
4.7 Flooding	60
4.7.1 Flash Flood.....	62
4.7.2 River or Stream Flooding.....	64
4.8 Hail	76
4.9 High Wind Event.....	79
4.10 Landslide/Mudslide	84
4.11 Lightning	86
4.12 Public Health	89
4.13 Severe Winter Storm	94
4.14 Tornado	103
4.15 Vector-Borne Disease.....	108
4.16 Volcanic Eruption/Ashfall.....	110
4.17 Wildfire	112
4.18 Air Quality.....	144
4.19 Animal Related Accidents.....	145
4.20 Cybersecurity	148
4.21 Hazardous Materials Incident.....	150

4.22 Major Transportation Incident.....	156
4.23 Nuclear Event.....	159
4.24 Riot/Demonstration/Civil Disorder	161
4.25 Structural Fire.....	163
4.26 Terrorism.....	165
4.27 Utility Disruption	167
4.28 Water Quality	169
Section 5: Mitigation Goals & Objectives	171
Section 6: Mitigation Actions & Implementation.....	173
New Actions: County and All Cities.....	175
New Actions: City of Driggs.....	177
New Actions: City of Tetonia	182
New Actions: City of Victor	187
Ongoing: County and All Cities.....	191
Ongoing Actions: City of Driggs	233
Ongoing Actions: City of Tetonia.....	239
Ongoing Actions: City of Victor.....	245
Completed Actions.....	248
Section 7: Plan Integration.....	253
Section 8: Plan Maintenance.....	255
Plan Maintenance	255
Attachment I: NFIP.....	260
Attachment II: Public and Stakeholder Participation.....	261
Attachment III: Mitigation Crosswalk.....	282

Promulgation and Adoption

[NOTE: Will be added upon FEMA Approval and Plan Adoption]

Notice of Endorsement & Participation

[NOTE: Will be added upon FEMA Approval and Plan Adoption]

Section 1: Introduction

Introduction

Teton County, Idaho and the incorporated Cities that lie within the County boundaries are vulnerable to natural, technological, and man-made hazards that have the possibility of causing serious threats to the health, welfare, and security of its residents. The cost of response to and recovery from the potential disasters, in terms of potential loss of life or property, can be lessened when attention is turned to mitigating their impacts and effects before they occur or reoccur.

This All Hazard Mitigation Plan (Plan) seeks to identify the County's and Cities' hazards and understand their impact on vulnerable populations and infrastructure. With that understanding, the Plan sets forth solutions that if implemented, have the potential to significantly reduce threat to life and property. The Plan is based on the premise that hazard mitigation works! With increased attention to managing natural hazards, communities can reduce the threats to citizens and through proper land use and emergency planning to avoid creating new problems in the future. Many solutions can be implemented at minimal cost and social impact.

This is not an emergency response or management plan. Certainly, the Plan can be used to identify weaknesses and refocus emergency response planning. Enhanced emergency response planning is an important mitigation strategy. However, the focus of this Plan is to support better decision making directed toward avoidance of future risk, and the implementation of activities or projects that will eliminate or reduce the risk for those that may already have exposure to a natural hazard threat.

Plan Organization

- Section 1 [Introduction] outlines the scope, purpose, and overall goals of the Plan.
- Section 2 [Planning Process] of the Plan provides a general overview of the plan update process and summarizes the public involvement component of the Plan.
- Section 3 [Community Profile] of the Plan gives a general background or description of the County's demographic, economic, cultural, and physiographic characteristics.
- Section 4 [Risk Assessment] discusses all hazards affecting the County. They are briefly defined, analyzed at the County and incorporated City level, and then summarized.
- Section 5 [Mitigation Goals & Objectives] presents the mitigation goals and objectives.
- Section 6 [Mitigation Actions & Implementation] provides the actions and projects along with selected Mitigation Alternatives with supporting project descriptions.
- Section 7 [Plan Integration] is a review of County and City plans with observations and suggestions for integration between the Hazard Mitigation Plan and other planning efforts.

- Section 8 [Plan Maintenance] presents the plan maintenance process to update and maintain this plan as defined in DMA 2000.
- The plan also includes a number of Attachments, which are included at the end of this document.

Plan Use

The Plan should be used to help County and participating City officials plan, design, and implement programs and projects that will help reduce the jurisdictions vulnerability to natural, technological, and man-made hazards. The Plan should also be used to facilitate inter-jurisdictional coordination and collaboration related to all hazard mitigation planning and implementation within the County and at the Regional level. Lastly, the Plan should be used to develop or provide guidance for local emergency response planning. When adopted, this Plan will achieve compliance with the Disaster Mitigation Act of 2000 (DMA 2000).

Hazard Mitigation & Hazards

Hazard mitigation is defined as cost-effective actions that have the effect of reducing, limiting, or preventing the vulnerability of people, culture, property, and the environment to potentially damaging, harmful, or costly hazards. Hazard mitigation measures, which can be used to eliminate or minimize the risk to life, culture and property, fall into three categories:

- 1) Those that keep the hazard away from people, property, and structures,
- 2) Those that keep people, property, or structures away from the hazard, and
- 3) Those that reduce the impact of the hazard on victims, i.e., insurance.

Hazard mitigation measures must be practical, cost effective, and culturally, environmentally, and politically acceptable. Actions taken to limit the vulnerability of society to hazards must not, in themselves, be costlier than the anticipated damages.

Hazard mitigation planning must be based on vulnerabilities and its primary focus must be on the point where capital investment and land use decisions are made. The placement of capital investments, whether for homes, roads, public utilities, pipelines, power plants, or public works, determine to a large extent the nature and degree of a community's hazard vulnerability. Once a capital facility is in place, there is little opportunity to reduce hazard vulnerability through correction of errors in location or construction. It is for this reason that often the most effective mitigation tools are zoning and other ordinances that manage development in high vulnerability areas, and building codes that ensure that new buildings are constructed to withstanding the damaging forces of anticipated hazards.

Because disaster events are generally infrequent, the nature and magnitude of the threat is often ignored or poorly understood. Thus, the priority to implement mitigation measures is low and implementation is slowed. Mitigation success can be achieved, however, if accurate information

is portrayed through complete hazard identification and impact studies, followed by effective mitigation management.

The Federal Emergency Management Agency (FEMA) has identified hazards to be analyzed by each jurisdiction, completing an All Hazard Mitigation Plan. The hazards analyzed in this Plan include the following:

Natural Hazards

Weather: Avalanche, Drought, Extreme Cold, Hail, High Wind Event, Tornado, Lightning, Severe Winter Storm

Flooding: Flooding

Geologic: Earthquake, Landslide/Mudslide, Volcanic Eruption/Ashfall,

Other: Animal Disease, Public Health, Vector-Borne Disease, Wildfire

Technological (Manmade) and Political Hazards

Although non-natural hazards are not required by FEMA for inclusion in a hazard mitigation plan, Teton County wishes to rank and mitigate against a comprehensive list of hazard events that could impact the County. Due to both the nature of non-natural hazards and the discretionary status regarding their inclusion, the following hazards of interest have been briefly and qualitatively assessed for the sake of public education and informing their inclusion within the hazard ranking and mitigation process.

- Animal Related Accidents
- Air Quality
- Cybersecurity
- Hazardous Material Event
- Major Transportation Incident
- Nuclear Event
- Riot/Demonstration/Civil Disorder
- Structural Fire
- Terrorism
- Utility Disruption
- Water Quality

Purpose

The purposes of this Plan are to:

- Fulfill Federal and local mitigation planning responsibilities.
- Promote pre- and post-disaster mitigation measures with short/long range strategies to minimize suffering, loss of life, impact on traditional culture, and damage to property and the environment.

- Eliminate or minimize conditions that would have an undesirable impact on the people, culture, economy, environment, and well-being of the County at large.
- Enhance elected officials', departments', and the public's awareness of the threats to the community's way of life, and of what can be done to prevent or reduce the vulnerability and risk.

Scope

Although DMA 2000 only requires local governments to address natural hazards, the County decided it was imperative to address all hazards, including technological and political hazards.

The 2022 All Hazard Mitigation Plan Update included the following jurisdictions:

- Teton County
- City of Driggs
- City of Victor
- City of Tetonia

Mission Statement

The Teton County Multi-Jurisdiction All Hazards Mitigation Plan sets forth public policy designed to protect citizens, critical facilities, infrastructure, private and public property, the local economy, and the environment from risks associated with natural and manmade hazards.

Section 2: Planning Process

Planning Process

To update the All Hazard Mitigation Plan, Teton County followed a process that had the following primary objectives:

- Form a planning team
- Engage the steering committee
- Establish a planning partnership with local communities and coordinate with other agencies
- Engage the public
- Define/reassess the planning area

- Review existing data, programs, and prior plans
- Assess/update the risk, vulnerabilities, and capabilities within the planning area
- Formulate/update mitigation strategies to address identified areas of concern
- Successfully meet all state and federal requirements

Teton County All Hazard Mitigation Planning Committee

All Hazard Planning Committee Members

Committee membership was comprised of representatives from the Teton County Local Emergency Planning Committee, Teton County Department heads, and representatives from the incorporated cities, representatives from the major utility providers, and members of the public.

Committee Rosters, Key Stakeholders, and Agencies/Organizations are provided on the subsequent pages.

TABLE 2.1: 2021/22 All Hazard Planning Committee Members

Name	Title	Agency/Organization
Cindy Riegel	Commissioner	Teton County Board of County Commissioners
Michael Whitfield	Commissioner	Teton County Board of County Commissioners
Bob Heneage	Commissioner	Teton County Board of County Commissioners
Greg Adams	Emergency Management Coordinator	Teton County Emergency Management
Ronn Carlentine	Emergency Management Technician	Teton County Emergency Management
Clint Lemieux	Sheriff	Teton County Sheriff's Office
Bret Campbell	Fire Chief	Teton County Fire & Rescue
Earle Giles	Deputy Fire Chief	Teton County Fire & Rescue
Gary Armstrong	Planning Director	Teton County Planning & Zoning Department
Bert Michelbacher	Planning Commissioner Chair	Teton County Planning and Zoning Commission
Darryl Johnson, PE, PLS	Public Works Director/ County Engineer	Teton County Public Works
Rob Marin	GIS Manager / Community Projects Coordinator	Teton County GIS
Kim Christensen	Senior Deputy Assessor	Teton County Assessor
John Leidorf	Deputy IT Manager	Teton County
Monte Woolstenhulme	Superintendent	Teton County School District 401
Troy Nelson	Director; Health Preparedness, Promotion, and Surveillance Division	Eastern Idaho Public Health
August Christensen	Mayor	City of Driggs
Jen Calder	Council President	City of Driggs
Hyrum Johnson	Former Mayor	City of Driggs

Doug Self, AICP	Community Development Director	City of Driggs
Leanne Bernstein, AICP	Planning & Zoning Administrator	City of Driggs
Allison Ahlert	Assistant Planner	City of Driggs
Jay Mazalewski, P.E.	Public Works Director	City of Driggs
Lori Kyle	Airport Administrator	City of Driggs
Will Frohlich	Mayor	City of Victor
Troy Butzlaff	Interim City Administrator	City of Victor
Jeremy Besbris	Deputy City Administrator	City of Victor
Nate Beard	Interim Public Works Director	City of Victor
Kimberly Kolner	Planning and Zoning Administrator	City of Victor
Carl Osterberg	Planner	City of Victor
Brent Schindler	Mayor	City of Tetonia
Jacque Beard	Clerk / Treasurer	City of Tetonia
Braiden Klingler	Public Works Director	City of Tetonia
Amy Verbeten	Executive Director	Friends of the Teton River
Mike Lien	Stream Restoration Director	Friends of the Teton River
Scott Davis	Disaster Program Manager	American Red Cross
Wendi Celino	Engineer	Fall River Rural Electric
Clint Washburn	HR Manager	Fall River Rural Electric
Brian McDermott	Executive Director	Teton Regional Economic Coalition
Keith Gnagey	CEO	Teton Valley Health
Alex Farnsworth	Maintenance Supervisor	Teton Valley Health
Roger Sauer	Air Quality Monitoring Analyst	Idaho Department of Environmental Quality
Lorrie Pahl	IOEM Planner	Idaho Office of Emergency Management
Tyre Holfeltz	Fire Prevention & Risk Mitigation Program Manager	Idaho Department of Lands
Robert Howe	Conservation Officer	Idaho Fish and Game
Vernon Preston	Meteorologist	National Weather Service
Deborah Flowers	South Fork Zone Fuels Assistant Fire Management Officer	USDA Forest Service
Spencer Johnston	Fire Management Officer	USDA Forest Service
Jay Pence	District Ranger	USDA Forest Service

Representatives not only attended the meetings, but also participated by gathering appropriate data and historical information, identified new mitigation strategies, updated past mitigation strategies, and participated in other efforts.

Organization and Agency Participation

The planning process was initiated by preparing a stakeholders list of individuals whose input was needed to help prepare the Plan. Planning partners on the stakeholders list received a variety of

information during the planning process, including meeting notices, documents for review, and the draft mitigation plan.

TABLE 2.2: Organization and Agency Participation

Teton County Agencies/Organizations
Teton County Board of County Commissioners
Teton County Emergency Management
Teton County Building Department
Teton County Sheriff's Office
Teton County Fire and Rescue
Teton County Planning and Zoning
Teton County Public Works
Teton County Assessor
Teton County Search & Rescue
Teton County GIS (Geographic Information Systems) – Mapping
Teton Soil Conservation District
Teton County School District 401
City of Driggs
City of Victor
City of Tetonia
Teton Valley Health
Eastern Idaho Public Health
Friends of the Teton River
American Red Cross
Teton Regional Economic Coalition
Fall River Rural Electric
Idaho Office of Emergency Management
Idaho Department of Lands
Idaho Transportation Department
Idaho Department of Environmental Quality
Idaho Department of Lands
Idaho Fish and Game
National Weather Service
USDA Forest Service

Neighboring Jurisdictions

Stakeholders from other Idaho counties included emergency managers from Bonneville County, Madison County, Fremont County, and Teton County, Wyoming. A draft of the plan was sent to each of the respective emergency managers and were invited to provide feedback.

Local Jurisdiction Participation

TABLE 2.3: Local Jurisdiction Participation

Local Jurisdiction Participation					
Jurisdiction	Attended at least one meeting	Represented at Mitigation Workshop	Met with Core Planning Team	Submitted at least One New Mitigation Action	Reviewed Past Mitigation Actions
Teton County	Yes	Yes	Yes	Yes	Yes
City of Driggs	Yes	Yes	Yes	Yes	Yes
City of Victor	Yes	Yes	Yes	Yes	Yes
City of Teton	Yes	Yes	Yes	Yes	Yes
Teton County School District 401	Yes	Yes	Yes	N/A	Yes

Meetings

LEPC meetings were utilized throughout the planning process. Additionally, each year in December, the LEPC meeting was dedicated to review the status and progress of the mitigation strategies identified in the previous Plan.

Mitigation Workshops

Workshop were held on November 9th and 10th, 2021, to identify hazards and update past mitigation projects, and to consider new mitigation strategies.

FIGURE 2.1: Workshop Agenda

**Teton County
Hazard Mitigation Plan Update 2021**

Workshop Agenda

Tuesday, November 9, 2021 | City of Teton, 3192 Perry Ave, City Hall
9:00 AM - 11:00 AM | Zoom Meeting ID 838 9842 7778 Passcode 803021

Tuesday, November 9, 2021 | City of Victor, 32 Elm Street City Hall
1:00 PM - 3:00 PM | Zoom Meeting ID 882 8362 4217 Passcode 691503

Wednesday, November 10, 2021 | City of Driggs, 60 S. Main Street, City Hall
9:00 AM - 11:00 AM | Zoom Meeting ID 813 9973 6210

Wednesday, November 10, 2021 | Teton County Departments, 401 School District and other
stakeholders not affiliated with Teton, Victor or Driggs, 150 Courthouse Drive, Driggs
1:00 PM - 3:00 PM | Zoom Meeting ID 874 6703 3137 Passcode 304195

Introductions
Mitigation Overview
Risk Summary/Risk Assessment
Jurisdiction/Agency Hazard Summary Worksheet
Review Ongoing Mitigation Actions/Projects
Identify New Mitigation Actions

1

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 following section details the public outreach strategy, including a combination of in-person and virtual methods. For the purposes of this plan, public, as defined by the County, includes residents, businesses, and organizations associated with the Teton County. The public outreach strategy included the following:

- Attempt to reach as many planning area citizens as possible using multiple strategies, including social media and workshops open to the public.
- Identify and involve planning area stakeholders.
- Make the plan available on the Teton County Web site for public review and comment.

Teton County is dedicated to involving the public directly in review and updates of the Plan. The public will have many opportunities to provide feedback about the Plan. Hard copies of the plan will be kept at the Teton County Emergency Management office. An electronic copy of the Plan will be available on the Teton County Emergency Management website.

Meetings and Public Workshop

All meetings were open to the public and some were held, in some instances, in conjunction with the LEPC meetings in order to solicit broader public and agency participation.

Meeting agendas and attendee lists are available in **Attachment II: Public Participation**.

The public was invited to review the plan, which was posted on the County web site prior to submission.

During the plan update, a dedicated public meeting was held on February 10, 2022.

FIGURE 2.2: Public Meeting Notice



Social Media and Advertisements

Social media (i.e. Facebook), press releases, and advertisements were used to help promote the meetings. E-mails to key stakeholders were sent to solicit participation, and personalized phone calls from the Emergency Management Coordinator, as needed, were placed prior to each meeting.

Flyers were created and were posted in key locations to advertise and invite the public to the meetings. These locations included, but are not limited to:

- Post Offices
- Law Enforcement Center

- Teton County Courthouse
- City Halls
- Stores

How Public Input was Incorporated into the Plan

This information helped to validate and confirm the risk assessment findings. Feedback from the public offered during the public meeting on February 10, 2022 provided greater insight to the public's concerns regarding hazards. During that meeting, the highest risk hazards were presented and discussed.

These, and related findings, helped the planning team determine meaningful mitigation projects.

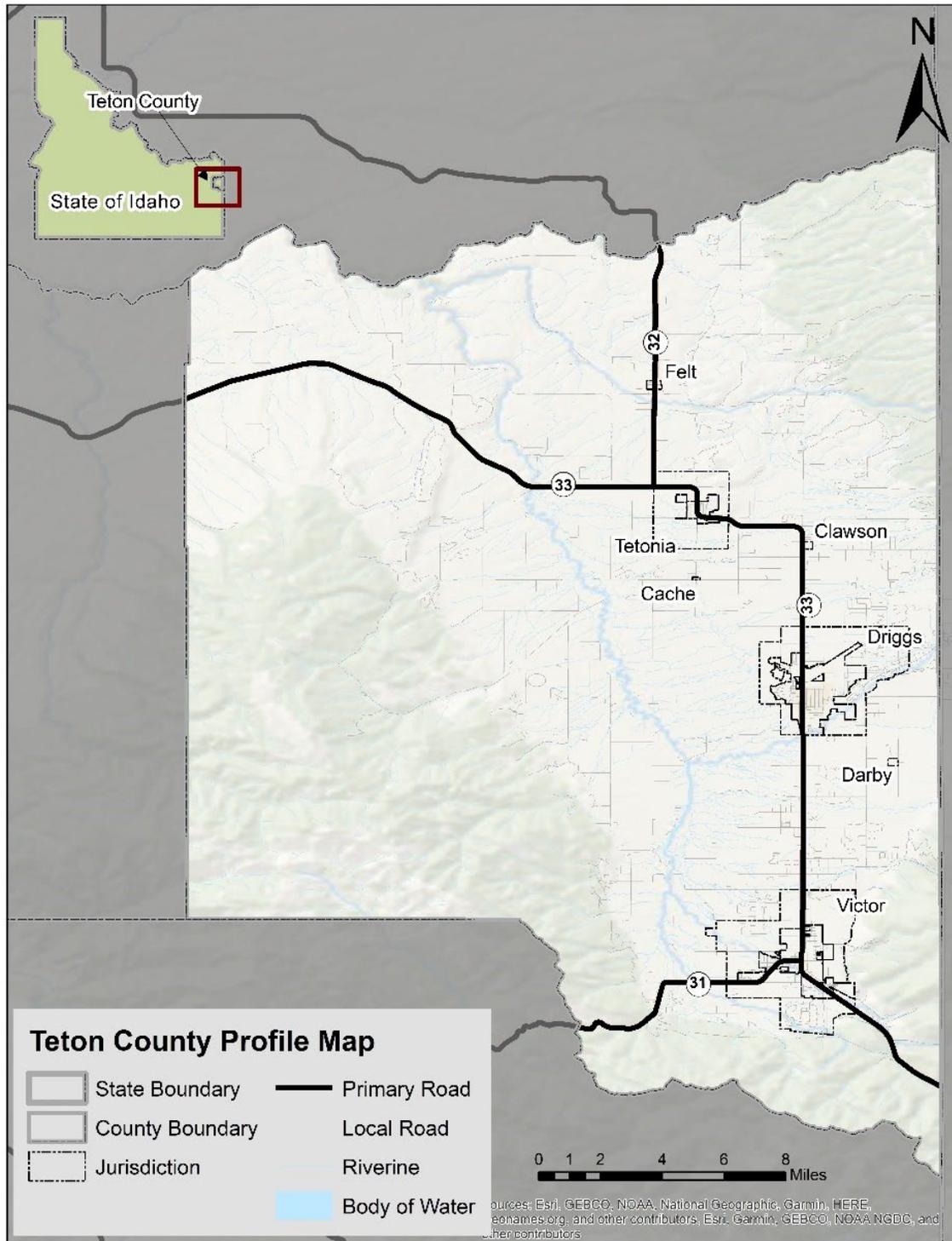
Section 3: Community Profile

Teton County ranks 27th among Idaho counties in population and 43rd in area. Incorporated cities include Driggs, Teton and Victor. Unincorporated areas include, but are not limited to Bates, Cache, Cedron, Chapin, Clawson, Clementsville, Darby, Felt, Fox Creek, Judkins, Sam, The String, Twin Forks, and Two Forks. Driggs is the County seat. Teton County is near the popular tourist locations of Jackson Hole, Wyoming and the Grand Targhee Ski Resort in Wyoming. Its proximity to these locations as well as the pristine landscape makes it ideal for many people who own second homes. The summertime residents and vacationers increase the total population by about 30-50%. Many workers in the County commute to Teton County, Wyoming for work and another small percentage commute elsewhere out of the County.

Location

Teton County is located in eastern Idaho. It is bordered on the north by Fremont County and Bitch Creek, on the east by Wyoming and the Teton Mountains, on the south by Bonneville County, and the west by Madison County. There are 450 square miles in Teton County.

FIGURE 3.1: County Profile

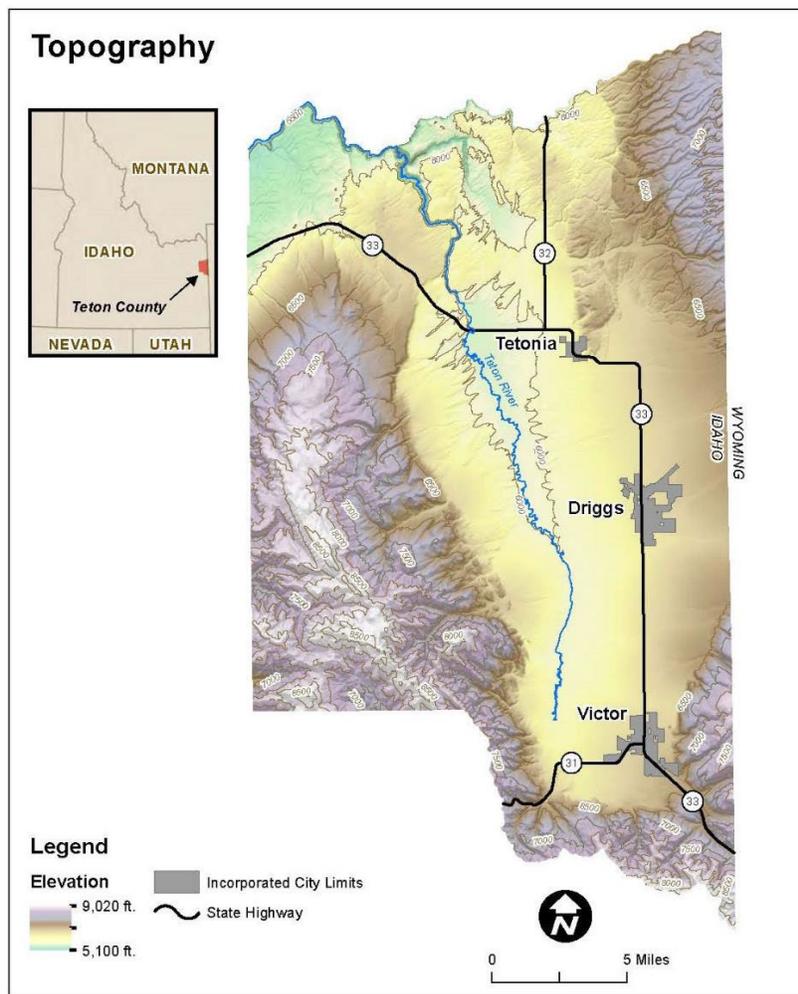


Topography and Geography

The topography in Teton County is comprised of parts of two mountain ranges and one valley. On the east side of the County is the Teton Range, which rises to a height of 12,605 at Mt. Moran; however, the border lies at the foothills of this range. On the southwest is the Big Hole Mountains (part of the Snake River Range) that rise to an elevation of 9,016 at Garns Mountain. The valley that lies between these mountain ranges is called the Teton Basin. The valley is about 15 miles wide in the central part, 8-10 miles wide at both ends and 30 miles long. The Teton River runs nearly its entire length from south to north. The elevation at Victor on the south end of the Teton Basin is 6,207.

Elevation slowly decreases northward toward Driggs, which sits at 6,116 and Tetonica at 6,060.

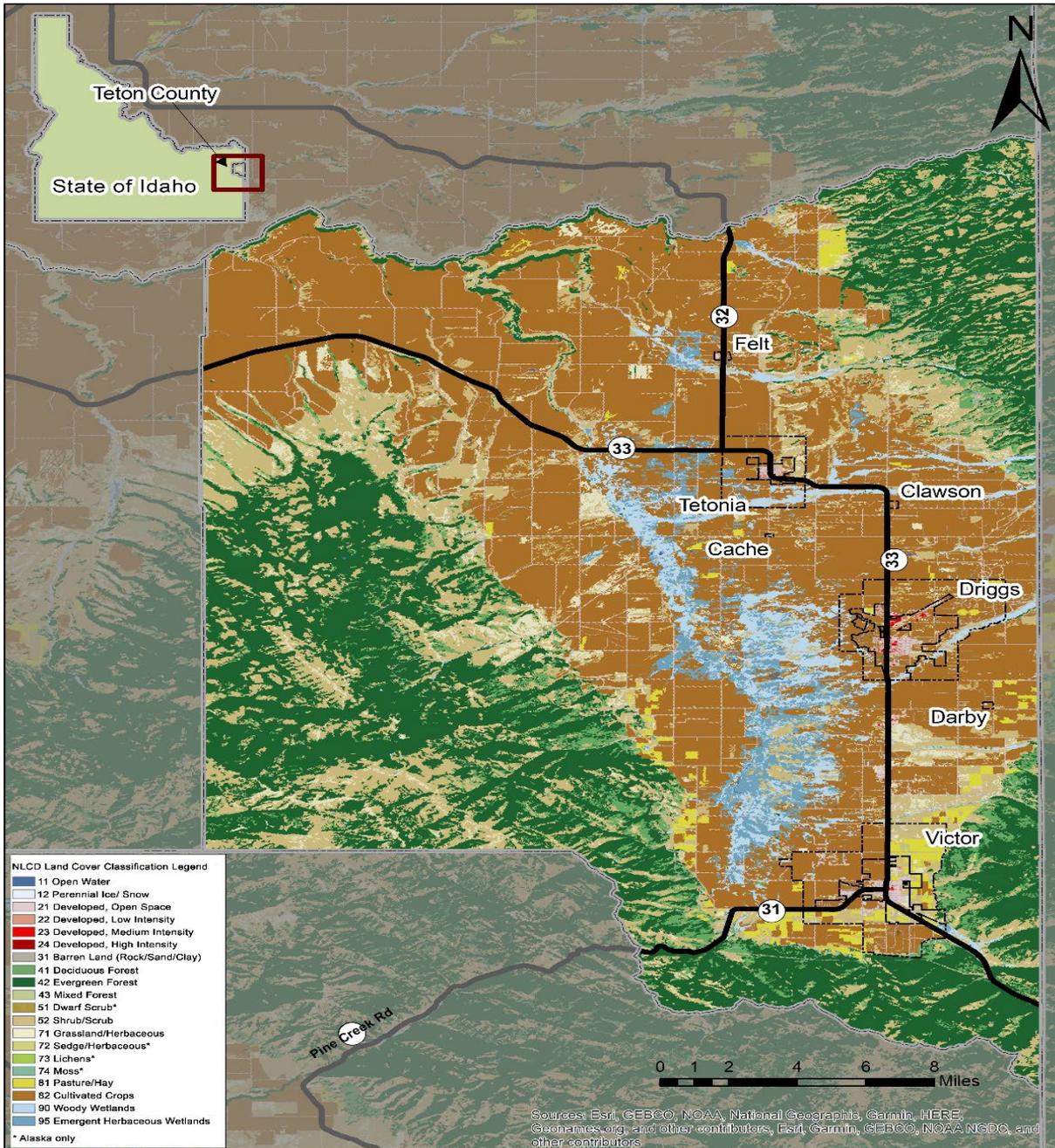
FIGURE 3.2: Topographical Map



Vegetation

Teton County is predominantly a high elevation valley habitat. There are riparian areas of grasses, sedges and low brushes on the valley floor. Sagebrush communities are common at lower elevations and on south or southwest facing slopes. The lower elevations transition to mixed conifer forests in most of the County with mixed fir at higher elevations on north and east aspects. Spruce/fir and Lodgepole pine forests are also common at higher elevations.

FIGURE 3.3: Land Cover



Geology

Most of the soils of the valley area formed in alluvium washed from the surrounding mountains. The alluvium was deposited as large, gently sloping, coalescing alluvial fans. As is usual with water-transported material, the sediments are coarser textured on the upper part of the alluvial fans and finer textured near the bottom of the valley. In many places, loess overlies the alluvium.

The alluvium is derived from rocks of different mineral composition, some of which comes from granite and gneiss of the Teton peaks. Other minerals include, mica flakes, sandstone, quartzite, rhyolite, limestone, dolomite, and other rocks. The northern section of the Big Hole Mountains as well as the northeast section of the County contains mostly felsic pyroclastic rock with mafic volcanic flow northwest of Teton. The southern section of the Big Hole Mountains is a mix of miogeosynclinal, carbonate, shale and mudstone.

There is at least one hot spring located in Teton County just west of Victor called Taylor Spring. It has a temperature of 68 degrees Fahrenheit.

Climate

The climate in Teton County consists of long cold winters and moderately warm summers. Snow cover is continuous on the valley floor for about 140 days each winter. Rain is common in the spring and early summer with dry spells late in summer and early autumn. Freezing weather can occur any month of the year. The prevailing wind in the Teton Valley is from the southwest and has a mean velocity of 10-15 mph.

July is the hottest month with January being the coldest month. Average daily high for the County is about 65 degrees Fahrenheit. Average annual precipitation is between 13.8 and 16.7 inches and average annual snowfall is 55 inches. The driest month is November, and the wettest month is June.

Table 3.1 shows the average maximums recorded at Driggs. Table 3.2 shows the average maximum temperature recorded at the Teton Experimental Station.

TABLE 3.1: Average Maximum Temperature at the Driggs, Idaho (1904 – 2021)

Average Maximum Temperature (F)												
Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
49.0	49.0	53.0	60.5	72.5	75.5	80.5	78.5	74.0	62.5	52.5	46.5	62.83

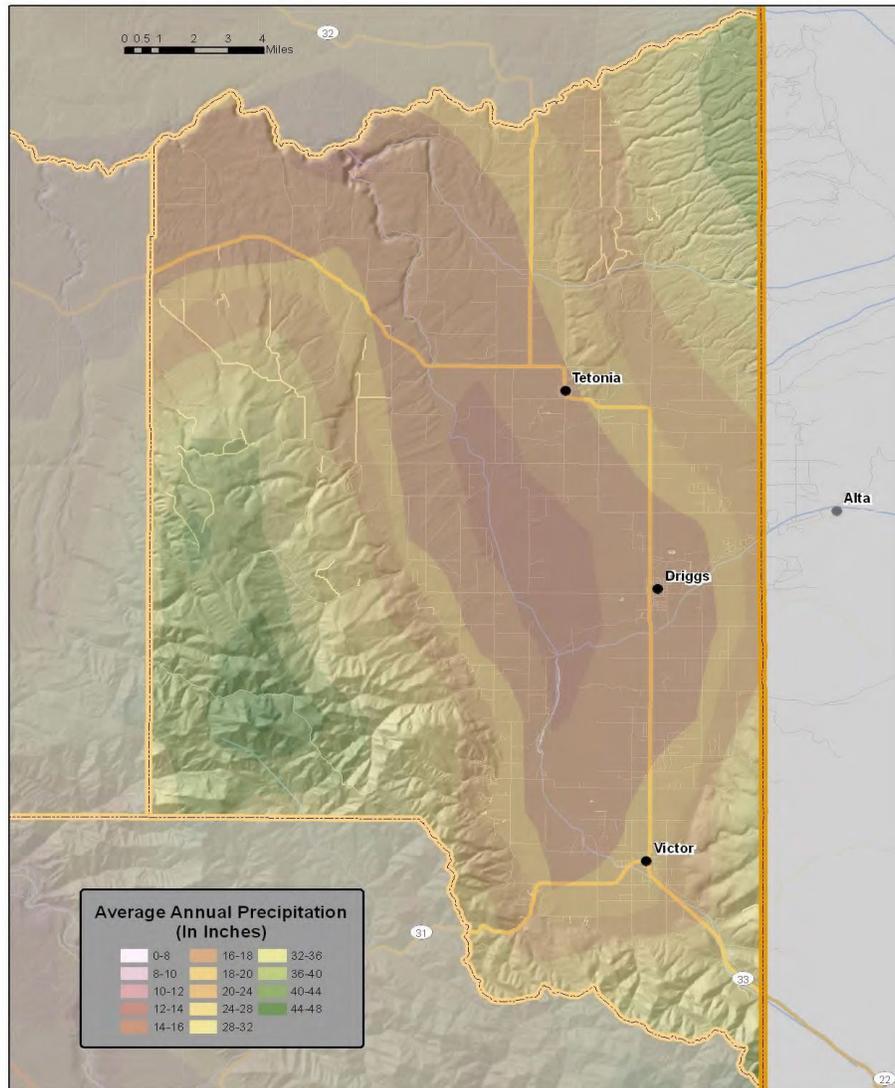
Source: <https://www.weather.gov/wrh/Climate?wfo=pih>

TABLE 3.2: Average Maximum Temperature at the Teton Experimental Station, Idaho (1949-2021)

Average Maximum Temperature (F)												
Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
42.5	45.5	51.5	61.0	71.0	74.0	78.0	76.0	73.0	64.0	56.0	44.5	67.58

Source: <https://www.weather.gov/wrh/Climate?wfo=pih>

FIGURE 3.4: Average Annual Precipitation in the County



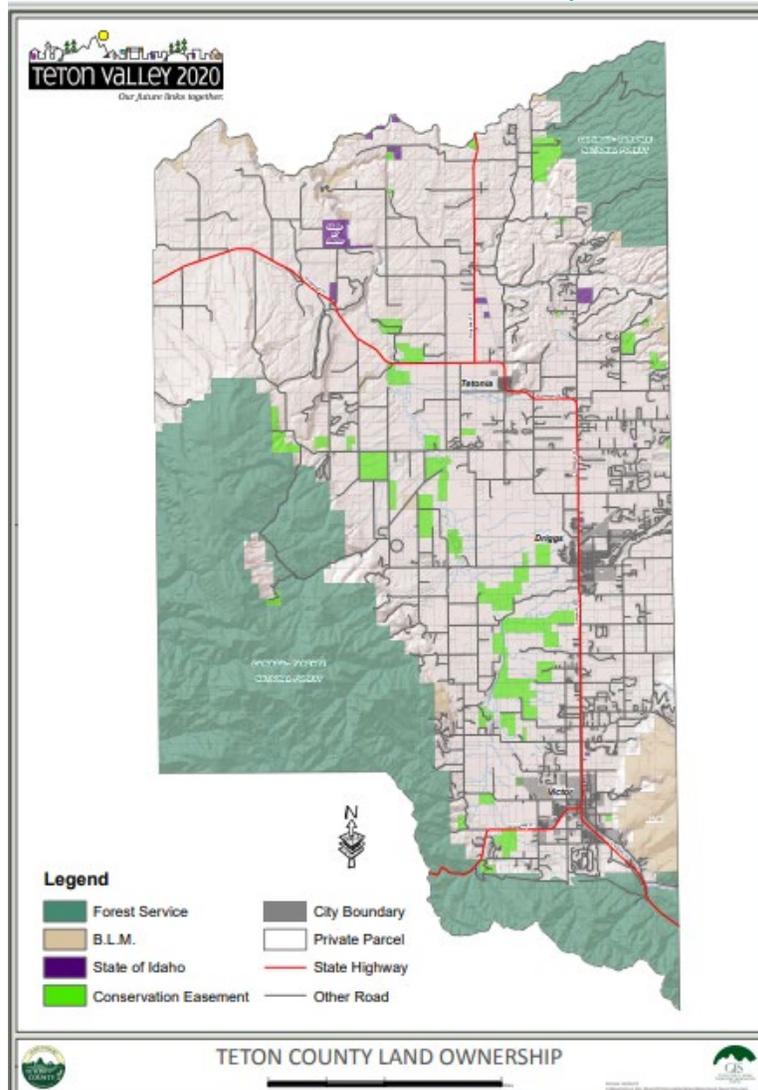
Land Ownership

The following data is related to development in unincorporated Teton County. This does not include areas within the city limits of Driggs, Victor, and Teton unless specifically noted.

TABLE 3.3: Land Ownership

Land Ownership	Area (acres)	% of Total
Total Area of County (including cities)	288,376	100%
Public Land (USFS, BLM, State, County)	95,923	33%
City Limits (Driggs, Victor, Teton)	4,128	1%
Agricultural Land	148,422	52%
Other	39,903	14%

FIGURE 3.5: Landownership



Source: http://www.tetoncountyidaho.gov/use_images/pdf/additionalInfo/Land_Ownership_web_version.pdf

Land Use and Natural Resources

Agriculture is the dominant land type in Teton County with 148,422 acres with Forest and Rangeland making up most of the remaining acres. Agriculture and Rangeland together make up over 70% of the total acres.

As of the 2017 census, there were 277 farms with a total of 117,404 acres. Average size of farms is 424 acres.

Recreation is also a very common land use in Teton County. Not only is Teton County adjacent to Teton County, Wyoming (home to Jackson Hole and Grand Teton National Park), but it also offers many outdoor recreational opportunities within its borders. Recreation and the scenic beauty of the area bring many visitors to Teton County during the summer and winter months.

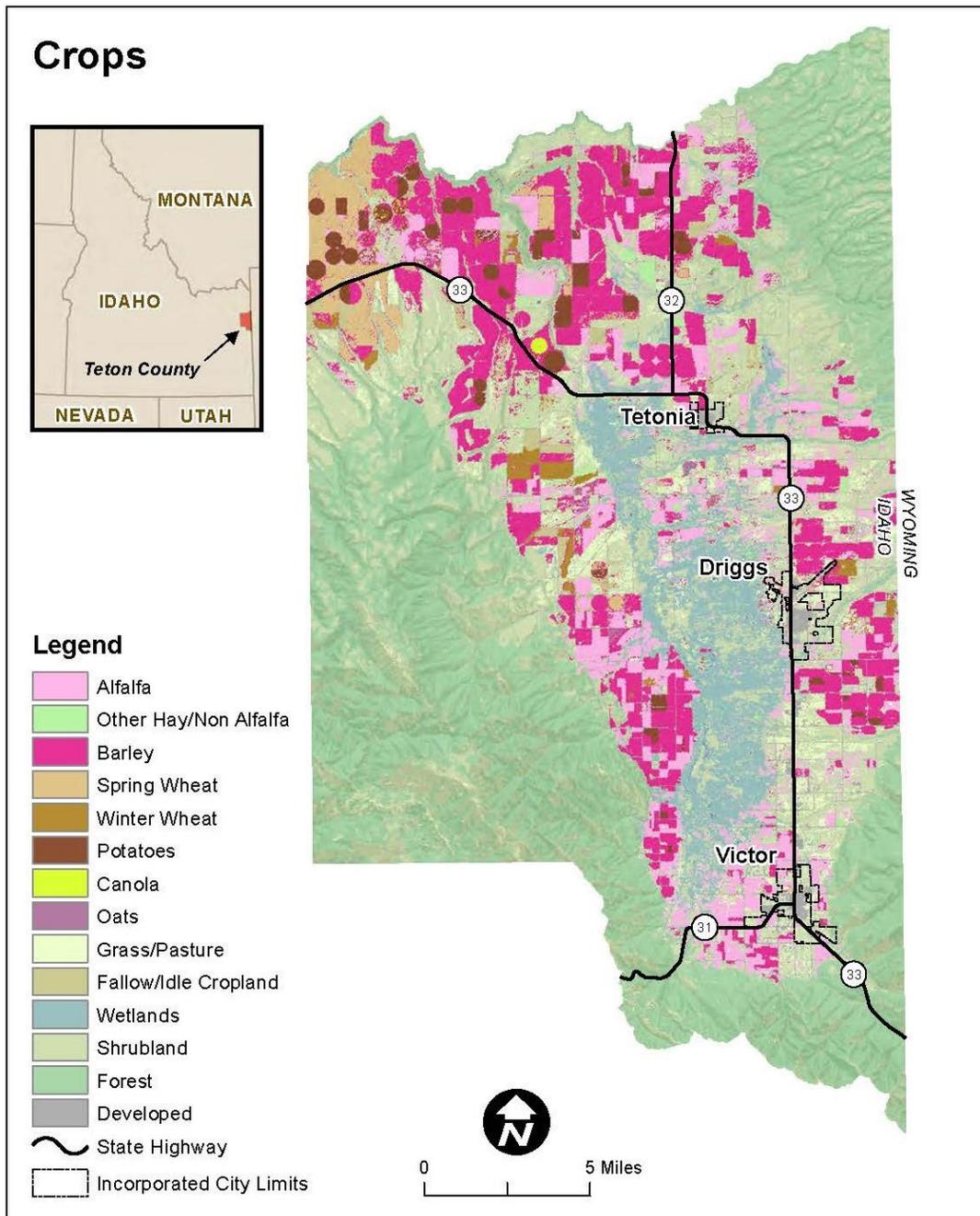
There are eight mines located in Teton County, seven of which are on Garns Mountain and one on Fourth of July Peak. However, none of them are active.

The primary extractable resources in Teton County are gravel and timber products.

Hazard Risk Impact & Mitigation Implications

The land use and natural resource distribution in the County has not changed significantly since the last update. While there are fewer farms, the change is not significant. Therefore, no additional hazard impacts are likely.

FIGURE 3.6: Crops



History

For about a quarter of a century, the Teton Valley was called “Pierre’s Hole” after Vieux Pierre, an Iroquios Indian trapper, found his way with some companion trappers into the valley in 1818. Prior to that, the valley was called the “Broad Valley” by some of the Indians in the area. John Colter was the first white man to enter the valley in 1808. The settlers of the Snake River Valley were the first to call the valley “Teton Basin” after the peaks of the Tetons which were named “Trois Tetons” by Canadian trappers.

The first permanent settlers arrived in the area in the mid 1880’s. Significant settlement began in 1888 with the settlement of what later became Driggs by a group of Mormon colonists from Salt Lake City. About that same time, Victor was settled by a group from Cache Valley (on the border of Idaho and Utah). Within a few years the valley was dotted with small farms and communities. In 1912, the Union Pacific Railroad completed a branch line to Driggs. In 1915, Teton County was created from portions of Madison, Fremont and Teton Counties and Driggs was named the County seat.

The City of Driggs was dedicated in 1909. Prior to that the closest town post office was near Rexburg, Idaho and the settlers in the Teton Valley had a difficult time knowing where to designate their address. B.W. Driggs saw the difficulty shortly after arriving in the valley in the spring of 1891; he at once drew up a petition to the postal department at Washington asking for a post office to be established in the Teton Valley. At the time, the majority of those who resided in the area were relatives of B.W. Driggs. The department in Washington, seeing so many by the name of Driggs named the post office the same. The land was entered as a desert entry by Henry Wallace and when he obtained title, he platted it, and on December 21, 1909 dedicated it as the town site of Driggs.

Demographics

Population Trends

Between 2010 and 2020, Teton County grew by 1,460 people. The County has attracted many second homeowners near the popular Wyoming tourist locations of Jackson Hole and Grand Targhee Ski Resort. Many employers and employees of Wyoming businesses commute from Teton County. With natural, pristine landscapes and close access to Jackson, Wyo., increases in population are expected to continue.

FIGURE 3.7: Population Growth Projections

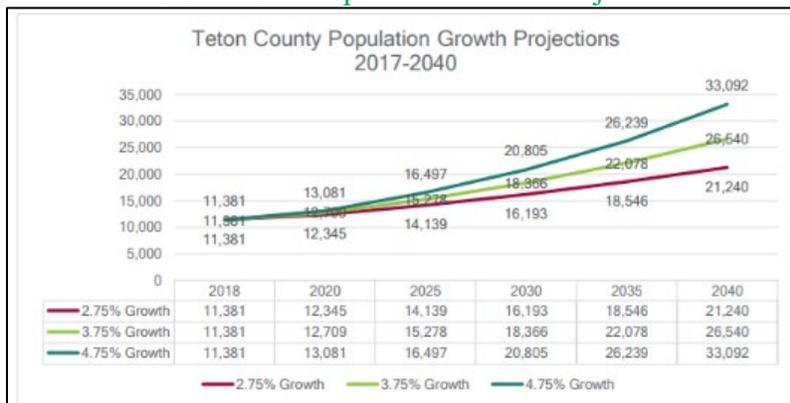


TABLE 3.4: Population Growth for Incorporated Cities in Teton County

Population Growth for Teton County						
	1990	2000	2005	2010	2020	% change 2010-2020
County	3,439	5,999	7,467	10,170	11,630	12.55%

Source: 2020 Census

The County is 100% rural with no large urban centers. The table below shows the racial and ethnic distribution of Teton County.

TABLE 3.5: Teton County Racial and Ethnic Distribution

Teton County Racial and Ethnic Distribution	
White persons	96.6
Black persons	0.5%
American Indian or Alaska Native	0.9%
Asian	0.6%
Native Hawaiian /Pacific Islander	0.2%
Persons reporting two or more races	1.4%
Persons of Hispanic or Latino origin	16.7%
White persons not Hispanic	81.3%

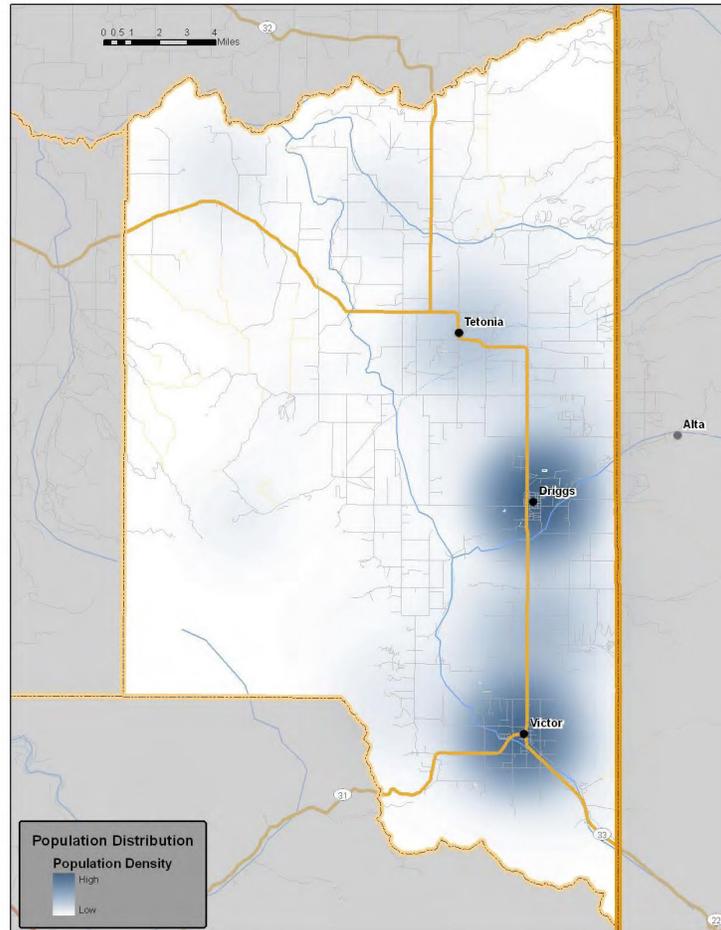
Source: 2020 Census

TABLE 3.6: Comparable Growth in Neighboring Counties

County	2000 Census	2010 Census	2020 Census	2010 - 2020 % change
Clark County, ID	1,022	982	790	-19.55%
Jefferson County, ID	19,155	26,140	30,891	15.38%
Madison County, ID	27,467	37,536	52,913	29.06%
Teton County, ID	5,999	10,170	11,630	12.55%
Teton County, WY	18,251	21,294	23,331	8.7%
Fremont County, ID	11,819	13,242	13,388	1.09%

Source: US Census

FIGURE 3.8: Population Density



It should also be noted that the population in the County is getting older. In 2010, the median age was 33.2, and in 2019 it was 36.8.

In 2019, the number of households was 3,707 with an average household size of 3.08. The home ownership rate was 77.7%.

Hazard Risk Impact & Mitigation Implications

Population trends suggest significant growth. As the County and its municipalities grow, building codes, land use policies, and other strategic plans must account for new development and growth, especially to deter development in hazard prone areas. Affordable housing for essential workers will also be a challenge, and is something the County is currently prioritizing.

Economic Profile

The primarily agricultural economy lasted through much of the 1900s. The loss of the freight railroad to the area in 1981 made it harder for farmers to send their crops to market. In the late 1990s, the economy began to shift to a recreation and real estate based economy. In 2010, 36% of the total personal income in Teton County was non labor income that funneled directly into household mailboxes and bank accounts in the form of retirement income, investment dividends, social security and other similar sources. Since then, much of the economic growth has been

based primarily on lifestyle provided by the area’s physical beauty and recreational opportunities. In 2019 the unemployment rate was 3.5%, compared to the US average of 6.0%.

Jobs

Much of the county’s employment is seasonal and depends on tourism, but officials are working toward more year-round employment. The five main industries are leisure and hospitality, trade, government, professional and business services and construction. State and local government jobs along with hospital and school employment make government the top employer. Trade, leisure and hospitality depend on the local and national tourism market.

Because so many Teton County residents commute to comparatively higher-paying jobs in Wyoming, the covered employment and wages for the county are essentially depressed since job and wage data are gathered at the place of work, not residence.

TABLE 3.7: Teton County Economic Overview

Civilian Labor Force (Dec 2021)	7,212
Unemployment Rate (Dec 2021)	1.2%
Median Household Income (2019)	\$74,216
Per Capita Personal Income (2020)	\$43,521
Poverty Rate (2019)	4.5%

FIGURE 3.9: Industry Employment and Wages

Supersector	2010		2019		2020	
	Average Employment	Average Wages	Average Employment	Average Wages	Average Employment	Average Wages
Total Covered Wages	2,594	\$29,723	3,543	\$37,372	3,531	\$40,433
Natural Resources and Mining	105	\$20,200	121	\$31,253	129	\$31,727
Construction	316	\$33,419	475	\$45,089	495	\$48,717
Manufacturing	114	\$27,098	144	\$32,714	128	\$35,188
Trade, Transportation, and Utilities	439	\$26,789	540	\$32,804	560	\$34,270
Information	69	\$37,816	55	\$68,459	69	\$77,968
Financial Activities	143	\$28,536	141	\$39,398	135	\$45,872
Professional and Business Services	300	\$40,487	413	\$49,150	444	\$46,473
Education and Health Services	493	\$33,512	601	\$41,262	573	\$45,429
Leisure and Hospitality	340	\$16,709	707	\$23,198	645	\$27,285
Other Services	91	\$27,905	149	\$32,970	160	\$33,608
Public Administration	178	\$33,674	189	\$47,906	186	\$51,890

Source: Idaho Department of Labor

FIGURE 3.10: Top Employers, 2020

Employer	Ownership	Range
Teton County School District	Local Gov	100 - 249
Broulim's Foodtown	Private	100 - 249
Teton County	Local Gov	50 - 99
Md Management & Landscaping	Private	50 - 99
Teton County Fire Protection district	Local Gov	10 - 49
High Range Designs	Private	10 - 49
Avail Valley Construction	Private	10 - 49
Blue Water	Private	10 - 49
Silver Star Telephone Company	Private	10 - 49
Barrels And Bins	Private	10 - 49

NOTE: Only employers that have given the Department permission to release employment range data are listed. Source: Idaho Department of Labor

Source: Idaho Department of Labor

Hazard Risk Impact & Mitigation Implications

The economic profile of the county has changed over the years. As tourism has grown due to the allure of the beautiful scenery the area has to offer, this has drawn new types of residents and tourists. Tourism and recreation have increased exposure of residents and visitors to the many hazards prevalent in the area. Additionally, as new residents build homes in the area, it becomes increasingly important to balance building codes and other land use ordinances, while still allowing residents to take advantage of the scenic conditions the Teton Valley has to offer.

Section 4: Risk Assessment

Hazard Risk Summary

Teton County recognizes that a community's All Hazard Risk Assessment is the fundamental building block of the four core functions of emergency management: prepare, respond, recover, and mitigate. In today's hazard environment, emergency management is the crux of solving the complex challenges that face our communities during an emergency or following a disaster. The disaster activity over the past several years has re-emphasized the importance for communities to invest in creating thorough strategies to develop comprehensive emergency plans and to test, train, and exercise all emergency operations.

The objective of the risk methodology is to devise a process to compare and evaluate which natural, technological, and political hazards are the greatest threats to the County and where mitigation actions should be focused to provide the best value to County. The All-Hazard Risk Assessment describes, analyzes, and assesses the risks facing the County from three categories of hazards: Natural, Technological, and Political. Natural hazards are those events that are a result of our surrounding environment, such as wildfires and flooding. Technological hazards are events that are a result of the failure of infrastructure and systems that we have become dependent on for daily activities, such as transportation networks or utilities. Political hazards are

those events that are a result of local, national, or international societal interactions, such as terrorism or civil disturbances.

Each hazard category will elaborate upon and define the different types of hazards that are associated with each, identify historical events that have occurred locally and/or regionally, define the hazard profiles, parameters, and characteristics; assess possible vulnerabilities; determine probable scenarios; and model select hazards. The hazards investigated were identified through extensive research that utilized input from Teton County, Federal Emergency Management Agency (FEMA), State of Idaho Hazard Mitigation Plan, hazard experts, historical occurrences, Geographic Information System databases, and hazard specific data such as Flood Insurance Maps.

Disasters Are Not Isolated Events

Past disaster events, both natural and manmade, indicate that disasters cannot be viewed or solved as isolated instances. In other words, the rising number of disasters and ensuing damages, including human losses, can be viewed as “symptoms of broader and more basic problems”. These problems stem from the intricate relationships society shares with both the natural and constructed environments.

According to Dr. Denis Mileti:

“Many disaster losses – rather than stemming from unexpected events – are the predictable result of interactions among three major systems: the physical environment, which includes hazardous events; the social and demographic characteristics of the communities that experience them; and the buildings, roads, bridges, and other components of the constructed environment”.

Source: Mileti, Denis (1999). Disasters by Design. Joseph Henry Press: Washington DC.

Dr. Mileti’s findings demonstrate that these destructive events must be understood and assessed from a holistic point of view, and that current and future solutions for reducing damages and human losses must acknowledge that disasters occur at the intersection between the physical environment, social community characteristics, and the constructed environment. While the escalating losses from disasters will continue to result in part from the continuing expansion of the constructed environment, it can also be attributed to the fact that “all these systems – and their interactions – are becoming more complex with each passing year”.

Many of the hazards in the Risk Assessment do not pose a significant risk because of their low-probability of occurring or minimal impact; however, these hazards are still addressed in this report. Hazards that were determined to not occur in Idaho were removed from the Risk Assessment.

Hazard Profile

Each hazard profile is broken down into four (4) sections: 1) Hazard Description; 2) Historical Frequencies; 3) Impacts; 4) Loss Estimates.

1. Hazard Description

The description gives an overarching picture of the hazard.

2. Historical Frequencies

This section describes how often the hazard has occurred. The National Climatic Data Center was used to populate this section for many natural hazards. If there were no previous examples of this hazard affecting the County, or the County was only minimally affected, other geographical areas were considered, including State, National and in some cases, International locations.

3. Impacts

Differences in the hazard's impact area, amount and severity of damage, duration of the event, and direct and indirect economic impacts make it difficult to develop empirical values that can be universally applied to each hazard category. Therefore, the risk methodology developed was based on a function of the probability of the event occurring and its potential impact. Each hazard risk assessment went through a review process involving a Planning Committee consisting of local representatives. The risk associated with each hazard was evaluated based on the hazard's probability and frequency of occurrence, consequences of past events, and potential damage to the physical vulnerabilities (i.e. critical infrastructure, building stock, etc.), social vulnerabilities (i.e., special populations, socio-economic conditions), and community conditions (i.e. community organizations, environment, government) of the County.

4. Loss Estimates

When possible, loss estimates were assigned to each hazard.

Limitations

The analysis of hazards is complicated by a number of factors including laws, customs, ethics, values, attitudes, political preferences, complex infrastructures and the built environment. The hazard analysis developed for the County's Hazard Mitigation Plan should be considered an initial step to evaluate the community's hazards. A hazard analysis does provide a wealth of valuable information that is essential for identifying goals, prioritizing actions, planning and preparedness, and recovering and mitigating future hazards.

The assessment of data and identifying the risk to a community is not a hard science. It is not possible to predict hazards or their impacts. Hazard analysis data and conclusions are not absolute. The perception of what constitutes a risk and a judgment of its impact can differ from individual to individual. The changing natural, built, or societal environments can have a significant effect on each hazard assessment. For this reason, it is important to periodically update this document. A hazard risk assessment does provide a guide to evaluate Teton County's risks and guide the mission of protecting their members and interests.

Hazard Loss Modeling

To supplement the impact analysis and risk determination, a hazard loss model and analysis was performed for select scenarios of each hazard category. The scenarios selected were based on historical occurrences of disasters, availability of data, and the severity of the hazard risk. The hazard loss analysis process utilized Hazards U.S. Multi Hazard (HAZUS-MH) modeling, Geographic Information Systems (GIS) analysis, and historical disaster data and information to conduct quantitative analysis to estimate the loss due to the selected natural, technological and political hazard events. HAZUS-MH is a powerful risk assessment software program for analyzing potential losses from floods and earthquakes. In HAZUS-MH, current scientific and engineering knowledge is coupled with the latest (GIS) technology to produce estimates of hazard related

damage before, or after, a disaster occurs. The analysis reports obtained from the HAZUS-MH model includes the following:

- Estimation of the losses to structures and contents
- Estimation of the losses to structure use and function
- Projection of human losses
- Estimation of the primary direct and indirect loss

Many of the human-induced hazards provide some unique implications for loss estimation because these events can take place with different magnitudes, in any location, at any time, and under various circumstances. Because the characteristics of many of the human-induced events are not definitive, a generalized loss analysis was conducted.

Risk ASSESSMENT Methodology

Probability of Occurrence

The probability of occurrence of a hazard is indicated by a probability factor based on the likelihood of annual occurrence:

- **High**—Significant hazard event is likely to occur annually (Probability Factor = 3)
- **Medium**—Significant hazard event is likely to occur within 25 years (Probability Factor = 2)
- **Low**—Significant hazard event is likely to occur within 100 years (Probability Factor = 1)
- **Unlikely**—There is little to no probability of significant occurrence, or the recurrence interval is greater than every 100 years (Probability Factor = 0)

The assessment of hazard frequency is generally based on past hazard events in the area. The table below summarizes the probability assessment for each hazard of concern for this plan.

Impact

Hazard impacts were assessed in five categories: population exposure, catastrophic potential of the hazard, property damages, property exposure, and economic potential of the hazard. Numerical impact factors were assigned as follows:

- **Population Exposed**—Values were assigned based on the percentage of the total population exposed to the hazard event. The degree of actual impact on individuals from any hazard event can vary widely, so the calculation assumes for simplicity and consistency that all people exposed to a hazard because they live in a hazard zone will be equally impacted when a hazard event occurs.
 - *High*—30% or more of the population is exposed to a hazard (Impact Factor = 3)
 - *Medium*—15% to 29% of the population is exposed to a hazard (Impact Factor = 2)
 - *Low*—14% or less of the population is exposed to the hazard (Impact Factor = 1)
 - *No impact*—None of the population is exposed to a hazard (Impact Factor = 0)
- **Property Exposed**—Values were assigned based on the percentage of the total property value exposed to the hazard event:
 - *High*—25% or more of the total assessed property value is exposed to a hazard (Impact Factor = 3)

- *Medium*—10% to 24% of the total assessed property value is exposed to a hazard (Impact Factor = 2)
- *Low*—9% or less of the total assessed property value is exposed to a hazard (Impact Factor = 1)
- *No impact*—None of the total assessed property value is exposed to a hazard (Impact Factor = 0)
- **Property Damages**—Values were assigned based on the expected total property damages incurred from the hazard event. It is important to note that values represent estimates of the loss from a major event of each hazard based on historical data for each event or probabilistic models/studies.
 - *High*—More than \$5,000,000 in property damages is expected from a single major hazard event, or damages are expected to occur to 15% or more of the property value within the jurisdiction (Impact Factor = 3)
 - *Medium*—More than \$500,000 but less than \$5,000,000 in property damages is expected from a single major hazard event, or expected damages are expected to occur to more than 5% but less than 15% of the property value within the jurisdiction (Impact Factor = 2)
 - *Low*—Less than \$500,000 in property damages is expected from a single major hazard event or less than 5% of the property value within the jurisdiction (Impact Factor = 1)
 - *No impact*—Little to no property damage is expected from a single major hazard event (Impact Factor = 0)
- **Economic Factor**—An estimation of the impact, expressed in terms of dollars, on the local economy is based on a loss of business revenue, worker wages, and local tax revenues or on the impact on the local Gross Domestic Product (GDP).
 - *High*—Where the total economic impact is likely to be greater than \$10 million (Impact Factor = 3)
 - *Medium*—Total economic impact is likely to be greater than \$100,000 but less than or equal to \$10 million (Impact Factor = 2)
 - *Low*—Total economic impact is not likely to be greater than \$100,000 (Impact Factor = 1)
 - *No impact*—Virtually no significant economic impact (Impact Factor = 0)
- **Catastrophic Factor**—The potential that an occurrence of this hazard could be catastrophic.
 - *High*—High potential that this hazard event could be catastrophic (Impact Factor = 3)
 - *Medium*—Medium potential that this hazard event could be catastrophic (Impact Factor = 2)
 - *Low*—Low potential that this hazard event could be catastrophic (Impact Factor = 1)
 - *Unlikely*—Virtually no potential that this hazard event could be catastrophic (Impact Factor = 0)
- **Future Development Factor**—The potential that future development will have on increasing the risk of this hazard.
 - *High*—Future development trends will significantly increase the risk of this hazard (Impact Factor = 3)

- *Medium*— Future development trends will increase the risk of this hazard, but not significantly (Impact Factor = 2)
- *Low*— Future development trends will minimally increase the risk of this hazard (Impact Factor = 1)
- *Unlikely*—Future development trends will not increase the risk of this hazard (Impact Factor = 0)

Each category was assigned a weighting factor to reflect its significance, consistent with those typically used for measuring the benefits of hazard mitigation actions: a weighting factor of 3 for both populations exposed to the hazard and its potential for catastrophe; a weighting factor of 2 for property damages probable due to a major hazard event; and a weighting factor of 1 for both property exposed to the hazard and its impact on the economy.

Overall Risk Scores for Teton County

The following tables represent the new overall risk scores for Teton County based on the described methodology. Following a data-driven quantitative assessment, the planning team utilized subject matter knowledge and expertise and further refined the scores.

TABLE 4.1: 2022 Hazard Risk Scores for Teton County

Hazard Event	Probability Factor	Sum of Weighted Impact Factors	Total (Probability x Impact)
Earthquake	3 (H)	31 (H)	93 (H)
Wildfire	3 (H)	28 (H)	84 (H)
Utility Disruption	3 (H)	26 (H)	78 (H)
Severe Winter Storm	3 (H)	25 (M)	75 (H)
Public Health	3 (H)	24 (M)	72 (M)
Cybersecurity	3 (H)	22 (M)	66 (M)
Droughts	2 (M)	26 (H)	52 (M)
Structural Fire	3 (H)	16 (M)	48 (M)
Extreme Cold	2 (M)	24 (M)	48 (M)
Air Quality	3 (H)	15 (L)	45 (M)
River or Stream Flooding	2 (M)	22 (M)	44 (M)
Avalanche	3 (H)	14 (L)	42 (M)
High Wind Event	2 (M)	20 (M)	40 (M)
Hazardous Materials	2 (M)	20 (M)	40 (M)
Animal Related Incidents	3 (H)	13 (L)	39 (L)
Dam Failure	2 (M)	17 (M)	34 (L)
Lightning	3 (H)	11 (L)	33 (L)
Hail	2 (M)	16 (M)	32 (L)
Water Quality	2 (M)	16 (M)	32 (L)
Volcanic Eruption / Ashfall	1 (L)	30 (H)	30 (L)
Vector- Borne Disease	2 (M)	15 (L)	30 (L)
Major Transportation Incident	2 (M)	15 (L)	30 (L)
Nuclear Event	1 (L)	30 (H)	30 (L)
Terrorism	1 (L)	26 (H)	26 (L)

Flash Flood	1 (L)	15 (L)	15 (L)
Animal Disease	2 (M)	7 (L)	14 (L)
Tornado	1 (L)	13 (L)	13 (L)
Riot / Demonstration / Civil Disorder	1 (L)	12 (L)	12 (L)
Landslide / Mudslide	1 (L)	11 (L)	11 (L)

Legend

Probability Factor		Sum of Weighted Impact Factors		Total Risk Score	
1	Low (L)	0-15	Low (L)	0-39	Low (L)
2	Medium (M)	16-25	Medium (M)	40-74	Medium (M)
3	High (H)	26-31	High (H)	75-100	High (H)

**The legend – specifically the assignment of low, medium, and high -- provides an additional means to qualitatively assess the probability factor, sum of weighted impact factors and the total risk scores for each hazard.*

TABLE 4.2: 2016 Hazard Risk Scores for Teton County

Severe Winter Storm	High
Flooding	Moderately High
Earthquake	Moderately High
High Wind Event	Moderately High
Extreme Cold	Moderately High
Public Health	Moderately High
Structural Fire	Moderately High
Drought	Moderately Low
Hail	Moderately Low
Utility Disruption	Moderately Low
Wildfire	Moderately Low
Hazardous Material Event	Moderately Low
Lightning	Moderately Low
Avalanche	Moderately Low
Animal Disease	Moderately Low
Major Transportation Incident	Moderately Low
Volcanic Eruption/Ashfall	Moderately Low
Animal Related Accidents	Moderately Low
Cybersecurity	Moderately Low
Vector-Borne Disease	Moderately Low
Riot/Demonstration/Civil Disorder	Moderately Low
Tornado	Low
Terrorism	Low
Nuclear Event	Low
Landslide/Mudslide	Low

4.1 Animal Disease

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

This hazard affects every community in Teton County.

Hazard Description

Animal disease outbreaks are hazardous for two main reasons: the disease may be transmissible to humans (zoonotic disease), or the disease may kill large portions of animal herds, straining the food supply chain for human consumption and driving up prices. Zoonotic outbreaks tend to garner more attention due to their threat to human life.

According to the Pan American Health Organization, any disease or infection that is naturally transmissible from vertebrate animals to humans and vice-versa is classified as a zoonosis. The causative agent classifies the hundreds of zoonotic diseases; agents include bacteria, parasites, viruses, fungi, or unconventional agents. Out of all known human pathogens, 60% are zoonotic, and 75% of emerging infectious diseases in humans have been traced back to animal origin. The 13 most important zoonoses, in terms of their impact on human death, the livestock sector, and disease severity, have been identified as: zoonotic gastrointestinal disease, leptospirosis, cysticercosis, zoonotic tuberculosis (TB), rabies, leishmaniasis, brucellosis, echinococcosis, toxoplasmosis, Q fever, zoonotic trypanosomiasis (sleeping sickness), hepatitis E, and anthrax. Other notable zoonoses include rabies, salmonella, Lyme disease, and roundworms, influenza, bubonic plague, HIV/AIDS, West Nile virus and Ebola.

FIGURE 4.1.1: Zoonotic Disease

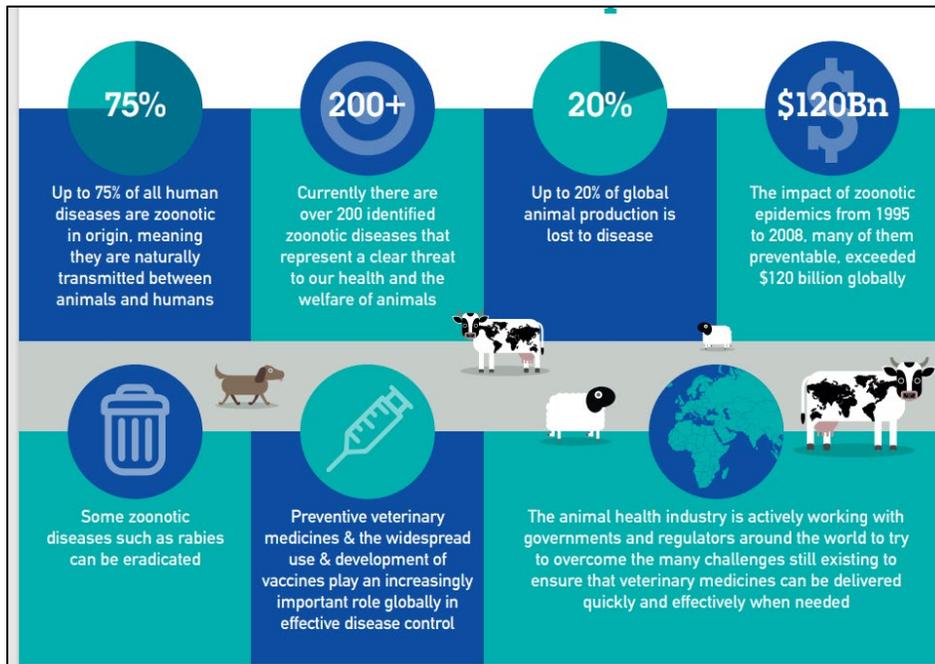
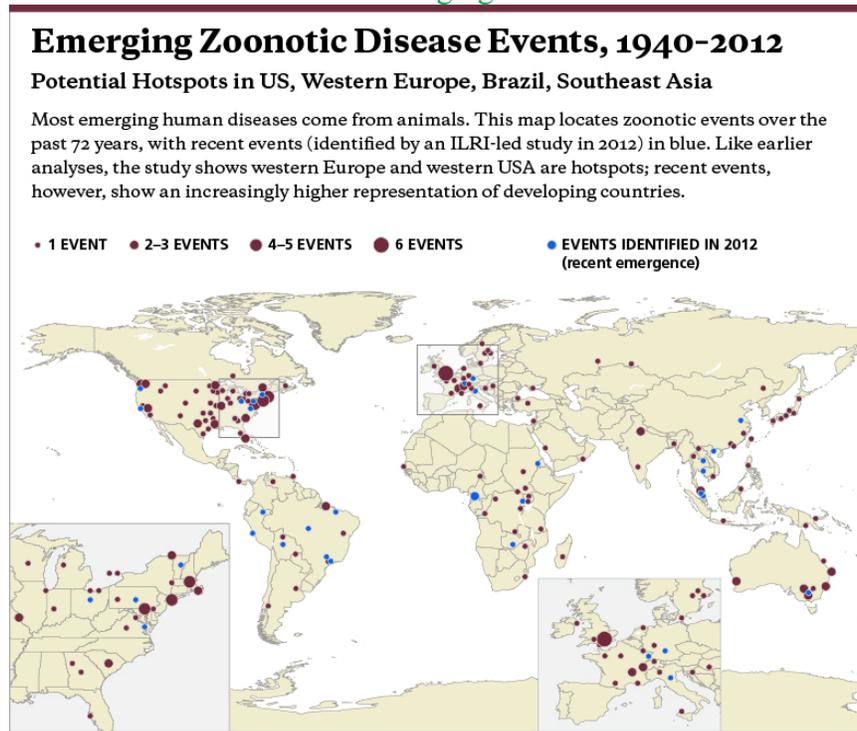


FIGURE 4.1.2: Emerging Zoonotic Disease



Source: UNEP 2016 Report [represents the most recent figure]

Location

According to the Idaho State Department of Agriculture, Idaho has nearly 25,000 farms and ranches. Agriculture is the single largest contributor to Idaho's economy, accounting for 18% of Idaho's total economic output (agri.idaho.gov). The entire county, specifically those who own animals, are susceptible to animal disease.

Extent

Direct factors to animal disease are bacteria, viruses, and nutritional deficiencies. Cases can range from isolated to entire animal populations being eradicated. Animal to human transmission would be catastrophic.

Historical Frequencies & the Probability of Future Occurrences

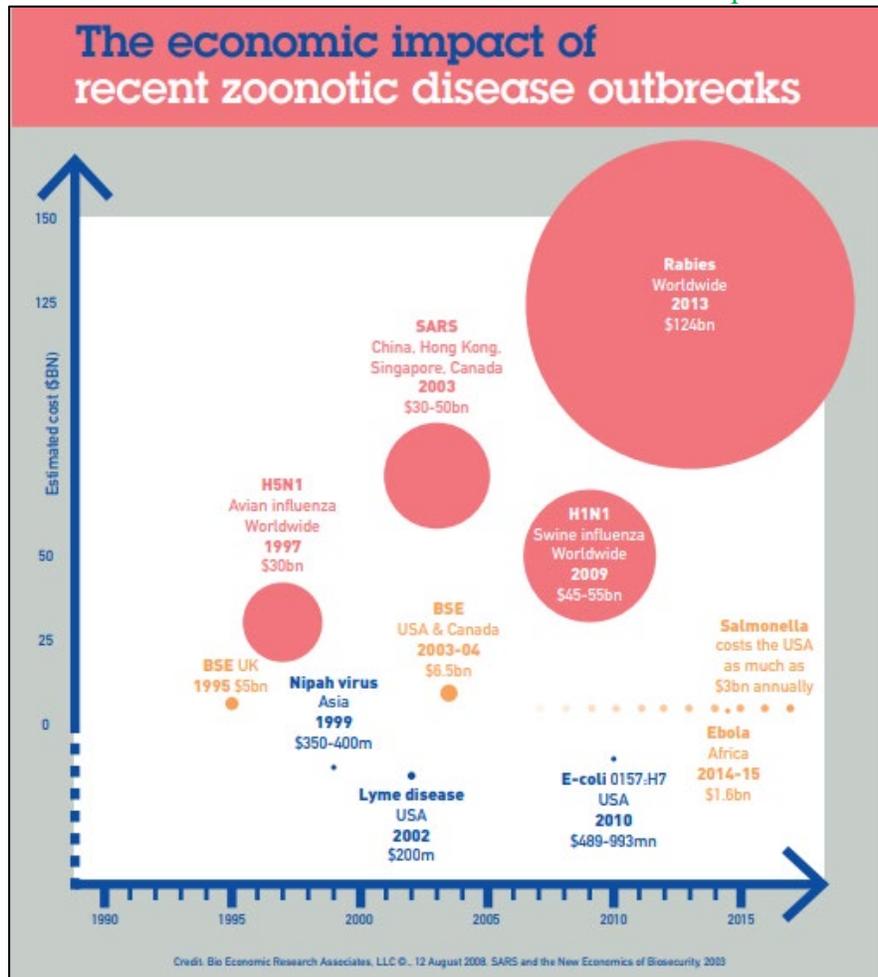
Animal diseases have always posed a threat to animal and human populations. A few recent animal diseases include:

- **Mad Cow Disease** (Peak: January 1993): First discovered in 1986 in the United Kingdom, Mad Cow Disease (bovine spongiform encephalopathy or BSE) fatally attacks the central nervous system of cattle. At its peak, 1,000 new cases were being reported per week in the UK. It is spread through the consumption of infected brain and spinal cord material to other cattle and can also be spread to humans in the same manner. When present in humans, the disease causes a fatal brain disorder called variant Creutzfeldt-Jakob disease (vCJD). Hundreds of thousands of cases of BSE have been confirmed in cattle, and more than 220 cases of vCJD have been confirmed in humans since the beginning of the outbreak.
- **Porcine Epidemic Diarrhea virus (PEDv)** (2013-2014): First identified in 2013, PEDv has killed up to 7 million pigs in 30 states (10% of the U.S. hog population) and prices have reached all-time highs (as of May 2014, the price was \$113.75 per hundredweight). Farms began reporting secondary outbreaks of the disease in May 2014 amid concerns about the stability of pork production. Approximately 30% of farms hit by PEDv in 2013 are expected to experience a second outbreak. PEDv was fatal to nearly all piglets born during the first outbreak, and appears to be fatal to 30% of piglets in the second wave. According to the U.S. Department of Agriculture (USDA), the disease does not pose a risk to human health and is not a food concern.
- **SARS & MERS** (2002-2003, 2012-2014): Severe Acute Respiratory Syndrome (SARS) and the Middle East Respiratory Syndrome (MERS) are both caused by the coronavirus (which also causes the common cold). Unknown before 2002, SARS infected over 8,000 people and caused 774 deaths. The pathogen is believed to have come from bats. Although from the same coronavirus family as SARS, MERS is suspected to have come from camels. Circulating in the Arabian Peninsula since 2012, MERS has infected at least 262 people in 12 countries and caused at least 93 deaths.

Impacts

Impacts include loss of life (zoonotic) and significant economic hardship to livestock owners.

FIGURE 4.1.3: Zoonotic Disease Economic Impact



Loss Estimates

While losses, specifically to livestock owners, have occurred in the County, estimated losses (in dollars) have not been recorded, and are therefore unavailable.

4.2 Avalanche

Hazard Overview	
Location:	Countywide, but mostly in unincorporated areas
Probability/Previous Occurrences:	High
Impact/Consequence:	Low
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Low	Low	Low

The jurisdictions of Tetonia, Driggs, and Victor have a low overall risk to this hazard.

Hazard Description

Snow avalanches are common in mountainous terrain where heavy snowfall accumulates on steep slopes. Avalanches generally occur on slopes between 30 and 45 degrees with 38 degrees being the “ideal” slope for development of avalanche conditions. They are often categorized as either “loose snow” or “slab” types. A loose snow avalanche is initiated when snow is dislodged at a point upslope and, in turn, dislodges more snow as it moves downward. Such avalanches usually grow wider and larger as they proceed but are usually somewhat limited in size. The generally more dangerous slab avalanche occurs when a cohesive mass of snow breaks free and moves downward, either as a single unit, or breaking into smaller pieces traveling together. Four factors combine to produce a slab avalanche: 1) a large mass of snow that is cohesive as a result of a single, large snowfall, or some physical change due to temperature, introduction of water content, or other factors, 2) some source of instability or weakness that forms a boundary capable of breaking free, 3) a surface, called a sliding layer, upon which the slab may easily slide and, 4) a triggering event, such as increased weight, strong vibration, wind, or a temperature increase, that overcomes the binding forces at, or further weakens the boundary of instability. (It is estimated that around 90% of avalanches where victims are involved are triggered by their victims or those who accompany them.)

Avalanches are comprised of three zones – the release zone where the mass breaks free and accelerates, the track where the mass travels downward at a relatively constant speed (often approaching 80 mph), and the runout zone where the mass slows and comes to rest. While the exact moment of an avalanche cannot be predicted, avalanche conditions are readily recognizable and avalanches tend to recur on the same slopes year after year.

Location

Snow avalanches can occur countywide but primarily happen in the back country of Teton County and primarily on Federal lands.

Extent

The North American Avalanche Danger Scale is a tool used by avalanche forecasters to communicate the potential for avalanches to cause harm or injury to backcountry travelers.

FIGURE 4.2.1: Avalanche Danger Scale

North American Public Avalanche Danger Scale		
Avalanche danger is determined by the likelihood, size and distribution of avalanches.		
Danger Level		Travel Advice
5 Extreme		Avoid all avalanche terrain.
4 High		Very dangerous avalanche conditions. Travel in avalanche terrain not recommended.
3 Considerable		Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.
2 Moderate		Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify features of concern.
1 Low		Generally safe avalanche conditions. Watch for unstable snow on isolated terrain features.
No Rating		Watch for signs of unstable snow such as recent avalanches, cracking in the snow, and audible collapsing. Avoid traveling on or under similar slopes.
Safe backcountry travel requires training and experience. You control your own risk by choosing where, when and how you travel.		

Historical Frequencies & the Probability of Future Occurrences

The table below provides a listing of the avalanches that have occurred in Teton County over the past 100 years where there was an injury or loss of life.

Table 4.2.1: Avalanche Incidents with Injury or Fatality

Place	Date	Event	Details	Reported Damage
Victor	1/23/1912	Avalanche	Snow slide in Trail Creek Area	Killed one man, injured another
Victor	3/12/2002	Avalanche	Big Hole Mountain near Victor	16-year-old snowmobiler killed
Steve Baugh Bowl	12/19/2002	Avalanche	Skier triggered avalanche.	Skier injured
Darby Canyon	1/4/2003	Avalanche	Snowmobiler triggered avalanche	Snowmobiler injured
Garns Mountain, Big Hole Range	1/30/2010	Avalanche	Snowmobiler fatality	Snowmobiler fatality

Big Hole Mountains	04/01/2020	Avalanche	Snowboarder fatality	28- year- old snowboarder killed and the rescue beacon was turned off
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Impacts

It is common for avalanche impacts to be somewhat limited. In the case of Teton County, avalanches are the largest threat to roadways and related infrastructure. Because avalanches usually occur in remote areas, the most frequent victims are recreational users of the slopes on which they occur. Of those who die in avalanches, approximately one third of the deaths are a result of trauma while the remaining two thirds are from suffocation. Trauma may be the result of being carried into obstructions such as boulders and trees or over cliffs, or from rocks, trees or large chunks of snow being carried downward at high speed. Avalanches may also damage or destroy structures, break power lines, block roadways and railroads, and damage trees and vegetation.

Loss Estimates

Snow avalanches occur primarily in the back country of Teton County and primarily on Federal lands. As with landslides, losses from snow avalanches come from damage to roadways and the resulting snow and debris removal costs. Teton County has approximately 89 miles of roadway that are in areas prone to snow avalanches.

Four (4) deaths from avalanches in Teton County and many more in neighboring counties.

The Teton Pass area has the County’s highest avalanche risk. This area attracts many recreationists in the winter. Snowmobilers are at a higher risk than other recreationists because of the noise and weight associated with snowmobiles.

Repetitive Loss – Avalanches do occur repetitively on the Teton Pass in neighboring Teton County, Wyoming and in the back country. The repetitive nature of the loss is the cost of cleanup of the snow and debris on the highway. Dollar values for the cost of cleanup are not available.

4.3 Dam Failure

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

No cities would be impacted by dam failure. Dam failure only affects a small part of the County.

Hazard Description

Dam failure is the unintended release of impounded waters. Dams can fail for one or a combination of the following reasons:

- Overtopping caused by floods that exceed the capacity of the dam.
- Deliberate acts of sabotage.
- Structural failure of materials used in dam construction.
- Poor design and/or construction methods.
- Movement and/or failure of the foundation supporting the dam.
- Settlement and cracking of concrete or embankment dams.
- Piping and internal erosion of soil in embankment dams.
- Inadequate maintenance and upkeep.

Failures may be categorized into two types; component failure of a structure that does not result in a significant reservoir release, and uncontrolled breach failure that leads to a significant release. With an uncontrolled breach failure of a manmade dam there is a sudden release of the impounded water, sometimes with little warning. The ensuing flood wave and flooding have enormous destructive power. The Idaho Department of Water Resources (IDWR) is responsible for dam safety in Idaho.

Dams 10 feet or higher or which store more than 50 acre feet of water are regulated by the Idaho Department of Water Resources (as are mine tailings impoundment structures). The Dam Safety Section inspects these dams or tailings structures every other year unless one has a particular problem.

Dam Classifications

Each dam inspected by Idaho Water Resources is given both a size and risk classification.

Size Classification

- **Small** – 3: Twenty (20) feet high or less and a storage capacity of less than one hundred (100) acre feet of water.
- **Intermediate** – 2: More than twenty (20) but less than forty (40) feet high or with a storage capacity of one hundred (100) to four thousand (4,000) acre feet of water.
- **Large** – 1: Forty (40) feet high or more or with a storage capacity of more than four thousand (4,000) acre feet of water. There are no large dams in Teton County.

Risk Classification

This classification is used by IDWR to classify potential losses and damages anticipated in downstream areas that could be attributable to failure of a dam during typical flow conditions.

- **Low Risk – 3:** No permanent structures for human habitation; Minor damage to land, crops, agricultural, commercial or industrial facilities, transportation, utilities or other public facilities or values.
- **Significant Risk – 2:** No concentrated urban development, one (1) or more permanent structures for human habitation which are potentially inundated with flood water at a depth of two (2) ft. or less or at a velocity of two (2) ft. per second or less. Significant damage to land, crops, agricultural, commercial or industrial facilities, loss of use and/or damage to transportation, utilities or other public facilities or values.
- **High Risk – 1:** Urban development, or any permanent structure for human habitation which are potentially inundated with flood water at a depth of more than two (2) ft. or at a velocity of more than two (2) ft. per second. Major damage to land, crops, agricultural, commercial or industrial facilities, loss of use and/or damage to transportation, utilities or other public facilities or values.

Purposes Categories:

N-Industrial, B-Mining, O-Other, C-Commercial, P-Power, D-Domestic, Q-Fire Protection, EErosion Control, F-Flood Control, S-Stockwater, G-Wildlife Protection, T-Mine Tailings, H-Fish Propagation, I-Irrigation, J-Stockwater and Irrigation, K-Domestic, Stock and Irrigation, LDomestic and Irrigation, M-Municipal Supply

Dam Type

Earth- Earth Fill, Rock- Rock Filled, CNGRV- Concrete Gravity, CNAR-Concrete Arch, MCNAR-Multiple Concrete Arch, TMCRB-Timber Crib, SLBT-lab and Buttress, RKMAS- Rock Masonry, Metal-Metal Sheet Pile, AUXDAM-Auxiliary Dam

Location

There is only one dam in Teton County, the Felt Power Dam.

Name	Stream	Purpose	Risk Category	Size Category	Type	Storage Capacity (Acre Ft.)	Height (Ft.)
Felt	Teton River	P	3	3	CNGRV	40	12

There are no high hazard dams located in Teton County, but there are dams located near the Teton-Snake River Valley that can affect the County if there is failure.

Extent

The severity of a dam or levee failure depends on the area protected by the dam or levee, the volume and velocity of water that breaches the structure, and the structures and population in the protected area. A dam or levee breach will result in flooding of normally protected areas, resulting in impacts similar to those seen in areas that are within the floodplain and not normally protected by a levee.

In Teton County, the extent of a dam failure would be a flooded field.

Historical Frequencies & the Probability of Future Occurrences

On June 5, 1976, the 305-foot-high Teton Dam broke in half. It impacted Madison County and flooded the Snake River Plain and Idaho Falls. Eleven people died and thousands were displaced. There was also damage to cattle, crops, cars, and homes. Total damage estimated was about \$2 billion which is about \$8.4 billion in today’s dollars. It is the worst man-made disaster in Idaho history.

Impacts

Impacts from dam failures can be extremely devastating as evidenced by the failure of the Teton Dam in 1976. This failure changed the entire region’s perception of hazard mitigation and emergency preparedness. Through firsthand observation of neighboring Madison County, Teton County residents learned what it takes to protect lives and then to reconstruct a community; not only the infrastructure and homes, but in large measure, the economy as well.

In Teton County, the impact area of a dam failure is a field. It is unlikely that people and property would be affected.

Loss Estimates

There have been no dam failures in Teton County. Losses from a failure of the Felt Dam would be extremely limited.

Repetitive Loss - **none**

4.4 Drought

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	High
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

This hazard affects every community in Teton County.

Hazard Description

Drought is an expected phase in the climactic cycle of almost any geographical region. Certainly that is the case in the State of Idaho. Objective, quantitative definitions for drought exist but most authorities agree that, because of the many factors contributing to it and because its onset and relief are slow and indistinct, none is entirely satisfactory. According to the National Drought Mitigation Center, drought “originates from a deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector.” What is clear is that a condition perceived as “drought” in a given location is the result of a significant decrease in water supply relative to what is “normal” in that area.

It should be noted that water supply is not only controlled by precipitation (amount, frequency, and intensity), but also by other factors including evaporation (which is increased by higher than normal heat and winds), transpiration, and human use. According to the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center, much of the State of Idaho most recently experienced moderate to extreme drought conditions from the years 2000 through 2021. Drought Emergency Declarations were issued for various counties by the Idaho Department of Water Resources as recent as 2021.

The Palmer Modified Drought Index (PMDI) is a means of Palmer Modified Drought Index for Teton County quantifying drought in terms of moisture demands versus moisture supply.

Moisture demands include plant requirements and water needed for recharge of soil moisture supplies. An allowance is also included for runoff amounts necessary for recharging both ground water and surface water supplies such as rivers, lakes, aquifers and reservoirs. The PMDI balances the moisture demands against the moisture supply available.

The PMDI expresses this comparison of moisture demand to moisture supply on a numerical scale that usually ranges from positive six to negative six. Positive values reflect excess moisture supplies while negative values indicate moisture demands in excess of supplies

FIGURE 4.4.1: Palmer Drought Severity Index

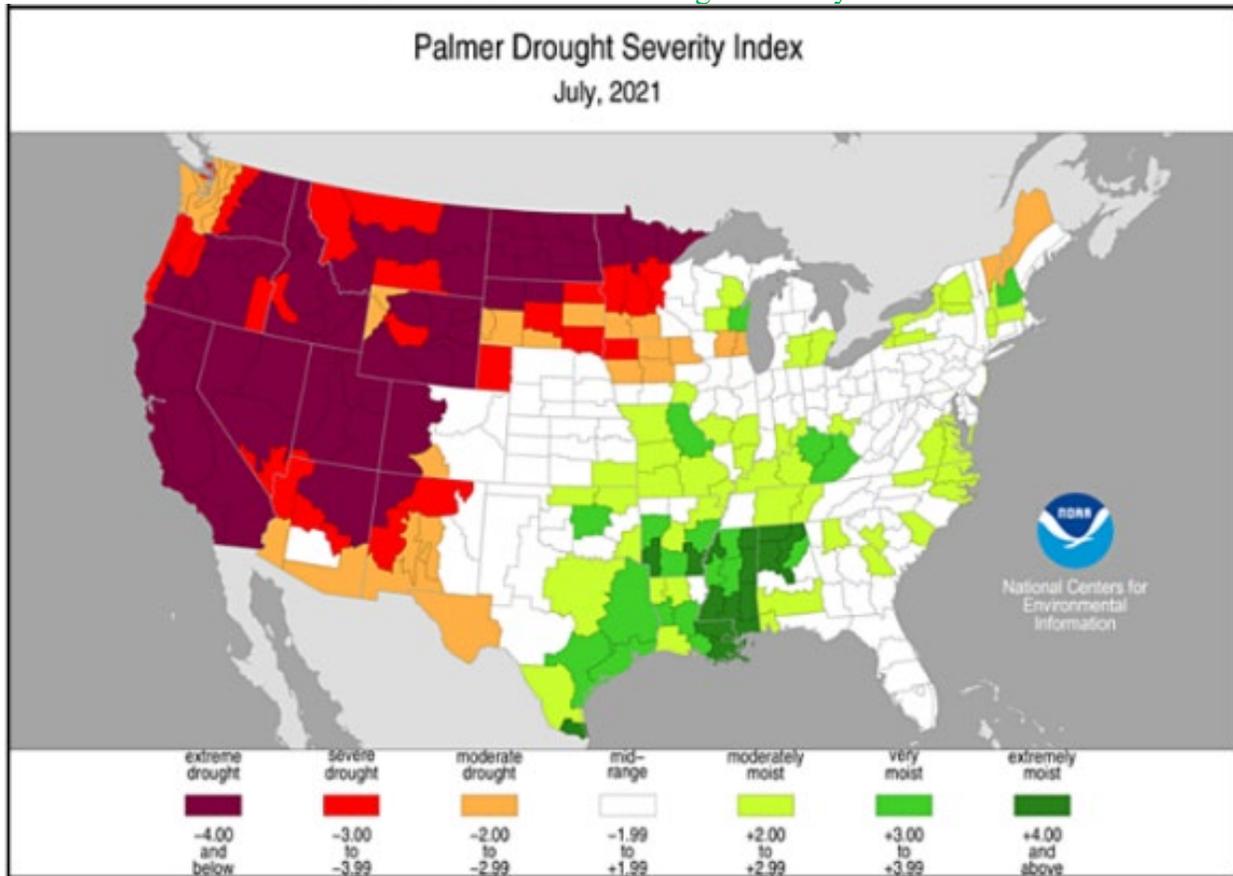
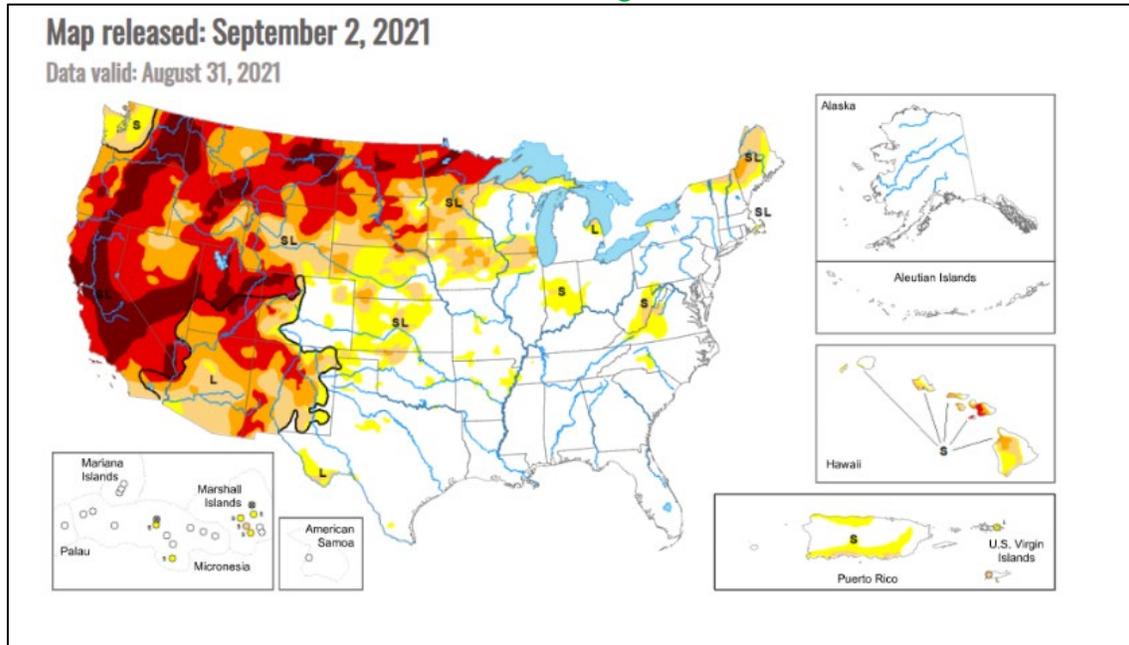


FIGURE 4.4.2: Drought Conditions



Location

Drought can affect the entire county.

Extent

The United States Drought Monitor has a map that identifies areas of drought and labels them by intensity. D1 is the least intense level and D4 the most intense. Drought is defined as a moisture deficit bad enough to have social, environmental or economic effects. D0 areas are not in a drought, but are experiencing abnormally dry conditions that could turn into drought or are recovering from drought but are not yet back to normal.

Table 4.4.1: National Integrated Drought Information System Alerts for Droughts

Alert	Criteria	Palmer Drought Index
D0 Abnormally Dry	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.	-1.0 to -1.9
D1 Moderate Drought	Some damage to crops, pastures, streams, reservoirs, or wells low, some water shortages developing or imminent, and voluntary water-use restrictions requested.	-2.0 to -2.9
D2 Severe Drought	Crop or pasture losses are likely, water shortages common and water restrictions imposed.	-3.0 to -3.9
D3 Extreme Drought	Major crop and pasture losses with widespread water shortages or restrictions.	-4.0 to -4.9
D4 Exceptional Drought	Exceptional and widespread crop and pasture loss, shortages of water in reservoirs, streams, and wells creating water emergencies.	-5.0 or less

Source: U.S. Drought Monitor Classification Scheme, from the United States Drought Monitor

The Palmer Drought Severity Index (PDSI) developed by Wayne Palmer in the 1965, measures drought severity using temperature, precipitation and soil moisture. The PDSI has become the "semi-official" drought index as it is standardized across various climates. The index uses zero as normal and assigns a number between 6 and -6, with dry periods having negative numbers and wet periods expressed using positive numbers (NDMC 2006)

Table 4.4.2: Palmer Drought Severity Index (NDMC 2006)

4.0 or more	Extremely wet
3.0 to 3.99	Very wet
2.0 to 2.99	Moderately wet
1.0 to 1.99	Slightly wet
0.5 to 0.99	Incipient wet spell
0.49 to -0.49	Near normal
-0.5 to -0.99	Incipient dry spell
-1.0 to -1.99	Mild drought
-2.0 to -2.99	Moderate drought
-3.0 to -3.99	Severe drought
-4.0 or less	Extreme drought

Historical Frequencies & the Probability of Future Occurrences

The Idaho Department of Water Resources reports that meteorological drought conditions (a period of low precipitation) existed in the State approximately 30% of the time during the period 1931-1982. Principal drought in Idaho, indicated by stream flow records, occurred during 1929-41, 1944-45, 1959-61, 1977, and 1987-92. The most prolonged drought in Idaho was during the 1930s. For most of the State, that drought lasted for 11 years (1929-41) despite greater than average stream flows in 1932 and 1938. In 1977, the worst single year on record, a severe water shortage occurred throughout Idaho and the West. Stream flows were below normal from 1979 to 1981. A federal declaration was issued in 1977 for the State of Idaho and counties neighboring Teton County.

According to the Idaho Department of Water Resources (IDWR) the following Drought Emergency Declarations were issued for Teton County:

- 1988
- 1991
- 2001
- 2003
- 2004
- 2007
- 2010
- 2012
- 2013
- 2015
- 2021

Impacts

Drought is agriculture's most expensive, frequent, and widespread form of natural disaster.

One important aspect of reducing vulnerability is to understand the impacts of drought. Each drought produces a unique set of impacts, depending not only on the drought's severity, duration, and spatial extent but also on ever-changing social conditions. These impacts are often

symptoms of other underlying problems (vulnerabilities). So, in order to understand vulnerability, a good place to start is to investigate drought impacts.

Drought produces a complex web of impacts that spans many sectors of the economy and reaches well beyond the area experiencing physical drought. This complexity exists because water is integral to our ability to produce goods and provide services.

Impacts are commonly referred to as direct or indirect. Reduced crop, rangeland, and forest productivity; increased fire hazard; reduced water levels; increased livestock and wildlife mortality rates; and damage to wildlife and fish habitat are a few examples of direct impacts. The consequences of these impacts illustrate indirect impacts. For example, a reduction in crop, rangeland, and forest productivity may result in reduced income for farmers and agribusiness, increased prices for food and timber, unemployment, reduced tax revenues because of reduced expenditures, increased crime, foreclosures on bank loans to farmers and businesses, migration, and disaster relief programs. Direct or primary impacts are usually biophysical. Conceptually speaking, the more removed the impact from the cause, the more complex the link to the cause. In fact, the web of impacts becomes so diffuse that it is very difficult to come up with financial estimates of damages. The impacts of drought can be categorized as economic, environmental or social.

Many economic impacts occur in agricultural and related sectors because of the reliance of these sectors on surface and subsurface water supplies. In addition to obvious losses in yields in crop and livestock production, drought is associated with increases in insect infestations, plant disease, and wind erosion. Droughts also bring increased problems with insects and diseases to forests and reduce growth. The incidence of forest and range fires increases substantially during extended droughts, which in turn places both human and wildlife populations at higher levels of risk.

Table 4.4.3: Premium Subsidies by Cause of Loss, 1995-2020 (Drought)

Cause of Loss	Premium subsidies 1995-2020	Percent Cause of Loss (Heat, Excess Moisture, Hail, Drought, Flood, Cold Winter, Freeze, Other, etc.)
Drought	\$210,820.00	8.95%

The premium subsidies by cause of loss in the table are lower than total premium subsidies because the USDA Risk Management Agency only reports premium subsidies by cause of loss for policies that paid an indemnity. Non-indemnified policies and their associated premium subsidies are not reported by cause of loss. The driving force behind a decline in crop yield or revenue that triggers an indemnity payment is called the “cause of loss” – an event or circumstance that damages crop yield, such as drought, hail or too much rain, or that damages the price side of farmer revenues, like a decline in crop price.

Loss Estimates

Income loss is another indicator used in assessing the impacts of drought because so many sectors are affected. Reduced income for farmers has a ripple effect. Retailers and others who provide goods and services to farmers face reduced business. This leads to unemployment, increased credit risk for financial institutions, capital shortfalls, and loss of tax revenue for local, State, and Federal government. Less discretionary income affects the recreation and tourism industries. Prices for food, energy, and other products increase as supplies are reduced. In some cases, local shortages of certain goods result in the need to import these goods from outside the stricken region.

Hazard Evaluation

The effects of drought on Teton County are moderate. Rural Teton County is built around an agricultural economy and tourism. Farming, including the row crops of potatoes and grains, is extremely vulnerable to drought. Wildfires are a significant risk to the rural areas as well. Drought, coupled with dry lightning, is a major source of wildfires in the County. Drought is also impacting the forested areas of Teton County. The Lodge Pole Pine Beetle infestation in the area is exacerbated by prolonged drought. The County receives drought disaster assistance through the State of Idaho through a Drought Declaration facilitated through the Idaho Department of Water Resources.

Drought brings about little bodily harm. The potential economic loss in Teton County is significant. Even though the County has a significant economic base associated with tourism, agriculture still plays a vital role in the County's total economic picture. Warning lead times for Drought are usually in months as the National Weather Service is fairly accurate in climate predictions however, the effects of drought decrease the warning lead times for impacts such as wildfire to minutes.

The frequency of drought cycles in Teton County is between five (5) to twenty-five years. Drought cycles last an average of seven years.

Repetitive Loss - Drought has occurred in cycles on the high desert plains of Idaho. The losses are significant and repetitive, specifically for agriculture.

4.5 Earthquake

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	High
Countywide Risk:	High

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
High	High	High	High

Hazard Description

The U.S. Geological Survey (USGS) defines earthquake as: “Ground shaking caused by the sudden release of accumulated strain by an abrupt shift of rock along a fracture in the Earth or by volcanic or magmatic activity, or other sudden stress changes in the Earth.” The hazards associated with earthquake are essentially secondary to ground shaking (also called seismic waves) which may cause buildings to collapse, displacement or cracking of the earth’s surface, flooding as a result of damage to dams or levees, and fires from ruptured gas lines, downed power lines and other sources. Earthquakes cause both vertical and horizontal ground shaking which varies both in amplitude (the amount of displacement of the seismic waves) and frequency (the number of seismic waves per unit time), usually lasting less than thirty seconds.

Location

This hazard affects every community in Teton County.

Extent

Earthquakes are measured both in terms of their inherent “magnitude” and in terms of their local “intensity.” Currently the most commonly used magnitude scale is the moment magnitude (Mw) scale, with the following classifications of magnitude:

- Great—Mw > 8
- Light—Mw = 4.0 – 4.9
- Major—Mw = 7.0 – 7.9
- Minor—Mw = 3.0 – 3.9
- Strong—Mw = 6.0 – 6.9
- Micro—Mw < 3
- Moderate—Mw = 5.0 – 5.9

Estimates of moment magnitude roughly match the local magnitude scale (ML) commonly called the Richter scale. One advantage of the moment magnitude scale is that, unlike other magnitude scales, it does not saturate at the upper end. That is, there is no value beyond which all large earthquakes have about the same magnitude. For this reason, moment magnitude is now the most often used estimate of large earthquake magnitudes.

Historical Frequencies & the Probability of Future Occurrences

The map below provides a representation of the earthquake events that have occurred in the County.

Figure 4.5.1: Teton County Earthquake Events 1969-2020

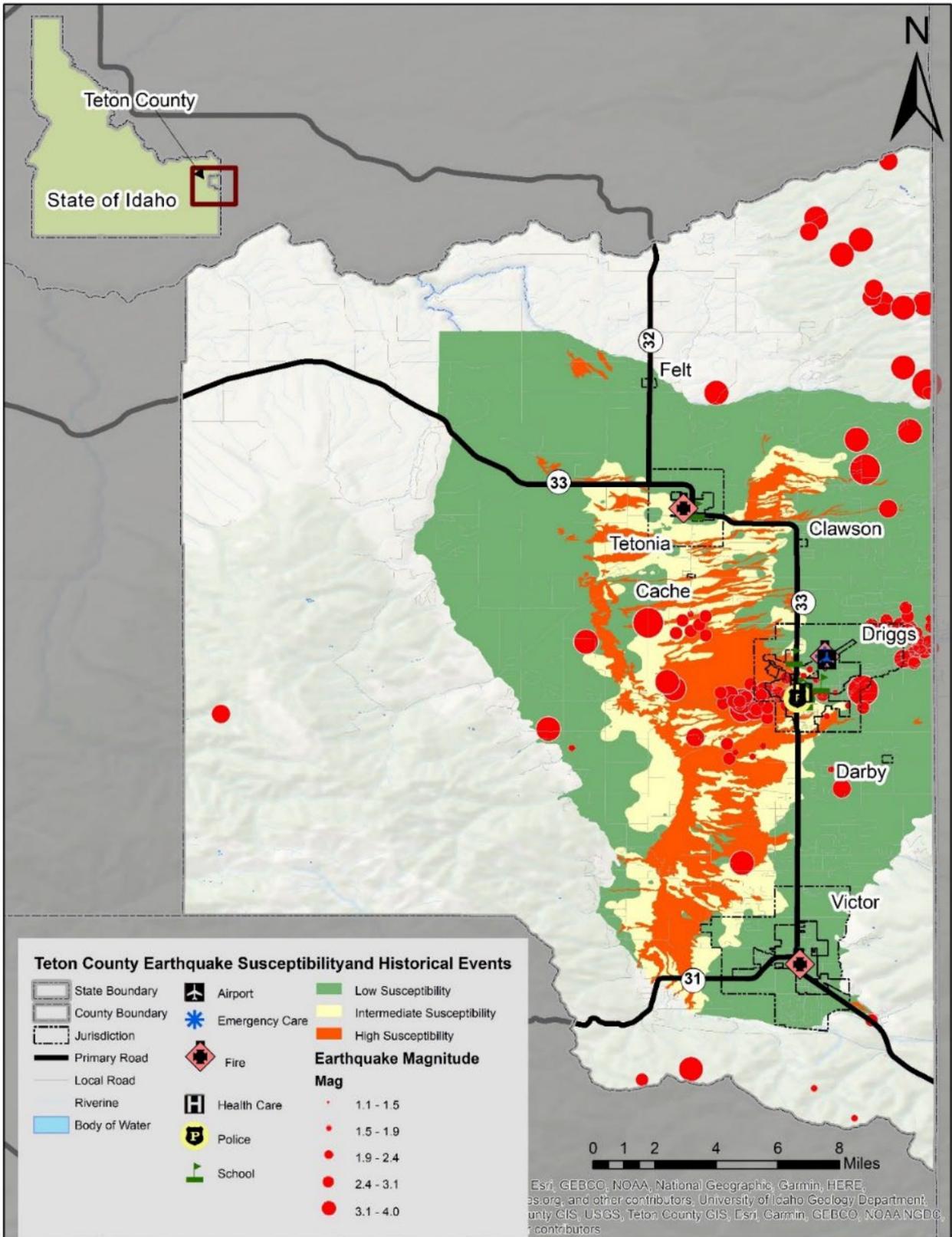
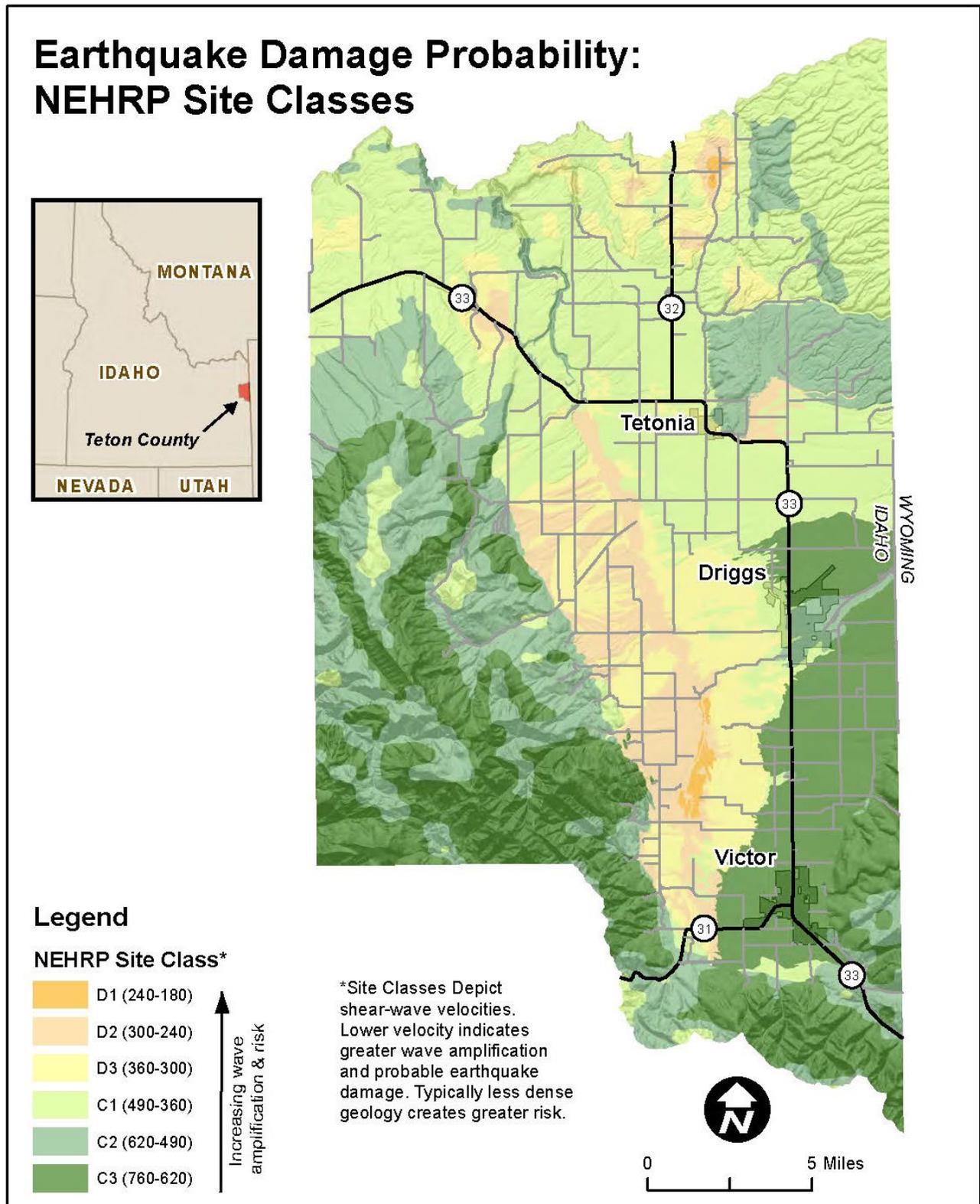


Figure 4.5.2: Teton County Earthquake NEHRP Site Class



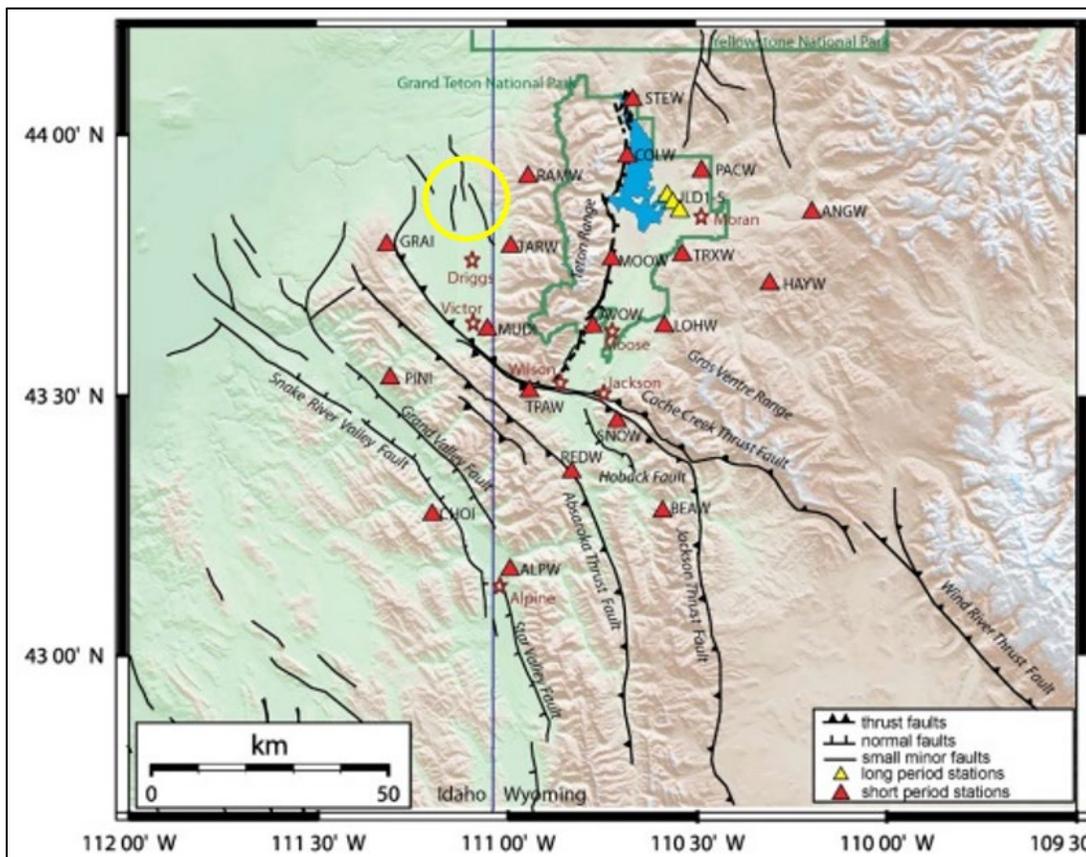
Impacts

Earthquakes are capable of catastrophic consequences, especially in urban areas. Worldwide, earthquakes have been known to cost thousands of lives and enormous economic and social losses. In minor earthquakes, damage may be done only to household goods, merchandise, and other building contents and people are occasionally injured or killed by falling objects. More violent earthquakes may cause the full or partial collapse of buildings, bridges and overpasses, and other structures. Fires due to broken gas lines, downed power lines, and other sources are common following an earthquake and often account for much of the damage. Economic losses arise from destruction of structures and infrastructure, interruption of business activity, and innumerable other sources. Utilities may be lost for long periods of time and all modes of transportation may be disrupted. Disaster Services including medical may be both disabled and overwhelmed. In addition to broken gas lines, other hazardous materials may be released.

HAZUS

Below is a scenario event for a 7.2M earthquake on a known fault near Driggs, Idaho.

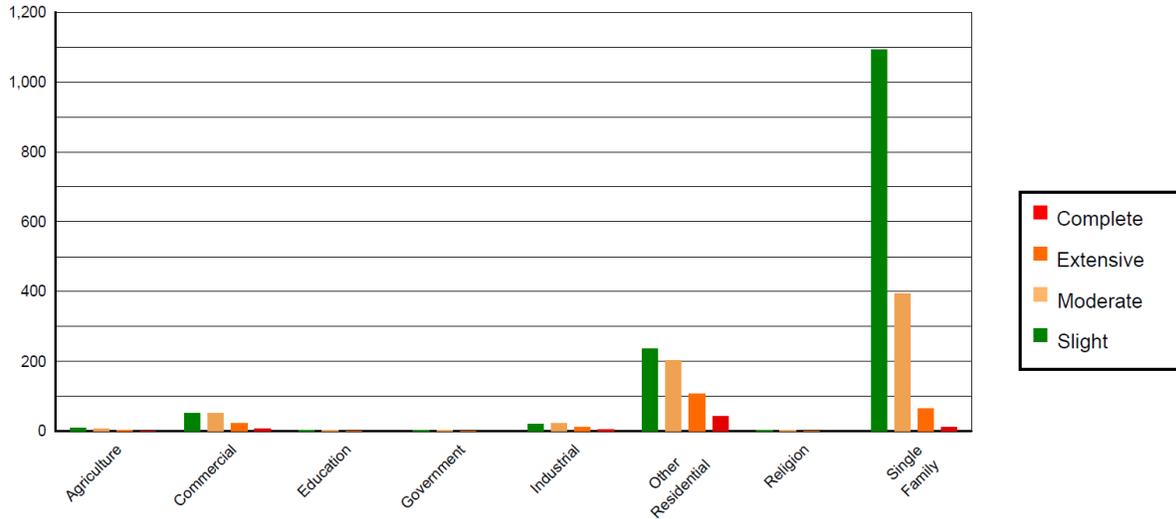
Figure 4.5.3: Teton County Earthquake Scenario



Hazus estimates that about 963 buildings will be at least moderately damaged. This is over 18.00 % of the buildings in the region. There are an estimated 67 buildings that will be damaged beyond repair. The model estimates that a total of 22,000 tons of debris will be generated. If the debris tonnage is converted to an estimated number of truckloads, it will require 880 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

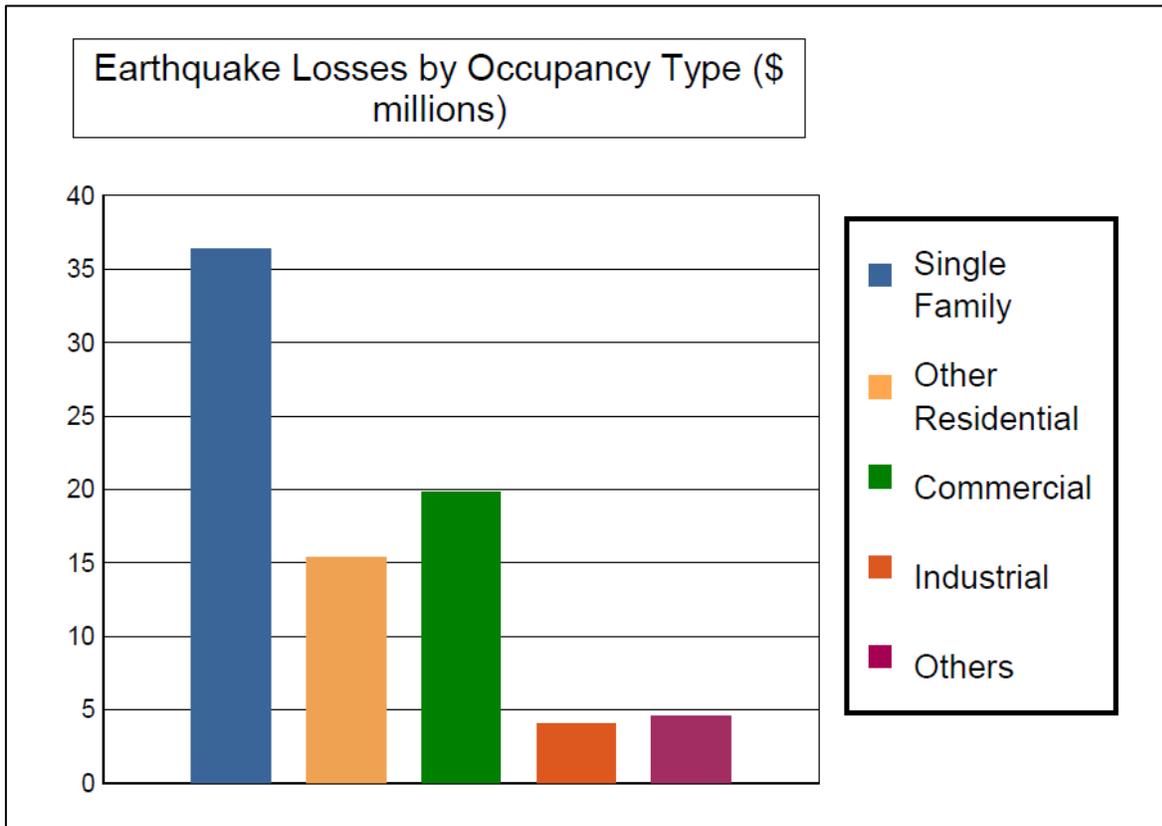
Figure 4.5.4: Teton County Earthquake Damage Categories

Damage Categories by General Occupancy Type



Building-related losses equal \$80,009,000.00 for Teton County under this scenario.

Figure 4.5.5: Teton County Earthquake Losses



Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in

temporary public shelters. The model estimates 40 households to be displaced due to the earthquake. Of these, 24 people will seek temporary shelter in public shelters.

The biggest concern of an earthquake in Teton County are the structures built with unreinforced masonry. Seismic retrofit projects are needed for Victor’s Road and Bridge building, Victor’s Water Storage Facility, and the schools.

Loss Estimates

Two Idaho earthquakes, Hebgen Lake in 1959 and Borah Peak in 1983, were among the largest in the United States in the past 63 years. These two events combined caused thirty deaths and cost more than twenty million dollars in losses in spite having been centered in relatively remote locations.

**The County has several faults around and through the valley, and has the 2nd highest earthquake risk in the State with a 90% chance of a 5.0 or greater earthquake within 50 kilometers of the County in any 50-year period.
 The strongest recorded earthquake was a 4.0 on April 3, 1992 east of Felt.**

4.6 Extreme Cold

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

This hazard affects every community in Teton County.

Hazard Description

“Extreme cold” is a term describing hazardous conditions that must be defined relative to what is considered normal in a given locale. What might be considered extreme cold varies considerably in the State of Idaho where normal winter temperatures in the southwest are appreciably more moderate than those in the northwest and far north. Very cold temperatures become a particular hazard when accompanied by winds of 10 mph or greater. The National Weather Service (NWS) has developed a formula for calculating “wind chill” based on temperature and wind speed and in this region issues wind chill advisories when the wind chill temperatures are predicted to be -10°F or less with winds of 10 mph or higher for one hour or more. Wind chill warnings are issued when wind chill temperature will be -20°F or less with winds of 10 mph or higher for one hour or more. As with extreme heat, extreme cold is of greatest concern when the condition persists for an extended period of time.

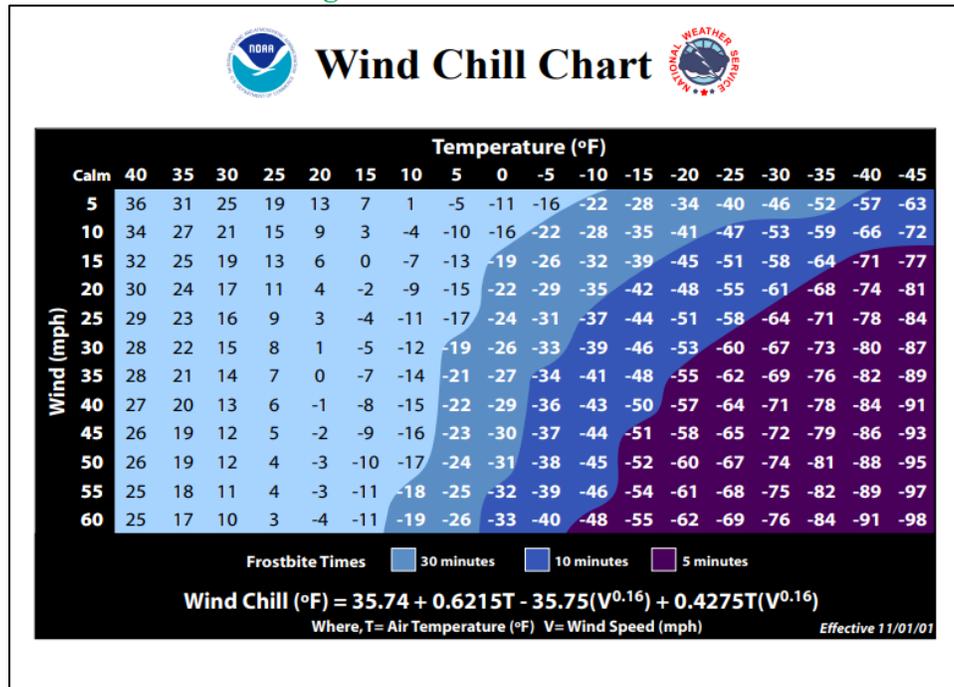
Location

Temperatures in Idaho and Teton County can reach the extreme ends of the thermometer. Winter months often experience temperatures below zero degrees Fahrenheit and there can be prolonged periods of extremely cold weather. The entire County is susceptible to extreme cold.

Extent

The NWS Wind Chill Temperature (WCT) index uses advances in science, technology, and computer modeling to provide an accurate, understandable, and useful formula for calculating the dangers from winter winds and freezing temperatures.

Figure 4.6.1: Windchill Chart



Historical Frequencies & the Probability of Future Occurrences

Record low temperatures for Teton County was determined by looking at climatology records from 1950 to 2021. The record low for the County was -50°F recorded on February 9, 1933 at Driggs.

Table 4.6.1: Extreme Cold Events

Date	Type
05/08/2002	Extreme Cold/wind Chill
01/11/2007	Extreme Cold/wind Chill
02/02/2007	Extreme Cold/wind Chill
01/16/2008	Extreme Cold/wind Chill
12/10/2009	Extreme Cold/wind Chill
01/07/2010	Extreme Cold/wind Chill
02/01/2011	Extreme Cold/wind Chill

12/04/2011	Extreme Cold/wind Chill
12/06/2013	Extreme Cold/wind Chill
12/09/2013	Extreme Cold/wind Chill
02/06/2014	Extreme Cold/wind Chill
11/12/2014	Extreme Cold/wind Chill
01/04/2017	Extreme Cold/wind chill

Impacts

Health effects of exposure to extreme cold include hypothermia and frostbite, both of which can be life-threatening. Infants and the elderly are most susceptible. In Teton County, 5.8% of the population is under 5 years of age. 13.1% are over 65. In the United States, nearly 700 deaths are directly attributed to hypothermia annually.

Loss Estimates

Extreme cold may cause loss of wildlife and vegetation, kill livestock and other domestic animals. Economic loss may result from flooding due to burst pipes, large demands on energy resources, and diminished business activity. River flooding may take place as a result of the formation of ice jams.

Extreme cold affects the individual, families, cities, and the County. Damage typically occurs to individual properties; however, city water systems are usually vulnerable to extreme cold. Repairs to water line freeze ups and breaks typically require the roadways to be excavated necessitating additional maintenance and repairs during the warmer months. The record low temperature in Teton County is -50 degrees recorded at the Driggs Airport.

Extreme Cold can cause death and injury especially to those working or stranded outside for prolonged periods. Economic loss is related to private individuals, businesses, and government agencies in heating of homes and facilities. Additional losses can be expected to the livestock industry. During extreme cold periods the schools are closed to protect children traveling to and from school.

During the spring and early summer, temperatures can drop low enough to produce frost. While such temperatures are not low enough to damage infrastructure or require extra heating costs, it can be devastating to crops. Warning lead times in Teton County usually are a day or two based on forecasts made by the National Weather Service in Pocatello.

Table 4.6.2: Premium Subsidies by Cause of Loss, 1995-2020 (Extreme Cold)

Cause of Loss	Premium subsidies 1995-2020	Percent Cause of Loss (Heat, Excess Moisture, Hail, Drought, Flood, Cold Winter, Freeze, Other, etc.)
Freeze	\$91,743	4%

The premium subsidies by cause of loss in the table are lower than total premium subsidies because the USDA Risk Management Agency only reports premium subsidies by cause of loss for policies that paid an indemnity. Non-indemnified policies and their associated premium subsidies are not reported by cause of loss. The driving force behind a decline in crop yield or revenue that triggers an indemnity payment is called the "cause of loss" – an event or circumstance that damages crop yield, such as drought, hail or too much rain, or that damages the price side of farmer revenues, like a decline in crop price.

Repetitive Loss – Extreme cold occurs frequently in Teton County and losses due to freezing and breaking of pipes occurs annually. Other losses include death of livestock and business closure due to loss of electricity during extreme cold events. The loss of electricity due to extreme cold is the largest single contributor to the economic loss.

4.7 Flooding

Flooding is defined by NWS as “the inundation of normally dry areas as a result of increased water levels in an established water course.” River flooding, the condition where the river rises to overflow its natural banks, may occur due to a number of causes including prolonged, general rainfall, locally intense thunderstorms (see Flash Flood), snowmelt, and ice jams. In addition to these natural events, there are a number of factors controlled by human activity that may cause or contribute to flooding. These include dam failure (discussed below), levee failure, and activities that increase the rate and amount of runoff such as paving, reducing ground cover, and clearing forested areas. Flooding is a periodic event along most rivers with the frequency depending on local conditions and controls such as dams and levees.

The land along rivers that is identified as being susceptible to flooding is called the floodplain. The Federal standard for floodplain management under the National Flood Insurance Plan (NIFP) is the “100-year floodplain.” This area is chosen using historical data such that in any given year there is a one percent chance of a “Base Flood” (also known as “100-year Flood” or “Regulatory Flood”). A Base Flood is one that covers or exceeds the 100-year floodplain. In Idaho, flooding most commonly occurs in the spring of the year and is caused by snowmelt. Floods occur in Idaho every one to two years and are considered the most serious and costly natural hazard affecting the State. The amount of damage caused by a flood is influenced by the speed and volume of the water flow, the length of time the impacted area is inundated, the amount of sediment and debris carried and deposited, and the amount of erosion that may take place.

Flooding can also threaten life, safety and health and often results in substantial damage to infrastructure, homes, and other property. The extent of damage caused by a flood depends on the topography, soils and vegetation in an area, the depth and duration of flooding, velocity of flow, rate of rise, and the amount and type of development in the floodplain.

Flood Terminology

A number of flood-related terms are frequently used in this plan and are defined below.

- **Flood Insurance Study (FIS):** A Flood Insurance Study is the official report provided by the Federal Insurance Administration, which provides flood profiles, the flood boundary-floodway map, and the water surface elevation of the estimated 100-year base flood.
- **Flood Insurance Rate Map (FIRM):** The Flood Insurance Rate Maps (FIRM) are the official maps on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.
- **100-year Base Flood:** Base Flood means the flood having a 1% chance of being equaled or exceeded in any given year. Also referred to as the “100-year flood”.

- **Floodplain:** A floodplain is land adjacent to a lake, river, stream, estuary or other water body that is subject to flooding. If left undisturbed, the floodplain serves to store and discharge excess floodwater. In riverine systems, the floodplain includes the floodway.
- **Floodway:** “Floodway” means the channel of a river or other watercourse and the adjacent areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Types of Flooding

Flooding can occur in a number of ways, and many times are not independent of each other and can occur simultaneously during a flood event: The Types of Flooding considered for this Plan include:

- heavy rainfall; urban storm water overflow; rapid snowmelt; rising ground-water (generally in conjunction with heavy prolonged rainfall and saturated conditions); riverine ice jams; flash floods; and alluvial fan flooding

Floodplain Management

Teton County participates in the National Flood Insurance Program as well as the City of Victor and Driggs. The City of Teton does not participate in the NFIP.

Teton County has no communities within the 100-year floodplain hazard areas that are not participating in the NFIP, however, the City of Teton has a potential for flooding from intermittent streams and has experienced losses related to flash flooding and spring runoff. The Teton County Floodplain Administrator will work with the City to encourage their participation in the NFIP.

Teton County has no communities under suspension or revocation of participation in the NFIP. The Teton County Flood Plain Administrator is the Planning and Zoning Department Coordinator. An important part of being an NFIP community is the availability of low-cost flood insurance for those homes and business within designated floodplains, or in areas that are subject to flooding, but that are not designated as Special Flood Hazard Areas.

The County can take advantage of the Community Rating System (CRS). To encourage communities to go beyond the minimum requirements and further prevent and protect against flood damage, the NFIP established the CRS. To qualify for CRS, communities can do things like make building codes more rigorous, maintain drainage systems, and inform residents of flood risk. In exchange for becoming more flood ready, the CRS community's residents are offered discounted premium rates. Based on the community's CRS ratings, they can qualify for up to a 45% discount of annual flood insurance premiums. Neither the County, nor any of the incorporated cities participate in the Community Rating System.

4.7.1 Flash Flood

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

Flash flood is defined by NWS as, “A rapid and extreme flow of high water into a normally dry area, or a rapid water level rise in a stream or creek above a predetermined flood level, beginning within six hours of the causative event (e.g., intense rainfall, dam failure, ice jam). Ongoing flooding can intensify to flash flooding in cases where intense rainfall results in a rapid surge of rising flood waters.” Flash floods differ from floods (discussed below under River Flooding) in the rapidity with which they develop. Floods generally develop over a period of several days, providing more warning time and time for preparation and evacuation. Flash floods occur with little or no warning. They may occur during thunderstorms due to rapid runoff from steep terrain, from areas where the soil is already saturated, or in urban areas where vegetation has been removed and pavement has replaced exposed soil. Flash floods may also arise as the result of dam failure (discussed below) or the breakup of ice jams.

Location

Flash flooding is an issue in outlying areas in the County, but is less likely in Driggs, Victor, and Tetonia.

Extent

The extent of flash flooding is in isolated locations, usually a result of inadequate stormwater capacity.

Historical Frequencies & the Probability of Future Occurrences

Table 4.7.1.1: Flash Flood Incidents

Place	Date	Event	Details	Reported Damage
Driggs	6/22/1945	Flash Flood	Streets flooded with 14” of water.	unknown
Felt	6/7/2011	Flash Flood	Heavy rain on top of snowmelt caused Badger Creek to flood causing damage to County Road 10000 North. It was closed for several weeks.	\$195,484.72

County	8/1/2014	Flash Flood and Heavy Rains	Farmers and ranchers in Teton County were declared by the USDA to qualify for natural disaster assistance due to crop damage from heavy August rains. Eastern Idaho barley crop damage was estimated at 64 million dollars with a portion of that in Teton County.	\$2,000,000
Victor	6/10/2015	Flash Flood	Heavy rains from a thunderstorm caused several inches of water to collect on roads and residential areas in the town of Victor. No damage reports were received.	unknown
County	2/6/2017	Sheet Flooding	A trend toward above normal temperatures in February after extreme snowfall amounts in both December and January led to flooding issues	\$90,000
County	5/2017	Flooding	As recorded in the Sheldus data base	\$28,000

Impacts

Because flash floods develop so rapidly, people on foot or in automobiles may be stranded or may be swept away and injured or drowned. They are characterized by high velocity water flow and large amounts of debris, both of which cause damage to or destroy structures and other objects in their path. Other impacts are discussed below under River Flooding.

Loss Estimates

Historical loss estimates due to Flash Flooding have been from several thousands of dollars to hundreds of dollars; however, with the growth being experienced in Teton County, losses due to flash flooding have the potential to significantly increase due to the building of new subdivisions and the related increase of impervious surfaces that are created.

4.7.2 River or Stream Flooding

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Low	Medium

Flooding impacts the County and municipalities.

Hazard Description

River or Stream flooding, the condition where the river rises to overflow its natural banks, may occur due to a number of causes including prolonged, general rainfall, locally intense thunderstorms, snowmelt, and ice jams.

Flooding is defined by NWS as “the inundation of normally dry areas as a result of increased water levels in an established water course.” River flooding, the condition where the river rises to overflow its natural banks, may occur due to a number of causes including prolonged, general rainfall, locally intense thunderstorms (see Flash Flood above), snowmelt, and ice jams. In addition to these natural events, there are a number of factors controlled by human activity that may cause or contribute to flooding. These include dam failure (discussed below), levee failure, and activities that increase the rate and amount of runoff such as paving, reducing ground cover, and clearing forested areas. Flooding is a periodic event along most rivers with the frequency depending on local conditions and controls such as dams and levees. The land along rivers that is identified as being susceptible to flooding is called the floodplain. The Federal standard for floodplain management under the National Flood Insurance Plan (NIFP) is the “100-year floodplain.” This area is chosen using historical data such that in any given year there is a one percent chance of a “Base Flood” (also known as “100-year Flood” or “Regulatory Flood”).

River flooding, the condition where the river rises to overflow its natural banks, may occur due to a number of causes including prolonged, general rainfall, locally intense thunderstorms, snowmelt, and ice jams.

Location

Riverine flooding occurs in the low-lying areas of the county adjacent to streams and rivers.

Extent

Table 4.7.2.1: National Weather Service Alerts for Flooding

Alert	Criteria
Flood Watch	Atmospheric conditions over a large area, varying in size from multiple counties to multiple states, support the development of heavy rain and/or thunderstorms that are capable of producing flooding. A flood watch implies a longer period of relatively lighter rains, adding up to a large amount of rain. Longer-term flooding implies a slower or steadier rise in the water levels of creeks, streams and larger rivers. Roads can also become flooded, but it is usually more gradual, allowing motorists to monitor conditions more closely.

Flood Warning	A Flood Warning is issued by the National Weather Service when heavy rain has been occurring, and flooding is either occurring or will occur within a specified time, usually within 60 minutes.
Flash Flood Watch	Implies a shorter period of heavier rain. Generally, if flooding is expected within six hours of the onset of rain, a Flash Flood Watch is most appropriate. Flash flooding by definition suggests rapidly rising water, such as a surge of water heading rapidly downstream in a creek or small river. It could also be rapidly rising water on roadways, which can cause motorists to become stranded in vehicles, or even worse, washed into creeks and small rivers due to rapid runoff.
Flash Flood Warning	Atmospheric conditions over a large area, varying in size from multiple counties to multiple states, support the development of heavy rain and/or thunderstorms that are capable of producing flash flooding: A Flash Flood Warning is issued by the National Weather Service when heavy rain has been occurring, and flash flooding is either occurring or will occur within a specified time, usually within 60 minutes.
Urban and Small Stream Advisory	Flooding of small streams, streets and low-lying areas, such as railroad underpasses and urban storm drains is occurring.

Note | Recent Changes: A Watch means you should prepare for a dangerous weather or water event (e.g. grocery shopping, emergency supply kit) and a Warning means you should take action to prevent or avoid a dangerous event (e.g. take shelter, don't drive). The current "Advisories" and "Special Weather Statements" will be removed and transitioned to plain language headlines for weather or water events that do not rise to the level of a Warning.

Source: National Weather Service

Historical Frequencies & the Probability of Future Occurrences

On 6/1/2011, Teton County experienced significant flooding. Prior to that, there have been no significant reports of major flooding or river flooding events in the historical records reviewed for Teton County; however, annual spring runoff from snow melt almost always occurs and causes some damage in Teton County.

The pictures provided below illustrate some flooding that occurred during the spring of 2008 along the Badger Creek Road.





Impacts

Human death and injury sometimes occur as a result of river flooding but are not common. Human hazards during flooding include drowning, electrocution due to downed power lines, leaking gas lines, fires and explosions, hazardous chemicals and displaced wildlife. Economic loss and disruption of social systems are often enormous. Floods may destroy or damage structures, furnishings, business assets including records, crops, livestock, roads and highways. They often deprive large areas of electric service, potable water supplies, wastewater treatment, communications, and many other community services including medical care, and may do so for long periods of time.

Teton County:

Certain roadways (including bridges and culverts) are in flood prone areas. These areas include roadways near Badger Creek, Fox Creek, and Trail Creek.

Excess moisture, rain and flooding can also impact agriculture.

Table 4.7.2.2: Premium Subsidies by Cause of Loss, 1995-2020 (Excess Moisture/Precipitation/Rain)

Cause of Loss	Premium subsidies 1995-2020	Percent Cause of Loss (Heat, Excess Moisture, Hail, Drought, Flood, Cold Winter, Freeze, Other, etc.)
Excess Moisture/Precipitation/Rain	\$205,538	9%

The premium subsidies by cause of loss in the table are lower than total premium subsidies because the USDA Risk Management Agency only reports premium subsidies by cause of loss for policies that paid an indemnity. Non-indemnified policies and their associated premium subsidies are not reported by cause of loss. The driving force behind a decline in crop yield or revenue that triggers an indemnity payment is called the “cause of loss” – an event or circumstance that damages crop yield, such as drought, hail or too much rain, or that damages the price side of farmer revenues, like a decline in crop price.

City of Teton:

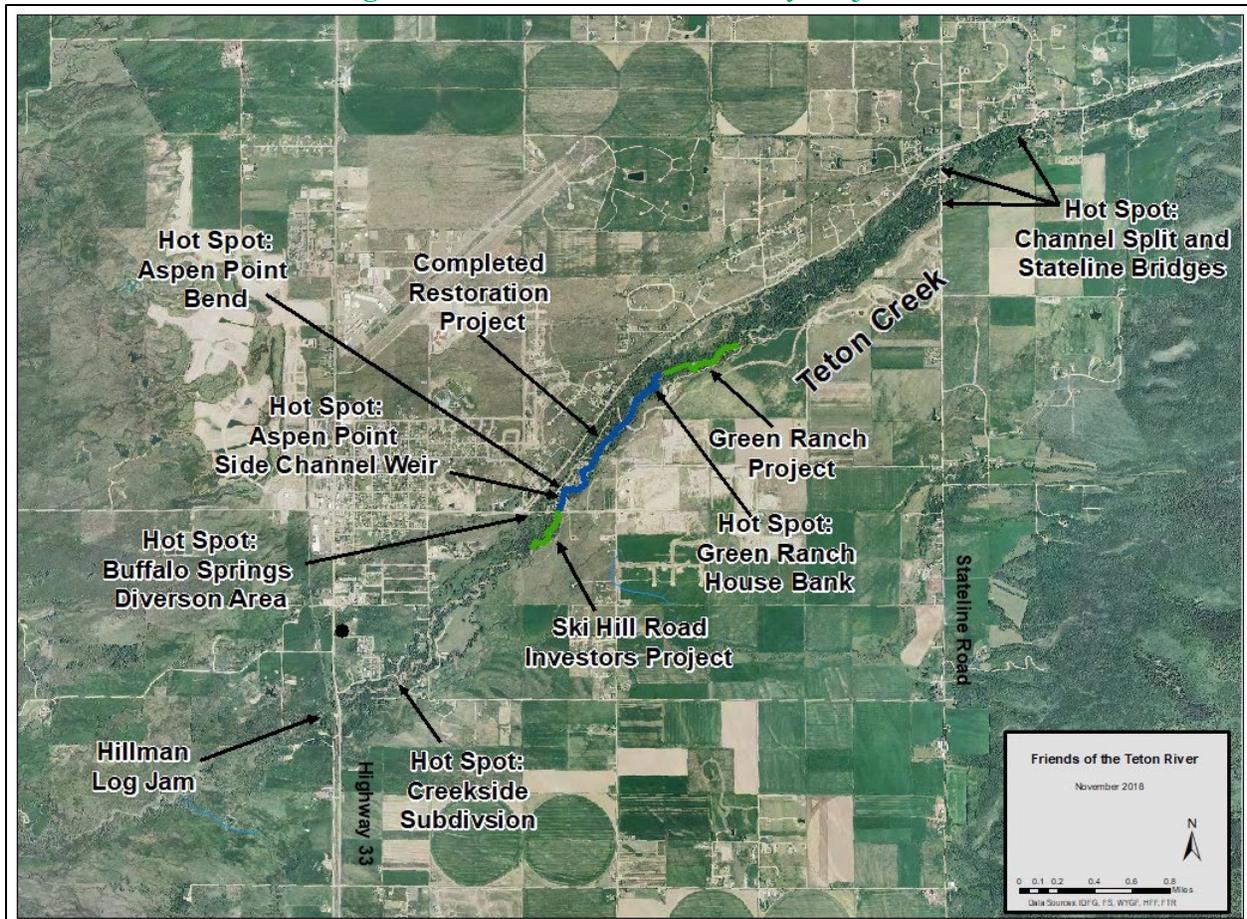
In Teton, there is an abandoned irrigation canal with a failing head gate. During a high-water event, it could potentially result in water impacting the downtown area.

City of Driggs:

In the City of Driggs, the Teton Creek floods during high water events. Illegal dredging and channelization of Teton Creek from 1980 to 2004 severely destabilized Teton Creek and dramatically increasing the flooding risk to nearby communities including the City of Driggs. In 2013, a portion of the destabilized stream was stabilized through a large collaborative project with Teton County, however Teton Creek from Cemetery Road to a ¼ mile downstream from Highway 33 is still destabilized and the risk of flooding is increasing each year.

Mitigation alternatives are needed to stabilize Teton Creek using proven bio-engineer techniques from Cemetery Road to ¼ mile downstream of Highway 33 to reduce the risk of flooding. Without this important work the risk of flooding will continue to increase. The following image highlights specific hot spots and areas where mitigation alternatives are needed.

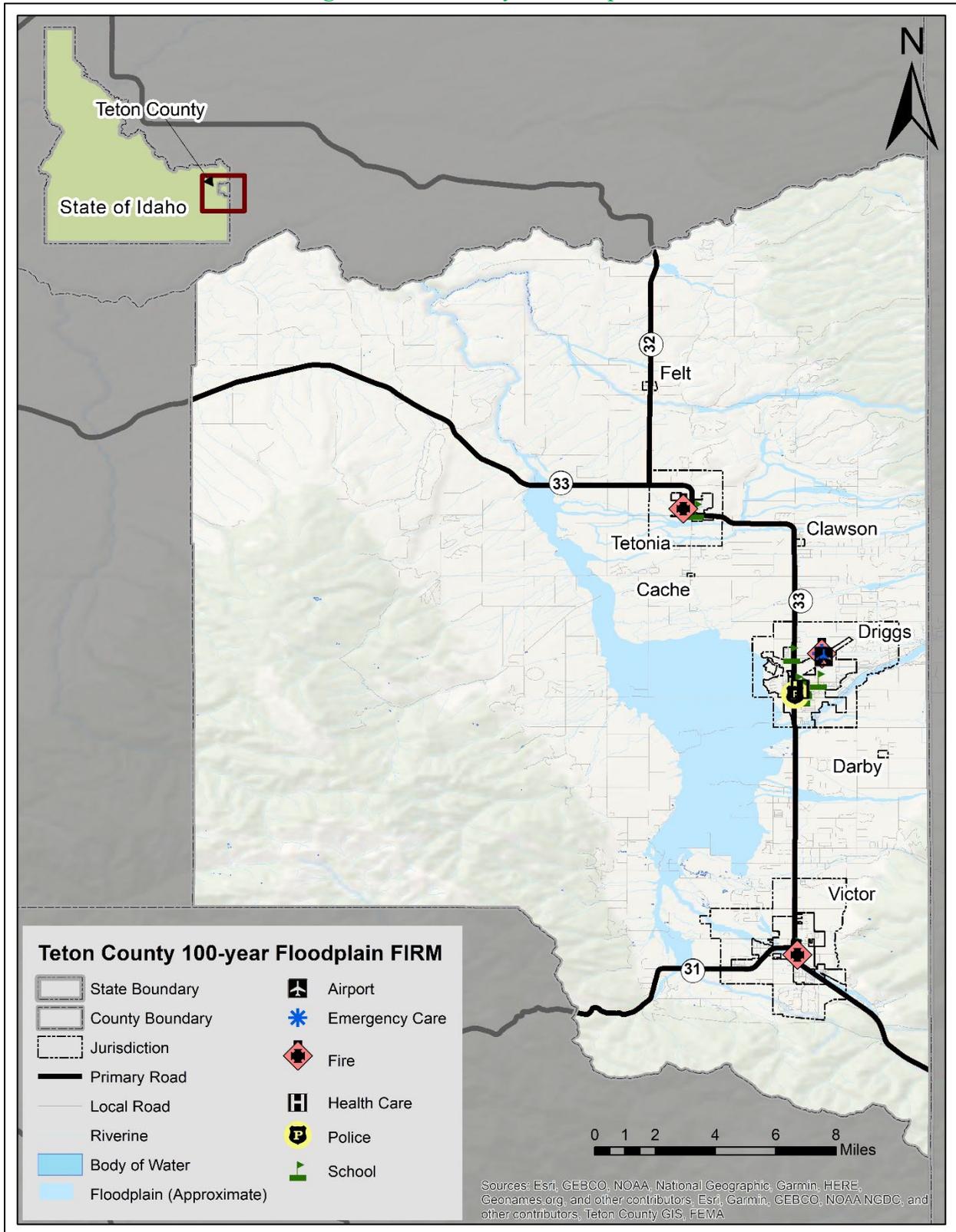
Figure 4.7.2.1: Teton Creek Priority Projects



City of Victor:

In Victor, Trail Creek is on the edge of town and floods during high water events. The southern part of town, including a gas station, shops, and homes could be flooded.

Figure 4.7.2.2: 100-year Floodplain



Loss Estimates

Teton Creek – Creekside Flood Path Analysis

An analysis for the Friends of the Teton River (FTR) was conducted in 2019 regarding the Teton Creek – Creekside Meadows Subdivision Flood Path Mapping Project. The Teton Creek represents one of the more significant flood risks in the County. This is a brief summary of the key findings for the existing condition hydraulic model of Teton Creek and flood path and avulsion potential analysis.

There are two distinct flood paths in the project area. Path 1 enters the floodplain upstream of the Creekside Meadows Subdivision. This path is at a primitive channel crossing location where there is an existing ditch and gap in the riparian vegetation. The second flood path begins closer to the subdivision and is included as a location evaluated for avulsion risk. This path is adjacent to the main channel upstream of the Creekside Bridge.

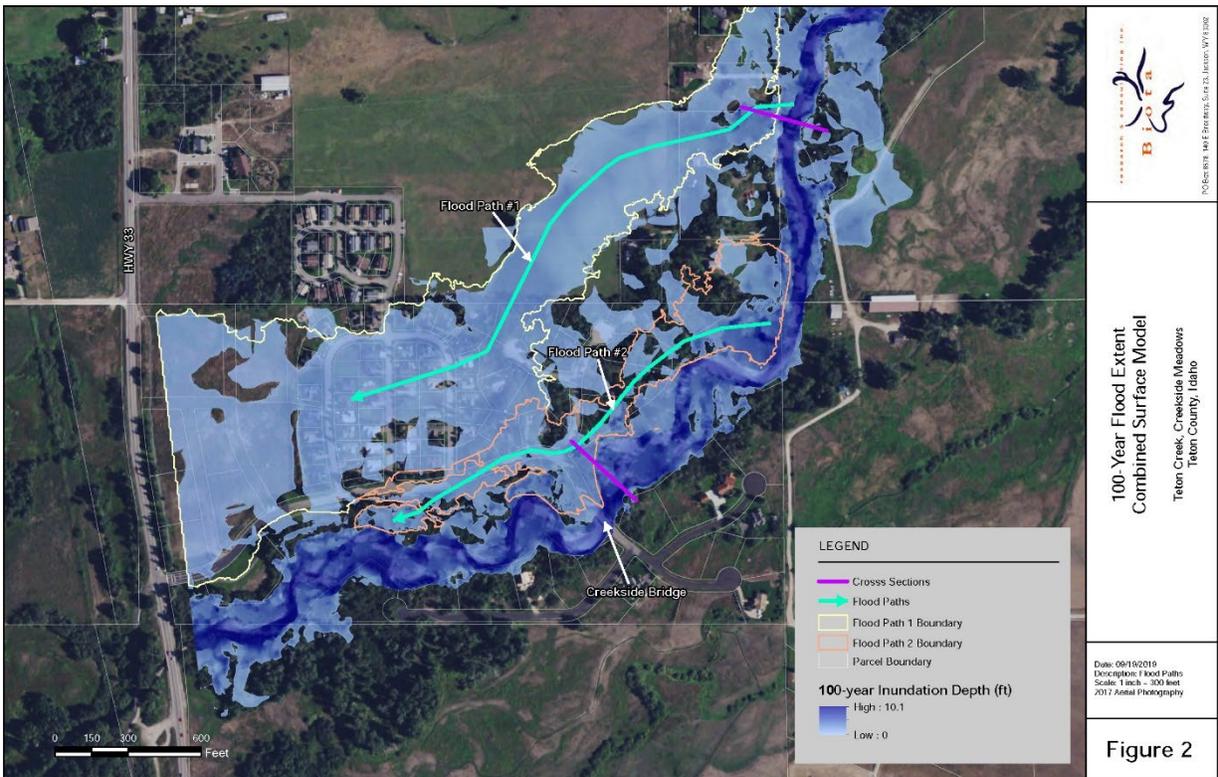
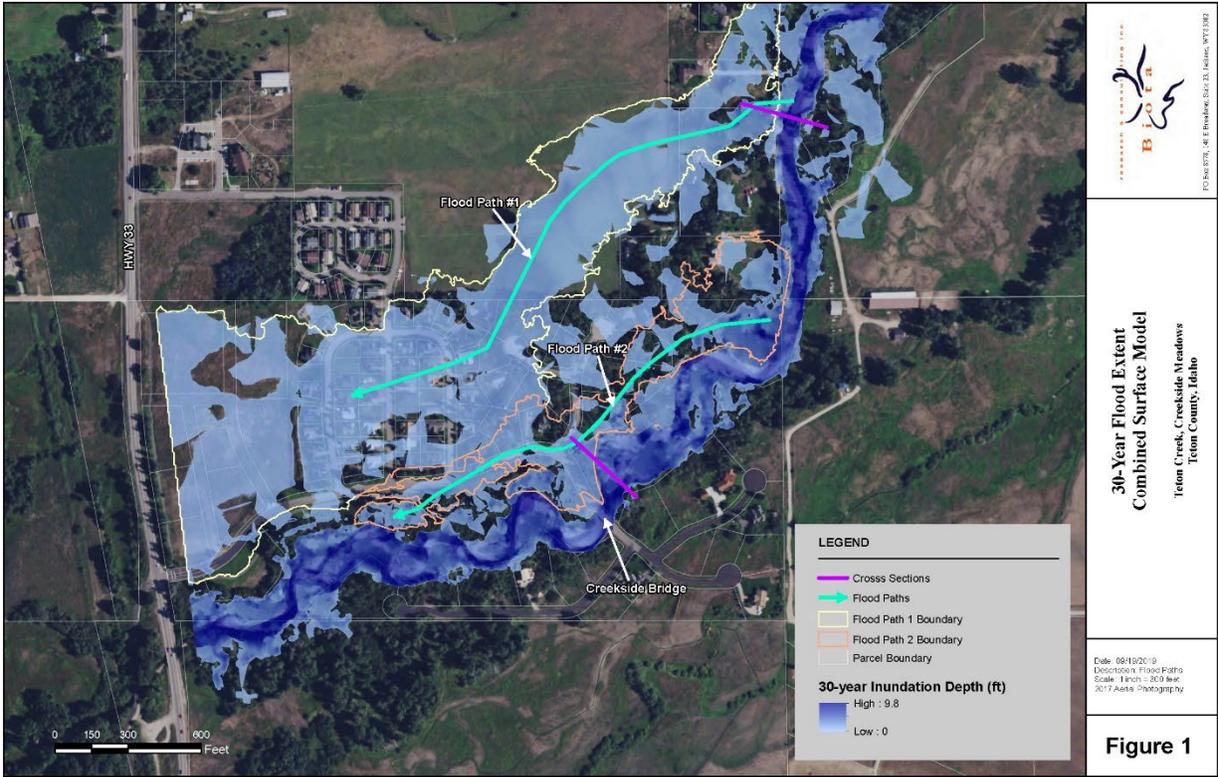
Flood Path 1

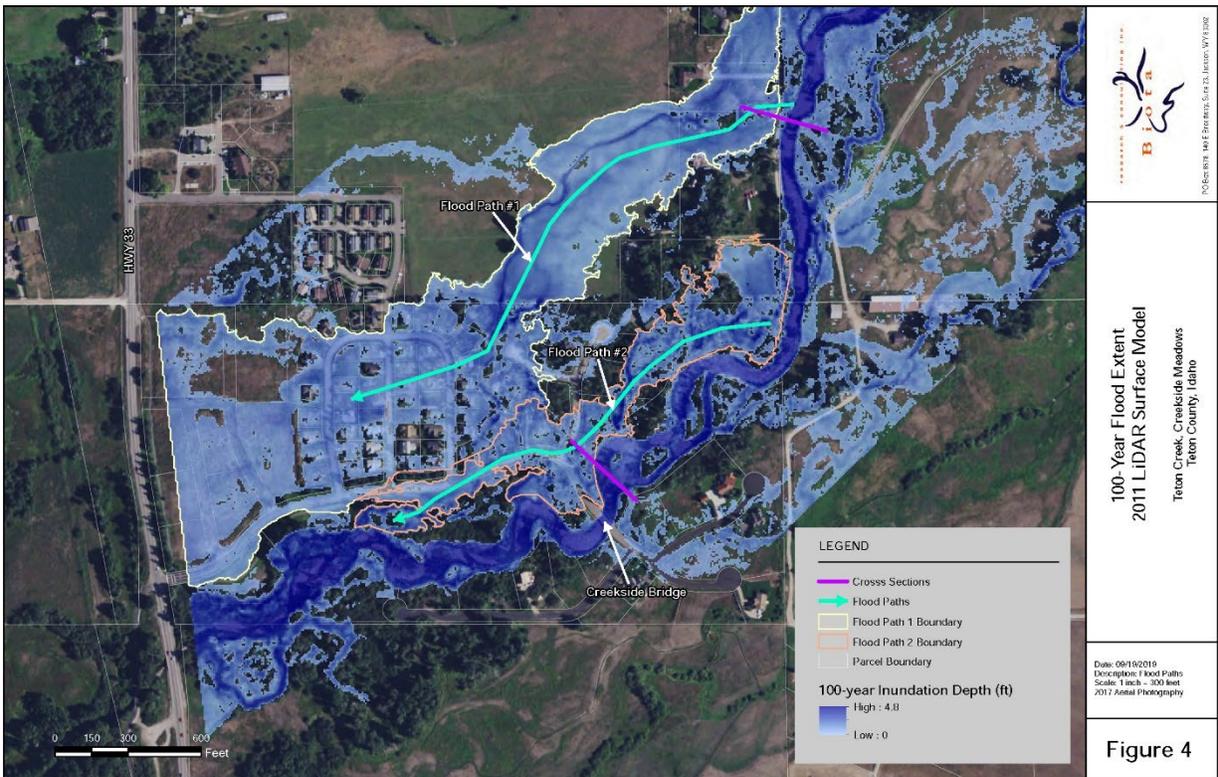
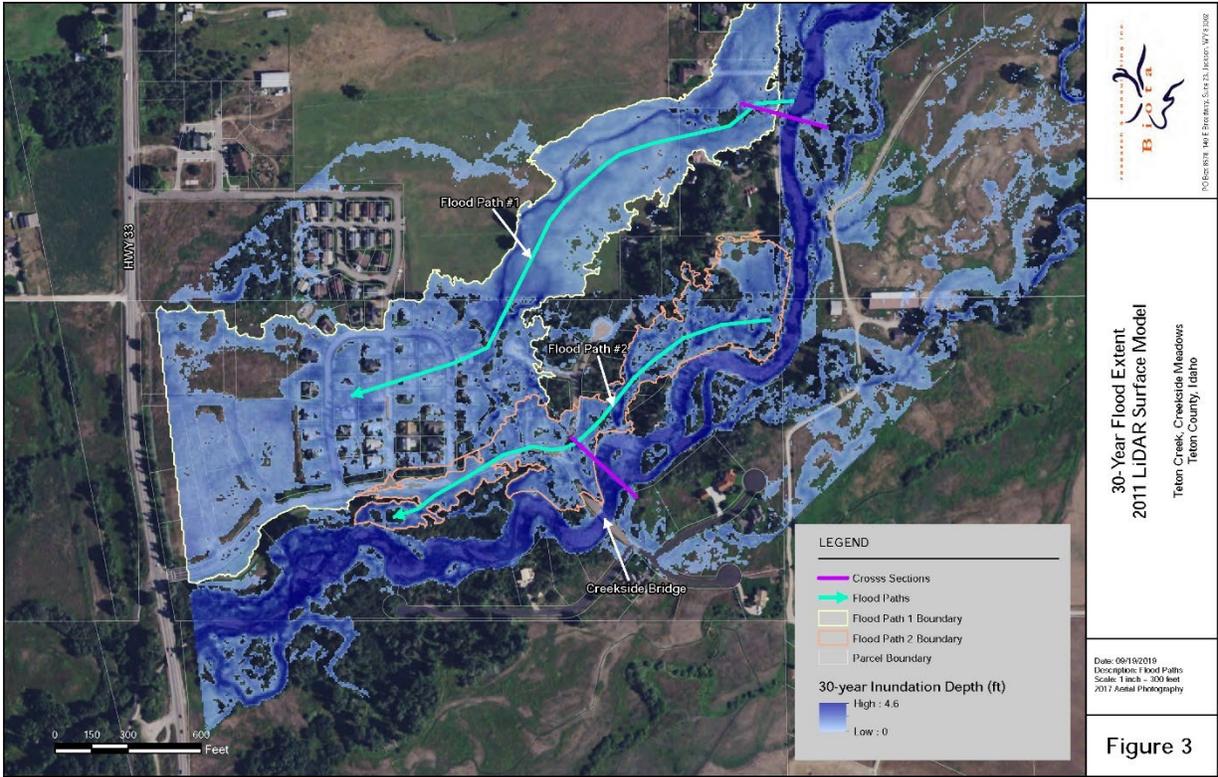
During the estimated 30-year flood event as depicted on Figure 1 (see image below), 35 or more structures in the subdivision would be inundated from Path 1 with flood depths of 1 foot or less (based on the Combined Surface). Figure 2 (see image below) shows the inundated flood paths during the estimated 100-year flood event (based on the Combined Surface). Utilizing the LiDAR Surface in the model (Figure 3), results in a total of 25 or more structures in the subdivision being inundated by Path 1 during the 30-year flood event with depths of 1.5 foot or less. Figure 4 (see image below) shows the inundated flood paths during the estimated 100-year flood event (based on the 2011 LiDAR Surface).

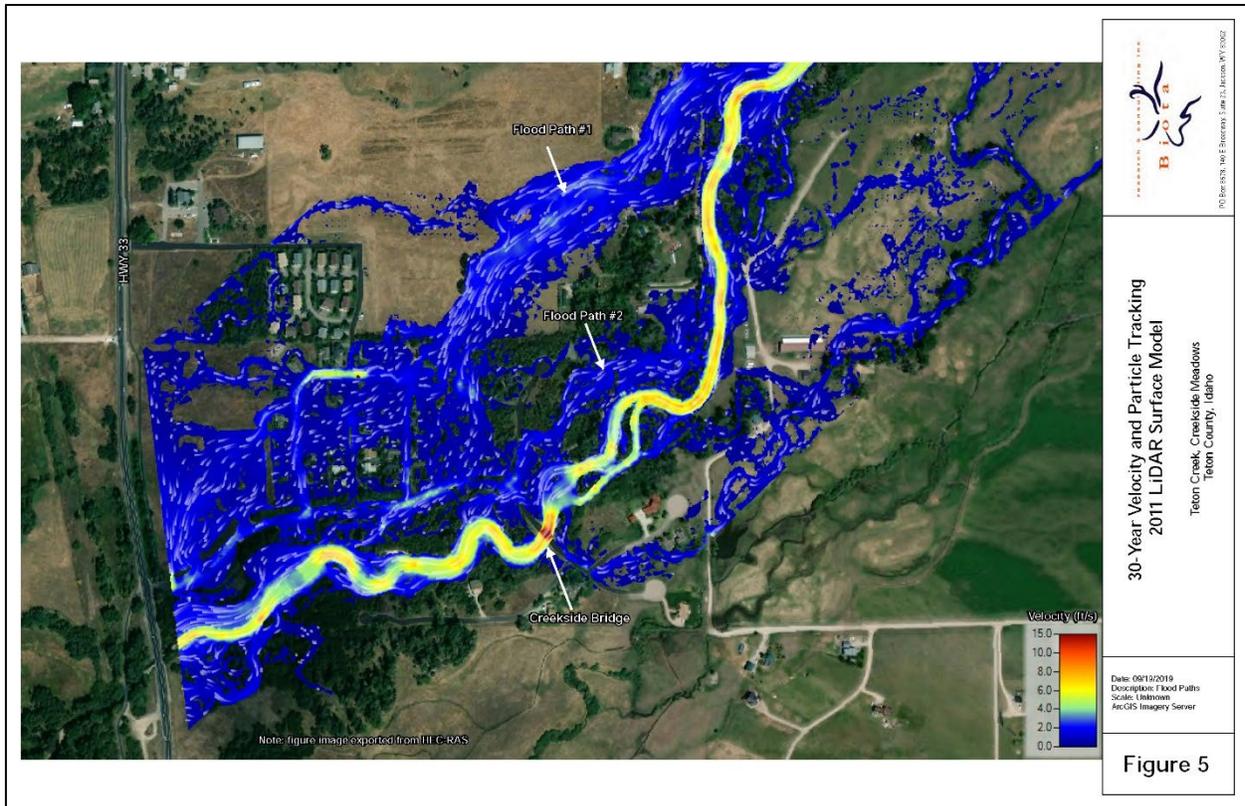
The majority of modeled velocities in Path 1 during the 30-year event are approximately 2 feet/second (ft/s) or less, compared to average velocities of 6 to 8 ft/s in the channel (and higher in isolated areas). Higher velocities, up to 7.8 ft/s were noted along the northern end of Streamside Street in the Creekside Subdivision. These high velocity magnitudes are more commonly found in channels than on floodplain flood paths and could result in considerable infrastructure damage. The HECRAS output graphic in Figure 5 (see image below) shows the 30-year flood event velocity and general flow direction, as shown by the particle tracking.

Flood Path 2

Path 2 shows flooding within the subdivision during the 30-year flood event. Path 2 may produce a higher avulsion risk than Path 1 due to local geomorphic conditions. High velocities, up to 4.5 ft/s, were also noted in Path 2 along Creekside Meadows Ave. These high velocity magnitudes are more commonly found in channels than on floodplain flood paths and could result in considerable infrastructure damage. An avulsion of the main channel into Path 2 would likely result in considerable damage to infrastructure including catastrophic failure of portions of Creekside Meadows Ave and the pedestrian pathway. Access to the Creekside Bridge and residences south of Teton Creek would likely be lost if an avulsion occurred in Path 2.







Source: 2019 Teton Creek – Creekside Meadows Subdivision Flood Path Mapping Project

Historical Losses

The loss estimates for the 2011 flood that affected the County are:

- \$13,196.53 for Teton County
- \$60,290.98 for the City of Driggs
- One confirmed fatality

In 2011, Teton County had its first declared disaster for flooding. Many homes, roadways and even the Driggs Wastewater treatment facility was impacted, with over \$10,000 in County road damage alone.

Repetitive Loss – There are no FEMA-defined repetitive or severe repetitive loss properties in the County. However, certain areas are more prone to flooding.

A recent mitigation success to address losses in the Badger Creek area include the following:

Badger Creek Bridge on W 3000 N

- Total Project Cost \$236,988.49
- Total Teton County Cash Match \$29,839.85

Before Picture:



After Picture:



Another successful project to address flooding issues in the county includes the Teton Creek.

Teton Creek

- Total Project Cost \$1,398,152.39
- Total Teton County Cash Match \$85,000.00

Before Picture:



After Picture:



HAZUS Level 2

Teton County: 100-year Flood

HAZUS estimates that about 25 buildings will be at least moderately damaged. This is over 53% of the total number of buildings in the scenario. There are an estimated 3 buildings that will be completely destroyed.

Expected Building Damage by Occupancy

Occupancy	1-10		11-20		21-30		31-40		41-50		Substantially	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Agriculture	0	0	0	0	0	0	0	0	0	0	0	0
Commercial	0	0	0	0	0	0	0	0	0	0	0	0
Education	0	0	0	0	0	0	0	0	0	0	0	0
Government	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	0	0	0	0	0	0	0	0	0	0	0	0
Religion	0	0	0	0	0	0	0	0	0	0	0	0
Residential	0	0	1	4	11	44	5	20	5	20	3	12
Total	0	-	1	-	11	-	5	-	5	-	3	-

Expected Damage to Essential Facilities

	Total	# of Facilities		
		At Least Moderate	At Least Substantial	Loss of Use
Fire Stations	3	0	0	0
Hospitals	1	0	0	0
Police Stations	1	0	0	0
Schools	10	0	0	0
Emergency Operations Center	1	0	0	0

**Building-Related Economic Loss Estimates
 (Millions of Dollars)**

	Area	Residential	Commercial	Industrial	Others	Total
Building Loss						
	Building	3.72	0.72	0.23	0.06	4.73
	Content	2.34	2.38	0.47	0.27	5.46
	Inventory	0.00	0.06	0.08	0.02	0.17
	Subtotal	6.06	3.16	0.78	0.36	10.35
Business Interruption						
	Income	0.00	0.01	0.00	0.00	0.02
	Relocation	0.00	0.00	0.00	0.00	0.00
	Rental Income	0.01	0.00	0.00	0.00	0.01
	Wage	0.01	0.01	0.00	0.01	0.03
	Subtotal	0.02	0.02	0.00	0.01	0.06
All	Total	6.08	3.19	0.78	0.37	10.41

The total economic loss estimated for the flood is 10.41 million dollars, which represents 5.16% of the total replacement value of the scenario buildings.

The total building-related losses were 10.35 million dollars. 1% of the estimated losses were related to the business interruption of the region. The residential occupancies made up 58.40% of the total loss.

HAZUS estimates the number of households that are expected to be displaced from their homes due to the flood and the associated potential evacuation. HAZUS also estimates those displaced people that will require accommodations in temporary public shelters. The model estimates 135 households will be displaced due to the flood. Displacement includes households evacuated from within or very near to the inundated area. Of these, 139 people are expected to seek temporary shelter in public shelters.

4.8 Hail

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

This hazard affects every community in Teton County.

Hazard Description

The NWS definition of “hail” is: Showery precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter, falling from a cumulonimbus cloud. Its size can vary from the defined minimum, a little over a quarter of an inch, up to 4.5 inches or larger. “Severe hail” is defined as being 0.75 inches or more in diameter. The largest hailstones are formed in supercell thunderstorms because of their sustained updrafts and long duration. Hail and severe hail are relatively uncommon in Idaho.

Location

Teton county can experience hailstorms countywide.

Extent

The Torro Hailstorm Intensity scale was developed by Jonathan Webb to measure and categorize hailstorms. It extends from H0 to H10 with its increments of intensity or damage potential related to hail size (distribution and maximum), texture, numbers, fall speed, speed of storm translation, and strength of the accompanying wind. The scale could be modified depending on factors such as building materials and types; e.g. whether roofing tiles are predominantly slate, shingle or concrete.

Figure 4.8.1: Hail Intensity Scale

Size code	Maximum diameter (mm)	Description
0	5-9	Pea
1	10-15	Mothball
2	16-20	Marble, grape
3	21-30	Walnut
4	31-40	Pigeon's egg > squash ball
5	41-50	Golf ball > Pullet's egg
6	51-60	Hen's egg
7	61-75	Tennis ball > cricket ball
8	76-90	Large orange > soft ball
9	91-100	Grapefruit
10	>100	Melon

Scale	Intensity category	Typical hail diameter (mm)*	Probable kinetic energy J m ⁻²	Typical damage impacts
H0	Hard hail	5	0-20	No damage
H1	Potentially damaging	5-15	>20	Slight general damage to plants, crops
H2	Significant	10-20	>100	Significant damage to fruit, crops, vegetation
H3	Severe	20-30	>300	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25-40	>500	Widespread glass damage, vehicle bodywork damage
H5	Destructive	30-50	>800	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40-60		Bodywork of grounded aircraft dented, brick walls pitted
H7	Destructive	50-75		Severe roof damage, risk of serious injuries
H8	Destructive	60-90		(Severest recorded in the British Isles) Severe damage to aircraft bodywork
H9	Super Hailstorms	75-100		Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	>100		Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

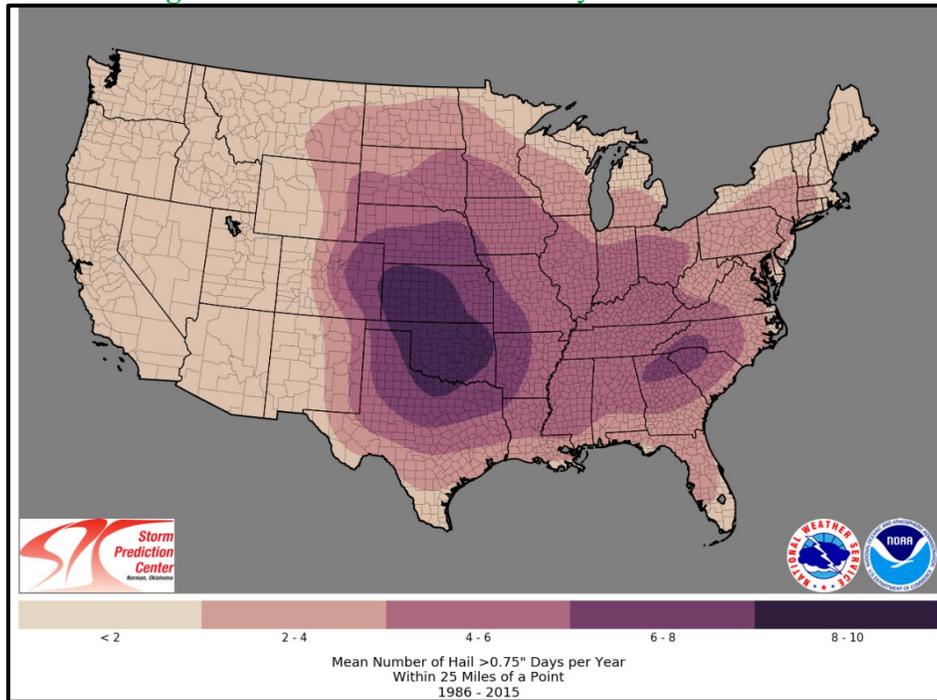
While hailstorms are not frequent in Teton County, one storm in May of 2014 had hail that was 1.75 inches in size.

Historical Frequencies & the Probability of Future Occurrences

Table 4.8.1: Past Hail Events

Location	County/Zone	St.	Date	Type	Mag
TETON CO.	TETON CO.	ID	07/14/1975	Hail	0.75 in.
TETON CO.	TETON CO.	ID	07/09/1983	Hail	1.75 in.
VICTOR	TETON CO.	ID	06/03/1996	Hail	0.25 in.
TETONIA	TETON CO.	ID	06/22/1996	Hail	0.75 in.
TETONIA	TETON CO.	ID	06/14/1998	Hail	1.00 in.
TETONIA	TETON CO.	ID	08/04/2000	Hail	0.75 in.
TETONIA	TETON CO.	ID	09/13/2001	Hail	0.88 in.
DRIGGS	TETON CO.	ID	07/23/2002	Hail	0.75 in.
VICTOR	TETON CO.	ID	07/04/2004	Hail	0.75 in.
VICTOR	TETON CO.	ID	07/09/2004	Hail	1.00 in.
DRIGGS	TETON CO.	ID	06/14/2006	Hail	0.75 in.
VICTOR	TETON CO.	ID	07/22/2008	Hail	1.00 in.
VICTOR	TETON CO.	ID	07/22/2008	Hail	1.00 in.
DRIGGS	TETON CO.	ID	07/22/2008	Hail	0.88 in.
VICTOR	TETON CO.	ID	05/31/2014	Hail	1.00 in.
TETONIA	TETON CO.	ID	05/31/2014	Hail	1.75 in.
TETONIA	TETON CO.	ID	06/01/2015	Hail	1.25 in.

Figure 4.8.2: Historical Probability of Hail in the US



Impacts

Deaths and injuries due to hail have occurred, but are rare. The most likely impact would be to property and agriculture.

Table 4.8.2: Premium Subsidies by Cause of Loss, 1995-2020 (Hail)

Cause of Loss	Premium subsidies 1995-2020	Percent Cause of Loss (Heat, Excess Moisture, Hail, Drought, Flood, Cold Winter, Freeze, Other, etc.)
Hail	\$288,008	12%

The premium subsidies by cause of loss in the table are lower than total premium subsidies because the USDA Risk Management Agency only reports premium subsidies by cause of loss for policies that paid an indemnity. Non-indemnified policies and their associated premium subsidies are not reported by cause of loss. The driving force behind a decline in crop yield or revenue that triggers an indemnity payment is called the "cause of loss" – an event or circumstance that damages crop yield, such as drought, hail or too much rain, or that damages the price side of farmer revenues, like a decline in crop price.

Loss Estimates

Economic loss can be extensive, especially to agricultural-based economies. Hail is very damaging to crops. Severe hail may cause extensive property damage including damage to vehicle paint and bodywork, glass, shingles and roofs, plastic surfaces, etc. Hail loss nationally is estimated at over one billion dollars annually.

One storm in May of 2014 had hail that was 1.75 inch in size

4.9 High Wind Event

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

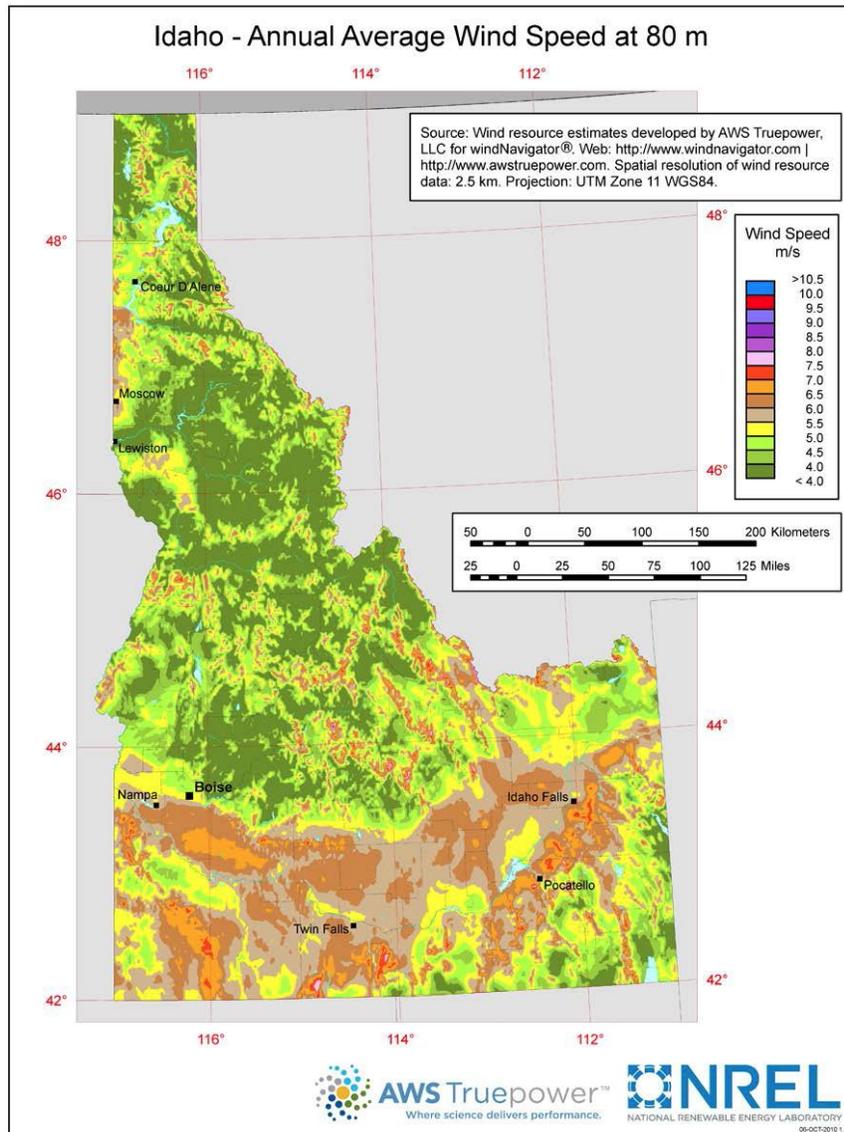
This hazard affects every community in Teton County.

Hazard Description

The term “straight line wind” is used to describe any wind not associated with rotation, particularly tornadoes. Of concern is “high wind,” defined by the NWS as, “Sustained wind speeds of 40 mph or greater lasting for one hour or longer, or winds of 58 mph or greater for any duration.”

Like tornadoes, strong, straight line winds are generated by thunderstorms and they can cause similar damage. Straight line wind speeds can approach 150 mph, equivalent to those in an F3 tornado. Two categories of straight line winds are “down-bursts” and “derechoes.” A downburst is a small area of rapidly descending rain and rain-cooled air beneath a thunderstorm. The winds produced from a down-burst often travel in one direction, and the worst damage is usually on the forward side of the down-burst. Derechoes are created by the merging of many thunderstorm cells into a cluster or solid line extending for many miles. The width of such a storm can range from 20 to 65 miles, and the length can reach 100 miles or more. In extreme cases these storms can create maximum wind gusts of 150 mph and they are also capable of producing small tornadoes. Damaging, straight line winds are much more common than tornadoes and their damage is often incorrectly attributed to tornadoes. Derechoes are not common in Idaho, averaging less than one per year, while downburst associated straight line winds occur more frequently.

Figure 4.9.1: Idaho Annual Average Wind Speed



Source: Wind Powering America

Location

High wind events affect the entire county.

Extent

The Beaufort Wind Scale explains different win speeds based on how they would affect land conditions and sea conditions.

Table 4.9.1: Beaufort Wind Scale

Force	Wind (Knots)	WMO Classification	Appearance of Wind Effects On Land
0	Less than 1	Calm	Calm, smoke rises vertically
1	1-3	Light Air	Smoke drift indicates wind direction, still wind vanes
2	4-6	Light Breeze	Wind felt on face, leaves rustle, vanes begin to move
3	7-10	Gentle Breeze	Leaves and small twigs constantly moving, light flags extended
4	11-16	Moderate Breeze	Dust, leaves, and loose paper lifted, small tree branches move
5	17-21	Fresh Breeze	Small trees in leaf begin to sway
6	22-27	Strong Breeze	Larger tree branches moving, whistling in wires
7	28-33	Near Gale	Whole trees moving, resistance felt walking against wind
8	34-40	Gale	Twigs breaking off trees, generally impedes progress
9	41-47	Strong Gale	Slight structural damage occurs, slate blows off roofs
10	48-55	Storm	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	56-63	Violent Storm	
12	64+	Hurricane	

Historical Frequencies & the Probability of Future Occurrences

There have been over 70 wind incidents since 1960. The following represent significant incidents that have affected the County.

Table 4.9.2: Significant Wind Events

Location	County/Zone	St.	Date	Type	Mag
County	Teton	ID	7/9/1983	High Wind	unknown
Victor	Teton	ID	6/17/1997	High Wind	43 kts
County	Teton	ID	04/23/2002	High Wind	unknown
Driggs	Teton	ID	8/22/2003	High Wind	60 kts
County	Teton	ID	10/29/2003	High Wind	44 kts.
County	Teton	ID	03/06/2004	High Wind	60 kts.
County	Teton	ID	05/20/2008	High Wind	61 kts.
County	Teton	ID	05/12/2009	High Wind	52 kts.
County	Teton	ID	06/29/2011	High Wind	56 kts.
County	Teton	ID	04/29/2013	High Wind	58 kts.
County	Teton	ID	09/30/2013	High Wind	50 kts.
Driggs	Teton	ID	05/09/2016	High Wind	39 kts.
County	Teton	ID	05/24/17	High Wind	56 kts.
County	Teton	ID	04/02/2018	High Wind	63 kts.
County	Teton	ID	05/06/2020	High Wind	61 kts.
County	Teton	ID	09/07/2020	High Wind	39 kts.
County	Teton	ID	03/28/2021	High Wind	57 kts.
County	Teton	ID	04/10/2021	High Wind	60 kts.

Figure 4.9.2: Significant Wind Events

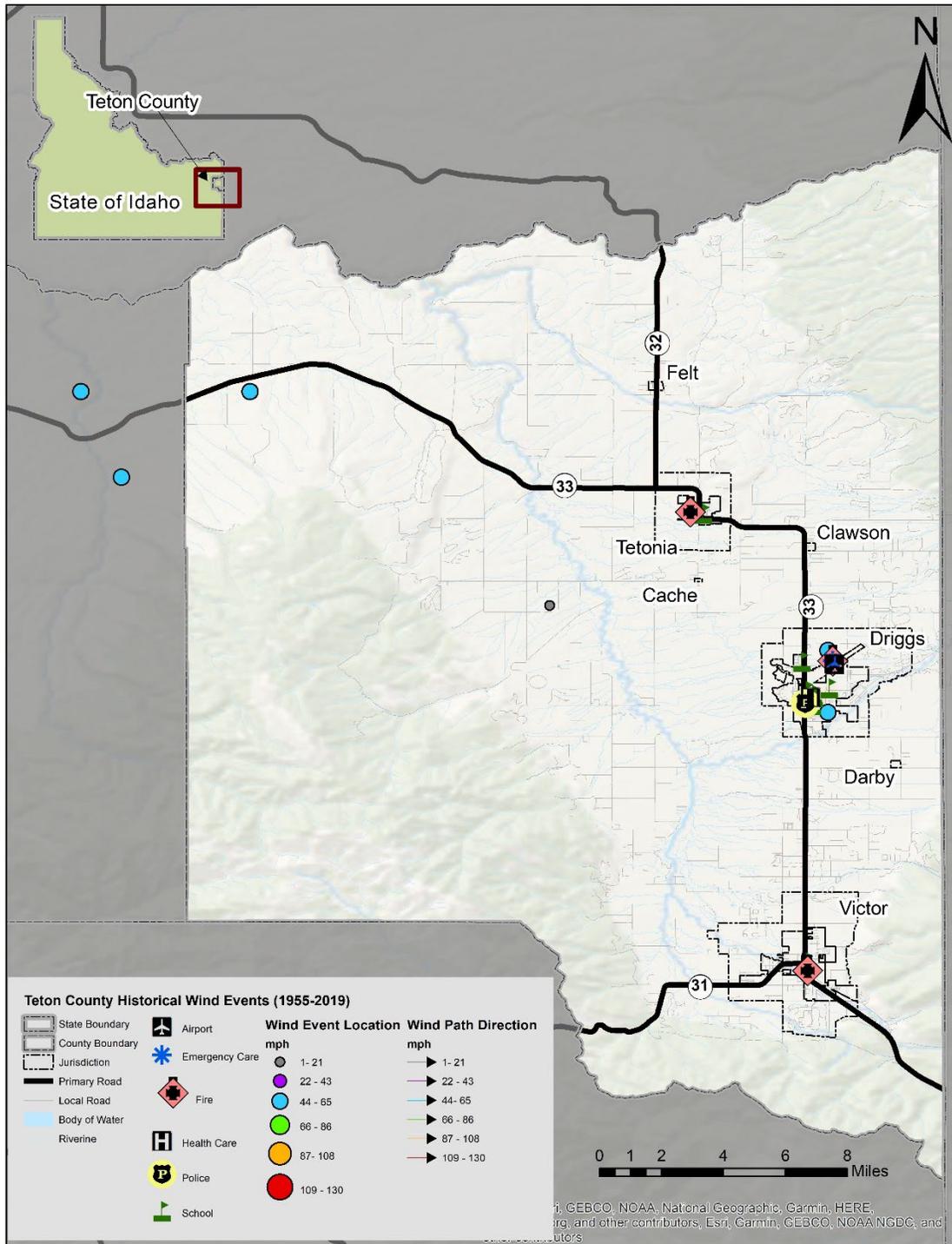
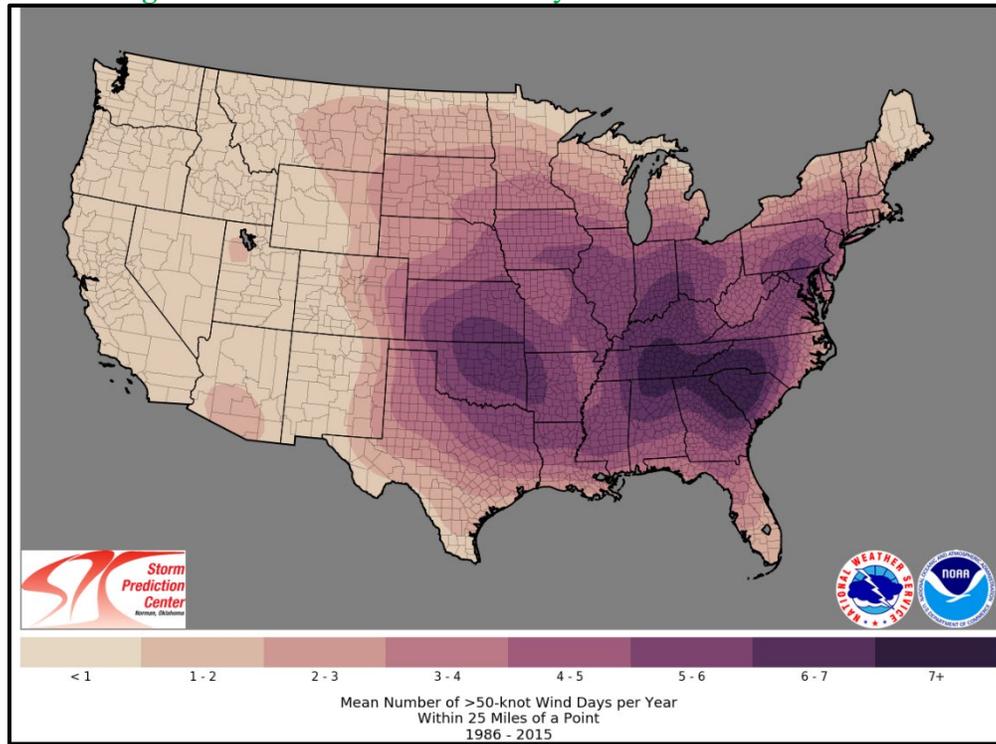


Figure 4.9.3: Historical Probability of Severe Wind in the US



Impacts

The impacts of straight line winds are virtually the same as those from tornadoes with similar wind speeds. The damage is distinguishable from that of a tornado only in that the debris generally is deposited in nearly parallel rows. Downbursts are particularly hazardous to aircraft in flight.

Of greatest concern to the County is modular homes, and specifically schools (District 401) that use modular structures. There is a need to assess schools with modular buildings, inspect tie downs, and assess wind load. Agriculture may also be affected.

Table 4.9.3: Premium Subsidies by Cause of Loss, 1995-2020 (Wind/Excess Wind)

Cause of Loss	Premium subsidies 1995-2020	Percent Cause of Loss (Heat, Excess Moisture, Hail, Drought, Flood, Cold Winter, Freeze, Other, etc.)
Wind/Excess Wind	\$11,813	0.5%

The premium subsidies by cause of loss in the table are lower than total premium subsidies because the USDA Risk Management Agency only reports premium subsidies by cause of loss for policies that paid an indemnity. Non-indemnified policies and their associated premium subsidies are not reported by cause of loss. The driving force behind a decline in crop yield or revenue that triggers an indemnity payment is called the “cause of loss” – an event or circumstance that damages crop yield, such as drought, hail or too much rain, or that damages the price side of farmer revenues, like a decline in crop price.

4.10 Landslide/Mudslide

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

The term “landslide” encompasses several types of occurrence (including mudslides) in which slope-forming materials such as rock and soil move downward under the influence of gravity. Such downward movement may occur as the result of an increase in the weight of slope-forming materials, an increase in the gradient (angle) of the slope, a decrease in the forces resisting downward motion (friction or material strength) or a combination of these factors. Factors that may trigger a landslide include: weather related events such as heavy rainfall (one of the most common contributors), erosion, and freeze-thaw weakening of geologic structures, human causes such as excavation and mining, deforestation, and vibration from explosions or other sources, and such geologic causes as earthquake, volcanic activity, and shearing or fissuring. The speed of descent ranges from sudden and rapid to an almost imperceptibly slow creep where effects are only observable over a period of months or years.

Location

The entire United States experiences landslides, with 36 states having moderate to highly severe landslide hazards. According to the USGS, a majority of Idaho has low landslide potential. This hazard occurs primarily in the back country of Teton County. The jurisdictions of Tetonia, Driggs, and Victor have a low overall risk to this hazard.

Extent

Factors that influence landslides are soil type and steepness of slope. Soil type is a key indicator for landslide potential and is used by geologist and geotechnical engineers to determine soil stability for construction standards. Past movements are also a good indicator of where movements might possibly exist.

Historical Frequencies & the Probability of Future Occurrences

There are no recorded landslides in Teton County; however minor slides have occurred on Highway 22 in Wyoming which impacts the traveling public moving between Teton County, Idaho and Teton County, Wyoming.

Impacts

Some of the many direct and indirect impacts of landslides are:

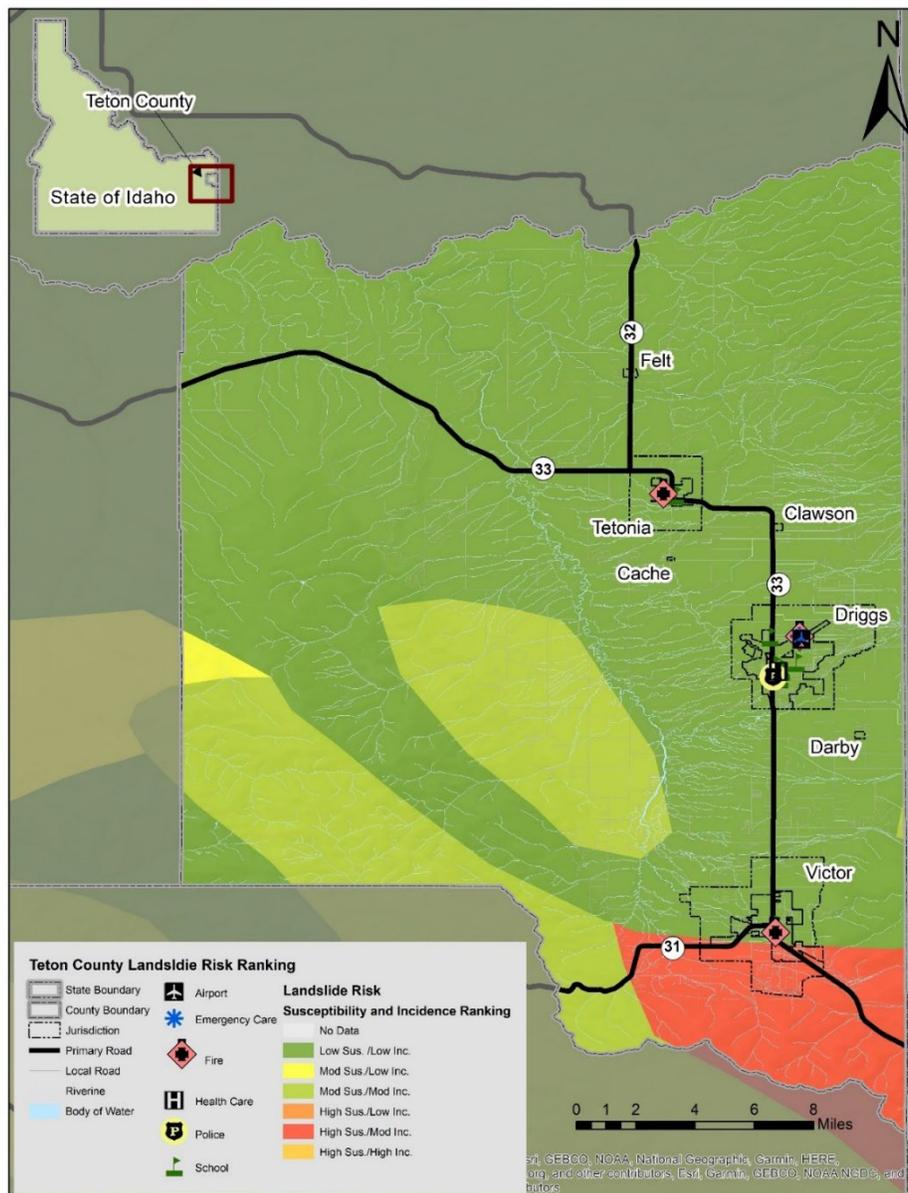
- Human and animal deaths and injuries and resulting productivity losses
- Damage or destruction of structures
- Destruction or blockage of roadways and resulting transportation interruption

- Loss of, or reduced land usage
- Loss of industrial, agricultural and forest productivity
- Reduced property values in areas threatened by landslide
- Loss of tourist revenues and recreational opportunities
- Damage or destroyed infrastructure and utilities
- Damming or alteration of the course of streams and resulting flooding Reduced water quality

Loss Estimate

Losses due to Landslide events are generally tied to the repair of roadways or the removal of debris on roadways. Teton County has 89 miles of Country owned roadway that is within potential landslide areas. The majority of the landslide areas are in the back Country which is primarily Federal Lands.

Figure 4.10.1: Landslide Risk Areas



4.11 Lightning

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

This hazard affects every community in Teton County.

Hazard Description

Lightning is defined by the NWS as, “A visible electrical discharge produced by a thunderstorm. The discharge may occur within or between clouds, between the cloud and air, between a cloud and the ground or between the ground and a cloud.” A lightning discharge may be over five miles in length, generate temperatures upwards of 50,000°F, and carry 50,000 volts of electrical potential. Lightning is most often associated with thunderstorm clouds but lightning can strike as far as five to ten miles from a storm. Thunder is caused by the rapid expansion of air heated by a lightning strike. Cloud-to-ground lightning strikes occur with much less frequency in the northwestern U.S. than in other parts of the country.

Table 4.11.1: Lightning Types

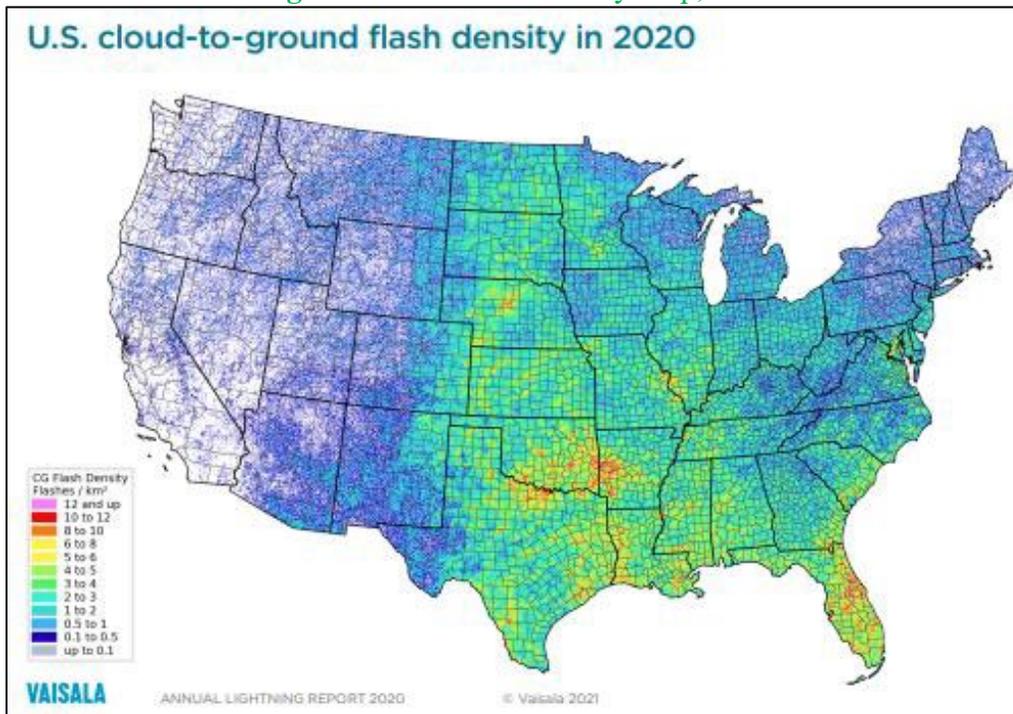
Category	Criteria
Cloud to Ground	A lightning discharge between cloud and ground initiated by a downward-moving stepped leader.
Ground to Cloud	A lightning discharge between cloud and ground initiated by an upward-moving stepped leader originating from an object on the ground. Ground-to-Cloud lightning strikes are common on tall towers and skyscrapers.
Intracloud	A lightning discharge inside a single storm cloud, jumping between different charge regions in the cloud. All or parts of the actual channel may be obscured inside the cloud, and may or may not be visible to an observer on the ground.
Anvil Crawlers	A lightning discharge with movement that is slow enough that a human observer or normal-speed video camera can see the rapid motion across the sky.
Bolt from the Blue	A lightning discharge that strikes far away from its parent thunderstorm. A 'bolt from the blue' typically originates in the highest regions of a cumulonimbus cloud, traveling horizontally a good distance away from the thunderstorm before making a vertical descent to earth in locations with clear skies.
Sheet	A lightning discharge where the actual lightning channel is either inside the clouds or below the horizon but not visible to the observer.
Bead	The decaying stage of a lightning channel in which the luminosity of the channel breaks up into segments. Nearly every lightning discharge will exhibit beading as the channel cools immediately after a return stroke.
Ribbon	The visual appearance of a photographed lightning flash's individual return strokes being separated by visible gaps on the final exposure. This is typically caused by wind blowing the lightning channel sideways during the exposure.

Cloud to Air	A lightning discharge or a portion of a discharge jumping from a cloud into clear air.
Cloud to Cloud	A lightning discharge between two or more completely separate storm clouds.
Ball	A rare phenomenon described as a floating, illuminated sphere that occurs during thunderstorms. It may move fast, slow or stay stationary, it may be quiet or produce a hissing or crackling noise, it may pass through windows, last from seconds to minutes, and disappear slowly or suddenly either quietly or with a loud bang.

Source: Storm Highway

+

Figure 4.11.1: Flash Density Map, 2020



Source: <https://www.vaisala.com/sites/default/files/documents/WEA-MET-Annual-Lightning-Report-2020-B212260EN-A.pdf>

Location

This hazard can affect the entire community and the state of Idaho, but the risk to the community is low.

Extent

A lightning flash is created by a transfer of significant charge between two charged objects. Lightning discharges can occur inter-cloud, cloud-to-cloud, cloud-to-air and cloud-to-ground. Cloud-to-ground (CG) lightning has the greatest risk to society. A CG stroke can kill, destroy equipment, start fires and disturb power delivery systems. Lightning strikes in the US more than 20 million times and seventy percent of lightning fatalities occur during the summer months. In Idaho between 2011-2016 the National Lightning Detection Network reported an average of 77,232 strikes per year from 2007-2016 (about one per square mile).

Historical Frequencies & the Probability of Future Occurrences

There have been multiple incidents, but the following represent lightning incidents in which injuries or fatalities have been recorded.

Table 4.11.2: Past Lightning Events with Damages

Place	Date	Event	Details	Reported Damage
Teton County	7/29/1909	Lightning	Woman struck and killed, others injured	unknown
Bates	5/1917	Lightning	Man struck and killed, 2 horses killed	unknown
Driggs	5/15/1917	Lightning	Woman struck and injured	unknown
Victor	7/18/1921	Lightning	Young man struck and injured severely	unknown
Lamont	7/4/1929	Lightning	Man struck and killed	unknown
Victor	6/17/1937	Lightning	Man struck and killed, one injured	unknown
Cache	7/15/1940	Lightning	Two people struck killed	unknown
Driggs	6/22/1945	Lightning	A cow and 2 goats struck and killed	unknown
Driggs	9/28/1947	Lightning	88 sheep killed when lightning struck the field	\$20/head
12 miles east of Driggs	8/1/1951	Lightning	5 people killed when lightning struck, 36 injured	unknown
Driggs	7/18/1999	Lightning	15 head of cattle killed when lightning struck nearby tree	21 K
Tetonia	10/13/2013	Lightning		20 K

Impacts

Lightning is the second deadliest weather phenomenon in the U.S., being second only to floods. On average, sixty to seventy deaths per year are attributed to lightning nationally and in Idaho the average is less than one per year. Despite the enormous energy carried by lightning, only about 10% of strikes are fatal. Injuries include central nervous system damage, burns, cardiac effects, hearing loss, and trauma. The effects of central nervous system injuries tend to be long-lasting and severe, leading to such disorders as depression, alcoholism, and chronic fatigue and in some cases to suicide. Lightning also strikes structures causing fires and damaging electrical equipment. Wildland fires are often initiated by lightning strikes as are petroleum storage tank fires. About one third of all power outages are lightning-related.

Loss Estimates

The magnitude of economic losses is difficult to estimate. Government figures suggest annual national costs at around \$30 million but some researchers find evidence that losses may be in the billions of dollars.

Since 1940, 11 people have been killed and 39 people injured by lightning. In addition, 88 sheep, two horses, 30 cows and 2 goats have also been killed by lightning.

4.12 Public Health

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

Hazard Description

Any community has the potential to face numerous diseases and public health crises. Because the Eastern Idaho Public Health documents and plans for these incidents, this analysis will focus mostly on large-scale epidemic/pandemic concerns. However, this does not suggest that other public health concerns are not a priority or a concern to the County.

Epidemic/Pandemic is defined as a disease that appears as new cases in the human population at a rate, during a given time period and location, that substantially exceeds the number expected. It is, thus, a relative term and there is no quantitative criterion for designating a health crisis as an epidemic. In addition to its application to infectious diseases, the term is sometimes used to describe outbreaks of other adverse health effects including those stemming from chemical exposure, sociological problems, and psychological disorders. A “pandemic” is a worldwide epidemic while the term “outbreak” may be applied to more geographically limited medical problem as, for instance, in a single community rather than statewide or nationwide. The term “cluster” is often used with reference to non-communicable diseases.

Health agencies closely monitor for diseases with the potential to cause an epidemic and seek to develop immunizations and eliminate vectors. While this effort has been remarkably successful, there are many diseases of concern and the HIV/AIDS pandemic is still not controlled despite more than 25 years of effort since recognition of the disease in 1981.

Pandemic influenza versus regular influenza season

A flu pandemic has little or nothing in common with the annual flu season. A pandemic flu would be a new strain and a much more serious and contagious flu virus. Humans would have no natural resistance to a new strain of influenza. Also, there is a vaccine for seasonal flu, but there is no vaccine available at this time for a pandemic flu.

If a new, highly contagious strain of influenza begins to infect humans, it would likely cause widespread illness and death within a matter of months, and could last for several years. The Centers for Disease Control and Prevention (CDC) predict that as much as 25% to 30% of the U.S. population could be sick, hospitalized, and many may die as a result of severe illness.

Eastern Idaho Public Health has a plan to limit the spread of a pandemic influenza and to maintain essential health care and community services if an outbreak should occur. In fact, governments all around the world are preparing for the possibility of a pandemic outbreak.

Although the Federal government is stockpiling large quantities of medical supplies and antiviral drugs, no country in the world has enough anti-virals to protect their citizens. There currently is no vaccine to protect humans against a pandemic influenza virus; however, vaccine development efforts are under way to protect humans against the current H5N1 bird flu virus.

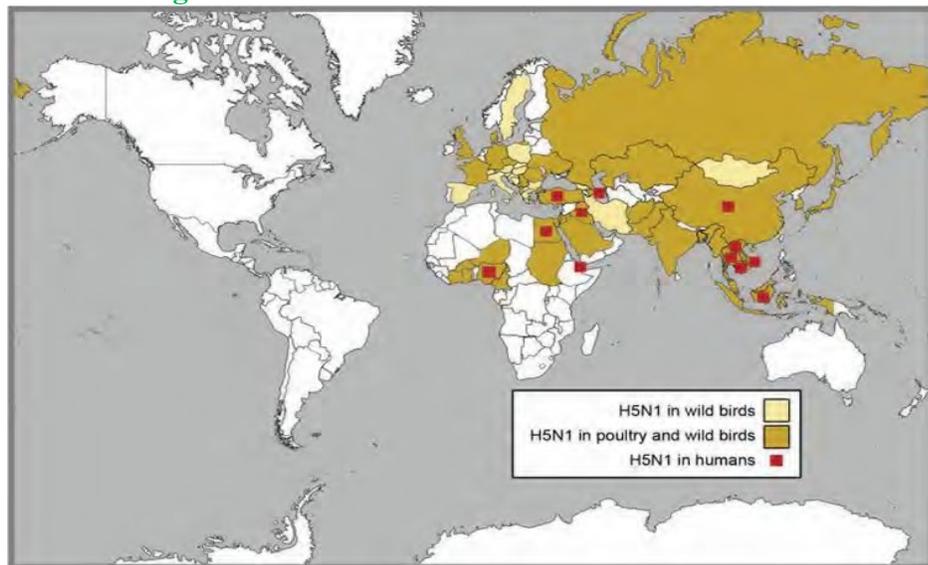
Pandemic Flu:

H5N1 “Bird Flu”

The danger is that the bird flu virus may mutate into a new form of human flu that would be easily spread person to person. Some migratory waterfowl carry the H5N1 virus, with no apparent harm, but transmit the virus to susceptible domestic poultry. The highly lethal H5N1 outbreak among domestic poultry is widespread and uncontrolled and has directly infected a small number of humans. People who have close contact with infected birds or surfaces that have been contaminated with droppings from infected birds are at risk of becoming infected themselves.

A history of poultry consumption in an infected country is not a risk factor, provided the food was thoroughly cooked and the person was not involved in food preparation. Simply traveling to a country with ongoing outbreaks in poultry or sporadic human cases does not place a traveler at increased risk of infection, provided the person does not visit live poultry markets, farms or other environments where exposure to diseased birds may occur. More than 200 million birds in affected countries have either died from the disease or were killed in order to try to control the outbreak.

Figure 4.12.1: Bird Flu Outbreaks Worldwide



The reported symptoms of bird flu in humans range from typical influenza-like symptoms (e.g., fever, cough, sore throat, and muscle aches), to eye infections (conjunctivitis), pneumonia, acute respiratory distress, viral pneumonia, and other severe and life threatening complications. Diarrhea, vomiting, abdominal pain, chest pain, and bleeding from the nose and gums have also been reported as early symptoms in some cases. In many cases, health deteriorates rapidly leading to a high percentage of death in those infected.

H1N1 “Swine Flu”

The H1N1 flu virus caused a world-wide pandemic in 2009. It is now a human seasonal flu virus that also circulates in pigs.

Severe Acute Respiratory Syndrome (SARS)

Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a coronavirus, called SARS-associated coronavirus (SARS-CoV). SARS was first reported in Asia in February 2003. Over the next few months, the illness spread to more than two dozen countries in North America, South America, Europe, and Asia before the SARS global outbreak of 2003 was contained.

According to the World Health Organization (WHO), a total of 8,098 people worldwide became sick with SARS during the 2003 outbreak. Of these, 774 died. In the United States, only eight people had laboratory evidence of SARS-CoV infection. All of these people had traveled to other parts of the world with SARS. SARS did not spread more widely in the community in the United States.

In general, SARS begins with a high fever (temperature greater than 100.4°F [$>38.0^{\circ}\text{C}$]). Other symptoms may include headache, an overall feeling of discomfort, and body aches. Some people also have mild respiratory symptoms at the outset. About 10 percent to 20 percent of patients have diarrhea. After 2 to 7 days, SARS patients may develop a dry cough. Most patients develop pneumonia.

The main way that SARS seems to spread is by close person-to-person contact. The virus that causes SARS is thought to be transmitted most readily by respiratory droplets (droplet spread) produced when an infected person coughs or sneezes. Droplet spread can happen when droplets from the cough or sneeze of an infected person are propelled a short distance (generally up to 3 feet) through the air and deposited on the mucous membranes of the mouth, nose, or eyes of persons who are nearby. The virus also can spread when a person touches a surface or object contaminated with infectious droplets and then touches his or her mouth, nose, or eye(s). In addition, it is possible that the SARS virus might spread more broadly through the air (airborne spread) or by other ways that are not now known.

Coronavirus (COVID-19)

The global public health emergency caused by the coronavirus unfolded rapidly and dramatically. The virus, which causes the COVID-19 disease, emerged in Wuhan, China, in late 2019. Since then, it spread to more than 200 countries and territories, including Idaho in the spring of 2020. COVID-19 is a new virus in humans causing respiratory illness which can be spread from person-to-person and people can be asymptomatic. Genetic variants of SARS-CoV-2 have been emerging and circulating around the world throughout the COVID-19 pandemic and have been associated with changes to receptor binding, reduced neutralization by antibodies generated against previous infection or vaccination, reduced efficacy of treatments, potential diagnostic impact, or predicted increase in transmissibility or disease severity.

COVID-19 impacted the entire County, and the first case in Idaho was identified in March of 2020. In an effort to limit the spread of the virus, health officials issued stay-at-home orders requiring residents to halt many nonessential activities, and multiple reservation-wide shutdowns. Since early spring of 2020, limited PPE was available for health care and emergency services agencies. Public health capabilities were challenged to keep pace with the community transmission as restrictions were relaxed. Every public health and medical organization, business, and residents in the County have been impacted. A few considerations specific to the region include, but are not limited to: the ability of the virus to transfer; lack of testing availability; misinformation put out by politicians and others; delay of medical care due to the pandemic overwhelming hospital systems and people being fearful of seeking care; increased reporting and evidence of the negative impacts on residents' mental health and well-being; the need for increased public information and education to garner greater confidence in the COVID-19 vaccine; and mass vaccination efforts, especially ensuring priority and at-risk groups receive the vaccine and ensuring an equitable process.

The global pandemic required many communities to address the need for extensive situational awareness and coordinated planning; increased coordination across all disciplines, including the philanthropic, business and schools community at an unprecedented scale; public information and warning; reopening strategies; public health orders; resource support; addressing essential staff limitations/shortages across key health and medical sectors during various phases of the pandemic; limited public health laboratory testing early in the pandemic; contact tracing and investigation; fatality management; medical countermeasure dispensing and administration, specifically vaccine planning and distribution; medical surge; ongoing resupply of PPE; and community and economic recovery.

COVID-19 has resulted in incredible disruptions to the County.

Location

A public health related emergency would affect every community in Teton County.

Extent

Idaho attracts about 20 million tourists annually. There are many attractions that attract large crowds of people. These tourists can introduce new germs and diseases to the community which can be easily spread and multiply rapidly. Densely populated areas have greater potential for person-to-person transmission than less densely populated areas.

Historic Epidemic/Pandemic Events

The following documents historical events to provide some perspective regarding this hazard:

- **Black Death (14th-18th centuries):** Estimated to have killed at least 75 million people worldwide, the plague decimated Europe, killing between 20-30 million Europeans in a six-year period. Between the first plague in 1348 and the 18th century, more than 100 plague epidemics ravaged Europe.
- **Cholera Pandemics (1816-1966):** In 150 years, seven cholera pandemics swept through various parts of the world, killing millions. In the second outbreak, the disease traveled around the Northern Hemisphere in the span of a single year.
- **The 1918 -1920 Spanish Flu:**
The first cases were reported in Canyon County (northwest of Boise) on September 30th. Within three weeks, the disease was raging all across the state.

- **Asian Flu 1957 -1958:**
First identified in China, this virus caused roughly 70,000 deaths in the United States during the 1957-58 season. Because this strain has not circulated in humans since 1968, no one born after that has immunity to this strain.
- **Hong Kong Flu 1968-1969:**
First detected in Hong Kong in the early 1968 and spread to the United States later that year. The Hong Kong Flu killed about 34,000 people in the United States and one million people worldwide.
- **Smallpox (eradicated in 1979):** Estimated to be responsible for 300-500 million deaths during the 20th century, smallpox is one of only two human infectious disease to be completely eradicated. Before its eradication, up to 50 million were infected with smallpox yearly.
- **HIV & AIDS (~1981-Present):** Although the virus likely entered the United States in the 1960s, the human immunodeficiency virus infection/acquired immunodeficiency syndrome (HIV/AIDS) rose to prominence in the early 1980s. HIV is the world's leading infectious killer and has claimed over 36 million lives as of 2012. The pandemic has infection rates as high as 25% in the hardest hit countries, with 95% of new infections coming from low- and middle-income countries, particularly in Sub-Saharan Africa. Although there is still no cure, antiretroviral drugs have been able to improve the quality of life for those with HIV infections.
- **COVID-19:** The disease is still present in the United States and there are different strains. The known strains impacting the global population are; the Alpha Variant (formerly called the UK Variant), the Beta Variant (formerly called the South Africa Variant), the Gamma Variant (formerly called the Brazil Variant), the Delta Variant (formerly called the India Variant), and Omicron Variant.

Impacts

The following are potential impacts from a worldwide pandemic event. The impacts in Teton County would be similar on a local level.

- Rapid Worldwide Spread
- Health Care Systems Overloaded
- Medical Supplies Inadequate
- Economic and Social Disruption
- Implementation of public health measures (masks, social distancing, washing hands)

Loss Estimates

Historically, epidemics have claimed far more lives than any other type of disaster. While modern epidemiology and medical advances make the decimation of populations much less likely, new forms of disease continue to appear. The potential, therefore, exists for epidemics to cause widespread loss of life and disability, overwhelm medical resources and have tremendous economic impacts.

Table 4.12.1: Reportable Disease for Teton County

Disease	2017	2018	2019	2020	2021
2019-nCoV				763	1,152
Campylobacteriosis	5	4	11	6	8
Chlamydia trachomatis infection	18	9	15	12	16
Cryptosporidiosis	1	1	1	2	2
Giardiasis	1	2	3	1	
Gonorrhea	3	2		2	3
Acute flaccid myelitis				1	
Aids				1	
HIV	2			1	
Hepatitis A, acute			1		
Hepatitis B virus infection, Chronic	1	1			
Hepatitis C Virus Infection, past or present	8	4	6	3	1
Noroviruses			1	1	2
Pertussis		1			
Respiratory syncytial virus (RSV)	1	9	13	2	12
MRSA		1			
STEC		1	2		2
Shigellosis		1			1
Salmonellosis	3		1	4	
Splphilis				1	

4.13 Severe Winter Storm

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Medium
Countywide Risk:	High

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
High	High	High	High

This hazard affects every community in Teton County.

Hazard Description

The NWS describes “Winter Storm” as weather conditions that produce heavy snow or significant ice accumulations. For purposes of this analysis, Severe Winter Storm is defined as any winter condition where the potential exists for a blizzard (winds \geq 35mph and falling/drifted snow frequently reduce visibility $<$ ¼ mile, for 2 hrs or more) heavy snowfall (valleys 6 inches or more snowfall in 24 hrs, mountains 9 inches or more snowfall in 24 hrs), ice storm, and/or strong winds.

The National Weather Service issues advisories, watches, and warnings for winter weather related events. These warnings can be used as the basis for preparing for a possible winter weather emergency.

Table 4.13.1: NWS Alerts for Severe Winter Weather

Alert	Criteria
Winter Storm Watch	Alerts the public to the possibility of a blizzard, heavy snow, heavy freezing rain, or heavy sleet. Winter Storm Watches are usually issued 12 to 48 hours before the beginning of a Winter Storm.
Winter Storm Warning	Issued when hazardous winter weather in the form of heavy snow, heavy freezing rain, or heavy sleet is imminent or occurring. Winter Storm Warnings are usually issued 12 to 24 hours before the event is expected to begin.

Note | Recent Changes: A Watch means you should prepare for a dangerous weather or water event (e.g. grocery shopping, emergency supply kit) and a Warning means you should take action to prevent or avoid a dangerous event (e.g. take shelter, don't drive). The current "Advisories" and "Special Weather Statements" will be removed and transitioned to plain language headlines for weather or water events that do not rise to the level of a Warning.

Source: National Weather Service

Location

Severe winter storms are a risk countywide and occur frequently.

Extent

The magnitude or severity of a severe winter storm depends on several factors including a region's climatological susceptibility to snowstorms, snowfall amounts, snowfall rates, wind speeds, temperatures, visibility, storm duration, topography, time of occurrence during the day and week (e.g., weekday versus weekend), and time of season.

Historical Frequencies & the Probability of Future Occurrences

The following tables list significant winter-related incidents in the County.

Table 4.13.2: Blizzards

County/Zone	St.	Date	Type
Teton County	ID	12/14/2000	Blizzard
Teton County	ID	12/05/2001	Blizzard
Teton County	ID	12/28/2003	Blizzard
Teton County	ID	01/01/2004	Blizzard
Teton County	ID	11/23/2010	Blizzard

Table 4.13.3: Heavy Snow

(Note: Teton County is included in the Upper Snake Highlands Zone)

Area	Date	Type
UPPER SNAKE HIGHLANDS (ZONE)	12/20/1996	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/25/1996	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/23/1997	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/1/1997	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/23/1997	Heavy Snow
CLARK/FREMONT/TETON (ZONE)	11/19/1997	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/10/1998	Heavy Snow
CLARK/FREMONT/TETON (ZONE)	1/19/1998	Heavy Snow

UPPER SNAKE HIGHLANDS (ZONE)	2/21/1998	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/8/1998	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/21/1998	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/3/1998	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/25/1998	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/27/1998	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/14/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/19/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/22/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/2/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/16/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/18/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/25/1999	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/4/2000	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/19/2000	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/8/2000	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/29/2000	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/17/2000	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/11/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/20/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/7/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/11/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	6/3/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	6/12/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/10/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/23/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/24/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/28/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/1/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/2/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/13/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/16/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/18/2001	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/25/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/19/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/23/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/28/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/7/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/12/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/15/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	5/21/2002	Heavy Snow

UPPER SNAKE HIGHLANDS (ZONE)	6/9/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/23/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/30/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/9/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/23/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/16/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/27/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/30/2002	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/29/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/16/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/25/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	5/5/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/16/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/25/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/6/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/13/2003	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/7/2004	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/25/2004	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/23/2004	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/6/2004	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/8/2004	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/27/2005	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/1/2005	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/22/2005	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/28/2005	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/30/2005	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/2/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/10/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/17/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/30/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/17/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/27/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/13/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/26/2006	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/3/2007	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/26/2007	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/2/2007	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/18/2007	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/19/2007	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/29/2007	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/4/2008	Heavy Snow

UPPER SNAKE HIGHLANDS (ZONE)	1/19/2008	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/3/2008	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/5/2008	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/13/2008	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/12/2008	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/21/2008	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/1/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/26/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/5/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/25/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/1/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/2/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/12/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/15/2009	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/1/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/22/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/31/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	4/2/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/8/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/18/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/28/2010	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/15/2011	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/30/2011	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/17/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/20/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/22/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/29/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/15/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/25/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/1/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/16/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/22/2012	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/16/2013	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/6/2013	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/20/2013	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/8/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	1/11/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/7/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/12/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/2/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/9/2014	Heavy Snow

UPPER SNAKE HIGHLANDS (ZONE)	11/13/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/22/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/24/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/20/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/27/2014	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	2/2/2015	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	3/3/2015	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/07/2015	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/13/2015	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	01/28/2016	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	03/13/2016	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/04/2016	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/08/2016	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/23/2016	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/27/2016	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	02/03/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	02/07/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	02/17/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	02/20/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	10/13/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/04/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	11/16/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	12/19/2017	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	01/10/2018	Heavy Snow
UPPER SNAKE HIGHLANDS (ZONE)	01/11/2018	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	11/22/2018	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	12/29/2018	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	01/19/2019	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	02/02/2019	Heavy Snow
BIG HOLE MOUNTAINS (ZONE)	02/02/2019	Heavy Snow
TETON VALLEY (ZONE)	02/02/2019	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	11/26/2019	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	12/07/2019	Heavy Snow
BIG HOLE MOUNTAINS (ZONE)	12/12/2019	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	01/01/2020	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	03/30/2020	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	11/13/2020	Heavy Snow
TETON VALLEY (ZONE)	11/13/2020	Heavy Snow
BIG HOLE MOUNTAINS (ZONE)	11/13/2020	Heavy Snow
CENTENNIAL MOUNTAINS – ISLAND PARK	01/27/2021	Heavy Snow
TETON VALLEY (ZONE)	03/19/2021	Heavy Snow

CENTENNIAL MOUNTAINS – ISLAND PARK	03/19/2021	Heavy Snow
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Table 4.13.4: Winter Storm

(Note: Teton County is included in the Upper Snake Highlands Zone)

Area	Date	Type
UPPER SNAKE HIGHLANDS (ZONE)	12/1/1996	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/4/1996	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/11/1997	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/6/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/9/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/21/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	4/5/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	4/8/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/2/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/12/1999	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/10/2000	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/24/2000	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/21/2002	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/7/2002	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	11/8/2002	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	3/5/2003	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/25/2003	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/24/2004	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/28/2004	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/7/2005	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/27/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/31/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/7/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	10/11/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/18/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/24/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/27/2008	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/25/2009	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	3/29/2009	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/25/2012	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/10/2013	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/22/2013	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	3/17/2013	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/1/2013	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	2/3/2014	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	3/1/2014	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/24/2014	Winter Storm

UPPER SNAKE HIGHLANDS (ZONE)	1/4/2015	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/21/2015	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/23/2015	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	11/27/2016	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	12/14/2016	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	01/07/2017	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	1/22/2017	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	03/04/2017	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	02/16/2018	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	02/24/2018	Winter Storm
UPPER SNAKE HIGHLANDS (ZONE)	03/01/2018	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	01/05/2019	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	02/09/2019	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	02/12/2019	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	02/23/2019	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	01/10/2020	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & TETON VALLEY (ZONE)	02/02/2020	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	02/05/2020	Winter Storm
BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	02/15/2020	Winter Storm
BIG HOLE MOUNTAINS (ZONE)	02/1/2021	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & TETON VALLEY (ZONE)	02/19/2021	Winter Storm
CENNTENTIAL MOUNTAINES – ISLAND & BIG HOLE MOUNTAINS (ZONE) & TETON VALLEY (ZONE)	02/25/2021	Winter Storm

Impacts

The impacts of the very cold temperatures that may accompany a severe winter storm are discussed above. Other life-threatening impacts are numerous. Motorists may be stranded by road closures or may be trapped in their automobiles in heavy snow and/or low visibility conditions. Bad road conditions cause automobiles to go out of control. People can be trapped in homes or buildings for long periods of time without food, heat and utilities. Those who are ill may be deprived of medical care by being stranded or through loss of utilities and lack of

personnel at care facilities. Use of heaters in automobiles and buildings by those who are stranded may result in fires or carbon monoxide poisoning. Fires during winter storm conditions are a particular hazard because fire service response is hindered or prevented by road conditions and because water supplies may be frozen. Disaster Services may also not be available if telephone service is lost. People who attempt to walk to safety through winter storm conditions often become disoriented and lost. Downed power lines not only deprive the community of electricity for heat and light, but pose an electrocution hazard. Death and injury may also occur if heavy snow accumulation causes roofs to collapse.

Teton County

- Highway 33, 31, and 32 are susceptible to heavy snow and road closures.
- Water/sewer lines in the County are susceptible to freezing.
- Many of the roads, including Badger Creek Road, are susceptible to closure due to blowing snow.

City of Driggs

- The area between the High School and Jr. High School in Driggs is susceptible to blowing and heavy snow accumulations.

City of Teton

- The main highway between Newdale and Teton can be treacherous during heavy snow events, resulting in many accidents.

Loss Estimates

Economic impacts arise from numerous sources including: hindered transportation of goods and services, flooding due to burst water pipes, forced closing of businesses, inability of employees to reach the workplace, damage to homes and structures, automobiles and other belongings by downed trees and branches, loss of livestock, crops and vegetation and many others.

Table 4.13.5: Premium Subsidies by Cause of Loss, 1995-2020 (Cold Winter/Frost)

Cause of Loss	Premium subsidies 1995-2020	Percent Cause of Loss (Heat, Excess Moisture, Hail, Drought, Flood, Cold Winter, Freeze, Other, etc.)
Cold Winter	\$44,831	2%
Frost	\$509,389	22%
Freeze	\$91,743	4%

The premium subsidies by cause of loss in the table are lower than total premium subsidies because the USDA Risk Management Agency only reports premium subsidies by cause of loss for policies that paid an indemnity. Non-indemnified policies and their associated premium subsidies are not reported by cause of loss. The driving force behind a decline in crop yield or revenue that triggers an indemnity payment is called the “cause of loss” – an event or circumstance that damages crop yield, such as drought, hail or too much rain, or that damages the price side of farmer revenues, like a decline in crop price.

The County routinely has severe winter storms that can cause car accidents, contribute to house fires, isolate the community from outside help and services, and make emergency response extremely difficult.

Repetitive Loss – Severe Winter Storms occur several times a year. There is some repetitive loss to structures; however, it is almost always to private property as government entities generally take actions to “storm proof” their facilities. There is also some loss of business revenue associated with the closure of roads and business.

4.14 Tornado

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

While tornado occurrences are low in the County, no community in the County is immune from this hazard.

Hazard Description

The NWS describes tornado as, “a violently rotating column of air, usually pendant to a cumulonimbus, with circulation reaching the ground. It nearly always starts as a funnel cloud and may be accompanied by a loud roaring noise. On a local scale, it is the most destructive of all atmospheric phenomena.” Like hail, most tornadoes are spawned by supercell thunderstorms. They usually last only a few minutes, although some have lasted more than an hour and traveled several miles. Wind speeds within tornadoes are estimated based on the damage caused and expressed using the Enhanced Fujita (EF) Scale.

Table 4.14.1: NWS Alerts for Tornadoes

Alert	Criteria
Tornado Watch	<p>This is issued by the National Weather Service when conditions are favorable for the development of tornadoes in and close to the watch area. Their size can vary depending on the weather situation. They are usually issued for a duration of 4 to 8 hours. They normally are issued well in advance of the actual occurrence of severe weather. During the watch, people should review tornado safety rules and be prepared to move a place of safety if threatening weather approaches.</p> <p>A Tornado Watch is issued by the Storm Prediction Center (SPC) in Norman, Oklahoma. Prior to the issuance of a Tornado Watch, SPC will usually contact the affected local National Weather Forecast Office (NWFO) and they will discuss what their current thinking is on the weather situation. Afterwards, SPC will issue a preliminary Tornado Watch and</p>

	<p>then the affected NWFO will then adjust the watch (adding or eliminating counties) and then issue it to the public. After adjusting the watch, the NWFO will let the public know which counties are included by way of a Watch Redefining Statement. During the watch, the NWFO will keep the public informed on what is happening in the watch area and also let the public know when the watch has expired or been canceled.</p>
<p>Tornado Warning</p>	<p>This is issued when a tornado is indicated by the WSR-88D radar or sighted by spotters; therefore, people in the affected area should seek safe shelter immediately. They can be issued without a Tornado Watch being already in effect. They are usually issued for a duration of around 30 minutes.</p> <p>A Tornado Warning is issued by your local National Weather Service office (NWFO). It will include where the tornado was located and what towns will be in its path. If the tornado will affect the near shore or coastal waters, it will be issued as the combined product--Tornado Warning and Special Marine Warning. If the thunderstorm which is causing the tornado is also producing torrential rains, this warning may also be combined with a Flash Flood Warning. If there is an ampersand (&) symbol at the bottom of the warning, it indicates that the warning was issued as a result of a severe weather report.</p> <p>After it has been issued, the affected NWFO will followed it up periodically with Severe Weather Statements. These statements will contain updated information on the tornado and they will also let the public know when warning is no longer in effect.</p>

Note | Recent Changes: A Watch means you should prepare for a dangerous weather or water event (e.g. grocery shopping, emergency supply kit) and a Warning means you should take action to prevent or avoid a dangerous event (e.g. take shelter, don't drive). The current "Advisories" and "Special Weather Statements" will be removed and transitioned to plain language headlines for weather or water events that do not rise to the level of a Warning.

Source: National Weather Service

Location

A tornado event is possible anywhere within the county.

Extent

Tornadoes were originally categorized using the Fujita Scale (F-Scale) or Pearson Fujita Scale, introduced in 1971, based on a relationship between the Beaufort Wind Scales (B-Scales) (measure of wind intensity) and the Mach number scale (measure of relative speed). The Fujita Scale is used to rate the intensity of a tornado by examining the damage caused by the tornado after it has passed over a man-made structure. The F-Scale categorizes each tornado by intensity and area. The scale is divided into six categories, F0 (Gale) to F5 (Incredible). The table below explains each of the F-Scale categories.

Enhanced Fujita (EF) Scale

On February 1, 2007, the National Weather Service adopted "Enhanced Fujita (EF) Scale". The EF Scale evaluates and categorizes tornado events by intensity. Both the original Fujita Scale and the EF Scale estimate the intensity of a tornado (3-second gust speed) based on the magnitude of damage. The original scale had a lack of damage indicators and with the increasing standards for buildings, rating of tornadoes was becoming inconsistent. The EF Scale evaluates tornado damage with a set of 28 indicators (see NOAA website). Each indicator is a structure with a typical damage description for each magnitude of a tornado.

Table 4.14.2: Fujita vs. Enhanced Fujita Scale

FUJITA SCALE			DERIVED EF SCALE		OPERATIONAL EF SCALE	
F Number	Fastest 1/4-mile (mph)	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)
0	40-72	45-78	0	65-85	0	65-85
1	73-112	79-117	1	86-109	1	86-110
2	113-157	118-161	2	110-137	2	111-135
3	158-206	162-209	3	138-167	3	136-165
4	207-260	210-261	4	168-199	4	166-200
5	261-318	262-317	5	200-234	5	Over 200

Source: National Oceanic and Atmospheric Administration

Historical Frequencies & the Probability of Future Occurrences

Table 4.14.3: Past Tornado Events

Location	Date	Time	Event	Magnitude	Reported Damage
Driggs	5/19/1932		Tornado	unknown	Boy killed, grandstand at ball park destroyed
Teton	6/9/1954	4:00 PM	Tornado	unknown	
Driggs	5/31/1997	11:07 AM	Funnel Cloud	n/a	
Driggs	9/1/2000	12:10 PM	Funnel Cloud	n/a	

Figure 4.14.1: Past Tornado Events

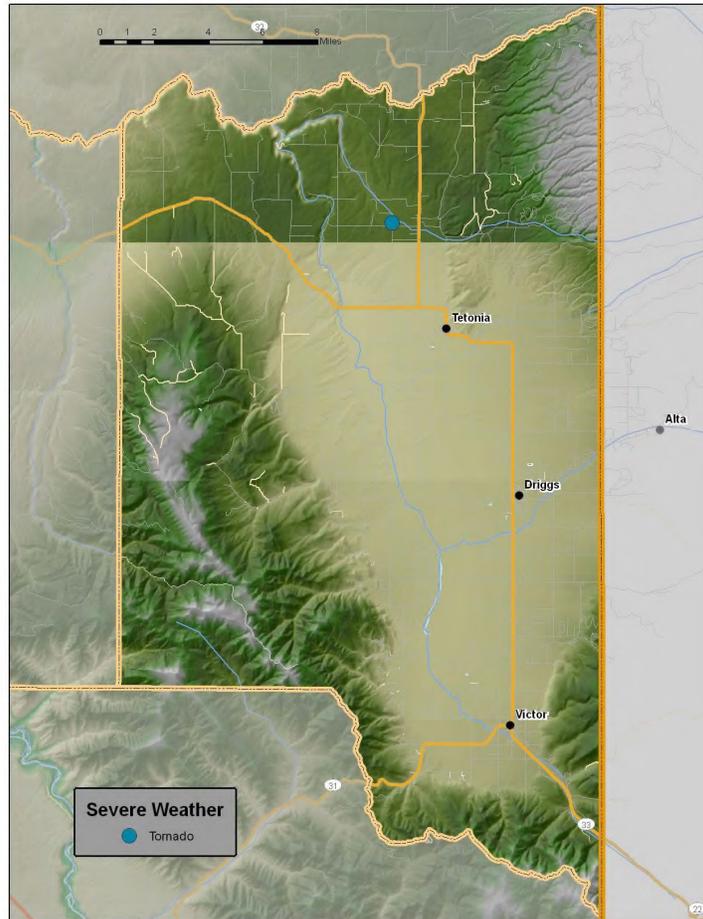


Figure 4.14.2: Tornado Probability

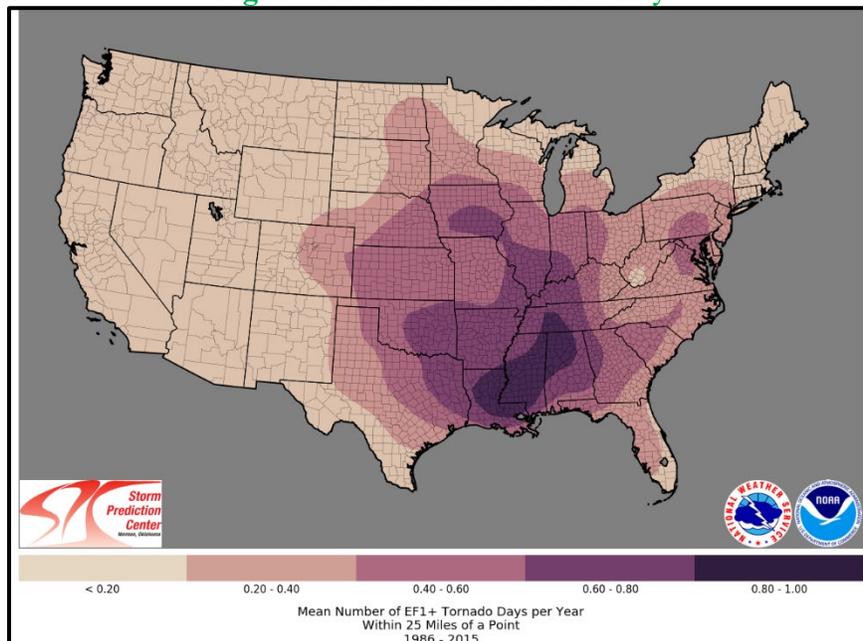
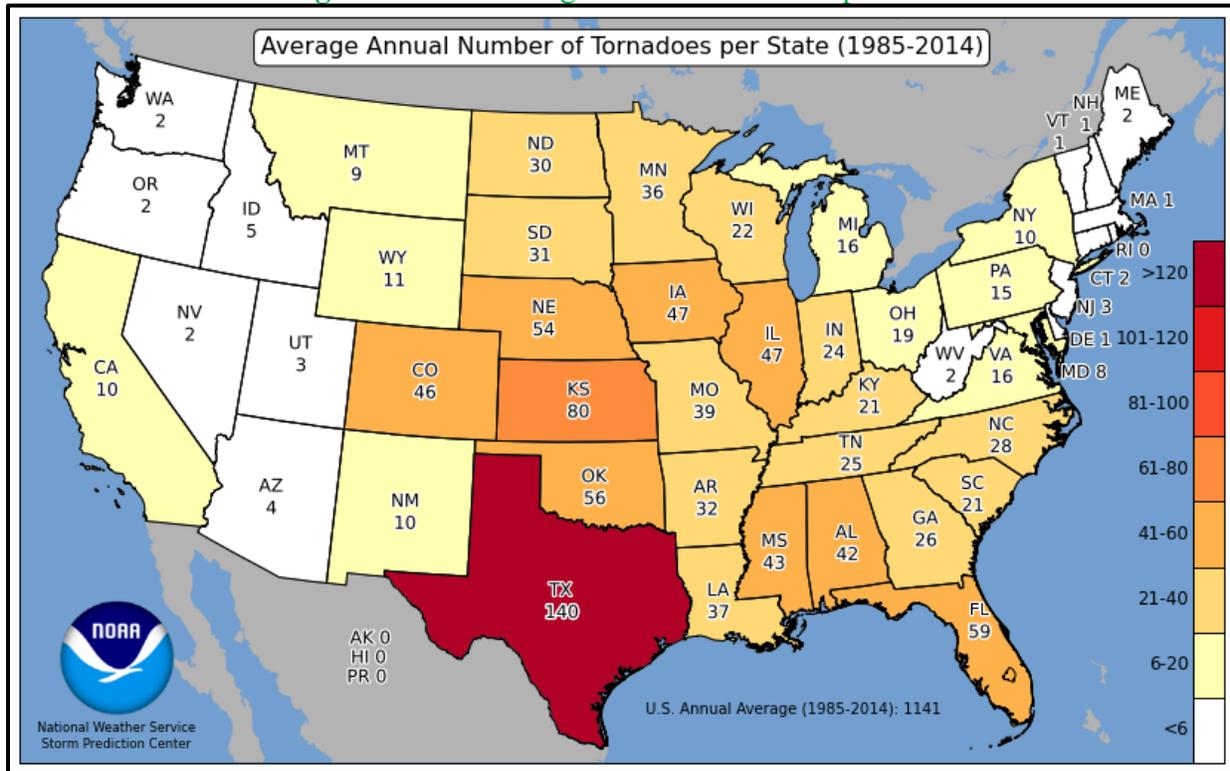


Figure 4.14.3: Average Annual Tornadoes per State



Impacts

Loss of utilities (primarily due to fallen trees) is common following tornadoes and, depending on circumstances, communities might be deprived of almost any kind of goods and services including food, water and medical care. Agriculturally, crop and livestock loss is also possible as is loss of timber production.

Of greatest concern to the County is modular homes, and specifically schools (District 401) that use modular structures.

Loss Estimates

There is no record of actual dollar losses in Teton County due to Tornadoes. There was a death record in 1932 as well as damage. Depending on the location it is possible that extreme damage could be possible due to a Tornado.

On May 19, 1932 a tornado in Driggs killed a boy and destroyed grandstands at the ballpark.

4.15 Vector-Borne Disease

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

“Vectors” are organisms that transmit pathogens and parasites from one infected animal to another, including:

- Mosquitoes
- Fleas
- Ticks

Because it is so difficult to control mosquitoes, fleas and ticks, it is very difficult to control the spread of these diseases.

Most of the diseases carried by vectors can infect both animals and humans. The most serious and/or common diseases include:

- West Nile virus
- Lyme disease
- Rocky Mountain spotted fever
- Dengue virus
- Plague
- Tularemia
- Malaria

Vector-borne diseases account for 17% of estimated global burden of all infectious diseases, according to the Centers for Disease Control and Prevention.

There are many vector borne diseases that can impact the County. The following vector-borne diseases have recent occurrences in the County.

- West Nile
- Lyme
- Rabies
- Spotted Fever

Location

This hazard affects every community in Teton County. Areas of abundant standing water (including areas used for flood irrigation) which provide a breeding site for mosquitos could be more prone to an outbreak of mosquito-borne diseases.

Extent

The extent of an infected population depends on factors related to the organism, the people or animals affected, and the environment. Factors related to the organism include what species it affects, how much of an organism is needed to establish an infection, how the organism is transmitted, and how stable it is in the environment. Factors related to people include how susceptible they are to infection.

Historical Frequencies & the Probability of Future Occurrences

Locally-acquired mosquito-borne human infections were first recorded in Idaho in 2004. In 2006, Idaho led the nation in reports of human illness associated with West Nile Virus with 996 cases being reported to the State Health Department.

Table 4.15.1: Reportable Cases for Teton County

Type	Occurrences
Lyme	2
Rabies	7
Spotted fever	1
West Nile	5

Impacts

West Nile Virus

West Nile fever may include a fever, headache, body aches, a rash and swollen glands. The symptoms of West Nile fever may last for days or linger for weeks to months. Serious illness infecting the brain or spinal cord can occur in some individuals, and although anyone can experience the more severe form of the disease, it tends to occur in people over the age of 50 or those with other underlying medical conditions or weakened immune systems. The severe symptoms may include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks or more, and neurological effects may be permanent. Usually, symptoms occur from 5 to 15 days after the bite of an infected mosquito. There is no specific treatment for infection, but hospitalization and treatment of symptoms may improve the chances of recovery for severe infections. There is no vaccine available for humans.

Lyme Disease

According to the CDC, Lyme disease is caused by the bacterium *Borrelia burgdorferi* and is transmitted to humans through the bite of infected blacklegged ticks. Typical symptoms include fever, headache, fatigue, and a characteristic skin rash called erythema migrans. If left untreated, infection can spread to joints, the heart, and the nervous system. Lyme disease is diagnosed based on symptoms, physical findings (e.g., rash), and the possibility of exposure to infected ticks. Laboratory testing is helpful if used correctly and performed with validated methods. Most cases of Lyme disease can be treated successfully with a few weeks of antibiotics.

Rabies

Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal. The vast majority of rabies cases reported to the Centers for Disease Control and Prevention (CDC) each year occur in wild animals like raccoons, skunks, bats, and foxes. The rabies virus infects the central nervous system, ultimately causing disease in the brain and death. The early symptoms of rabies in people are similar to that of many other illnesses, including fever, headache, and general weakness or discomfort. As the disease progresses, more specific symptoms appear and may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation (increase in saliva), difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of these symptoms.

Rocky Mountain Spotted Fever

Rocky Mountain spotted fever (RMSF) is a tickborne disease caused by the bacterium *Rickettsia rickettsii*. This organism is a cause of potentially fatal human illness in North and South America, and is transmitted to humans by the bite of infected tick species. In the United States, these include the American dog tick (*Dermacentor variabilis*), Rocky Mountain wood tick (*Dermacentor andersoni*), and brown dog tick (*Rhipicephalus sanguineus*). Typical symptoms include: fever, headache, abdominal pain, vomiting, and muscle pain. A rash may also develop, but is often absent in the first few days, and in some patients, never develops. Rocky Mountain spotted fever can be a severe or even fatal illness if not treated in the first few days of symptoms. Doxycycline is the first line treatment for adults and children of all ages, and is most effective if started before the fifth day of symptoms. The initial diagnosis is made based on clinical signs and symptoms, and medical history, and can later be confirmed by using specialized laboratory tests. RMSF and other tickborne diseases can be prevented.

Loss Estimates

Losses brought about by the effects of vector-borne disease are centered on loss of income for those affected by the disease as well as a loss of productivity by businesses. Death has occurred in Idaho from the West Nile virus both in humans and animals.

Costs can also be associated with eradicating the vector.

4.16 Volcanic Eruption/Ashfall

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	High
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

An eruption would affect every community in Teton County.

Hazard Description

Often forming along boundaries of the Earth's crust, the USGS describes volcanoes as vents "at the Earth's surface through which magma (molten rock) and associated gases erupt, and also the cone built by effusive and explosive eruptions." Volcanic eruptions have created 80% of the Earth's surface. Although volcanoes can cause widespread damage during eruptions, they also create nutrient rich soil, and are a source of geothermal energy for many countries.

Volcanoes are classified as active, dormant, or extinct, although scientists disagree on defining criteria due to the long lifespans of volcanoes. A volcano is considered active if it is currently erupting or showing signs of a potential eruption, including spewing gas or localized earthquakes. A dormant volcano is one that is not currently active, but scientists believe could erupt again. An extinct volcano is one that scientists believe will likely not erupt again.

There are multiple types of volcanoes; two of the most important types are shield volcanoes and composite volcanoes (also called stratovolcanoes). Shield volcanoes are the largest types of volcanoes, and typically spew basalt lava over their wide, gentle slopes, allowing the lava to travel for miles before cooling. The largest volcano on Earth, Mauna Loa in Hawaii, is a shield volcano. Composite volcanoes are steep and conical, built through the eruptions of different types of lava. These volcanoes can create explosive eruptions due to the built-up pressure behind its viscous magma. Many well-known volcanoes are composite volcanoes, including Mt. Vesuvius in Italy, Mount St. Helens in Washington, and Mount Fuji in Japan. Other types of volcanoes and volcanic vents include calderas, cinder cones, hornitos, maars, mud volcanoes, spatter cones, and volcanic domes.

Yellowstone Caldera

The hydrothermal features of the Yellowstone National Park area are fueled by the large magma plume (the "hotspot") that lies below the region. These features are volcanic activity, although not of a generally hazardous nature. The high levels of seismic activity and active deformation of the surface in the area also indicate the volcanic potential of Yellowstone. However, if one were to use past eruptions as a guide, the yearly probability of another catastrophic eruption within Yellowstone is 1 in 730,000 (the average of the years between past events). A more likely type of volcanic eruption from Yellowstone (averaging every 16,000 years in the past) is a basaltic eruption along the margins, including the basin of Island Park, Idaho. The principle hazard from such an event would be coverage of an area of several square kilometers by lava, one to a few tens of meters thick.

Snake River Plain

Most past volcanic activity in the Snake River Plain was confined to "volcanic rift zones," linear areas of cracks in the earth's crust. Volcanic activity in this area has been characterized by eruptions of basaltic lavas resulting in extensive lava flows. These flows resulted from eight distinct eruptive periods with an average recurrence interval of 2,000 years. As the most recent flows in the area occurred approximately 2,000 years ago, extrapolation suggests that activity may resume in the not too distant future; however, there has not been recent evidence of activity.

Location

At the moment, there are no active volcanoes in Idaho but there are active volcanoes in surrounding states that could impact the entire County if they erupt.

Extent

Ashfall would most likely represent the greatest impact and disruption.

Historical Frequencies & the Probability of Future Occurrences

The only significant volcanic event in Idaho during recorded history was ashfall from the eruption of Mount St. Helens in 1980. In the Yellowstone region, major explosive eruptions occurred 2, 1.3, and 0.6 million years ago. The most recent eruptions, 75,000- 150,000 years ago, produced thick lava flows.

Impacts

In areas of the State where proximal volcanic hazard exists, a volcanic eruption could cause dramatic environmental effects. Vegetative communities, wildlife, historic and archeological sites, farms, and parks could be buried, crushed and burned by a lava flow. Volcanic eruption would affect geology and soils in areas of Idaho proximal to the event. Long-term effects could include forced changes in land-use patterns. Throughout the State, distal volcanic hazards could reduce air quality, damage historic resources (e.g., ashfall on old roofs), clog streams, and have health impacts on fish and wildlife.

All infrastructure could be at risk of ashfall from a major eruption. Critical facilities near Island Park are at greater risk than other areas of the State for lava flow.

Loss Estimate

There have been no volcanoes in Teton County in modern history. Losses from a volcano would be catastrophic.

4.17 Wildfire

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	High
Countywide Risk:	High

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
High	Medium	Medium	Medium

The Teton County Wildfire Protection Plan (TCWPP) was integrated into the All Hazard Mitigation Plan during this update process. As such, this section will include additional elements unique and specific to the State of Idaho's CWPP requirements.

The objective of the Teton County Wildfire Protection Plan (TCWPP) is to identify and prioritize hazards and needs associated with wildfire within Teton County. This objective will be accomplished by public and official participation in identifying and documenting areas at risk from wildfire. Actions identified to decrease wildfire hazards and risk within Teton County are focused on public safety, emergency services, county infrastructure, natural resources, and property protection. Additionally, this section will provide Teton County residents, public and private

organizations with assistance and recommendations to reduce risk and hazards brought about by wildfires within Teton County.

The priorities developed by the Teton County Wildfire Group are:

- **Protection of Life:** Identify and provide mitigation recommendations for areas of high wildfire risks that are in or adjacent to homes and communities, and improve critical county infrastructure facilities.
- **Protection of Property:** Identify and provide mitigation recommendations for properties of moderate and high wildfire risk. Increase public awareness through education, training, and information sharing that addresses wildfire risks and mitigation measures.
- **Protection of Resources:** Identify resources that are at risk from wildfire and implement natural resource planning to protect these resources.
- **Improve Wildfire Emergency Services:** Improve county infrastructure and wildfire emergency service planning, training, communications, and equipment.
- **Increase Public Awareness of Wildfire Prevention:** Increase public awareness of Firewise practices and wildfire prevention through education, training, and information sharing.
- **Improve Partnerships for Implementation:** Utilize partnerships currently established and develop additional participation with State, Federal, and private organizations.

Teton County Wildfire Protection Plan Adoption

As the administrators of the TCWPP, the Teton County Fire and Rescue Board of Fire Commissioners has the responsibility to adopt the plan. Adoption will coincide with the adoption of the All Hazard Mitigation Plan.

Plan History

The TCWPP was initiated by the Teton County Commissioners, Teton County, Idaho in May 2003 and updated in April 2009, January 2016, and January 2022.

The Commissioners required that the plan:

- Coordinate with the Idaho State Strategic Plan for the implementation of the National Fire Plan, and
- Utilize the format developed for all hazard mitigation plans provided by the Federal Emergency Management Agency (FEMA).

The Teton County Plan is based on information, research, and data from numerous County, State, Federal and private sources and was developed by the Teton County Wildfire Group (TCWFG). This group consisted of Teton County residents, Fire Fighters, County Fire Chief and Fire Marshal, Teton County Planning and Zoning, Teton County Emergency Management Coordinator, Teton County Sheriff, Teton County Road & Bridge Department, Idaho Office of Emergency Management, Foresters and Fire Managers of the Idaho Department of Lands, Idaho Fish and Game, District Rangers, Land Managers and Fire/Fuels Managers of the U.S. Forest Service and the Bureau of Land Management.

Plan Maintenance

The plan maintenance section includes recommendations for annual plan review, and monitoring. An annual re-evaluation of priorities for action items and progress is also recommended. A total plan revision should be completed every five years during the All Hazard Mitigation Plan update process. This plan maintenance will be directed by the Teton County Fire Commissioners, and coordinated with the Teton County Fire Chief, Teton County Emergency Management Coordinator and the Teton County Fire Fighters. In addition, participation will be needed by various positions represented in the Teton County Wildfire Group, coupled with public input.

Hazard Description

Typically, the wildfire season in Teton County lasts from July through October with the highest fire danger usually occurring in August and September. Historic large fires in Teton County also occurred during these months. Thunderstorms ignite most of the wildfires during the high fire danger periods and can often start several fires from one storm.

Winds:

High winds are a significant factor affecting fire spread throughout southern Idaho, including Teton County. Wind data taken for a potential wind farm in adjacent Madison County shows average wind speeds of 13.6 mph at 20 Meters with maximum average monthly wind speeds of up to 16.6 mph.

Vegetation:

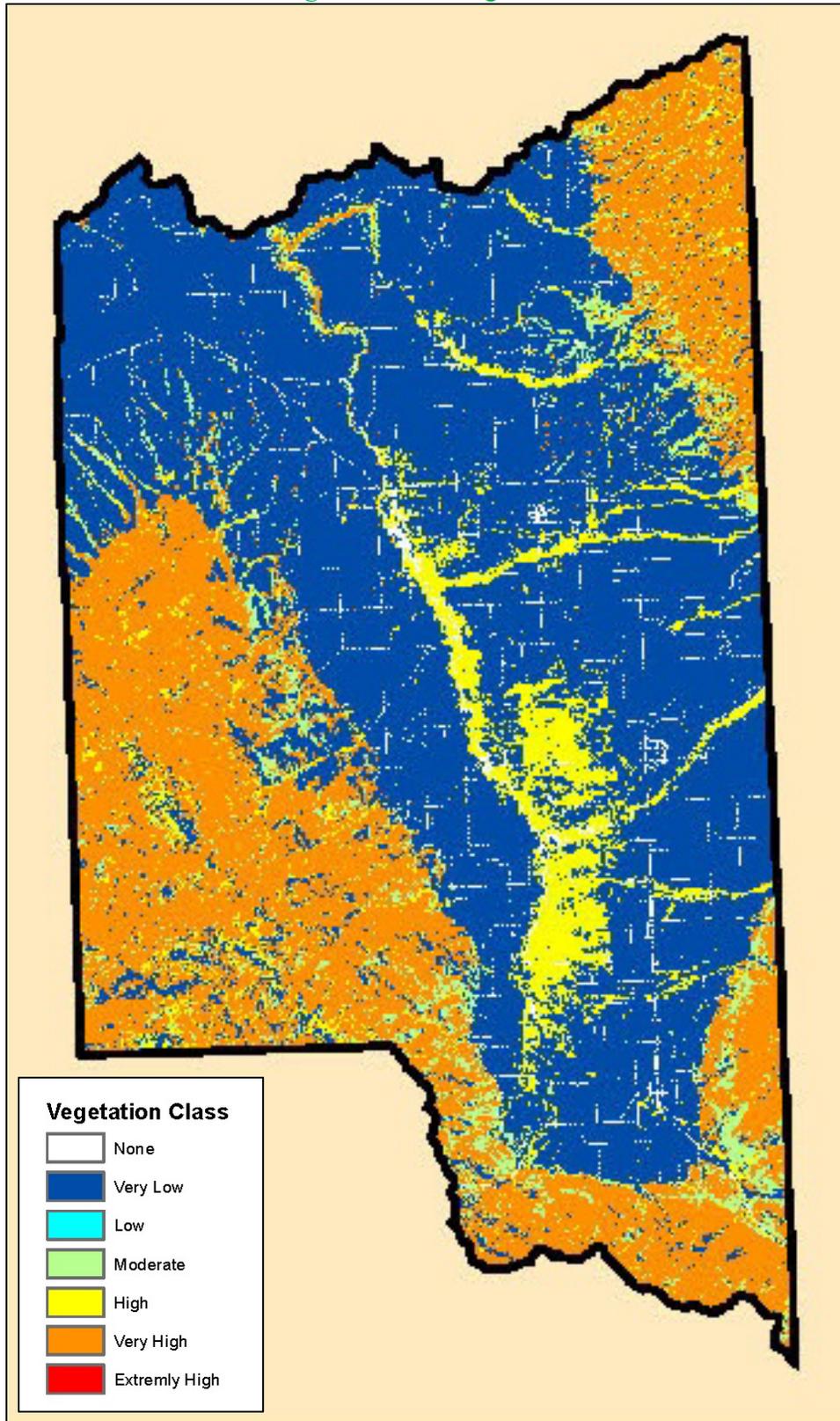
Vegetation in Teton County is instrumental in providing stability to and preventing soil erosion, maintaining water quality, and providing areas for recreation and wildlife habitat. Teton County is predominantly a high elevation valley habitat, with traditional riparian areas of grasses, sedges and low brush. Elevations above the valley floor are forested by Douglas-fir, sub-alpine fir, lodgepole pine, Engelmann spruce, and aspen. Understory within the forested areas includes numerous forbs, grasses and shrubs.

Sagebrush/grass communities are common at middle elevations and on south and southwest aspects at higher elevations. The lower elevation transitions to mixed conifer forests in most of the county with some mixed fir at higher elevations on North, and East aspects. At higher elevations spruce/fir and lodgepole pine forests are common. Most privately owned lands are within the Sagebrush/grass or the mixed conifer/quaking aspen vegetation types.

Historically fire played an important role in the development of the vegetation in the county. Exclusion of fire and reduced mechanical treatment of the mixed conifer and aspen forests of the county has resulted in increased wildland fuels accumulation with overabundant seedling and sapling sized trees on areas of private and public lands. This accumulation, combined with development in or adjacent to the forests of the county, has increased risk of economic loss by wildfire to residents of these areas.

The grass and shrub vegetation, cultivated fields and Conservation Reserve Program (CRP) lands in the lower elevations of the Teton Valley are near the county's main communities and pose an additional wildfire threat once cured.

Figure 4.17.1: Vegetation



Topography:

The steep mountainous terrain of Teton County contributes to the wildfire hazard. Major drainages include extreme slopes and as much as half of the county is situated on slopes in excess of 40 percent. This terrain enhances increased rates of spread by wildfires through radiant heat, which preheats fuels uphill from a fire. The rugged topography in the county makes access to wildfire ignitions difficult and time consuming for ground wildfire suppression forces. Human-caused fires in Teton County typically occur at lower elevations near residences, transportation corridors and camping areas. During periods of high or extreme fire danger these ignitions can rapidly spread uphill and may result in entrapment on dead end roads crossing through steep terrain.

Figure 4.17.2: Slope

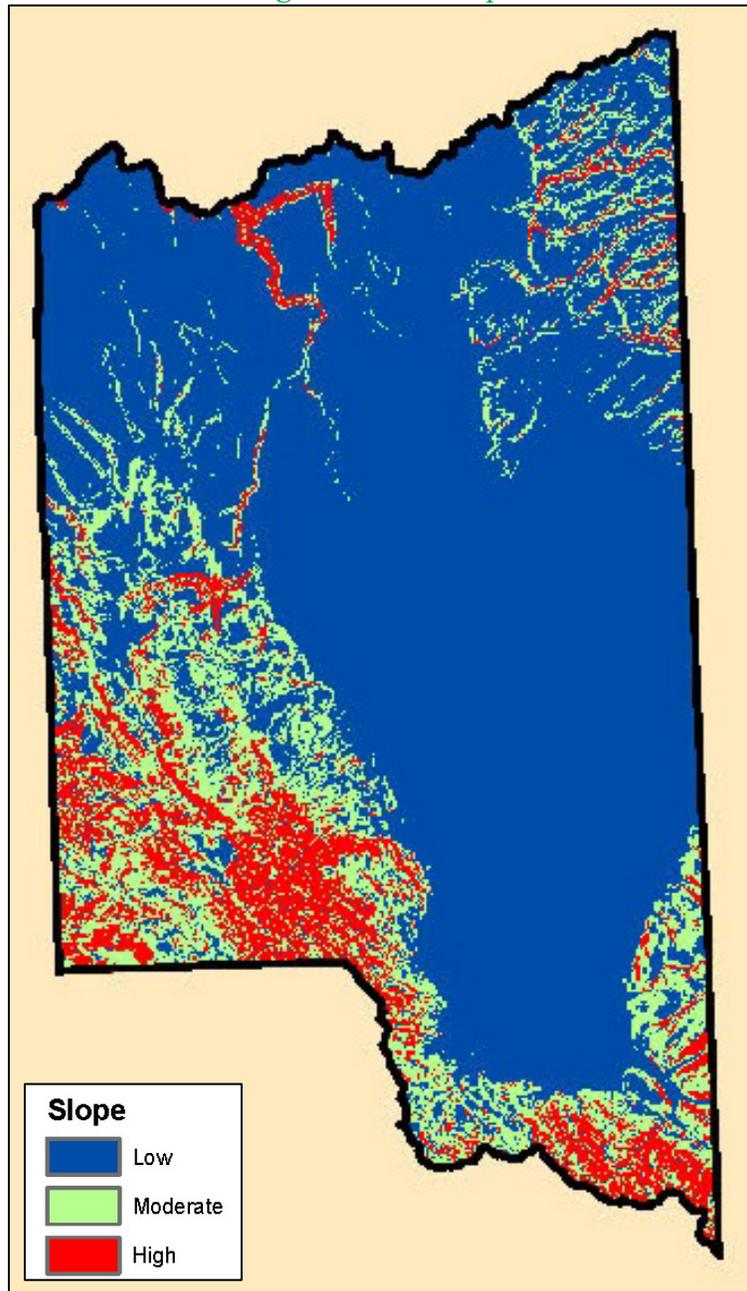
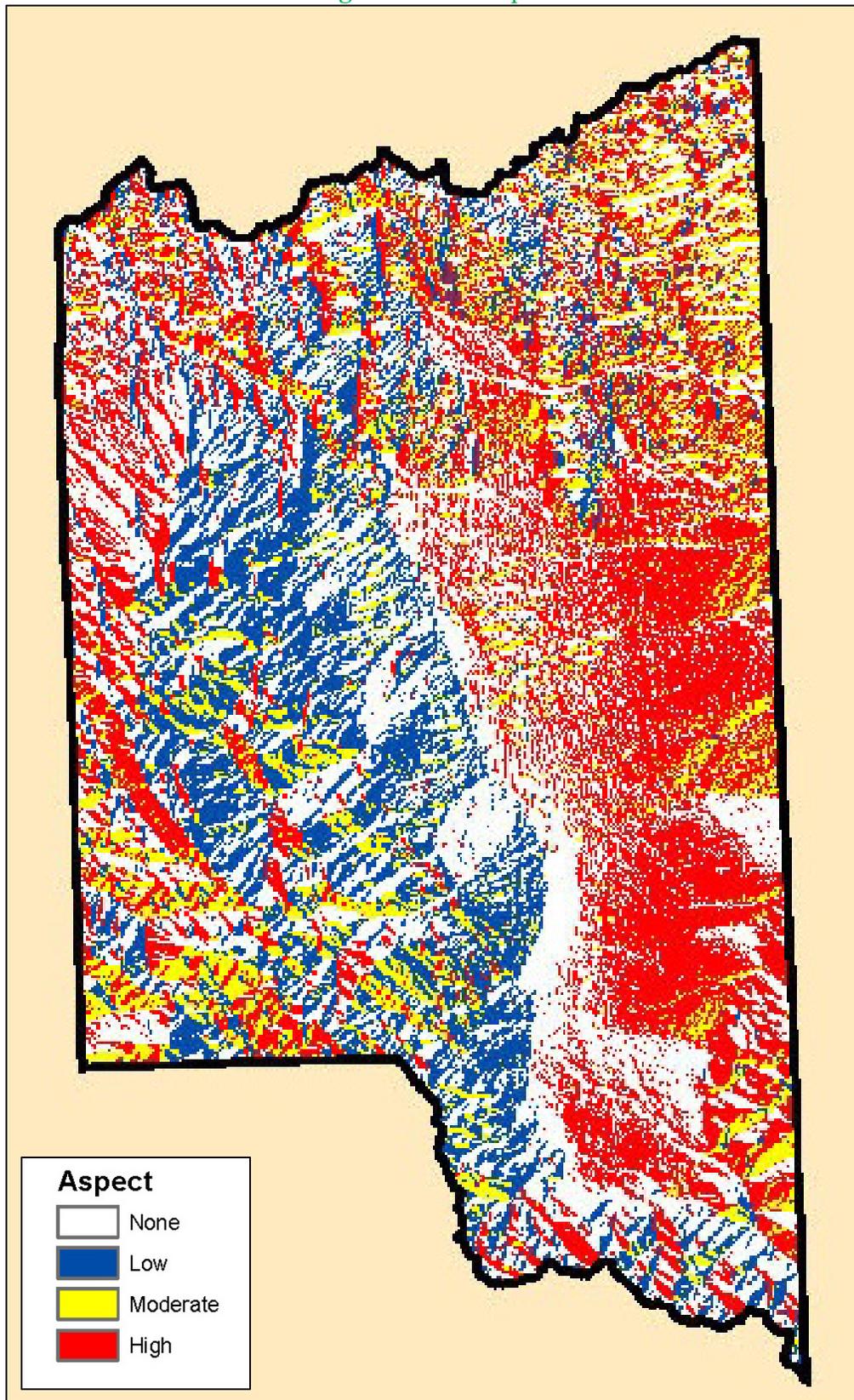


Figure 4.17.3: Aspect



Geology:

Teton County is within the Wyoming Overthrust Belt System located in eastern Idaho and western Wyoming. Only the main basin that runs the center length of the County is relatively level, with the surrounding mountainous landscape brought about by historic uplifts, faults, fault blocks, alluvial deposits and stream cutting action that has created steep narrow canyons. Approximately 50% of Teton County has slopes steeper than 40%.

Soils:

There are a wide variety of soils found throughout Teton County. Surface soils are typically moderate with coarse loams and soils weathered from igneous and sedimentary sources. These sandy loams have little adhesion or cohesion that readily erode without roots from vegetation to hold them in place. Sedimentation monitoring and mitigation can assist in stabilizing soils, especially on steep slopes. Crown fire activity on steep slopes is likely to result in mudslide/soil slumps in many areas and could result in loss of homes after the imminent threat from wildfire has passed.

Wildlife

Teton County has a wide variety of wildlife species and habitats. The Idaho Department of Fish and Game manages wildlife populations and the U.S. Forest Service, BLM and Idaho Department of Lands are responsible for wildlife habitats on lands they manage. Large mammals that are found in Teton County include mule deer, whitetail deer, moose, elk, grizzly bear, black bear, and gray wolves. Coyote, bobcat, wolverine, snowshoe hare, cottontail rabbits, red fox, badgers, beavers, pine martens, porcupines, skunks and an occasional lynx or big horn sheep can also be found within the county. Upland birds present in Teton County include blue grouse, spruce grouse, and sharp-tail grouse. Raptor species include golden eagles, osprey, prairie falcon, red-tailed hawk, and wintering bald eagles. Waterfowl habitat is widespread throughout the Teton Basin and provides habitat for: Canada geese, numerous duck species, trumpeter swans, and sandhill cranes. Other birds common to Teton County are flickers, woodpeckers, robins, killdeer, stellar jays, dippers, mountain blue birds, hummingbirds, red-winged blackbirds, ravens, crows, and magpies. All of these species developed with wildfire and are adapted to ecological changes resulting from wildfires.

Recreation

Recreation in Teton County is critical to the economy, but is also a sensitive and contentious issue. There are mixed feelings among the local population regarding results of expanded recreation user numbers, with the associated economic advantages, as compared with the quiet enjoyment of the valley that predominated in the past. The natural beauty of the valley, assets for fishing and hunting, prime snow conditions, and proximity to popular National Forests and Parks, contribute to make the recreation based activities within Teton County highly attractive.

Wildfires may result in an increase in big game habitat and long term improvement in hunting opportunities, but will likely reduce access and visual clarity during the event, which may impact the full spectrum of recreation activities in the area. As the population in counties adjacent to Teton County has increased, the recreational use of Teton County's Federal and State lands has also increased. Summer and winter recreational activities available in Teton County are also enjoyed by outdoor enthusiasts on a national, as well as an international basis.

Water-based recreational activities in Teton County are primarily limited to fishing. Land based activities include, but are not limited to: camping, hiking, mountain biking, birding, hunting, snowmobiling, snowshoeing, snowboarding, downhill and cross country skiing. Grand Targhee Ski Area located in adjacent Teton County, Wyoming hosts numerous skiers during winter months.

Bodies of Water: Rivers, Creeks, Watersheds

The main waterway in Teton County is the Teton River, which forms the valley/basin that is the backbone and main thoroughfare within the county. Besides providing recreational opportunities and watershed provisions, the river and its tributaries provide a water source for engines and helicopters during wildfire suppression operations. Most rivers/creeks in Teton County are accessible, with either a direct or adjacent road access. River flow rates generally peak in June with low flow rates in August and September. Other important creeks and/or drainages in Teton County include: Trail Creek, Fox Creek, Darby Creek, Teton Creek, South Leigh Creek, North Leigh Creek, Badger Creek, Packsaddle Creek and Horseshoe Creek. Numerous other creeks, tributaries, and sub-watersheds support developed areas throughout Teton County. Watersheds in Teton County directly influence downstream water use for irrigated farmland within the County and neighboring counties. Municipal water supplies for Driggs & Victor are located on private lands in close proximity to forest service lands. Watershed protection, stabilization, and water quality are high priorities for the county's private, state, and federal land managers or owners.

Transportation:

For an area of over 400 square miles, Teton County has a very limited network of improved highways. Timing, location, and expansion of transportation networks are important issues affecting future access.

The majority of vehicle transportation in Teton County occurs on one of three paved State Highways.

- State Highway 33 from the Madison County line southeasterly to the Wyoming State line.
- State Highway 31 from the Victor City limits to the top of Pine Creek Pass and the Bonneville County line.
- State Highway 32 from Bitch Creek and the Fremont County line south to its intersection with State Highway 33 north of Tetonia.

State Hwy 33, which turns into WY 22 at the state line, is a major travel route providing access to Jackson, WY and supports significant commuter & tourist traffic. Fire hazard adjacent to this route is currently very high due to the extraordinary quantity of bug killed timber adjacent to it.

Additionally, extended closure due to wildfire activity would result in significant economic impacts to Teton Co's. WY & ID as well as Madison, Fremont & Bonneville counties.

County Roads

The Teton County Road and Bridge Department is responsible for maintenance, and construction of roads in the county. The department has completed new road ordinances that are a part of the revised county comprehensive plan. These ordinances address future needs to facilitate population growth as well as fire protection requirements and access needs. Road funds come largely from County, State and Federal sources, augmented by PILT funds paid by the surrounding National Forests. There is extensive use of the road system in Teton County by out-of-county traffic. The existence of Federal and State forests and parks draws high numbers of recreational users participating in various spring, summer, fall, and winter activities. Teton County receives no additional funds for added maintenance or road deterioration associated with this use. Teton County is included in Idaho Highway District #6 with an office in Rigby, ID.

Forest Service Roads

The USDA Forest Service, Caribou-Targhee Forest, maintains numerous two-lane gravel roads throughout the county for recreation and logging access. Some of these have been closed and many are currently gated with access allowed seasonally or during a wildfire. The Caribou-Targhee National Forest has recommendations and requirements for these roads, and a travel plan with requirements for the trail system and off road or trail travel.

Transportation corridors, specifically State Highways 31 and 33 are vulnerable to closure by wildfires and smoke (both temporary and long term closure). All U.S. Forest Service roads are also vulnerable to closure by wildfire.

Aviation Facilities:

Teton County has no regularly scheduled commercial (passenger) flights. Driggs/Reed Memorial Airport is a general aviation airport owned and operated by the City of Driggs, with a 7,300-foot runway. This airstrip exhibits increased traffic during weekends and holidays. It can also be used to support various fixed and rotor-wing aircraft during large or multiple wildfire incidents.

Rail Transportation:

No railway exists within the county. Union Pacific Railroad removed the tracks several years ago and does not maintain any facilities including rights-of-way.

Emergency Services:

Law enforcement and 911/dispatch services throughout the county are provided by the Teton County Sheriff's Office (including the cities of Driggs, Victor and Teton). The Teton County Fire Protection District (TCFPD) was established in 1996 as an independent taxing district run by a board of three elected members. TCFPD/Teton County Fire & Rescue staffs and equips fire stations in Driggs, Victor and Teton, providing 24-7 fire protection services throughout the county. A mutual assistance (aid) agreement between TCFPD, the U.S. Forest Service and the Bureau of Land Management exists for wildfire protection in the county. On August 1, 2016, Teton County Fire & Rescue became the sole ambulance service provider for Teton Valley. Teton County Search and Rescue (SAR) is a volunteer-supported non-profit that provides back country search and rescue resources when requested through the Teton County Sheriff's Office.

Location

The Secretaries of Interior & Agriculture were required to publish in the Federal Register an updated list of Wildland-Urban Interface (WUI) communities within the vicinity of Federal lands that are at high risk from wildfire. The following communities located in Teton County are listed as at risk in the Federal Register:

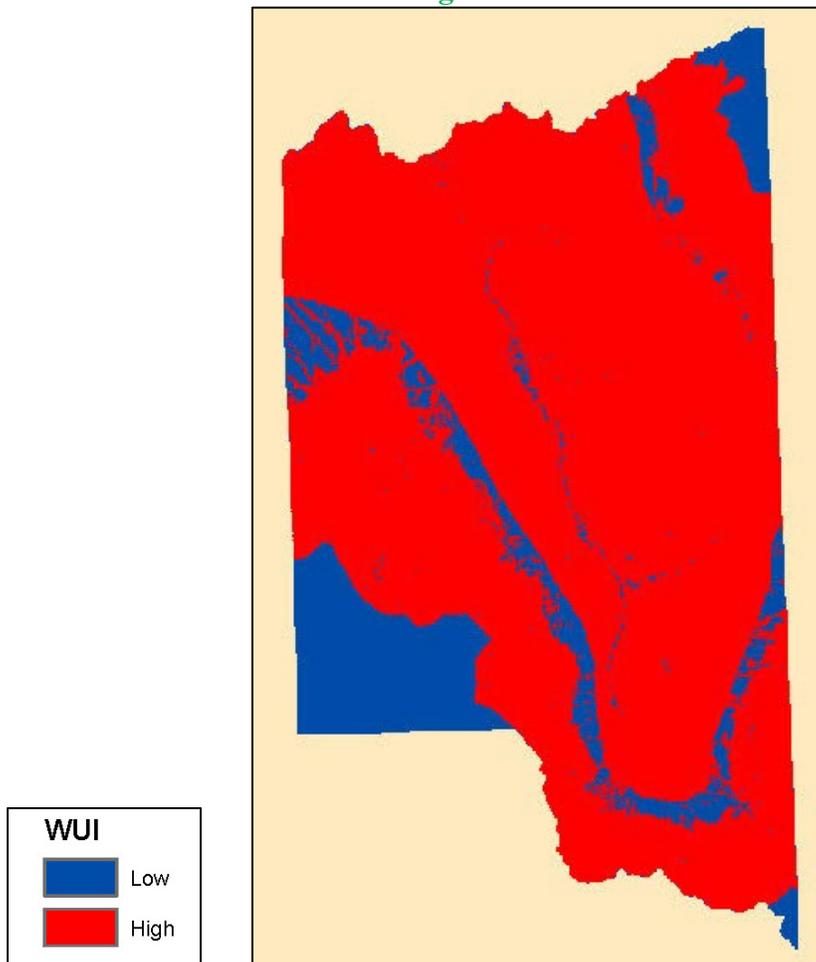
- Driggs
- Victor
- Teton

Teton County WUI Map Development

The Wildland Urban Interface delineations were developed in an effort to qualitatively and quantitatively define the Wildland-Urban Interface for the county. Specifically, the WUI identifies the intersection and overlap of developed areas within the County with undeveloped areas in which adequate fuels exist to increase the wildfire risk.

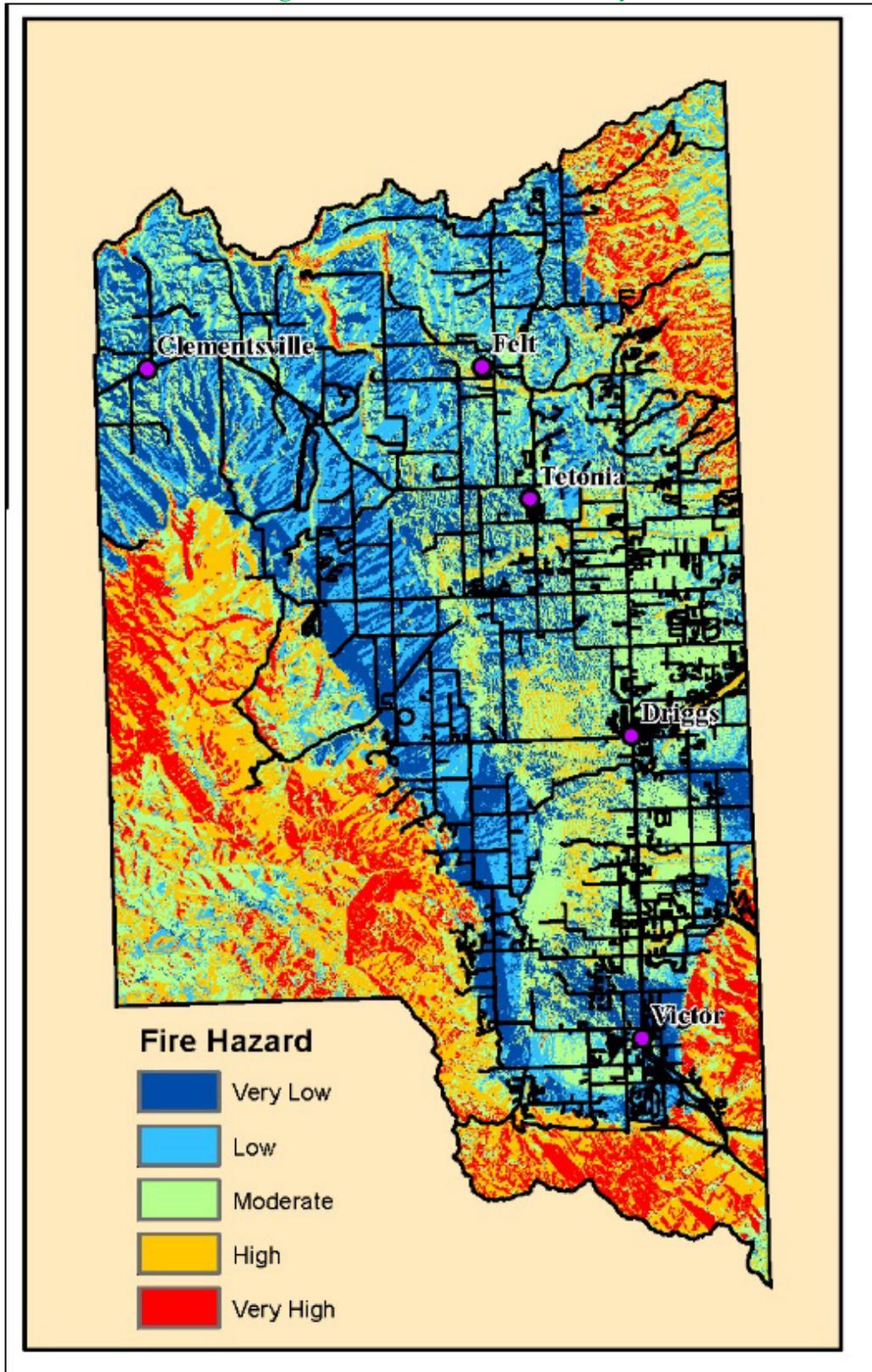
The WUI is defined as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuel (NWCG and NFPA Glossaries). The intent of a WUI boundary is to “define an area within or adjacent to private and public property where mitigation actions should occur to prevent damage and loss” (NWCG Memorandum # 024-2010; Terminology Updates Resulting from Release of the Guidance for the Implementation of Federal Wildland Fire Management Policy, 2009). Capital improvements, houses, private land, major utility corridors, watersheds and communication sites, are examples of structures and human developments the planning group is collectively concerned about in the event of a wildfire. The existence and vulnerability of these values relative to the surrounding landscape shape the WUI boundary. The vulnerability of identified lands within the WUI boundary is based on fuels, topography, weather patterns, and professional evaluation and input. Defining the WUI boundary in this manner helps identify areas of concern to prioritize fuels reduction projects, community outreach and education efforts, and help managers develop the appropriate response to an emerging fire incident.

Figure 4.17.4: WUI



Extent
Much of the County is susceptible to wildland fires. The figure below highlights the highest risk areas in the County. The fire hazard assessment for this map considers the physical attributes of slope, aspect, vegetation, WUI, and fire history.

Figure 4.17.5: Fire Risk Summary



Fire Behavior Assessment

The fire behavior assessment completed for Teton County used a variety of resources available including Remote Automated Weather Stations (RAWS), FireFamily Plus software, LANDFIRE and FlamMap programs to further understand and illustrate the potential wildfire hazard for the County. Brief descriptions of the resources are provided below.

RAWS record and transmit daily weather and fuel observations to a database where the data can be used with several different fire behavior modeling tools or analysis programs.

FireFamily Plus is a software system for summarizing and analyzing historical daily fire weather observations and computing fire danger indices based on the National Fire Danger Rating System. Fire occurrence data can also be analyzed and cross referenced with the weather data to help determine the critical levels for staffing and fire danger for an area. For more information on FireFamily Plus go to <http://firelab.org/applications>.

FlamMap is a fire behavior mapping and analysis program that computes potential fire behavior characteristics (spread rate, flame length, fireline intensity, etc.). For more information on FlamMap go to <http://firelab.org/applications>.

LANDFIRE 2016 data is national-level, landscape-scale, cross-boundary fuels data that exists for the conterminous United States and contains information representing topography (slope, elevation, aspect) fire behavior fuel model and canopy characteristics (canopy cover, canopy base height, canopy height, canopy bulk density) which serve to simulate crown fire activity. LANDFIRE data was imported into the fire behavior modeling software FlamMap to predict the potential fire behavior under severe fire weather conditions (97th percentile).

The fire behavior assessment focused on fireline intensity, flame length, and crown fire activity. Those three fire behavior characteristics are the most important considerations for determining the potential fire hazard and the effectiveness of suppression resources.

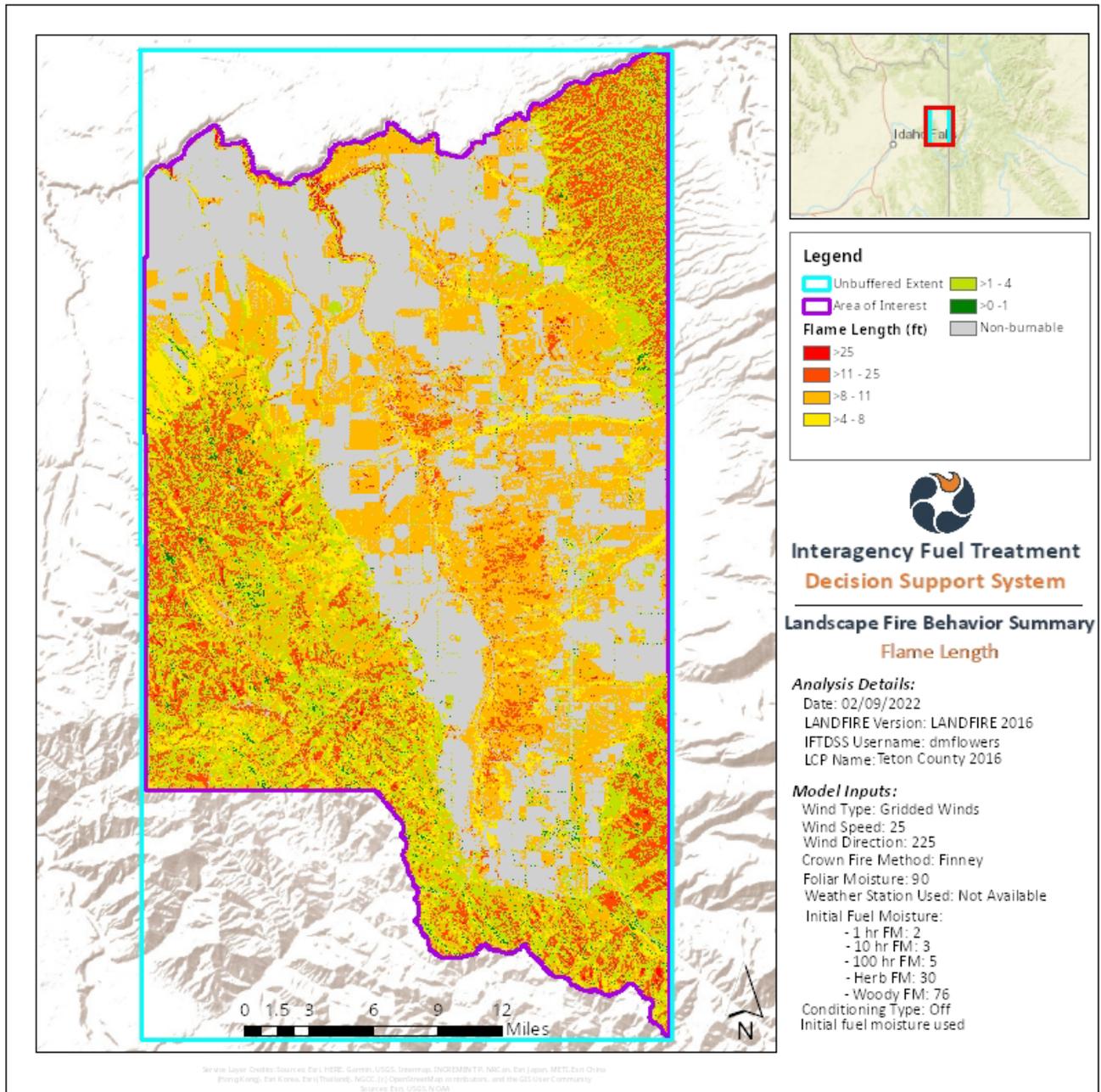
- Sagebrush will have flame lengths within the “High” to “Very High” Flame Length Classes.
- Timbered areas across the county will be reflected within the “High” to “Very High” Flame Length Classes with “Low” intermixed throughout.

Table 4.17.1: Fire Suppression Interpretation of flame length and fireline intensity

Flame Length Class	Flame Length	Fireline Intensity	Fire Suppression Interpretations
Low	< 4 feet	< 100 Btu/ft/s	Fires can generally be attacked at the head or flanks by persons using hand tools. Handline should hold fire.
Medium	4 to 8 feet	100-500 Btu/ft/s	Fires are too intense for direct attack on the head by persons using hand tools. Handline cannot be relied on to hold the fire. Bulldozers, engines, and retardant drops can be effective.
High	8 to 11 feet	500-1000 Btu/ft/s	Fires may present serious control problems: torching, crowning, and spotting. Control efforts at the head will probably be ineffective.
Very High	> 11 feet	> 1000 Btu/ft/s	Crowning, spotting, and major fire runs are probable. Control efforts at the head of the fire are ineffective.

Source: Fireline Handbook, Appendix B: Fire Behavior, pg. B-59

Figure 4.17.7: Flame Length

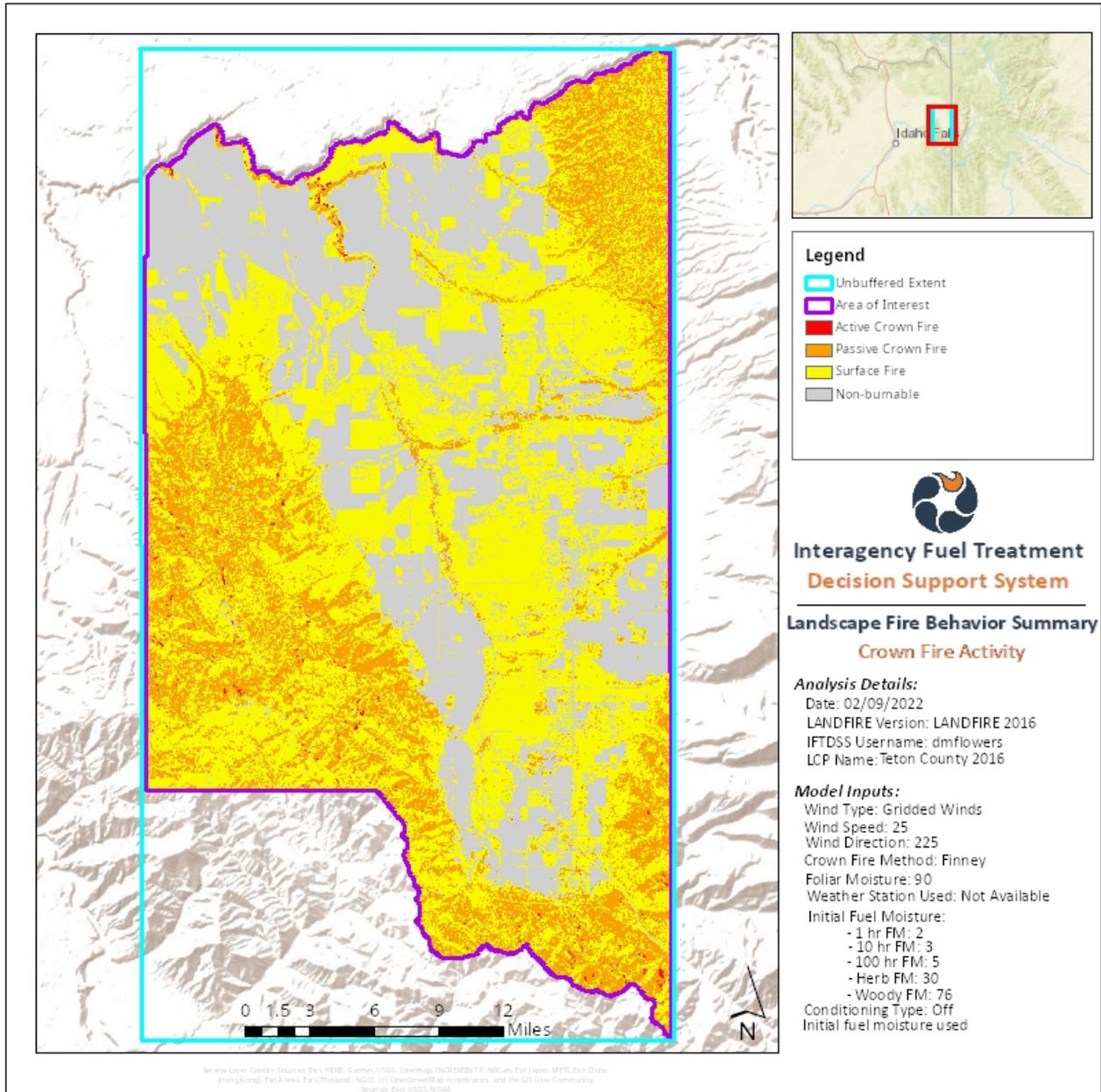


Crown Fire Activity

Canopy base height is defined as the lowest point in a stand where there is fuel available to propagate fire vertically through the canopy, meaning the closer the tree canopy is to the ground surface the greater the chance of a fire transitioning into the tree canopies. Crown fire activity appears to be almost evenly split between surface and passive crown fire with some active crown fire on steeper slopes. Passive and active crown fire will occur within the timbered fuel models. It is within these timbered areas that the surface fuels, small diameter logs and regeneration that facilitates fire spread and the canopy base height is in direct correlation to the ability of the fire to get into the canopy of the trees to initiate a passive or active crown fire.

Much of Teton Valley is depicting “No Fire” or “Unburnable”. This is based on the LANDFIRE data interpreting these cropland areas as bare mineral soil or minimal ground cover. At any time throughout the summer, these cropland areas can carry fire but are dependent upon the crop being planted and whether irrigation is occurring within these areas.

Figure 4.17.8: Crown Fire Activity



Historical Frequencies & the Probability of Future Occurrences

Teton County has been the site of over 100 wildfires on federal lands between 1970 and 2021. In the last 20 years, countywide, there have been approximately 200 recorded fires. The only large fire over 100 acres in the last ten years within Teton County is the River Fire that occurred in 2002. The fuels, weather and topography in Teton County combine to make wildfire a periodic hazard with associated risks.

Landscape scars from historic large wildfires are visible in much of the county in the ring of aspen rising from the valley floor and the even aged stands of lodgepole at the northern end of the county. Additionally, historic photos taken by the U.S. Geological Survey show large burned areas dating back to 1872, 1911, & 1917. Since that time, the valley has largely gone without fire resulting in an accumulation of fuels that will increase fire intensity and make suppression difficult when a fire escapes initial attack.

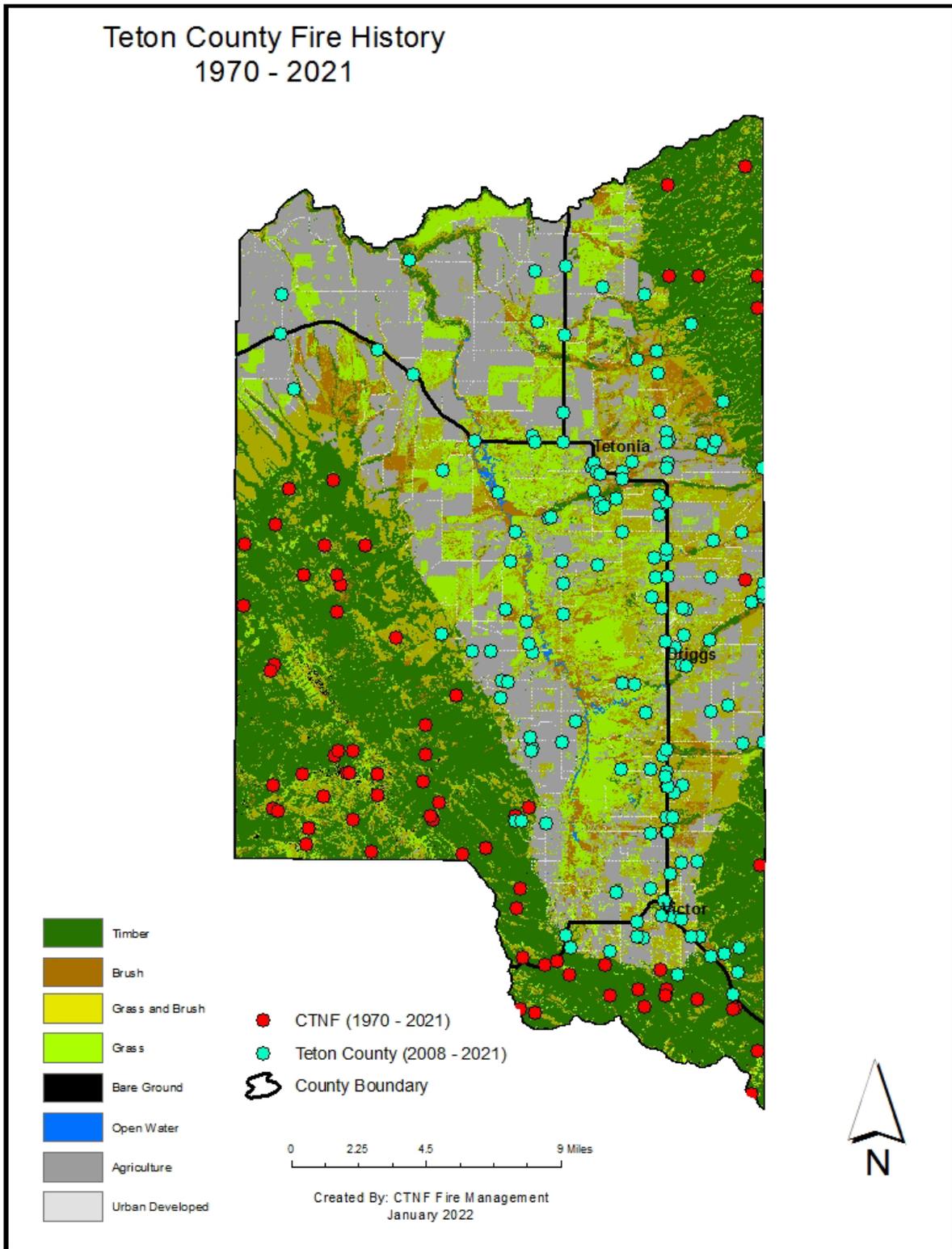
Table 4.17.2: Wildfires in the last 5 years

Incident Date	Wildfire Incident Type
12/4/2021	143 - Grass fire
8/5/2021	141 - Forest, woods or wildland fire
7/28/2021	143 - Grass fire
7/13/2021	142 - Brush or brush-and-grass mixture fire
7/10/2021	143 - Grass fire
6/14/2021	143 - Grass fire
5/7/2021	142 - Brush or brush-and-grass mixture fire
4/22/2021	140 - Natural vegetation fire, other
4/18/2021	143 - Grass fire
11/6/2020	143 - Grass fire
11/1/2020	140 - Natural vegetation fire, other
10/5/2020	143 - Grass fire
9/22/2020	142 - Brush or brush-and-grass mixture fire
9/14/2020	140 - Natural vegetation fire, other
8/16/2020	141 - Forest, woods or wildland fire
8/8/2020	142 - Brush or brush-and-grass mixture fire
6/23/2020	142 - Brush or brush-and-grass mixture fire
5/17/2020	142 - Brush or brush-and-grass mixture fire
5/17/2020	143 - Grass fire
5/7/2020	143 - Grass fire
5/1/2020	143 - Grass fire
4/22/2020	140 - Natural vegetation fire, other
11/24/2019	143 - Grass fire
11/12/2019	142 - Brush or brush-and-grass mixture fire
10/9/2019	140 - Natural vegetation fire, other
9/26/2019	142 - Brush or brush-and-grass mixture fire
9/15/2019	143 - Grass fire

9/2/2019	143 - Grass fire
9/1/2019	141 - Forest, woods or wildland fire
8/28/2019	143 - Grass fire
7/23/2019	141 - Forest, woods or wildland fire
7/17/2019	140 - Natural vegetation fire, other
7/16/2019	143 - Grass fire
5/11/2019	143 - Grass fire
5/4/2019	142 - Brush or brush-and-grass mixture fire
5/4/2019	142 - Brush or brush-and-grass mixture fire
5/3/2019	143 - Grass fire
5/1/2019	143 - Grass fire
4/19/2019	143 - Grass fire
11/10/2018	140 - Natural vegetation fire, other
10/27/2018	143 - Grass fire
10/21/2018	143 - Grass fire
10/18/2018	140 - Natural vegetation fire, other
10/3/2018	143 - Grass fire
10/3/2018	140 - Natural vegetation fire, other
9/24/2018	141 - Forest, woods or wildland fire
9/19/2018	142 - Brush or brush-and-grass mixture fire
9/15/2018	143 - Grass fire
9/14/2018	143 - Grass fire
9/13/2018	141 - Forest, woods or wildland fire
8/28/2018	140 - Natural vegetation fire, other
8/25/2018	140 - Natural vegetation fire, other
8/22/2018	140 - Natural vegetation fire, other
8/18/2018	143 - Grass fire
8/18/2018	141 - Forest, woods or wildland fire
8/5/2018	141 - Forest, woods or wildland fire
7/28/2018	142 - Brush or brush-and-grass mixture fire
7/21/2018	142 - Brush or brush-and-grass mixture fire
7/20/2018	142 - Brush or brush-and-grass mixture fire
5/9/2018	142 - Brush or brush-and-grass mixture fire
4/28/2018	143 - Grass fire
4/28/2018	143 - Grass fire
4/28/2018	142 - Brush or brush-and-grass mixture fire
4/26/2018	143 - Grass fire
4/16/2018	142 - Brush or brush-and-grass mixture fire
10/28/2017	143 - Grass fire
8/24/2017	142 - Brush or brush-and-grass mixture fire
8/23/2017	141 - Forest, woods or wildland fire

7/15/2017	143 - Grass fire
7/4/2017	143 - Grass fire
6/29/2017	143 - Grass fire
5/24/2017	143 - Grass fire
5/12/2017	140 - Natural vegetation fire, other
4/16/2017	142 - Brush or brush-and-grass mixture fire
4/12/2017	142 - Brush or brush-and-grass mixture fire
4/7/2017	140 - Natural vegetation fire, other
3/27/2017	143 - Grass fire
3/24/2017	142 - Brush or brush-and-grass mixture fire

Figure 4.17.9: Wildfires History



Impacts

Teton County infrastructure, homes, transportation corridors, watersheds, air quality, and other natural resources are an important part of the welfare, quality of life, visitation and beauty of the county. The County currently has nearly 5,000 homes, a County Fire District with three stations, three major state highway transportation corridors, watersheds that are vulnerable to wildfire and support recreation, irrigation, and endangered species. Timber resources located on private, state and public lands are also vulnerable to loss due to high intensity wildfires. Teton County Fire District, the U.S. Forest Service and BLM provide fire protection for all of Teton County. County emergency services communications and computer support are critical to life and safety in Teton County. Improvement, updating and planning in these areas are necessary for future fulfillment of emergency service response to residents, visitors, cooperators, and those traveling through the County. Communication and computer support infrastructure upgrading requirements are identified in the hazard prioritization and mitigation strategy sections.

Wildfire Mitigation Strategies and Implementation

The wildfire mitigation action items provide direction on specific activities that organizations and residents in Teton County can undertake to reduce risk and prevent loss from wildfire events. Each action item is followed by ideas for implementation that can be used by local entities to pursue strategies for implementation.

Table 4.17.3: Fuels Treatment Action Items

Priority	Action Item	Lead Organization	Timeline	Description
High	Grove Creek Area	County/ IDL/BLM /USFS	2020- Present	7000 South 5000 West area, Victor: multiple structures and building lots bordering the forest to the west. We would like to use this subdivision as a starting point for a District-wide attempt to triage and map all structures and hazards in the immediate area for the first arriving personnel for fire an event. When triage phase 2 is completed, it would include a community workshop for fire and hazard mitigation, awareness, and defensible space education.
High	Teton Canyon	USFS	2019-2024	Implementation was initiated in 2019. Hazardous fuels mitigation project to reduce fuels adjacent to private lands. Mechanical treatments (hand treatments) have occurred with prescribed fire treatments started in 2021. Project area located approximately 1.5 miles east of Alta in Teton Co, Wyoming.
High	Badger Creek Thinning Project	USFS	2025	Thinning of lodgepole pine to increase growth and production. Additional benefit realized in the reduction of crown fire hazard adjacent to private lands. Project area located approximately 7 miles northeast of Driggs, Idaho.
High	Game Creek Fuels	BLM	2025	Fuel reduction to include limited commercial harvest. Treatments would focus on protecting Victor’s municipal watershed from potential wildfire impacts. Project area located approximately 3 miles southeast of Victor, Idaho.
High	Teton Pass Fuels Reduction	USFS	2024- 2027	Fuels reduction adjacent to ID 33 & WY 22. Likely to include prescribed burning & limited mechanical removal of trees. Project area located approximately 5 miles southeast of Victor, Idaho.
High	Sorensen Creek/Shooting Star	USFS	2024- 2026	Fuels reduction just north of Fox Creek. Likely to include prescribed burning & limited mechanical removal of trees.

				Project area located approximately 4 miles northeast of Victor, Idaho.
Medium	Red Creek RX Fire	USFS	2015-2024	Ongoing treatments. Prescribed burn to regenerate aspen and reduce fuels. Implementation began in 2015. Project area located approximately 8 miles west of Victor, Idaho.
High	NE Bigholes HFRA EA	USFS	2022-2025	Reduce fuels adjacent to private lands on the west northwest side of valley. Likely to include prescribed burning & commercial removal of trees. Project area located approximately 10 miles northwest of Driggs, Idaho.
High	Bates/Twin Creek Area	County/ IDL/BLM	2025	Twin Creek Lane, Bates area. 5500 West 2000 South Driggs. Structures on the west hillside border forest land and are scattered throughout the hillside. The project would include triage, mapping of structures, hazards, and water source identification for a pre action plan.
High	South Valley Hazardous Fuels	USFS/Teton Fire	2020-2025	Implementation to be initiated in 2022. Fuels reduction adjacent to private lands on the south end of Teton Valley from Mike Harris Campground to Grove Creek. Proposal includes commercial removal of conifer trees within aspen stands and some prescribed fire. Second phase of the Pole Creek Hazardous Fuels Project. Project area located approximately 4 miles south of Victor, Idaho. Fuels mitigation work on private lands has been initiated through Teton County. U.S.F.S fuels reduction projects in this area that are ongoing would also benefit Teton County if the Teton County Fire District could assist the Forest Service Fuels Crew with manpower, resources, and funding to complete these project areas and continue on the defined areas of wildland mitigation strategy and implementation as listed in the C.W.P.P.
High	Patterson Ridge Hazardous Fuels	USFS	2023-2026	Fuels reduction project adjacent to private lands near Henderson, Patterson, Dry Fork and Mahogany Creek. Combination of mechanical and prescribed fire treatments planned within the 5,597 acre project area. Additionally a lightning strike caused fire that was a close call for a few structures ignited in 2015 in the Dry Henderson Creek Subdivision, 5750 South 500 West. The fire had a possibility to spread further west into Forest Service land. This incident provides an opportunity to provide public awareness and a workshop of concerned homeowners in the area.

Table 4.17.4: Education Action Items

Priority	Action Item	Lead Organization	Timeline	Description	Status 2022
1	Homeowner Education	Teton Co. Fire District	Ongoing	Provide defensible space information to developers & homeowners (i.e. Ready, Set, Go and Idaho Firewise)	Ongoing
2	Emergency Action Plans	Teton Co. Fire District	Ongoing	Identify evacuation routes. Identify trigger or evaluation points.	Ongoing

Table 4.17.5: Mitigation Action Items

Priority	Action Item	Lead Organization	Timeline	Description	Status 2022
1	Ingress/egress issues in older subdivisions.	Teton Co. Fire District	Ongoing	Identify ingress/egress constraints; assist in developing best value plan to alleviate problems.	Ongoing
2	Water source identification/upgrade.	Teton Co. Fire District	Ongoing	Identify water shortage areas; assist in developing best value plan to alleviate problems.	Ongoing
3	Improve access to Wildland Urban Interface areas	County	Ongoing	Improve access to Wildland Urban Interface areas by improving roads and bridges	Ongoing
4	Develop a standard for roadside vegetation management	Teton Co. Fire District	Ongoing	Develop a standard for roadside vegetation management	Ongoing
5	Road signage and rural addressing	County	Ongoing	Update and improve road signing and rural addressing	Ongoing

Table 4.17.6: Equipment & Facilities Action Items

Priority	Equipment/ Facility	Lead Organization	Timeline	Description	Status 2022
1	Training	Teton Co. Fire District	Ongoing	Utilize fire district's Needs Assessment to establish priorities that allow the district to receive the best value.	Ongoing
2	Personal Protective Equipment	Teton Co. Fire District	Ongoing	Utilize fire district's Needs Assessment to establish priorities that allow the district to receive the best value.	Ongoing
3	Apparatus	Teton Co. Fire District	Ongoing	Utilize fire district's Needs Assessment to establish priorities that allow the district to receive the best value.	Ongoing
4	Teton Co. Dispatch Communication System	Teton Co. Sheriff's/ Emergency Services	Ongoing	Update County Systems	Ongoing
5	Communications: First responder radio	Teton Co. Fire District	Ongoing	Update County emergency services communications capabilities.	Ongoing
6	Update software for emergency response and planning.	Teton Co. Fire District, County GIS	Ongoing	Update County emergency services software.	Ongoing
7	New Fire Station and Remodel of Station 1	Teton Co. Fire District	2025	Utilize fire district's Needs Assessment to establish priorities that allow the district to receive the best value.	Ongoing and is in the planning stages

Priority	Equipment/ Facility	Lead Organization	Timeline	Description	Status 2022
8	Purchase Crossover Boxes	Teton Co. Fire District	2025	Will assist with communication interoperability between different agencies.	Ongoing - new repeater site under construction in Victor to help with communications on Pine Creek pass and the West side of the valley.
9	Purchase Radios (VHF BK Radios – Formerly known as Bendix Kings)	Teton Co. Fire District	Ongoing	Radios will facilitate greater interoperability and communication with Federal partners.	7 new B.K. KING 2 P-150 portable radios were placed in service last year.

Table 4.17.7: Completed Wildfire Action Items

<p>Teton County Fire District has accomplished a countywide assessment of needs within the district. Coordinating Organizations: Teton County Commissioners, Teton County Sheriff, Teton County Fire District</p>
<p>Integrate countywide 911 dispatching with emergency services computer support and centralize emergency services dispatching. Coordinating Organizations: Teton County Commissioners, Teton County Sheriff, Teton County Fire District</p>
<p>Develop cooperative agreements and plan for emergency use of cooperator frequencies and repeaters. Develop procurement plan for updated and compatible radios. Coordinating Organizations: Teton County Commissioners, Caribou-Targhee National Forest, Teton County Sheriff, Teton County Fire District, Teton County Emergency Management</p>
<p>Charter member of the Upper Snake River Interagency Wildfire Group (USIWG). The intent is to promote collaboration among the interagency firefighting partners in the Upper Snake River Valley. The overall goal of USWIG is to provide for a coordinated response and effective incident management on wildfires with a focus on emergency responder and public safety while protecting values at risk. Coordinating Organizations: Bingham, Bonneville, Clark, Fremont, Jefferson, Madison, and Teton counties, US Forest Service, Bureau of Land Management</p>
<p>Pole Canyon hazardous fuels project. – 226 acres on federal lands Coordinating Organizations: USFS, Teton County Fire District, Teton Springs</p>
<p>Pole Canyon hazardous fuels project – 125 acres on private lands Coordinating organizations: Private Landowners, Teton Springs Resort, IDL, Teton County Fire District</p>

<p>Smith Canyon HFT – 50 Acres on Private Lands Coordinating Organizations: Pvt. Landowners, IDL, Teton County Fire District</p>
<p>Smith Canyon HFT-Part 2 -10 Acres surrounding 5 houses south of Victor Coordinating Organizations: Private Landowners, IDL, High Country RC&D, Teton County Fire District</p>
<p>Sorensen Ck. – 30 Acres on Private Lands Coordinating Organizations: Private Landowners, IDL, High Country RC&D, Teton County Fire District</p>
<p>Continued update of county fire ordinances. Coordinating Organizations: Teton County Commissioners, Teton County Sheriff, Teton County Fire District</p>
<p>Countywide Red Zone Structure Assessment Coordinating organizations: BLM, Teton County Fire District</p>
<p>Alligator Lake Hazardous Fuels Reduction-640 Acres prescribed fire on federal lands-2006. Coordinating Organizations: Caribou-Targhee National Forest, Teton County Fire</p>
<p>Hill Creek Hazardous Fuels Reduction – 3,346 Acres prescribed fire on federal lands – 2008 – 2015: Implementation Ongoing Coordinating Organizations: Caribou-Targhee National Forest, Teton County Fire</p>
<p>Smith Canyon Fuel Reduction Timber Sale – 107 Acres on federal lands – 2012, 2014, 2015 Coordinating Organizations: Caribou-Targhee National Forest</p>
<p>Mud lake Fuels – 250 acres on Federal Lands -- 2008-2015 Coordinating agency: BLM</p>
<p>Red Creek Prescribed Fire – 1,068 Acres on federal lands – 2010, 2011 and 2015 Implementation Ongoing until 2020. Coordinating Organizations: Caribou-Targhee National Forest</p>
<p>Horseshoe Aspen Mechanical – 35 Acres on federal lands – 2013 – 2015 Coordinating Organizations: Caribou-Targhee National Forest</p>
<p>Treasure Mountain Boy Scout Camp – 15 Acres hazardous fuels reeducation (mechanical) on federal lands – 2015 Coordinating Organizations: Caribou-Targhee National Forest, Boy Scouts of America</p>
<p>Site plan review for building permits check-off. Coordinating Organizations: Teton County Fire District, Teton County Commissioners</p>
<p>Assessment of missing road signs and purchase and installation of missing signs on County roads. Coordinating Organizations: Teton County Road & Bridge, Teton County Commissioners</p>

Wildfire Mitigation Programs and Resources

Existing mitigation activities include current mitigation programs and activities that are being implemented by County, State and Federal agencies within Teton County. Prioritization of Hazards and Mitigation Goals is in accordance with the stated objectives, specifically protection of Life, Property and Values at risk.

Local Programs

Teton County residents are served by the Teton County Fire District with three stations as well as by USFS and BLM. These entities meet to ensure coordination of resources, promote partnerships and information sharing as necessary throughout the year.

Continuous improvement priorities for the fire district are: training, communications, coordinated emergency services planning and response, personnel protective equipment, and apparatus.

County Codes

- Teton County Comprehensive Plan: Established road standards, conditions of design and construction. This document contains directions for review and updating of road standards to assure adequacy for long term needs of the County.
- Teton County Fire Protection Resolution for New Subdivisions: Includes requirements for fire district access, water supply and wildfire evaluation.
- Site plan review for building permits check-off.

State (IDL) Programs

- Provides education to property owners about fire hazards in wildland-urban interface areas.
- Manages the Hazardous Fuels Reduction Program to assist landowners or counties with grant funds for reduction of hazardous fuels.
- Manages Forest Stewardship program to assist landowners in forest and fire planning.
- Declares fire closures when wildfire danger ratings and conditions require.

Federal Programs

The role of the Federal land management agencies in Teton County is focused on reducing fuel hazards on the lands they administer. They also provide prevention and education programs, provide technical and financial assistance; develop agreements and partnerships with other agencies and private landowners in an effort to provide for safer communities within the wildlands. Some of the programs provide grants to fire districts.

Fire Suppression Assistance Grants may be provided to a State with an approved wildfire hazard protection plan. These grants are provided to protect life and improve property. The grant may include funds for training, equipment, supplies, and personnel. Provides suppression training as requested.

Toolbox

Fuels Treatment Options and Estimated Costs

Wildland fire can be good for people and the land. There is a need for periodic fire to create disturbances which in turn create healthier more resilient and diverse ecosystems. Removing fire from the landscape will eventually create unhealthy ecosystems: trees are stressed by overcrowding, fire-dependent species disappear, and flammable fuels build up and become hazardous. Land management agencies often utilize prescribed fire to benefit natural resources and protect communities and values at risk. However, in some places and under some conditions it may be too difficult to safely use prescribed fire with acceptable risk. This is where the mechanical treatment of hazardous fuels can be a valuable tool. Hazardous fuels treatments can benefit ecosystems and people by:

- Reducing the probability of catastrophic fires;
- Helping maintain and restore healthy and resilient ecosystems;
- Protecting human communities and values at risk.

Mechanical treatment of hazardous fuels means reducing the amount of vegetation which has built up to dangerous levels, or changing the arrangement of these fuels in the environment. Mechanical treatment can also provide opportunities for woody biomass utilization by providing a renewable source of energy and wood products for local communities.

Examples of mechanical treatment include the thinning of dense stands of trees, or other fuel treatments that make an area better able to withstand fire. Such treatments might be piling brush, pruning lower branches of trees, or creating fuel breaks to reduce fire intensity and severity. Tools that are used to carry out the mechanical treatment of hazardous fuels range from the use of hand tools such as chainsaws, to large machines like masticators and wood chippers.

Mechanical treatment can be used on its own or together with prescribed fire to change how wildfire behaves, so that when a fire does burn through a treated area, it is less destructive, less costly, and easier to control with less risk to public and emergency responders. Often, mechanical fuels treatments are followed by prescribed fire to create effective hazard reduction.

The costs associated with the different types of fuels treatment varies dramatically and is influenced by many factors including: fuel type, fuel density, fuel loading (tons per acre), location of the treatment, and availability of resources to perform the work. The following treatment types and estimated costs have been derived from past projects on private lands.

- Thinning and hand pile – \$400-\$800 per acre
- Limbing and hand pile – \$300-\$600 per acre
- Chipping – \$300-\$600 per acre
- Mastication – \$200-\$800 per acre
- Pile Burning – \$90-\$150 per acre

The project work completed on private lands has a rolling average across the state which usually includes the follow practices as a single cost: Cut/Pile/Chip for \$1200-\$1800 per acre.

For comparison purposes, the average wildfire suppression costs for all land management agencies within the Great Basin Geographical Area (Southern Idaho, Western Wyoming, Nevada and Utah):

- Average wildfire suppression costs - \$27,600 per acre.

Grant Opportunities

Government agencies, non-government organizations, and cooperators have come together to offer various programs to assist property owners and communities in obtaining financial assistance for fuels reduction projects that reduce the likelihood of catastrophic wildfire, by creating a higher degree of defensibility in the Wildland-Urban Interface, and ultimately offering firefighters a higher probability of success.

Idaho Department of Lands offers two (2) grant opportunities in cooperation with the USFS for projects specifically identified in County Wildfire Protection Plans. First, the Western State Fire Managers (WSFM) grant supports hazardous fuels reduction on private and state lands,

education of landowners and general public, and planning efforts related to the completion of a CWPP or implementation of project work. Second, the Hazardous Fuel Reduction (HFR) grant supports the reduction of hazardous fuels on private and state lands that are adjacent to USFS lands that has a project in the planning process or currently implementing a vegetative project.

Contact Information:

Tyre Holfeltz

Office: 208-666-8653

Cell: 208-819-9340

Email: tholfeltz@idl.idaho.gov

Or visit Idaho Department of Lands webpage at: <http://www.idl.idaho.gov/>

BLM Community at Risk Program

Reduce the Risk and Impact of Wildfire on Communities through Protection Planning, Hazardous Fuels Reduction, Maintenance and Monitoring, Mitigation and Education Activities.

<http://www.federalgrants.com/BLM-Idaho-Communities-at-Risk-Assistance-Program-47352.html>

High Country Resource Conservation and Development Council has partnered with several Southeastern Idaho districts, the BLM, Caribou-Targhee National Forest, Teton Soil Conservation District, local fire departments, and many others to help procure funding and facilitate projects that assist property owners in the implementation of Firewise practices that include thinning trees and brush, creating defensible space around their homes.

<http://highcountryrcd.weebly.com/>

Idaho Office of Emergency Management (IOEM)

The Idaho Office of Emergency Management conducts grant management activities and coordinates resources before, during, and after a disaster. As the State Administrative Agency for Emergency Management and Homeland Security grants the section applies for grant funding and passes much of the funding to local jurisdictions throughout Idaho. The Logistics Section is responsible for coordinating the purchase of Homeland Security Grant equipment, the Homeland Defense Equipment Reuse (HDER) program and disaster logistics needs.

<http://www.ioem.idaho.gov/>

Educational Tools and Programs

Scientific research has shown the effectiveness and benefits of implementing wildfire mitigation concepts across individual property boundaries and throughout communities. To save lives and property from wildfire, we the people need to learn to adapt to living with wildfire and encourage our neighbors to work together and take action now to prevent losses in the future. We all have a role to play in protecting ourselves and each other from the risk of wildfire.

The following organizations help to serve as resources for agencies, tribes, organizations, fire departments, communities and residents across the United States who are working toward a common goal: reduce the loss of lives, properties, and resources to wildland fire by building and maintaining communities in a way that is compatible with our natural surroundings.



Firewise Communities Program: Encouraging Solutions

<http://www.firewise.org/>

The National Fire Protection Association's Firewise Communities Program focuses on what residents can do around their homes to reduce potential loss of life and property to wildfire, and plays an important role in the Fire Adapted Communities approach to wildfire preparedness.

The Firewise program educates homeowners about wildfire risk and advocates principles designed to reduce that risk, including: the creation of defensible space around the home, the utilization and maintenance of fire resistant landscaping, the use of fire resistant building materials, the creation of evacuation plans, and encourages neighbors to work together to help prepare for and reduce the risk of home destruction due to wildfires.



Situational awareness and action – Ready, Set, Go!

<http://www.wildlandfirersg.org/>

The national Ready, Set, GO! (RSG) Program, managed by the International Association of Fire Chiefs (IAFC), works to develop and improve dialogue about wildland fire awareness and action between local fire departments and the residents they serve.

The program works in complementary and collaborative fashion with the Firewise Communities Program and other existing wildland fire public education efforts. It calls on residents to be Ready with preparedness understanding, to be Set with situational awareness when fire threatens, and to Go, by acting early when a fire starts.



USDA Forest Service - State and Private Forestry

<http://www.fs.fed.us/spf/>

The State and Private Forestry (S&PF) organization of the USDA Forest Service reaches across the boundaries of National Forests to States, Tribes, communities and non-industrial private landowners. S&PF is the federal leader in providing technical and financial assistance to landowners and resource managers to help sustain the Nation's forests and protect communities and the environment from wildland fires.



National Interagency Fire Coordination Center (NICC)

Prevention and Education

<http://www.nifc.gov/>

Mission of NICC is to serve as a focal point for coordinating the national mobilization of resources for wildland fire and other incidents throughout the United States. NICC has four major elements: equipment and supply dispatching; overhead and crew dispatching; aircraft dispatching; and intelligence and predictive services.



Teton County: Office of Emergency Management

<http://tetoncountyidaho.gov/>

The primary mission of the Emergency Management Department is planning, training, exercising, coordination, and grant management. Our focus is to work with all agencies and surrounding jurisdictions to plan, exercise, train, and prepare for any possible hazard situation in order to maintain the life safety of all responders and citizens, as well as the stabilization of the incident and protection of property and the environment.



Teton County: Fire & EMS Department

<http://tetoncountyfire.com/>

It is the mission of Teton County Fire & Rescue to preserve and protect life and property by delivering timely and skilled response to emergency situations. We are committed to providing public service and education that promote health, safety and security to the citizens and visitors of Teton Valley. We are prepared to intervene and utilize our training and resources to limit the pain, suffering and loss of those we serve.



Wildland Urban Interface Wildfire Mitigation

Desk Reference Guide (PMS 051)

www.nwcg.gov/pms/pubs/pms051.pdf

The *Wildland Urban Interface Wildfire Mitigation Desk Reference Guide* is designed to provide basic background information on relevant programs and terminology for those, whether community members or agency personnel, who are seeking to enhance their community's wildfire mitigation efforts.



Insurance Institute for Business and Home Safety

<https://disastersafety.org/wildfire/>

As part of its research effort to study and understand the vulnerabilities of buildings subjected to wildfire exposures, the Insurance Institute for Business & Home Safety (IBHS) developed the capability of simulating ember and radiant heat exposures on building components and assemblies at their Research Center in Richburg, South Carolina. The primary objective of this research is to reduce the likelihood of wildfire-caused building ignitions in communities located in wildfire-prone areas.



Ready - Prepare, Plan, Stay Informed

<http://www.ready.gov/>

Launched in February 2003, *Ready* is a national public service advertising (PSA) campaign designed to educate and empower Americans to prepare for and respond to emergencies including natural and man-made disasters. The goal of the campaign is to get the public involved and ultimately to increase the level of basic preparedness across the nation.

Although non-natural hazards are not required by FEMA for inclusion in a hazard mitigation plan, Teton County wishes to rank and mitigate against a comprehensive list of hazard events that could impact the County. Due to both the nature of non-natural hazards and the discretionary status regarding their inclusion, the following hazards of interest have been briefly, qualitatively assessed for the sake of public education and informing their inclusion within the hazard ranking and mitigation process.

4.18 Air Quality

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Low
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

This hazard affects every community in Teton County.

Hazard Description

Air pollution is the presence of substances in the air that are harmful to humans, animals, and the environment. Both human activity and natural processes can generate air pollution and impact the air quality.

Location

Teton County is vulnerable to air pollution. The increase of wildfires and human activity contributes to the hazard.

Extent

Figure 4.18.1: Air Quality

Air Quality Index Levels of Health Concern	Numerical Value	Meaning
Good	0 to 50	Air quality is considered satisfactory, and air pollution poses little or no risk.
Moderate	51 to 100	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	101 to 150	Members of sensitive groups may experience health effects. The general public is not likely to be affected.
Unhealthy	151 to 200	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	201 to 300	Health alert: everyone may experience more serious health effects.
Hazardous	301 to 500	Health warnings of emergency conditions. The entire population is more likely to be affected.

Historical Frequencies & the Probability of Future Occurrences

The recent wildfires in the western portion of the United States has resulted in deteriorating air quality for significant portions of the summer and fall, on an annual basis.

Impacts

The Organization for Economic Cooperation and Development estimates by 2060 air pollution will cause 6 to 9 million people to die prematurely and cost 1% of global GDP. These costs include medical bills and reduced agriculture output.

4.19 Animal Related Accidents

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

Highway crashes that involve animals struck by vehicular traffic occur throughout the US. Invariably, these crashes are most damaging to the animals while humans usually escape with relatively less severe injuries. Based on some estimates, the loss from these fatal crashes is well over one billion dollars. Injury and property damage costs from crashes not involving human fatalities are not included in the above estimate.

Animal-related vehicular crashes are increasing over time and these crashes mostly involve deer. Vehicle speed, animal population, and land cover influence crash frequency. Animal-related crashes occur more often during November and December and usually involve passenger cars.

In Teton County, animal-related accidents include livestock in addition to wild animals, such as deer.

Location

This hazard affects every community in Teton County.

Extent

The extent of this hazard is an increased occurrence of automobile accidents.

Historical Frequencies

According to the 2019 Idaho Traffic Collision Study, animals in the roadway was the second most prevalent contributing circumstance for single-vehicle crashes at 17%.

Figure 4.19.1: State of Idaho Animal Collision Locations

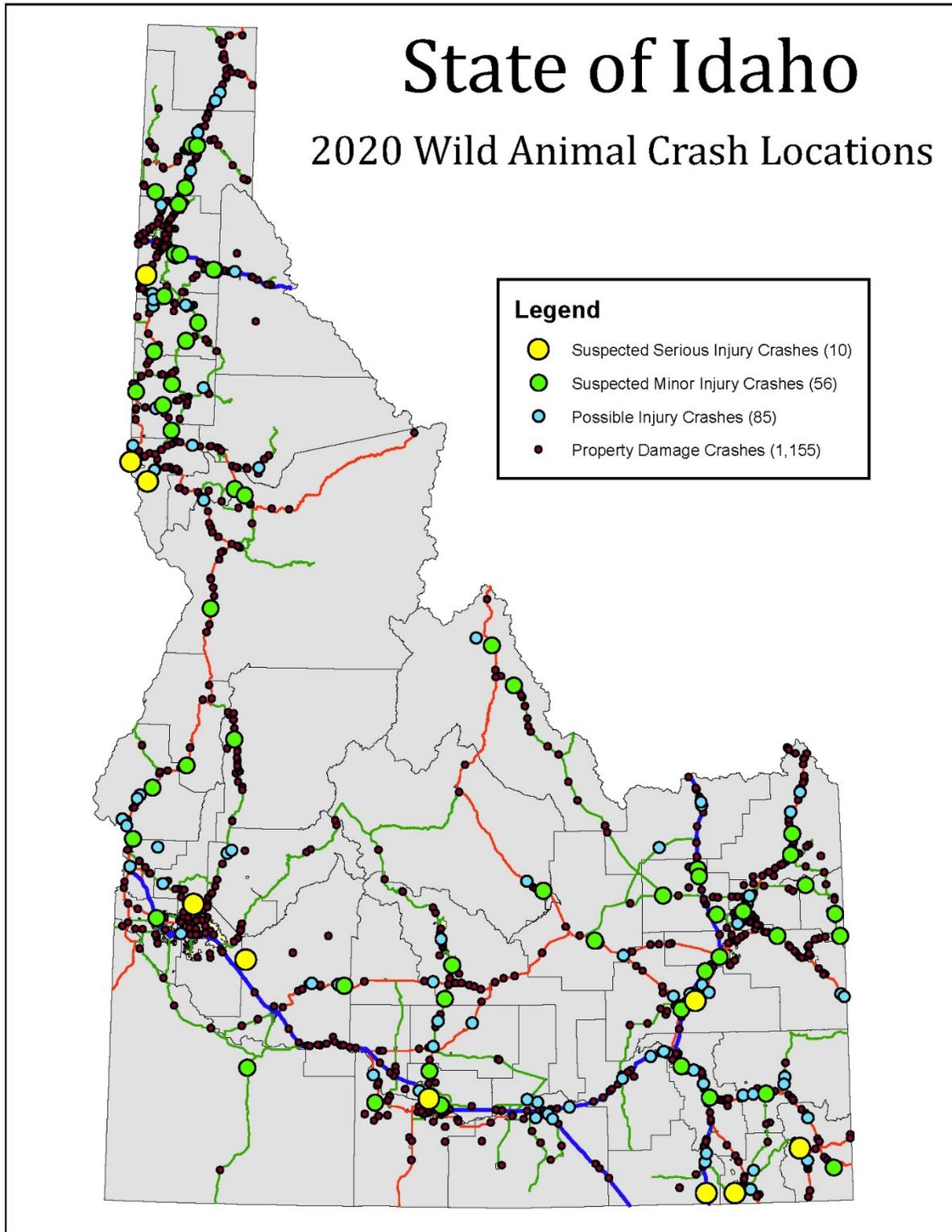
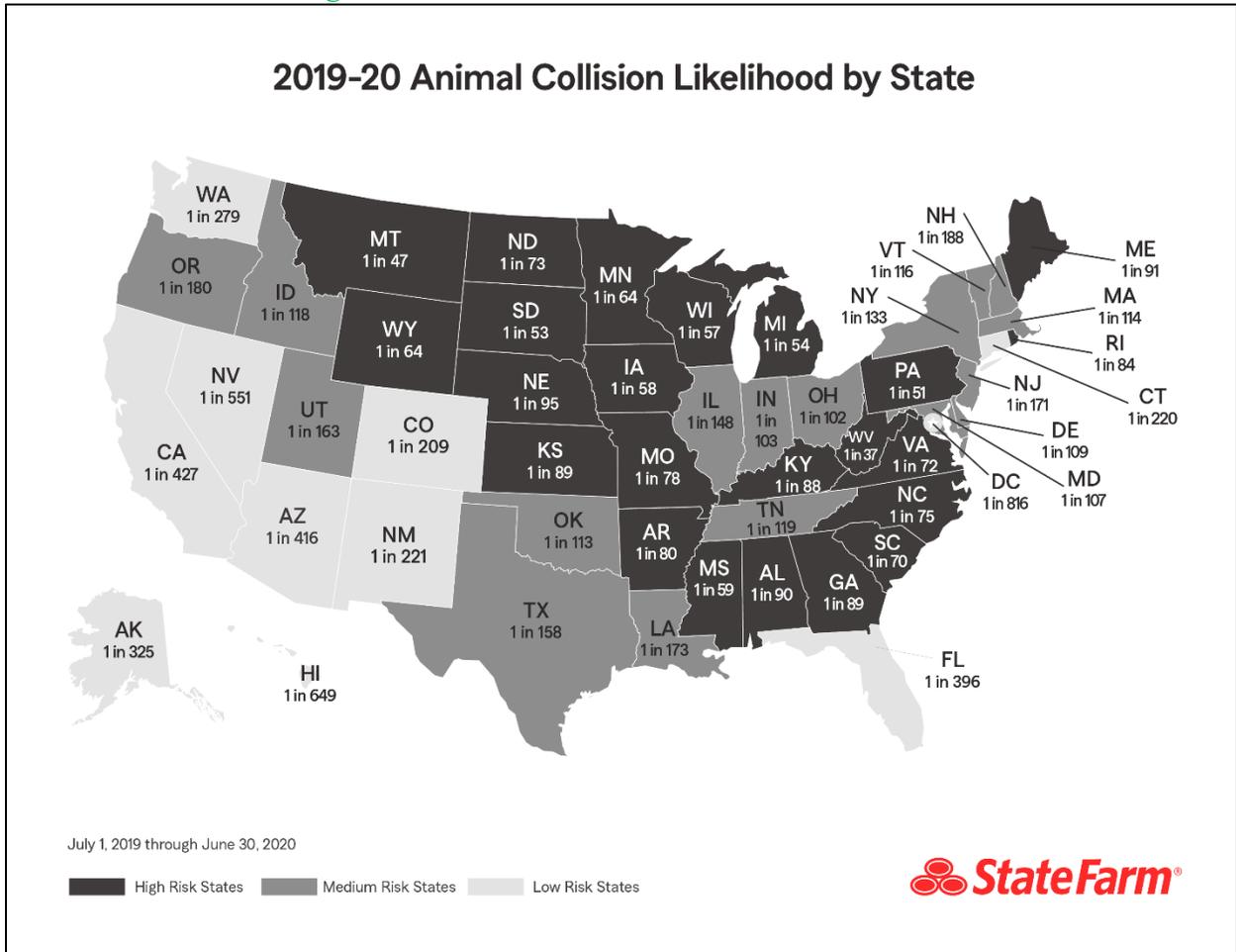


Figure 4.19.2: State Animal Collision Assessment



Impacts

Based on County records, since 1997 there have been 1 fatality and multiple injuries associated with animal-related accidents. Additional impacts include damages to property, namely vehicles, and injury or death to livestock that are struck by vehicles.

Loss Estimates

Significant losses can be incurred by the property owner involved in the animal-related accident. Livestock that are injured or killed in these accidents can also represent a significant loss to the owner.

4.20 Cybersecurity

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

This hazard affects every community in Teton County.

Hazard Description

Advancements in technology have increased the productivity of our nation and made daily operations and markets reliant on cyber systems. As a result, the United States has become, and will increasingly continue to be, vulnerable to non-traditional attacks including cyberattacks on information and operations. Cyberspace is the nervous system for all critical infrastructures and is composed of hundreds of thousands of interconnected computers, servers, routers, switches, and fiber optic cables that allow our critical infrastructures to work. Studies performed by the Government Accounting Office and the Computer Security Institute found that the number of cyber security threats to both public and private sectors are on the rise.

Cyber-attacks are “deliberate exploitation of computer systems, technology-dependent enterprises, and networks.” Cyber-attacks use malicious code to alter computer operations or data. The vulnerability of computer systems to attacks is a growing concern as people and institutions become more dependent upon networked technologies. The Federal Bureau of Investigation (FBI) reports that, “cyber intrusions are becoming more commonplace, more dangerous, and more sophisticated,” with implications for private- and public-sector networks.

Malware, or malicious software, can cause numerous problems once on a computer or network, from taking control of users’ machines to discreetly sending out confidential information. Ransomware is a specific type of malware that blocks access to digital files and demands a payment to release them. Hospitals, schools, state and local governments, law enforcement agencies, businesses, and even individuals can be targeted by ransomware. A 2017 study found ransomware payments over a two-year period totaled more than \$16 million. Even if a victim is perfectly prepared with full offline data backups, recovery from a sophisticated ransomware attack typically costs far more than the demanded ransom. However, according to a 2016 study by Kaspersky Lab, roughly one in five ransomware victims who pay their attackers are still not able to retrieve their data.

Cyber spying or espionage is the act of illicitly obtaining intellectual property, government secrets, or other confidential digital information, and often is associated with attacks carried out by professional agents working on behalf of a foreign government or corporation. According to cybersecurity firm Symantec, in 2016 “...the world of cyber espionage experienced a notable shift towards more overt activity, designed to destabilize and disrupt targeted organizations and countries.” A major data breach is when hackers gain access to large amounts of personal,

sensitive, or confidential information and have become increasingly common. A 2018 report from the security firm Symantec found that more than seven billion identities have been exposed in data breaches over the last eight years. In addition to networked systems, data breaches can occur due to the mishandling of external drives.

Cyber-crime can refer to any of the above incidents when motivated primarily by financial gain or other criminal intent. The most severe type of attack is cyber terrorism, which aims to disrupt or damage systems in order to cause fear, injury, and loss to advance a political agenda.

Cyberattacks can be divided into two main categories: attacks against data, and attacks against physical infrastructure. Because our society is so dependent on technology, a large-scale cyberattack could overwhelm government and/or private-sector resources quickly, as well as threaten lives, property, the economy and national security.

Phishing is a technique employed in many of the above attacks, and involves sending fraudulent emails purporting to be from known contacts or reputable companies to induce individuals to reveal personal information, such as passwords and credit card numbers, or to click on links that put the user at risk.

Location

Cyber disruptions are not central to one geographic area; they can occur anywhere across Idaho where technological systems exist or are utilized. A breach can originate at one computer and affect any other computer in the world. Targets include individual computers, networks, organizations, business sectors, or governments.

Extent

The extent of a cybersecurity breach is dependent on various factors. These factors include the system that is attacked, protective measures put in place, training of the people involved, warning time, and the firewalls that exist to protect different levels of the system.

Historical Frequencies & the Probability of Future Occurrences

Cyberattacks have increased nationwide in recent years, particularly targeting the energy sector. Cyberattacks have also increased in the banking and finance sectors. Hackers have attacked company computers, distracting employees and interfering with Internet Security Providers (ISP) to divert resources, take proprietary information, and steal PII. Small devices can wreak havoc and disrupt systems. Some USBs have been manufactured with viruses or may become infected and spread viruses to multiple computers. Firewalls, access via signatures, and anti-virus are becoming antiquated security methods.

While specific data on the number of occurrences are not known, the probability of future cyberattacks is high.

Other jurisdictions have been impacted by ransomware attacks in recent years. The City of Atlanta was hit by a major ransomware attack in 2018, recovery from which wound up costing a reported \$2.6 million, significantly more than the \$52,000 ransom demand. A similar attack against the City of Baltimore in 2019 affected the city government's email, voicemail, property tax portal, water bill and parking ticket payment systems, and delayed more than 1,000 pending home sales. In March 2019, Orange County, North Carolina was attacked with a ransomware virus, causing slowdowns and service problems at key public offices such as the Register of Deeds, the sheriff's office and county libraries. The attack impacted a variety of county services, including

disrupting the county’s capability to process real estate closings, issue marriage licenses, process fees or permits, process housing vouchers, and verify tax bills.

Impacts

Cyberattacks can have a wide range of impacts, ranging from minimal to significant, depending on if the County or its jurisdictions are the main target for the attack or if they are one of many targets. Some of these attacks may be malicious and can result in catastrophic damages to the nervous system of a community's cyber infrastructure. Back-up systems, redundancy, heightened awareness, integrity restoration, and recovery will provide means to adequately manage the consequence of an attack.

Direct Damage

Cyberattacks can inflict damage on physical systems by manipulating the technology supporting the built environment.

Economic Damage

Cyberattacks can inflict huge amounts of economic damage in many different ways. Cyberattacks targeting financial institutions (banks, stock markets, etc.) can directly impact the overall economy while other attacks may target individual businesses.

Loss Estimates

Large scale cyberattacks can greatly affect the economy. Symantec reports that in the last three years, businesses have lost \$3 billion due to phishing email scams alone. In an electronic-based commerce society, any disruption to daily activities can have disastrous impacts to the economy. It is difficult to measure the true extent of the impact.

4.21 Hazardous Materials Incident

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

This hazard affects every community in Teton County.

Hazard Description

Substances that, because of their chemical or physical characteristics, are hazardous to humans and living organisms, property, and the environment, are regulated by the U.S. Environmental Protection Agency (EPA) and, when transported in commerce, by the U.S. Department of Transportation (DOT). EPA regulations address “hazardous substances” and “extremely hazardous substances”.

EPA chooses to specifically list hazardous substances and extremely hazardous substances rather than providing objective definitions. Hazardous substances, as listed, are generally materials that, if released into the environment, tend to persist for long periods and pose long-term health hazards for living organisms. They are primarily chronic, rather than acute health hazards. Regulations require that spills of these materials into the environment in amounts at or above their individual “reportable quantities” must be reported to the EPA. Extremely hazardous substances, on the other hand, while also generally toxic materials, are acute health hazards that, when released, are immediately dangerous to the life of humans and animals as well as causing serious damage to the environment. There are currently 355 specifically listed extremely hazardous substances listed along with their individual “threshold planning quantities” (TPQ). When facilities have these materials in quantities at or above the TPQ, they must submit “Tier II” information to appropriate state and/or local agencies to facilitate emergency planning.

DOT regulations provide the following definition for the term “hazardous material”:

Hazardous material means a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (see 49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in part 173 of subchapter C of this chapter.

When a substance meets the DOT definition of a hazardous material, it must be transported under safety regulations providing for appropriate packaging, communication of hazards, and proper shipping controls.

In addition to EPA and DOT regulations, the National Fire Protection Association (NFPA) develops codes and standards for the safe storage and use of hazardous materials. These codes and standards are generally adopted locally and include the use of the NFPA 704 standard for communication of chemical hazards in terms of health, fire, instability (previously called “reactivity”), and other special hazards (such as water reactivity and oxidizer characteristics). Diamond-shaped NFPA 704 signs ranking the health, fire and instability hazards on a numerical scale from zero (least) to four (greatest) along with any special hazards, are usually required to be posted on chemical storage buildings, tanks, and other facilities. Similar NFPA 704 labels may also be required on individual containers stored and/or used inside facilities.

While somewhat differently defined by the above organizations, the term “hazardous material” may be generally understood to encompass substances that have the capability to harm humans and other living organisms, property, and/or the environment. There is also no universally accepted, objective definition of the term “hazardous material event.” A useful working definition, however, might be framed as: Any actual or threatened uncontrolled release of a hazardous material, its hazardous reaction products, or the energy released by its reactions that poses a significant risk to human life and health, property and/or the environment.

Location

Hazardous materials are widely used, stored and transported; a hazardous material release incident could take place almost anywhere. Moreover, many hazardous materials are used, stored and transported in very large quantities, so the impacts of a release incident may be

widespread and powerful. Hazardous material incidents usually occur on major highways and railways.

Extent

The magnitude of a hazardous material incident depends on the type of chemical, the environment it is in, and how it interacts with that environment.

Historical Frequencies & the Probability of Future Occurrences

According to the National Response Center, the following have been reported for Teton County.

Table 4.21.1: HAZMAT Incidents

Place	Date	Chemical	Classification
Teton	06/28/2007	Explosive Material	Level II
Teton	1/5/2019	Fixed Facility/ Contamination	Level I

Source: National Response Center

Other, smaller incidents were reported and documented by the Idaho State Fire Marshall under the hazardous conditions category. These include non-fire responses, such as: gas leaks, general hazardous materials cleanup following an accident, carbon monoxide, shorting of electrical equipment, flammable liquid spill, etc.

Table 4.21.2: HAZMAT Incidents as reported by the Idaho State Fire Marshall

Hazardous Conditions Response for Teton County, 2018-2020	
Year	Hazardous Conditions Incidents
2020	20
2019	26
2018	17

Source: Idaho State Fire Marshall

*State of Idaho Hazardous Materials Response Classification Levels –

- Level I – An incident involving any response, public or private to an incident involving hazardous materials that can be contained, extinguished, and/or abated using resources immediately available to the responders having jurisdiction.
- Level II – An incident involving hazardous materials that is beyond the capabilities of the first responders on the scene, and may be beyond the capabilities of the public sector response agency having jurisdiction. Level II incidents may require the services of the State of Idaho Regional Response Team, or other State/Federal Assistance.
- Level III – An incident involving weapons of mass destruction/hazardous materials that will require multiple State of Idaho Regional Response Teams or resources that do not exist within the State of Idaho. These incidents may require resources from State and Federal agencies and/or private industry.

Impacts

17 essential facilities reside within the 1-mile HAZMAT impact area as depicted in Figure 4.23.2.

Figure 4.21.1: Tier 2 Facilities in Teton County

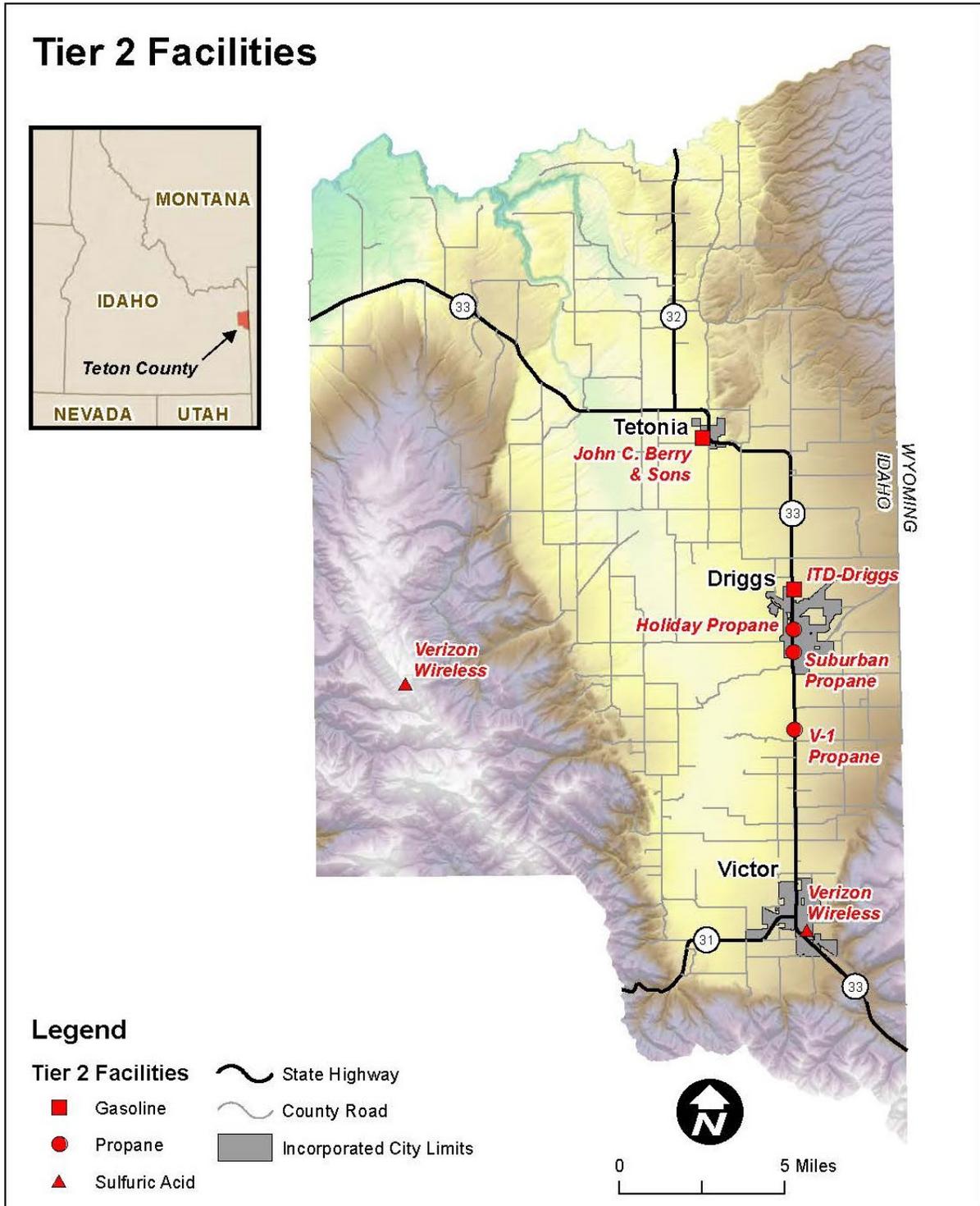
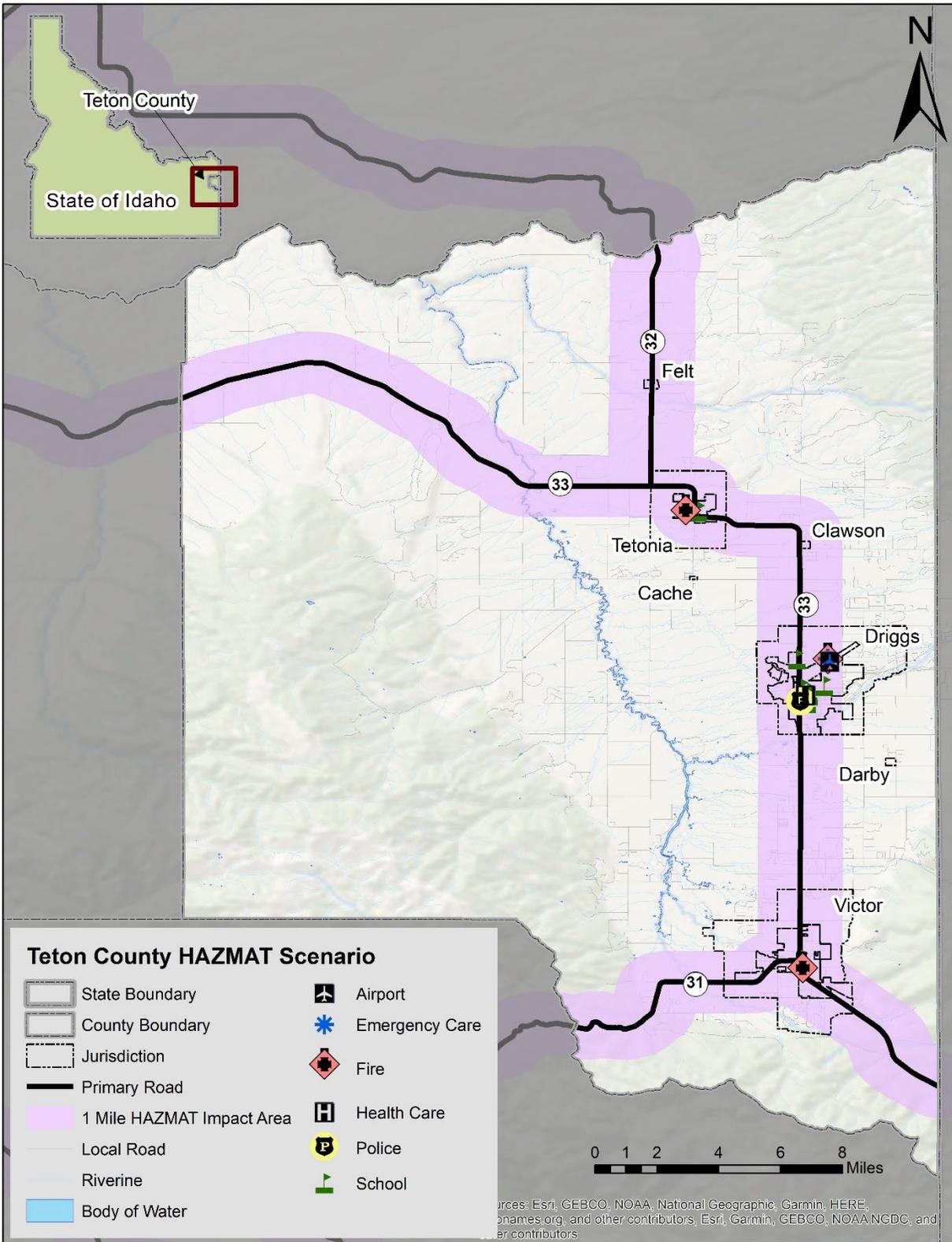


Figure 4.21.2: HAZMAT Areas of Concern



The specific impacts posed by a hazardous material event are usefully summarized by reference to the NFPA 704 scheme.

Flammability hazards

- Ignite spontaneously and burn rapidly or explosively on contact with air
- Explode or burn readily and rapidly when mixed with air and provided with an ignition source
- Ignite and/or react explosively in contact with water
- Emit toxic combustion products
- Emit high heat capable of igniting other combustible materials

Flammable liquids compose, by volume, more than half of the hazardous materials shipped, stored and used in the United States.

Health hazards

- Toxic (poison) – when in the body, interferes with biochemical processes, damages organs or tissues, or otherwise causes injury to health
- Asphyxiant – dilutes or removes respired oxygen or otherwise prevents oxygen from reaching organs or satisfying metabolic needs
- Damages genetic material – carcinogens and mutagens

Instability hazards

- Self-reactive (e.g. explosives, organic peroxides, certain monomers)
- React violently or explosively with water
- Decompose violently (usually on heating)
- Sensitive to thermal or mechanical shock

Special hazards – oxidizer (OX)

- Cause spontaneous ignition on contact with combustibles
- Cause combustibles to burn extremely rapidly or explosively

Special hazards – water reactive (W)

- Ignite spontaneously or explode on contact with water
- Emit flammable gas on contact with water
- Emit toxic gas on contact with water

In terms of physical form, gaseous materials are particularly hazardous because they may travel freely and engulf exposures. When stored and transported, they are commonly contained under high pressure or liquefied at very low temperature. When released, all but oxygen and air itself are asphyxiation hazards in addition to any other chemical or toxic characteristics.

Loss Estimates

Losses due to a hazardous materials release in Teton County would be related to response activities, including evacuation-related business interruption, and clean-up costs. Teton County has not had significant hazardous materials incidents. For smaller incidents, clean-up of these releases is the responsibility of the spiller.

4.22 Major Transportation Incident

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

A transportation hazard may be defined as a condition created by moving anything by common carrier. Transportation hazards can be divided into two categories: hazards created by the material that is being transported; and hazards created by the transportation medium. Transportation systems available in Teton County include air and roadways.

- *Vehicular Accidents:* In the context of commercial motor vehicles, the Code of Federal Regulations defines accidents as a fatality, bodily injury to a person who receives medical treatment away from the scene of an accident, or one or more motor vehicles incurring disabling damage as a result of the accident. Vehicular accidents can include passenger and commercial vehicles, motorcycles, trucks, buses, bicycle and pedestrian accidents, and other motorized forms of road transportation.
- *Aviation Accidents:* The Code of Federal Regulations (CFR) defines an aircraft accident as “an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage”.

Location

This hazard affects every community in Teton County.

Extent

Major transportation incidents can result in injuries and fatalities, and property damage. A major accident involving a bus or plane could result in a mass casualty event.

Historical Frequencies & the Probability of Future Occurrences

In Teton County, vehicular incidents occur often in the County. However, large-scale mass casualty events are rare.

Commuters or other travelers: Stranded commuters or travelers can become a significant problem in the event of a transportation system breakdown. Mass care and sheltering may become necessary in the event of a transportation system disruption of significant magnitude and/or duration.

Emergency responders and public safety personnel: Damage or disruption to the transportation infrastructure, especially the roadway system, can create threats to rescuer safety when transiting to and from events. The inability or delay of rescue vehicles reach the scene of an event could potentially postpone critical treatment to the injured and therefore could increase potential life loss.

Evacuees: Damage or disruption to the transportation infrastructure, especially the roadway system, could create potential challenges with evacuating individuals out of impacted areas, especially in the aftermath of an event with a fast onset that allowed for little to no evacuation time prior to its occurrence. It may also delay re-entry into disaster areas which has implications for mass care and sheltering.

Businesses and other commercial ventures: Depending on the magnitude of the transportation system disturbance, economic disruption might occur ranging from limited to severe. Impassible roads and transportation corridors will impact delivery and services of goods. Lost worker time also needs to be considered from transportation disruption. Businesses in the immediate vicinity of an event that rely on the shipment of goods either in or out of their location could be potentially impacted the most. However, businesses not in the immediate impact area, but that either transit good or people through the impacted area or have a significant customer base in the immediate impact area might also be negatively affected.

Hospitals and public health facilities: The hospital relies on the transportation network for delivery of critical supplies such as medicine, supplies, and equipment for patient care. These facilities and their patients could be facing a shortage of necessary supplies in the event of a transportation disruption of significant duration or magnitude.

Institutions with large numbers of people: In addition to hospitals, other institutions that serve large numbers of people, such as nursing homes may face the potential of supply shortage of food and other necessary commodities to care for the people who reside in the facility in the event of a transportation disruption of significant duration or magnitude.

Loss Estimates

Losses, to-date, have mostly been incurred by property (i.e. vehicle) owners. No major transportation incidents have occurred in the County.

4.23 Nuclear Event

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	High
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

A “nuclear event” is defined as an incident involving a nuclear reaction; nuclear fission or nuclear fusion. Such an incident must involve “fissionable” materials, defined as materials containing isotopes with nuclei capable of splitting. Further, the most probable incidents involve “fissile” materials, defined as materials containing isotopes capable of sustaining a nuclear fission chain reaction. Such reactions release heat, radiation, and radioactive contamination in extremely large quantities relative to the amount of material reacting. Examples of nuclear events include nuclear weapons detonations, nuclear reactor incidents, and nuclear (fissile) material production, handling or transportation incidents. A nuclear detonation as a part of an attack scenario is, perhaps, the ultimate technological disaster. The hazards are well-known and vividly described in FEMA publications. They include shock wave, enormous heat, and the spread of fallout (radioactive contamination). Other nuclear events would not involve a nuclear blast, but still have the potential to produce widespread and long-term consequences as exemplified by the 1986 Chernobyl accident. Of primary concern is the release of radioactive contamination in the form of airborne gases and particulate material. This radioactive material has the potential travel great distances and particulate material eventually is deposited in the environment and incorporated into the food chain. Such contamination may remain hazardous for many years. Direct radiation exposure is also a hazard in relatively close proximity to a nuclear event as is exposure to high thermal energy. Nuclear events are virtually always caused by intentional or unintentional human actions.

The nearest threat of a nuclear incident for Teton County is the Idaho National Laboratory. However, the Idaho National Laboratory does not pose a major risk to Teton County due to its distance.

Location

This hazard affects every community in Teton County.

Extent

Hazards related to a nuclear event are

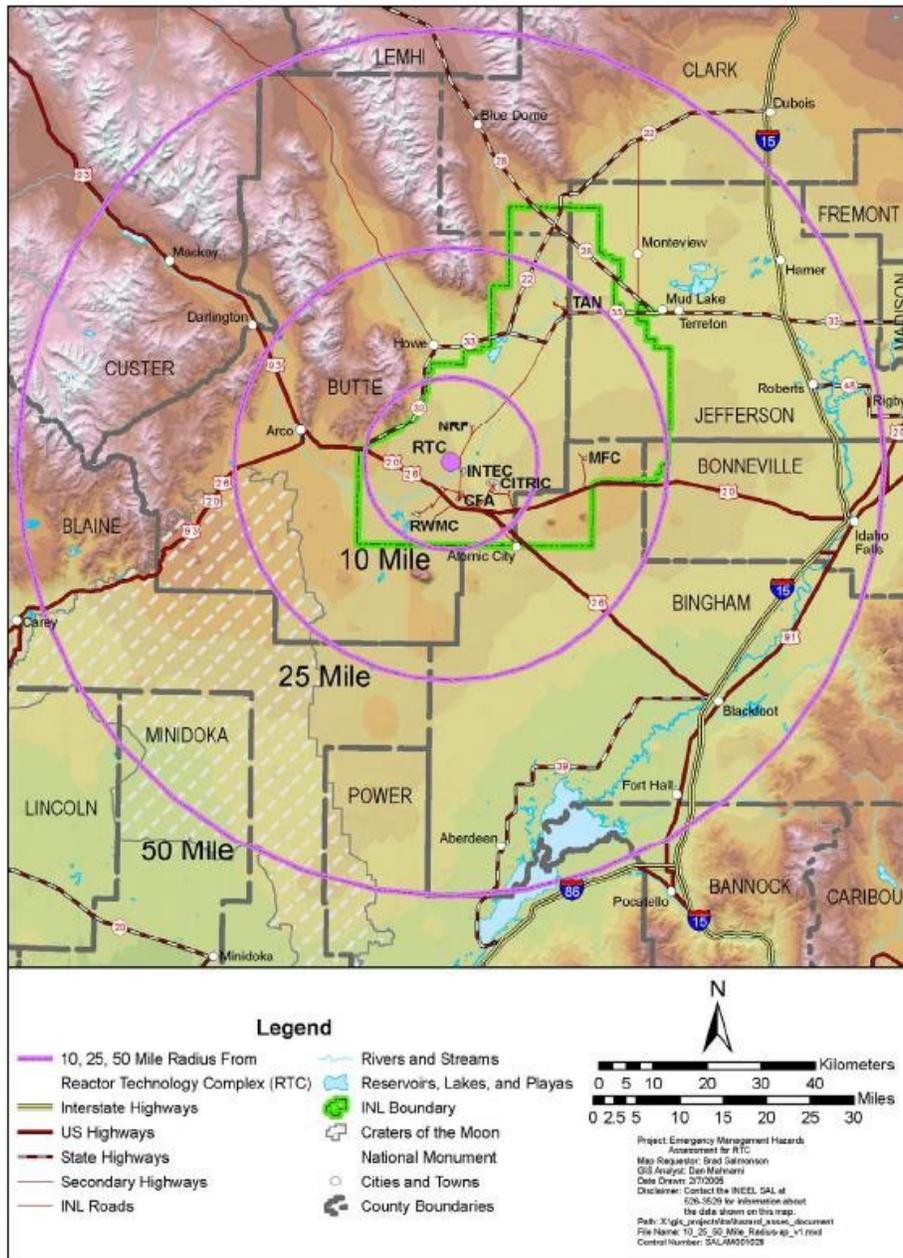
- **Bright FLASH** can cause temporary blindness for less than a minute.
- **BLAST WAVE** can cause death, injury, and damage to structures several miles out from the blast.
- **RADIATION** can damage cells of the body. Large exposures can cause radiation sickness.

- **FIRE AND HEAT** can cause death, burn injuries, and damage to structures several miles out.
- **ELECTROMAGNETIC PULSE (EMP)** can damage electrical power equipment and electronics several miles out from the detonation and cause temporary disruptions further out.
- **FALLOUT** is radioactive, visible dirt and debris raining down from several miles up that can cause sickness to those who are outside.

Historical Frequencies & the Probability of Future Occurrences

There are no recorded nuclear events in Teton County.

Figure 4.23.1: Distance from Reactor Technology Complex



Impacts

Radiation exposure may also occur due to the spread of radioactive contamination. Radioactive contamination is material containing radioisotopes. When such material becomes airborne, it can reach human victims over long distances. When it does so, it may be deposited on clothing and skin, and may be internalized by inhalation, ingestion, skin absorption, or through skin breaks. Particularly when contamination is internal, the victim receives radiation exposure. Radiation exposure, whatever the source and depending on its type, intensity and duration, can cause acute and/or chronic health effects. Acute health effects are those that appear within a relative short time period – a few hours to a few days – and may include:

- Hair loss
- Skin burns
- Gastrointestinal damage leading to nausea, vomiting, diarrhea, dehydration and loss of appetite
- Decreased red and white blood cell and platelet production leading to infection, weakness and fatigue, and uncontrolled bleeding

Because radioactive contamination presents such hazards, it also can render an area and anything within it uninhabitable until it is removed or has lost its radioactivity through decay. Clean-up of contaminated areas, where it is possible at all, is difficult, costly, and may be hazardous to those carrying it out.

Loss Estimates

Indirect costs in such a situation would almost certainly exceed those of clean-up. In addition, because the stigma carried by radiation and radioactive with the general public, affected areas and persons may be shunned out of proportion with the actual hazard. In fact, the social and political impacts of a nuclear event may well greatly exceed any justifiable limits.

4.24 Riot/Demonstration/Civil Disorder

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	Low
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

Hazard Description

Definition/Description: The State of Idaho statutes define “riot” as follows (Idaho Statute 18-6401 – RIOT DEFINED):

Any action, use of force or violence, or threat thereof disturbing the public peace, or any threat to use such force or violence, if accompanied by immediate power of execution, by two (2) or more persons acting together, and without authority of law, which results in:

- a) physical injury to any person; or
- b) damage or destruction to public or private property; or
- c) a disturbance of the public peace;

Also defined in the statutes (Idaho Statute 18-8102 – DEFINITIONS) is “civil disorder”:

"Civil disorder" means any public disturbance involving acts of violence by an assemblage of two (2) or more persons which acts cause an immediate danger of or result in damage or injury to the property or person of any other individual.

The term “demonstration” is not defined in this context in the Idaho statutes but the following is given for “unlawful assembly” (Idaho Statute 18-6404 - UNLAWFUL ASSEMBLY DEFINED):

Whenever two or more persons assemble together to do an unlawful act, and separate without doing or advancing toward it, or do a lawful act in a violent, boisterous or tumultuous manner, such assembly is an unlawful assembly.

Riots are generally thought of as being spontaneous, violent events whereas demonstrations are usually planned events and are usually intended to be non-violent. Riots seem often to be motivated by frustration and anger, usually over some real or perceived unfair treatment of some group. There are instances, however, where riots have begun during celebrations and other events where the only initiating factor seems to have been the gathering of a crowd of people. The potential for rioting, then, exists any time people gather but a number of factors are associated with the increased probability one will occur including:

- Drug and alcohol use
- Age of crowd members
- Low socio-economic status of members
- High level of emotions
- A history of rioting on the same or similar previous occasions
- Initiating event, person, or persons

Once violent or illegal activity is initiated, it escalates, possibly at least partly because of the perception that, because all are acting together, there is little probability that any given individual will be arrested or otherwise suffer consequences. Riots may range in scope from a very few people in a small area to thousands over an entire city. Once initiated, large riots are very difficult to suppress, particularly in the United States where law enforcement is constrained by constitutional guarantees as well as personnel limits. Early and decisive action by law enforcement may be effective in suppressing a riot, but police actions may also lead to further escalation.

Location

This hazard affects every community in Teton County. The hazard is often spontaneous and it's difficult to identify specifics but having information of who the demonstrators are and why they are demonstrating can be helpful.

Extent

The severity of a civil disturbance situation coincides with the level of public outrage. They can take the form of small gatherings or large groups blocking access to buildings, or disrupting normal activities. Civil disturbance situations can also be peaceful sit-ins or a full-scale riot.

Historical Frequencies & the Probability of Future Occurrences

In 2019, there were a series of protest globally, including Teton County, demonstrating against police brutality and racial profiling.

Impacts

Riots may result in loss of life, injury and permanent disability (participants, bystanders, and law enforcement personnel) as well as looting, vandalism, setting of fires and other property destruction. Law enforcement, emergency medical services and medical facilities and personnel, firefighting and other community resources may be overwhelmed and unavailable to the community at large. Transportation routes may be closed, infrastructure and utilities damaged or destroyed, and public buildings attacked, damaged or destroyed. Social and psychological effects may also cause great impacts. Lingering fear and resentment can be long-lasting and can greatly impair the ability of a community to function politically, socially and economically.

Loss Estimates

Losses from Riot/Demonstration/Civil Disobedience comes primarily damage to community and private property. It is difficult to estimate specific losses but losses would be consistent with those due to structure fires and similar incidents.

4.25 Structural Fire

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	Medium
Countywide Risk:	Medium

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Medium	Medium	Medium	Medium

Hazard Description

Structural fires produce high heat, toxic gases, and particulate material as smoke and soot. The heat produced or burning debris can, in turn, cause additional fires. Toxic gases and smoke are extreme hazards in the interior of burning structures and may also be a threat downwind of the structure. Where the building contents include toxic materials, the downwind threat can extend a mile or more. Burning structures may collapse injuring persons inside or nearby and floors or roofs may give way beneath those walking on them. Burning structures present electrical, explosion and flashover hazards, and partially burned structures may, themselves, be physical hazards even after the fire is extinguished.

Location

This hazard affects every community in Teton County.

Extent

Structural fires can impact large amounts of people and property depending on how fast it spreads, but usually it is limited to a few households.

Historical Frequencies & the Probability of Future Occurrences

The table below provides an example of the frequency of fires and losses in Teton County.

Table 4.25.1: Structural Fires

Structure Fire History for Teton County, 2015-2020			
Year	Fires	Injuries	Fatalities
2020	29	0	0
2019	52	1	0
2018	44	0	0
2017	53	0	0
2016	35	0	0
2015	30	0	0

Source: Idaho Fire Marshall State Reports

Impacts

Indirect dollar losses, as is often the case, may be much larger than direct losses. Costs also include those for development and enforcement of fire codes and maintaining fire response capabilities. Firefighters are, additionally, at risk from such hazards as physical exhaustion and cardiac stresses, heat exhaustion or heat stroke, acute and chronic health effects from toxic exposures, hearing damage, and injuries from many sources.

Loss Estimates

Losses from structural fires can exceed millions of dollars given the high-value homes in the County.

4.26 Terrorism

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	Low
Impact/Consequence:	High
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

This hazard affects every community in Teton County.

Hazard Description

Terrorism is an unlawful act under both Federal and State of Idaho statutes. Definitions are as follows:

U.S. Code: Title 18 : Section 2331. Definitions

- (5) the term "domestic terrorism" means activities that -
- A. involve acts dangerous to human life that are a violation of the criminal laws of the United States or of any State;
 - B. appear to be intended -
 - i. to intimidate or coerce a civilian population;
 - ii. to influence the policy of a government by intimidation or coercion; or
 - iii. to affect the conduct of a government by mass destruction, assassination, or kidnapping; and
 - C. occur primarily within the territorial jurisdiction of the United States.

Idaho Statute 18-8102 – DEFINITIONS

- (5) "Terrorism" means activities that:
- a) Are a violation of Idaho criminal law; and
 - b) Involve acts dangerous to human life that are intended to:
 - i. Intimidate or coerce a civilian population;
 - ii. Influence the policy of a government by intimidation or coercion; or
 - iii. Affect the conduct of a government by the use of weapons of mass destruction, as defined in section 18-3322, Idaho Code.

The Federal Emergency Management Agency gives the following as general information on terrorism (<http://www.fema.gov/hazard/terrorism/info.shtm>):

“Terrorism is the use of force or violence against persons or property in violation of the criminal laws of the United States for purposes of intimidation, coercion, or ransom.

Terrorists often use threats to:

- Create fear among the public.
- Try to convince citizens that their government is powerless to prevent terrorism.
- Get immediate publicity for their causes.

Acts of terrorism include threats of terrorism; assassinations; kidnappings; hijackings; bomb scares and bombings; cyberattacks (computer-based); and the use of chemical, biological, nuclear and radiological weapons.

High-risk targets for acts of terrorism include military and civilian government facilities, international airports, large cities, and high-profile landmarks. Terrorists might also target large public gatherings, water and food supplies, utilities, and corporate centers. Further, terrorists are capable of spreading fear by sending explosives or chemical and biological agents through the mail.”

Acts of terrorism, then, are essentially the intentional initiation of the sorts of hazard events that have been discussed in previous sections.

Location

Terrorism typically targets a specific location – in many active shooter situations, the setting is often a commercial, governmental, educational, or religious institution. Other terrorist events may target major infrastructure, in accordance with the perpetrator's specific end goal. However, terrorists can also target certain population groups, such as minorities. Residential areas are less likely to be directly targeted.

Extent

Terrorist events typically, but not always, aim to impact large numbers of people. Depending on a number of factors including terrorist intent, setting, victim response, and response time from law enforcement, the amount of damage incurred, or casualties actually inflicted can vary widely. Additionally, those who are not directly impacted by the event may still be psychologically impacted through fear, concern for safety, and reduced activity.

Historical Frequencies & the Probability of Future Occurrences

There are no recorded terrorism events in Teton County.

Impacts

Since the events of September 11, 2001, no citizen of the United States is unaware of the enormous potential impacts of terrorist acts. The emotional impacts; fear, dread, anger, outrage, etc., serve to compound the enormous physical, economic, and social damage. The continuing terrorist threat itself has a profound impact on many aspects of everyday life in this country and on the U.S. economy.

Loss Estimates

Specific loss estimates are not provided due to security policies.

4.27 Utility Disruption

Hazard Overview	
Location:	Countywide
Probability/Previous Occurrences:	High
Impact/Consequence:	High
Countywide Risk:	High

Overall Hazard Risk Ranking By Jurisdiction			
Teton County	Driggs	Tetonia	Victor
High	High	High	High

Hazard Description

An electric power outage (also power failure or power loss) is the loss of the electricity supply to a geographic area. The area of an outage (scale) can range from a single facility or neighborhood to a multi-state region. The length of the outage (scope) is determined by combination of factors to include the scale of the outage, weather, and redundant equipment and capacity.

A power outage can be described as a blackout if power is lost completely or as a brownout if the voltage level is below the normal minimum level specified for the system. The reasons for a power outage can, for instance, be a defect in a power station, damage to a power line or other part of the distribution system, a short circuit, or the overloading of electricity mains. 'Load shedding' is a common term for a controlled way of rotating available generation capacity between various districts or customers, thus avoiding total wide area blackouts.

Power outages are particularly serious for hospitals and other critical facilities and operations. Our society is extremely reliant upon life-critical medical devices, communications, and electronic information all of which require reliable (uninterrupted) electric power.

The entire energy system is complex and consists of three major parts: generation, transmission, and distribution. The control and communication between these parts are extremely important as the failure of one part could disrupt the entire system. The energy system is reliant upon the following factors: continual maintenance, equipment replacement and redundancy, and additional high-load capacity. These factors have to be carefully balanced against operating cost and profit i.e. these initiatives are expensive but the costs cannot be readily pushed down to the consumer due to public pressure and opinion.

Location

This hazard affects every community in Teton County.

Extent

Utility failure in Teton County is typically isolated and limited to a short amount of time (less than six hours).

Historical Frequencies & the Probability of Future Occurrences

Teton County has several short power outages (i.e., lasting less than six hours) per year but does not have a history of extended power outages. The possibility always exists that a man-made or natural disaster could affect the power system for an extended period of time.

Table 4.27.1: Outages from 2000 to 2021

# of Incidents	Average Hours of Outage	Average Number of People Affected
205	6.4 hours	60

Impacts

Essential Service Disruption:

- Disruption of essential government services.
- The loss of water treatment or distribution can lead to additional expense for citizens in buying potable water and complicated logistics for support agencies i.e. water is heavy and is bulky to transport.
- A typical family can lose hundreds of dollars in food stored in the refrigerator or freezer if the outage exceeds 36 hours. Additionally, people may unwisely eat spoiled food resulting in illness or possibly death.

Special Considerations:

- People on life support at the hospital, care facility, or at home are in possibly life-threatening danger.
- People with health conditions, the elderly and infirmed are at increased risk if environmental factors such as excessive heat / humidity and cold go beyond a highly maintained comfort level.

Direct Damage:

- Millions of dollars in losses to the equipment supporting the electrical system will be eventually passed to the consumer in the form of higher rates and fees.

Economic Damage:

- Economic losses occur hourly and mount exponentially as the outage impacts business and commercial enterprises that are interconnected and reliant upon each other’s ability to produce goods, services, personnel, and expertise.

Emergency Services:

- Law enforcement, fire, and emergency medical services will be impacted indirectly by a loss of systems (e.g. data and communications, street and traffic lighting, alarm) and directly by increased calls for service.
- Emergency response and evacuation and may be adversely affected due to a lack of electric power to fuel pumps at fleet operations centers and service stations.

Social Factors:

- The loss of alarm systems, lights, gates and other security systems will increase the likelihood of criminal and civil disturbance activity. People, particularly the elderly, will feel less secure and emotionally distressed.
- Down power lines are especially and directly dangerous during thunderstorms, winter storms, and flooding. The dangers of electrically charged lines in pools of water are a real danger to pedestrians and motorists.

Loss Estimates

In general, Teton County has a medium/high likelihood of utility failures with a low risk of damage, death or injury due to a loss. Obviously, power outages are more likely to occur and the severity is greater in areas of higher human population (i.e., urban areas) but the loss of power to rural customers, while affecting fewer people, generally lasts longer and can be as life-threatening, especially if a person with special needs (e.g., the elderly, the young, those on special medical equipment) is involved. Power outages in the winter months in structures with no secondary heat sources can also be an issue.

Dollar losses due to power outages is not typically recorded or assessed.

4.28 Water Quality

Hazard Overview

Location:	Countywide
Probability/Previous Occurrences:	Medium
Impact/Consequence:	Medium
Countywide Risk:	Low

Overall Hazard Risk Ranking By Jurisdiction

Teton County	Driggs	Tetonia	Victor
Low	Low	Low	Low

This hazard affects every community in Teton County.

Hazard Description

According to the Idaho Department of Environmental Quality, source water protection is “a voluntary effort a community can implement to help prevent contamination of the source water that supplies its public water system. The effort may involve creating a source water (or drinking water) protection plan and implementing regulatory and/or non-regulatory management practices. Preventing contaminants from entering a public water system supply greatly benefits the community by minimizing the problems that can occur from contaminants in the water supply, such as increased health risks to the public, expanded drinking water monitoring requirements, additional water treatment requirements, and expensive environmental cleanup activities.

Location

The entire community is vulnerable to poor water quality. Thanks in large part to Teton County, Idaho’s low density, rural population; its location high in the headwaters of the Teton Mountain range; and the relatively low-impact land uses that occur in much of its land area, most of the county’s residents enjoy very high-quality drinking water, and are free of many of the drinking water concerns that affect heavily industrialized and/or urban areas. However, despite the

comparatively pristine condition of most of the community's drinking water sources, research conducted prior to embarking on this plan revealed water quality and quantity issues in some portions of the county that are of significant concern, both now and in the future.

Extent

The range of magnitude for poor water quality varies depending on the pollutants and the affected area. Poor water quality can affect agriculture and the health of people.

Historical Frequencies & the Probability of Future Occurrences

This is an ongoing concern that could affect future generations in Teton County.

Impacts

As Teton County grows, water quality and pollution will need to be managed. Similar communities that are experiencing considerable growth, but still maintain a rural identify, have seen pollutants infiltrate their water sources. Examples that could exacerbate this hazard are a decommissioned landfill; petroleum storage tanks; agricultural chemical storage sites; transportation corridors (including an airport runway, dirt roads, and highways); subdivisions and individual residences with septic tanks; irrigated agricultural land use; old wells; a cemetery; irrigation canals; and surface water streams.

Section 5: Mitigation Goals & Objectives

AHMP Goals describe the broad direction that Teton County and participating incorporated cities will take to select mitigating projects which are designed specifically to address risks posed by natural and manmade hazards. The goals are stepping-stones between the mission statement and the specific objectives developed for the individual mitigation projects.

Overall Hazard Goals and Objectives

These overall goals represent the priorities for the County and all participating jurisdictions.

GOALS
<p>1. Reduce the potential of loss of life and injury</p> <ul style="list-style-type: none">• Identify natural and manmade hazards that threaten life in Teton County.
<p>2. To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.</p> <ul style="list-style-type: none">• Implement programs and projects that assist in protecting lives by making homes, businesses, essential facilities, critical infrastructure, and other property more resistant to losses from all hazards.• Improve hazard assessment information to make recommendations for discouraging new development and encouraging preventive measures for existing development in areas vulnerable to natural hazards.• Protect life and property by implementing state-of-the-art standards, codes and construction procedures.
<p>3. Improved collaboration and cooperation throughout Teton County and partnering jurisdictions</p> <ul style="list-style-type: none">• Continue developing and strengthening inter-jurisdictional coordination and cooperation in the area of emergency services.• Continue providing County and City emergency services with training and equipment to address all identified hazards.
<p>4. Incorporate hazard mitigation into all appropriate plans and policies</p>

5. Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility

- Increase public awareness of existing threats and the means to reduce these threats by conducting educational and outreach programs to all the various community groups in the County.
- Provide informational items, partnership opportunities and funding resource information to assist in implementing mitigation activities.

6. Continuity of government services and business operations

Changes in Priorities

The planning committee and participating jurisdictions agreed to adopt a common set of goals and priorities as part of the update process. Previously, the County and Cities adopted goals for each hazard. For the update, the committee adopted a broader set of goals that reflected the vision and priorities of the County and its municipalities in safeguarding life, property, and the environment. New goals, such as maintaining and improving the quality of life, enhancing individual preparedness, and an added emphasis on continuity of government and businesses services were added during the update process. These new goals and priorities were added to address the increased growth and development in the Teton Valley, and a slow, but evolving economic change toward tourism and recreation.

The decision to adopt a broader set of goals and priorities was made to enable the planning committee to better prioritize individual mitigation actions/projects, and to drive what new actions were needed.

Section 6: Mitigation Actions & Implementation

The heart of the mitigation plan is the mitigation strategy, which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process. In this section, mitigation actions/projects were updated/amended, identified, evaluated, and prioritized.

This section is organized as follows:

- **New Mitigation Actions** - New actions identified during this 2021/22 update process
- **Ongoing Mitigation Actions** - These ongoing actions were included in the previous update, and have yet to be completed. Some of these actions have no definitive end. During the update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed, to better define the action/project.
- **Completed Mitigation Actions** - Completed actions since 2008

Participation

The following jurisdictions demonstrated their participation and commitment to the plan by identifying, modifying, and completing projects/actions.

- Teton County
- City of Driggs
- City of Victor
- City of Tetonia

Prioritization Considerations

Prioritization was based on a scale of High, Medium and Low. Steering Committee members ranked all the mitigation actions by hazard (with “1” being the highest priority). The High, Medium, and Low designation was based on the ranking assessment and an average of all the members’ scores. The contributing factors for the planning committee was 1). Estimated Cost, 2). Benefit to the County or City in relation to the hazards mitigated, 3) number of hazards that would be mitigated, 4) and Access to funding source and amount of funding that would likely be available.

New Actions: County and All Cities

These ongoing actions were included in the previous version of the plan, and have yet to be completed. Some of these actions have no definitive end. During the 2021 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed, to better define the action/project.

Recommended Mitigation Actions					
Mitigation Action: Conduct wildfire mitigation projects, such as, but not limited to: pole wrapping and burying powerlines in areas vulnerable to wildfire					
Applicable Jurisdiction(s): All County and Cities					
Primary and Support Agency(ies): Utility Partners					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Protect infrastructure	TBD	Grants	Short-term
Hazards that will be mitigated					
Wildfire					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Hire a grant writer to help identify opportunities and complete the necessary applications to obtain grants					
Applicable Jurisdiction(s): All County and Cities					
Primary and Support Agency(ies): Teton County Sheriff's Office, Teton County					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	New	Increased funding for projects	TBD	Local Funds	Long-term
Hazards that will be mitigated					
All Hazards					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Procure Snow Machines for Sheriff					
Applicable Jurisdiction(s): Teton County					
Primary and Support Agency(ies): Sheriff					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Improved response	\$50,000	HSGP, Grants	Short-term
Hazards that will be mitigated					
Winter Storm					
Comments					

New Actions: City of Driggs

Recommended Mitigation Actions					
Mitigation Action: Study and establish a strategy to ensure adequate and affordable housing for essential workers					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies):					
Applicable Goal: Continuity of government services and business operations					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Affordable housing	TBD	Local Funds, Grants	Ongoing
Hazards that will be mitigated					
All Hazards					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Explore and implement measures to prevent animals from accessing airport runway. Consider wildlife fencing for the airport runway or motion detection.					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): Airport					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Airport safety	TBD	FAA Grants	Short-term
Hazards that will be mitigated					
Animal-related Accidents					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Mitigate and implement structural improvements to City Hall to reduce snow load on roof and to minimize snow falling off roof.					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City Hall					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Safety	\$30,000	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Severe Winter Storm					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Mitigate impact from lightning by installing lightning rods, arresters, etc. on City facilities and key infrastructure					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): Utility partners					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Protect city facilities	\$10,000	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Lightning					
Comments					

Recommended Mitigation Actions						
Mitigation Action: Protect water sources (Springs): source water protection, fencing, wildfire fuel reduction, downstream filtration						
Applicable Jurisdiction(s): City of Driggs						
Primary and Support Agency(ies):						
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.						
Year Initiated: 2021/22						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
M	New	Water source protection	TBD	Local Funds, Grants	Short-term	
Hazards that will be mitigated						
Wildfire						
Water Quality						
Comments						

Recommended Mitigation Actions						
Mitigation Action: Develop and implement stormwater masterplan.						
Applicable Jurisdiction(s): City of Driggs						
Primary and Support Agency(ies):						
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.						
Year Initiated: 2021/22						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
H	New	Mitigate flooding	TBD	Local Funds	Ongoing	
Hazards that will be mitigated						
Flooding						
Comments						

Recommended Mitigation Actions					
Mitigation Action: Procure generators and hookups for key facilities in the city.					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies):					
Applicable Goal: Continuity of government services and business operations					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Continuity of services	TBD	HMGP, BRIC	Short-term
Hazards that will be mitigated					
All Hazards					
Comments					
Fixed generators are the preference. Multiple facilities have the hookups, but there are not enough generators.					

Recommended Mitigation Actions					
Mitigation Action: Procure and establish an air quality monitoring system. Establish air filtration systems, as needed, in key facilities.					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies):					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Health	\$40,000	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Air Quality					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Site protection monitoring and hardening for city infrastructure, such as: fencing, access control, cameras, retrofit					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Protect CIKR	TBD	Local Funds, HSGP, Grants	Long-term
Hazards that will be mitigated					
Riot/Demonstration/Civil Disorder Terrorism					
Comments					
Water, wastewater, City Hall, parks and major gathering areas, airport					

Recommended Mitigation Actions					
Mitigation Action: Teton Creek restoration project					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Flood mitigation	TBD	BRIC, HMGP, FMA	Short-term
Hazards that will be mitigated					
Flooding					
Comments					
Illegal dredging and channelization of Teton Creek from 1980 to 2004 severely destabilized Teton Creek and dramatically increasing the flooding risk to nearby communities including the City of Driggs. In 2013, a portion of the destabilized stream was stabilized through a large collaborative project with Teton County, however Teton Creek from Cemetery Road to a ¼ mile downstream from Highway 33 is still destabilized and the risk of flooding is increasing each year.					
Mitigation alternatives are needed to stabilize Teton Creek using proven bio-engineer techniques from Cemetery Road to ¼ mile downstream of Highway 33 to reduce the risk of flooding. Without this important work the risk of flooding will continue to increase.					

New Actions: City of Tetonia

Recommended Mitigation Actions						
Mitigation Action: Develop a strategy and plan to implement charging stations for cars and other long-term sustainable solutions						
Applicable Jurisdiction(s): City of Tetonia						
Primary and Support Agency(ies):						
Applicable Goal: Continuity of government services and business operations						
Year Initiated: 2021/22						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
L	New	Sustainability	TBD	Local Funds, Grants	Long-term	
Hazards that will be mitigated						
Utility Disruption						
Comments						

Recommended Mitigation Actions						
Mitigation Action: Mitigate impact from lightning by installing lightning rods, arresters, etc. on City facilities and key infrastructure (water tower, sewer lagoon, and City Hall)						
Applicable Jurisdiction(s): City of Tetonia						
Primary and Support Agency(ies):						
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.						
Year Initiated: 2021/22						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
M	New	Protect facilities	\$10,000	Local Funds, Grants	Short-term	
Hazards that will be mitigated						
Lightning						
Comments						

Recommended Mitigation Actions					
Mitigation Action: Retrofit and preserve city-owned elevator, which has historical and sentimental value for the community.					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Historic preservation	TBD	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Earthquake					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Loop waterlines to mitigate freezing (dead ends): Letham Ave, 2nd St, and 1st St					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Mitigate freezing	TBD	Local Funds	Short-term
Hazards that will be mitigated					
Severe Winter Storm, Extreme Cold, Utility Disruption					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Conduct a study and identify strategic locations for shutoff valves for waterlines					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Mitigate disruption	TBD	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Utility Disruption					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Upgrade waterline on Crestview Lane to provide fire water flow so a fire hydrant can be installed					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Fire suppression	TBD	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Structural Fire					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Mitigate drainage issues on 7th St, which causes water to pool and basement flooding.					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	New	Mitigate flooding	TBD	Local Funds	Short-term
Hazards that will be mitigated					
Flooding					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Post a deer crossing sign on HWY 33 (near the gas station past Leigh Creek)					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	New	Mitigate accidents	\$1,000	State Funds	Short-term
Hazards that will be mitigated					
Animal Related Accidents					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Procure portable generator and transfer switches for city hall and other city facilities.					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies):					
Applicable Goal: Continuity of government services and business operations					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Continuity of services	TBD	HMGP, BRIC	Short-term
Hazards that will be mitigated					
All Hazards					
Comments					

New Actions: City of Victor

Recommended Mitigation Actions						
Mitigation Action: Procure generators and hookups for key facilities and assets in the city: transfer switches, all lift stations, city buildings.						
Applicable Jurisdiction(s): City of Victor						
Primary and Support Agency(ies):						
Applicable Goal: Continuity of government services and business operations						
Year Initiated: 2021/22						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
H	New	Continuity of Services	TBD	BRIC, HMGP	Short-term	
Hazards that will be mitigated						
All Hazards						
Comments						

Recommended Mitigation Actions						
Mitigation Action: Establish an EOC facility/training room						
Applicable Jurisdiction(s): City of Victor						
Primary and Support Agency(ies):						
Applicable Goal: Reduce the potential of loss of life and injury						
Year Initiated						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
M	New	Enhanced coordination	TBD	Local Funds, Grants	Short-term	
Hazards that will be mitigated						
All Hazards						
Comments						

Recommended Mitigation Actions					
Mitigation Action: Mitigate overland flooding over roadways, specifically in the following locations: Crystal Ave, Cedron Rd, Abby Loop Rd					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Mitigate flooding	TBD	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Flooding					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Conduct a study to determine the need for a second retention pond or underground storage. Implement study findings, and find available city-owned land.					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Flood mitigation	TBD	Local Funds, BRIC, HMGP	Long-term
Hazards that will be mitigated					
Flooding					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Mitigate impact from lightning by installing lightning rods, arresters, etc. on City facilities and key infrastructure					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Protect facilities	\$10,000	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Lightning					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Protect water sources (Springs): source water protection, fencing, wildfire fuel reduction, downstream filtration					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): City					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	New	Water	TBD	Grants	Short-term
Hazards that will be mitigated					
Wildfire, Water Quality					
Comments					

Recommended Mitigation Actions					
Mitigation Action: Conduct a security assessment of water and sewer infrastructure in the City. Implement recommendations from study, such as installing alarm/notification systems					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies):					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2021/22					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	New	Protect infrastructure	TBD	Local Funds, Grants	Short-term
Hazards that will be mitigated					
Flooding, Utility Disruption, Water Quality					
Comments					

Ongoing: County and All Cities

These ongoing actions were included in the previous version of the plan, and have yet to be completed. Some of these actions have no definitive end. During the 2021 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed, to better define the action/project.

Recommended Mitigation Actions					
Mitigation Action: Create a public education campaign to educate our citizens on all of our hazards					
Applicable Jurisdiction(s): County and all Cities					
Primary and Support Agency(ies): County Emergency Manager and PIO					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increased self-preparedness will reduce disaster response needs	\$5,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
General					
Comments					
Campaign will include alternate heat sources, assessing propane lines after an earthquake, securing hot water heaters, washing hands and staying home when sick, chimney fire and home fire safety, and landlines vs. cell phones during a disaster.					
2021 Update: 2021 hazard(s) was concentrated on COVID-19 education campaign with social media and website messaging.					

Recommended Mitigation Actions					
Mitigation Action: Procure resources and supplies for responding to and managing disasters					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City Agencies, First Response Agencies					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Having the resources and supplies to respond to any disaster will allow us to protect lives and property.	\$3,000,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
Resources and supplies include, but are not limited to: trailers, generators, resources for public works and Fire District, and CERT.					
2021 Update: TCEM acquired 2 new message boards.					

Recommended Mitigation Actions					
Mitigation Action: Educate and train first responders, agency heads, and elected officials					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management and all County and City Agencies					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	By training regularly our capacity to respond and server our citizens will increase.	\$5,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: Due to COVID-19, elected officials were updated weekly on the pandemic.					

Recommended Mitigation Actions					
Mitigation Action: Recruit and train EOC staff					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By having staff trained and ready to go our ability to carry out EOC functions will be greatly improved.	\$3,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: 700 MHz radios for public works to be able to communicate with first responders more easily					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Public Works Agencies					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increasing our ability to communicate effectively between first response agencies will save lives and property.	\$150,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: Ongoing/halfway done. CARES funds used to implement elements of this project.					

Recommended Mitigation Actions					
Mitigation Action: Develop Emergency Action Plans (EAPs) for specific public buildings in the County					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, Facility Managers					
Applicable Goal: Reduce the potential for loss of life and injury					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Reduce the potential of loss of life and injury	\$50,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
General					
Comments					
2021 Update: Minor updates were completed for new school locations. EAPs were completed for County and City facilities.					

Recommended Mitigation Actions					
Mitigation Action: Placement of warning signs on trailheads					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): County Road & Bridge, Forest Service, BLM, IDL					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increasing the public's understanding of hazardous conditions will reduce the loss of life and injuries.	\$10,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Avalanche, Lightning, Wildfire					
Comments					
2021 Update: US Forest Service provided signs.					

Recommended Mitigation Actions					
Mitigation Action: Provide daily avalanche danger information during avalanche season via local radio or social media					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County PIO, Emergency Management					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	By increasing the available information to the recreating citizens they can be better informed regarding hazardous snow conditions	\$2,000 per year	Grants, Local Budgets	2018
Hazards that will be mitigated					
Avalanche					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Provide outreach to groups that use the snow regarding avalanche dangers, i.e. snowmobile clubs, skiing organizations					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, PIO's, TVTAP					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	This will reduce the lives lost to avalanches.	\$1,000 Annually	Grants, Local Budgets	2019
Hazards that will be mitigated					
Avalanche					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Provide water conservation education, and target neighborhoods that have access to irrigation water. Provide education on native grasses & drought resistant landscaping to the public.					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Extension Agent, Weeds supervisor, Emergency Manager, Public Works					
Applicable Goal:					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	This will increase our drought resistance.	\$4,000 annually	Grants, Local Budgets	2019
Hazards that will be mitigated					
Drought					
Comments					
2021 Update: City of Teton working on source water protection plan.					

Recommended Mitigation Actions					
Mitigation Action: Cloud seeding					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): BOCC, Mayors, Extension Agent, High Country RC&D					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increasing the amount of rainfall will reduce our risk of drought.	\$5,000 per year	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Drought					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Pipe canals to reduce water loss					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Extension Agent, Water Districts, Water Rights Users					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduce water loss	\$6 million	Grants, Local Budgets	2025
Hazards that will be mitigated					
Drought					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Provide education to the public to mitigate frozen pipes during extreme cold incidents					
Applicable Jurisdiction(s): Cities					
Primary and Support Agency(ies): City Public Works, County					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By increasing the understanding of our citizens we will be able to reduce our need to provide additional services to them during times of extreme cold.	\$2,000 per year	Grants, Local Budgets	2019
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: City of Tetonina has included this on their website and send mail informing citizens of frozen pipes during winter.					

Recommended Mitigation Actions					
Mitigation Action: Evaluate building codes and ensure they are adequate for the county's wind hazard rating					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City P&Z, Building Inspectors					
Applicable Goal: Incorporate hazard mitigation into all appropriate plans and policies.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Incorporating hazard mitigation into all plans and processes will reduce loss	\$2,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
High Wind Incident					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Develop and conduct a school and summer program outreach initiative on lightning safety					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): National Weather Service, School District 401, Emergency Management					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Through increased training on lightning hazards the public will be better able to protect themselves.	\$3,000 per year	Grants, Local Budgets	2019
Hazards that will be mitigated					
Lightning					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Ensure grounding on light poles especially at outdoor playing fields such as the high school, fair grounds, and rodeo grounds					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): School District 401, Public Works Departments					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reducing the risk of loss of life from lighting and cost of replacing damaged equipment.	\$75,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Lightning					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Procure equipment for public works, such as snow removal equipment					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Public Works Departments					
Applicable Goal: Continuity of government services and business operations.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increase our capacity to handle severe winter storm events.	\$1,000,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: City of Driggs: New plow truck and Loader; upgraded skid steer is still on order.					

Recommended Mitigation Actions					
Mitigation Action: Place electronic signage on the three major highways to notify of closures					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): ITD, Public Works Departments, Emergency Management					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By increasing our ability to communicate hazardous conditions to the public we will save lives.	\$600,000	Grants, Local Budgets, ITD	2025
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
ITD may have matching funds					
2021 Update: County did acquire 2 new messaging boards.					

Recommended Mitigation Actions					
Mitigation Action: Place new road closure gates on highway 33 and 32					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): County Road & Bridge, ITD					
Applicable Goal: Enhanced communication of risk and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce loss of life on unsafe roads	\$200,000	Grants, Local Budgets, ITD	2025
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: Ongoing. Replaced one.					

Recommended Mitigation Actions					
Mitigation Action: Place a living snow fence between High school and Jr. High					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City of Driggs Public Works, School District 401					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	This will reduce potential loss of life from hazardous driving conditions and increase our ability to utilize these schools as shelters during an event.	\$8/foot	Grants, Local Budgets	2025
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Obtain food and fuel storage for critical entities/facilities					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and Cities					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increased readiness	\$120,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Procure more ITD cameras to see road conditions in real-time					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): ITD, County R&B					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased ability for citizens to view real-time road conditions.	\$75,000	Grants, Local Budgets, ITD	2026
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
HWY 31 is a high priority location. Also, put cameras on the gates.					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Increase the standards near the floodplain, and ensure building in the floodplain isn't allowed					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City P&Z's					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced flood risk	\$10,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Evaluate the creation of flood control districts					
Applicable Jurisdiction(s): County, Cities					
Primary and Support Agency(ies):BOCC, Cities					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased oversight of flood risk, and greater capacity to accomplish mitigation projects.	\$4,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Install gauging and alarming equipment at critical areas in the flood plain and streams					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County, Emergency Management, Flood Control District, Friends of the Teton River,					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased ability to monitor flooding	\$150,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Flooding					
Comments					
Install gauges on the major streams in the Teton Valley.					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Create green space to mitigate flooding					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City P&Z's, County and City Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce flood risk	\$500,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Procure resources to better filter the air going into public facilities and for public equipment / vehicles					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Facility Managers and Fleet Managers					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increase survivability of critical infrastructure and equipment.	\$120,000	Grants, Local Budgets	2028
Hazards that will be mitigated					
Volcanic Eruption/Ashfall					
Comments					
2021 Update: City of Driggs installed new air circulation system in the City Center.					

Recommended Mitigation Actions					
Mitigation Action: Produce and provide animal producer education and outreach regarding animal disease and reporting					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Extension Agent, Emergency Management					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced risk of animal diseases	\$3,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Animal Disease					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Stockpile pandemic supplies					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Eastern Idaho Public Health District, Emergency Management, Teton Valley Hospital					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increased preparedness	\$100,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Public Health					
Comments					
2021 Update: TCEM updated some medical supplies/TVH providing mask to agencies.					

Recommended Mitigation Actions					
Mitigation Action: Conduct vaccination education and outreach					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Eastern Idaho Public Health District, Emergency Management, PIO's					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased protection from diseases	\$5,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Public Health					
Comments					
2021 Update: COVID-19 messaging throughout the year.					

Recommended Mitigation Actions					
Mitigation Action: Develop a free hand sanitizer program					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Eastern Idaho Public Health District, Emergency Management					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduced pandemic risk	\$2,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Public Health					
Comments					
2021 Update: Due to COVID-19, free hand sanitizer was provided by public and private throughout the year.					

Recommended Mitigation Actions					
Mitigation Action: Exercise plans for how to respond to infectious diseases, including 911 calls, EMS transport, ER admittance, public information, isolation & quarantine, etc.					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Eastern Idaho Public Health District, Emergency Management, First Response Agencies, Teton Valley Hospital					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased capacity to respond to public health incidents.	\$5,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Public Health					
Comments					
2021 Update: Experiencing COVID-19 Pandemic is the exercise.					

Recommended Mitigation Actions					
Mitigation Action: Revise the Mass Fatality Plan					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County Coroner, Emergency Management					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increase our preparedness for a mass fatality incident	\$10,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Public Health					
Comments					
2021 Update: Mass Fatality Plan being reviewed for approval. In-progress.					

Recommended Mitigation Actions					
Mitigation Action: Provide hand sanitizer stations in schools and public buildings					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Eastern Idaho Public Health, Emergency Management, Facility Managers, School District 401					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduce risk of pandemics	\$2,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Public Health					
Comments					
2021 Update: School district and TC provided hand sanitizer to students, staff and public.					

Recommended Mitigation Actions					
Mitigation Action: Reduce disease carrying vector's habitat through source reduction projects					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Mosquito Abatement District, County and City Public Works					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduce vector-borne disease risk	\$200,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Vector-Borne Disease					
Comments					
2021 Update: TCMAD Annual Tire Drive reduces local habitat.					

Recommended Mitigation Actions					
Mitigation Action: Conduct fuels reduction on trails, roads, and at-risk structures					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, Idaho Department of Lands, Forest Service, Bureau of Land Management					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce wildfire risk	\$75,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Mitigate fuels on vacant lots and areas around abandoned structures					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Weed Supervisor, County and City Public Works, Teton County Fire District					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced wildfire risk	\$25,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Allow firewood collection to thin the wildfire threat					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): Teton County Fire District, Forest Service					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduce wildfire risk	\$5,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: US Forest Service program provides for Forest cleaner by permittees.					

Recommended Mitigation Actions					
Mitigation Action: Review herd district opportunities					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Extension Agent, Emergency Management, ITD, and Fish and Game					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce animal vs. vehicle collisions	\$5,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Animal Related Accidents					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Increase stock and wildlife roadway signage					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City Public Works, ITD, Fish and Game					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Years Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduced animal vs. vehicle accidents	\$20,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Animal Related Accidents					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Provide training for all public employees, with a focus on IT administrators					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City IT Departments, County and City Leadership					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced exposure to cyber-incidents.	\$12,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Cybersecurity					
Comments					
2021 Update: City of Driggs & Tetonina, and TC provide monthly training.					

Recommended Mitigation Actions					
Mitigation Action: Procure funds for IT infrastructure and technology to make networks more resilient and secure					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City IT Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Decreased exposure to cyber-incidents and increased network resilience and health	\$100,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Cybersecurity					
Comments					
2021 Update: TC installed fiber between several buildings. City of Driggs has on-going security on network.					

Recommended Mitigation Actions					
Mitigation Action: Purchase cybersecurity devices/services/software for public agencies					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City IT Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Decreased exposure to cyber-incidents and increased network resilience and health	\$75,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Cybersecurity					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Create County/City cybersecurity response plan/procedures					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City IT Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Decreased exposure to cyber-incidents and increased network resilience and health	\$25,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Cybersecurity					
Comments					
2021 Update: School District has Plan.					

Recommended Mitigation Actions					
Mitigation Action: Provide training for first responders, wastewater workers and solid waste workers					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, County and City Public Works Departments, First Response Agencies					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased capability to handle HAZMAT incidents.	\$50,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Hazardous Materials Incident, Nuclear Event					
Comments					
Hazardous training					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Map all local HAZMAT sources and utilize cities knowledge of where these source are located					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, GIS					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased preparedness for a HAZMAT event.	\$50,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Hazardous Materials Incident					
Comments					
2021 UPDATE: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Procure mass casualty equipment and supplies					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): First Response Agencies, Emergency Management, Coroner					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased capacity to respond to a Major Transportation Incident	\$120,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Major Transportation Incident					
Comments					
2021 Update: TC has Mass Fatality trailer/on-going.					

Recommended Mitigation Actions					
Mitigation Action: Explore creating a truck route from E 2500 N to Stateline until E 250 N.					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City Public Works, ITD, County and City P&Z's					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced risk for major transportation incidents	\$100,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Major Transportation Incident					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Purchase a nuclear monitoring device for the community					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, INL					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increased capacity to identify nuclear events	\$450,000	Grants, Local Budgets	2030
Hazards that will be mitigated					
Nuclear Event					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Establish fire protection water supplies and inspections/inventorying					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, County, City PW					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increased awareness of structural fire risk	\$30,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Establish a standard for Vacation Rentals (including AirBnB) requirements for fire inspections					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, County and City P&Z's					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Decreased likelihood of deaths from structural fire.	\$5,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: City of Driggs enforcing AIRBnB code including fire inspection.					

Recommended Mitigation Actions					
Mitigation Action: Create a 50-foot fire break around industrial parks and other hazard areas					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, Land Owners					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced structural fire risk	\$20,000 annually	Grants, Local Budgets	ongoing
Hazards that will be mitigated					
Structural Fire, Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Create and implement the “See something say something” public education project/campaign					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, PIO’s, Schools					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Increased ability to identify terrorism.	\$12,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Terrorism					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Provide training and equipment for first responders and public employees					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): First Responder Agencies, Emergency Management, Public Works, Schools					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased readiness	\$20,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Terrorism					
Comments					
Including Sovereign Citizen Movement					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Expand youth outreach programs to deter youth from engaging with terrorist groups					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and Cities, School District 401, churches, scouting organizations, 4H					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduce terrorism risk	\$5,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Terrorism					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Procure generators and switches/adaptors for critical infrastructure locations and schools					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): City Public Works, Emergency Management, Facility Managers, Schools					
Applicable Goal: Continuity of government services and business operations					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing		\$2,000,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Utility Disruption					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Strengthen backbone of core by building additional redundant paths on fiber optic routes into the valley					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Silverstar Communication					
Applicable Goal: Continuity of government services and business operations					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased resilience for utility disruption events	unknown	Grants, Budget	2021
Hazards that will be mitigated					
Utility Disruption					
Comments					
2021 Update: Several grants were submitted but not approved.					

Recommended Mitigation Actions					
Mitigation Action: Provide education and outreach for critical infrastructure owners					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced impact of utility disruption events	\$5,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Utility Disruption					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Conduct joint exercises for utility owners and jurisdictions					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, Utility Companies, County and Cities					
Applicable Goal: Improved collaboration and cooperation throughout Teton County and partnering jurisdictions.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased coordination and readiness	\$5,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Utility Disruption					
Comments					
2021 Update: No action due to COVID-19.					

Recommended Mitigation Actions					
Mitigation Action: Increase local adoption and use of the county's mass notification system					
Applicable Jurisdiction(s): All County and Cities					
Primary and Support Agency(ies): Teton County Sheriff's Office, Teton County					
Applicable Goal: Reduce the potential of loss of life and injury.					
Year Initiated:					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Better able to warn citizens of hazards	\$4,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General, Severe Winter Storms					
Comments					
2021 Update: City of Tetonina used Code Red for COVID messaging.					

Recommended Mitigation Actions					
Mitigation Action: Review public codes and policies for ways to reduce risk to the public					
Applicable Jurisdiction(s): County and All Cities					
Primary and Support Agency(ies): County and City Agencies					
Applicable Goal: Incorporate hazard mitigation into all appropriate plans and policies					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By reducing the risk to our citizens we are able to accomplish our goals of protecting lives and property.	\$12,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: TC proposing new land use code which is being discussed.					

Recommended Mitigation Actions					
Mitigation Action: Procure first responder communication resources					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): First Response Agencies and Emergency Management					
Applicable Goal: Reduce the potential of loss of life and injury.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Coordinating emergency and disaster response is essential and will save responder and citizens lives.	\$2,000,000	Grants and Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: Victor site equipment acquired and still need shelter for communication installation. 1/3 done					

Recommended Mitigation Actions					
Mitigation Action: Designate and prepare mass care shelter sites including installing generators					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, School District 401, Red Cross					
Applicable Goal: Reduce the potential of loss of life and injury					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	By increasing our ability to shelter our citizens we will reduce the loss of life during a disaster.	\$750,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Extreme Cold, Utility Disruption					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Bury water/sewer lines deeper under the streets to prevent frozen main lines					
Applicable Jurisdiction(s): Cities					
Primary and Support Agency(ies): City Public Works Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	By hardening our public infrastructure we can reduce damage and costs from freezing pipes.	\$12,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: City of Driggs has on-going upgrades.					

Recommended Mitigation Actions					
Mitigation Action: Install SCADA monitoring on city water and sewer systems					
Applicable Jurisdiction(s): Cities					
Primary and Support Agency(ies): City Public Works Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	By actively monitoring our critical infrastructure we can more quickly be aware of damage from disasters.	\$900,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: City of Tetonida added SCADA monitoring.					

Recommended Mitigation Actions					
Mitigation Action: Create a living snow fence along the Bates-Cedron loop					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): Private Property Owners/Road and Bridge					
Applicable Goal: Reduce the potential of loss of life and injury					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased life safety and reduced road clearing costs.	\$8/FT	Grants, Local Budgets	2025
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Create a living snow fence along Badger Creek Road					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): Private Property Owners/Road and Bridge					
Applicable Goal: Reduce the potential of loss of life and injury.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased life safety and reduced road clearing costs.	\$8/FT	Grants, Local Budgets	2027
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Install culverts/bridges or raise roadways in flood prone areas including Badger Creek, Fox Creek and Trail Creek					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Public Works Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce flood risk and ensure operability of critical roadways.	\$3,000,000	Grants, Local Budgets	2023
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Conduct an assessment and identify unreinforced masonry structures in the County with specific emphasis on County, City or School District owned structures					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City Public Works, School District					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased understanding of building collapse risk for critical public buildings	\$50,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Earthquake					
Comments					
2021 Update: No action					

Recommended Mitigation Actions					
Mitigation Action: Conduct a seismic retrofit project for critical facilities, including Driggs, Tetonia and Victor City Halls, and Victor's water storage facility, and schools					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): City Public Works, School District 401					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increased survivability for critical infrastructure	\$15,000,000	Grants, Local Budgets	2027
Hazards that will be mitigated					
Earthquake					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Conduct a public information campaign regarding vector borne diseases. Campaign will focus on avoidance, known vectors, and treatment					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Eastern Idaho Public Health, Mosquito Abatement District					
Applicable Goal: Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduced risk of vector-borne disease	\$2,000 Annually	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Vector-Borne Disease					
Comments					
2021 Update: TCMAD provided press release to TVN which ran the information.					

Recommended Mitigation Actions					
Mitigation Action: Develop wildfire fuel breaks around CRP land					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire District, Forest Service, Bureau of Land Management, Idaho Department of Lands, Land Owners					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced wildfire risk	\$300,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Conduct fuel reduction projects in the city watershed areas					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton Fire District, City Public Works, Forest Service					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced wildfire risk for critical infrastructure	\$150,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Update and improve road signing and rural addressing					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City Public Works, Teton County Fire District					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduced wildfire risk	\$10,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Improve access to Wildland Urban Interface areas by improving roads and bridges					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Teton County Fire Protection District, Forest Service, County Road & Bridge					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased capacity to respond to wildfire incidents	\$3,000,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Develop a standard for roadside vegetation management					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Weed Supervisor, County and City Public Works, ITD, Teton County Fire District					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Reduced wildfire risk	\$10,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Wildfire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Develop a free smoke detector program					
Applicable Jurisdiction(s): County, Cities					
Primary and Support Agency(ies): Teton County Fire District					
Applicable Goal: Reduce the potential of loss of life and injury					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced loss of life from fire	\$50,000	Grants, Local Budgets	2017
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Encourage businesses and homeowners to install smoke detectors					
Applicable Jurisdiction(s): County and City					
Primary and Support Agency(ies): Teton County Fire District, Red Cross					
Applicable Goal: Reduce the potential of loss of life and injury.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increased self-preparedness	\$5,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Improve fire water flow on municipal water systems					
Applicable Jurisdiction(s): Cities					
Primary and Support Agency(ies): Teton County Fire District, City Public Works Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased capacity to fight fires.	\$12,000,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: City of Driggs has on-going upgrades.					

Recommended Mitigation Actions					
Mitigation Action: Increase fire water resources in needed areas					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): Teton County Fire District, County and City P&Z's, Land Owners					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased capacity to fight fires.	\$250,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Harden potential critical infrastructure targets to make them less desirable for terrorists to attack					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): County and City critical infrastructure owners, Emergency Management					
Applicable Goal: Reduce the potential of loss of life and injury.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	Decreased terrorism risk	\$8,000,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
Terrorism					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Evaluate the creation of flood control districts					
Applicable Jurisdiction(s): County					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased oversight of flood risk, and greater capacity to accomplish mitigation projects.	\$4,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Ongoing Actions: City of Driggs

These ongoing actions were included in the previous update, and have yet to be completed. Some of these actions have no definitive end. During the 2021 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed, to better define the action/project.

Recommended Mitigation Actions					
Mitigation Action: Lightning rods for Driggs springs water source					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City of Driggs Public Works Department					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Ensure the continuous operability of this critical piece of infrastructure and reduce equipment replacement costs.	\$10,000	Grants, Local Budget	2018
Hazards that will be mitigated					
Lightning					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Increase the standards near the floodplain, and ensure building in the floodplain isn't allowed					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced flood risk	\$10,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Evaluate the creation of flood control districts					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased oversight of flood risk, and greater capacity to accomplish mitigation projects.	\$4,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Upgrade and create storm water drainage in Driggs					
Applicable Jurisdiction(s): Driggs					
Primary and Support Agency(ies): Driggs Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce flood risk	\$2,500,000	Grants, Local Budgets	2024
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: City of Driggs on-going upgrades.					

Recommended Mitigation Actions					
Mitigation Action: Review public codes and policies for ways to reduce risk to the public					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: Incorporate hazard mitigation into all appropriate plans and policies					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By reducing the risk to our citizens we are able to accomplish our goals of protecting lives and property.	\$12,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: TC proposing new land use code which is being discussed.					

Recommended Mitigation Actions					
Mitigation Action: Bury water/sewer lines deeper under the streets to prevent frozen main lines					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): Driggs Public Works Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2008					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	By hardening our public infrastructure we can reduce damage and costs from freezing pipes.	\$12,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: City of Driggs on-going upgrades. Will address dead ends: Creekside, Airport area, east of city. Looping may be needed in these areas.					

Recommended Mitigation Actions					
Mitigation Action: Install SCADA monitoring on city water and sewer systems					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): Driggs Public Works Departments					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2008					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Ongoing	By actively monitoring our critical infrastructure we can more quickly be aware of damage from disasters.	\$900,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: Ongoing. Progress has been made.					

Recommended Mitigation Actions					
Mitigation Action: Analyze the alluvial fan flooding potential, including east of Driggs. Map these areas and evaluate the level of development that should be allowed.					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Better understanding of flood risk.	\$50,000	Grants, Local Budgets	2021
Hazards that will be mitigated					
Flooding, Landslide/Mudslide					
Comments					
2021 Update: Ongoing. A study was completed in 2017					

Recommended Mitigation Actions					
Mitigation Action: Update aging water and sewer lines to current seismic standards					
Applicable Jurisdiction(s): City of Driggs					
Primary and Support Agency(ies): Driggs Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased survivability of critical infrastructure.	\$10,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Earthquake					
Comments					
2021 Update: City of Driggs on-going upgrades.					

Ongoing Actions: City of Tetonia

These ongoing actions were included in the previous update, and have yet to be completed. Some of these actions have no definitive end. During the 2021 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed, to better define the action/project.

Recommended Mitigation Actions					
Mitigation Action: New headgate for Tetonia Canal and restore streambed above the headgate					
Applicable Jurisdiction(s): City of Tetonia					
Primary and Support Agency(ies): City of Tetonia Public Works, County Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Reduced flood risk.	\$150,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Crown roads down from the canal to keep excess water on the road in Tetonia					
Applicable Jurisdiction(s): City of Tetonia					
Primary and Support Agency(ies): Tetonia Public Woks					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced flood risk	\$100,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing. Projects to address this are currently being explored. 2,500 feet of ditch or pipe.					

Recommended Mitigation Actions					
Mitigation Action: Increase the standards near the floodplain, and ensure building in the floodplain isn't allowed					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): Teton P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduced flood risk	\$10,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing. City does not have a flood plain.					

Recommended Mitigation Actions					
Mitigation Action: Evaluate the creation of flood control districts					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased oversight of flood risk, and greater capacity to accomplish mitigation projects.	\$4,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Procure an additional water storage tank for Tetonia’s municipal water system					
Applicable Jurisdiction(s): Tetonia					
Primary and Support Agency(ies): City of Tetonia					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	Increased capacity to fight fires.	\$100,000	Grants, Local Budgets	2021
Hazards that will be mitigated					
Structural Fire					
Comments					
2021 Update: City of Tetonia is in the process to acquire additional water tank.					

Recommended Mitigation Actions					
Mitigation Action: Review public codes and policies for ways to reduce risk to the public					
Applicable Jurisdiction(s): City of Tetonia					
Primary and Support Agency(ies):City P&Z					
Applicable Goal: Incorporate hazard mitigation into all appropriate plans and policies					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By reducing the risk to our citizens we are able to accomplish our goals of protecting lives and property.	\$12,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: TC proposing new land use code which is being discussed.					

Recommended Mitigation Actions					
Mitigation Action: Bury water/sewer lines deeper under the streets to prevent frozen main lines					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): City Public Works Department					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	By hardening our public infrastructure we can reduce damage and costs from freezing pipes.	\$12,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Install SCADA monitoring on sewer systems					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): City Public Works Department					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Complete for water but not sewer	By actively monitoring our critical infrastructure we can more quickly be aware of damage from disasters.	\$900,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: City of Teton added SCADA monitoring. SCADA for water was completed. Still needed for sewer.					

Recommended Mitigation Actions

Mitigation Action: Create a living snow fence between Newdale and Tetonia					
Applicable Jurisdiction(s): County and City of Tetonia					
Primary and Support Agency(ies): Private Property Owners/Emergency Management, ITD					
Applicable Goal: Reduce the potential of loss of life and injury.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased life safety and reduced road clearance costs.	\$8/FT	Grants, Local Budgets	2030
Hazards that will be mitigated					
Severe Winter Storm					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Cities will analyze the need to participate in the NFIP					
Applicable Jurisdiction(s): City of Tetonia					
Primary and Support Agency(ies): City Council, City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce financial impact of flooding	\$25,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Install a city-wide storm drainage system in Teton					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): Teton Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce flood risk for the City.	\$6,000,000	Grants, Local Budgets	2023
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing					

Recommended Mitigation Actions					
Mitigation Action: Update aging water and sewer lines to current seismic standards					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): Teton Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased survivability of critical infrastructure.	\$10,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Earthquake					
Comments					
2021 Update: Ongoing					

Ongoing Actions: City of Victor

These ongoing actions were included in the previous update, and have yet to be completed. Some of these actions have no definitive end. During the 2021 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed, to better define the action/project.

Recommended Mitigation Actions					
Mitigation Action: Review public codes and policies for ways to reduce risk to the public					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: Incorporate hazard mitigation into all appropriate plans and policies					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	By reducing the risk to our citizens we are able to accomplish our goals of protecting lives and property.	\$12,000	Grants, Local Budgets	Ongoing
Hazards that will be mitigated					
General					
Comments					
2021 Update: TC proposing new land use code which is being discussed.					

Recommended Mitigation Actions					
Mitigation Action: Bury water/sewer lines deeper under the streets to prevent frozen main lines					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): Victor Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Ongoing	By hardening our public infrastructure we can reduce damage and costs from freezing pipes.	\$12,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: Ongoing. All of Main Street complete. West Center is complete to Beryl. Making progress.					

Recommended Mitigation Actions					
Mitigation Action: Install SCADA monitoring on city water and sewer systems					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): Victor Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Complete/Ongoing	By actively monitoring our critical infrastructure we can more quickly be aware of damage from disasters.	\$900,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: Complete, but needs to be enhanced. Complete for water and sewer. Add cyber project for SCADA. Add city to cloud.					

Recommended Mitigation Actions					
Mitigation Action: Conduct storm water piping augmentation in Victor at Main and Cedron					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): Victor Public Works, ITD					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Reduce flood risk	\$75,000	Grants, Local Budgets	2017
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Ongoing. On hold until they can decide on stop or roundabout.					

Recommended Mitigation Actions					
Mitigation Action: Update aging water and sewer lines to current seismic standards					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): Victor Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Ongoing	Increased survivability of critical infrastructure.	\$10,000,000	Grants, Local Budgets	2025
Hazards that will be mitigated					
Earthquake					
Comments					
2021 Update: Ongoing. Continuing update – Beryl and Birch					

Completed Actions

1. Badger Creek Bridge on W 10000 N
2. Hardening the Emergency Operations Center
3. Raising the road and improving culverts on W 10000 N and W 3000 N
4. Replacing the bridge on 2000 E
5. Box culvert on State Line Road
6. New culverts on bike path
7. Increase capacity of Wastewater Treatment Facility for Driggs
8. Develop Emergency Action Plans (EAPs) for specific public building in the county
9. Assess schools with modular building, inspect tied downs, assess wind load, and evaluate seismic standards
10. Replace the bridge on 1000 E. And 3500 S.
11. Research and procure quick disconnect lines for propane tanks for critical infrastructure & schools [Note: This action was never completed and was removed, instead]
12. Initiate a storm water drainage enhancement project in Tetonia by the church on Hwy 33
13. Install SCADA monitoring on city water and sewer systems
14. Increase the standards near the floodplain, and ensure building in the floodplain isn't allowed
15. Replace the Trail Creek headgate
16. Install SCADA monitoring on city water and sewer systems

Recommended Mitigation Actions					
Mitigation Action: Develop Emergency Action Plans (EAPs) for specific public buildings in the County					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Emergency Management, Facility Managers					
Applicable Goal: Reduce the potential for loss of life and injury					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Complete	Reduce the potential of loss of life and injury	\$50,000	Grants, Local Budgets	2018
Hazards that will be mitigated					
General					
Comments					
2021 Update: Minor updates for new school locations. Review and update.					

Recommended Mitigation Actions						
Mitigation Action: Assess schools with modular buildings, inspect tie downs, assess wind load, and evaluate seismic standards						
Applicable Jurisdiction(s): Cities						
Primary and Support Agency(ies): School District 401, Emergency Management, City P&Z Departments, Building Inspectors						
Applicable Goal: Reduce the potential of loss of life and injury.						
Year Initiated: 2016						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
M	Removed	Reduce loss of life.	\$10,000	Grants, Local Budgets	2018	
Hazards that will be mitigated						
High Wind Incident, Earthquake						
Comments						
2021 Update: This hazard will be removed from the plan as of 2022.						

Recommended Mitigation Actions						
Mitigation Action: Replace the bridge on 1000 E. And 3500 S.						
Applicable Jurisdiction(s): County						
Primary and Support Agency(ies): County Public Works						
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.						
Year Initiated: 2016						
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule	
M	Complete	Reduce flood risk and maintain critical roadway	\$400,000	Grants, Local Budgets	2025	
Hazards that will be mitigated						
Flooding						
Comments						
2021 Update: Completed by county						

Recommended Mitigation Actions					
Mitigation Action: Research and procure quick disconnect lines for propane tanks for critical infrastructure & schools					
Applicable Jurisdiction(s): County and Cities					
Primary and Support Agency(ies): Facility Managers and schools					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Remove	Reduce fire and explosion risk	\$10,000	Grants, Local Budgets	2022
Hazards that will be mitigated					
Earthquake					
Comments					
Allow the quick disconnection of propane lines from tanks in case of broken or damaged lines.					
2021 Update: This hazard will be removed from the plan as of 2022.					

Recommended Mitigation Actions					
Mitigation Action: Initiate a storm water drainage enhancement project in Tetonia by the church on Hwy 33					
Applicable Jurisdiction(s): City of Tetonia					
Primary and Support Agency(ies): Tetonia Public Works, ITD					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
H	Complete	Reduced flood risk, increased ability to use Hwy 33	\$500,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Completed by ITD/This hazard will be removed from the plan as of 2022. Put one drain in the problem area. Complete 2017.					

Recommended Mitigation Actions					
Mitigation Action: Install SCADA monitoring on city water and sewer systems					
Applicable Jurisdiction(s): City of Teton					
Primary and Support Agency(ies): City Public Works Department					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Complete	By actively monitoring our critical infrastructure we can more quickly be aware of damage from disasters.	\$900,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: City of Teton added SCADA monitoring. SCADA for water was completed. Still needed for sewer.					

Recommended Mitigation Actions					
Mitigation Action: Increase the standards near the floodplain, and ensure building in the floodplain isn't allowed					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): City P&Z					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Complete	Reduced flood risk	\$10,000	Grants, Local Budgets	2019
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Complete					

Recommended Mitigation Actions					
Mitigation Action: Replace the Trail Creek headgate					
Applicable Jurisdiction(s): County, City of Victor					
Primary and Support Agency(ies): Victor Public Works, Trail Creek Irrigation District					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Year Initiated: 2016					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
M	Complete	Reduced flood risk	\$30,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Flooding					
Comments					
2021 Update: Completed in 2021.					

Recommended Mitigation Actions					
Mitigation Action: Install SCADA monitoring on city water and sewer systems					
Applicable Jurisdiction(s): City of Victor					
Primary and Support Agency(ies): Victor Public Works					
Applicable Goal: To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.					
Priority	2021 Status	Benefit to County or City	Est. Cost	Funding Source	Schedule
L	Complete/Ongoing	By actively monitoring our critical infrastructure we can more quickly be aware of damage from disasters.	\$900,000	Grants, Local Budgets	2020
Hazards that will be mitigated					
Extreme Cold					
Comments					
2021 Update: Complete but needs to be enhanced. Complete for water and sewer. Add cyber project for SCADA. Add city to cloud.					

Section 7: Plan Integration

Many of the strategy recommendations in the previous section have relationships to other plans and policies for which coordination, integration and consistency is vital. These related plans tend to fall within the following general categories:

- Local capital improvement plans and other budget documents. Most notable are infrastructure projects, such as those related to storm water systems, water supplies, warning sirens, and communications equipment, which may be considered as part of local budgets. For instance, since the previous Plan, road and flood mitigation improvements have been made in some areas which may have addressed past flooding concerns.
- Regulations, agreements, and related procedures. These strategies are primarily identified in the policy strategies. Amendments can often be performed in concert with other ordinance updates. Some related actions may be accomplished procedurally without an ordinance amendment.
- Existing emergency operating or response plans. The County continues to update their emergency plans and procedures. County Emergency Management and other County offices will also work cooperatively with stakeholders regarding plans, procedures, and grant applications related to the issues identified within this plan.

Mitigation planning is on a different schedule than comprehensive planning, with most comprehensive plans likely to be updated no more frequently than once per decade.

While the mitigation plan was not specifically referenced in most participant plans, some of the mitigation recommendations are included as comprehensive plan policies.

Storm water management and emergency services are other common themes in many local comprehensive plans. Even so, greater effort is needed to ensure that the hazard mitigation plan is considered during other local planning efforts, and vice versa.

As the mitigation plan strategies reflect, Teton County will continue to work with County Planning and Zoning and local municipalities to encourage coordination and consistency between comprehensive planning and the hazard mitigation plan, and provide instruction on how to incorporate mitigation strategies into their comprehensive plans and other planning mechanisms.

Since key County staff were actively involved in the development and update of the County mitigation plan, many of the mitigation strategies are based on staff recommendations and give confidence that a high level of coordination between these various planning efforts will continue.

Plans/Regulations that will be Integrated with the Mitigation Plan

Plan Integration
Teton County Comprehensive Plan 2012, 2019 and 2020 Annual Report – Key Action Items
<ul style="list-style-type: none">• Reduce impacts in riparian, wetland, floodplain, and other sensitive or hazardous areas by strengthening the wildlife habitat and natural hazard overlay standards. (see page 16)

<ul style="list-style-type: none"> • The County is working with FEMA on updating the Floodplain Hazard Map using the most current streamflow LIDAR data. Other actions have not been completed. (page 16) • Create and adopt a Countywide Flood Preparedness and Prevention Plan (page 17) • Update building code to include radon mapping and mitigation requirements and consider hazards from flood, forest fire, steep slopes, erosion, unstable soil, and subsidence or other hazards. (page 17)
Teton County Economic Development Plan May 2013
State of Idaho Mitigation Plan 2018
City of Teton Title 8 Building Regulations
City of Teton Comprehensive Plan
City of Victor Title 7 Building Code
City of Victor Title 10 Land Use Code
Floodplain Ordinance: City of Victor Municipal Code Title 11, Flood Control
Land Use Ordinance: City of Victor Municipal Code Title 10, Zoning.
City of Victor Comprehensive Plan
City of Victor Transportation Plan
Driggs Ordinance 252-05 (Building Codes) has adopted the IBC and IRC 2012 and each successive version upon adoption by the State of Idaho
Driggs Flood Damage Prevention Ordinance 317-10 (adopted as City Code Title 11)
Driggs Comprehensive Plan

This section examines the relationship between the participating jurisdictions Comprehensive Plan, Land Use or Zoning Ordinances, and the AHMP. Incorporating hazard mitigation practices into land use planning is extremely important as future developments are planned and constructed. Through proper planning within the individual jurisdictions risk to property owners can be reduced and future disaster related economic losses avoided. Land Use and Mitigation Planning Integration are seen as critical components of the mitigation program in Teton County.

The Teton County Comprehensive Plan was developed during 2001-2004 and most recently amended in 2012. Annual updates were provided in 2019 and 2020. As written, this plan incorporates, through policy and implementation goals, a vast majority of the issues and actions identified as part of the Teton County Multi-Jurisdiction All Hazard Mitigation Planning effort. If implemented as planned, both the County Comprehensive Plan and the All Hazard Mitigation Plan will act as complementary guidance documents to improve the safety of Teton County communities and will reduce the potential damage that can be expected from the profiled hazards in this Plan.

It is recommended that the Emergency Manager, the Planning and Zoning Administrator, the County Road and Bridge Supervisor, and the Fire District continue to work closely together to realize the success envisioned in the goals, policies, and implementation actions defined in these two complementary documents. The integration of land use planning between the County and the Cities appears to be outstanding.

City of Driggs

The City of Driggs has an excellent Land Use Planning Department. Their Comprehensive Plan, last updated in 2020, is fully aligned with this AHMP. They have very strong land use planning goals and objectives and have addressed those hazards that are potential risks to the jurisdiction including seismic, flooding, and wildfire. Their Land Use ordinances take into account building in hazard prone areas and they have adopted the International Building Code for all new

construction and remodels in the City. There are no recommendations for improvements as part of this review process.

City of Victor

The City of Victor updated their Comprehensive Plan in 2021. The Plan's goals and objectives are compatible with this AHMP. Their hazard section addresses the hazards posed to their jurisdiction appropriately. The subdivision ordinances address building in hazard prone areas and they use the International Building Code to govern construction in the City. The hazards that they focus on are flooding, seismic, landslides, and wildfire. There are no recommendations for improvements as part of this review.

City of Teton

The City of Teton adopted the latest revision of the City's Comprehensive Plan in 2010. For a small jurisdiction, the Comprehensive Plan is outstanding and is completely aligned with this AHMP. The goals and objectives are appropriate to protect against those risks posed by the hazards located in the City. The subdivision ordinances reflect hazard control. There are no recommendations for improvement as part of this review.

Section 8: Plan Maintenance

Plan Maintenance

The Teton County AHMP maintenance process includes a schedule for annual monitoring and evaluation of the programmatic outcomes established in the Plan and for producing a formal Plan revision every five years.

Formal Review Process

The Plan may be reviewed on an annual basis by the Emergency Management Coordinator and reviewed and revised every five years by the committee to determine the effectiveness of programs and to reflect changes that may affect mitigation priorities. The Emergency Management Coordinator or designee will be responsible for contacting the Mitigation Committee members and organizing the review. Committee members will be responsible for monitoring and evaluating the progress of the mitigation strategies in the Plan. The Committee will review the goals and action items to determine their relevance to changing situations in the County as well as changes in Federal policy, and to ensure they are addressing current and expected conditions. The Committee will also review the risk assessment portion of the Plan to determine if this information should be updated or modified, given any new available data. The organizations responsible for the various action items will report on the status of the projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised or removed.

The Coordinator or designee will be responsible for ensuring the updating of the Plan. The Coordinator will also notify all holders of the Plan and affected stakeholders when changes have been made. Every five years the updated plan will be submitted to the State of Idaho Office of

Emergency Management and to the Federal Emergency Management Agency for review and approval.

Continued Public Involvement

Teton County Emergency Management is dedicated to involving the public directly in the review and updates of the Plan. The Coordinator is responsible for the review and update of the Plan. The public will also have the opportunity to provide input into Plan revisions and updates. Copies of the Plan will be kept by appropriate County departments and outside agencies.

Public meetings will be held when deemed necessary by the Coordinator. The meetings will provide a forum where the public can express concerns, opinions, or new alternatives that can then be included in the Plan. The Board of County Commissioners will be responsible for using County resources to publicize the public meetings and maintain public involvement.

To further facilitate continued public involvement in the planning process, Teton County will ensure that:

- Teton County Emergency Management will keep a copy of the plan on hand at their office for review and comment by the public.
- A public meeting will be held annually to provide the public with a forum for discussing concerns, opinions, and ideas with the Mitigation Steering Committee.

Monitoring, Evaluation, and Updating the Plan

To ensure the County All Hazard Mitigation Plan continues to provide an appropriate path for risk reduction throughout the County, it is necessary to regularly evaluate and update it. Teton County Emergency Management will be responsible for monitoring the status of the plan and gathering appropriate parties to report the status of Mitigation Actions. The County Mitigation Steering Committee will convene on an annual basis to determine the progress of the identified mitigation actions. The Mitigation Steering Committee will also be an active participant in the next plan update. As the County All Hazard Mitigation Plan matures, new stakeholders will be identified and encouraged to join the existing Mitigation Steering Committee.

Teton County Emergency Management is responsible for contacting committee members and organizing the annual meeting. The Committee's responsibilities include:

- Annually reviewing each goal and objective to determine its relevance and appropriateness.
- Monitor and evaluate the mitigation strategies in this plan to ensure the document reflects current hazard analyses, development trends, code changes and risk analyses and perceptions.
- Ensure the appropriate implementation of annual status reports and regular maintenance of the plan. The committee will hear progress reports from the parties responsible for the various implementation actions to monitor progress.
- Create future action plans and mitigation strategies. These should be carefully assessed and prioritized using benefit-cost analysis (BCA) methodology that FEMA has developed.
- Ensure the public is invited to comment and be involved in mitigation plan updates.
- Ensure that the County complies with all applicable Federal statutes and regulations during the periods for which it receives grant funding, in compliance with 44 CFR.

- Reassess the plan in light of any major hazard event. The committee will convene within 45 days of any major event to review all applicable data and to consider the risk assessment, plan goals, objectives, and action items given the impact of the hazard event.
- Review the hazard mitigation plan in connection to other plans, projects, developments, and other significant initiatives.
- Coordinate with appropriate municipalities and authorities to incorporate regional initiatives that transcend the boundaries of the County.
- Update the plan every five years and submit for FEMA approval.
- Amend the plan whenever necessary to reflect changes in State or Federal laws and statutes required in 44 CFR.

The Five Year Action Plan

This section outlines the implementation agenda that the Mitigation Committee should follow five years following adoption of this plan, and then every five years thereafter. The Mitigation Steering Committee, led by Teton County Emergency Management, is responsible to ensure the All Hazard Mitigation Plan is updated every five years.

The Committee will consider the following an action plan for the first 5-year planning cycle. It should be noted that the schedule below can be modified as necessary and does not include any meetings and/or activities that would be necessary following a disaster event (which would include reconvening the Mitigation Steering Committee within 45 days of a disaster or emergency to determine what mitigation projects should be prioritized during the community recovery). If an emergency meeting of the Mitigation Steering Committee occurs, this proposed schedule may be altered to fit any new needs.

Year 0:

- **2021/22:** Update All Hazards Mitigation Plan, including a series of Mitigation Steering Committee meetings & Public meetings. Submit 2022 All Hazards Mitigation Plan for FEMA approval.
- **February 2022 – December 2022:** Work on Mitigation Actions, Teton County Emergency Management to stay in contact with lead departments to keep tabs on project status.
- **December 2022:** Reconvene Committee for first annual Mitigation Steering Committee meeting. Introduce the concept of Mitigation Plan Integration with other planning documents. Host first annual Public meeting.

Year 1:

- **January 2023 – December 2023:** Work on Mitigation Actions, Teton County Emergency Management to stay in contact with lead departments to keep tabs on project status. Encourage plan integration efforts.
- **December 2023:** Reconvene Committee for annual Mitigation Steering Committee meeting. Discuss opportunities for mitigation plan integration with other planning documents. Discuss recent hazards. Update status of projects. Host public meeting.

Year 2:

- **January 2024 – December 2024:** Work on Mitigation Actions, Teton County Emergency Management to stay in contact with lead departments to keep tabs on project status. Encourage plan integration efforts.

- **December 2024:** Reconvene Committee for annual Mitigation Steering Committee meeting. Discuss opportunities for mitigation plan integration with other planning documents. Discuss recent hazards. Update status of projects. Host public meeting.

Year 3:

- **January 2025 – December 2025:** Work on Mitigation Actions, Teton County Emergency Management to stay in contact with lead departments to keep tabs on project status. Encourage plan integration efforts.
- **December 2025:** Reconvene Committee for annual Mitigation Steering Committee meeting. Discuss opportunities for mitigation plan integration with other planning documents. Discuss recent hazards. Update status of projects. Host public meeting.
- **Fall 2025:** Apply for Building Resilient Infrastructure and Communities or Hazard Mitigation Grant Program funds to update next iteration of mitigation plan.
-

Year 4:

- **January 2026 – December 2026:** Work on Mitigation Actions, Teton County Emergency Management to stay in contact with lead departments to keep tabs on project status. Encourage plan integration efforts. Update 2022 All Hazards Mitigation Plan, including a series of Mitigation Steering Committee meetings & Public meetings.
- **December 2026:** Reconvene Committee for annual Mitigation Steering Committee meeting. Discuss opportunities for mitigation plan integration with other planning documents. Discuss recent hazards. Update status of projects.

Year 5:

- **January 2027:** Submit 2027 All Hazards Mitigation Plan for FEMA approval. Repeat.

Annual Mitigation Steering Committee Meetings

During each annual Mitigation Steering Committee meeting, the Committee will be responsible for a brief evaluation of the 2022 All Hazards Hazard Mitigation Plan and to review the progress on Mitigation Actions.

Plan Evaluation

To evaluate the plan, the Mitigation Steering Committee should answer the following questions:

- Are the goals and objectives still relevant?
- Is the risk assessment still appropriate, or has the nature of the hazard and/or vulnerability changed over time?
- Are current resources appropriate for implementing this plan?
- Have lead agencies participated as originally proposed?
- Has the public been adequately involved in the process? Are their comments being heard?
- Have departments been integrating mitigation into their planning documents?

If the answer to each of the above questions is “yes,” the plan evaluation is complete. If any questions are answered with a “no,” the identified gap must be addressed.

Review of Mitigation Actions

Once the plan evaluation is complete, the Committee must review the status of the Mitigation Actions. To do so, the Mitigation Steering Committee should answer the following questions:

- Have the Mitigation Actions been implemented as planned?
- Have outcomes been adequate?
- What problems have occurred in the implementation process?

Meeting Documentation

Each annual Mitigation Steering Committee meeting must be documented, including the plan evaluation and review of Mitigation Actions. Mitigation Actions have been formatted to facilitate the annual review process.

Implementation through Existing Programs

Hazard mitigation practices must be incorporated within existing plans, projects and programs. Therefore, the involvement of all departments, private non-profits, private industry, and appropriate jurisdictions is necessary in order to find mitigation opportunities within existing or planned projects and programs. To execute this, Teton County Emergency Management will assist and coordinate resources for the mitigation actions and provide strategic outreach to implement mitigation actions that meet the goals and objectives identified in this plan.

Attachment I: NFIP

The following jurisdictions participate in NFIP.

Jurisdiction	NFIP Status			Community Rating System (CRS)
	Yes	No	Comment	
Teton County, Idaho	X			No
Victor, Idaho	X			No
Driggs, Idaho	X			No

Jurisdiction	Policies in Force	Total Coverage
Teton County, Idaho	49	\$15,089,600
Victor, Idaho	1	\$250,000
Driggs, Idaho	1	\$350,000

As of 9/30/2021

The City of Teton will investigate the need to participate in NFIP. The County is working with FEMA on updating the Floodplain Hazard Map using the most current streamflow LIDAR data. In 2019, the County received a grant to fund new LiDAR data collection.

Mitigation Actions Applicable to NFIP

The following mitigation actions apply directly and indirectly to NFIP related activities.

- Increase the standards near the floodplain, and ensure building in the floodplain isn't allowed
- Evaluate the creation of flood control districts
- Teton will analyze the need to participate in the NFIP
- Analyze the alluvial fan flooding potential, including east of Driggs. Map them and evaluate the level of development that should be allowed there.

Attachment II: Public and Stakeholder Participation

This section describes the methods the County used to involve the public and stakeholders in the mitigation planning process.

Mitigation Planning Meetings

AHMP Public/Stakeholder Kickoff Meeting: September 7, 2021



PSC
m/j = 1

Teton County LEPC & Citizen Corps Council Agenda

Tuesday, September 7, 2021,
In-Person or Zoom Meeting Time 3:30 PM
Teton County Sheriff's Office Conference Room
230 N. Main St, Driggs, ID

- I. **Introductions**
- II. **Review Previous Meeting Minutes**
Review and approve August 3, 2021 Minutes
- III. **Old Business**
- IV. **New Business**
 - 1. All Hazard Mitigation Plan - Kickoff Meeting, Integrated Solutions Consulting, Daiko Abe, CFM (See attached Hazard Mitigation Plan Update Agenda)
 - 2. Department of Environmental Quality, Air Quality, Rodger Sauer
- V. **Agency Reports**

A. Teton County Emergency Management	K. Teton County Search & Rescue
B. Teton County Sheriff	L. Idaho State Police
C. Teton County Commission	M. American Red Cross
D. Teton County Road & Bridge	N. Teton County Extension Office
E. City of Teton	O. Eastern Idaho Public Health
F. City of Driggs	P. Idaho Office of Emergency Management
G. City of Victor	Q. Teton School District 401
H. Media Representative	R. Idaho Fish & Game
I. Teton Valley Hospital	S. US Forest Service
J. Teton County Fire Protection District	
- VI. **Next Meeting:** October 5, 2021



Hazard Mitigation Plan Update 2021-22
Teton County, Idaho

Agenda

Meeting Date: 9/7/2021

Time: 3:30 p.m.

Introductions

Overview of Mitigation: Why Mitigate?

Mitigation Planning Process

Project Schedule

Risk Assessment Methodology

Hazards and Risk Assessment Discussion

Changing Landscape of the Federal Mitigation Program & Leveraging the Plan for Future Mitigation Assistance Funds

Public Hazard Mitigation Planning Meeting: October 5, 2021 - Identify and describe hazards, rank hazards



#2
Agency
Workshop

Teton County LEPC & Citizen Corps Council Agenda

Tuesday, October 5, 2021,
In-Person or Zoom Meeting Time 3:30 PM
Teton County Board of County Commissioners Hearing Room
150 Courthouse Drive, Driggs, ID

I. Introductions

II. Review Previous Meeting Minutes

Review and approve September 7, 2021 Minutes

III. Old Business

IV. New Business

1. All Hazard Mitigation Plan Workshop – Hazard Risk Rating

V. Agency Reports

- | | |
|--|---|
| A. Teton County Emergency Management | K. Teton County Search & Rescue |
| B. Teton County Sheriff | L. Idaho State Police |
| C. Teton County Commission | M. American Red Cross |
| D. Teton County Road & Bridge | N. Teton County Extension Office |
| E. City of Teton | O. Eastern Idaho Public Health |
| F. City of Driggs | P. Idaho Office of Emergency Management |
| G. City of Victor | Q. Teton School District 401 |
| H. Media Representative | R. Idaho Fish & Game |
| I. Teton Valley Hospital | S. US Forest Service |
| J. Teton County Fire Protection District | |

VI Next Meeting: November 2, 2021

Oct 5, 2021

Rooster
HAZARD RISK RATING

x Greg Adams

x Ron Carlentine

Jay MRALENSKI

CITY OF DRIGGS

x Alex Farnsworth TVH

x Ed Covillars TVH

x Digi Tyler Driggs

x Eael Giler

x Monte W.

+ JOHN LEIDORF

+ Troy Nelson

AHMP Update - Community Wildfire Protection Plan Meeting: December 14, 2021



Teton County
Hazard Mitigation Plan Update 2021
CWPP Update

Tuesday, Dec 14, 2021, 1 pm – 2 pm Mountain Time

Zoom:

<https://us02web.zoom.us/j/81620395261?pwd=cjJydWFxbVgvc0cwSEhBQ3BVYXpVZz09>

Meeting ID: 816 2039 5261

Passcode: 716613

In-Person: Armory Training Room, Driggs, Idaho

Agenda

Introductions

Teton County Wildfire Protection Plan Priorities

Wildfire History

Teton County WUI: Update needed?

Wildfire Capabilities and Gaps

Wildfire Mitigation Strategies: New Actions/Projects

Wildfire Mitigation Strategies: Ongoing Actions/Projects

Meeting Attendees

- Earle Giles, Teton County Fire, Deputy Fire Chief
- Ronn Carlentine, Teton County Emergency Management
- Chief Bret Campbell, Teton County Fire
- Tyre Holfeltz, Idaho Lands
- Deborah Flowers, USFS
- Jay Pence, USFS
- Spencer Johnston, USFS
- Greg Adams, Teton County Emergency Management
- Daiko Abe, ISC

Mitigation Workshop

- AHMP Workshop (public invited) City of Teton, November 9, 2021
- AHMP Workshop (public invited) City of Victor, November 9, 2021
- AHMP Workshop (public invited) City of Driggs, November 10, 2021
- AHMP Workshop (public invited) Teton County, 401 School District and other stakeholders, November 10, 2021

Teton County, Idaho
2021 All Hazard Mitigation Plan (AHMP) Update
Local Jurisdiction Workshops
Public is Invited

Bring your local planning team to our mitigation workshops. These in-person and/or Zoom workshops will give your local planning team and interested residents an opportunity to work with the All Hazard Mitigation Planning team to identify local hazards and areas of concern, review previously identified mitigation actions, develop future mitigation projects, prioritize mitigation projects moving forward and update your jurisdiction's section of the 2021 All Hazard Mitigation Plan.

This workshop is for every jurisdiction within Teton County, and the interested public. Please attend your community's designated workshop. You only need to attend one workshop.

Tuesday, November 9, 2021 | City of Teton, 3192 Perry Ave, City Hall
9:00 AM - 11:00 AM | Zoom Meeting ID 838 9842 7778 Passcode 803021

Tuesday, November 9, 2021 | City of Victor, 32 Elm Street City Hall
1:00 PM - 3:00 PM | Zoom Meeting ID 882 8362 4217 Passcode 691503

Wednesday, November 10, 2021 | City of Driggs, 60 S. Main Street, City Hall
9:00 AM - 11:00 AM | Zoom Meeting ID 813 9973 6210

Wednesday, November 10, 2021 | Teton County Departments, 401 School District and other stakeholders not affiliated with Teton, Victor or Driggs, 150 Courthouse Drive, Driggs
1:00 PM - 3:00 PM | Zoom Meeting ID 874 6703 3137 Passcode 304195

SAVE THE DATE

Teton County, Idaho
2021 All Hazard Mitigation Plan (AHMP) Update
Local Jurisdiction Workshops Public Invited

Tuesday, November 9, 2021 | City of Teton, 3192 Perry Ave, City Hall
9:00 AM - 11:00 AM Meeting ID 838 9842 7778 Passcode 803021

Tuesday, November 9, 2021 | City of Victor, 32 Elm Street City Hall
1:00 PM - 3:00 PM Meeting ID 882 8362 4217 Passcode 691503

Wednesday, November 10, 2021 | City of Driggs, 60 S. Main Street, City Hall
9:00 AM - 11:00 AM Meeting ID 81399736210

Wednesday, November 10, 2021 | Teton County Departments, 401 School District and other stakeholders not affiliated with Teton, Victor or Driggs, 150 Courthouse Drive, Driggs
1:00 PM - 3:00 PM Meeting ID 874 6703 3137 Passcode 304195

Bring your local planning team to our mitigation workshops. These **in-person and/or Zoom** workshops will give our local planning team an opportunity to work with the All Hazard Mitigation Planning team to identify local hazards and areas of concern, review previously identified mitigation actions, develop future mitigation projects, prioritize mitigation projects moving forward and update your jurisdiction's section of the 2021 All Hazard Mitigation Plan.

Why: Participating in updates to the mitigation plan is a FEMA Requirement to be eligible for mitigation-related federal disaster funding before and after disasters. By bringing our local planning team to this workshop, you will be completing that requirement.

Who: This workshop is for every jurisdiction within Teton County, and the interested public. Please attend your community's designated workshop. Recommended attendees include (if applicable):

- Administration/Management
- Elected Officials
- Fire & Law Enforcement
- Floodplain Administrator
- Legal
- Planning/Community Development/GIS
- Public Works/Transportation (Roads & Bridges)
- School District

Workshop Agenda:

The purpose of this meeting is to engage and collect information from the individual jurisdictions of Teton County.

- Mitigation Overview
- Risk Summary/Risk Assessment Findings
- Jurisdiction Hazard Summary Activity and Breakout Session
- Review Ongoing Mitigation Actions/Projects
- Identify New Mitigation Actions

**Teton County
Hazard Mitigation Plan Update 2021**

Workshop Agenda

Tuesday, November 9, 2021 | City of Teton, 3192 Perry Ave, City Hall
9:00 AM - 11:00 AM | Zoom Meeting ID 838 9842 7778 Passcode 803021

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1:00 PM - 3:00 PM | Zoom Meeting ID 874 6703 3137 Passcode 304195

Introductions

Mitigation Overview

Risk Summary/Risk Assessment

Jurisdiction/Agency Hazard Summary Worksheet

Review Ongoing Mitigation Actions/Projects

Identify New Mitigation Actions

Handout: New Mitigation Actions (Teton County)

Name:

Organization/Department:

E-mail:

Phone:

New Mitigation Action (Please Describe):

Year Initiated	2021 (New Mitigation Action)
Applicable Jurisdiction	
Lead Agency/Organization	
Supporting Agencies/Organizations	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
PRIORITY (High, Medium, Low)	

Please indicate if the mitigation goals and objectives below are applicable to the new mitigation action/project). Check All That Apply.

X	Place an "X" by the applicable goals, if applicable
	1. Reduce the potential of loss of life and injury
	2. To preserve and enhance the quality of life throughout Teton County by identifying potential property damage risks and recommending appropriate mitigation strategies to minimize potential property damage and economic losses.
	3. Improved collaboration and cooperation throughout Teton County and partnering jurisdictions
	4. Incorporate hazard mitigation into all appropriate plans and policies
	5. Enhanced communication of risks and threats in Teton County to empower personal preparedness and responsibility
	6. Continuity of government services and business operations

Handout: New Mitigation Actions (Teton County)

This mitigation action:

Instructions: Circle the best option

	Strongly Disagree (1)	Disagree (2)	Neither Agree or Disagree (3)	Agree (4)	Strongly Agree (5)
Social: Do you agree or disagree that the mitigation action is more likely to: be acceptable to the community; does not adversely affect a particular segment of the population; does not cause relocation of lower income people, and is compatible with the community's social and cultural values.	1	2	3	4	5
Technical: Do you agree or disagree that the mitigation action is technically effective in providing a long-term reduction of losses and has minimal secondary adverse impacts.	1	2	3	4	5
Administrative: Do you agree or disagree that your jurisdiction/organization has the necessary staffing and funding to carry-out this mitigation action.	1	2	3	4	5
Political: Do you agree or disagree that the mitigation action has the support of the public and stakeholders who have been offered an opportunity to participate in the planning process.	1	2	3	4	5
Legal: Do you agree or disagree that the jurisdiction or implementing agency has the legal authority to implement and enforce the mitigation action.	1	2	3	4	5
Economic: Budget constraints can significantly deter the implementation of mitigation actions. Do you agree or disagree that the mitigation action is cost-effective, as determined by a cost benefit review, and is possible to fund.	1	2	3	4	5
Environmental: Do you agree or disagree that the mitigation action is sustainable and does not have an adverse effect on the environment, complies with federal, state, and local environmental regulations, and is consistent with the community's environmental goals.	1	2	3	4	5

Place an "X" by the hazard(s) this action/project will mitigate:

Mitigated Hazards	
X	Place an "X" by the applicable hazard
	Animal Disease
	Avalanche
	Animal Related Accidents
	Drought
	Active Shooter
	Earthquake
	Civil Disorder/Riot
	Extreme Cold
	Cybersecurity
	Extreme Heat
	Hazardous Materials Release/Pipeline
	Flood (Riverine/Stream)
	Major Transportation Incident
	Flood (Urban/Flash Flooding)
	Nuclear Event
	Landslide/Mudslide
	Public Health Emergency (pandemic)
	Severe Thunderstorm (Hail, Lightning)
	Structural Fire
	Severe Winter Storm
	Terrorism/Active Shooter
	Tornado and High Winds
	Utility Failure (Power Failure)
	Vector-Borne Disease
	Water and Air Quality Issues/Concerns
	Volcanic Eruption/Ashfall
	All Hazards
	Wildfire

- SIGN-IN SHEET: Hazard Mitigation Plan Update -

Hazard Mitigation Plan: Workshop D. Driggs 11/10/2021
Teton County, Idaho

Hazard Mitigation: Planning Meeting - Workshop			
Name	Organization	Phone	E-mail
Greg Adams	Teton County EM	208-354-2703	gradams@co.teton.id.us
Dario Abe	ISC	208-390-2021	daiko.abe@i-s-consulting.com
Alynn Johnson	City of Driggs	you have it	you have it
Dori Fyle	City of Driggs	208-554-2362	Cfyle@driggsidaho.org
Wanne Bernstein	City of Driggs	208-354-2362	lbernstein@driggsidaho.org
Alicia Allent	CITY OF DRIGGS	208-354-2362	achler@driggsidaho.org
Clint Washburn	Full River Fuel Electric	208-682-7431	Clint.Washburn@FullRiverElectric.com
Jim Mazalowski	CITY OF DRIGGS	208-354-2362	JMAZ@DRIGGSIDHO.ORG
August Christensen	City of Driggs	208-270-0992	achristensen@driggsidaho.org
Rena Arletson	TC-EM	208-270-2099	renarletson@co.teton.id.us
Clint Lemieux	TCSO	208-354-2323	Clemieux@co.teton.id.us
Jen Calder	City of Driggs	208-201-4285	jcalder@driggsidaho.org
Devo SELF	CITY OF DRIGGS	208-354-2362	DSELF@DRIGGSIDHO.ORG

-SIGN-IN SHEET: Hazard Mitigation Plan Update -

Hazard Mitigation Plan: Workshop Victor 11/9/2021
Teton County, Idaho

Hazard Mitigation Planning Meeting - Workshop			
Name	Organization	Phone	E-mail
NATE BOARD	PUBLIC WORKS City of Victor	208-317-5719	nateb@victorcityidaho.com
Kimberly Kalner	Planning + zoning Dir City of Victor	208 270 0113	KimberlyK@victor-city.idaho.com
Troy Butzloff	Interim City Administrator		victorcityplanning@victorcityidaho.com
Jeremy Bosbris	Deputy City Admin	208.270.0688	je.remyb@victorcityidaho.com
Carl Osterberg	Planner, City of Victor	208-541-2381	planner@victor-city.idaho.com
Dario Albe	ISC	208-390-2021	dario.albe@r.s-consulting.com
Renee Chelantone	Teton County - EM	208.854.8773	rchelantone@co.teton.id.us
Greg Adams	Teton County EM	208-354-2703	gadams@co.teton.id.us

- SIGN-IN SHEET: Hazard Mitigation Plan Update -

Hazard Mitigation Plan: Workshop Teton County Departments & Stakeholders
Teton County, Idaho 11/10/2021

Hazard Mitigation Planning Meeting - Workshop			
Name	Organization	Phone	E-mail
Ram Chelentone	Teton County - EM	208-354-8773	ramchelentone@co.teton.id.us
Lorey Adams	Teton County - EM	208-354-2703	gadamsl@co.teton.id.us
Daike Abe	ISC	208-390-2021	daike.aber@s-contracting.com
Bert Michaelbacher	TC PIZ	208 520 6251	michaelbacher@gmail.com
Darryl Johnson	T.C. Public Works	208-354-0245	djohnson@co.teton.id.us
Bret Campbell	Teton County Fire	715-5201	bcampbell@tetoncountyfire.com
Mike Whitfield	Teton BOCC		
Brian McDermott	Teton Regional Economic Development		
Lorrie Pahl	IOEM		
Pat Mike Lien	Friends of the Teton River		
Rod Collingwood	Fall River?		
W. Celino	Fall River?		
Clint Lemieux	Sheriff		
Julie Martin			
Monte Wostenhulm	TSD 401 Superintendent		
Bridger Smith	Chief Deputy Sheriff		

Public Meeting

Flyer, Facebook, and Ad on Front Page of Teton Valley News website

PUBLIC MEETING TO INFORM RESIDENTS ABOUT POTENTIAL DISASTERS THAT COULD IMPACT THE COUNTY

Teton County Emergency Management will be hosting a public information and planning session to gather input from Teton County residents regarding potential emergencies and disasters that could impact the County. This is part of the Multi-Jurisdiction All-Hazard Mitigation Plan update, which is undergoing a mandatory 5-year update. The public meeting will be held on the following date and location:

- For those attending in-person: Thursday, February 10, 2022, at 6:00 p.m. to 7:30 p.m. at the Teton County Courthouse, Board of County Commissioners Room
- For those attending virtually via Zoom:
 - Zoom Link:
<https://us02web.zoom.us/j/81925093195?pwd=RTc3UmFsMW9namZFdS9KZE1FV0ILZz09>
 - Meeting ID: 819 2509 3195
 - Passcode: 386010

The meeting will provide the public an opportunity to review the potential hazards that could occur within the County and will request input for the various mitigation measures intended to eliminate or reduce the negative impact of those hazards.

For more information about this plan and meeting, please contact Emergency Management Coordinator, Greg Adams at (208) 354-2703 or gadams@co.teton.id.us.

Legal Notice in Teton Valley News

PUBLIC MEETING: ALL-HAZARD MITIGATION PLAN UPDATE

Teton County, Idaho, Emergency Management will be hosting a public information and planning session to gather input from Teton County residents regarding potential emergencies and disasters that could impact the County. This is part of the Multi-Jurisdiction All-Hazard Mitigation Plan update. The public meeting will be held on the following date and location:

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- Zoom Attendees:
 - Zoom Link:
<https://us02web.zoom.us/j/81925093195?pwd=RTc3UmFsMW9namZFdS9KZE1FV0ILZz09>
 - Meeting ID: 819 2509 3195 | Passcode: 386010

For more information about this plan and meeting, please contact Teton County Emergency Management Coordinator, Greg Adams at (208) 354-2703 or gadams@co.teton.id.us.

PUBLIC MEETING:

ALL-HAZARD MITIGATION PLAN UPDATE

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 - Zoom Link:
<https://us02web.zoom.us/j/81925093195?pwd=RTc3UmFsMW9namZFdS9KZE1FV0lLZz09>
 - Meeting ID: 819 2509 3195 | Passcode: 386010

For more information about this plan and meeting, please contact Teton County Emergency Management Coordinator, Greg Adams at (208) 354-2703 or gadams@co.teton.id.us.

Published Feb 9, 2022 (TVN63995-199435)



**Teton County
Emergency Management
& Planning
Feb.10th Public Session
Learn More [Here](#)**

COMMUNITY
Tees by Toddlers: Lil' Mountain Designs growing through valley community
By Connor Shea Feb 3, 2022
It's fair to say one of every parent's favorite things about early childhood isn't the sleepless nights or plethora of diapers.

TETON HIGH SCHOOL
Sugar downs THS Wrestling 51-34 at lone home dual
By Connor Shea Feb 2, 2022
The lights were low at the Teton High School gymnasium on Jan. 27 for Teton Wrestling's lone home appearance of the season.

COMMUNITY
Taking the Ice: Sled hockey program thriving at Kotler Ice Arena

Anny Malo wins Pedigree Stage Stop dogsled race
Feb 5, 2022
In the conclusion of a very fast Pedigree Stage Stop race, it was Quebec's Anny Malo who claimed victory overall.

Teton County Emergency Management & Planning Feb. 10th Public Session
Learn More [Here](#)

WINTER TRAILS CHALLENGE
SUPPORT TODAY

TRENDING NOW

PUBLIC MEETING TO INFORM RESIDENTS ABOUT POTENTIAL DISASTERS THAT COULD IMPACT THE COUNTY
Feb 3, 2022

PUBLIC MEETING TO INFORM RESIDENTS ABOUT POTENTIAL DISASTERS THAT COULD IMPACT THE COUNTY

Teton County Emergency Management will be hosting a public information and planning session to gather input from Teton County residents regarding potential emergencies and disasters that could impact the County. This is part of the Multi-Jurisdiction All-Hazard Mitigation Plan update, which is undergoing a mandatory 5-year update. The public meeting will be held on the following date and location:

For those attending in-person: Thursday, February 10, 2022, at 6:00 p.m. to 7:30 p.m. at the Teton County Courthouse, Board of County Commissioners Room

Teton County Emergency Management & Planning Feb. 10th Public Session
Learn More [Here](#)

WINTER TRAILS CHALLENGE

Teton County Hazard Mitigation Plan Update

Teton County, Idaho

Date: Thursday, February 10, 2022 (6:00pm)

- For those attending in-person: Thursday, February 10, 2022, at 6:00 p.m. to 7:30 p.m. at the Teton County Courthouse, Board of County Commissioners Room
- For those attending virtually via Zoom:
 - Zoom Link:
<https://us02web.zoom.us/j/81925093195?pwd=RTc3UmFsMWw9namZFdS9KZE1FV0lLZz09>
 - Meeting ID: 819 2509 3195
 - Passcode: 386010

Meeting Agenda

Public Meeting

Introductions

What is Mitigation?

Hazard/Risk Discussion

Hazard Summary Worksheet

Identify New Mitigation Ideas/Initiatives

Key Elements of the County Plan

Closing Remarks

Handout: New Mitigation Actions (Teton County) – Public Meeting

Neighborhood:

Jurisdiction:

Name (optional):

E-mail (optional):

Phone (optional):

New Mitigation Idea/Initiative (Please Describe):

Benefit (problem this mitigation idea will address): *Please describe the benefits this mitigation idea/initiative will offer to your community and/or organization.*

Place an "X" by the hazard(s) this action/project will mitigate:

Mitigated Hazards		
X	Place an "X" by the applicable hazard	Air Quality
	Avalanche	Animal Disease
	Dam Failure	Animal-related Accidents
	Drought	Civil Disturbance
	Earthquakes	Cybersecurity
	Extreme Cold	Hazardous Materials Release
	Extreme Heat	Major Transportation Incident
	Flooding (Riverine)	Nuclear Event
	Flooding (Flash)	Public Health Emergency
	Hail	Structural Fire
	Landslide	Utility Failure
	Lightning	Terrorism
	Thunderstorms	Vector-Borne Disease
	Tornadoes and High Winds	Water Quality
	Volcanic/Ashfall	All Hazards
	Wildfires	
	Winter Storms	

Attachment III: Mitigation Crosswalk