

JEROME COUNTY
MULTI-JURISDICTION
ALL HAZARD MITIGATION PLAN
DRAFT MARCH 2015



EXECUTIVE SUMMARY

The 2015 Jerome County Multi-Jurisdiction All Hazard Mitigation Plan 2015 is a complete revision of the 2009 Jerome County Multi-jurisdiction All Hazard Mitigation Plan. The entire Hazard and Vulnerability Assessment was updated. The hazard ranking was changed, and a new format deployed that ranks the hazards according to five indices; 1) historical occurrence, 2) probability, 3) vulnerability, 4) spatial extent, i.e. the extent of impact based on geography, and 5) the magnitude, which looks specifically at the loss of life, injuries, and economic impact.

In comparison to other counties in the region, Jerome County is relatively free from the effects of natural hazards except those associated with severe weather. Wind driven wildfires are of special concern in the areas surrounding agricultural crops.

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Wildfire	3	4	2	3	4	16	H
Hazardous Matertials	3	4	3	3	2	15	H
Severe Winter Storms	3	4	2	4	1	14	M
Drought	2	3	3	4	2	14	M
Severe Weather	3	4	2	2	3	14	M
Communicable Disease	1	2	3	4	3	13	M
Flash Flooding	3	4	2	2	2	13	M
Structure Fire	3	4	1	1	4	13	M
Livestock Disease	1	1	3	3	4	12	M
River Flooding	2	4	1	1	3	11	L
Burrowing Rodents	1	4	1	1	2	9	L
Terrorism	0	1	2	2	3	8	L
Vector Borne Disease	1	1	2	2	2	8	L
Earthquake	0	2	1	2	2	7	L
Landis des	1	2	1	1	1	6	L
Riot/Demonstration/Civil Dis obedience	0	1	1	1	1	4	L
Dam Failure	0	1	1	1	1	4	L

The revision was under the direction of the Jerome County Local Emergency Planning Committee. Community involvement took three forms; 1) open LEPC meetings, 2) electronic access to Plan development and review, and 3) public access to elected officials briefings.

The Jerome County Mitigation Team was led by Mr. Clint Blackwood of the Jerome County Office of Emergency Management who, under the direction of the Jerome County Board of Commissioners, is responsible, along with the Jerome County LEPC, for the coordinating, implementation, and reporting of the mitigation actions recommended in this Plan.

While the focus of this Plan is on County-wide mitigation activities, it was developed through an integrated effort by representatives from many County, State, and Federal jurisdictions. The Cities of Jerome, Eden, and Hazleton also participated electronically in the development of this Plan.

Mitigation Actions have been reviewed, and a status was then provided by the LEPC. Goals and Objectives developed in the initial planning process were maintained, and additional mitigation actions were added to the Plan. The mitigation actions were developed and selected using the

STAPLEE Method. Projects were prioritized by the LEPC with each action given H, M, or L ranking.

Project	Priority
Develop a Wildland Fire Ordinance which establishes the road widths, access, water supply, and building regulations suitable to ensure new structures can be protected.	H
Develop an agreement with developers and private landowners for access to and use of water sources for fire protection.	H
Develop a listing of schools and public buildings that need to be seismically retrofitted	H
Organize a group to jointly apply for grants and other funding avenues to implement WUI Fire Mitigation Actions.	H
Develop an EOP Annex that addresses livestock quarantining	H
Install Culvert to ensure proper drainage at 857 S. Eden Road	M
Install Culvert to ensure proper drainage at 960 South Eden Road	M
Improve Drainage along 2 nd West, 2 nd East and 2 nd North By installing properly sized culverts.	M
Develop a list of facilities that need to be hardened. Begin conceptual design	M
Install Road Signs as prescribed by NFPA Standards	M
Conduct a public education program to assist the citizens of the County in recognizing and reporting civil disobedience events to County Law Enforcement	M
Request Updates of FIRM Maps to include Canal System Drainage	M
Conduct Roadside Vegetation Treatments to reduce flammable fuels immediately adjacent to roads in high risk areas	M
Develop a listing of roads, bridges, cattle guards, culverts, and other limiting conditions and incorporate improvements into the County Transportation Plan	M
Home Site WUI Treatments (200 Homes)	L
Community Site WUI Treatments (20 communities)	L
Develop wildfire fuel breaks around CRP Land	L
Install temporary Windbreaks in areas where blowing snow occurs along Highway 50.	L
Develop a Culvert Maintenance Program	L
Conduct a County Terrorism assessment	L
Seek CRS Status for the County	L
Revise Subdivision Ordinance to discourage building in Landslide Prone Areas	L
Designate the WUI areas as a special land use category in the County Comprehensive Plan	L
Use GIS Technology to Link Red Zone Data to Landowner Parcel Maps	L

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SECTION 1 PLANNING PROCESS

2014 Revision summary: The planning process section has been restructured to document how this updated plan was developed and updated. It also reflects overall changes in the planning and mitigation strategy.

Jerome County Idaho and the incorporated cities that lie within the County boundaries are vulnerable to natural, technological, and man-made hazards that have the potential to cause serious harm to the health, welfare, and security of its residents. The cost of response to, and recovery from, disaster events can be lessened when attention is turned to mitigating their impacts and effects before they occur or re-occur.

This Plan seeks to identify the County's hazards, understand the vulnerabilities to those hazards, and craft solutions that, if implemented, will significantly reduce threats 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, 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. The Plan can certainly be used to identify weaknesses and refocus emergency response planning. Enhanced emergency response planning is an important mitigation strategy. The focus of this Plan, however, is to support better decision making directed toward avoidance of future risk and to implement activities or projects that will eliminate or reduce current risks.

HAZARD MITIGATION

Hazard mitigation is defined as any cost-effective action(s) that has the effect of reducing, limiting, or preventing 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) Keep the hazard away from people, property, and structures
- 2) Keep people, property, or structures away from the hazard
- 3) Reduce the impact of the hazard on victims and property, 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 more costly than the anticipated damages.

The primary focus of hazard mitigation planning must be at the point at which capital investment and land use decisions are made, based on vulnerability. Capital investments, whether for homes, roads, public utilities, pipelines, power plants, or public works, determine to a large extent the nature and degree of the hazard vulnerability of a community. Once a capital facility is in place, very few opportunities will present themselves over the useful life of the facility to correct any errors in location or construction with respect to the hazard vulnerability. It is for this reason that zoning and other ordinances, which manage development in high vulnerability areas, and building codes, which insure that new buildings are built to withstand the damaging forces of the hazards, are often the most useful tools in mitigation that a jurisdiction can implement.

Since the priority to implement mitigation activities is usually very low in comparison to the perceived threat, some important mitigation measures take time to implement. 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 has identified specific natural hazards to be analyzed by each jurisdiction, completing an All Hazard Mitigation Plan. The hazards analyzed in this Plan include those required and others as selected by the County AHMP Committee. The hazards analyzed are as follows:

Natural Hazards

Weather: Drought
Extreme Weather
Extreme Heat
Lightning
Hail
Tornado
Straight Line Wind
Extreme Winter Weather
Extreme Cold
Severe Winter Storm

Flooding: Flash Flooding
River Flooding
Dam Failure

Geologic: Earthquake

Other: Wildfire
Burrowing Rodents
Vector Borne Disease
Livestock Disease
Communicable Disease

Technological (Manmade) Hazards

Structural Fire
Hazardous Material Event
Riot/Demonstration/Civil Disorder
Terrorism

PARTICIPATING JURISDICTIONS

This Plan covers Jerome County Idaho and the Cities of Jerome, Eden, and Hazelton.

The Jerome All Hazard Mitigation Planning Committee was originally formed on February 21, 2008. Committee membership is comprised of representatives from the Jerome County Local Emergency Planning Committee, Jerome County Department heads, representatives from the Transportation Districts and the incorporated cities, representatives from the major utility providers, interested media, and members of the public. Minutes of the committee meetings are provided in Attachment 1.

The Committee Roster is provided below:

All Hazard Planning Committee Members

Agency	Representative	Position
City of Jerome	Larry Goolsby	Volunteer
Northside Canal	Karl Hays	Meter Master
Jerome County Office of Office of Emergency Management	Clint Blackwood	Coordinator
Idaho Bureau of Homeland Security	Gary W Davis	Area Field Officer
St Benedict's Family Medical Center	Ron Lambert	Safety Officer
Jerome County Airport	Bonnie Dietrick	LEPC
Jerome County LEPC	Baldwin Camin	Chairman
Intermountain Communication	Staci Schneider	Sales
Jerome Airport	Linda Underwood	Manager
Red Cross	Diana Ochsner	Disaster Coordinator
Jerome County	Cathy Roemer	Commissioner
Hillsdale Highway District	Keith Mills	Supervisor
Jerome County Office of Office of Emergency Management	Mike Dahmer	Communications
SCPHD	Tami Pearson	PHP Program Manager
Jerome County PIO	Arthur R. Brown	PIO
City of Jerome Fire	David Lacelle	Lt.
City of Jerome Police	Jay Gardner	Sargent
Jerome County Office of Office of Emergency Management	Glenna Lawrence	Assistant

Agency	Representative	Position
Jerome County Sheriff's Office	Doug McFall	Sheriff
Magic Valley Paramedics	Brenda Gully	Educator
Intermountain Gas	Jeff Clysdale	Engineering
Intermountain Gas	Mark Hoffman	Engineering
Salvation Army	Eddie Patterson	Major
Idaho Bureau of Homeland Security	Steve Hayward	Regional Planning Coordinator
Northside Canal Company	Alan Hansten	Manager

AHMP COMMITTEE MEETINGS

Minutes, Agendas, and supporting information has been placed in Attachment 1.

December 18, 2014 LEPC Meeting

Attendance Roster

Agency	Representative	Position
City of Jerome	Larry Goolsby	Volunteer
Jerome County Office of Office of Emergency Management	Clint Blackwood	Coordinator
Idaho Bureau of Homeland Security	Gary W Davis	Area Field Officer
Jerome County LEPC	Baldwin Camin	Chairman
Intermountain Communication	Staci Schneider	Sales
Jerome Airport	Linda Underwood	Manager
Red Cross	Diana Ochsner	Disaster Coordinator
Jerome County	Cathy Roemer	Commissioner
Hillsdale Highway District	Keith Mills	Supervisor
Jerome County Office of Office of Emergency Management	Mike Dahmer	Communications
SCPHD	Tami Pearson	PHP Program Manager
Jerome County PIO	Arthur R. Brown	PIO
City of Jerome Fire	David Lacelle	Lt.
City of Jerome Police	Jay Gardner	Sargent
Jerome County Office of Office of Emergency Management	Glenna Lawrence	Assistant
Jerome County Sheriff's Office	Doug McFall	Sheriff

January 15, 2015 LEPC Meeting

The Jerome County LEPC received an update on the revision of the Multi-Jurisdiction All Hazard Mitigation Plan. The LEPC also reviewed and prioritized the mitigation projects for the County.

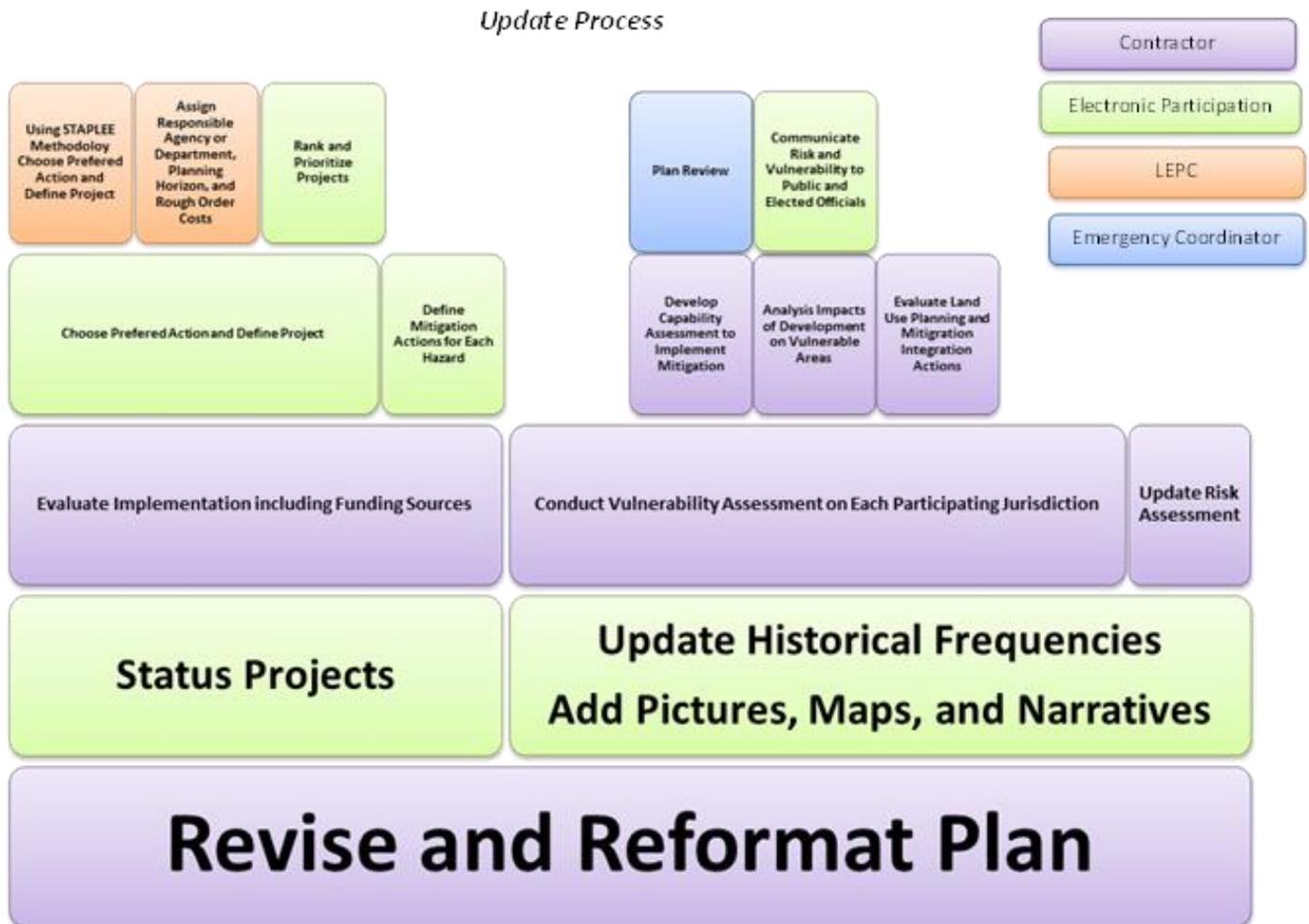
Attendance Roster

Agency	Representative	Position
Jerome County Emergency Management	Larry Goolsby	Volunteer
Jerome County Office of Office of Emergency Management	Clint Blackwood	Coordinator
Idaho Bureau of Homeland Security	Gary W Davis	Area Field Officer
Jerome County LEPC	Baldwin Camin	Chairman
Intermountain Communications	Staci Scheider	Sales
Red Cross	Diana Ochsner	Disaster Coordinator
Hillsdale Highway District	Keith Mills	Supervisor
Jerome County Office of Office of Emergency Management	Mike Dahmer	Communications
SCPHD	Tami Pearson	PHP Program Manager
Jerome County Office of Office of Emergency Management	Glenna Lawrence	Assistant
Magic Valley Paramedics	Brenda Gully	Educator
Intermountain Gas	Jeff Clysdale	Engineering
Intermountain Gas	Mark Hoffman	Engineering
Salvation Army	Eddie Patterson	Major
Idaho Bureau of Homeland Security	Steve Hayward	Regional Planning Coordinator

UPDATE PROCESS

The 2015 Jerome County Multi-Jurisdiction All Hazard Mitigation Plan update and revision process included creation of the following steps. Note that the steps include electronic public participation.

The Hazard Analysis was redone as part of this five year update. The Community Description Section was retained. Other changes in the Plan have been added to meet the requirements set forth in 44 CFR 201.6.



IDENTIFY HAZARDS

Jerome County hazards were identified and their frequency of occurrence evaluated using a number of resources including:

- The 2010 Jerome County All Hazard Mitigation Plan
- Hazard planning documents developed by State, Federal, and private agencies
- National Weather Service weather data from the past 50 years
- Data from the United States Geological Survey (USGS) and the Idaho State Geological Survey (ISGS)

To determine frequency of occurrence, the historical analysis of hazardous events was conducted. One of the difficult tasks facing hazard mitigation professionals is the determination of the potential frequency of a natural hazard occurrence. Comparing historical facts against technically determined probability allows one to establish confidence, or not, in published scientific predictions. The process whereby the frequency is determined and then expressed in an expected reoccurrence interval (see below for an illustration), is based on research conducted at the University of South Carolina.

Location	No. of Years	No. of Events	Frequency	Reoccurrence Interval
County	23	17	73.9%	1.35

Example of Reoccurrence Interval

The estimated occurrence of the hazard is a useful element in the hazards assessment so one can distinguish between infrequent hazards, like volcano eruptions, from frequent hazards, such as flooding. This calculation provides a useful indicator of the relative importance of each of the hazards that affect the jurisdictions, individually or collectively. The frequency of occurrence is a straight-forward calculation from the historical data and the length of that record in years. The number of hazard occurrences is divided by the number of years in the record. This yields the probability of the event occurring in any given year. For instance, if hypothetical hazard “A” occurred 17 times in the County over the past 23 years, the probability of occurrence for that hazard in a given year would be $17 / 23 = .739$, or 73.9%. The reverse of this equation results in a reoccurrence interval in years. For example, the reoccurrence interval of this hazard is calculated as $23 / 17 = 1.35$. Hazard “A” can be expected to occur every 1.35 years. These frequencies are then correlated with magnitude to define the risk of a given hazard.

IDENTIFY VULNERABILITIES

The Committee examined the effects of the raw hazard list on the County by identifying vulnerable populations, infrastructure, critical services, facilities, and environment. Vulnerabilities will be geographically identified using Geographical Information System (GIS) technology and then linked to a GIS data base, describing the vulnerable target, including potential damage and estimates of losses.

HAZARD MAPPING

As described in Steps 1 and 4, hazard maps were extremely important in illustrating hazard and vulnerability locations. In addition, information used to conduct the risk assessment and the loss estimates was linked electronically to the maps using GIS technology. The electronic versions of these maps were provided to the Committee and other reviewing agencies.

RISK ANALYSES

The risk analysis was updated using the information gathered in the steps above. To determine the risk posed by each hazard, several kinds of information are required: 1) the number of historical occurrences, 2) the probability or likelihood of the hazard occurrence, at times without regard to hazard history, 3) vulnerability, expressed as the percentage of people and property that would be affected by the hazard event, 4) spatial extent, the geographical area of the community that might be impacted, and 5) the magnitude or severity of impact based on an assessment in terms of fatalities, injuries, and property/economic losses. Tables illustrating this process are provided below.

1) Historical Occurrence – Number of historical occurrences within community.

Rating	Adjective Description	Number of Historical Occurrences (within 50 years)
0	None	<ul style="list-style-type: none"> • Never occurred
1	Low	<ul style="list-style-type: none"> • 5 or few occurrences
2	Medium	<ul style="list-style-type: none"> • 6-9 occurrences
3	High	<ul style="list-style-type: none"> • More than 10 occurrences

Historical Occurrence Ranking Table

2) Probability – Likelihood of the hazard occurrence, sometimes without regard to hazard history.

Rating	Likelihood	Frequency of Occurrence
1	Rare	<ul style="list-style-type: none"> • Probability of occurrence = one chance in the next 50+ years
2	Low	<ul style="list-style-type: none"> • Probability of occurrence = at least one chance in the next 25-50 years
3	Medium	<ul style="list-style-type: none"> • Probability of occurrence = at least one chance in the next 10-25 years
4	High	<ul style="list-style-type: none"> • Probability of occurrence = at least one chance in the next 1 to 10 years

Probability Ranking Table

3) Vulnerability –Percentage of people and property that would be affected by the hazard event.

Rating	Magnitude	Percentage of People and Property Affected
1	Negligible	<ul style="list-style-type: none"> • Less than 5%
2	Limited	<ul style="list-style-type: none"> • 5% to 10%
3	Critical	<ul style="list-style-type: none"> • 10% to 25%
4	Catastrophic	<ul style="list-style-type: none"> • More than 25%

Vulnerability Ranking Table

4) Spatial Extent –The geographical area of the community that might be impacted.

Rating	Magnitude	Percentage of jurisdiction affected
1	Negligible	<ul style="list-style-type: none"> • Less than 10%
2	Limited	<ul style="list-style-type: none"> • 10% to 25%
3	Critical	<ul style="list-style-type: none"> • 25% to 50%
4	Catastrophic	<ul style="list-style-type: none"> • More than 50%

Spatial Extent Ranking Table

5) Magnitude (Severity of Impact) – Assessment of severity in terms of fatalities, injuries, property/economic losses

Rating	Likelihood	Characteristics
1	Negligible	<ul style="list-style-type: none"> • Few if any injuries or illness • Minor quality of life lost with little or no property damage • Brief interruption of facilities/services less than 4 hrs
2	Limited	<ul style="list-style-type: none"> • Minor injuries and illness • Minor or short term property damage that does not threaten structural stability • Loss of essential facilities and services for 4 to 24 hours
3	Critical	<ul style="list-style-type: none"> • Serious injury and illness • Major/ long term property damage; threatens structural stability • Shutdown of essential facilities and services for 24 to 72 hours
4	Catastrophic	<ul style="list-style-type: none"> • Multiple deaths • Property destroyed or damaged beyond repair • Complete shutdown of essential facilities/services for 3+ days.

Magnitude Ranking Table

Risk assessment methods included the use of FEMA’s HAZUS but, because of limitations associated with this data, Jerome County’s own current property valuation data was primarily used to generate loss estimates.

Risk assessment activities also included the mapping of hazard occurrences, at-risk structures including critical facilities, and repetitive flood loss structures, land use, and populations.

REPETITIVE LOSS

Repetitive Loss designations are used to eliminate or reduce the damage to property and the disruption of life caused by repeated damage, such as flooding, of the same properties. The criteria to determine repetitive loss includes the following:

- Four or more losses of more than \$1,000 each in a 5 year period; or
- Two losses within a 10-year period that, in the aggregate, equal or exceed the current value of the insured property.

QUANTIFY RISK

Once a hazard’s risk has been evaluated, a picture of the over-all risk severity associated with that hazard emerges. The hazards with the highest total scores were considered the hazards of greatest concern for the County. The table below demonstrates the ranking of the eight natural hazards, with the priority hazards scoring highest and appearing in the light red rows, medium hazards appearing in light yellow, and the hazards ranking lowest appearing in green.

Natural Hazards Qualitative Risk Assessment EXAMPLE

	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Flood	3	4	3	3	3	16	H
Earthquake	3	3	3	3	3	15	H
Severe Storm	3	4	2	2	3	14	H
Wildland Fire	3	4	2	2	2	13	H
Volcano	1	1	2	2	2	8	M
Landslide	3	3	2	1	2	11	M
Avalanche	3	4	1	1	1	10	M
Drought	1	2	1	1	2	7	L

Risk Ranking Table

Once the numerical ranking was completed, in an effort to remain consistent with the local jurisdictions, as most utilize a High/Medium/Low ranking system, the total score was then converted to a High/Medium/Low method of priority ranking.

The breakdown of ranking is as follows:

- ✓ Low - Generating a total score of <=7
- ✓ Medium - Generating a score of 8-12
- ✓ High - Generating a score >13

RANK SEVERITY

To assist in prioritizing mitigation activities, the severities of all hazards considered in the Plan are ranked relative to one another using the above plotting scheme. Prioritization is also based on goals and objectives developed and approved by the Jerome County Board of County Commissioners.

DEVELOP MITIGATION STRATEGY

As required by FEMA, this planning effort is centered on community supported hazard reduction goals to be implemented and evaluated based on measurable objectives. Mitigation projects are to be assessed against the established goals and objectives to ensure that the selected projects reduce risk as desired.

CAPABILITIES REVIEW

The ability of the participating jurisdictions to implement mitigation strategies is critical to the success of the Mitigation Program. The following table provides an assessment of each participating jurisdictions' capabilities in relationship to the mitigation strategy. Additionally, each jurisdiction has planning processes which are in place to direct land use planning. Those documents were also reviewed and recommendations provided, which will lead to a synergistic approach to mitigation in the communities.

Agency Name (Mission/Function)	Programs, Plans, Policies, Regulations, Funding, ,or Practices	Effect of Loss Reduction*			Comments
		Support	Facilitate	Hinder	

*Definitions

- Support: Programs, plans, policies, regulations, funding, or practices that help the implementation of mitigation actions
- Facilitate: Programs, plans, policies etc. that make implementation actions easier
- Hinder: Programs, plans, policies, etc., that pose obstacles to implementation of mitigation actions

The Jerome County Comprehensive Plan and Land Use Ordinances were reviewed against the list of ranked hazards to determine if there were any restrictions or enabling powers that affect possible hazard mitigation alternatives. Additionally, the community planning tools were reviewed in an effort to identify consistency between planning activities.

DEVELOP MITIGATION ACTIONS

Potential projects to address identified risk have been developed and listed in this Plan. The project descriptions address approximate costs, possible returns on investments, and environmental and socioeconomic benefits.

REVISE PLAN

This Plan meets, and in some instances exceeds, the requirements set forth by FEMA in the FEMA PDM Criteria Crosswalk. Plan drafts were presented in hard and electronic copy and provided to the Committee for review. This Plan includes information on Plan adoption, including a promulgation page for the County, and an agreement to participate page for each incorporated city.

PLAN REVIEW

Plan review occurred at two distinctly different times. The initial Plan review was conducted by the Update Committee during development. Once the Plan was completed, it was submitted along with the completed FEMA PDM Criteria Cross Walk to the Idaho Bureau of Homeland Security's Hazard Mitigation Officer, and then to FEMA Region 10's Hazard Mitigation Officer for review. The Jerome County Board of County Commissioners also reviewed the Plan in a parallel time frame.

PUBLIC AND STAKEHOLDER INVOLVEMENT

PUBLIC PARTICIPATION

Public involvement in the All Hazard Mitigation Process has three distinct objectives: documenting risk perception, development of risk reduction requirements, and solicitation of support for mitigation actions.

PUBLIC MEETINGS

Elected and Appointed Official Electronic Briefings

Briefings to each of the participating jurisdiction elected and appointed officials were made via electronic media. A video was developed for each jurisdiction which was distributed to the jurisdiction via the LEPC point of contact. Each of the jurisdictions viewed the videos. A list of viewers along with the presentation for each jurisdiction is provided in Attachment 1.

The following electronic notice was sent to all participating jurisdictions.

Presentation Slides from the videos are located in Attachment 1 along with the sign in sheets. The following individuals viewed the videos.

Dear City Clerk,

I have attached a short video link which provides a risk briefing for the City of _____ that has been developed as part of the Jerome County Multi-Jurisdiction All Hazard Mitigation Plan 5 year update. Please forward to and have the elected and appointed officials for the City view the video and sign the sheet attached verifying that they have watched it. Where folks are not present to sign the sheet please fill in the information for them in their absence. We are doing this review electronically so that we don't take valuable time in your Council Meetings.

This is the link to the City's Risk Briefing Video: _____
If you could have the video viewed by March 30th that would be perfect; please provide any comments which you may have to any additional projects that we can add. Please return the viewing log to rick.whispermountain@gmail.com

Thank You for your help.
Best Regards,

STAKEHOLDER PARTICIPATION

The following stakeholders participated in this revision:

- Idaho Bureau of Homeland Security
- American Red Cross
- Salvation Army
- Southcentral Public Health District
- Intermountain Gas
- Intermountain Communications
- Northside Canal Company

NEIGHBORING JURISDICTION PARTICIPATION

The letter on the following page was sent to the neighboring jurisdiction Emergency Services Coordinators. Information regarding the update was communicated during regular regional meetings facilitated by the Idaho Bureau of Homeland Security.



*Jerome County Disaster Services
Office of Emergency Management*



November 17, 2014

Cassia County Emergency Services
Sheriff Jay Heward

Gooding County Disaster Services
Ms. Lori Capps

Lincoln County Emergency Services
Ms. Stacy McLaughlin

Minidoka County Emergency Services
Ms. Kim Vega

Twin Falls County Department of Emergency Services
Ms. Jackie Frey

Subject: Update to the Jerome County Multi-Jurisdiction All Hazard Mitigation Plan

Ladies and Gentlemen,

Please be advised that we are updating the Jerome County Multi-Jurisdiction All Hazard Mitigation Plan. If you would like to participate in the update or view a copy of the Plan please notify me.

Best Regards,

A handwritten signature in cursive script that reads "Clint Blackwood".

Mr. Clint Blackwood
Coordinator
Jerome County Emergency Services

cc: Gary Davis, BHS Area Field Officer

Clint Blackwood, Coordinator

300 N. Lincoln, Room 303 • Jerome, Idaho 83338 • Phone: 208-324-9261 • Fax: 208-324-9263 • E-mail: cblackwood@co.jerome.id.us

PARTICIPATING PUBLIC SAFETY AGENCIES

Fire Protection

Jerome County has four Fire Districts: First Segregation Fire District, Jerome Rural Fire District, the West End Fire Protection District from Paul, and the Jerome City Fire District.

- First Segregation Fire District provides structural and wildland fire protection for the areas of Eden and Hazelton. The district covers 165 square miles.
- Jerome Rural Fire District provides structural and wildland fire protection throughout the majority of the western portion of Jerome County.
- Jerome City Fire District covers the Jerome City limits and is protected by the Jerome City Fire Department. The district is surrounded by the Jerome Rural Fire District and the two departments work together to provide protection for County and city residents.

Public Safety

The Jerome County Sheriff's Office is responsible for law enforcement in Jerome County. The department has 65 sworn officers, 2 detectives, and 7 administrative personnel. The current jail capacity is 35¹. The City of Jerome Police Department provides law enforcement for the City of Jerome and employs approximately 21 full time officers.

The Southern Idaho Regional Communications Center (SIRCOMM) serves as the dispatching center for all emergency 911 calls made in Jerome County as well as Gooding, Twin Falls, and Lincoln Counties. SIRCOMM is located in the City of Jerome.

The Center dispatches calls for the following agencies in Jerome County: Jerome County Sheriff's Office, Jerome City Police Department, Jerome City Fire Department, Jerome Rural Fire District, First Segregation Fire District, and Jerome County Ambulance.

SIRCOMM is also responsible for contacting Office of Emergency Management and Public Works department for emergencies and services.

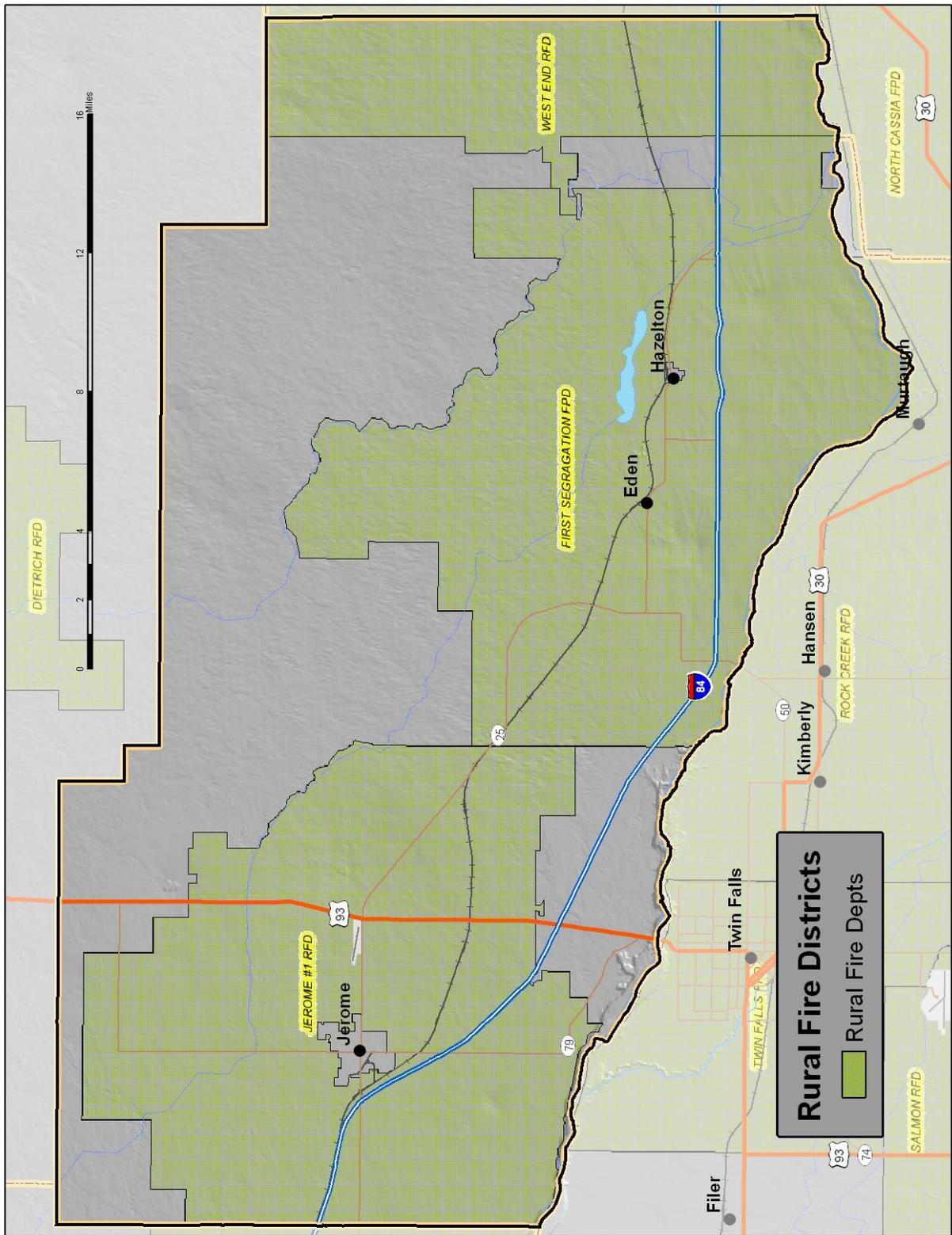
Health Care

Jerome County is served by St. Luke's Jerome Medical Center. The facility is licensed for 40 beds including intensive care, birthing, surgery, and kidney dialysis units. Outpatient and general family health care services are offered at the facility as well as two other hospital-owned facilities in Jerome².

Emergency Medical Services for the County are provided by the Magic Valley Paramedics. The department consists of 24 certified emergency medical technicians. Three ambulances are available to provide stabilization and transport services to St. Luke's Jerome Medical Center in Jerome, or St. Luke's Magic Valley Medical Center in Twin Falls.

¹ Jerome County Comprehensive Plan

² Jerome County Comprehensive Plan



Emergency Services

The Jerome County Office of Emergency Management is staffed with a Coordinator and a part time administrative assistant. The Office of Emergency Management is responsible for all Emergency Planning in the County, and for coordination with neighboring counties and non-county public safety agencies.

PLAN MAINTENANCE

The Jerome County AHMP maintenance process includes a schedule for annually monitoring and evaluating the programmatic outcomes called for in the Plan, and for producing a Plan revision every five years.

FORMAL REVIEW PROCESS

The Plan will be reviewed on an annual basis by the Coordinator, 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 Office of 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 insure that they address 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 to insure the update of the Plan. The Coordinator will also notify all holders of the Jerome County AHMP and affected stakeholders when changes have been made. Every five years the updated plan will be submitted to the State of Idaho Bureau of Homeland Security's Mitigation Program and the Federal Emergency Management Agency for review.

CONTINUED PUBLIC INVOLVEMENT

The Office of Emergency Management Coordinator is dedicated to the concept of public involvement in the planning process, including the review and updating of the Plan both annually and on a 5 year cycle. Copies of the Plan will be made available to the public by appropriate County and City departments' outside agencies. The public will be provided with the opportunity to provide input into Plan revisions and updates at least every five years. To this end, joint county/city public meetings will be held when deemed necessary by the Coordinator, providing a forum where the public can express concerns, opinions, or new alternatives. These meetings, conducted under Idaho open meeting law, will be documented and considered by the Committee when updating the Plan. The Board of County Commissioners and City Council will be responsible for using County/City resources to publicize public meetings and to maintain public involvement.

SECTION 2 RISK ASSESSMENT

Hazards that pose a threat to human life, health, and well-being are myriad, and no attempt is made here to compile an exhaustive list. Those that are addressed in disaster planning are generally categorized as “natural” or “technological” (sometimes “manmade”). The FEMA website³ contains a thorough discussion of hazards in the section entitled “FEMA's Multi-Hazard Identification and Risk Assessment (MHIRA)”⁴. Some hazards are a threat to all geographic areas while others (e.g. Tsunami in coastal regions) are more limited in their extent. Studies were conducted to determine which hazards are of concern in Jerome County. Hazards that have been identified as significant in this County and that will be considered in this plan are:

Natural Hazards

Weather: Drought
Extreme Weather
Extreme Heat
Lightning
Hail
Tornado
Straight Line Wind
Extreme Winter Weather
Extreme Cold
Severe Winter Storm

Flooding: Flash Flooding
River Flooding
Dam Failure

Geologic: Earthquake

Other: Wildfire
Burrowing Rodents
Vector Borne Disease
Livestock Disease
Communicable Disease

Technological (Manmade) Hazards

Structural Fire
Hazardous Material Event
Civil Disorder
Terrorism

³ <http://www.fema.gov/index.shtm>

⁴ http://www.fema.gov/plan/prevent/fhm/ft_mhira.shtm

WEATHER HAZARDS

The impact of weather hazards may be widespread (drought) or more localized (lightning), but all have the potential to be severe and directly life-threatening. Historical weather data is generally available in good detail over long time periods, allowing for reasonably accurate risk assessment for planning purposes.

DROUGHT

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 NOAA National Climactic Data Center, parts of the State of Idaho experienced moderate to extreme drought conditions from the years 2010 through 2014 (see annual maps). Drought Emergency Declarations were issued for various counties by the Idaho Department of Water Resources in the years 2010-2014. Idaho’s only Federal Drought Emergency Declaration was issued in 1977. Blaine County declared Drought Emergencies in 2010, 2012, 2013, and 2014.

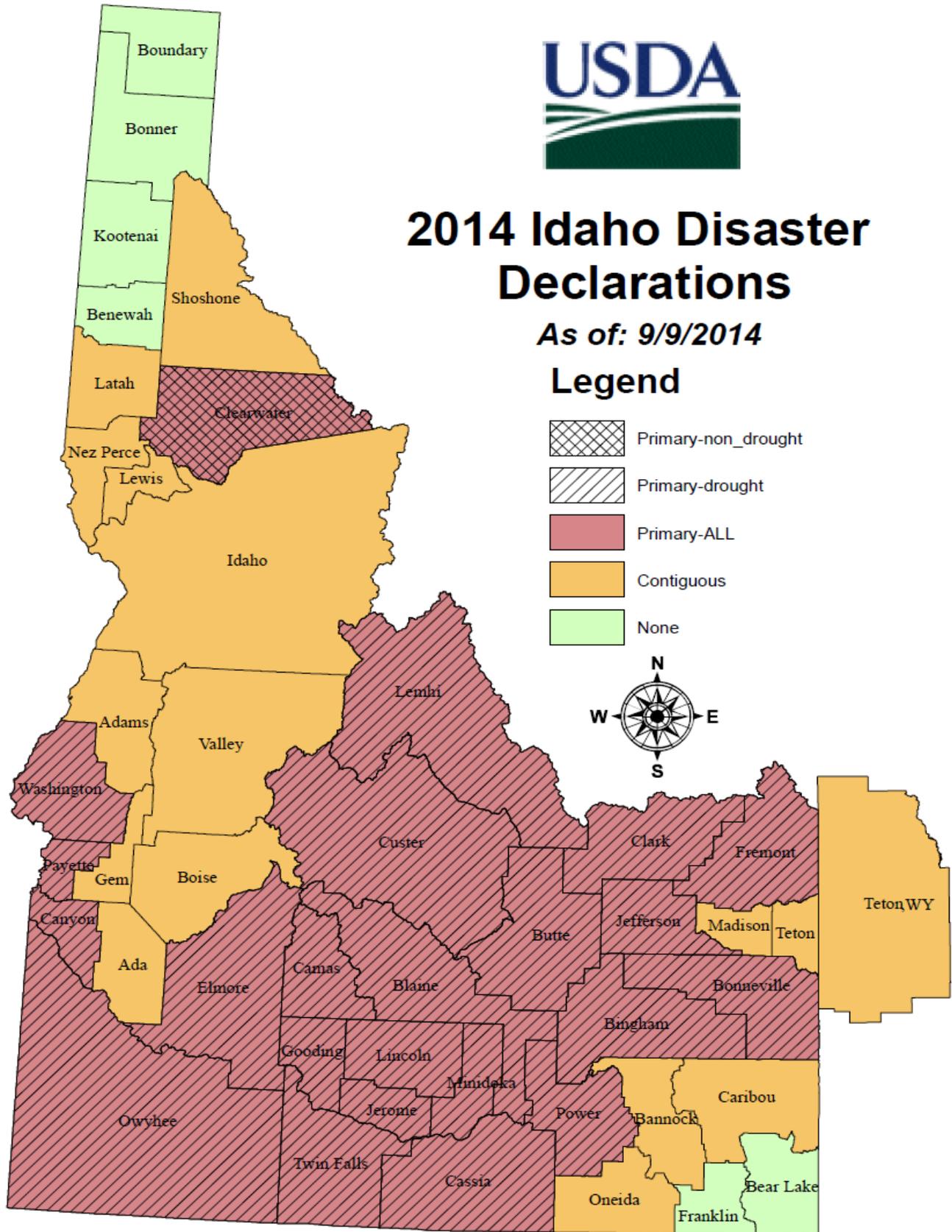
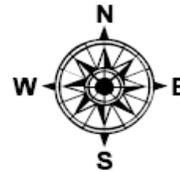


2014 Idaho Disaster Declarations

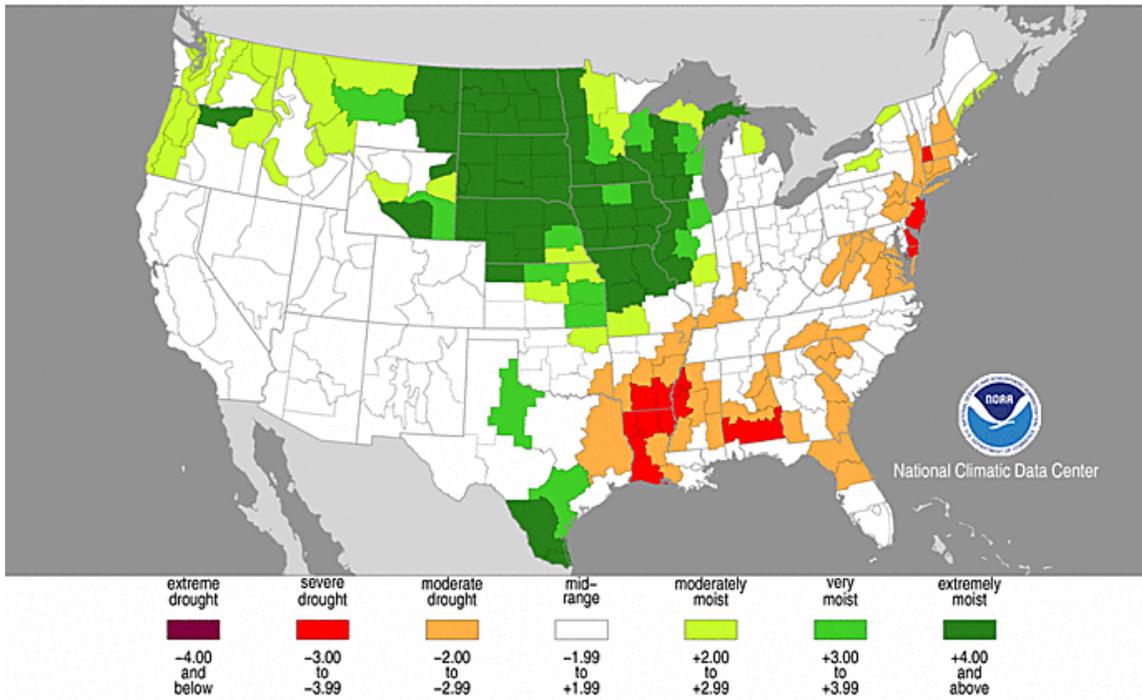
As of: 9/9/2014

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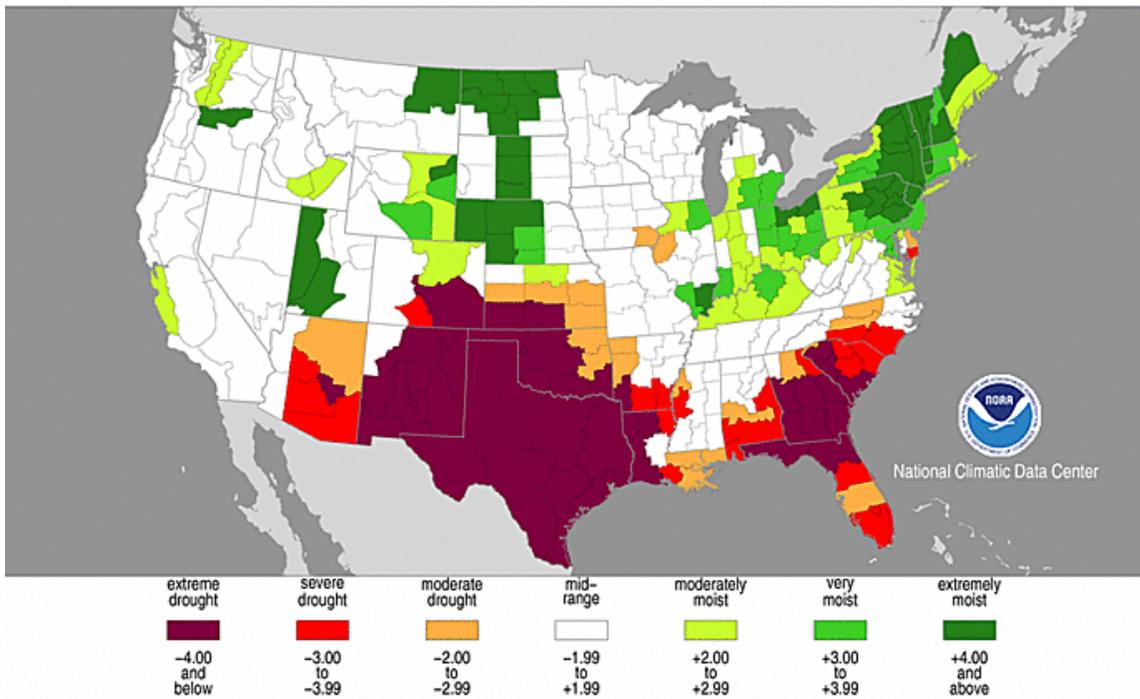
-  Primary-non_drought
-  Primary-drought
-  Primary-ALL
-  Contiguous
-  None



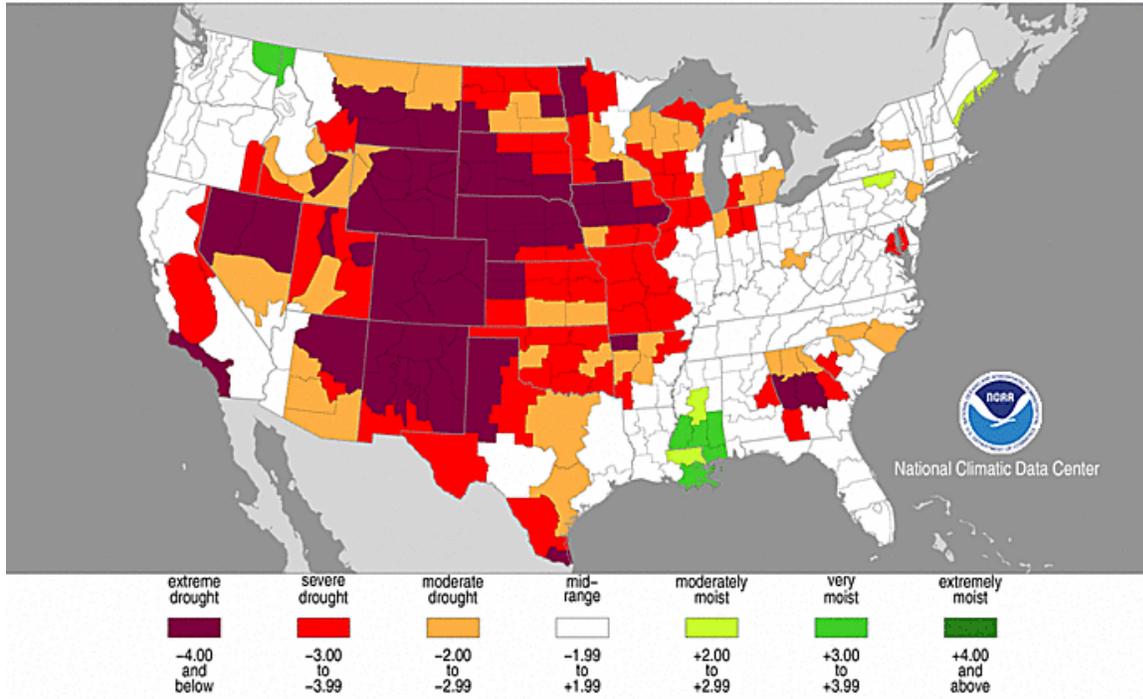
Palmer Drought Severity Index
September, 2010



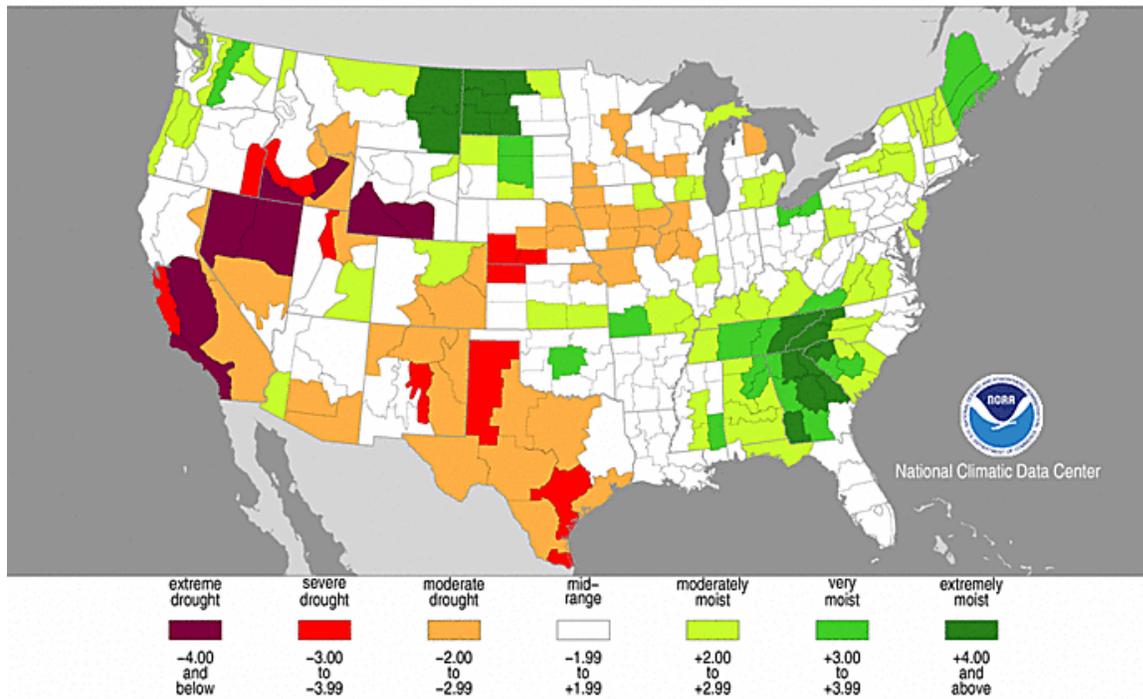
Palmer Drought Severity Index
September, 2011



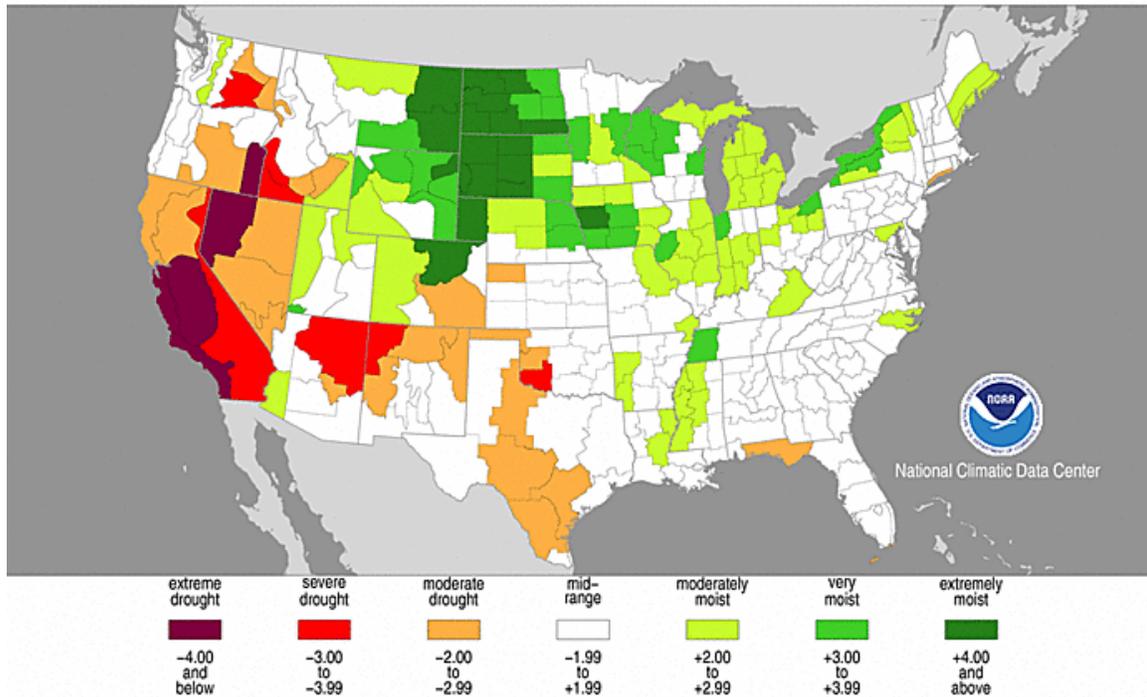
Palmer Drought Severity Index
September, 2012



Palmer Drought Severity Index
September, 2013



Palmer Drought Severity Index
September, 2014



Historical Frequencies

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 Jerome County⁵.

According to the Idaho Department of Water Resources (IDWR) the following Drought Emergency Declarations were issued for Jerome County since 2002:

- July 27, 2004
- June 3, 2005

There have been no Drought Emergency Declarations in Jerome County since 2005.

⁵ Idaho State Hazard Mitigation Plan 2004 <http://www.bhs.idaho.gov/bhslibrary/SHMP2004.pdf>

Impacts

Drought is agriculture's most expensive, frequent, and widespread form of natural disaster. The current drought in the interior West is part of a multi-year drought that began in 1999, worsened in 2000, and has continued, with some interruptions thus far into 2004. As a result, the drought in the West was slow to develop, and likewise, will be slow to recede.

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.

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. Reduced water supply impairs the navigability of rivers, and results in increased transportation costs because products must be transported by rail or truck. Hydropower production may also be curtailed significantly.

Hazard Evaluation

Drought risk is based on a combination of the frequency, severity, and spatial extent of drought (the physical nature of drought), and the degree to which a population or activity is vulnerable to the effects of drought. The degree of a region's vulnerability depends on the environmental and

social characteristics of the region and is measured by their ability to anticipate, cope with, resist, and recover from drought.

Society's vulnerability to drought is determined by a wide range of factors, both physical and social, such as demographic trends and geographic characteristics.

Repetitive Loss

Jerome County experiences repetitive loss due to drought. Losses are related primarily to the crop production loss and the associated economics. Other losses are linked to a loss of grazing capacity on public lands.

Drought		
Profile Category	Rating	Description
Historical Occurrence	2	Medium
Probability	3	Medium
Vulnerability	3	Critical
Spatial Extent	4	Catastrophic
Magnitude	2	Limited
Total	14	Medium

SEVERE WEATHER

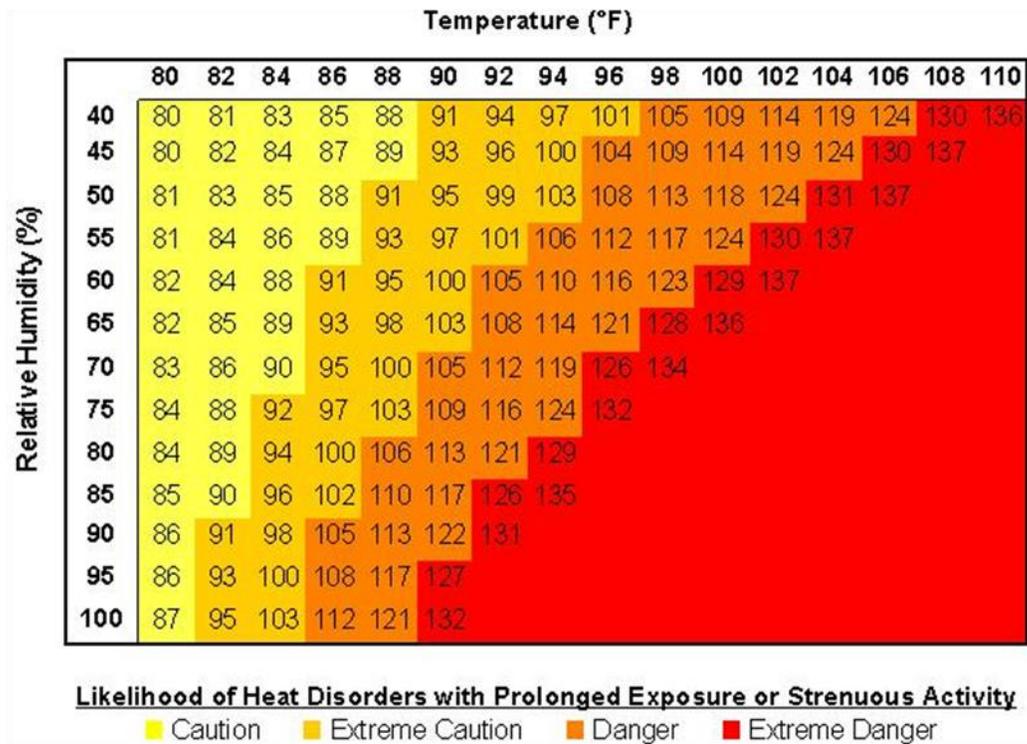
Severe Weather includes those hazards that are typically found during the spring, summer, and early fall season of the year in Jerome County. Included in this category are extreme heat, lightning, hail, straight line wind, and tornado. Each hazard is examined independently; however, it is recognized that these hazards typically occur together.

EXTREME HEAT

Description

The term “extreme heat,” sometimes called “heat wave,” is to some extent a relative one describing a period when weather conditions include temperatures and humidity significantly higher than those usual for a particular geographic area. The National Weather Service (NWS) issues alerts to the public based on its Heat Index which takes both temperature and humidity into account. The NWS will initiate alert procedures when the High is expected to exceed 105°-110°F (depending on local climate) for at least two consecutive days. The effects of extreme heat are often exacerbated in large urban areas due to the heat island effect, and because stagnant atmospheric conditions may trap pollutants. Extreme heat conditions are not common to Idaho where, in general, humidity is low and weather patterns are variable.

NOAA's National Weather Service Heat Index

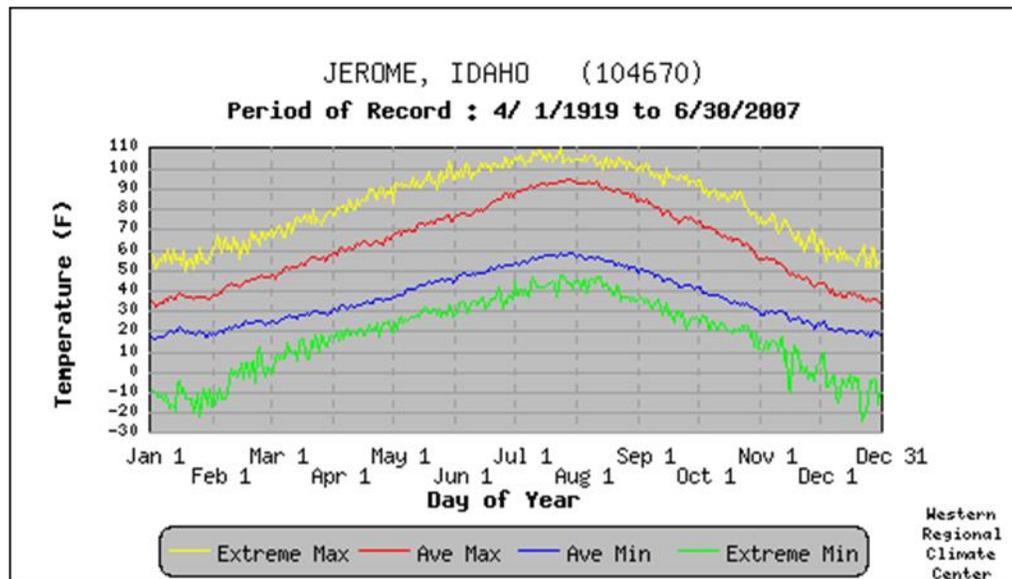


National Weather Service Heat Index Chart
 Source: <http://www.nws.noaa.gov/om/heat/index.shtml>)

Historical Frequencies

Extreme Heat	
Date	Temperature in Degrees Fahrenheit
7/12/2002	105
7/2/2013	106
7/15/2014	105

Jerome County Extreme Heat Events
 Source: NCDC



Jerome County Daily Temperature Averages and Extremes
 Source: <http://www.wrcc.dri.edu/summary/Climsmsid.html>

Impacts

The primary impact of extreme heat is on human health causing such disorders as sunstroke, heat exhaustion, and heat cramps. Particularly susceptible are the elderly, small children, and persons with chronic illnesses. There are also undoubtedly indirect and chronic health effects from extreme heat, the magnitude of which are difficult or impossible to estimate. Environmental effects can include loss of wildlife and vegetation and increased probability of wildfires.

Loss Estimates

Extreme heat places high demands on electrical power supplies that can lead to blackouts or brownouts. Economic impacts result from such factors as increased energy prices, loss of business as people avoid leaving their homes to avoid the heat, and agricultural losses. The magnitude of these and other, more indirect impacts is, again, difficult to assess, but for severe heat waves have been estimated to be in the billions to hundreds of billions of dollars.

Hazard Evaluation

The magnitude of the effects of extreme heat is centered on the individual citizen. Shelters might be opened for the elderly and/or homeless who do not have a means of relief from the heat. Heat related illnesses could cause death if shelter and hydration are not provided. Because the higher elevations are typically five to ten degrees cooler than the valley, extreme heat would most likely affect only that portion of the County at the lower elevations. Economic loss would primarily be related to the cost of energy consumption and to agricultural impacts. Extreme heat would exacerbate drought conditions and make response to wildfire more hazardous.

Extreme Heat		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	1	Negligible
Spatial Extent	4	Catastrophic
Magnitude	2	Limited
Total	14	Medium

LIGHTNING

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.

Historical Frequencies

Date	Event
8/14/1960	Lightning
8/22/1960	Lightning
9/4/1960	Lightning - Wind
5/19/1962	Hail - Lightning - Wind
8/3/1963	Hail - Lightning - Severe Storm/Thunder Storm - Wind
9/9/1963	Lightning
7/26/1965	Lightning - Wind
8/27/1970	Lightning
8/9/1972	Lightning - Wind
6/23/1973	Lightning - Wind
8/25/1973	Lightning - Wind
8/7/1974	Hail - Lightning - Severe Storm/Thunder Storm - Wind

Date	Event
6/2/1975	Hail - Lightning - Severe Storm/Thunder Storm - Wind
6/2/1975	Hail - Lightning - Severe Storm/Thunder Storm - Wind
6/23/1975	Hail - Lightning - Severe Storm/Thunder Storm - Wind
6/24/1975	Lightning - Wind
7/14/1975	Hail - Lightning - Severe Storm/Thunder Storm - Wind
7/29/1975	Lightning - Severe Storm/Thunder Storm - Wind
7/15/1989	Lightning
8/8/1990	Lightning
8/23/1991	Lightning
8/15/1992	Lightning
6/7/1996	Lightning

Lighting Events

Location	No. of Years	No. of Events	Return Interval
Jerome	36	23	1.6 Years

Impacts

Lightning is the second most deadly 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, 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.

Hazard Evaluation

Lightning strikes occur with some regularity in Jerome County and have the potential to cause damage and fatalities.

Lightning		
Profile Category	Rating	Description
Historical Occurrence	2	Medium
Probability	4	High
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	3	Critical
Total	11	Low

HAIL

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. In the ten year period from 1986 to 1995 the national weather service recorded severe hail in Idaho on 113 occasions, while in the same time period severe hail was recorded in Colorado nearly 1,400 times.⁶

Historical Frequencies

Location	No. of Years	No. of Events	Return Interval
Jerome	50	9	5.6 Years

Jerome County Hail Event Frequency

Impacts

Deaths and injuries due to hail have occurred but are rare.

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.

Hazard Evaluation

Hail		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	2	Limited
Spatial Extent	1	Negligible
Magnitude	2	Limited
Total	12	Low

⁶ <http://www.ems.psu.edu/~nese/ch9web.htm>

TORNADO

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.

F scale	Class	Wind speed		Description
		mph	km/h	
F0	weak	65-85	105-137	Gale
F1	weak	86-110	138-177	Moderate
F2	strong	111-135	178-217	Significant
F3	strong	136-165	218-266	Severe
F4	violent	166-200	267-322	Devastating
F5	violent	> 200	> 322	Incredible

Enhanced Fujita (EF) Scale for Estimation of Tornado Wind Speeds
<http://www.srh.noaa.gov/srh/jetstream/mesoscale/tornado.htm>

Idaho has relatively few tornadoes, averaging three reported per year between 1988 and 2014. Tornadoes of F2 strength or greater are extremely rare in Idaho.

Historical Frequencies

Location	No. of Years	No. of Events	Return Interval
Jerome	25	5	5 Years

Jerome County Tornado Event Frequency

Funnel Clouds are associated with a rotating column of air extending from the base of a cloud. If a funnel cloud touches the ground it becomes a tornado. For this reason funnel cloud events were included in the frequency table.

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.

Loss Estimates

Losses from tornadoes in Jerome County have not included any deaths or injuries. Property damage from three tornadoes between the years 1988 and 1993 ranged from \$.5 thousand dollars to \$2.5 thousand dollars. The largest loss from property damage due to a tornado occurred in

June 1990 when an F2 tornado rendered \$25,000 of damage. The total reported loss was \$31,000.

Hazard Evaluation

Tornado		
Profile Category	Rating	Description
Historical Occurrence	2	Medium
Probability	4	High
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	4	Catastrophic
Total	12	Low

STRAIGHT LINE WINDS

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 1 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.

Historical Frequencies

The following frequencies were taken from the NWS cooperative weather station records at the Jerome Airport, 1998 – 2014.

Maximum Five Second Wind Speed	
Date	Knots
2/17/1999	54
4/9/1999	51
8/30/1999	61
2/14/2000	74
1/30/2004	67
6/13/2006	51
1/4/2008	56
5/20/2008	55
3/29/2009	59
8/6/2009	53
9/30/2009	56
10/26/2009	64
11/16/2010	54
3/10/2011	63

Maximum Five Second Wind Speed	
Date	Knots
2/25/2012	52
6/4/2012	53
2/23/2013	55
3/17/2014	58

The following table summarizes the frequency and return interval for extreme wind events:

Category	No. of Years	No. of Events	Return Interval
Straight Line Wind	15	18	0.8 Years

Straight Line Wind

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 is generally deposited in nearly parallel rows. Downbursts are particularly hazardous to aircraft in flight.

Loss Estimates

Since 1999 there have been no reported in losses due to straight line wind damage in Jerome County. Though losses aren't reported, it is known that they occur because of the frequency and magnitude of high wind events.

Hazard Evaluation

Straight Line Wind		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	3	Critical
Spatial Extent	3	Critical
Magnitude	3	Critical
Total	16	High

Severe Weather Hazard Evaluation

Repetitive Loss:

Severe Weather occurs frequently in Jerome County and it is assumed that there are repetitive losses, especially caused by Straight Line Wind damage; however, this type of loss is not reported to a single point and thus is hard to track and quantify.

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Extreme Heat	3	4	1	4	2	14	M
Lightning	2	4	1	1	3	11	L
Hail	3	4	2	1	2	12	L
Tornado	2	4	1	1	4	12	L
Straight Line Wind	3	4	3	3	3	16	H
Composite Ranking							
Severe Weather	3	4	2	2	3	14	M

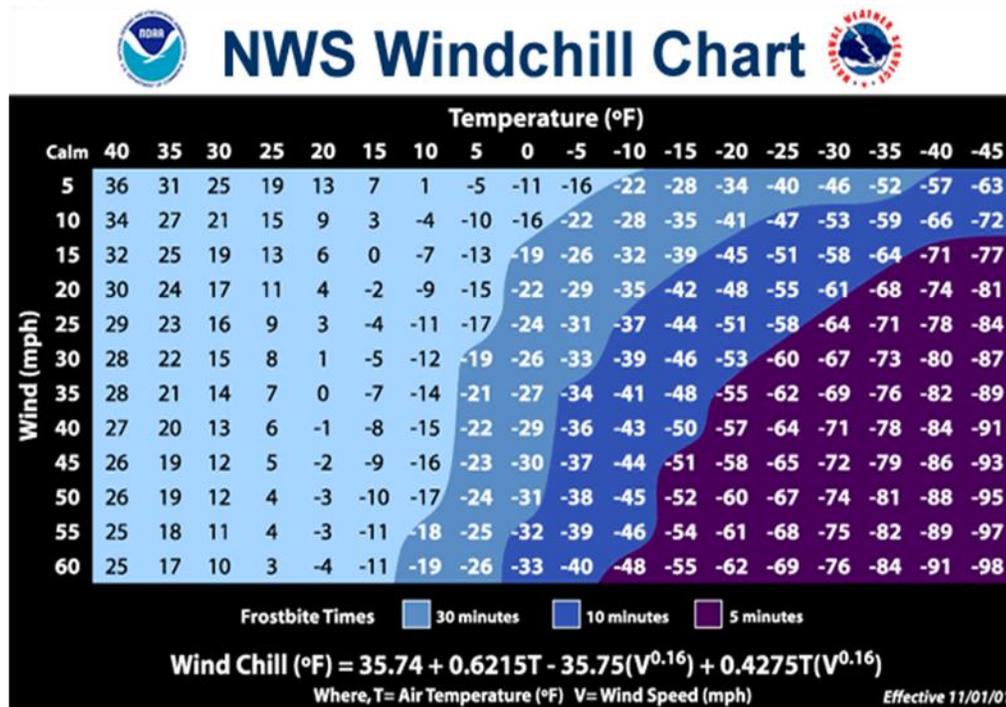
SEVERE WINTER STORMS

The Severe Winter Storms category includes extreme cold and winter storms. It should be noted that Straight Line Wind is also associated with Severe Winter Storms, commonly referred to as Blizzard Conditions where snow is driven by wind causing drifting.

EXTREME COLD

Description

“Extreme cold” is another of the terms describing hazards 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 NWS has developed a formula for calculating “wind chill” based on temperature and wind speed (see Figure below) and in this region issues wind chill advisories when the wind chill temperature is 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.



National Weather Service Windchill Chart
<http://www.weather.gov/om/windchill/index.shtml>

Historical Frequencies

The following historic frequencies were taken from NWS records at the Jerome Airport from 2010 - 2014. During this 5 year period there were 57 days where the reported low temperature was 10 degrees or lower. Cold day clusters are particularly damaging. The longest cold day cluster was 11 days, from January 13-January 23, 2011. The following table shows the calculated frequency of extreme cold events in Jerome County.

Location	No. of Years	No. of Events	Return Interval
Jerome Airport	5	57	0.1 years

Jerome County Extreme Cold Event Frequency
Source: NCDC

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 the United States, nearly 700 deaths are directly attributed to hypothermia annually.

Loss Estimates

Extreme cold may cause loss of wildlife and vegetation, and 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.

Hazard Evaluation

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.

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, summer, and fall 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 Jerome County usually are a day or two, based on forecasts made by the National Weather Service in Boise.

Repetitive Loss

Jerome County does experience repetitive loss related to extreme cold events. The losses are primarily associated with freezing and breaking municipal water lines.

Extreme Cold		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	2	Limited
Spatial Extent	4	Catastrophic
Magnitude	2	Limited
Total	15	High

WINTER STORM

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.

Historical Frequencies

The following table lists heavy snow events (6 inches or more in a 24 hour period) for the Jerome cooperative weather station from 1947 – 1993; however, in the period between January 2010 and November 2014 there have been no 24 hour snow accumulation events greater than 3 inches in Jerome County.

Location	No. of Years	No. of Events	Return Interval
Jerome	46	9	5.1 Years

Jerome County Heavy Snow Events
Source: NCDC

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. Many or all emergency services may 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. Fatalities in Idaho due to winter storms are somewhat unusual, with ten being reported during the ten year period from 1995 through 2004.

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 and vegetation, and many others.

Hazard Evaluation

Winter Storms		
Profile Category	Rating	Description
Historical Occurrence	2	Medium
Probability	3	Medium
Vulnerability	2	Limited
Spatial Extent	4	Catastrophic
Magnitude	1	Limited
Total	12	Medium

Severe Winter Storm Hazard Evaluation

Repetitive Loss:

Severe Winter Storms occur almost annually in Jerome County and it is assumed that there are repetitive losses, especially caused by Straight Line Wind damage; however, this type of loss is not reported to a single point and thus is hard to track and quantify.

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Extreme Cold	3	4	2	4	2	15	H
Winter Storm	2	3	2	4	1	12	M
Composite Ranking							
Severe Winter Storms	3	4	2	4	1	14	M

FLOODING

Flooding is defined by the 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, 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, 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. In the twenty-five years from 1976 to 2000 there were five Federal and twenty-eight State disaster declarations due to flooding. 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 is a dynamic natural process. Along rivers, streams, and coastal bluffs a cycle of erosion and deposition is continuously rearranging and rejuvenating the aquatic and terrestrial systems. Although many plants, animals, and insects have evolved to accommodate and take advantage of these ever-changing environments, property and infrastructure damage often occur when people develop coastal areas and floodplains, and natural processes are altered or ignored.

Flooding can also threaten life, safety, 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”.

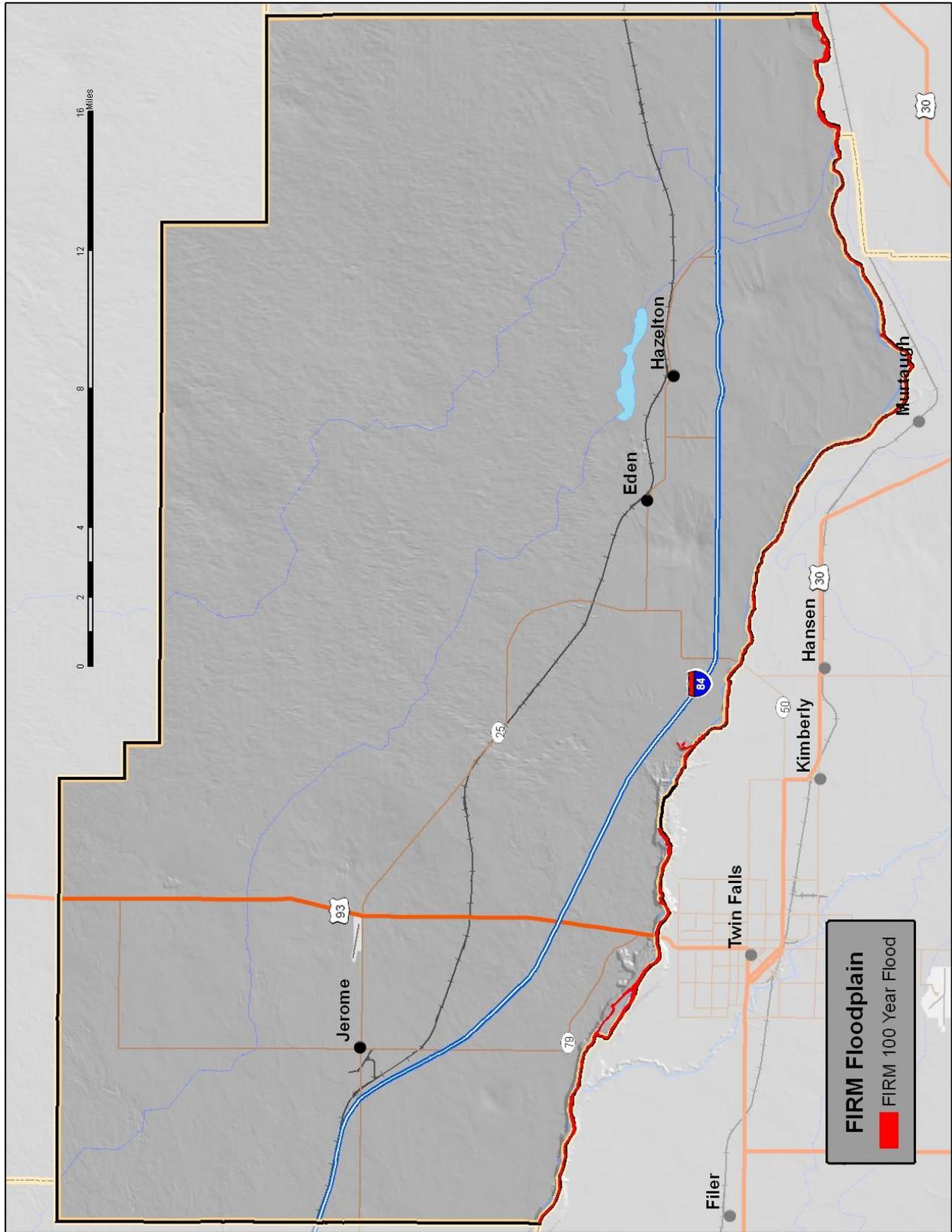
Floodplain: A floodplain is land adjacent to a lake, river, stream, estuary, or other water body that is subject to flooding. If left undisturbed, the floodplain serves to store and discharge excess floodwater. In riverine systems, the floodplain includes the floodway.

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
- fluctuating lake levels
- alluvial fan flooding



RIVER OR STREAM FLOODING

Description

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.

Historical Frequencies

Jerome County is participating in the NFIP. There are no stream gauges in Jerome County that are monitored by the NWS; therefore, flood stage has not been calculated for the streams and rivers in the County. There has been no reported stream flooding in Jerome County. A 100 year flood plain has been established by FEMA along the Snake River, this is an area which has an annual 1% chance of flooding.

Place	Date	Event	Magnitude/details
Jerome	1/17/2011	Flood	<p>Heavy rain combined with snow melt that caused canals to overflow and lowland areas to flood.</p> <p>The North Side Canal overflowed around the intersection of Tiger Drive and 16th Avenue East on Monday the 17th. City workers cleared mud and debris from streets and some homes and basements were flooded.</p>

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, and railways. They often deprive large areas of electrical service, potable water supplies, wastewater treatment, communications, and many other community services, including medical care, and may do so for long periods of time.

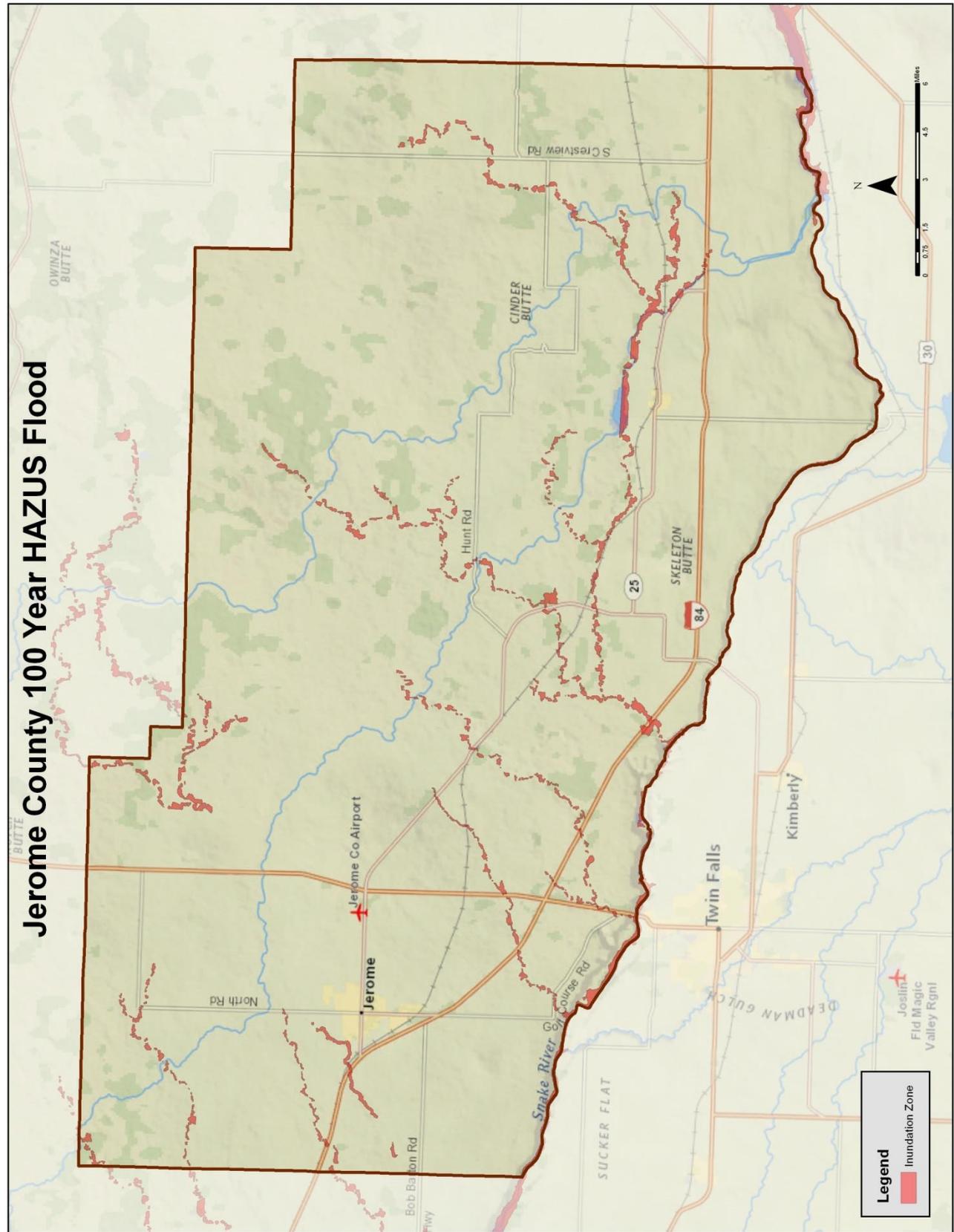
Loss Estimates

The only mapped NFIP floodplain in Jerome County is along the Snake River Canyon which forms the boundary between Jerome and Twin Falls County. Using FEMA’s HAZUS a floodplain has been mapped for intermitted stream flows.

Losses have also been calculated using a GIS overlay of the HAZUS generated floodplain and the County tax parcels. The following table shows the results of this analysis:

Number of Parcels	Total Parcel Value	Total Improvements Value	Most Expensive Parcel
1,086	\$115,468,463	\$67,979,792	\$4,790,470

River Flooding Loss Estimates



Repetitive Loss—There has been no repetitive loss reported in the NFIP Floodplain.

Flood		
Profile Category	Rating	Description
Historical Occurrence	2	Medium
Probability	4	High
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	3	Critical
Total	11	Low

FLASH FLOOD

Description

Flash flood is defined by the 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 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.

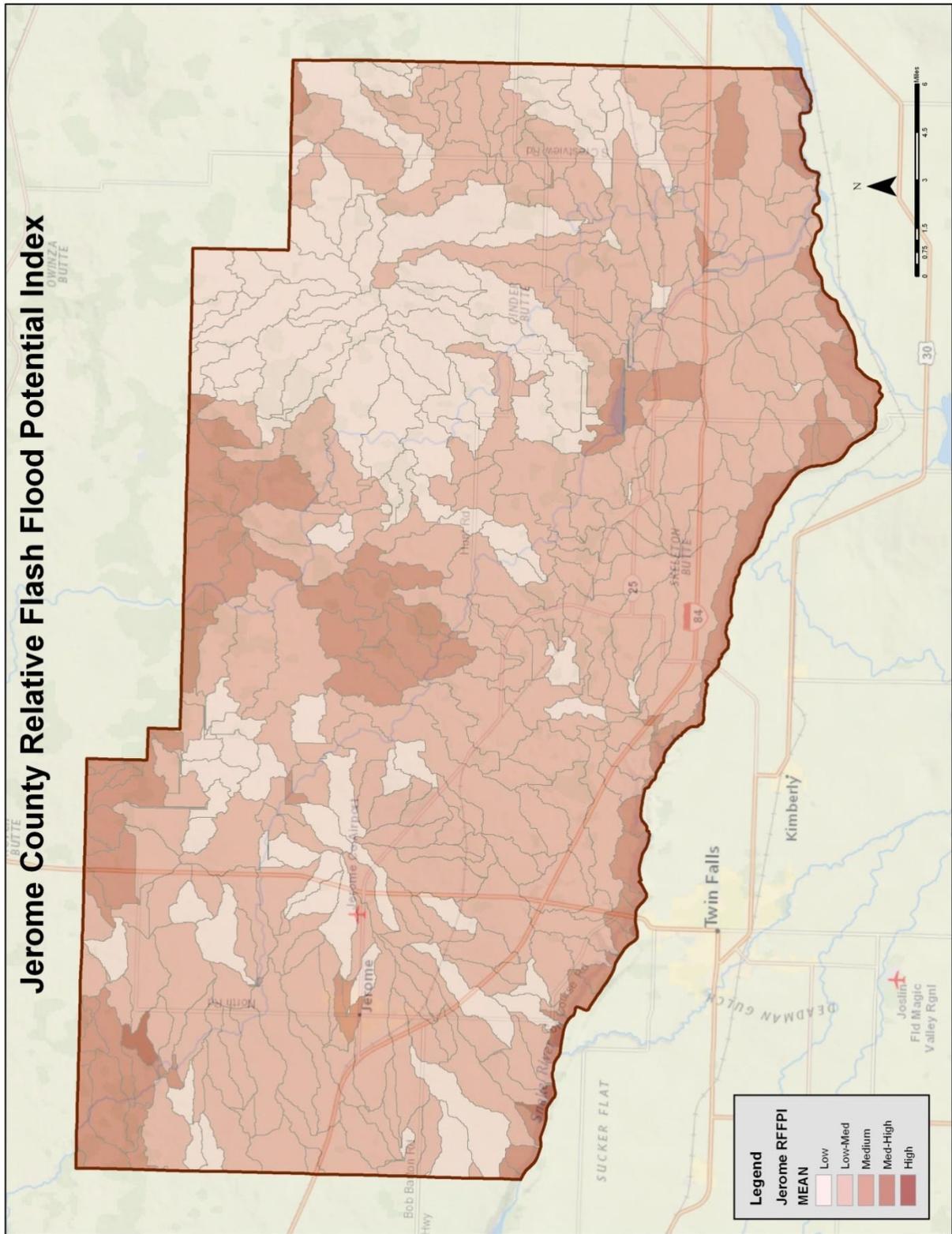
Historical Frequencies

The following table shows the frequency of days in which the NWS has recorded precipitation .75 inches or more (1947–2008):

Location	No. of Years	No. of Events	Return Interval
Jerome	51	50	1.1 Years

High Precipitation Event Frequency

The following map shows the relative flash flood potential by basin for Jerome County. This index was developed using the following variables: slope, land cover, vegetation density, and soil infiltration rates. It is a composite map that shows which basins have a higher flash flood potential relative to the other basins within the County.



Impacts

Because flash floods develop so rapidly, people on foot or in automobiles may be stranded, 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.

Loss Estimates

A GIS overlay operation was used to determine the number and value of homes that lie within basins with a medium-high to high flash flood potential. There are inaccuracies associated with this analysis, because census blocks were used instead of actual land parcels, but the results are accurate enough for the purposes of this plan. The following table represents the results of that analysis:

Number of Parcels	Total Parcel Value	Total Improvements Value	Most Expensive Parcel
4,438	\$419,174,471	\$271,461,712	\$4,259,500

Flash Flood Loss Estimates

Hazard Evaluation

Repetitive Loss – While flash flooding occurs frequently in Jerome County, there has been no repetitive loss reported.

Flash Flood		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	2	Limited
Spatial Extent	2	Limited
Magnitude	2	Limited
Total	13	Medium

DAM FAILURE

Description

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

- 1) Overtopping caused by floods that exceed the capacity of the dam
- 2) Deliberate acts of sabotage
- 3) Structural failure of materials used in dam construction
- 4) Poor design and/or construction methods
- 5) Movement and/or failure of the foundation supporting the dam
- 6) Settlement and cracking of concrete or embankment dams
- 7) Piping and internal erosion of soil in embankment dams
- 8) 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 this State. The program is described as follows (from the “Dam Safety Program,” IDWR web site⁷).

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). Idaho currently has 546 water storage dams and 21 mine tailings structures that are regulated by IDWR for safety. The Dam Safety Section inspects these dams or tailings structures every other year unless one has a particular problem. Copies of all inspection reports for each of the dams and tailings structures are available at the IDWR State Office in Boise. Inspection reports are also available at the four IDWR Regional Offices for dams and tailings structures located in their specific regions.

Dam Classifications

Each dam inspected by Idaho Water Resources 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.

⁷ http://www.idwr.state.id.us/water/stream_dam/dams/dams.htm

Risk Classification

This classification is used by IDWR to classify potential losses and damages anticipated in down-stream 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.

Name	Stream	Purpose	Risk Category	Size Category	Type	Storage Capacity (Acre Ft.)	Height (Ft.)
Wilson Lake	Snake River	I	2	1	RKMAS	4600	25
Shoshone Falls	Snake River	P	2	2	CNGRV	750	22
Twin Falls	Snake River	P	2	2	CNGRV	1000	26

Jerome County Dams

Historical Frequencies

There have been no significant, recorded dam failure events in Jerome County.

Impacts

Because most of the dams that are located in Jerome County are in the Snake River Canyon, there would very little impact due to a dam failure to the County.

Loss Estimates

There are no Risk Category I dams in Jerome County, although there are dams such as Milner, Minidoka, and American Falls on the Snake River upstream from the County. The inundation maps provided by the Bureau of Reclamation have been thoroughly reviewed, and there is no indication that any part of Jerome County is at risk to inundation from a catastrophic dam failure event, except residents and structures residing in the Snake River Canyon. In order to identify the risk of a dam failure flow entering the existing canal system, an engineering hydrologic and hydraulic analysis needs to be completed.

There are 387 parcels that lie in the Snake River Canyon that would be affected by a failure of any of the upstream dams. The total value of structures in the canyon is \$59,083,383 and the total property value is \$92,739,521.

Hazard Evaluation

Dam Failure		
Profile Category	Rating	Description
Historical Occurrence	0	None
Probability	1	Rare
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	1	Negligible
Total	4	Low

GEOLOGIC HAZARDS

Geologic hazards are adverse conditions capable of causing loss of life and damage to property that involve the movement of geologic features or elements of the surface of the earth. There are a wide variety of such hazards that may be categorized as either sudden or slow phenomena. Slowly developing geologic hazards include soil erosion, sinkholes and other ground subsidence, and migrating sand dunes. Only sudden geologic hazards will be considered in this planning, and will be limited to earthquake, landslide/mudslide, and snow avalanche.

EARTHQUAKE

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. Earthquakes are measured both in terms of their inherent “magnitude” and in terms of their local “intensity.”

The magnitude of an earthquake is essentially a relative estimate of the total amount of seismic energy released, and may be expressed using the familiar “Richter Scale” or using the “moment magnitude scale” now favored by most technical authorities. Both the Richter Scale, and the moment magnitude scale, are based on logarithmic formulae meaning that a difference of one unit on the scales represents about a thirty-fold difference in amount of energy released (and, therefore, potential to do damage). On either scale, significant damage can be expected from earthquakes with a magnitude of about 5.0 or higher. What determines the amount of damage that might occur in any given location, however, is not the magnitude of the earthquake, but the intensity at that particular place. Earthquake intensity decreases with distance from the earthquake’s “epicenter” (its focal point), but also depends on local geologic features such as depth of sediment and bedrock layers. Intensity is most commonly expressed using the “Modified Mercalli Intensity Scale.” This measure describes earthquake intensity on an arbitrary, descriptive, twelve degree scale (expressed as Roman numerals from I to XII) with significant damage beginning at around level VII. Mercalli intensity is assigned based on eyewitness accounts. More quantitatively, intensity may be measured in terms of “peak ground acceleration” (PGA) expressed relative to the acceleration of gravity (g) and determined by seismographic instruments.

While Mercalli and PGA intensities are arrived at differently, they correlate reasonably well. While the locations most susceptible to earthquakes are known, there is little ability to predict an earthquake in the short term.

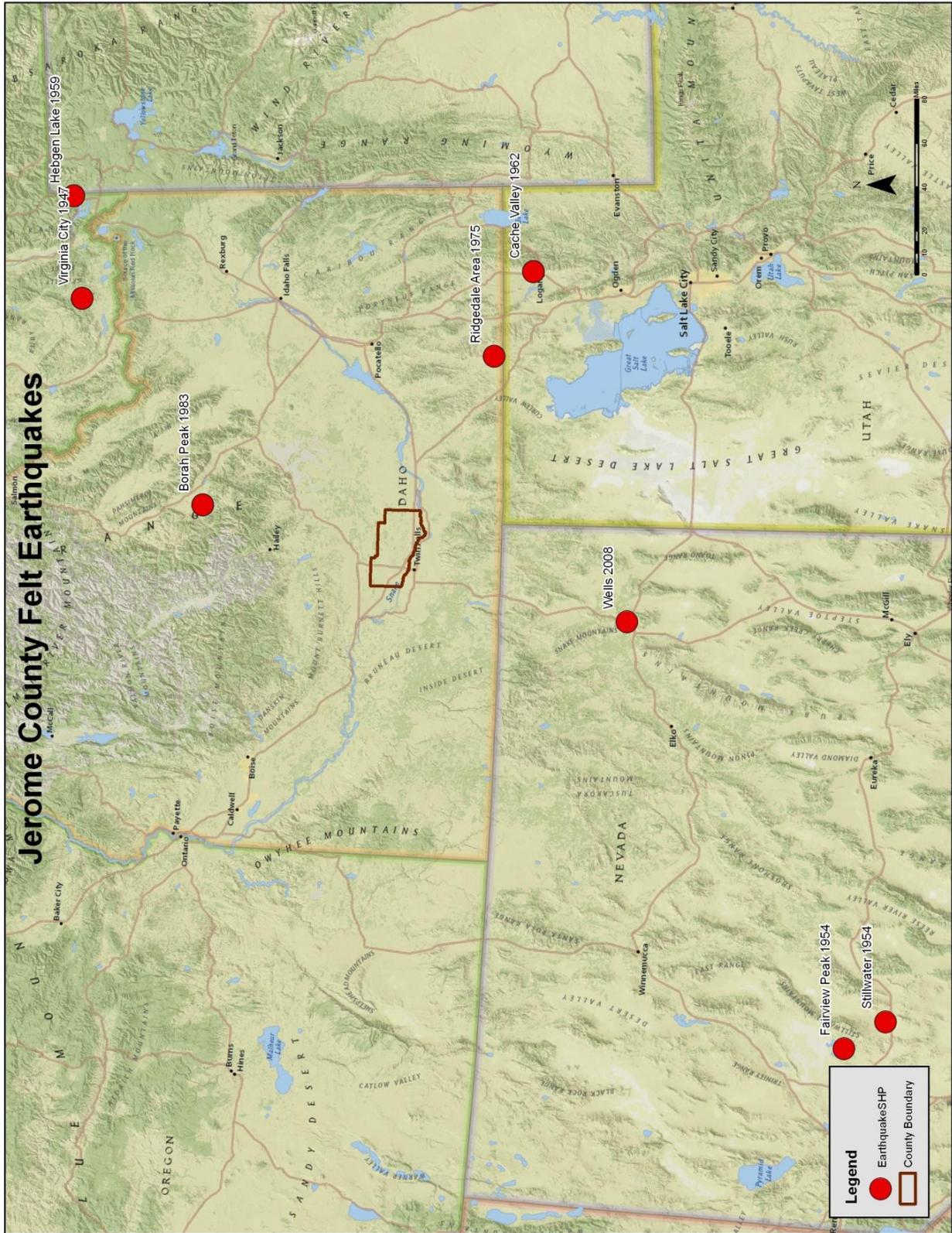
There are no Quaternary Faults in Jerome County

Historical Frequencies

There have been no recorded earthquake epicenters in Jerome County. The following table shows shaking that has occurred in Jerome County from epicenters outside of the County:

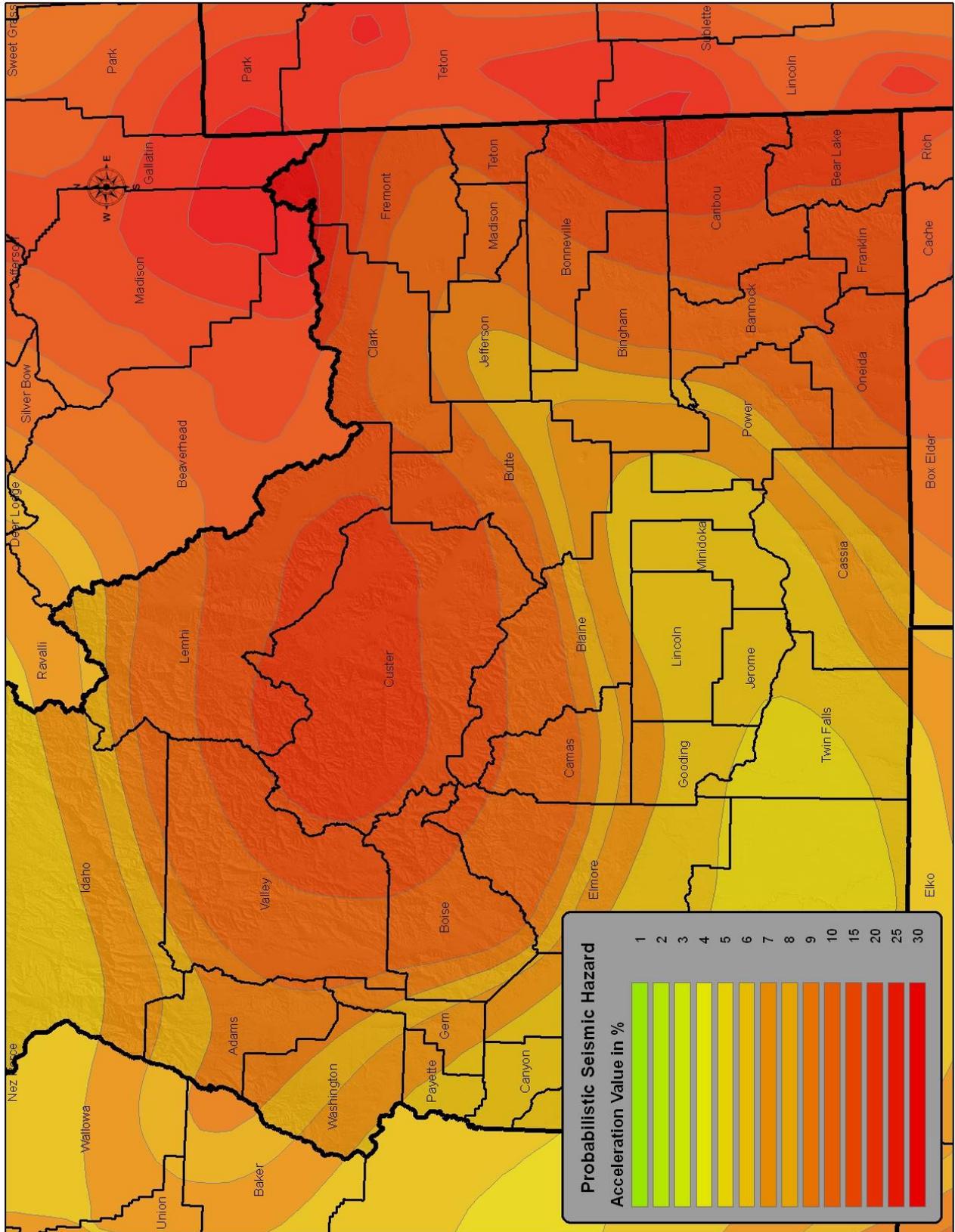
<i>Date</i>			<i>Earthquake Parameters</i>				<i>Felt Report Parameters</i>
Year	Mo	Day	Latitude	Longitude	Focal Depth	Mag	Epicentral Distance
1947	11	23	44.78	-112.03		6.3	
1954	8	24	39.58	-118.45		6.8	
1954	12	16	39.32	-118.2		7.1	
1959	8	18	44.83	-111.08		7.1	361
1962	8	30	41.8	-111.8		5.7	
1975	3	28	42.06	-112.55		6.1	
1983	10	28	43.97	-113.92	14	7.3	146
2008	2	21	41.153	-114.867	6.7	6	125

Felt Earthquakes in Jerome County
Source: National Geophysical Data Center



I. Instrumental	Generally not felt by people unless in favorable conditions.
II. Weak	Felt only by a few people at best, especially on the upper floors of buildings. Delicately suspended objects may swing.
III. Slight	Felt quite noticeably by people indoors, especially on the upper floors of buildings. Many do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibration similar to the passing of a truck. Duration estimated.
IV. Moderate	Felt indoors by many people, outdoors by few people during the day. At night, some awaken. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rock noticeably. Dishes and windows rattle alarmingly.
V. Rather Strong	Felt inside by most, may not be felt by some outside in non-favorable conditions. Dishes and windows may break and large bells will ring. Vibrations like large train passing close to house.
VI. Strong	Felt by all; many frightened and run outdoors, walk unsteadily. Windows, dishes, glassware broken; books fall off shelves; some heavy furniture moved or overturned; a few instances of fallen plaster. Damage slight.
VII. Very Strong	Difficult to stand; furniture broken; damage negligible in building of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken. Noticed by people driving motor cars.
VIII. Destructive	Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture moved.
IX. Violent	General panic; damage considerable in specially designed structures, well designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X. Intense	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundation. Rails bent.
XI. Extreme	Few, if any masonry structures remain standing. Bridges destroyed. Rails bent greatly.
XII. Cataclysmic	Total destruction – Everything is destroyed. Lines of sight and level distorted. Objects thrown into the air. The ground moves in waves or ripples. Large amounts of rock move position. Landscape altered, or leveled by several meters. In some cases, even the routes of rivers are changed.

Modified Mercalli Intensity Scale



Jerome County Probabilistic Seismic Hazard Map

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. Office of Emergency Management, including medical, may be both disabled and overwhelmed. In addition to broken gas lines, other hazardous materials may be released.

Loss Estimates

HAZUS was used to estimate losses for a probabilistic magnitude 7 earthquake affecting Jerome County. HAZUS is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency and the National Institute of Building Sciences. The primary purpose of HAZUS is to provide a methodology and software application to develop earthquake losses at a regional scale. These loss estimates would be used primarily by local, state, and regional officials to plan and stimulate efforts to reduce risks from earthquakes and to prepare for emergency response and recovery.

The geographical size of the region is 761.50 square miles and contains 5 census tracts. There are over 6 thousand households in the region, and a total population of 20,174 people⁸. There are an estimated 6 thousand buildings in the region, with a total building replacement value (excluding contents) of 778 million dollars. Approximately 99.00 % of the buildings (and 83.00% of the building value) are associated with residential housing.

HAZUS estimates that about 21 buildings will be at least moderately damaged. This is over 0.00 % of the total number of buildings in the region. There are an estimated 0 buildings that will be damaged beyond repair.

HAZUS estimates the number of households that are expected to be displaced from their homes due to an earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates no households would be displaced due to the earthquake. Of these, 0 people (out of a total population of 20,174 will seek temporary shelter in public shelters.

The total economic loss estimated for the earthquake is 1.26 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory.

The building losses are broken into two categories: direct building losses, and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the

⁸2000 Census Bureau data

earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 0.41 million dollars; 10 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies, which made up over 79 % of the total loss.

Hazard Evaluation

Earthquake		
Profile Category	Rating	Description
Historical Occurrence	0	None
Probability	2	Low
Vulnerability	1	Negligible
Spatial Extent	2	Limited
Magnitude	2	Critical
Total	7	Low

LANDSLIDE/MUDSLIDE

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.

Historical Frequencies

Jerome County has had no significant events of landslide or mudslide in the County with the exception of the Snake River Canyon Rim. The potential exists for massive rock slides into the canyon.

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

The only area in Jerome County that would be affected by Landslides would be located in the Snake River Canyon. There would be no loss from these events to infrastructure or private property.

Hazard Evaluation

Landslides		
Profile Category	Rating	Description
Historical Occurrence	1	Low
Probability	2	Low
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	1	Negligible
Total	6	Low

OTHER NATURAL HAZARDS

WILDFIRE

Description

Wildfire is defined by the USDA Forest service as, “A fire naturally caused or caused by humans, that is not meeting land management objectives.”⁹ It is generally thought of as an uncontrolled fire involving vegetative fuels occurring in wildland areas. Such fires are classified for hazard analysis purposes as either “Wildland” or “Wildland Urban Interface” fires. Wildland fires occur in areas that are undeveloped except for the presence of roads, railroads and power lines, while Wildland Urban Interface fires occur where structures or other human development meets, or is intermingled with, the wildland or vegetative fuels. Wildland fire is currently considered a natural and necessary component of wildland ecology and, as such, is most often allowed to progress to the extent that it does not threaten inhabited areas of human interests and well-being. At the Wildland Urban Interface (WUI), vigorous attempts are made to control fires, but this becomes an increasingly difficult challenge as more and more development for recreational and living purposes takes place in wildland areas. Some wildland fires are ignited naturally (almost exclusively by lightning), but most ignitions are a result of human activities, either careless or intentional. The rapidity with which a wildland fire spreads, and the intensity with which it burns, is controlled by a number of factors including:

- Weather - wind speed and direction, temperature, precipitation
- Terrain – fires burn most rapidly upslope
- Type of vegetation
- Condition of vegetation - dryness
- Fuel load – the amount and density of vegetation
- Human attempts to suppress

In Idaho, fire was once an integral function of the majority of ecosystems. The seasonal cycling of fire across the landscape was as regular as the July, August, and September lightning storms plying across the canyons and mountains. Depending on the plant community composition, structural configuration, and buildup of plant biomass, fire resulted from ignitions with varying intensities and extent across the landscape. Shorter return intervals between fire events often resulted in less dramatic changes in plant composition¹⁰. The fires burned from 1 to 47 years apart, with most at 5- to 20-year intervals¹¹. With infrequent return intervals, plant communities tended to burn more severely and be replaced by vegetation different in composition, structure, and age¹². Native plant communities in this region developed under the influence of fire, and adaptations to fire are evident at the species, community, and ecosystem levels. Fire history data (from fire scars and charcoal deposits) suggest fire has played an important role in shaping the vegetation in the Columbia Basin for thousands of years¹³.

⁹ http://www.fs.fed.us/fire/fireuse/education/terms/fire_terms_pg5.html

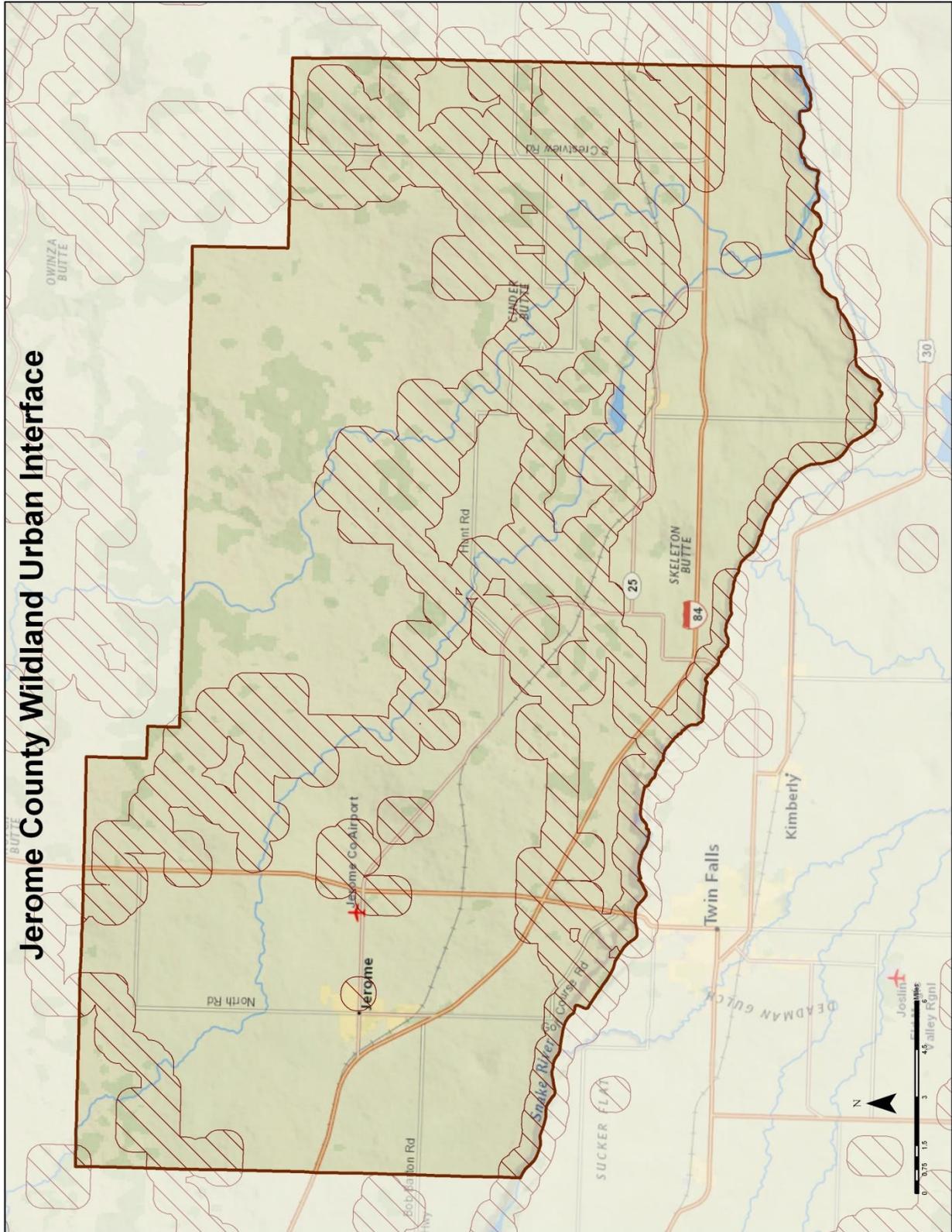
¹⁰ Johnson 1998

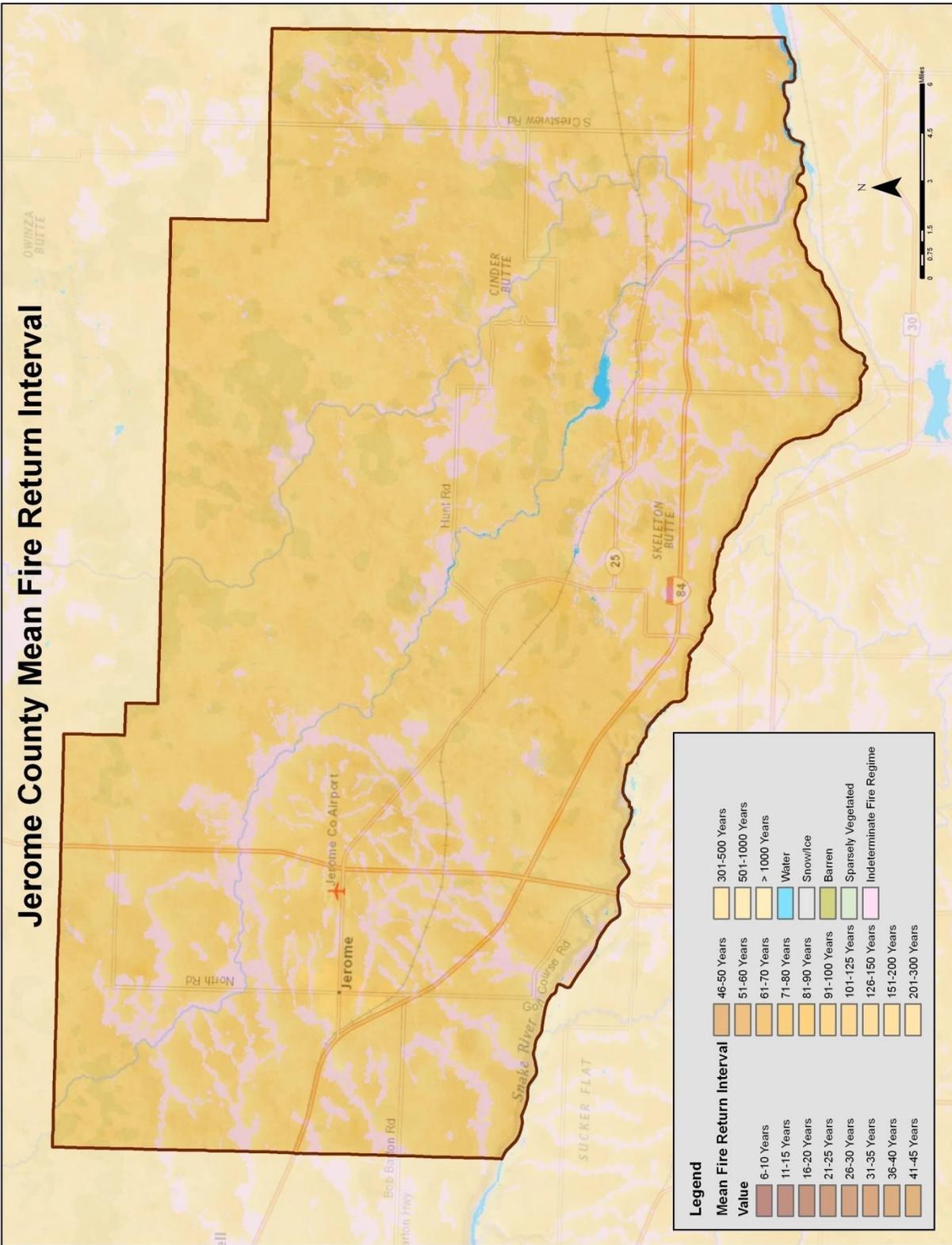
¹¹ Barrett 1979

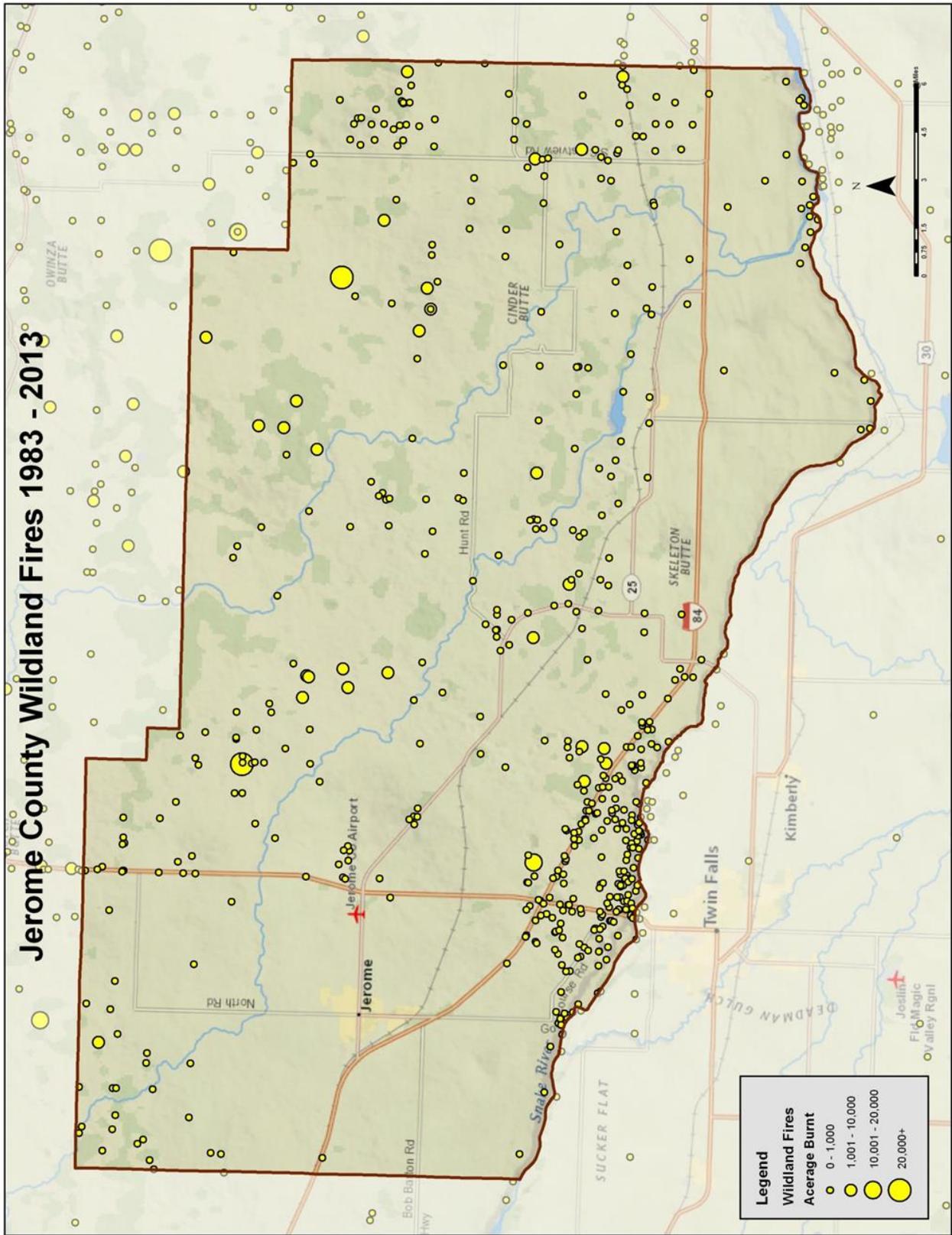
¹² Johnson *et al.* 1994

¹³ Steele *et al.* 1986, Agee 1993

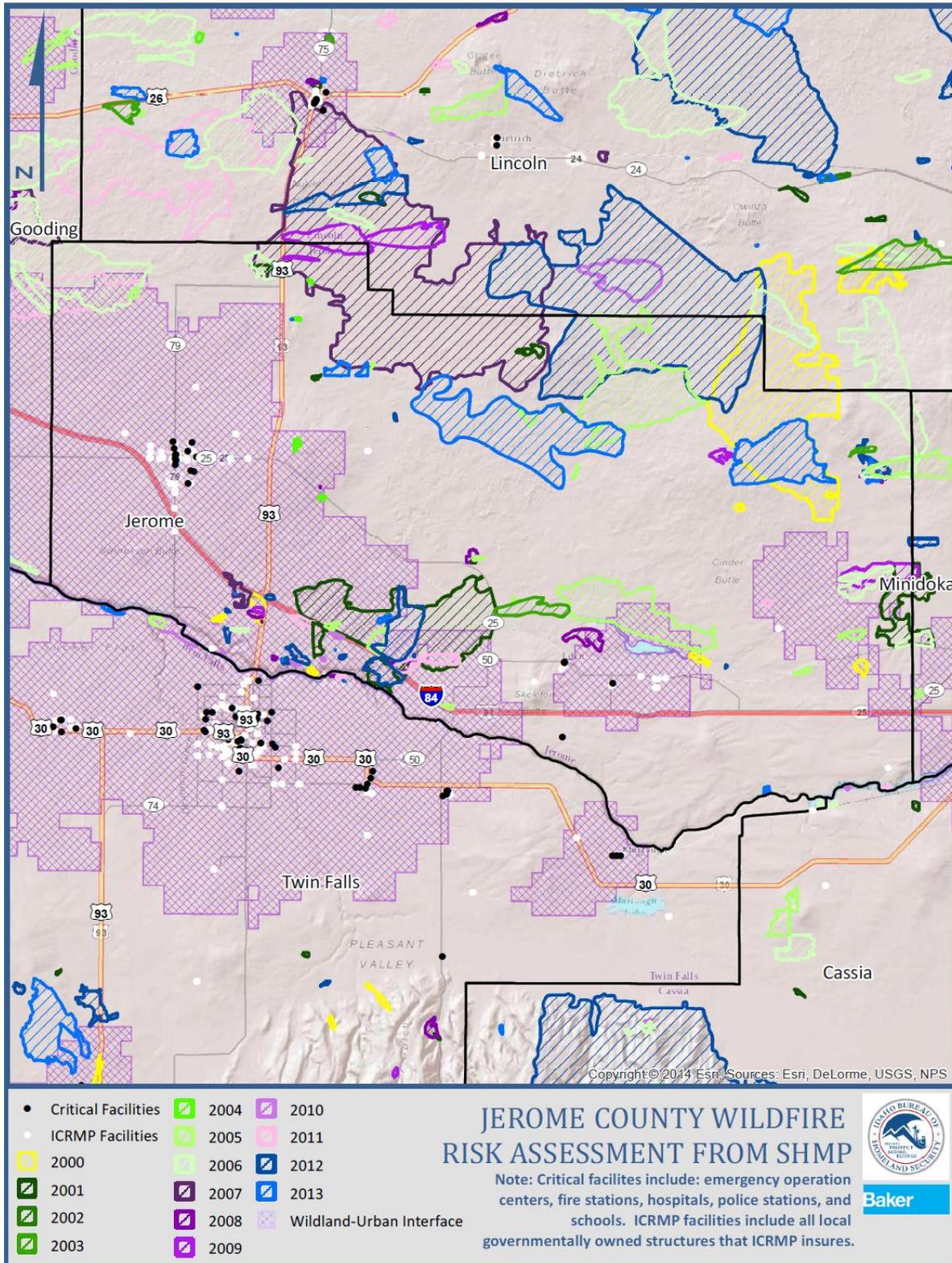
Jerome County Wildland Urban Interface







Historical Frequencies



Impact

Wildland fires threaten the lives of anyone in their path including hikers, campers, and other recreational users and, where suppression efforts are made, firefighters. Enormous volumes of smoke and airborne particulate materials are produced that can affect the health of persons for many miles downwind. Nearer to the fire, smoke reduces visibility, disrupting traffic and increasing the likelihood of highway accidents. As a result of wildland fire there may be changes in water quality in the area, and erosion rates may increase along with increased rainfall runoff and flash flood threat, and decreased rainfall interception and infiltration. Indirect impacts include losses to tourism, recreational and timber interests, and loss of wildlife habitat. Wildland Urban Interface fires have most or all of the above impacts, as well as those of structural fires including injury and loss of life, and loss of structures and contents. Agricultural losses may also be sustained including livestock, crops, fencing, and equipment.

Loss Estimates

A GIS overlay operation was used to determine the number of land parcels that intersect the WUI and the value of the houses that are located on those parcels. The following table represents the results of that analysis:

Number of {Parcels	Value of Parcels	Value of Improvements	Most Expensive Parcel
7,059	\$688,499,335	\$403,067,346	\$4,790,470

WUI Loss Estimates

Hazard Evaluation

Wildfire		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	2	Limited
Spatial Extent	3	Critical
Magnitude	4	Catastrophic
Total	16	High

BIOLOGICAL

BURROWING RODENTS - POCKET GOPHERS

2012 Revision Summary: This hazard was added in this update.

Description

Pocket Gophers are burrowing rodents of the Geomyidae family. They are “true” gophers, though several ground squirrels of the Sciuridae family are often called gophers as well. The name “pocket Gopher” on its own may be used to refer to any number of subspecies of the family.



Pocket Gopher

Pocket Gophers are heavily built, and most are 4.5 to 12 inches long and weighing nearly 1 pound. Within the species, males are larger than females, and can be nearly double their weight. Their most characteristic features are their large cheek pouches, from which the word “pocket” in their name derives. These pouches are fur-lined and can be turned inside out. They extend from the side of the mouth well back onto the shoulders. They have small eyes and a short, hairy tail, which they use to feel around tunnels when they walk backwards.

All pocket gophers are burrowers. They are larder hoarders, and their cheek pouches are used for transporting food back to their burrows. Their presence is unambiguously announced by the appearance of mounds of fresh dirt about 8 inches in diameter. They like moist soil.

Pocket gophers are considered an agricultural pest. They have been known to destroy crops as well as cause the collapse of irrigation canal banks.

Historic Frequencies

Historically, in Jerome County, Pocket Gophers have destroyed canal banks and caused major flooding.

Impacts

Impacts from pocket gophers include:

- Lawn & Garden Damage
- Chewed & Damaged Underground Wiring
- Chewed & Damaged Irrigation Lines
- Landscape Erosion
- Ditch Banks & Earthen Dams Compromised and Leaking
- Potential Injury to Livestock
- Crop Damage

Loss Estimates

Losses associated with Pocket Gophers are tied to canal failure and agricultural crop losses.

Hazard Evaluation

Repetitive Loss – None

Burrowing Rodents		
Profile Category	Rating	Description
Historical Occurrence	1	Low
Probability	4	High
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	2	Limited
Total	9	Low

VECTOR BORNE DISEASE

Description

Vector Borne Disease is usually discussed in two ways, an epidemic and a pandemic. An “epidemic” 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 problems as, for instance, in a single community rather than statewide or nationwide. The term “cluster” is often used with reference to non-communicable diseases.

Three factors combine to produce an epidemic: an “agent” that causes the disease, a “host” that is susceptible to the disease, and an “environment” that permits the host to be exposed to the agent. The spread of an infectious disease depends on the chain of transmission: a source of the agent, a route of exit from the host, a mode of transmission between the susceptible host and the source, and a route of entry into another susceptible host. Modes of spread may involve direct physical contact between the infected host and the new host, or airborne spread, such as coughing or sneezing. Indirect transmission takes place through vehicles such as contaminated water, food, or intravenous fluids; inanimate objects such as bedding, clothes, or surgical instruments; or a biological vector such as a mosquito or flea.

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.

Vector Borne or Non-Human Transmitted Diseases are considered a common hazard and evaluated and ranked in a composite score for the purposes of this Plan.

H5N1 “Bird Flu”

Efforts are currently underway to develop a vaccine to protect humans from the H5N1 bird flu virus. While it has so far affected few humans, there is the danger 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 with surfaces that have been contaminated with droppings from infected birds are at risk of becoming infected. In infected countries, poultry consumption has not been shown to be a risk factor if food is thoroughly cooked, nor are travelers in these countries 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.

Many Asian countries are currently dealing with bird flu outbreaks. Bird flu continues to

spread geographically from its original focus in Asia. Further spread of the virus along migratory routes of wild waterfowl is anticipated. So far, there has been no sustained person-to-person spread of the disease, but a few isolated cases of apparent human-to-human spread between family members are currently under investigation.

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.

West Nile Virus

Description

West Nile virus (WNV) is transmitted to people, birds, and other animals by the bite of an infected mosquito. This virus can cause serious illness in people of any age, but especially in people over the age of 50 or those with other underlying medical conditions. The best form of protection is by avoiding mosquito bites.

West Nile virus infections occur in the summer and fall in Idaho, when mosquitoes are active. WNV does not occur in northern states when it is too cool for mosquitoes to survive. In southern states with warmer climates and mosquitoes present year-round, the risk of infection may still be present in the winter months.

Historical Frequencies

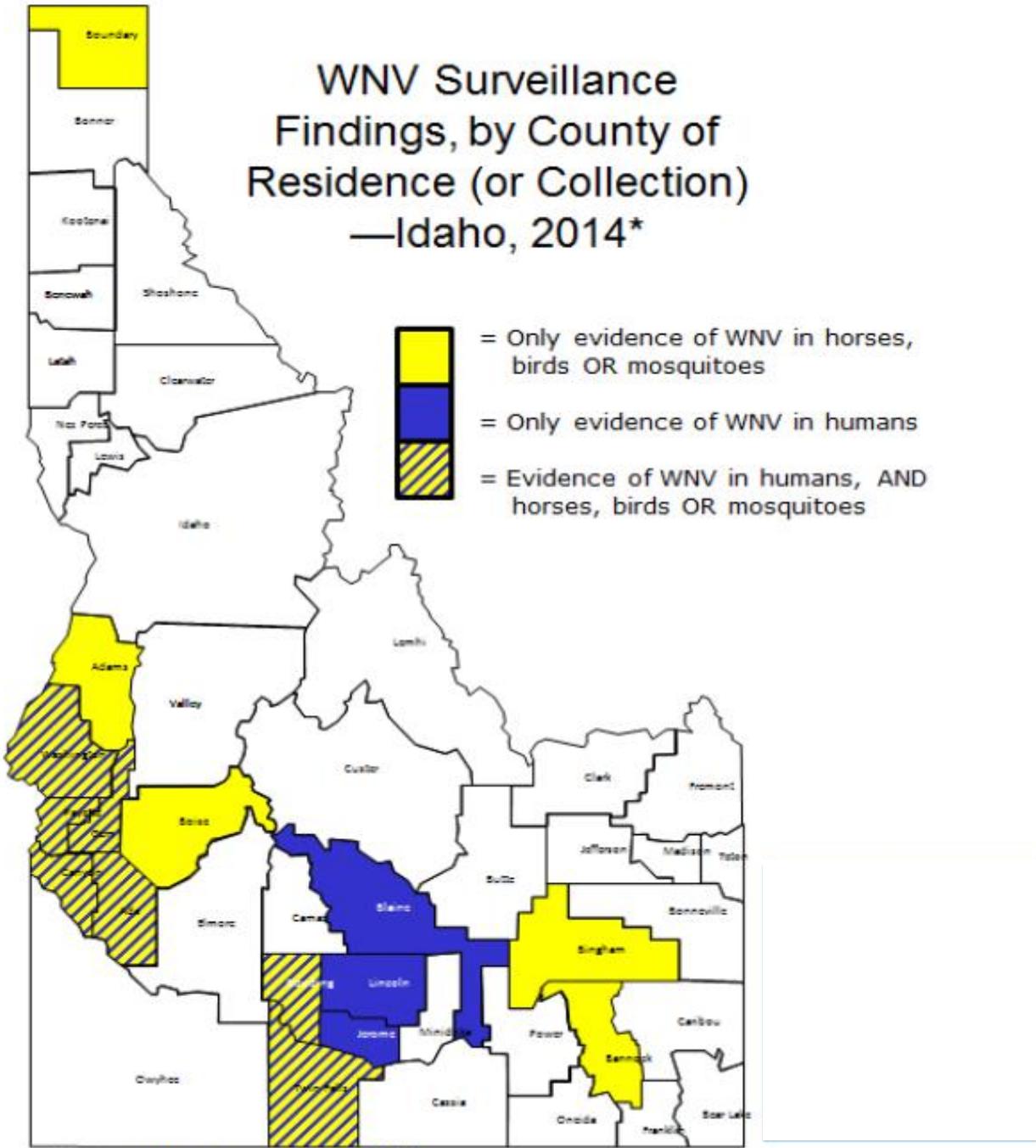
Locally-acquired mosquito-borne human infections were first recorded in Idaho in 2004. In 2006, Idaho led the nation in reports of human illness associated with WNV with 996 cases being reported to the State Health Department. In addition to people, WNV was also detected in 338 horses, 127 birds, and numerous mosquitoes. The following table provides the data for Jerome County since 2004:

Date	Human	Horse/other mammal	Bird	Mosquitoes
2004	0	0	1	
2005	0	2	2	
2006	12	3	7	Not Tested
2007	1	0	1	Not Tested
2008	1	0	0	Not Tested
2009	0	1	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	1	0	0	0
2014	1	0	0	0

Reported Cases of WNV in Jerome County

Source - <http://www.healthandwelfare.idaho.gov/site/4278/default.aspx>

WNV Surveillance Findings, by County of Residence (or Collection) —Idaho, 2014*



*Data current as of 11/10/2014

Impacts

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 from severe infections. There is no vaccine available for humans.

Loss Estimates

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

Vector Borne Disease		
Profile Category	Rating	Description
Historical Occurrence	1	Low
Probability	1	Rare
Vulnerability	2	Limited
Spatial Extent	2	Limited
Magnitude	2	Limited
Total	8	Low

LIVESTOCK DISEASES

Hoof and Mouth Disease

Description

Hoof-and-mouth or foot-and-mouth disease is a severe, highly communicable viral disease of cattle and swine. It also affects sheep, goats, deer, and other cloven-hoofed ruminants. Symptoms of FMD include blisters around the mouth or on the feet, excessive drooling, reduced appetite, and lameness. Animals may attempt to walk on their knees. The disease itself is characterized by fever and blister-like lesions followed by erosions on the tongue and lips, in the mouth, on the teats, and between the hooves. Many animals recover, but the disease leaves them debilitated. It causes severe losses in production of meat and milk. Because it spreads widely and rapidly and because it has grave economic and clinical consequences, FMD is one of the animal diseases that livestock owners dread most.¹⁴

¹⁴ <http://www.livestocktrail.uiuc.edu/biosecurity/hmd/index.htm>

Historical Frequencies

The U.S. has been free of FMD since 1929. The Figure to the right illustrates outbreaks of the disease in locations throughout the world:

Impacts

FMD is one of the most difficult animal infections to control. Because the disease occurs in many parts of the world, there is always a chance of its accidental introduction into the U.S. That chance has been heightened

recently by a major outbreak in the United Kingdom that has already spread to continental Europe. The European Union is a major U.S. trading partner.

If an outbreak occurred in the U.S., this disease could spread rapidly to all sections of the country by routine livestock movements, unless it was detected early and eradicated immediately. Livestock producers are the key to early detection and eradication.

The disease is caused by a virus that can persist in contaminated fodder and the environment for up to one month, depending on the temperature and pH conditions. There are at least seven separate types and many subtypes of the FMD virus. Immunity to one type does not protect an animal against other types.

Loss Estimates

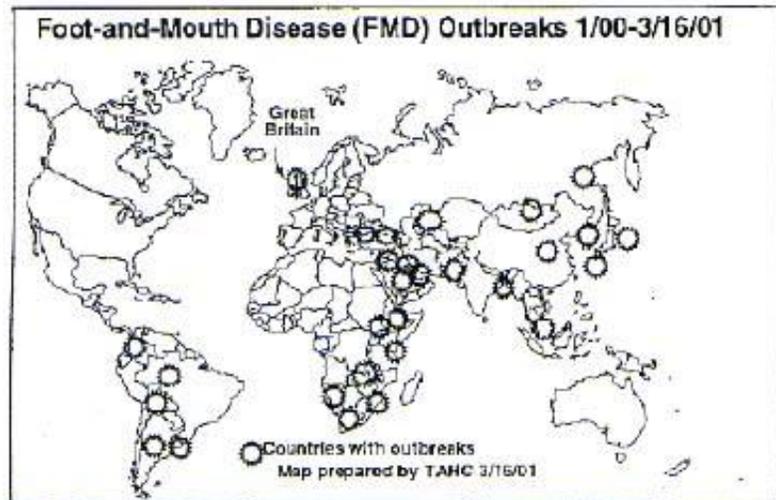
There is an indemnity program to compensate producers for infected animals, products (cheese, milk, etc.), and property (feed, seed, wooden fences, or buildings, etc.). Federal statutes for FMD eradication mandate that all animals and properties be appraised before the government destroys them. The appraisal of animals is based on their fair market value, or replacement value within limits to be established during each outbreak. A team of appraisers, including Federal and State government representatives and the producer, will be responsible for the appraisal and signed paperwork for each item.

Mad Cow Disease

Description

BSE (bovine spongiform encephalopathy) is a fatal disease that causes progressive neurological degeneration in cattle. Similar to BSE, Creutzfeldt-Jakob disease (CJD) is a rare disease that occurs in humans. In 1996, following outbreaks of BSE among British cattle, scientists found a possible link between BSE and a new variant of CJD (vCJD). While it is not certain how BSE may be spread to humans, evidence indicates that humans may acquire vCJD after consuming BSE-contaminated cattle products.

BSE was first reported among cattle in the United Kingdom (U.K) in November 1986. The source of the BSE outbreak is uncertain, but it is thought to have been amplified by feeding cattle with meat-and-bone meal from BSE-infected cattle. To contain the disease, the British



government took a number of steps, including the institution of a feed ban prohibiting the use of meat-and-bone meal, and slaughtering all cattle believed to be infected.¹⁵

Historical Frequencies

Neither BSE among cattle, nor the new human variant of CJD, have been found in the United States.

Some cases of BSE have been identified among cattle in other European countries. Between 1989 and 2000, at least 1,642 cases of BSE have been identified among cattle in Belgium, Denmark, France, Germany, Ireland, Italy, Liechtenstein, the Netherlands, Portugal, Spain, and Switzerland.

Among humans, the total worldwide number of known vCJD cases is 92, including 88 in the U.K., three in France and one in Ireland.

A United States Department of Agriculture (USDA) BSE investigation was initiated on Dec. 23, 2003, when a cow in Washington State was thought to have contracted BSE. By the time the investigation was completed in February 2004, the USDA had examined the identification tags and other devices on 75,000 cattle in three states--Washington, Oregon, and Idaho--and had humanely slaughtered 255 adult cattle and tested them for BSE.

Previously, in May 2003, Canadian authorities had reported finding the first native BSE cow in North America. Records indicated that this cow and the one found in Washington were more than six years old and born prior to the feed ban in the United States and Canada¹⁶.

Since the first case of BSE was reported in 2003, the number of cattle tested for the disease has increased substantially. Still, only about 650,000 of the total US herd (some 35 million slaughtered annually) have been tested - a rate far lower than the percentage tested in Europe or Japan.

Of those tested, two have turned up positive for BSE. That is "evidence that the prevalence of this disease in the United States is extremely low," says Terry Stokes, chief executive officer of the National Cattlemen's Beef Association.¹⁷

Impacts

BSE among cattle was first described in the U.K. in November 1986. Epidemiological evidence established that the outbreak of BSE was related to the production and use, over many years, of contaminated meat-and-bone meal. The source of the BSE outbreak is uncertain. There is strong evidence and general agreement that the outbreak was amplified by feeding rendered bovine meat-and-bone meal to young calves¹⁸.

Loss Estimates

In 2003, the U.S. ban on Canadian beef and cattle, coupled with already tight U.S. supplies and strong demand, had driven up U.S. beef and cattle prices substantially. After the December 2003 BSE case was announced, cattle prices fell. However, they had stabilized by early January 2004. Industry analysts reported that U.S. domestic demand (both retail and restaurant, including fast-

¹⁵ <http://www.hhs.gov/news/press/2001pres/01fsbse.html>

¹⁶ http://www.fda.gov/fdac/features/2004/304_cow.html

¹⁷ <http://www.csmonitor.com/2006/0315/p02s01-uspo.html>

¹⁸ <http://www.hhs.gov/news/press/2001pres/01fsbse.html>

food hamburger sales) appeared to be holding steady. The demand, combined with lower U.S. cattle inventories due in part to widespread drought in cattle country, kept cattle and beef prices high during 2004, helping to offset the effects of the BSE-related foreign ban.

The USDA has reported that average U.S. fed steer (i.e., slaughter-ready cattle) prices were nearly \$85 per cwt. for all of 2004, compared with an earlier 2004 prediction of \$72-\$77; this is near the lower end of a USDA forecast, made just before the BSE case, of \$84-\$91 per cwt. The 2005 price forecast (as of early 2005) was \$80-\$85. Average fed steer prices were \$85 in 2003 and \$67 in 2002.

Nonetheless, foreign import bans mean the domestic market has had to absorb some 23 million more pounds of beef weekly or 1.2 billion pounds for the year due to lost exports, according to Cattle-Fax. Exports of by-products like collagen, sausage casings, brains, other organs, tongue, tails, and tendons (all adding value to each animal) also have been affected by the bans on U.S. beef products. USDA has estimated that U.S. beef and veal exports globally reached only 434 million pounds in 2004, or 17% of the 2003 level of 2.523 billion pounds, even with the partial reopening of Canada and Mexico. USDA predicted that unless more markets reopen, exports would reach only 640 million pounds in 2005.¹⁹

Vesicular Stomatitis

Vesicular Stomatitis Virus (VSV) is a viral disease that primarily affects cattle, horses, swine, and occasionally sheep, goats, llamas, and alpacas. Humans can also become infected with the disease when handling affected animals, but this is a rare event.²⁰

Although VSV has been extensively studied at the molecular level, many unknowns remain regarding its epidemiology. VSV is known to be transmitted directly via the transcutaneous or transmucosal route. Certain VS viruses have been isolated from sand flies, black flies, mosquitoes, and other insects, suggesting that it could be insect-borne. Seasonal variation (disappearance at end of rainy season in tropical areas and at first frost in temperate zones) also supports vector-borne transmission hypotheses that the VS virus is a plant virus present in pastures. In endemic areas, VSV maintains long-term, stable cycles between sand flies and subclinical susceptible hosts. Evidence of neutralizing antibodies in domestic and wild animals in these areas exists. Morbidity rates vary, up to 90% in a herd, but there is a low mortality rate.

Historical Frequencies

Typically the disease is limited to the Americas; however, it has been described in France (1915 and 1917) and in South Africa (1886 and 1897). Strains of the serotype NJ and subtype IND-1 are endemic in livestock in areas of southern Mexico, Central America, Venezuela, Colombia, Ecuador, and Peru. Sporadic activity of NJ and IND-1 VSV has been reported in northern Mexico and western United States. IND-2 has only been isolated from mammals sporadically in Argentina and Brazil. The IND-3 subtype (Alagoas) has been isolated only in Brazil. While VS is not diagnosed in livestock every year in the USA, it is considered to be endemic in feral pigs on Ossabaw Island, Georgia.²¹

¹⁹ <http://www.law.umaryland.edu/marshall/crsreports/crsdocuments/RS2170901192005.pdf>

²⁰ http://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_vesicular_stomatitis_07.pdf

²¹ http://www.oie.int/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/VESICULAR_STOMATITIS_FINAL.pdf

There was an outbreak in Idaho as recent as 2005. The USDA reports that positive premises were found in Caribou and Bear Lake Counties as well as Box Elder County in Utah.²²

Since there could be a Vesicular Stomatitis outbreak in any given year, it is essential that veterinarians and livestock owners be on the alert for animals displaying clinical signs of the disease.²³

Impacts

While Vesicular Stomatitis does not generally cause animals to die, it can still cause economic losses to livestock producers. The disease is particularly significant because its outward signs are similar to (although generally less severe than) those of foot-and-mouth disease, a foreign animal disease of cloven-hoofed animals that was eradicated from the United States in 1929. The clinical signs of Vesicular Stomatitis are also similar to those of swine vesicular disease, another foreign animal disease. The only way to tell these diseases apart is through laboratory tests.



Example Vesicular Stomatitis in Horses

Example Vesicular Stomatitis in Cattle



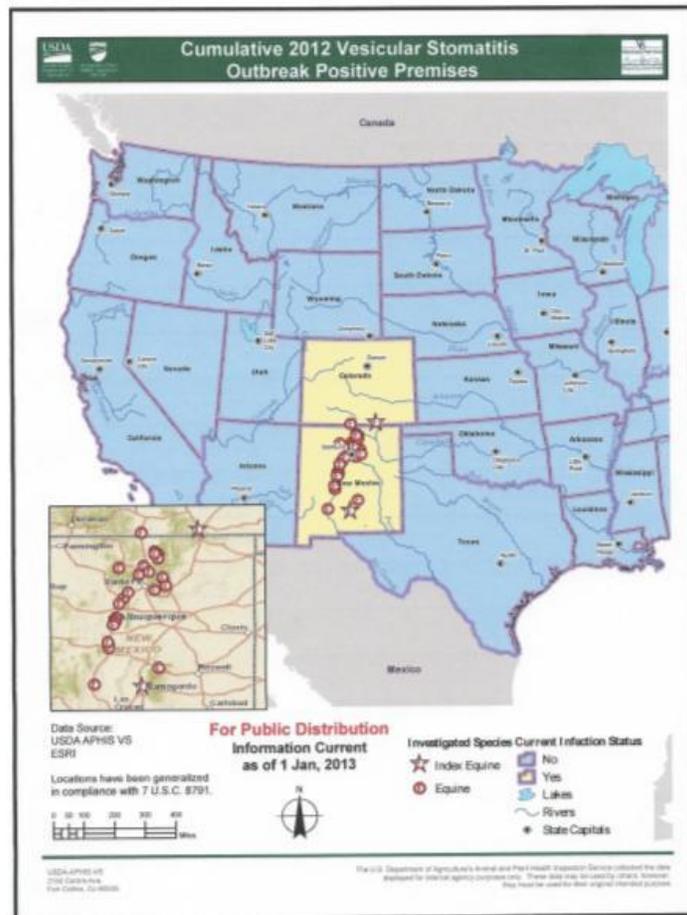
²² http://www.aphis.usda.gov/vs/nahss/equine/vsv/vsvmaps/ID_2005_Cumulative_Final_121105.pdf

²³ http://www.aphis.usda.gov/publications/animal_health/content/printable_version/fs_vesicular_stomatitis_2012.pdf

Vesicular Stomatitis is recognized internationally as a reportable disease. This means that there are serious economic and regulatory repercussions associated with the diagnosis. When the disease is detected in the United States, some countries may take action to block international trade of U.S. animals and animal products. Interstate movement of animals is also impacted. Premises containing affected animals are quarantined until 21 days after the lesions in the last affected animals have healed. As a result, quarantine periods can be lengthy.

In affected livestock, the incubation period for Vesicular Stomatitis ranges from 2 to 8 days. Often, excessive salivation is the first sign of the disease. Close examination of the mouth initially reveals blanched and raised vesicles or blister-like lesions on the inner surfaces of the lips, gums, tongue, and/or dental pad. In addition, these blister-like lesions can form on the lips, nostrils, coronary band, prepuce, vulva, and teats. The blisters swell and break, which causes oral pain and discomfort and reluctance to eat or drink. Lameness and severe weight loss may follow. Body temperature may rise immediately before or at the same time lesions first appear.

Dairy cattle often suffer from teat lesions and subsequent mastitis; a severe drop in milk production commonly occurs. Some affected dairy cattle can appear to be normal with no clearly visible signs of illness but may only eat about half of their normal feed intake. If there are no complications such as secondary infection, affected animals typically recover in about 2 weeks.



U. S. Vesicular Stomatitis Cases

Loss Estimates

There have been no cases of Vesicular Stomatitis reported in Jerome County or the State of Idaho since 2005. Recent losses have been reported in New Mexico and Colorado. Should the virus become present in Jerome County, there would be significant impact to the livestock industry as entire portions of the County could be placed under a quarantine.

2012 Vesicular Stomatitis Outbreak in United States

There have been no new VSV-infected premises identified since December 18, 2012. The last affected New Mexico premise was released from quarantine on December 24. Premises are eligible for quarantine release 21 days after lesions have healed in all affected animals. A total of 34 premises in New Mexico and 2 premises in Colorado have been released from quarantine since the start of the outbreak. All affected premises in both Colorado and New Mexico have been released from quarantine. A total of 2 equine premises in 2 Colorado counties and 34 equine premises in 10 New Mexico counties were VSV-positive in 2012. All 2012 VSV cases were New Jersey serotype.

Hazard Evaluation

Repetitive Loss – none

Livestock Disease		
Profile Category	Rating	Description
Historical Occurrence	1	Low
Probability	1	Rare
Vulnerability	3	Critical
Spatial Extent	3	Critical
Magnitude	4	Catastrophic
Total	12	Medium

COMMUNICABLE DISEASE (HUMAN BORNE)

Description

Epidemic 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 problems 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 having 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. When disease control

efforts are relaxed, diseases that were controlled in the past resurface and become an epidemic again (i.e. whooping cough).

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 began to infect humans, it would likely cause widespread illness and death within a matter of months, and could last up to two 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 in many cases die as a result of severe illness.

Eastern Idaho Public Health District is currently working on 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. Even so, it may not be possible to prevent a pandemic or to halt it once it begins to. A person infected with influenza may be contagious for 24 hours before symptoms appear and for seven days thereafter, making it extremely easy for the virus to infect large numbers of people.

Although the Federal government is stockpiling large quantities of medical supplies and antiviral drugs, no country in the world has enough antivirals to protect all of their citizens. Antivirals would be used to treat severe cases as long as there was a reasonable chance that the drugs might help save lives. Antivirals might also be reserved for people who work in areas that place them at high risk for exposure in an outbreak, such as health care workers. Other strategies for slowing the spread of a potentially deadly pandemic influenza virus might include temporarily closing of schools, sports arenas, theaters, restaurants, taverns, and other public gathering places and facilities.

For the purposes of this Plan, all Communicable or Human Borne Transmitted Diseases are evaluated and ranked with a composite hazard score.

Severe Acute Respiratory Syndrome (SARS)

Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a corona virus, called SARS-associated corona virus (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.

Pertussis (Whooping Cough)

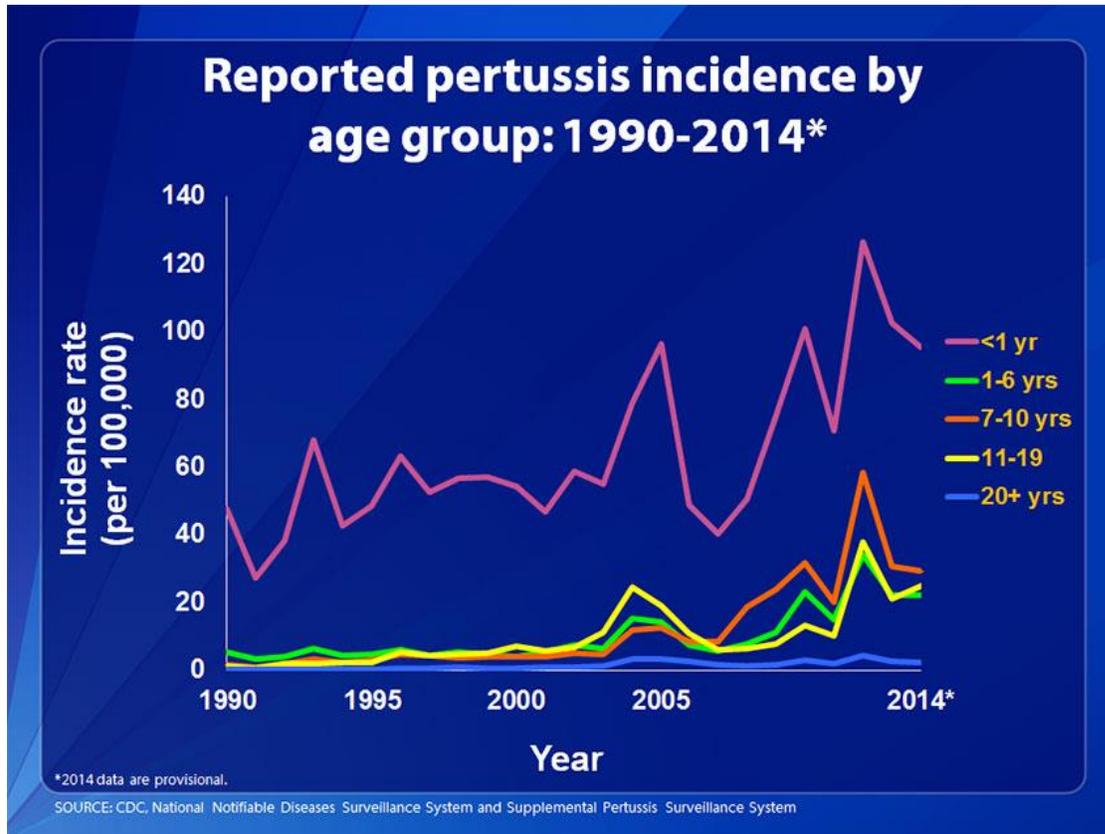
Pertussis is an endemic (common) disease in the United States, with peaks in disease every 3 to 5 years and frequent outbreaks. In 2010, 27,550 cases of pertussis were reported — and many more cases go unreported. In 2012 the incidence of pertussis in Idaho was 13.1 per 100,000 persons, which was above the national average. The primary goal of pertussis outbreak control efforts is to decrease morbidity (amount of disease) and mortality (death) among infants; a secondary goal is to decrease morbidity among persons of all ages.

Pertussis outbreaks can be difficult to identify and manage. Other respiratory pathogens often cause clinical symptoms similar to Pertussis, and co-circulation with other pathogens (bacterial and viral) does occur. In order to respond appropriately (e.g., provide appropriate antibiotic prophylaxis), it is important to confirm that *Bordetella Pertussis* is circulating in the outbreak setting, and to determine whether other pathogens are contributing to the outbreak. Polymerase chain reaction (PCR) tests vary in specificity, so obtaining culture confirmation of Pertussis for at least one suspicious case is recommended any time there is suspicion of a Pertussis outbreak.

Pseudo outbreaks of Pertussis have resulted because of false positive test results with PCR. This underscores the importance of recognizing clinical signs and symptoms and practicing careful laboratory testing.

Institutional outbreaks of Pertussis are common. Outbreaks at middle and high schools can occur as protection from childhood vaccines fades. In school outbreaks, prophylaxis is recommended for close classroom and team contacts — and the Pertussis booster vaccine (Dtap) depending on age. Pertussis outbreaks in hospitals and other clinical settings can put infants and other patients at risk.

This figure shows the trend of the number of Pertussis cases over the past 90 years. The number of cases drastically drops off post WWII and then begins to gain momentum again in the early 1990's. It appears that we are on an upward trend.



Historic Communicable Disease Outbreak Events

The 1918 -1920 Spanish Flu:

The first cases of Spanish Flu were reported in Canyon County (northwest of Boise) on September 30, 1918. Within three weeks, the disease was raging all across the State. The numbers of deaths in the State and in Jerome County are unknown, but it is estimated that 675,000 Americans died during the epidemic and that 20 to 40 million died worldwide.

Asian Flu 1957 -1958:

First identified in China, this virus caused roughly 70,000 deaths in the United States during the 1957-58 seasons. Because this strain has not circulated in humans since 1968, no one under 30 years old has immunity to this strain.

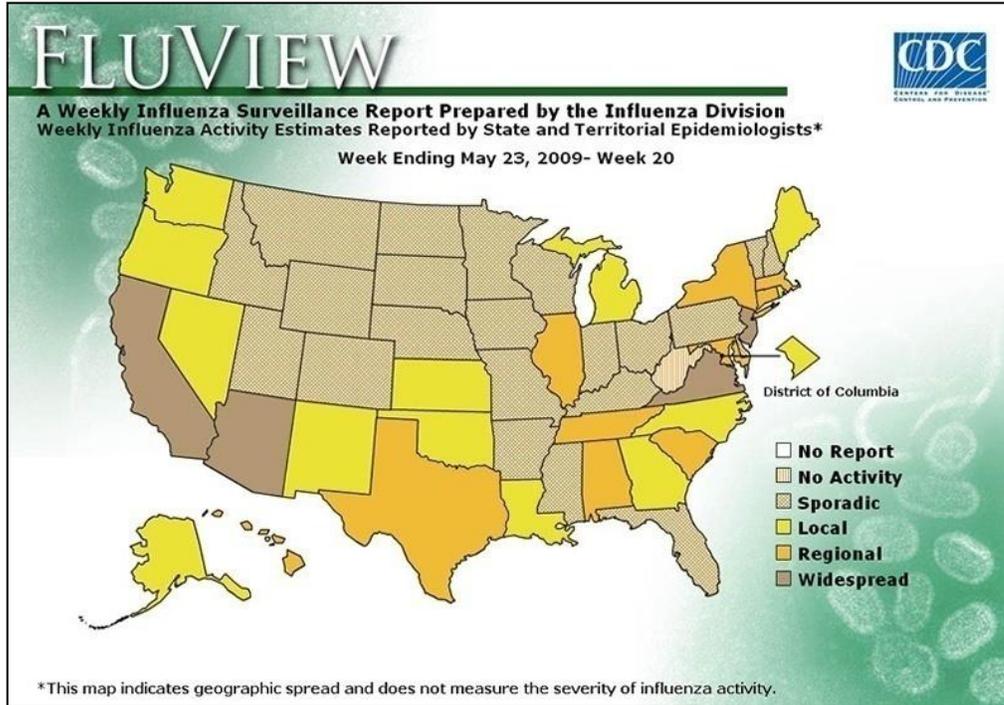
Hong Kong Flu 1968-1969:

Hong Kong Flu was first detected in Hong Kong in 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.

Swine Flu – 2009

Novel influenza A (H1N1) is a new flu virus of swine origin that was first detected in April, 2009. The virus is infecting people and is spreading from person-to-person, sparking a growing

outbreak of illness in the United States. An increasing number of cases are being reported internationally as well.



It's thought that novel influenza A (H1N1) flu spreads in the same way that regular seasonal influenza viruses spread; mainly through the coughs and sneezes of people who are sick with the virus.

It's uncertain at this time how severe this novel H1N1 outbreak will be in terms of illness and death compared with other influenza viruses. Because this is a new virus, most people will not have immunity to it, and illness may be more severe and widespread as a result. The 2009 totals for cases and deaths in Idaho are as follows:

- Official Cases: 166
- Unofficial Cases: 1,165
- Deaths: 22

The death rate per infection of confirmed cases for the United States was 9.39%. The death rate of confirmed cases in Idaho was 7.5%.

Impacts

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

- Rapid Spread
- Health Care Systems Overloaded
- Medical Supplies Inadequate
- Economic and Social Disruption

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.

Schools, business districts, and other public areas may be shut down for a period of time to reduce exposure to the disease. This has the potential to completely devastate the local economy.

Hazard Evaluation

Communicable (Human Borne) Disease		
Profile Category	Rating	Description
Historical Occurrence	1	Low
Probability	2	Low
Vulnerability	3	Critical
Spatial Extent	4	Catastrophic
Magnitude	3	Critical
Total	13	Medium

TECHNOLOGICAL (MANMADE) HAZARDS

STRUCTURAL FIRE

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.

Historical Frequencies

Structure fires are extremely common in Jerome County as they are across the nation. As an example of frequency, the figure below provides a comparison to the number of fire calls in relationship to the population in the jurisdiction.

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

Loss from Structure Fires is typically paid by the home or business owners insurance. Loss and risk typically increase as the population increases in the jurisdictions.

Hazard Evaluation

Structure Fire		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	4	Catastrophic
Total	13	Medium

HAZARDOUS MATERIAL EVENT

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 US Environmental Protection Agency (EPA) and, when transported in commerce, by the US Department of Transportation (DOT). EPA regulations address “hazardous substances” and “extremely hazardous substances”.

The 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.

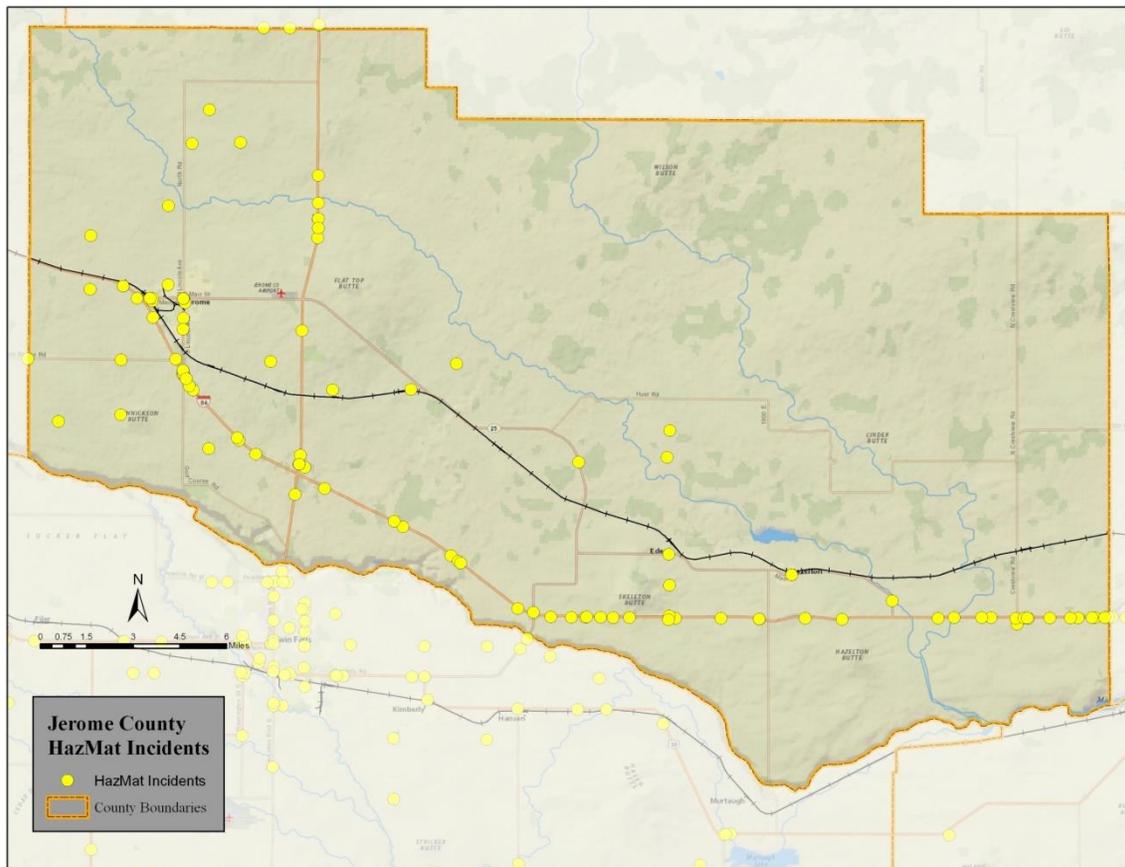
While somewhat differently defined by the above organizations, the term “hazardous material” may be generally understood to encompass substances that have the capability to harm humans and other living organisms, property, and/or the environment. There is also no universally

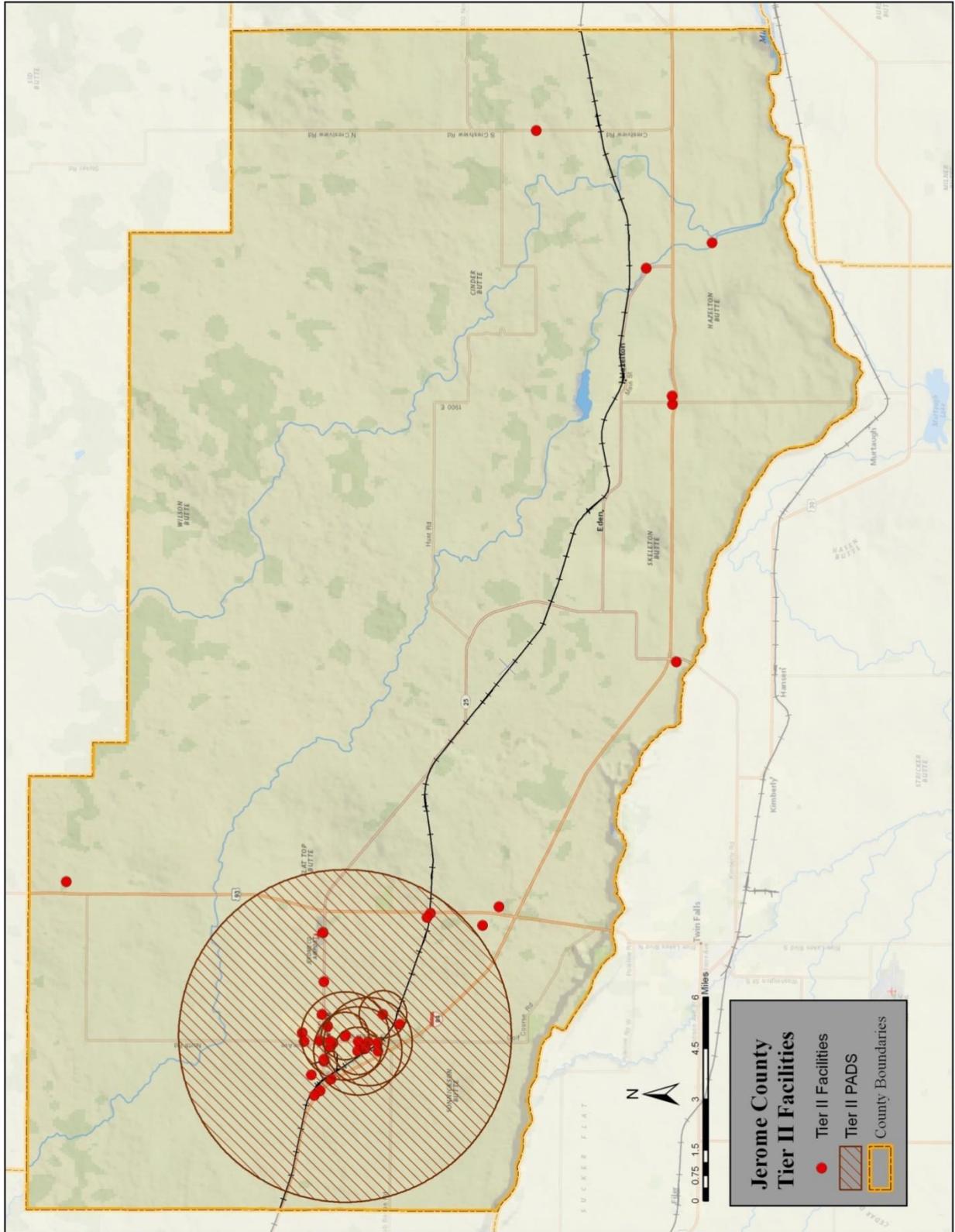
accepted objective definition of the term “hazardous material event.” A useful working definition, however, might be framed as: Any actual or threatened uncontrolled release of a hazardous material, its hazardous reaction products, or the energy released by its reactions that pose a significant risk to human life and health, property and/or the environment.

The next figure shows these Tier II facilities along with their Protective Action Distances (PAD) (See Attachment 3). These PADs are based on a hypothetical worst-case scenario, where the total quantity of the material explodes or is released directly into the air. Hazardous materials are also very commonly stocked and used by businesses in smaller quantities than those required to submit Tier II reports, as well as by private individuals. Thus, it is reasonably safe to consider the entire County and its inhabitants to be exposed to risk from hazardous materials. In spite of their widespread use, however, hazardous materials events are relatively rare, and even more rarely cause death, injury, or large-scale property damage. To some extent this is due to the fact that such hazards are very effectively addressed by inspections, regulations, codes, and safety procedures, as well as by specialized emergency response training.

Historical Frequencies

The following map illustrates hazardous material events in Jerome County as reported by the Idaho Transportation Department between 2010 and 2013:





Protection Action Distances for Tier II Facilities

Impacts

Because hazardous materials are so widely used, stored, and transported, a hazardous material event could take place almost anywhere. Further, many hazardous materials are used, stored, and transported in very large quantities, so the impacts of an event may be widespread and powerful. Regulations and safety practices make such large scale events unlikely, but smaller scale incidents may have severe impacts including:

- Human deaths, injuries, and permanent disabilities
- Livestock/animal deaths
- Destruction of vegetation and crops
- Property damage and destruction
- Pollution of groundwater, drinking water supplies, and the environment
- Contamination of foodstuffs, property, land, and structures
- Temporary or long-term closure of transportation routes and/or facilities
- Loss of business and industrial productivity
- Utility outages
- Clean-up and restoration costs
- Losses and inconvenience due to evacuation
- Loss of valuable chemical product

# Census Blocks Affected	Population	Households	Average Household Size
320	8,902	3,190	2.8

Loss Estimates

Losses due to the release of Hazardous Materials is linked specifically to two (2) areas; 1) Response, including evacuation, and 2) Clean Up. Jerome County has not had a significant hazardous materials incident; however, releases of hydrocarbon fuels are a constant threat. Clean up of these releases is the responsibility of the spiller. Response to releases is reimbursed to the responding jurisdiction by the Idaho Bureau of Homeland Security Hazardous Materials Division.

Hazard Evaluation

Hazardous Materials		
Profile Category	Rating	Description
Historical Occurrence	3	High
Probability	4	High
Vulnerability	3	Critical
Spatial Extent	3	Critical
Magnitude	2	Limited
Total	15	High

CIVIL DISORDER

Description

As 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
- Youth 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.

Historical Frequencies

There are no recorded riot events in Jerome County.

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 come primarily from damage to community and private property. It is difficult to estimate specific losses; however, losses would be consistent with losses due to structure fires and similar incidents.

Hazard Evaluation

Riot/Demonstration/Civil Disorder		
Profile Category	Rating	Description
Historical Occurrence	0	None
Probability	1	Rare
Vulnerability	1	Negligible
Spatial Extent	1	Negligible
Magnitude	1	Negligible
Total	4	Low

TERRORISM

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 terrorism²⁴:

“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, cyber-attacks (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.”

²⁴ <http://www.fema.gov/hazard/terrorism/info.shtm>

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

Historical Frequencies

There are no recorded terrorism events in Jerome 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 of 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.

Hazard Evaluation

Terrorism		
Profile Category	Rating	Description
Historical Occurrence	0	None
Probability	1	Rare
Vulnerability	2	Limited
Spatial Extent	2	Limited
Magnitude	3	Critical
Total	8	Low

COMMUNITY DESCRIPTION

Jerome County ranks 17th among Idaho counties in population and 38th in area. Agriculture dominates the economy, but other sectors provide substantial employment. Shoshone Falls, the “Niagara of the West”, is on the Snake River at the southern edge of the County. Jerome County takes pride in its Agricultural Past with the Idaho Farm and Ranch Agricultural Museum and the Jerome County Historical Museum. Incorporated cities include Jerome, Hazelton, and Eden. Unincorporated areas include Barrymore, Falls City, Greenwood, Hunt, Hydra, McHenry, Perrine, Schodde, Sugar Loaf, and Tipperary Corner. Jerome County was home to the Minidoka Camp, or Hunt Camp, which was one of ten Japanese American internment camps set up during World War II. It was located six miles north of Eden near Hunt, and has since been designated a national monument.

LOCATION

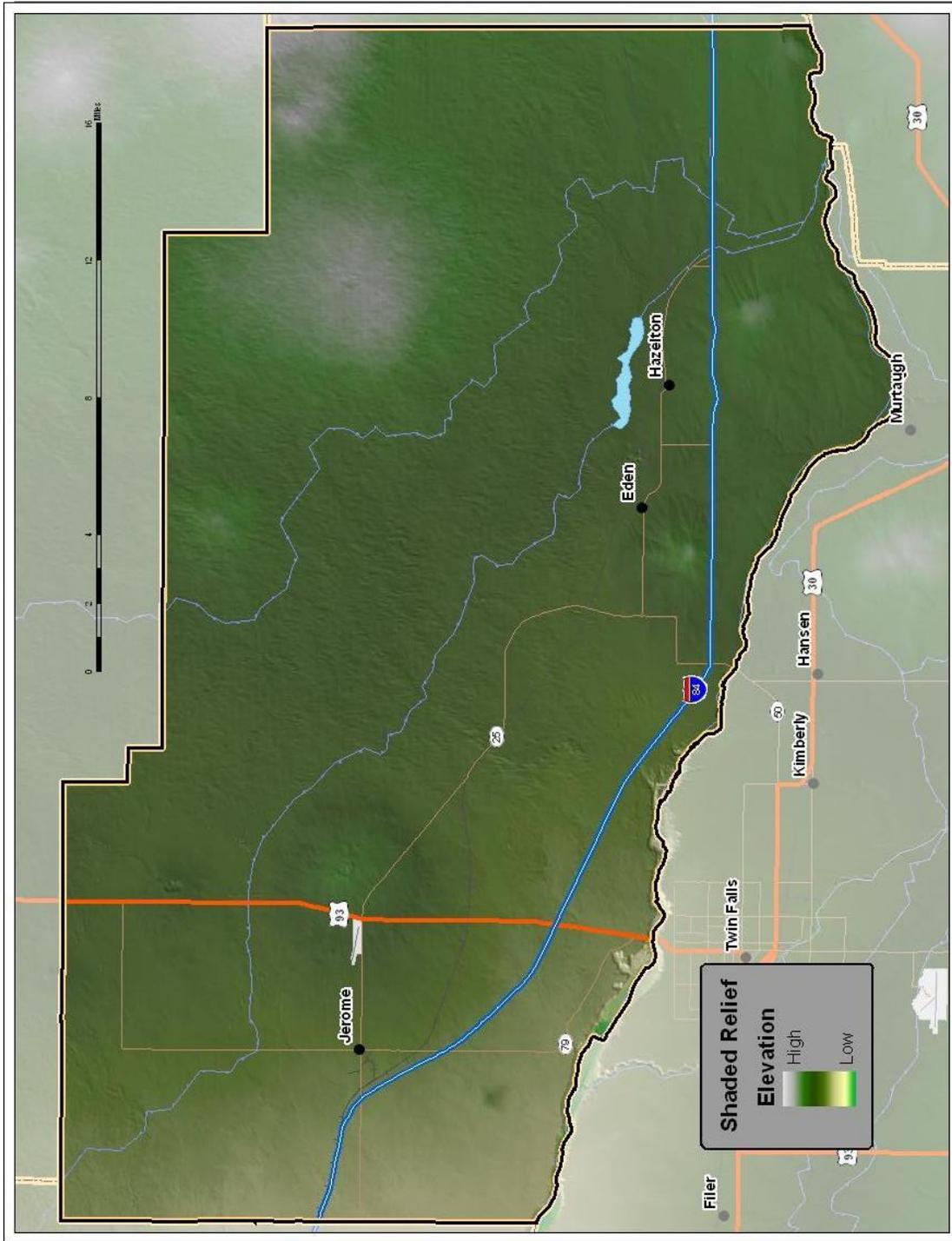
Jerome County is located in south central Idaho. It is bordered on the north by Lincoln County, on the west by Gooding County, on the east by Minidoka County, and on the south by Twin Falls and Cassia Counties. Total land area is 605 square miles.

TOPOGRAPHY AND GEOGRAPHY

Jerome County is in the semi-arid high desert region of south-central Idaho. The County is relatively flat with some low hills and buttes, but no major mountain ranges or valleys. Hazelton has an elevation of 3,955 feet, and Jerome has an elevation of 3,765 feet. The area is primarily agricultural and/or rangeland ecosystems. Rangelands consist of perennial grasses and Basin and Wyoming Big Sagebrush²⁵.

Prominent features include Flat Top Butte, east of the City of Jerome, and Skeleton Buttes in the southeast, and Wilson Butte in the northwest. There are also two buttes south of Eden and Hazelton.

²⁵ Jerome County Idaho, Wildland-Urban Interface Wildfire Mitigation Plan 2004, Page 32



GEOLOGY

Jerome County is completely within the Snake River Plain Sub-Region of the Columbia Plateau Physiographic Province. This area is characterized by a broad, slightly undulating basalt plateau used primarily for agriculture²⁶. There are also alluvial deposits near the Snake River, as well as dry cascades and waterfalls near Eden and Hazelton where water from the Bonneville Flood overflowed the Snake River²⁷.

The Snake River Canyon, which borders Jerome County on the south, is one of the most prominent geologic features in south central Idaho. Below Milner Dam, on the border of Cassia and Jerome Counties, the Canyon is 400 feet deep, and at Shoshone Falls it drops another 212 feet. Scab-land topography near the Falls is associated with the ancient Bonneville Flood. Approximately 15,000 years ago, overflow from Lake Bonneville scoured the Snake River Canyon. The flood water swept the canyon and adjacent uplands of rock debris, eroding alcoves, and scab lands, and depositing huge bars of sand and gravel with boulders²⁸.

While several geothermal resources are located along the Snake River, few developed resources exist in Jerome County. Thermal water at 110 degrees Fahrenheit is discharged from a well located along the Snake River west of Highway 93. No other thermal water has been tapped in Jerome County, and the potential for further prospects is unknown²⁹.

SOILS

Soils in Jerome County are of sedentary origin, and consist mainly of loess and eolian sands. Most soils in the County are silty, except in the southwestern part where sandy soils predominate³⁰.

²⁶ Jerome County Comprehensive Plan

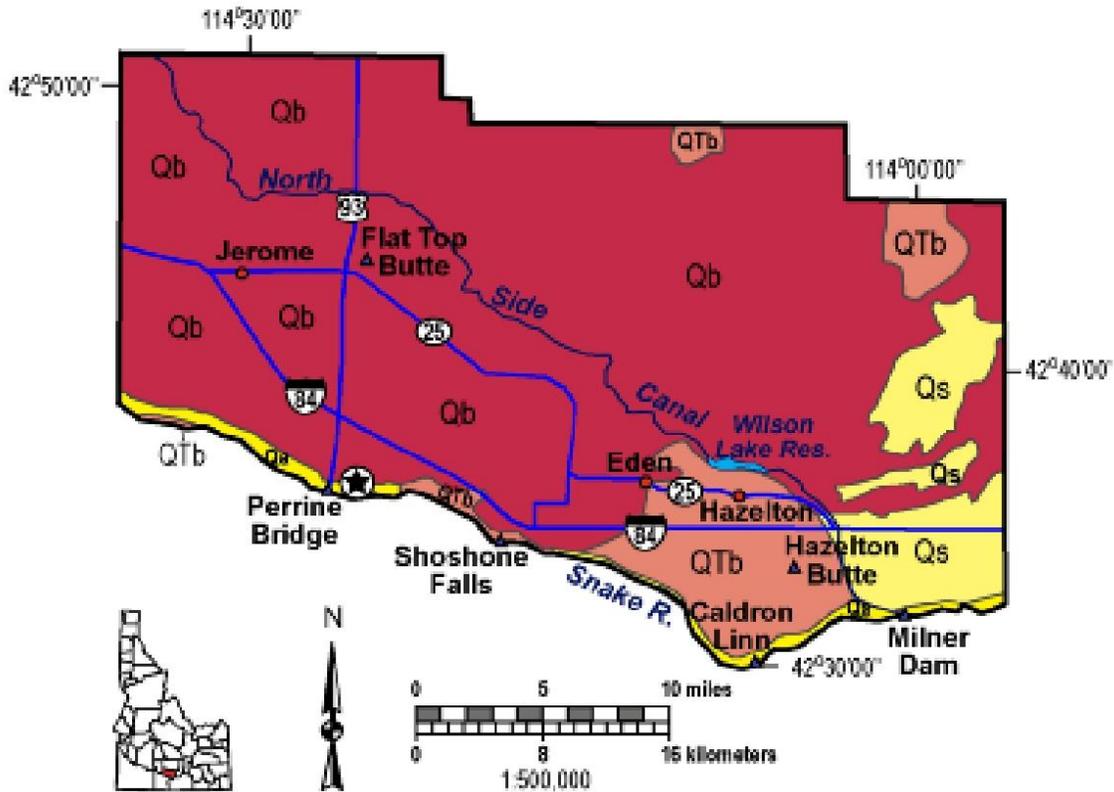
²⁷ Idaho Museum of Natural History Digital Atlas of Idaho (<http://imnh.isu.edu/digitalatlas/counties/geomaps/geomap.htm>)

²⁸ Jerome County Comprehensive Plan

²⁹ Jerome County Comprehensive Plan

³⁰ Jerome County Comprehensive Plan

Jerome County, Idaho



© Digital Atlas of Idaho, Nov. 2002
<http://imnh.isu.edu/digitalatlas>
 Compiled by Paul K. Link,
 Idaho State University, Geosciences Dept.
<http://www.isu.edu/departments/geology/>

Geologic Units

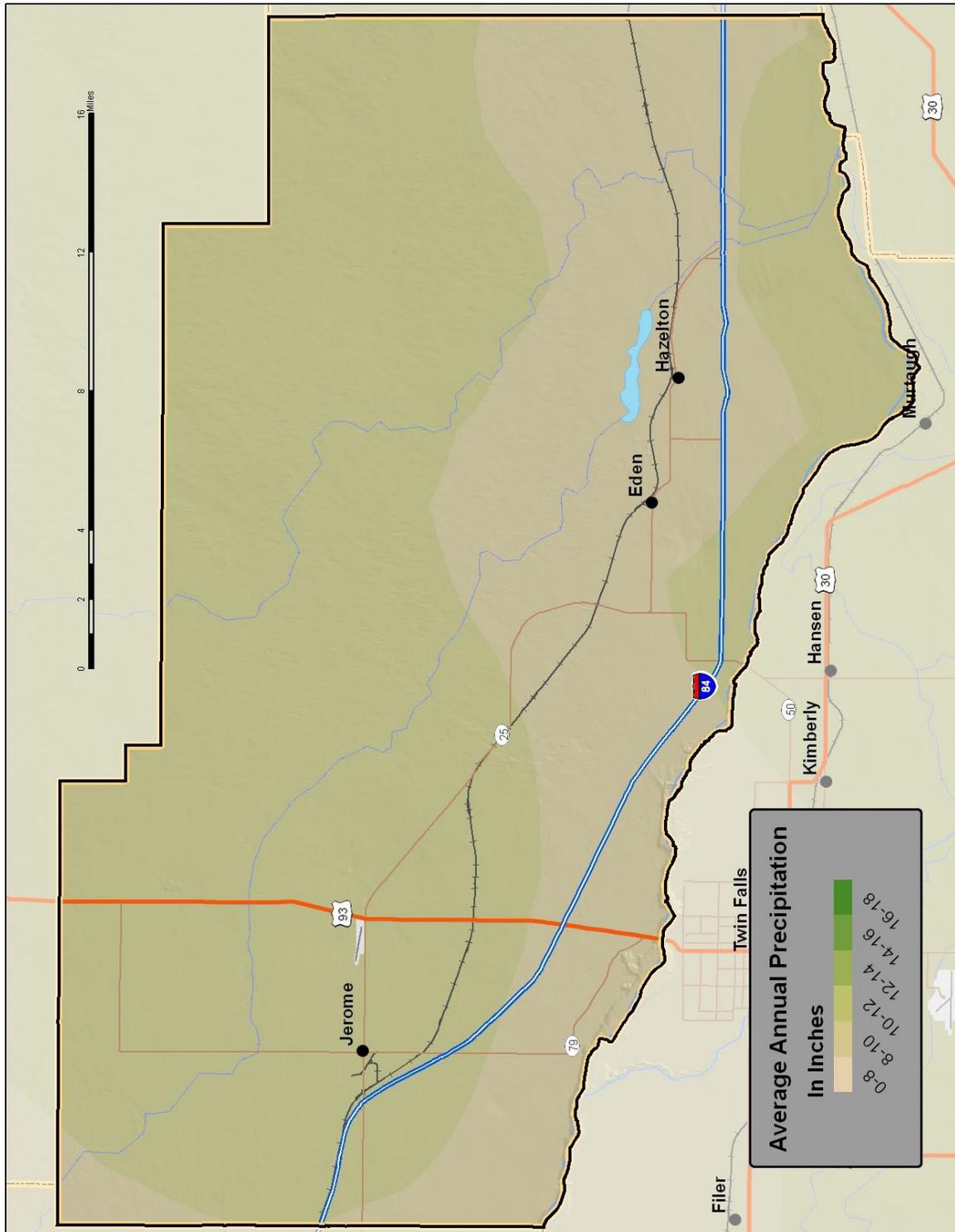
- Qa** Quaternary alluvial deposits
- Qs** Quaternary surficial cover, fluveolian cover on Snake River Plain, alluvial fans (Snake River Group)
- Qb** Pleistocene basalt lava
- QTb** Pleistocene and Pliocene basalt lava and associated tuff

Jerome County Lithology Map

CLIMATE

In the summer, the average daily temperature is 70 degrees F with the warmest month being July. In the winter, the average daily temperature is 29 degrees F and the coldest month is January. Average annual precipitation is 10.26 inches. The wettest month is January, and the driest month is July. The growing season is usually June through September. During this time the County receives approximately 3 inches of precipitation. The table below outlines monthly average maximum and minimum temperatures and average precipitation and snowfall recorded at Jerome, Idaho.

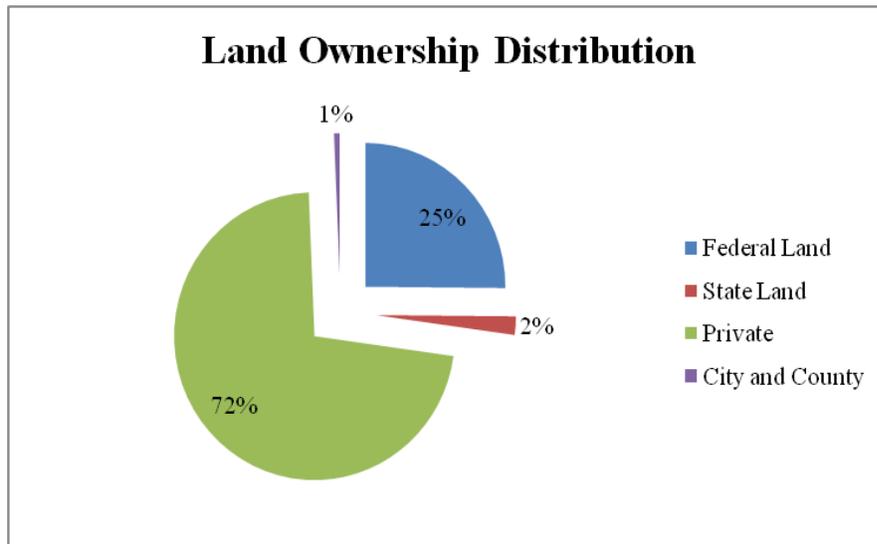
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average high in °F:	37	42	53	62	71	81	92	91	79	65	49	37
Average low in °F:	19	21	28	34	42	49	56	54	45	36	26	19
Av. precipitation in inch:	1.14	0.94	1.14	1.06	1.18	0.79	0.2	0.2	0.39	0.87	1.3	1.5



Jerome County Annual Precipitation Map

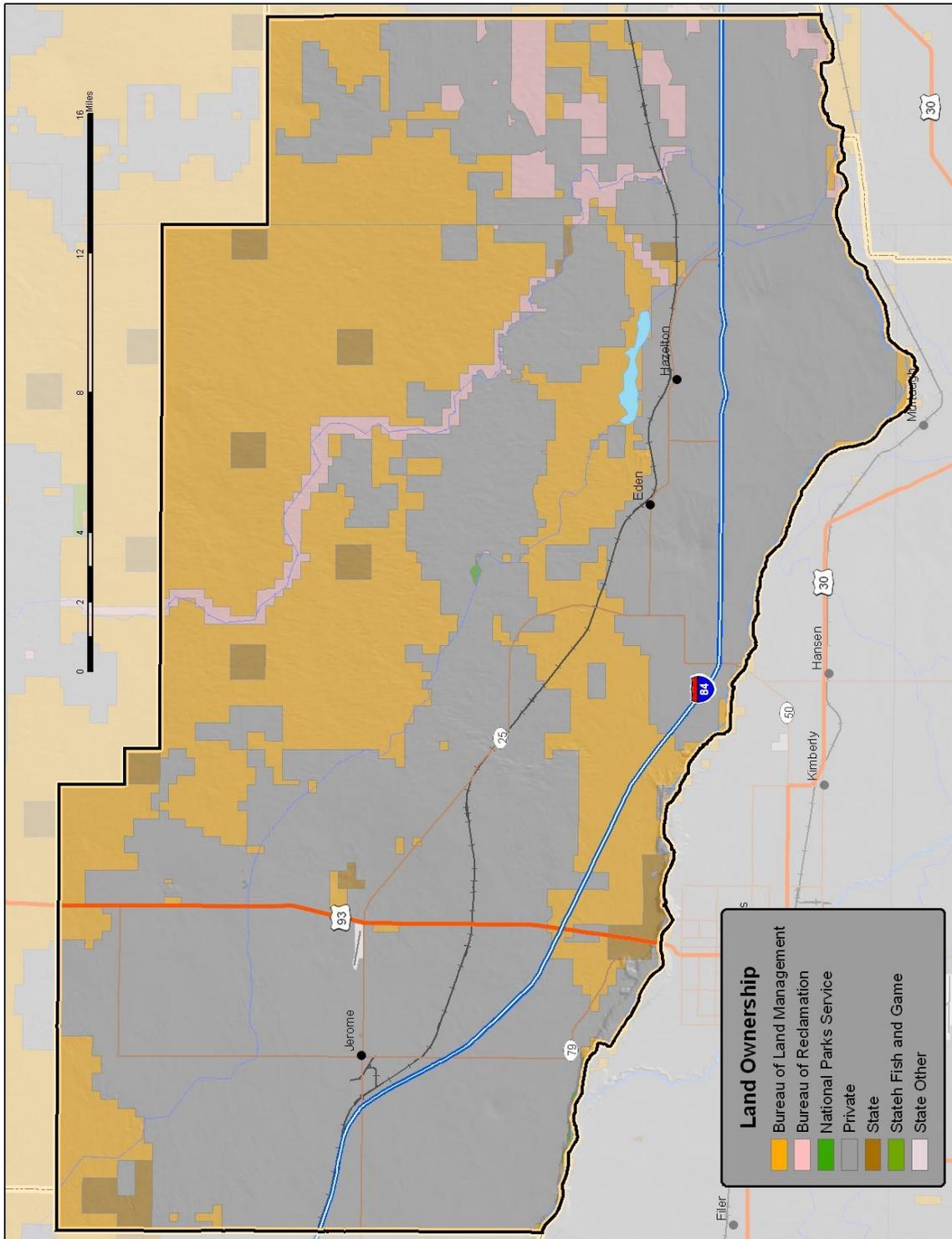
LAND OWNERSHIP

Jerome County has a total of 383,936 land acres. Private land makes up the majority of the County with 72.1% or 276,955 acres. The Federal Government owns 96,510 acres most of which is administered by the Bureau of Land Management. The State of Idaho owns 7,951 acres made up mostly of Endowment Lands. Idaho Fish and Game administer only 360 acres in Jerome County. County lands total 2,503 acres and Municipal lands make up 17 acres.



Jerome County Land Ownership Distribution
Source: Idaho Department of Labor

Much of the northern region of the County is owned by the BLM and this area is actively grazed. The BLM also manages the Snake River Rim Recreation Area in south central Jerome County east of Highway 93.



Land Use and Natural Resources

The following table shows land use types in Jerome County. Agriculture and Rangeland together make up 70 percent of land use type in the County. Agriculture is an important land use in Jerome County as it is a major contributor to the economy. The total number of farms is declining in the County but average farm size is increasing. Farms under 10 acres or hobby farms have increased (96 in 1992 to 146 in 2002)³¹

Land Use Types		
	Acres	Percent of Total
Urban Land	3,000	0.8%
Agricultural	200,700	52.3%
Rangeland	70,000	18.3%
Forest	0	0.0%
Water	2,500	0.7%
Wetland	0	0.0%
Barren Land	107,200	28.0%

Jerome County Land Use Types
Source: Idaho Department of Labor

The Communities in Jerome County were evaluated by the University Of Idaho College Of Natural Resources Policy Analysis Group for the degree of natural resource dependency experienced by each. Their findings indicated that Eden, Hazelton, and Jerome are categorized as an “Agriculture Only” dependent community. Eden and Hazelton had 20% or more of total employment in the Agricultural sector while Jerome had between 11-19%³².

HISTORY

The first known habitants in the area were Shoshone and Northern Paiute Indians who migrated between the Snake River and the southern uplands. The Pacific Fur Company began to explore the area in 1811, and beaver trappers frequented the area in the 1820’s and 1830’s. The Oregon Trail was established in 1843, and emigrants followed the trail through the area until 1863 when the Halliday Stage Line built Home Station on Rock Creek.

In about 1865 gold was discovered along the Snake River and several mining camps boomed, but went bust by 1875.

Cattle ranching began in the late 1870’s and remained the main industry until irrigation water became available when the Milner Dam was built in 1905. Soon after, farmers settled in the area of present day Jerome City. Jerome County was created in 1919 from parts of Minidoka, Lincoln, and Gooding Counties. Jerome City was founded the same year.

³¹ Idaho Department of Labor, Jerome
³² Jerome County Idaho, Wildland-Urb

DEMOGRAPHICS

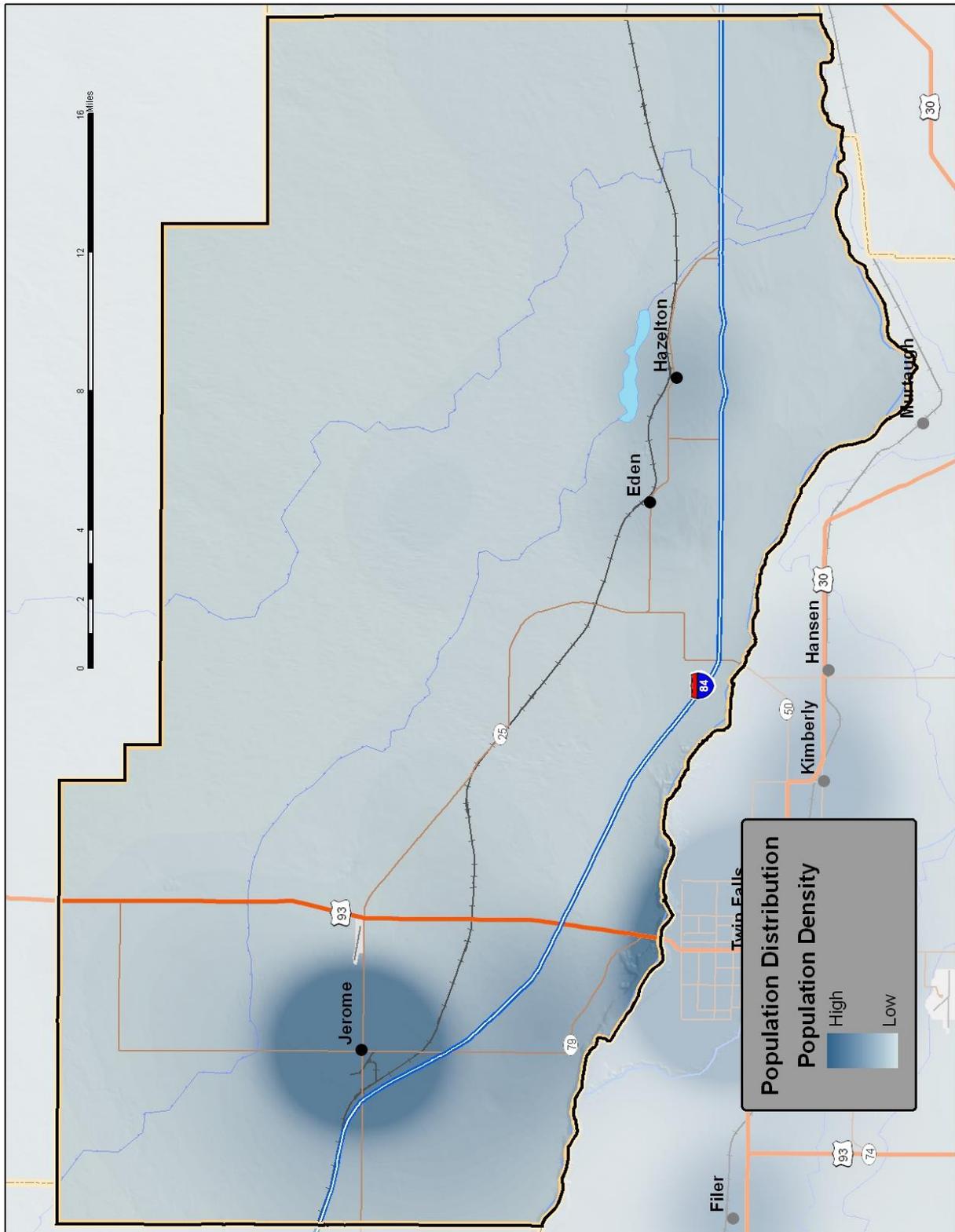
In 2006, Jerome County had a population of 20,130 with 33.6 persons per square mile. The population has grown steadily since 1989 when the County experienced a slight decrease. Between 1990 and 2006, the County experienced a 33% increase in population. The following chart shows the population growth for Jerome County between 1980 and 2006. The population is expected to continue to increase at a brisk pace due to the diversifying and growing economy³³.

Note the growth in population for the three incorporated cities in Jerome County, as well as those living outside incorporated areas (shown as Rest of County). Between 1990 and 2000, the County as a whole grew by 21.2%; however Hazelton grew much faster at 74.4%. The City of Jerome grew slower than the County at only 19.2%. Between 2000 and 2006 the County grew by 9.7%. The City of Jerome showed the greatest increase during this period at 11.6%. Approximately half the County resides outside of an incorporated city.

	1990	2000	2006	Percent Change 1990-2000	Percent Change 2000-2006
County	15,138	18,342	20,130	21.2	9.7
Eden	314	411	418	30.9	1.7
Hazelton	394	687	723	74.4	5.2
Jerome	6,529	7,780	8,687	19.2	11.6
Rest of County	7,907	9,464	10,302	19.7	8.9

Population trends for Jerome County

³³ Idaho Department of Labor, Jerome County Work Force Trends, January 2008.



VULNERABILITIES

COUNTY FACILITIES

County administrative offices are located at the County Courthouse at 300 North Lincoln Street in Jerome. These offices include the county clerk, auditor, treasurer, assessor, prosecuting attorney, district court, former ambulance building, planning, zoning, and building departments, and the University of Idaho County Extension Service.

- Jerome County Facilities

Address	Description	Value
300 N Lincoln St	Courthouse	\$5,897,000
240 E Main St	Former Ambulance Building	\$479,000
233 W Main St	Judicial Annex	\$4,225,000
200 North Fir Street	New merchants Building	\$493,000
	Horse Stables	\$340,000
	Grandstands	\$235,000
None listed	House/Planning & Zoning	\$75,000
Airport	Guer House Trailer	\$16,000
Total Value		\$11,760,000

PUBLIC SERVICE FACILITIES

Sewer and Water

Jerome County has a total of 22 public and private water systems inspected by the Idaho Department of Environmental Quality. The incorporated cities within Jerome County all provide culinary water to residents within their boundaries. Other water systems serve businesses, churches, campgrounds, and subdivisions. Outside city boundaries and areas where a water system is not available, County residents must rely on private wells for culinary water.

All sewer lines are provided by incorporated cities. Residents of the unincorporated County must rely on private septic tanks. The South Central Health District reviews septic permit applications. Any structure proposing a subsurface sewage disposal system must be situated on a site of no less than one acre. Permit applications are evaluated based on soil properties, depths to groundwater and bedrock, proximity to canals and surface water, test hole drilling, and on-site inspections. The County building department cannot issue building permits until a septic permit has been granted. Plants and subdivisions are also subject to sanitary restrictions under Idaho Code requirements for prior approval of sewer and water plans by the director of the department of health³⁴.

³⁴ Jerome County Comprehensive Plan

Solid Waste Management

Landfill services are provided by the Southern Idaho Regional Solid Waste District in Burley. Solid wastes are disposed of at the Milner Butte Landfill, located about 12 miles west of Burley off U.S. Highway 30. Bulk waste transfer is available at the Gap Transfer Station located 6 miles east of Highway 75 on Highway 24 in Lincoln County. Other services provided by the district include recycling programs for construction and demolition wastes, and neighborhood bins for newsprint, paper, and aluminum recyclables.

Public Utilities

Electricity is provided by **Idaho Power**.

Telecommunication services are provided by **Qwest**. Lines generally coincide with major electrical transmission lines.

Intermountain Gas Company provides natural gas services in more densely populated areas of the County.

WATER RESOURCES

Surface Water

The only major River is the Snake River that forms the southern border of the County. Other rivers include the Wilson River which has headwaters in Gooding County.

Wilson Lake Reservoir is the largest reservoir in the County and sits on the Wilson River. Other Reservoirs include Bend Reservoir, Blue Lakes, Cheatgrass Reservoir, Don Reservoir, East Artifact Reservoir, Goose Lake, Hidden Reservoir, Hope Reservoir, Poleline Reservoir, Rabbit Lake Reservoir, and Vineyard Lake. Lakes include 26 Mile Lake, Camp Two Lake, Rocky Ridge Lake, and Russian Lake.

There are several small streams, springs, and canals in the County.

Ground Water

Jerome County is underlain by the Snake River Plain Aquifer. The eastern portion of this aquifer extends across southern Idaho and is about 170 miles long, 60 miles wide, and 10,800 square miles in area. The aquifer provides the largest inflow of water to the Snake River from Milner Dam to King Hill, discharging approximately 5,700 cubic feet per second of water. The primary source of recharge to the Snake River ground water system is from seepage of surface water used for irrigation. However, since the mid 1950's surface water irrigation has increased in efficiency causing a decline in groundwater recharge while at the same time ground water pumping has increased. With the decline in recharge and an increase in pumping, the level of water in the aquifer is declining³⁵.

Irrigation

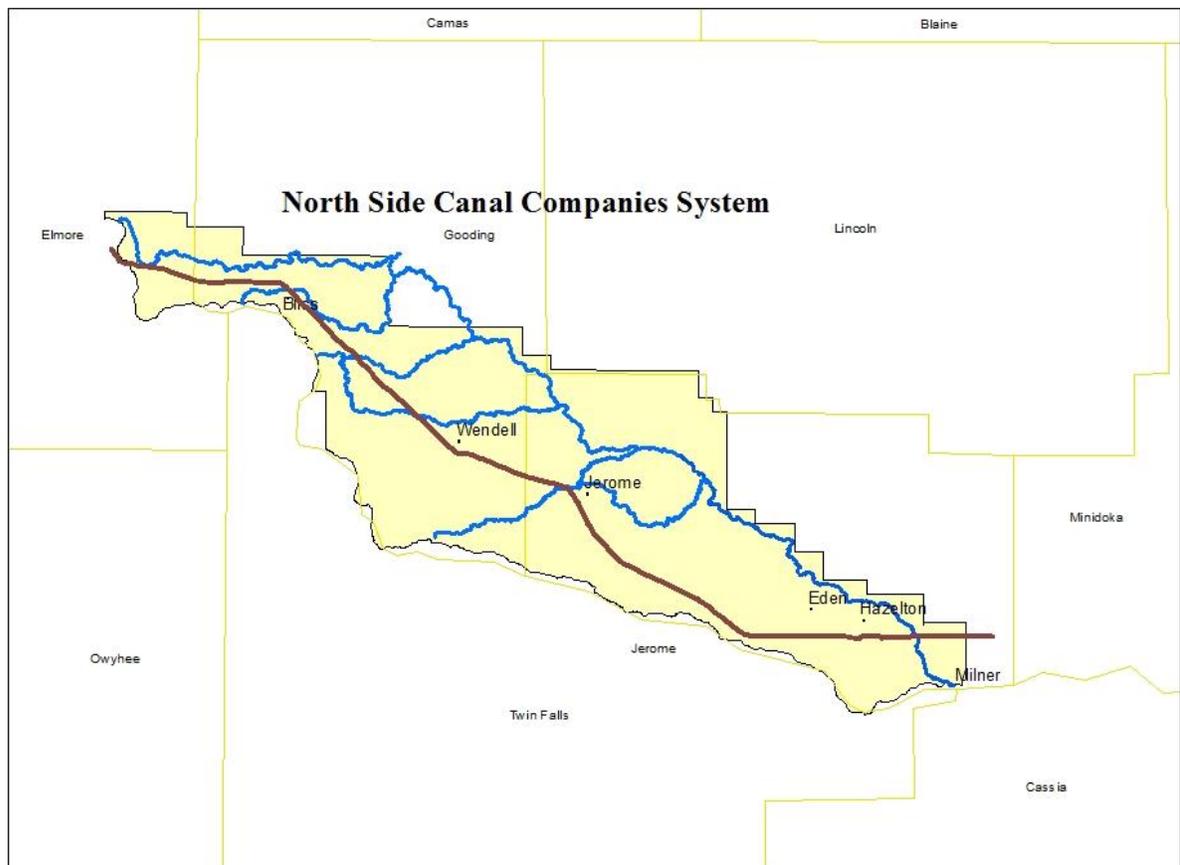
In 2002, Jerome County had a total of 139,908 irrigated acres. That number is down from 151,726 acres just five years previous in 1997³⁶. There are approximately 28 canals in Jerome County. Irrigation water comes exclusively from the Snake River Aquifer and is provided by the

³⁵ Jerome County Comprehensive Plan

³⁶ Idaho Department of Labor

NSCC serving around 1,200 users in Jerome County. Annual water supplied by the canal system ranges between 500,000 and 800,000 acre feet. The primary flow right of 400 cfs is diverted from the Snake River at Milner Dam. The main Jerome County canal runs to the northwest from Milner Dam, passing about 3 miles north of the city of Jerome³⁷.

The North Side Canal system begins at Milner Dam and makes its way through Jerome, Gooding, and Elmore counties; terminating just East of the town of King Hill. The system serves 160,000 acres of irrigated farmland. The Company uses natural flow on the Snake River and supplements that with 860,000 acre-feet of storage water, when needed, that is collected in Jackson Lake, Palisades Reservoir, and American Falls Reservoir.



³⁷ Jerome County Comprehensive Plan

TRANSPORTATION

Roadways

The main arterials through the County are Interstate 84 and US Highway 93. Interstate 84 is an east/west route that roughly follows the Snake River on the southern border of the County. This Interstate is a major transportation corridor for the northwest section of the United States. US Highway 93 is a north/south route in western Jerome County. It connects the County to Twin Falls City and Nevada to the south, and Central Idaho and Montana to the north.

Other routes include State Route 50, 25, and 79 that mainly serve the southern portion of the County.

Bridges

The following table provides a list of bridge location, class, year constructed, and value:

Owner	Name	Bridge Class	Year Constructed	Total Value
State Highway Agency	SH 50	HWB15	1966	\$39,137.90
	SH 50	HWB17	1964	\$23,328.16
	SH 25	HWB17	1966	\$31,792.66
	SH 25	HWB3	1956	\$4,822.42
	SH 25	HWB3	1933	\$1,928.45
	SH 25 ;RIDGEWAY RD	HWB17	1966	\$10,870.20
	SH 79	HWB12	1966	\$48,054.22
	I 84 EBL	HWB3	1966	\$2,766.96
	I 84 WBL	HWB3	1954	\$1,936.87
	I 84	HWB3	1966	\$8,585.51
	I 84 EBL	HWB3	1965	\$8,063.71
	I 84 WBL	HWB3	1965	\$8,063.71
	I 84 EBL	HWB17	1966	\$10,534.21
	I 84 WBL	HWB17	1966	\$10,534.21
	I 84 EBL	HWB3	1966	\$1,791.72
	I 84 WBL	HWB3	1966	\$1,791.72
	I 84 EBL	HWB5	1966	\$6,745.68
	I 84 WBL	HWB5	1966	\$6,745.68
	I 84 EBL	HWB5	1966	\$6,745.68
	I 84 WBL	HWB5	1966	\$6,745.68
	I 84 EBL	HWB3	1966	\$8,101.13
	I 84 EBL	HWB5	1966	\$6,940.08
	I 84 WBL	HWB5	1966	\$6,940.08
	I 84 WBL	HWB3	1966	\$1,769.04
	I 84 EBL	HWB3	1966	\$2,080.08
	I 84 WBL	HWB17	1966	\$11,975.04
	I 84 EBL	HWB17	1966	\$11,975.04

Owner	Name	Bridge Class	Year Constructed	Total Value
	I 84 EBL	HWB17	1966	\$6,729.48
	I 84 WBL	HWB17	1966	\$4,961.74
	I 84 EBL	HWB5	1966	\$6,970.54
	I 84 WBL	HWB5	1966	\$6,970.54
	I 84 EBL	HWB5	1966	\$6,858.11
	I 84 WBL	HWB5	1966	\$6,858.11
	US 93	HWB3	1976	\$177,018.70
	US 93	HWB3	1952	\$2,031.97
	US 93	HWB3	1984	\$3,003.80
	US 93	HWB17	1984	\$10,163.56
	US 93	HWB3	1984	\$3,518.15
	CO RD;OLD US 93	HWB3	1934	\$1,238.33
	CO RD;OLD US 93	HWB5	1934	\$6,300.50
	CO RD;OLD US 93	HWB3	1934	\$1,741.82
	COUNTY ROAD	HWB15	1971	\$19,739.54
	100 SOUTH ROAD	HWB17	1965	\$11,034.14
	VINEYARD ROAD	HWB17	1965	\$9,565.78
	EDEN ROAD	HWB17	1966	\$10,870.20
Subtotal Value				\$586,340.86
Other Local Agencies	STC 2730	HWB3	1964	\$3,773.95
	STC 2744	HWB3	1965	\$1,087.83
	STC 2745	HWB15	1971	\$9,774.11
	STC 2754	HWB3	1983	\$2,164.16
	STC 2754	HWB3	1983	\$2,164.16
	STC 2754	HWB3	1983	\$2,164.16
	STC 2757	HWB3	1954	\$1,371.01
	STC 2757	HWB11	1999	\$2,334.42
	STC 2757	HWB3	1954	\$2,621.48
	FTC2765;BOB BARTON	HWB3	1973	\$1,858.95
	CO.RD;PLNG#022A	HWB3	1965	\$1,371.82
	CO.RD;PLNG#0043	HWB3	1955	\$1,062.23
	STC 2768	HWB3	1970	\$2,743.63
	CO.RD;PLNG#0019	HWB3	1974	\$1,600.88
	CO.RD;PLNG#0019	HWB3	1981	\$2,697.79
	COUNTY ROAD	HWB3	1965	\$1,369.39
	CO.RD;PLNG#0042	HWB3	1968	\$1,023.84
	CO.RD;PLNG#0015	HWB3	1970	\$1,336.34
	CO.RD;PLNG#021B	HWB3	1970	\$1,638.14
	COUNTY ROAD	HWB17	1966	\$8,681.90

Owner	Name	Bridge Class	Year Constructed	Total Value
	CO.RD;PLNG#0042	HWB3	1975	\$1,101.60
	CO.RD;PLNG#0018	HWB3	1960	\$934.25
	CO.RD;PLNG#0012	HWB5	1975	\$1,945.30
	CO.RD;PLNG#040A	HWB17	1966	\$6,575.58
	CO.RD;PLNG#0009	HWB5	1960	\$2,022.08
	CO.RD;PLNG#0046	HWB17	1975	\$3,677.89
	CO.RD;PLNG#0046	HWB17	1975	\$3,169.37
	CO.RD;PLNG#026D	HWB3	1960	\$2,643.84
	CO.RD;PLNG#0013	HWB11	1990	\$2,874.69
	CO.RD;PLNG#024C	HWB3	1950	\$1,021.90
	CO.RD;PLNG#055C	HWB17	1969	\$2,956.50
	COUNTY ROAD	HWB11	1992	\$1,533.17
	COUNTY ROAD	HWB3	1969	\$1,561.36
	STC 2755	HWB4	1990	\$1,179.36
	COUNTY ROAD	HWB3	1972	\$1,369.39
	STC 2755	HWB3	1988	\$1,218.08
	COUNTY ROAD	HWB3	1986	\$1,685.29
	COUNTY ROAD	HWB17	1962	\$3,851.55
	COUNTY ROAD	HWB3	1960	\$1,501.09
	200 North	HWB4	2001	\$1,454.44
	200 NORTH	HWB4	2001	\$1,519.56
	CO.RD;PLNG#0027	HWB5	1970	\$3,002.18
	CO.RD;PLNG#018D	HWB3	1950	\$1,102.57
	CO.RD;PLNG#0057	HWB3	1963	\$1,349.46
	STC 2768	HWB3	1986	\$3,303.83
	CO.RD;PLNG#0051	HWB3	1974	\$1,040.69
	CO.RD;PLNG#0032	HWB3	1975	\$2,814.59
	STC 2768	HWB3	1986	\$3,303.83
	CO.RD;PLNG#023A	HWB3	1972	\$1,599.75
	CO.RD;PLNG#009C	HWB3	1964	\$1,381.54
	CO.RD;PLNG#038C	HWB3	1965	\$1,170.45
	CO.RD;PLNG#045B	HWB3	1972	\$886.95
	CO.RD;PLNG#0053	HWB3	1975	\$1,158.95
	COUNTY ROAD	HWB5	1928	\$7,115.04
	CO.RD;PLNG#0017	HWB3	1950	\$1,089.29
	CO.RD;PLNG#038D	HWB3	1962	\$844.67
	COUNTY ROAD	HWB3	1965	\$1,297.30
	CO.RD;PLNG#0020	HWB3	1975	\$1,620.00
	CO.RD;PLNG#049B	HWB12	1965	\$1,653.37
	COUNTY ROAD	HWB4	1995	\$1,254.20

Owner	Name	Bridge Class	Year Constructed	Total Value
	CO.RD;PLNG#0009	HWB3	1973	\$1,194.10
	COUNTY ROAD	HWB10	1929	\$3,153.33
	CO.RD;PLNG#043A	HWB11	1991	\$2,602.53
	STC 2768	HWB22	1986	\$13,982.87
Subtotal Value				\$156,557.93
Total Value				\$742,898.79

Airports

Jerome County has two airports. Jerome County Airport is located 3 miles east of Jerome. It is attended 24 hours and has communication and navigation capabilities, and a 5,201 foot asphalt runway. It has no scheduled passenger or freight flights.

Hazelton Municipal Airport is located one mile south of Hazelton. There are no communication or navigation capabilities and it is not attended. The runway is gravel and 2,800 feet long and has no winter maintenance. It has no passenger or freight flights.

Commercial airline travel for the County is available at the Twin Falls Municipal Airport located in Twin Falls County.

Rail

The Eastern Idaho Railroad Company provides national freight service on the North Side Branch which travels east-west through Jerome County. The branch line goes through the north side of Hazelton and Eden and travels along the south side of the city of Jerome, paralleling I-84³⁸.

HOUSING

In 2006, there were 7,152 housing units. Sixty-five (65%) percent of the housing units were built prior to 1980. The largest increase in housing units was 1970-1979 when 1,833 units were added. The 1990s also saw a large increase in housing units when 1,189 units were added to the housing stock. Between 2000 and 2006, 439 units were added³⁹.

According to the 2013 Census there are 8,163 housing units in the County. Home ownership rate is 63.9%.⁴⁰

³⁸ Jerome County Comprehensive Plan

³⁹ Idaho Commerce of Labor

⁴⁰ <http://quickfacts.census.gov/qfd/states/16/16053.html>

EDUCATIONAL FACILITIES

Address	Description	Value
311 North Lincoln	Library	\$116,491.97
311 North Lincoln	Central Elementary Main Building	\$7,268,000
311 North Lincoln	Storage Building #1	\$10,644.02
311 North Lincoln	Maintenance & Central	\$189,703
311 North Lincoln	Storage Building Kindergarten 2	\$10,629.60
600 North Fillmore	Jefferson Elementary Main Building	\$9,686,000
600 North Fillmore	Portable Classrooms	\$74,536.98
934 10th Avenue East	Horizon Elementary Main Building	\$9,686,000
934 10th Avenue East	Horizon Kindergarten	\$509,000
934 10th Avenue East	Kindergarten Storage	\$5,646.46
116 3rd Avenue West	Middle School Main Building	\$5,427,000
116 3rd Avenue West	Walk in Cooler	\$37,681.52
116 3rd Avenue West	Shop	\$702,129.37
104 Tiger Drive	Tech Building	\$582,000
104 Tiger Drive	Storage Building	\$19,415.50
104 Tiger Drive	Concession Building	\$60,973.94
104 Tiger Drive	Bleachers	\$57,314.35
104 Tiger Drive	Announcers Booth	\$12,061.30
104 Tiger Drive	Misc Const Ticket Booth	\$21,652.66
104 Tiger Drive	Vo Ag Building	\$1,357,000
104 Tiger Drive	High School Main Building	\$18,936,000
104 Tiger Drive	Hitting Facility	\$40,000
104 Tiger Drive	Score Box/Concession Stand	\$10,000
200 West 10th	Summit Elementary School	\$9,000,000
520 W 10th	Jerome Middle School	\$18,000,000
Total Value		\$81,819,881.01

Jerome School District Facilities

Address	Description	Value
882 Valley Rd S, Hazelton	K-12 Building	\$13,258,525
Total Value		\$13,258,525

Valley School District Facilities-Hazelton

RECREATION AREAS

Jerome County offers many recreational opportunities including hunting, fishing, water and winter sports, hiking, camping, sightseeing, and wildlife and nature photography. The Snake River has many sportsmen access sites for fishing and camping as well as boating, rafting, and swimming.

Wilson Lake Reservoir located just off State Route 25 offers picnicking, swimming, and boating facilities. The BLM Snake River Rim SRMA (Special Recreation Management Area) near Shoshone Falls offers off-road vehicle trials, mountain biking, hiking, hunting, fishing, and swimming opportunities.

Scott's access south of Jerome offers opportunities for boating, fishing, and hunting for waterfowl and upland game birds.

CULTURAL AND HISTORIC SITES

Sites in Jerome County listed on the National Register of Historic Places include:

1. **Allton Building** (added 1983 - Building- #83002299)
160 E. Main St., Jerome
2. **Bacon, T. C., Water Tank and Well House** (added 1983 - Structure - #83004568)
Off SR 93, Jerome
3. **Barnes, Tom, Barn** (added 1983 - Building - #83002317)
E of Jerome,
4. **Bethune-Ayres House** (added 1983 - Building - #83002318)
E of Jerome,
5. **Blessing, Carl, Outbuildings** (added 1983 - Building - #83002319)
NW of Jerome,
6. **Bothwell, James, Water Tank House** (added 1983 - Building - #83002320)
N of Jerome,
7. **Bower, Charles, House** (added 1983 - Building - #83002321)
N of Jerome,
8. **Brick, Frank J., House** (added 1983 - Building- #83002322)
300 N. Fillmore St., Jerome
9. **Caldron Linn** (added 1972 - Site - #72000442) 2 mi. E of Murtaugh
10. **Callen, Dick, House** (added 1983 - Building - #83002323)
S of Jerome
11. **Canyonside School** (added 1983 - Building- #83003579)
S of Jerome
12. **Cook, William H., Water Tank House** (added 1983 -Building - #83004211)
SE of Jerome
13. **Cooke, E. V., House** (added 1983 - Building - #83002324)
NE of Jerome
14. **Daniels, O. J., House** (added 1983 - Building- #83002325)
S of Jerome
15. **Doughty, George V., House and Garage** (added 1983 - Building - #83002326)
35 NE of Jerome,

16. **Dunn, William S., House** (added 1983 -Building - #83004569)
360 Park Ave., Hazelton
17. **Epperson, George, House** (added 1983 - Building - #83002354)
93 SE of Jerome,
18. **Erdman, G. H., House** (added 1983 - Building - #83002353)
70W of Jerome,
19. **Falls City School House** (added 1983 - Building - #83002352)
61 SE of Jerome,
20. **Fry, Merrit, Farm** (added 1983 - Building - #83002351)
41 W of Jerome,
21. **Gleason, F. C. House** (added 1983 - Building- #83002350)
51 209 E. Ave. A, Jerome
22. **Goff, Hugh and Susie, House** (added 1983 - Building - #83002349)
76 NE of Jerome,
23. **Graves, Lulu, Farm** (added 1983 - Building - #83002348)
94 NW of Jerome,
24. **Gregg, Edward M., Farm** (added 1983 - Building - #83002347)
36SE of Jerome,
25. **Havens, Bert and Fay, House** (added 1983 - Building - #83002346)
85N of Hazelton,
26. **Hazelton Presbyterian Church** (added 1991 - Building- #91000459)
Also known as **Valley Presbyterian Church**;310 Park Ave., Hazelton
27. **Huer Well House/Water Tank** (added 1983 - Building - #83002345)
95 NE of Jerome,
28. **Jerome City Pump House** (added 1983 - Building- #83002344)
77 600 Block of E. B St., Jerome
29. **Jerome Cooperative Creamery** (added 1983 - Building - #83002338)
37313 S. Birch St., Jerome
30. **Jerome County Courthouse** (added 1987 -Building - #87001600)
N. Lincoln, Jerome
31. **Jerome First Baptist Church** (added 1983 - Building- #83002339)
99 1st Ave., E., Jerome
32. **Jerome National Bank** (added 1978 - Building - #78001069)
100 E. Main St., Jerome
33. **Johnson, Edgar, House** (added 1983 - Building - #83002340)
S of Jerome,
34. **Keating, Clarence, House** (added 1983 - Building- #83002341)
NE of Jerome,
35. **Kehrer, Thomas J., House** (added 1983 - Building - #83002342)
N of Jerome,
36. **Kelley, Marion and Julia, House** (added 1983 - Building - #83002343)
450 4th St., E., Hazelton
37. **Laughlin, Ben, Water Tank House-Garage** (added 1983 - Building- #83002337)
E of Jerome,
38. **Lawshe, George, Well House** (added 1983 -Building - #83002336)
SE of Jerome,

39. **Lee, J. O., House** (added 1983 - Building - #83002335)
5th Ave., E., Jerome
40. **Lee, J.O., Honey House** (added 1983 - Building- #83002334)
5th Ave., E., Jerome
41. **Mandl, Joseph, House** (added 1983 - Building - #83002333)
800 N. Fillmore St., Jerome
42. **Milner Dam and the Twin Falls Main Canal** (added 1986 - Structure - #86001720)
Twin Falls Main Canal between Murtaugh and Milner Lakes, Milner Butte
43. **Minidoka Internment National Monument** (added 1979 - Site - #79000791)
Also known as **Camp Minidoka** Hunt Rd., Hunt
44. **Newman, J. W. and Rachel, House and Bunkhouse** (added 1983 - Building-
#83002332) E of Jerome, Jerome
45. **North Side Canal Company Slaughter House** (added 1983 - Building - #83002331)
NE of Jerome,
46. **Osborne, Jessie, House** (added 1983 - Building - #83002329)
W of Jerome,
47. **Ploss, A. G., House** (added 1983 - Building - #83004570) W of Jerome,
48. **Quay, Greer and Jennie, House** (added 1983 - Building - #83002330)
NE of Jerome, Jerome
49. **Ricketts, Julian T., House** (added 1983 - Building - #83002328)
SE of Jerome, Jerome
50. **Schmerschall, John F., House** (added 1983 - Building - #83002327)
248 E. Ave. A, Jerome
51. **Shepard, L. Fay, House** (added 1983 - Building - #83002300)
S of Hazelton, Hazelton
52. **Shoshone Falls Power Plant Caretaker's House** (added 1983 - Building - #83002301)
SE of Jerome, Jerome
53. **Silbaugh, W. H., House** (added 1983 - Building- #83002302)
W of Jerome,
54. **Spencer, Edward S., House and Garage and the Fred Nelson Barn** (added 1983 -
Building- #83002303) N of Jerome, Jerome
55. **Stevens, Arnold, House** (added 1983 - Building - #83002304)
W of Jerome, Jerome
56. **Stickel, John, House** (added 1983 - Building - #83002305)
W of Jerome,
57. **Sugarloaf School** (added 1983 - Building - #83002306)
E of Jerome,
58. **Thomason Rice Barn** (added 1983 - Building- #83002307)
E of Jerome,
59. **Tooley, Don, House** (added 1983 - Building- #83002308)
NE of Jerome,
60. **Van Hook, Jay, Potato Cellar** (added 1983 - Building - #83002309)
S of Jerome, Jerome
61. **Van Wagener, Jacob B., Barn** (added 1983 -Building - #83002310)
SE of Jerome, Jerome

- 62. **Van Wagener, Jacob B., Caretaker's House** (added 1983 - Building - #83002311)
SE of Jerome,
- 63. **Veazie, William T. and Clara H., House** (added 1983 - Site - #83002312)
SW of Jerome,
- 64. **Vineyard, Charles C., House** (added 1983 - Building - #83002313)
SW of Eden,
- 65. **Vipham, Thomas, House** (added 1983 - Building - #83002314)
313 E. Ave. D, Jerome
- 66. **Webster, Archie, House** (added 1983 - Building - #83002316)
West Ave. and W. Ave. B, Jerome
- 67. **Weigle, William, House and Water Tank** (added 1983 - Building- #83002315)
NW of Jerome,
- 68. **Wilson Butte Cave** (added 1974 - Site - #74000741) Address Restricted, Hunt
- 69. **Wilson Lake Reservoir Spillway and Canal Walls** (added 1983 - Structure-
#83004571) N of Eden, Eden

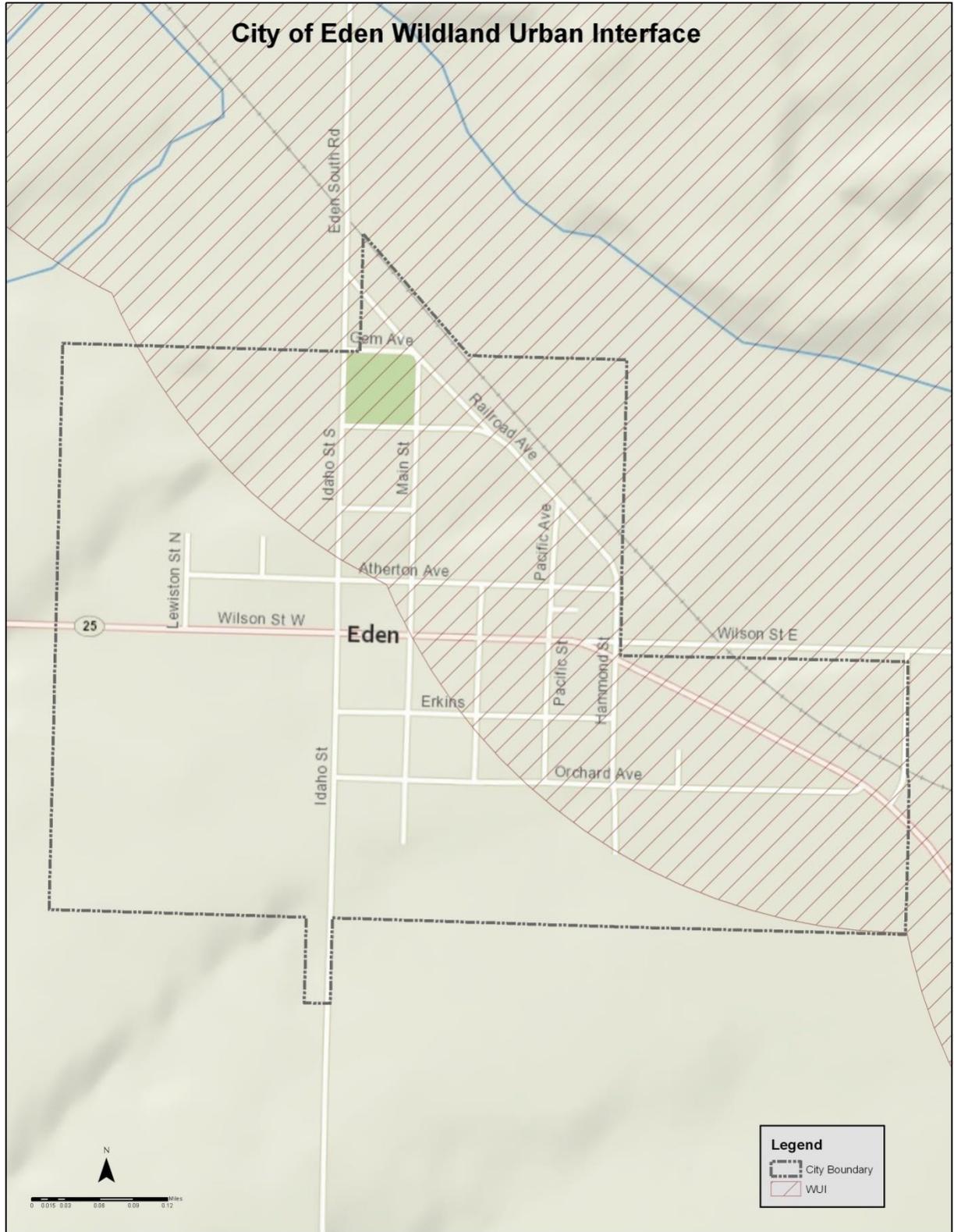
CITY OF EDEN

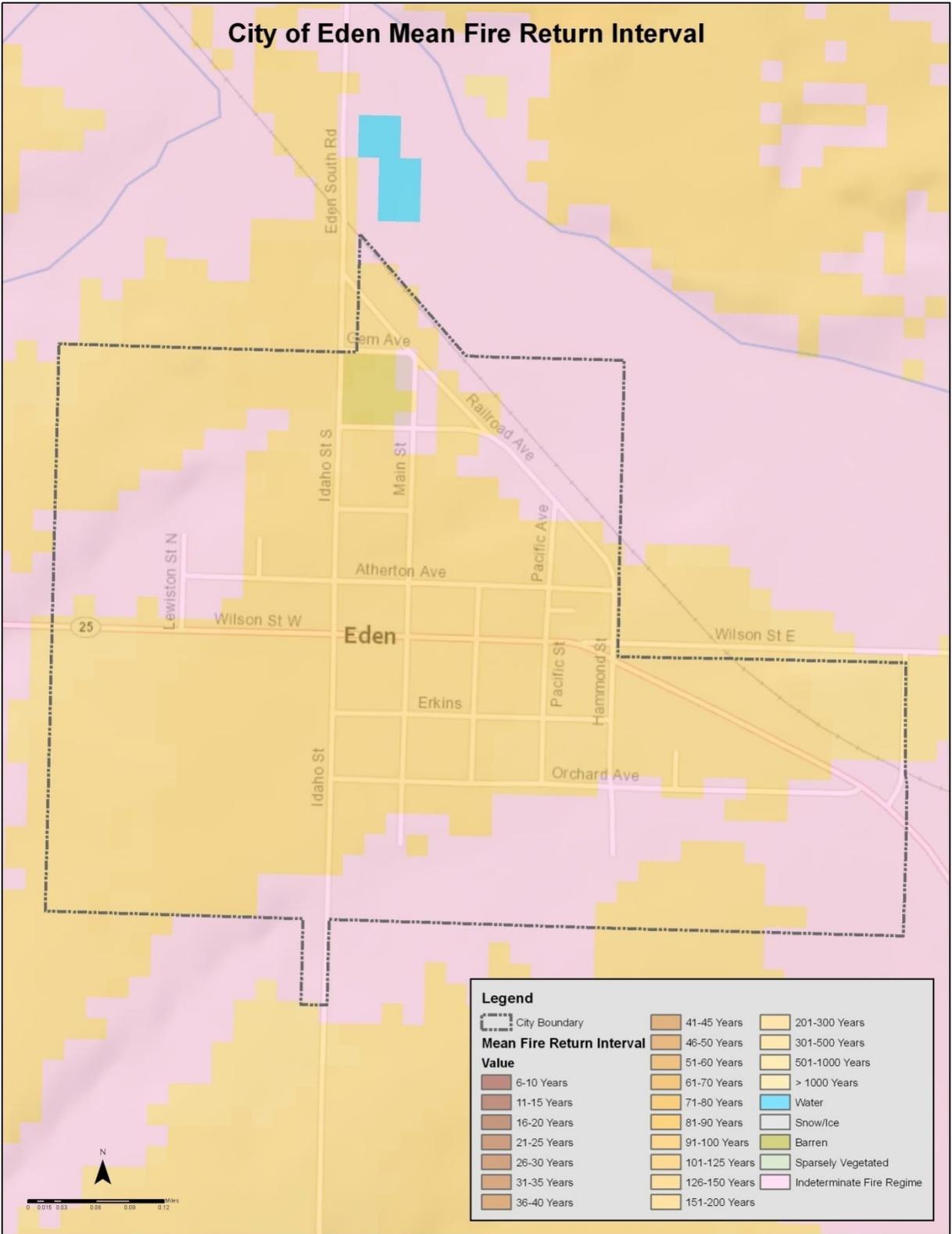
City of Eden Facilities

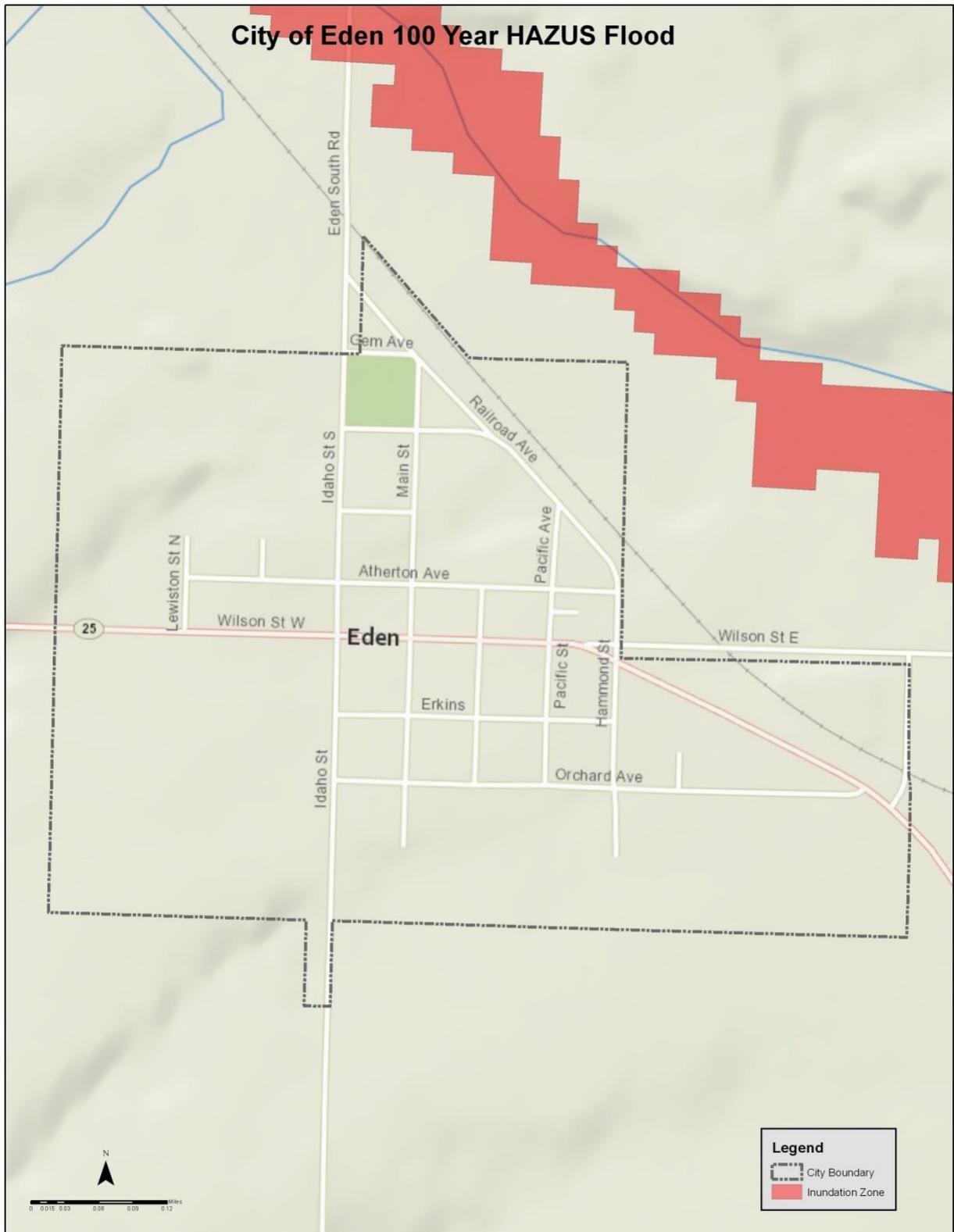
Address	Description	Value
Idaho Street	Maintenance Shed	\$5,513
115 Main St South	Office	\$82,688
355 S Main St	Pump House	\$27,563
320 West Wilson	Storage	\$0
355 S Main St	Storage Shed	\$15,435
355 S Main St	Storage Shed	\$1,103
Total Value		\$132,302

The City of Eden is relatively free of natural hazards. As illustrated by the maps that follow there is no floodplain in the City nor is there a wildfire hazard, although the City does border a wildfire urban interface area. The City, as are all of the jurisdictions in Jerome County, is vulnerable to severe weather, especially straight line wind.







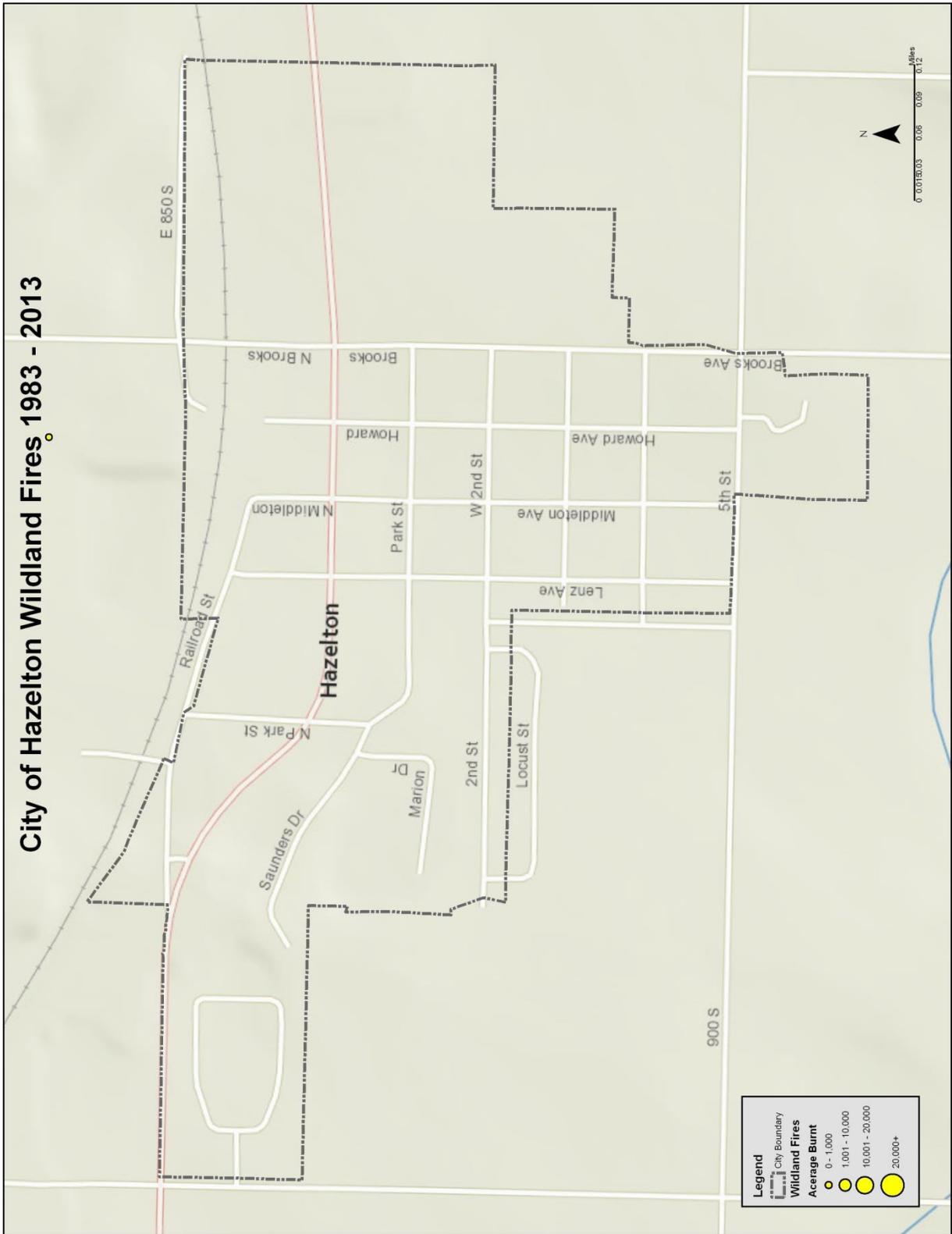


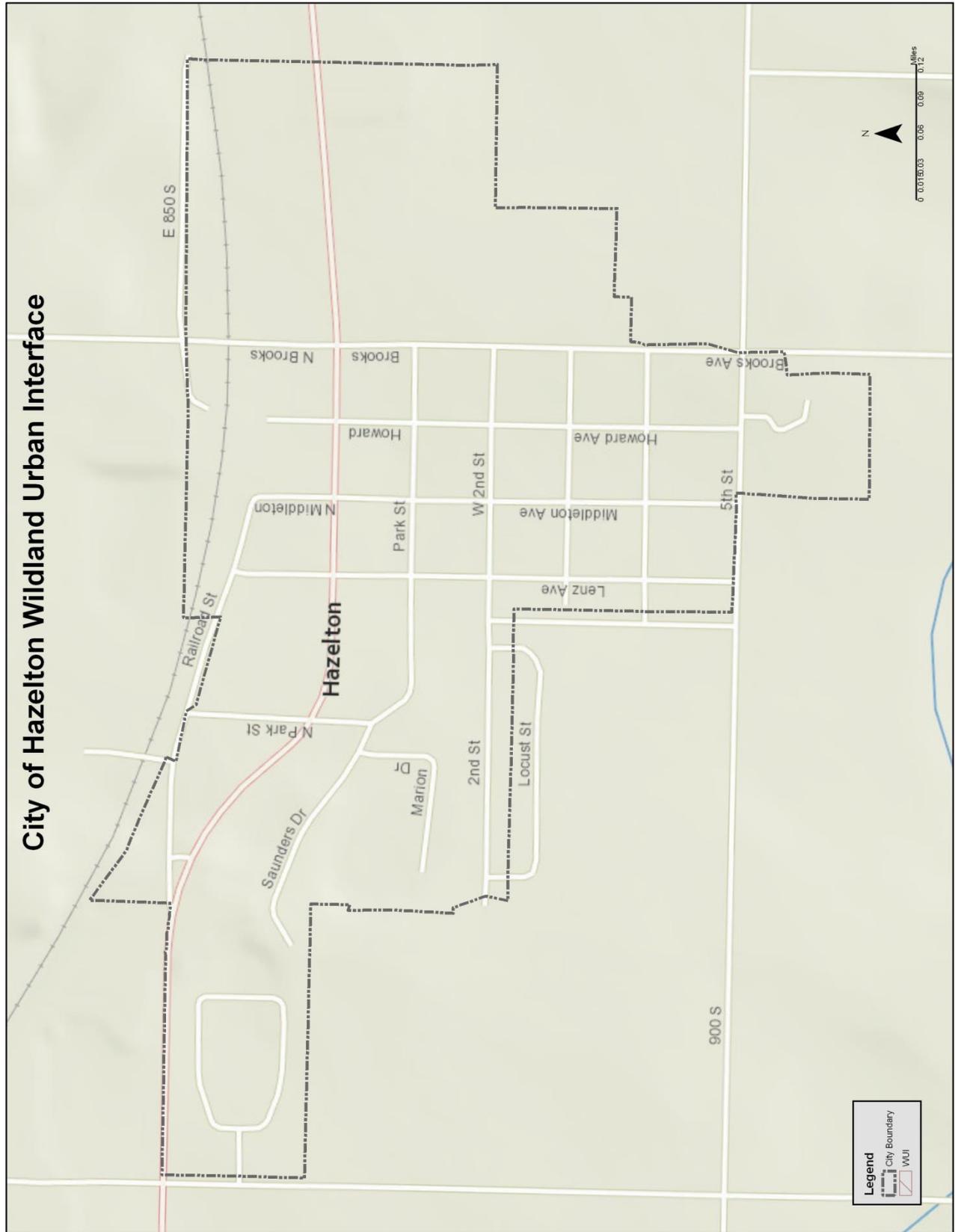
CITY OF HAZLETON

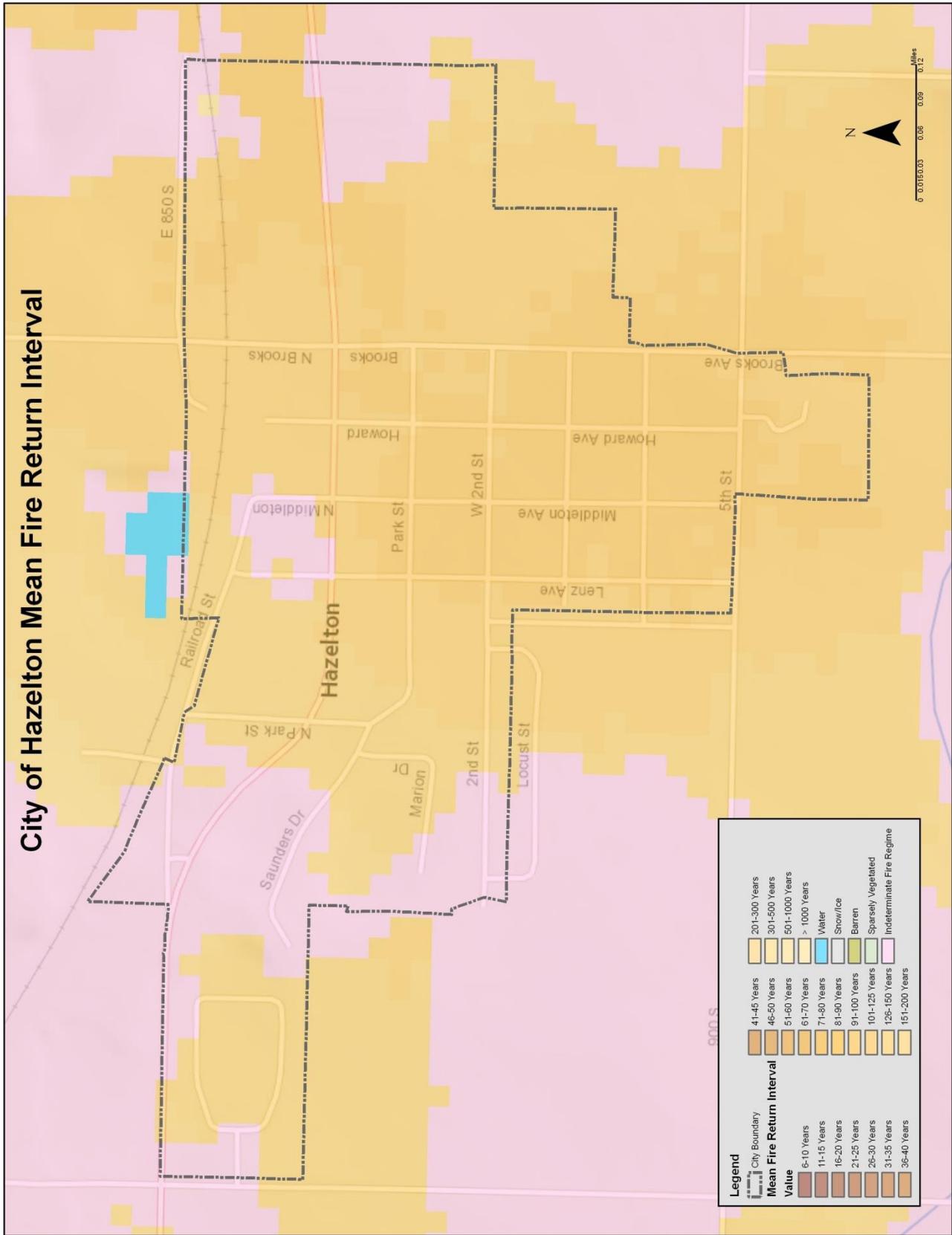
City of Hazelton Facilities

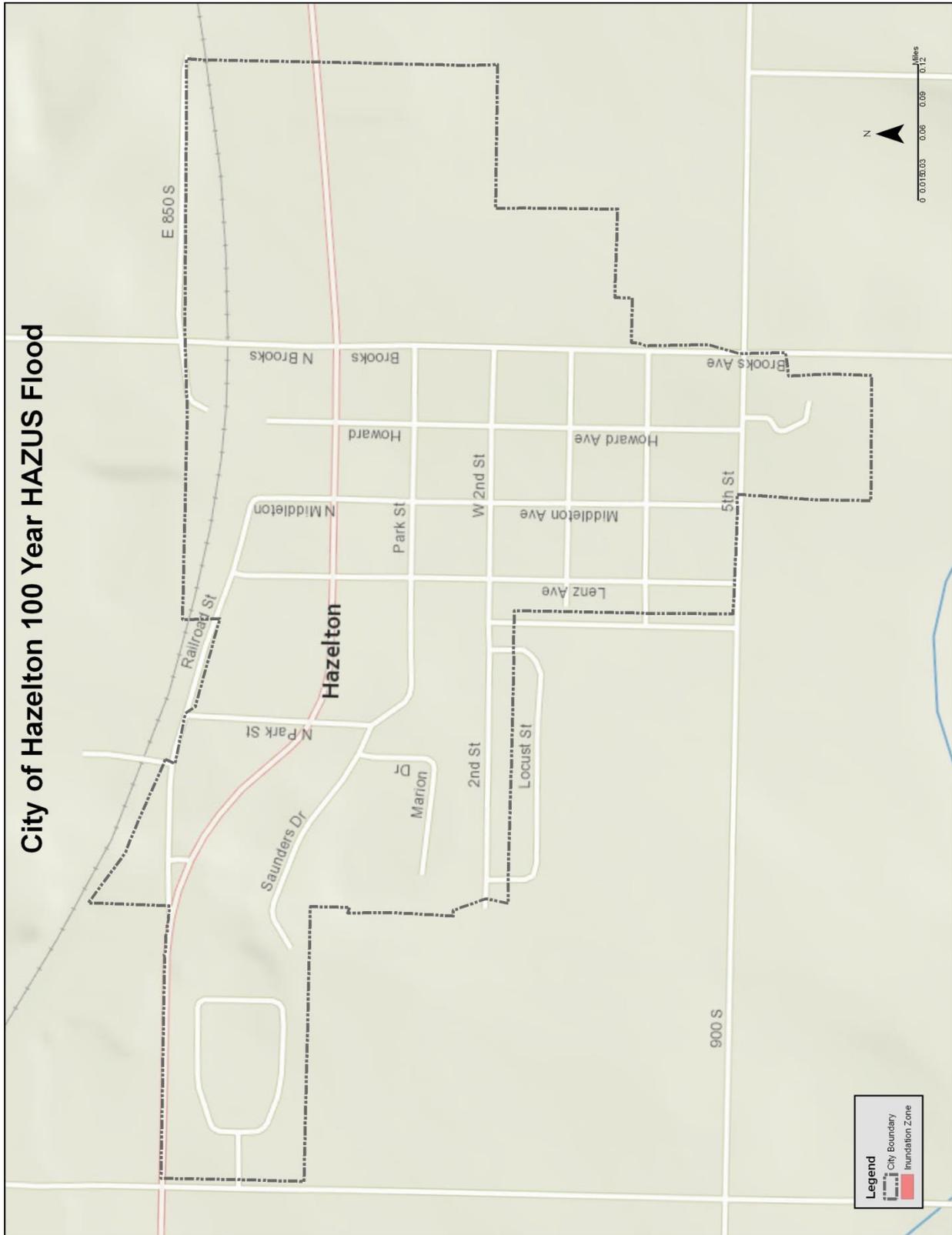
Address	Description	Value
246 Main St.	City Hall	\$224,869
Middleton/5 th	Pumphouse	\$ 57,128
	Water Tank	\$577.500
Northbrooks	Sewage Plant	\$ 12,154
246 Main St.	Storage	\$ 48,620
Main St. East	Storage	\$ 20,000
463 Main W.	Storage	\$ 40,000
Brooks N	Pumphouse	\$120,585
Brooks N	Wastewater	\$950,000
Total Value		\$2,050,856

The City of Hazelton is relatively free of natural hazards. As illustrated by the maps that follow there is no floodplain in the City, nor is there a wildfire hazard. The City, as are all of the jurisdictions in Jerome County, is vulnerable to severe weather, especially straight line wind.







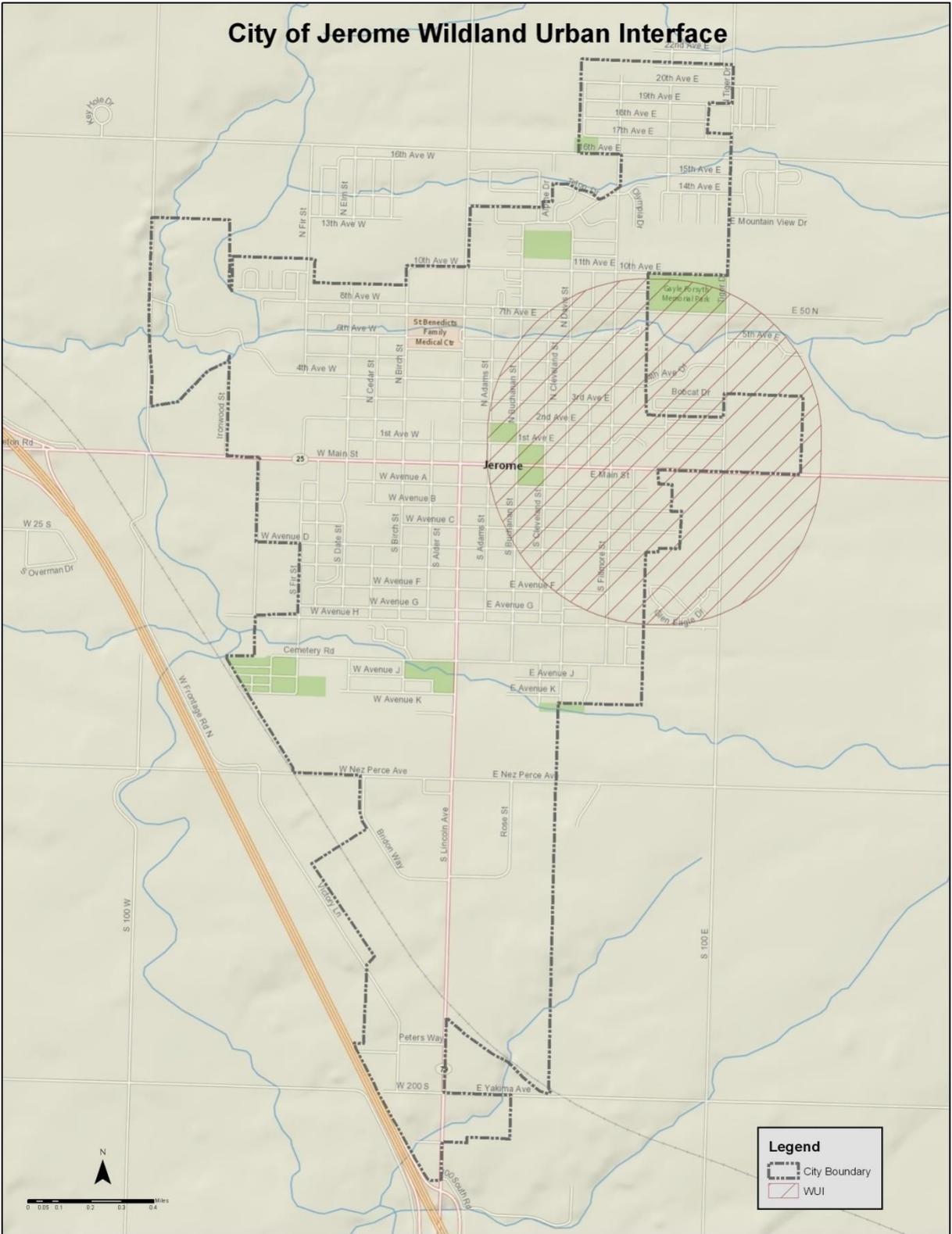


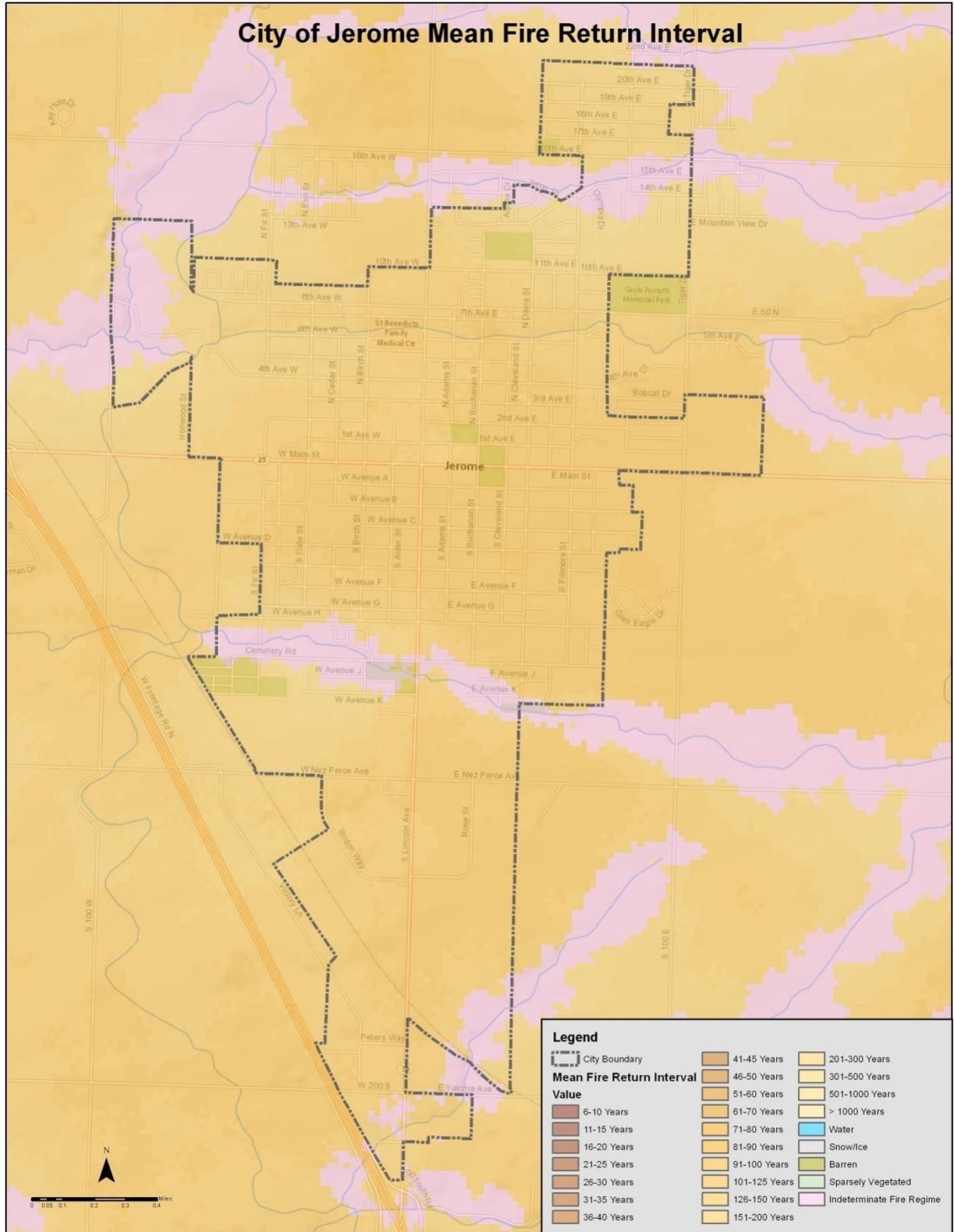
CITY OF JEROME

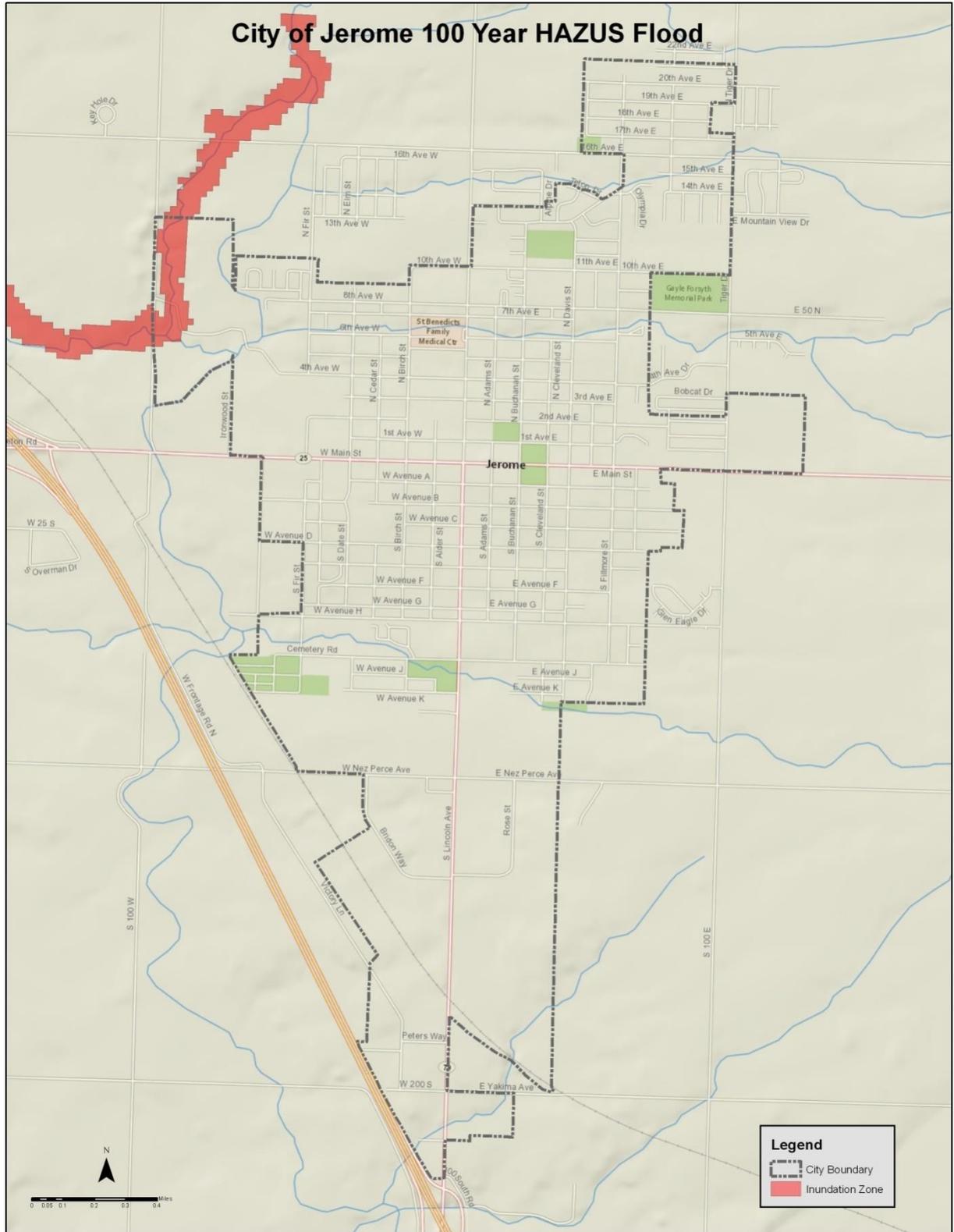
Address	Description	Value
152 East A	City Hall	\$1,481,679.38
800 West 4th	Shop	\$465,853.82
100 East 1st	Library	\$2,000,000.00
619 East Avenue	Avenue A Building	\$191,083.59
619 E Avenue A	Pump House	\$160,137.33
619 E Avenue A	Office-Pump House	\$57,325.08
619 E Avenue A	Vehicle Storage	\$26,539.39
124 South Lincoln	Police Station	\$299,364.29
326 East 10th	Pump House	\$150,755.66
50 North 100 West	Treatment Plant	\$9,000,000.00
50 North 100 West	Lab/Chlorinator	\$1,521,731.30
50 North 100 West	Compressor House	\$1,521,731.30
50 North 100 West	Boiler & Digester	\$942,441.50
50 North 100 West	Pumps/Panels	\$0
290 Hwy 25	Water Dept	\$570,288.47
300 East Main St	Restrooms/City Park	\$34,501.20
200 North Lincoln	Museum/Jerome Historical	\$199,045.00
800 West 4th	Animal Shelter	\$95,541.79
200 East 1st	Senior Citizens Bldg	\$691,370.94
200 North Buchannan	Swim Pool Bldg	\$143,312.69
100 East Avenue A	City Council/Fire Garage	\$315,945.08
10 W 200 S	Fire Station	\$1,000,000.00
City of Jerome	Benches, Lights, Trash Rcpts	\$90,419.89
820 East 4th Avenue	Modular Bldg	\$29,000.00
Total Value		\$20,988,067.70

Jerome City Facilities

The City of Jerome has a small area that is located in a mapped NFIP Floodplain. The City has had only few flooding occurrences, most of which have been associated with canal failures or localized flooding from spring melt. The City has a large number of hazardous material facilities located within its boundaries, as well as large of amounts of hazardous materials, primarily anhydrous ammonia, which is used as a refrigerant in the dairy industry, and transported through the City.







RISK ASSESSMENT

The Hazard Assessment Process conducted in Section 2 was used to establish a basis for determining the cost effectiveness and priority of implementing mitigation strategies. To this end, the following steps were carried out:

1. A list of hazards to be considered was developed.
2. Each hazard was profiled. Profiles include:
 - a. A description of the hazard and, where possible, objective definitions including levels of severity
 - b. A description of the possible impacts of the hazard
 - c. A County profile and/or profiles of individual locations where the hazard event may occur, including levels of severity and probabilities of occurrence
3. For each location, vulnerabilities that may be affected by a hazard event were identified. These vulnerabilities include but are not necessarily limited to:
 - a. Human population
 - b. Structures
 - c. Structure contents
 - d. Crops and livestock
 - e. Other property
 - f. Critical Infrastructure
 - g. Economic assets and business activities
 - h. Social systems
 - i. Others
4. Possible losses due to a hazard event at each location and at the various levels of severity were estimated.

To complete the process of establishing the level of risk severity associated with the hazard each hazard was estimated based on estimated losses and the likelihood of a hazard event to provide the following risk summary.

2010 RISK SEVERITY RANKING

Each hazard was scored as to magnitude and frequency of occurrence. The following table provides an overall ranking of the hazards by magnitude. Boxes highlighted in Red indicate the highest magnitude; boxes highlighted in yellow indicate the medium magnitude with green boxes signifying the lowest magnitude. The second table to follow illustrates the severity ranking for the hazards facing Jerome County when magnitude is compared to frequency. For those hazards with a high magnitude score and a loss estimate greater than \$100,000,000 the frequency score is replaced with an X or an extreme loss. Those with extreme loss potential are ranked as the highest hazards. The remaining risk rankings, as described in Section 1, are based on frequency and magnitude. Repetitive loss is used specifically to aide in the prioritization projects identified for risk reduction. Risk reduction activities are based on the overall risks rankings which are determined using processes described above. The hazards are placed in the risk ranking table below on a comparative scale which is used to determine the priorities for risk reduction.

The highest score would be a high frequency and a high magnitude as depicted in the lower right hand box of each ranking table.

Ranges

- 48-20 High
- 19-13 Medium
- 12-0 Low

Frequency

- Extreme – \$100,000,000 in loss or greater
- High – Yearly to Five Years
- Medium – Five Years to 25 Years
- Low - 25 Years to Has Never Happened

Hazard	Magnitude	Frequency
Earthquake	34	L
Terrorism	24	L
Wildfire	24	H
Mad Cow	23	L
Hoof and Mouth	23	L
Extreme Cold	20	H
Hazardous Materials	20	H
Winter Storm	20	H
Communicable Disease	19	L
Flash Flood	17	H
River/Stream Flooding	15	L
Straight Line Wind	15	H
Structure Fire	14	H
Drought	13	M
Dam Failure	13	L
Tornado	12	M
Snow Avalanche	11	M
Landslide	11	M
Hail	11	H
Extreme Heat	11	L
Riot/Civil Disobedience	11	L
Lightning	10	H
West Nile Virus	9	H

Hazard Magnitude and Frequency Scoring

		Magnitude		
		(Low) 1	(Medium) 2	(High) 3
Frequency	(Low) 1	Extreme Heat Riot/Demonstration/Civil Disobedience	Communicable Disease River/Stream Flooding	Terrorism Earthquake Mad Cow Disease Hoof and Mouth Disease
	(Medium) 2	Tornado Landslide	Drought	Dam Failure
	(High) 3	Hail Lightning West Nile Virus	Flash Flood Structure Fire Straight Line Wind	Wildfire Winter Storm Extreme Cold Hazardous Materials

2015 RISK ASSESSMENT

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Wildfire	3	4	2	3	4	16	H
Hazardous Materials	3	4	3	3	2	15	H
Severe Winter Storms	3	4	2	4	1	14	M
Drought	2	3	3	4	2	14	M
Severe Weather	3	4	2	2	3	14	M
Communicable Disease	1	2	3	4	3	13	M
Flash Flooding	3	4	2	2	2	13	M
Structure Fire	3	4	1	1	4	13	M
Livestock Disease	1	1	3	3	4	12	M
River Flooding	2	4	1	1	3	11	L
Burrowing Rodents	1	4	1	1	2	9	L
Terrorism	0	1	2	2	3	8	L
Vector Borne Disease	1	1	2	2	2	8	L
Earthquake	0	2	1	2	2	7	L
Landisdes	1	2	1	1	1	6	L
Riot/Demonstration/Civil Disobedience	0	1	1	1	1	4	L
Dam Failure	0	1	1	1	1	4	L

INDIVIDUAL JURISDICTIONAL RISK RANKINGS

The Jerome County All Hazard Mitigation Plan has been developed as a multi-jurisdictional plan; therefore, each jurisdiction risk must be ranked independently from the County and the other jurisdictions. The tables below provide a summary of the ranking for each jurisdiction.

CITY OF EDEN

2010 Risk Ranking

Magnitude/Frequency

	Low	Medium	High
Low	Extreme Heat Riot/Demonstration/Civil Disobedience Landslide River/Stream Flooding	Communicable Disease	Terrorism Earthquake Mad Cow Disease Hoof and Mouth Disease
Medium	Tornado	Drought	Dam Failure
High	Hail Lightning West Nile Virus	Flash Flood Structure Fire Straight Line Wind	Wildfire Winter Storm Extreme Cold Hazardous Materials

2015 Risk Ranking

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Wildfire	3	4	2	3	2	14	M
Severe Winter Storms	3	4	2	4	1	14	M
Drought	3	3	2	4	2	14	M
Severe Weather	3	4	2	2	3	14	M
Hazardous Matertials	3	4	2	2	2	13	M
Communicable Disease	1	2	3	4	3	13	M
Flash Flooding	3	4	2	2	2	13	M
Structure Fire	3	4	1	1	4	13	M
River Flooding	3	4	2	2	2	13	M
Livestock Disease	1	1	3	3	4	12	M
Burrowing Rodents	1	4	2	2	2	11	L
Terrorism	0	1	2	2	3	8	L
Vector Borne Disease	1	1	2	2	2	8	L
Earthquake	0	2	1	2	2	7	L
Landisdes	0	1	1	1	1	4	L
ot/Demonstration/Civil Disobedien	0	1	1	1	1	4	L
Dam Failure	0	1	1	1	1	4	L

CITY OF HAZELTON

2010 Risk Ranking

Magnitude/Frequency

	Low	Medium	High
Low	Extreme Heat Riot/Demonstration/Civil Disobedience Landslide	Communicable Disease River/Stream Flooding	Terrorism Earthquake Mad Cow Disease Hoof and Mouth Disease
Medium	Tornado	Drought	Dam Failure
High	Hail Lightning West Nile Virus	Flash Flood Structure Fire Straight Line Wind	Wildfire Winter Storm Extreme Cold Hazardous Materials

2015 Risk Ranking

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Severe Winter Storms	3	4	2	4	1	14	M
Drought	3	3	2	4	2	14	M
Severe Weather	3	4	2	2	3	14	M
Hazardous Matertials	3	4	2	2	2	13	M
Communicable Disease	1	2	3	4	3	13	M
Flash Flooding	3	4	2	2	2	13	M
Structure Fire	3	4	1	1	4	13	M
Livestock Disease	1	1	3	3	4	12	M
Wildfire	2	3	2	2	2	11	L
Burrowing Rodents	1	4	1	1	2	9	L
River Flooding	1	3	1	1	2	8	L
Terrorism	0	1	2	2	3	8	L
Vector Borne Disease	1	1	2	2	2	8	L
Earthquake	0	2	1	2	2	7	L
Landis des	0	1	1	1	1	4	L
/Demonstration/Civil Disobedie	0	1	1	1	1	4	L
Dam Failure	0	1	1	1	1	4	L

CITY OF JEROME

2010 Risk Ranking

Magnitude/Frequency

	Low	Medium	High
Low	Extreme Heat Riot/Demonstration/Civil Disobedience River/Stream Flooding	Communicable Disease Mad Cow Disease Hoof and Mouth Disease	Terrorism Earthquake
Medium	Tornado	Drought	Dam Failure
High	Hail Lightning West Nile Virus	Flash Flood Structure Fire Straight Line Wind	Wildfire Winter Storm Extreme Cold Hazardous Materials

2015 Risk Ranking

Hazard	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Rank
Hazardous Materials	3	4	3	3	3	16	H
Severe Winter Storms	3	4	2	4	1	14	M
Drought	3	3	2	4	2	14	M
Severe Weather	3	4	2	2	3	14	M
Communicable Disease	1	2	3	4	3	13	M
Flash Flooding	3	4	2	2	2	13	M
Structure Fire	3	4	1	1	4	13	M
Wildfire	3	4	2	1	2	12	M
Livestock Disease	1	1	3	3	4	12	M
River Flooding	2	4	1	1	3	11	L
Burrowing Rodents	1	4	1	1	2	9	L
Terrorism	0	1	2	2	3	8	L
Vector Borne Disease	1	1	2	2	2	8	L
Earthquake	0	2	1	2	2	7	L
Landslides	0	1	1	1	1	5	L
Riot/Demonstration/Civil Disobedience	0	1	1	1	1	4	L
Dam Failure	0	1	1	1	1	4	L

SECTION 3 MITIGATION STRATEGY

CAPABILITIES ASSESSMENT

JEROME COUNTY

Agency Name (Mission/Function)	Programs, Plans, Policies, Regulations, Funding, ,or Practices	Effect of Loss Reduction*			Comments
		Support	Facilitate	Hinder	
Jerome County Office of Emergency Management	Emergency Operations Plan	X			
Jerome County Planning Zoning	Jerome County Comprehensive Plan	X			
Jerome Rural Fire District	Fire Fighting, Emergency Medical Services	X			
Jerome County Road and Bridge	Transportation Planning	X			

CITY OF EDEN

Agency Name (Mission/Function)	Programs, Plans, Policies, Regulations, Funding, ,or Practices	Effect of Loss Reduction*			Comments
		Support	Facilitate	Hinder	
City of Eden	Comprehensive Plan	X	X		
Rural Fire District	Fire Fighting	X			
City of Eden Public Works	Public Utilities, Road and Bridge Maintenance	X	X		

CITY OF HAZLETON

Agency Name (Mission/Function)	Programs, Plans, Policies, Regulations, Funding, ,or Practices	Effect of Loss Reduction*			Comments
		Support	Facilitate	Hinder	
City of Hazleton	Comprehensive Plan	X	X		
Rural Fire District	Fire Fighting	X			
City of Hazleton Public Works	Public Utilities	X			

CITY OF JEROME

Agency Name (Mission/Function)	Programs, Plans, Policies, Regulations, Funding, ,or Practices	Effect of Loss Reduction*			Comments
		Support	Facilitate	Hinder	
City of Jerome	Comprehensive Plan	X	X		
City of Jerome Fire Department	Fire Fighting	X			
City of Jerome Public Works	Public Utilities	X	X		
City of Jerome Police Department	Law Enforcement	X			

FLOODPLAIN MANAGEMENT

Jerome County participates in the National Flood Insurance Program (NFIP) as well as the City of Jerome. Jerome County’s participation in the regular phase of the National Flood Insurance Program began September 4, 1985. The City of Jerome began its participation in the NFIP on May 14, 1974. The Cities of Eden and Hazelton do not participate.

NFIP Participation Category	Jerome County	City of Jerome
Number of properties in the community		
Date Participating in Regular Phase of NFIP	9/4/1985	5/14/1981
Participating in CRS (class)	N/A	N/A
Date of current FIRM	9/4/1985	No Published FIRM
Number of NFIP Policies	1	0
Are FIRMs digital or paper	Paper	N/A
Insurance in Force (Total Coverage)	\$600,000	\$0.00
Total Premiums	\$1,877	\$0.00
Number Claims Paid	0	0
\$ Total Claims Paid	\$0	0
# Substantial Damage Claims	0	0
Rep Loss Properties	0	0
Severe Rep Loss Properties	0	0

There is only one NFIP Policy in the County totaling \$600,000 belonging to a private company. There have been no claims paid and no substantial damage in the County or the City of Jerome. There are no repetitive loss properties in the County or incorporated cities of Jerome County.

Jerome County has no communities within the 100 year flood plain hazard area

that are not participating in the NFIP. Jerome County has no communities under suspension or revocation of participation in the NFIP⁴¹.

The Jerome County Floodplain Coordinator is an auxiliary position for the Planning and Zoning Department Director. The City of Jerome has a Floodplain Manager who is also the City Building Official. The incorporated cities of Eden and Hazelton have no Floodplain Manager. There are no Certified Floodplain Managers on staff in the County or incorporated cities of Jerome County.

Jerome County's Zoning Ordinance establishes guidelines for development in the County. Applications for development in the County are reviewed by the Planning and Zoning Department Director who also serves as the County Floodplain Administrator. Zoning ordinances meet NFIP and State minimum requirements.

An important part of being an NFIP community is the availability of low cost flood insurance for those homes and businesses within designated floodplains, or in areas that are subject to flooding, but that are not designated as Special Flood Hazard Areas.

Potential reasons for continuing low participation in the program are:

- Current cost of insurance is prohibitive
- A lack of knowledge about the existence of the availability of low cost flood insurance
- Home and business owners unaware of their vulnerability to flood events

The last two reasons can be addressed through public education. The first could be addressed by all communities in the County taking 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 through public awareness programs. 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.

⁴¹IDWR 2015

LAND USE PLANNING

This section of the Jerome County Multi-Jurisdiction All Hazard Mitigation Plan examines the relationship between the County's 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 Jerome County.

Jerome County's Comprehensive Plan was last revised and adopted in 1997. The Plan should be reviewed and updated to address condition changes within the County and the Economy. To bring the AHMP and the Comprehensive Plan into alignment, the Comprehensive Plan update should include a revision of the Hazardous Areas section of the Plan.

The goal of the Hazardous Area section of the Comprehensive Plan is to take reasonable measures to prevent loss of life or property resulting from known natural or manmade hazards. Jerome County should address hazards in the Comprehensive Plan as presented in the AHMP. Suggested updates to the Comprehensive Plan include:

1. Designate Wildland Urban Interface areas as a special land use category
2. Update Hazards to reflect the ranking of hazards from the AHMP
3. Add each hazard listed in the AHMP including: Drought, Extreme Heat, Extreme Cold, Severe Winter Storm, Lightning, Hail, Tornado, Straight Line Wind, Earthquake, Landslide, Wildfire, Biological Events, Structure Fire, Hazardous Materials, Civil Disorder, and Terrorism

Revisions to Subdivision Ordinances could include the following:

1. Standardize roadway/street widths for improved access in hazardous areas.
2. Examine the need for dual access in subdivisions.

CITY OF JEROME

The City of Jerome updated their Comprehensive Plan in 2008. The Plan complements the basic tenets of the AHMP. Recommended updates in the next revision include updating the Hazardous Area section to reflect the Hazards listed in the AHMP for the City of Jerome.

The City of Jerome's Land Use Ordinances should be updated to reference the International Building Code instead of the Uniform Building Code. All other items appear to be compatible with the AHMP.

CITY OF HAZELTON

The City of Hazelton Comprehensive Plan was adopted in February 1996. While the plan was written several years ago, it does address several of the same hazards as this AHMP. It is recommended that the City of Hazelton update their Comprehensive Plan and include in the update areas in the Hazardous Areas section to reflect the Hazards listed in the AHMP.

CITY OF EDEN

The City of Eden has neither a Comprehensive Plan nor Land Use Ordinances, but rather defers to the Jerome County Comprehensive Plan and Land Use Ordinances.

MITIGATION GOALS

AHMP Goals describe the broad direction that Jerome County agencies, organizations, and citizens will take to select mitigation 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.

Severe Weather

- Jerome County will develop methods to mitigate the losses due to severe weather in the County.

Flooding

- Jerome County will continue to participate in the National Flood Insurance Program and develop actions that will reduce the damage to County infrastructure due to flash and canal flooding.

Wildfire

- Jerome County will reduce the losses caused by wildfire by continuing the Wildland Urban Interface Mitigation Program.

Biological

- Jerome County will identify risks to livestock from potential biological threats to livestock.

Hazardous Material Event

- Jerome County will identify hazardous materials transported through the County.

PARTICIPATING JURISDICTIONS GOALS

City of Jerome

Severe Weather

- The City of Jerome will develop methods to protect the life safety of its citizens from harm due to severe weather events.

Flooding

- The City of Jerome will continue to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.

Hazardous Material Event

- The City of Jerome will identify hazardous materials stored in the City.

City of Eden

Severe Weather

- The City of Eden will develop methods to protect the life safety of its citizens from harm due to severe weather events.

City of Hazleton

Severe Weather

- The City of Hazleton will develop methods to protect the life safety of its citizens from harm due to severe weather events.

MITIGATION PROJECTS

Severe Weather

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will develop methods to mitigate the losses due to severe weather in the County.	Improve the Safety of County Roads and Bridges	Install temporary Windbreaks in areas where blowing snow occurs along Highway 50.	Road and Bridge	ROM - \$150/000 2018 – Seek Funding to Purchase wind break fences 2019 – Deploy Fences along Highway 50

Flooding

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will continue to participate in the National Flood Insurance Program and develop actions that will reduce the damage to County infrastructure due to flash and stream flooding.	Maintain the NFIP Requirements	Seek CRS Status for the County	Floodplain Administrator	No Cost 2016 – Complete CRS Requirements
	Examine the floodplain for accuracy with NFIP requirements	Request Updates of FIRM Maps to include Canal System Drainage	Floodplain Administrator	ROM - \$150,00 2020 – Request FEMA to Update Maps
	Improve Drainage Systems	Develop a Culvert Maintenance Program	Road& Bridge	ROM \$150,000 plus annual maintenance cost. 2016 – Develop a LHTAC Grant to evaluate all culverts in the County. Determine priority of replacement. 2017 – Ongoing Repair and Replacement of Damaged Culverts.

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
	Reduce Sheet Flooding	Improve Drainage along 2 nd West, 2 nd East and 2 nd North By installing properly sized culverts.	Road and Bridge	ROM \$120,000 2018 - Design Drainage System 2019 - Develop HMA Grant Application
	Improve Drainage	Install Culvert to ensure proper drainage at 857 S. Eden Road	Road and Bridge	ROM \$75,000 2018 – Design Culvert Installation 2019 - Submit HMA Grant Application
		Install Culvert to ensure proper drainage at 960 South Eden Road	Road and Bridge	ROM \$75,000 2018 – Design Culvert Installation 2019 - Submit HMA Grant Application

Geological

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will reduce potential damage to County infrastructure and structures through implementation of earthquake mitigation techniques.	Earthquake Protection or Hardening County facilities	Develop a list of facilities that need to be hardened. Begin conceptual design	Office of Emergency Management	ROM - \$250,000 2020- Seek Funding to conduct conceptual hardening designs. 2021 – Conduct Designs and Benefit Cost Analysis. Apply for HMA Funding 2022 – Protect Buildings as designed and funded.
		Develop a listing of schools and public buildings that need to be seismically retrofitted	Office of Emergency Management/Building Official	ROM - \$50,000 2020 – Seek Funding to evaluate structures. 2021– Develop priorities list of buildings to be retrofitted.

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will reduce the potential damage to property from Landslides by adopting codes and standards for construction in landslide prone areas.	Protect Property	Revise Subdivision Ordinance to discourage building in Landslide Prone Areas	P & Z Administrator	ROM - \$15,000 2017 – Seek Funding from County to develop ordinance. 2018 – Adopt Ordinance.

Wildfire

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will reduce the losses caused by wildfire by continuing the Wildland Urban Interface Mitigation Program.	Improve Protection through the proper use of Ordinances and Codes	Develop a Wildland Fire Ordinance which establishes the road widths, access, water supply, and building regulations suitable to ensure new structures can be protected.	P & Z Administrator/Fire Districts	ROM - \$10,000 2016 – Seek Funding from County to develop Ordinance 2017 – Develop Ordinance and Adopt
		Designate the WUI areas as a special land use category in the County Comprehensive Plan	P & Z Administrator	ROM - \$2000 2016 – Incorporate in next Plan revision
		Develop a listing of roads, bridges, cattle guards, culverts, and other limiting conditions and incorporate improvements into the County Transportation Plan	Fire Districts/Highway Districts	ROM - \$150,000 plus annual maintenance cost. 2018 – Develop a LHTAC Grant to evaluate all roadways in the County. Determine Priority actions. 2019 – Ongoing: Repair or Replace damaged culverts, bridges etc.

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
	Improve Hazard Communications Tools	Use GIS Technology to Link Red Zone Data to Landowner Parcel Maps	Fire Districts	ROM - \$5000 2021 – Seek Funding from BLM to integrate Red Zone data. 2022 – Integrate Data
	Develop a standard practice for roadside vegetation management.	Conduct Roadside Vegetation Treatments to reduce flammable fuels immediately adjacent to roads in high risk areas	Fire Districts	No Cost 2016– Develop standard as part of WUI Planning ongoing effort.
	Conduct Fuel Reduction Projects	Home Site WUI Treatments (200 Homes)	Fire Districts	ROM - \$150,000 2017 – WUI Working Group Design Fire Break 2018 – Seek BLM Funding – Construct Break
		Community Site WUI Treatments (20 communities)	Fire Districts	ROM - \$600,000 Insufficient Data to Develop Planning Horizon
		Develop wildfire fuel breaks around CRP Land	Fire Districts	Insufficient Data to Estimate Cost. 2016- WUI Working group develop priority list of CRP Land to be protected included acreage and liner feet of fuel breaks.
	Ensure coordination of WUI Fire Mitigation Projects	Organize a group to jointly apply for grants and other funding avenues to implement WUI Fire Mitigation Actions.	Office of Emergency Management	No Cost 2016 – WUI Working Group Task.
	Update and Improve Road Signing and Rural Addressing	Install Road Signs as prescribed by NFPA Standards	Highway Districts	ROM - \$50,000 2017 – Seek BLM or LTHAC Grant to purchase signs. 2018 – Install Signs

Biological

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will identify risks to livestock from potential biological threats.	Develop a standard practice for livestock quarantining in the event of a biological event	Develop an EOP Annex that addresses livestock quarantining	Office of Emergency Management	ROM - \$15,000 2015– Seek Funding through BHS 2016 – Develop EOP Annex

Structural Fire

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will seek to reduce losses from Structure Fires through working with private property owners.	Develop Additional Water Supplies for Fire Protection	Develop an agreement with developers and private landowners for access to and use of water sources for fire protection.	Fire Districts	ROM \$5000 2017 – Seek Funding from BHS SHSP and develop standard agreement and requirements. 2018 – Execute Agreements.

Hazardous Materials

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will identify hazardous materials transported through the County.	Protect Citizens	Communicate findings from South Central Region Hazardous Materials Study	Office of Emergency Management	No Cost 2015 – Communicate Findings

Riot/Demonstration/Civil Disorder

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will develop methods to identify and report Civil Disobedience activities.	Educate the Public on Civil Disobedience Reporting	Conduct a public education program to assist the citizens of the County in recognizing and reporting civil disobedience events to County Law Enforcement.	Sheriff's Office	ROM - \$10,000 2018– Apply for a Law Enforcement Grant to Conduct Public Education. 2019 – Conduct Program.

Terrorism

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will identify measures to protect critical County infrastructure and facilities from potential terror incidents.	Identify and protect potential terrorism targets.	Conduct a County Terrorism assessment.	Office of Emergency Management	No Cost 2016 – Work with LEPC to conduct assessment.
		Protect Critical Infrastructure based on the assessment.	Office of Emergency Management	Insufficient Data to estimate cost. 2016 – Develop a listing of critical infrastructure to be protected. 2017 – Seek Funding to design and engineer protection alternatives. 2018 – Conduct Engineering 2019 – Seek Funding to Implement Solutions. 2020 – Begin Implementation

PARTICIPATING JURISDICTIONS PROJECTS

City of Jerome

Severe Weather

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Jerome will develop methods to protect the life safety of its citizens from harm due to severe weather events.	Protect isolated individuals from Severe Winter Storms and Extreme Cold.	Identify Evacuation Shelters Equipped with Emergency Generators.	Mayor/Public Works	No Cost 2016 – Work with City Council, Church, and volunteer organizations.

Flooding

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Jerome will continue to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.	Maintain the NFIP Requirements	Seek CRS Status for the City	Floodplain Administrator	No Cost 2016 – Complete CRS Requirements
	Examine the floodplain for accuracy with NFIP requirements.	Map Floodplain and Flood Prone Areas in the City of Jerome	City Engineer	ROM - \$25,000 2017– Seek Funding from FEMA 2018 – Conduct Mapping
	Improve Drainage	Develop Ordinances to Manage Storm Water in Subdivisions	City Engineer	ROM - \$5000 2016 – Develop Ordinance and Adopt

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
		Design and Install Storm Water Drainage at Hospital Grounds	Hospital Administrator	ROM \$50,000 2009 Design Drainage System 2010 Submit HMA Grant Application

Geological

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Jerome will reduce potential damage to City infrastructure and structures through implementation of earthquake mitigation techniques.	Protect Library Patrons from tipping shelves and falling books.	Place restraining hardware on the City Library Shelves. Place restraining bars or trim along the front of the book shelves.	City Librarian	ROM - \$10,000 2020 – Seek funding in City budget and install hardware.
	Protect City Building and Records	Harden the City computer equipment and records storage.	City Clerk	ROM - \$20,000 2016– Seek City Budget Funds 2017– Harden Equipment

Hazardous Materials

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Jerome will identify hazardous materials transported through the City	Protect Citizens	Communicate findings from South Central Region Hazardous Materials Study	Office of Emergency Management	No Cost 2015 – Communicate Findings

City of Eden
Severe Weather

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Eden will develop methods to protect the life safety of its citizens from harm due to severe weather events.	Protect isolated individuals from Severe Winter Storms and Extreme Cold.	Identify Evacuation Shelters Equip with Emergency Generators.	Mayor/Public Works	No Cost 2016– Work with City Council, Church, and volunteer organizations.

Flooding

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Eden will begin to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.		Update existing Storm Water system	City Engineer	ROM - \$500,000 2018– Apply for Block Grant 2019– Update drainage system

Wildfire

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
Jerome County will reduce the losses caused by wildfire by continuing the Wildland Urban Interface Mitigation Program.	Improve Protection by ensuring proper equipment is available	Expand the Eden Fire Station	First Segregation Fire District	ROM - \$250,000 2016 – Apply for Funding 2017 – Begin Construction

City of Hazleton
Severe Weather

Goal	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Hazleton will develop methods to protect the life safety of its citizens from harm due to severe weather events.	Protect isolated individuals from Severe Winter Storms and Extreme Cold.	Identify Evacuation Shelters Equip with Emergency Generators.	Mayor/Public Works	No Cost 2016 – Work with City Council, Church, and volunteer organizations.

Flooding

	Objective	Project	Responsible Entity	Order of Magnitude Cost & Planning Horizon
The City of Hazleton will begin to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.	Protect City from Flash Flooding	Develop Ordinances to Manage Storm Water in Subdivisions	City Engineer	Goal
		Update existing Storm Water system	City Engineer	ROM - \$500,000 2017 – Apply for Block Grant 2018 – Update drainage system

PROJECT PRIORITIZATION

The requirements and the process for prioritization of mitigation projects are very specific as stated in the Code of Federal Regulations as follows:

"C5. Does the Plan contain an action plan that describes how the actions identified will be prioritized (including cost benefit review), implemented, and administered by each jurisdiction?"

(Requirement §201.6(c)(3)(iv)); (Requirement §201.6(c)(3)(iii))"

During the development of the 2010 Jerome County All Hazard Mitigation Plan the projects were prioritized based primarily on Cost Benefit approach, as that is typically how projects are funded. The current FEMA mitigation guidance says the following:

"b. At a minimum, this list of prioritized projects will be based on a process that results in identification of cost effective hazard mitigation projects with public input, including:

*i. An analysis of proposed mitigation projects focused on several key areas, **including but not limited to: economic (including benefits and cost), engineering, technical, legal, environmental, social, and political feasibility. Selected options that will best fit the community's needs and meet most or all aspects of the feasibility analysis.**"*

Project	Status
Develop a Wildland Fire Ordinance which establishes the road widths, access, water supply, and building regulations suitable to ensure new structures can be protected.	H
Develop an agreement with developers and private landowners for access to and use of water sources for fire protection.	H
Develop a listing of schools and public buildings that need to be seismically retrofitted	H
Organize a group to jointly apply for grants and other funding avenues to implement WUI Fire Mitigation Actions.	H
Develop an EOP Annex that addresses livestock quarantining	H
Install Culvert to ensure proper drainage at 857 S. Eden Road	M
Install Culvert to ensure proper drainage at 960 South Eden Road	M
Improve Drainage along 2 nd West, 2 nd East and 2 nd North By installing properly sized culverts.	M
Develop a list of facilities that need to be hardened. Begin conceptual design	M
Install Road Signs as prescribed by NFPA Standards	M
Conduct a public education program to assist the citizens of the County in recognizing and reporting civil disobedience events to County Law Enforcement	M
Request Updates of FIRM Maps to include Canal System Drainage	M

Project	Status
Conduct Roadside Vegetation Treatments to reduce flammable fuels immediately adjacent to roads in high risk areas	M
Develop a listing of roads, bridges, cattle guards, culverts, and other limiting conditions and incorporate improvements into the County Transportation Plan	M
Home Site WUI Treatments (200 Homes)	L
Community Site WUI Treatments (20 communities)	L
Develop wildfire fuel breaks around CRP Land	L
Install temporary Windbreaks in areas where blowing snow occurs along Highway 50.	L
Develop a Culvert Maintenance Program	L
Conduct a County Terrorism assessment	L
Seek CRS Status for the County	L
Revise Subdivision Ordinance to discourage building in Landslide Prone Areas	L
Designate the WUI areas as a special land use category in the County Comprehensive Plan	L
Use GIS Technology to Link Red Zone Data to Landowner Parcel Maps	L

City of Jerome

Project	Status
Communicate findings from South Central Region Hazardous Materials Study	H
Identify Evacuation Shelters Equipped with Emergency Generators.	M
Seek CRS Status for the City	M
Map Floodplain and Flood Prone Areas in the City of Jerome	M
Develop Ordinances to Manage Storm Water in Subdivisions	M
Design and Install Storm Water Drainage at Hospital Grounds	M
Place restraining hardware on the City Library Shelves. Place restraining bars or trim along the front of the book shelves.	L
Harden the City computer equipment and records storage.	L

City of Eden

Project	Status
Identify Evacuation Shelters Equipped with Emergency Generators.	M
Update existing Storm Water system	M
Expand the Eden Fire Station	M

City of Hazleton

Project	Status
Identify Evacuation Shelters Equipped with Emergency Generators.	M
Develop Ordinances to Manage Storm Water in Subdivisions	M
Update existing Storm Water system	M

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SECTION 4 REVIEW, EVALUATION AND IMPLEMENTATION

STATUS OF 2010 MITIGATION ACTIONS

The following listing shows the status of mitigation actions for each jurisdiction identified in the 2010 Jerome County Multi-Jurisdiction All Hazard Mitigation Plan. The status column indicates if the project is completed or not, and what roadblocks are slowing progress of each project. Those projects that are not completed or underway, but are deemed feasible, have been integrated into the current project listing. Those projects that are not feasible have been removed from the mitigation project listing.

Uncompleted projects were moved forward to the 2015 Mitigation Project Listing

Completed

Severe Weather

Goal	Objective	Project	Responsible Entity	Status
Jerome County will develop methods to mitigate the losses due to severe weather in the County.	Improve the Safety of County Roads and Bridges	Install temporary Windbreaks in areas where blowing snow occurs along Highway 50.	Road and Bridge	Moved Forward

Flooding

Goal	Objective	Project	Responsible Entity	Status
Jerome County will continue to participate in the National Flood Insurance Program and develop actions that will reduce the damage to County infrastructure due to flash and stream flooding.	Maintain the NFIP Requirements	Seek CRS Status for the County	Floodplain Administrator	Moved Forward

Goal	Objective	Project	Responsible Entity	Status
	Examine the floodplain for accuracy with NFIP requirements	Request Updates of FIRM Maps to include Canal System Drainage	Floodplain Administrator	Moved Forward
	Improve Drainage Systems	Develop a Culvert Maintenance Program	Road & Bridge	Moved Forward
	Reduce Sheet Flooding	Improve Drainage along 2 nd West, 2 nd East and 2 nd North By installing properly sized culverts.	Road and Bridge	Moved Forward

Geological

Goal	Objective	Project	Responsible Entity	Status
Jerome County will reduce potential damage to County infrastructure and structures through implementation of earthquake mitigation techniques.	Earthquake Protection or Hardening County facilities	Develop a list of facilities that need to be hardened. Begin conceptual design	Office of Emergency Management	Moved Forward
		Develop a listing of schools and public buildings that need to be seismically retrofitted	Office of Emergency Management/Building Official	Moved Forward
		Publish a special section in newspapers with emergency information on earthquakes.	Office of Emergency Management	Complete

Goal	Objective	Project	Responsible Entity	Status
Jerome County will reduce the potential damage to property from Landslides by adopting codes and standards for construction in landslide prone areas.	Protect Property	Revise Subdivision Ordinance to discourage building in Landslide Prone Areas	P & Z Administrator	Moved Forward.

Wildfire

Goal	Objective	Project	Responsible Entity	Status
Jerome County will reduce the losses caused by wildfire by continuing the Wildland Urban Interface Mitigation Program.	Improve Protection through the proper use of Ordinances and Codes	Develop a Wildland Fire Ordinance which establishes the road widths, access, water supply, and building regulations suitable to ensure new structures can be protected.	P & Z Administrator/Fire Districts	Moved Forward
		Designate the WUI areas as a special land use category in the County Comprehensive Plan	P & Z Administrator	Moved Forward
	Improve access to areas prone to Wildland Fire	Develop a listing of roads, bridges, cattle guards, culverts, and other limiting conditions and incorporate improvements into the County Transportation Plan	Fire Districts/Highway Districts	Moved Forward

Goal	Objective	Project	Responsible Entity	Status
	Improve Hazard Communications Tools	Use GIS Technology to Link Red Zone Data to Landowner Parcel Maps	Fire Districts	Moved Forward
	Develop a standard practice for roadside vegetation management.	Conduct Roadside Vegetation Treatments to reduce flammable fuels immediately adjacent to roads in high risk areas	Fire Districts	Moved Forward
	Conduct Fuel Reduction Projects	Home Site WUI Treatments (200 Homes)	Fire Districts	Moved Forward
		Community Site WUI Treatments (20 communities)	Fire Districts	Moved Forward
		Develop wildfire fuel breaks around CRP Land	Fire Districts	Moved Forward
	Ensure coordination of WUI Fire Mitigation Projects	Organize a group to jointly apply for grants and other funding avenues to implement WUI Fire Mitigation Actions.	Office of Emergency Management	Moved Forward
	Update and Improve Road Signing and Rural Addressing	Install Road Signs as prescribed by NFPA Standards	Highway Districts	Moved Forward

Biological

Goal	Objective	Project	Responsible Entity	Status
Jerome County will seek to reduce the exposure of humans and animals to the West Nile Virus.	Build knowledge of West Nile Virus in the general public.	Maintain an active “fight the bite” public education program.	Health District/Office of Emergency Management	Complete
Jerome County will identify risks to livestock from potential biological threats.	Develop a standard practice for livestock quarantining in the event of a biological event	Develop an EOP Annex that addresses livestock quarantining	Office of Emergency Management	Moved Forward

Structural Fire

Goal	Objective	Project	Responsible Entity	Status
Jerome County will seek to reduce losses from Structure Fires through working with private property owners.	Ensure that all structures have minimum detection and protection devices	Encouraging private property owners to install and maintain smoke detectors on all levels of residences and to place detectors in all bedrooms.	Fire Districts	Complete
	Develop Additional Water Supplies for Fire Protection	Develop an agreement with developers and private landowners for access to and use of water sources for fire protection.	Fire Districts	Moved Forward

Hazardous Material Event

Goal	Objective	Project	Responsible Entity	Status
Jerome County will seek to identify hazardous material flows through the County.	Protect citizens from releases of hazardous materials in transportation	Conduct a hazardous materials flow study for US and State Highways running through the County.	Office of Emergency Management	Complete.

Civil Disorder

Goal	Objective	Project	Responsible Entity	Status
Jerome County will develop methods to identify and report Civil Disobedience activities.	Educate the Public on Civil Disobedience Reporting	Conduct a public education program to assist the citizens of the County in recognizing and reporting civil disobedience events to County Law Enforcement.	Sheriff's Office	Moved Forward

Terrorism

Goal	Objective	Project	Responsible Entity	Status
Jerome County will identify measures to protect critical County infrastructure and facilities from potential terror incidents.	Identify and protect potential terrorism targets.	Conduct a County Terrorism assessment.	Office of Emergency Management	Moved Forward
		Protect Critical Infrastructure based on the assessment.	Office of Emergency Management	Moved Forward

Other

Goal	Objective	Project	Responsible Entity	Status
Jerome County will improve communication capabilities in remote areas of the County	Improve Communications and Warning	Install a reverse calling notification system at the Dispatch Center	Sheriff/Office of Emergency Management	Complete

PARTICIPATING JURISDICTIONS PROJECTS

City of Jerome

Severe Weather

Goal	Objective	Project	Responsible Entity	Status
The City of Jerome will develop methods to protect the life safety of its citizens from harm due to severe weather events.	Protect isolated individuals from Severe Winter Storms and Extreme Cold.	Identify Evacuation Shelters Equipped with Emergency Generators.	Mayor/Public Works	Moved Forward.

Flooding

Goal	Objective	Project	Responsible Entity	Status
The City of Jerome will continue to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.	Maintain the NFIP Requirements	Seek CRS Status for the City	Floodplain Administrator	Moved Forward
	Examine the floodplain for accuracy with NFIP requirements.	Map Floodplain and Flood Prone Areas in the City of Jerome	City Engineer	Moved Forward
	Improve Drainage	Develop Ordinances to Manage Storm Water in Subdivisions	City Engineer	Moved Forward

Goal	Objective	Project	Responsible Entity	Status
		Design and Install Storm Water Drainage at Hospital Grounds	Hospital Administrator	Moved Forward

Geological

Goal	Objective	Project	Responsible Entity	Status
The City of Jerome will reduce potential damage to City infrastructure and structures through implementation of earthquake mitigation techniques.	Protect Library Patrons from tipping shelves and falling books.	Place restraining hardware on the City Library Shelves. Place restraining bars or trim along the front of the book shelves.	City Librarian	Moved Forward
	Protect City Building and Records	Harden the City computer equipment and records storage.	City Clerk	Moved Forward

Structure Fire

Goal	Objective	Project	Responsible Entity	Status
The City of Jerome will seek to reduce losses from Structure fires.	Ensure that all structures have minimum detection and protection devices	Encouraging private property owners to install and maintain smoke detectors on all levels of the residences and to place detectors in all bedrooms	Fire Department	Complete

City of Eden
Severe Weather

Goal	Objective	Project	Responsible Entity	Status
The City of Eden will develop methods to protect the life safety of its citizens from harm due to severe weather events.	Protect isolated individuals from Severe Winter Storms and Extreme Cold.	Identify Evacuation Shelters Equip with Emergency Generators.	Mayor/Public Works	Moved Forward.

Flooding

Goal	Objective	Project	Responsible Entity	Status
The City of Eden will begin to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.	Protect City from Flash Flooding	Develop Ordinances to Manage Storm Water in Subdivisions	City Engineer	Moved Forward
		Adopt NFIP Program	City Council	No Floodplain In City - Cancel
		Update existing Storm Water system	City Engineer	Moved Forward
	Improve Drainage	Install Culvert to ensure proper drainage at 857 S. Eden Road	Highway District	Moved to County
		Install Culvert to ensure proper drainage at 960 South Eden Road	Highway District	Moved to County

Wildfire

Goal	Objective	Project	Responsible Entity	Status
Jerome County will reduce the losses caused by wildfire by continuing the Wildland Urban Interface Mitigation Program.	Improve Protection by ensuring proper equipment is available	Expand the Eden Fire Station	First Segregation Fire District	Moved Forward

Structure Fire

Goal	Objective	Project	Responsible Entity	Status
The City of Eden will seek to reduce losses from Structure fires.	Ensure that all structures have minimum detection and protection devices	Encouraging private property owners to install and maintain smoke detectors on all levels of the residences and to place detectors in all bedrooms	Fire District	Complete

City of Hazleton

Severe Weather

Goal	Objective	Project	Responsible Entity	Status
The City of Hazleton will develop methods to protect the life safety of its citizens from harm due to severe weather events.	Protect isolated individuals from Severe Winter Storms and Extreme Cold.	Identify Evacuation Shelters Equip with Emergency Generators.	Mayor/Public Works	Moved Forward.

Flooding

Goal	Objective	Project	Responsible Entity	Status
The City of Hazleton will begin to participate in the National Flood Insurance Program and develop actions that will reduce the damage to City property and infrastructure due to flooding.	Protect City from Flash Flooding	Develop Ordinances to Manage Storm Water in Subdivisions	City Engineer	Moved Forward
		Adopt NFIP Program	City Council	No Floodplain in City - Cancel
		Update existing Storm Water system	City Engineer	Moved Forward

Structure Fire

Goal	Objective	Project	Responsible Entity	Status
The City of Hazelton will seek to reduce losses from Structure fires.	Ensure that all structures have minimum detection and protection devices	Encouraging private property owners to install and maintain smoke detectors on all levels of the residences and to place detectors in all bedrooms	Fire Department	Complete

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SECTION 5 ADOPTION

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JEROME COUNTY IDAHO MULTI-JURISDICTIONAL ALL HAZARD MITIGATION PLAN

Resolution No. _____

WHEREAS, all of Jerome County, Idaho has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established requirements for pre and post disaster hazard mitigation programs; and

WHEREAS; the Local Emergency Planning Committee of Jerome County, with participation from local municipalities with like planning objectives has been formed to pool resources and create consistent mitigation strategies within Jerome County; and

WHEREAS, the Committee has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED that the Jerome County Idaho;

- 1) Adopts in its entirety, the Jerome County Multi-Jurisdictional All-Hazard Mitigation Plan (the "Plan") as the jurisdiction's Natural Hazard Mitigation Plan, and resolves to execute the actions identified in the Plan that pertain to this jurisdiction.
- 2) Will use the adopted and approved portions of the Plan to guide pre- and post-disaster mitigation of the hazards identified.
- 3) Will coordinate the strategies identified in the Plan with other planning programs and mechanisms under its jurisdictional authority.
- 4) Will continue its support of the Local Emergency Planning Committee as described within the Plan.
- 5) Will help to promote and support the mitigation successes of all participants in this Plan.
- 6) Will incorporate mitigation planning as an integral component of government and partner operations.
- 7) Will provide an update of the Plan no less than every five years.

PASSED AND ADOPTED on this _____ day of _____ 2015.

Jerome County Commissioner

Date

Jerome County Commissioner

Date

Jerome County Commissioner

Date

Attest:

Jerome County Clerk

Date

Endorsed: _____

Clint Blackwood, Coordinator of Office of Emergency Management

Date

RESOLUTION NO. XXXX-XX
A RESOLUTION OF THE CITY OF EDEN
AUTHORIZING THE ADOPTION OF THE JEROME COUNTY
MULTI-JURISDICTIONAL ALL-HAZARD MITIGATION PLAN 2015

WHEREAS, all of Jerome County, Idaho has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established requirements for pre and post disaster hazard mitigation programs; and

WHEREAS; the Local Emergency Planning Committee of Jerome County, with participation from local municipalities with like planning objectives has been formed to pool resources and create consistent mitigation strategies within Jerome County; and

WHEREAS, the Committee has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED that the City of Eden;

- 1) Adopts in its entirety, the Jerome County Multi-Jurisdictional All-Hazard Mitigation Plan (the "Plan") as the jurisdiction's Natural Hazard Mitigation Plan, and resolves to execute the actions identified in the Plan that pertain to this jurisdiction.
- 2) Will use the adopted and approved portions of the Plan to guide pre- and post-disaster mitigation of the hazards identified.
- 3) Will coordinate the strategies identified in the Plan with other planning programs and mechanisms under its jurisdictional authority.
- 4) Will continue its support of the Local Emergency Planning Committee as described within the Plan.
- 5) Will help to promote and support the mitigation successes of all participants in this Plan.
- 6) Will incorporate mitigation planning as an integral component of government and partner operations.
- 7) Will provide an update of the Plan in conjunction with the County no less than every five years.

PASSED AND ADOPTED on this _____ day of _____ 2015.

CITY OF EDEN

By: _____

Mayor

Received by the City Clerk this ____ day of _____ 2015

Signature:
Clerk

RESOLUTION NO. XXXX-XX
A RESOLUTION OF THE CITY OF HAZLETON
AUTHORIZING THE ADOPTION OF THE JEROME COUNTY
MULTI-JURISDICTIONAL ALL-HAZARD MITIGATION PLAN 2015

WHEREAS, all of Jerome County, Idaho has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established requirements for pre and post disaster hazard mitigation programs; and

WHEREAS; the Local Emergency Planning Committee of Jerome County, with participation from local municipalities with like planning objectives has been formed to pool resources and create consistent mitigation strategies within Jerome County; and

WHEREAS, the Committee has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED that the City of Jerome;

- 1) Adopts in its entirety, the Jerome County Multi-Jurisdictional All-Hazard Mitigation Plan (the "Plan") as the jurisdiction's Natural Hazard Mitigation Plan, and resolves to execute the actions identified in the Plan that pertain to this jurisdiction.
- 2) Will use the adopted and approved portions of the Plan to guide pre- and post-disaster mitigation of the hazards identified.
- 3) Will coordinate the strategies identified in the Plan with other planning programs and mechanisms under its jurisdictional authority.
- 4) Will continue its support of the Local Emergency Planning Committee as described within the Plan.
- 5) Will help to promote and support the mitigation successes of all participants in this Plan.
- 6) Will incorporate mitigation planning as an integral component of government and partner operations.
- 7) Will provide an update of the Plan in conjunction with the County no less than every five years.

PASSED AND ADOPTED on this _____ day of _____ 2015.

CITY OF HAZLETON

By: _____

Mayor

Received by the City Clerk this _____ day of _____ 2015

Signature:
Clerk

RESOLUTION NO. XXXX-XX
A RESOLUTION OF THE CITY OF JEROME
AUTHORIZING THE ADOPTION OF THE JEROME COUNTY
MULTI-JURISDICTIONAL ALL-HAZARD MITIGATION PLAN 2015

WHEREAS, all of Jerome County, Idaho has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established requirements for pre and post disaster hazard mitigation programs; and

WHEREAS; the Local Emergency Planning Committee of Jerome County, with participation from local municipalities with like planning objectives has been formed to pool resources and create consistent mitigation strategies within Jerome County; and

WHEREAS, the Committee has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED that the City of Jerome;

- 1) Adopts in its entirety, the Jerome County Multi-Jurisdictional All-Hazard Mitigation Plan (the "Plan") as the jurisdiction's Natural Hazard Mitigation Plan, and resolves to execute the actions identified in the Plan that pertain to this jurisdiction.
- 2) Will use the adopted and approved portions of the Plan to guide pre- and post-disaster mitigation of the hazards identified.
- 3) Will coordinate the strategies identified in the Plan with other planning programs and mechanisms under its jurisdictional authority.
- 4) Will continue its support of the Local Emergency Planning Committee as described within the Plan.
- 5) Will help to promote and support the mitigation successes of all participants in this Plan.
- 6) Will incorporate mitigation planning as an integral component of government and partner operations.
- 7) Will provide an update of the Plan in conjunction with the County no less than every five years.

PASSED AND ADOPTED on this _____ day of _____ 2015.

CITY OF JEROME

By: _____

Mayor

Received by the City Clerk this ____ day of _____ 2015

Signature:
Clerk

ATTACHMENTS

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ATTACHMENT 1
AHMP MEETING MINUTES

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December 18, 2014

December 18, 2014
1:00 – 2:00 p.m.
Jerome City Council Chambers

-----AGENDA-----

**Welcome:
Introductions:**

Chairman Baldwin Camin
LEPC Members

Review minutes from Oct, 2014

Old Business:

Grant Update

New Business:

- Report on the Stop Movement (TTX) tabletop exercise held on November 19th.
- Report on the Mass Care held on Dec 10th.
- Comments on the ICS 200 held on Friday, November 7th at South Central Public Health.

Presentation:

Rick Fawcett from Whisper Mountain will be giving us a presentation on the Jerome County All Hazard Mitigation Plan Update..

Training Opportunities / Exercises:

- DHS-certified courses available by the RDPC (Rural Domestic Preparedness Consortium) Go to www.ruraltraining.org/training/online/, email is info@ruraltraining.org, or the help desk is also available at (877) 855-7372.
- Several upcoming VTTX table top exercise opportunities; www.idahoprepares.com, register online: July 8, '15 – Long-term Power Outage / Sept 9, '15 – Short Term Recovery
- ICS 300 course in Kimberly January 5th, 2015
- ICS 400 course in Kimberly February 4-5, 2015
- Many Independent Study courses are available at <http://training.fema.gov/EMIWeb/IS/>

Agency Reports:

Next Jerome LEPC Meeting
Jerome City Council Chambers
January 15, 2015

Dec 18, 2014
City Council Chambers
100 E Ave A
Jerome, Idaho

Attendance

Baldwin Camin – LEPC/JPP, **Clint Blackwood** – Jerome County EMA, **Arthur Brown** - PIO Jerome, **Mike Dahmer** – Jerome County EMA, **Gary Davis** – BHS, **Linda Underwood** – JC Airport, **Keith Mills** – Hillsdale Hwy Dist, **Diana Ochsner** – Red Cross, **Tami Pearson** – SCPHD, **Cathy Roemer** – Jerome County Commissioner, **Jay Gardner** – Jerome Police Department, **Doug McFall** – Jerome Sheriff, **Sheri Blackwood** – Citizen, **David Lacelle** – Jerome City Fire Dept, **Staci Schneider** – Intermountain Comm, **Rick Fawcett** – Whisper Mountain, **Glenna Lawrence** – Jerome County OEM Assistant,

Welcome

Baldwin Camin, Chairman, called the meeting to order, welcomed everyone in attendance and invited members to introduce themselves.

LEPC

Minutes for Oct 18, 2014 LEPC meeting were reviewed, corrected and approved.

Old Business

Clint gives us grant updates and reports that we are still continuing to move forward with the tower purchase. The Historic Preservation Document is presently been a frustration to those involved; Sheriff's office and himself. Jim Wood's with the College of Southern Idaho is an expert in historic preservation and has been working with us in preparing the environmental statement and coordinating with the federal agencies that need to be involved so when we submit that on the electronic version called section E106 process to make sure there aren't any burial grounds or historical items in the way. This is required by the Homeland Security before moving forward. It will interface with the other agencies that need to be notified and get there buy in and move forward. Clint says the monies have already been set aside for the project in our grant. Clint makes the comment; if anyone has the opportunity to drive by the site, on highway 93, just pass north of the butte you will notice there is a short radio tower and a support building already in place and completed in the development of the radio tower project. Doug McFall says that the commissioners approved for Idaho Power to put in a new pole and transformer.

New Business

Clint reports and comments on the Stop Movement (TTX) tabletop exercise held on November 19th. Several of the LEPC members attended. The Scenario primary focus was on; animal disease outbreak and stopping the movement of animals in and out of the area, Jurisdiction (county) and expertise (which moves up to the State of Agriculture, vets and other animal experts on a Federal level). Clint feels we got some information out of it but on a local response he feels they were left out of the picture. It was mostly on a State and Federal level of

conversation. Clint says overall they focused on the fact that if within Jerome County, if we ever have a foreign animal outbreak it would cause a very severe impact. The economic function of Jerome County is probably our number one potential threat we would have as far as emergency management looking at the threat and risk assessment. The impact would be extremely high even though the incident is very low. Jerome County is very highly dependent upon agriculture especially the dairy industry and if we had an outbreak it would affect so many people and their livelihood.

Clint reports and comments on the Mass Care TTX held on Dec 10th. The Scenario was taken from a Korean National tourist bus incident in Oregon. They transposed that scenario into highway 93/1-84 junction where a school bus left the roadway. Clint says as we developed a scenario he thought everyone was very well informed as to what their local agencies capabilities and interaction would be. Clint says the only thing he thought was lacking or not clearly defined and well developed was the public information aspect; what and how the joint information center or those agencies to be involved would get the public information out. This is something he felt we should continue to pursue. We have to look at the political impact and what they need, the first responders and what information they need, and of course getting the information out to the public and how that will be done.

Doug McFall comments on an accident that hit a natural gas line out west of town a few weeks ago and thought it would be a good time to try out the SIRCOMM CAN (Citizen Alert Network). They could never get it to work which was a disappointment and a concern. Firefighters and deputies ended up going door to door to get everyone out. They worked on getting it up and running but by the time it was working the emergency was over.

Presentation:

Rick Fawcett from Whisper Mountain gives us a presentation and a 5 year update on the Jerome County All Hazard Mitigation Plan. Rick shows the Goal, Objective, Project, Responsible Entity and Order of Magnitude Cost & Planning Horizon for Severe Weather, Flooding, Geological, Wildfire, Biological, Structural Fire, Riot/Demonstration/Civil Disorder, and Terrorism.

Up Coming Events

Training Opportunities / Exercises:

ICS 300 course in Kimberly January 5th, 2015

Upcoming Virtual Table Top Exercises (VTTX). Each of these will be held at the South Central Health District Office conference room. The VTTX schedule for the coming year is as follows:

(These will be posted on the www.idahoprepares.com website for easy enrollment.)

July 8, '15 – Long-term Power Outage

September 9, '15 – Short Term Recovery

Training opportunities through the Independent study training that may be helpful for the first responders. Go to www.ruraltraining.org/training/online/. There are a few of the many DHS-certified courses available by the RDPC (Rural Domestic Preparedness Consortium). If you would like to learn more about the RDPC (which is a web access independent study) visit www.ruraltraining.org, email info@ruraltraining.org, or the help desk is also available at (877)

855-7372. One course is “*The Event Security Planning for Public Safety Professionals*”; again it is a self-paced-web accessed online course. There are also a number of courses being offered under EMI (Emergency Management Institute) and are virtual tabletop exercises (VTTX), sponsored by South Central Public Health District. Several upcoming training opportunities, go to www.idahoprepares.com, and register online.

Many Independent Study courses are available at <http://training.fema.gov/EMIWeb/IS/>

All attendees

Agency Reports: No agency reports at this time.

Our Next Jerome LEPC Meeting

Jan 15, 2015

1pm – 2pm

Jerome City Council Chambers

Jerome County
 AHMP Project Meeting
 December 18, 2014

Agency	Representative	Position	Phone	Email
Intermountain Comm	Staci Schneider	SALES	587-7122	Schneider.SL@intermountaincomm.com
Jerome County Airport/Lindsey/Blackwood	Linda Lindsey	MANAGER	334-9980	lca@bridgenetmail.com
Red Cross	Diana Chisner	DEPT COORDINATOR	801.663.0898	dianacross@redcrossmail.com
Jerome County	Cathy Bremer	Commissioner	208-308-5034	cbremer@co.jerome.id.us
Hillsdale Hwy Dis	Keith Mills	Supervisor	829-5449	tkamills@hotmail.com
Jerome County OEM	Clint Blackwood	Coordinator	324-9261	cblackwood@co.jerome.id.us
Jerome Co OEM	Mike Damm	Comm	404 9216	MIKE@ZDATHQVAP.COM
SOPHD	Adam Pearson	PHP Program Man.	737-5945	tpearson@phd5.idaho.gov
JBHS	Gary L Davis	AFO	308-2961	gdavis@bhs.idaho.gov
Jerome County PIO	ARTHUR P. BROWN	PIO	644-2757	APBROWN@JEROME.ID.US

Agency	Representative	Position	Phone	Email
City of Jerome Fire	David Leckle	Lieutenant	321-2323-Ext 135	leckelle@ci.jerome.id.us
City of Jerome Police	Jay's Dardner	Sgt.	324-4328 ext.	jgarden@ci.jerome.id.us
OEM	Glenna Lawrence	Assistant	208-644-2790	glawrence@co.jerome.id.us
LEPC	B. CATLIN	Chair	208-731-9772	pacborbc@onecast.net
JEROME SHERIFF	D. MCFALL	SHERIFF	208-644-2770	dmcfall@co.jerome.id.us

January 15, 2015

January 15, 2015
1:00 – 2:00 p.m.
Jerome City Council Chambers

-----AGENDA-----

Welcome:
Introductions:

Chairman Baldwin Camin
LEPC Members

Review minutes from Dec, 2014

Old Business:

- Grant Update

New Business:

- Report on the ICS 300 course January 5th 2015
- Tier II agency reports are due soon; tier2@co.jerome.id.us Jerome LEPC
tier2@ci.jerome.id.us Jerome Fire Dept.

Presentation:

- Steve Haywood speaks on the importance of the Training and Exercise Tool Kit.
- Rick Fawcett will give us a follow up on the All Hazard Mitigation Plan from the EOP

Training Opportunities / Exercises:

- DHS-certified courses available by the RDPC (Rural Domestic Preparedness Consortium) Go to www.ruraltraining.org/training/online/, email is info@ruraltraining.org, or the help desk is also available at (877) 855-7372.
- Several upcoming VTTX table top exercise opportunities; www.idahoprepares.com, register online:
July 8, '15 – Long-term Power Outage / Sept 9, '15 – Short Term Recovery
- ICS 400 course in Kimberly February 4-5, 2015
- Many Independent Study courses are available at <http://training.fema.gov/EMIWeb/IS/>

Agency Reports:

Next Jerome LEPC Meeting
Jerome City Council Chambers
February 19, 2015

Jerome County
 AHMP Project Meeting
 January 15, 2015

Agency	Representative	Position	Phone	Email
Intermountain Comm	Staci Schneider	Sales	587-7122	Schneider, S L@IntermountainComm.com
SEPHD	Tami Pearson	PHR Program Mgr	737-5945	tpearson@phd5.idaho.gov
JCEM	Larry Cookson	Vol	208 539-3499	lawrence@1700@gmail.com
MV Paramedics	Brenda Gully	Educator	814-9029	brenda.g@slhs.org
JBHS	ASG	AFO		
Intermountain Gas Co	Jill Clydesdale	Engineering Assoc	737-6 320	Jillregoclydesdale@mtgas.com
Intermountain Gas Co	Mark Hoffman	Eng Associate		mark.hoffman@mtgas.com
Red Cross / CAP	Diana Ochsmet	DAT COORD	801.668.0898	dianaochsmet@gmail.com
The Salvation Army	Eddie Patterson, Mgr	EDS Coordinator	208-420-0190	eddie.patterson@usw.salvationarmy.org
LEPC / JPD	B. CAMIN	Chair	208-751-9772	pcamin@conwent.net

January 15, 2015 LEPC Meeting

The Jerome County LEPC received an update on the revision of the Multi-Jurisdiction All Hazard Mitigation Plan. The LEPC also reviewed and prioritized the mitigation projects for the County.

Attendance Roster

Agency	Representative	Position
Jerome County Emergency Management	Larry Goolsby	Volunteer
Jerome County Office of Office of Emergency Management	Clint Blackwood	Coordinator
Idaho Bureau of Homeland Security	Gary W Davis	Area Field Officer
Jerome County LEPC	Baldwin Camin	Chairman
Intermountain Communications	Staci Scheider	Sales
Red Cross	Diana Ochsner	Dat Coordinator
Hillsdale Highway District	Keith Mills	Supervisor
Jerome County Office of Office of Emergency Management	Mike Dahmer	Communications
SCPHD	Tami Pearson	PHP Program Manager
Jerome County Office of Office of Emergency Management	Glenna Lawrence	Assistant
Magic Valley Paramedics	Brenda Gully	Educator
Intermountain Gas	Jeff Clysdale	Engineering
Intermountain Gas	Mark Hoffman	Engineering
Salvation Army	Eddie Patterson	Major
Idaho Bureau of Homeland Security	Steve Hayward	Regional Planning Coordinator
Office of Emergency Management	Glena Lawrence	Administrator



City of Hazleton
Elected and Appointed Officials Briefing

Jerome County Multi-Jurisdiction All
Hazard Mitigation Plan Update



Risk Analysis Process – Return Interval

Location	No. of Years	No. of Events	Frequency/Probability	Return Interval
Example	22	17	73.2%	1.25

Hazard Analysis Scoring

Historical Occurrence

Rating	Objective Description	Number of Historical Occurrences (within 20 years)
3	None	0 occurrences
2	Low	1-4 occurrences
1	Medium	5-9 occurrences
0	High	10 or more occurrences

Probability

Rating	Likelihood	Frequency of Occurrence
3	None	Probability of occurrence = less than once in the next 20 years
2	Low	Probability of occurrence = at least once within the next 20-50 years
1	Medium	Probability of occurrence = at least once within the next 10-20 years
0	High	Probability of occurrence = at least once within the next 2 or 10 years

Hazard Analysis Scoring

Vulnerability

Rating	Magnitude	Percentage of People and Property Affected
3	Insignificant	Less than 5%
2	Low	5% to 20%
1	Medium	20% to 50%
0	Severe	More than 50%

Spatial Extent

Rating	Magnitude	Percentage of Jurisdiction Affected
3	Insignificant	Less than 20%
2	Low	20% to 50%
1	Medium	50% to 80%
0	Severe	More than 80%

Hazard Analysis Scoring

Magnitude

Rating	Likelihood	Description
3	Insignificant	<ul style="list-style-type: none"> Two days notice or more Other quality of life less than 10% or no property damage Self-resolution of facilities/services less than 1 hr
2	Low	<ul style="list-style-type: none"> Other notice and times Other quality of life less than 10% or property damage less than 10% of total value Loss of essential facilities and services for 1 to 24 hours
1	Medium	<ul style="list-style-type: none"> Notice 1 day or more Other quality of life less than 10% or property damage less than 10% of total value Loss of essential facilities and services for 24 to 72 hours
0	Severe	<ul style="list-style-type: none"> Notice 1 day or more Other quality of life less than 10% or property damage less than 10% of total value Loss of essential facilities and services for 72 or more hours

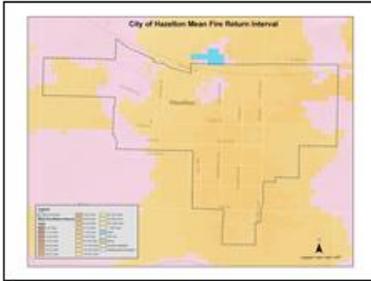
Hazard Analysis Ranking

Natural Hazards Qualitative Risk Assessment EXAMPLE

	Historical Occurrence	Probability	Vulnerability	Spatial Extent	Magnitude	Total	Risk
Flood	3	4	3	3	3	20	H
Earthquake	3	3	3	3	3	18	H
Severe Storm	3	4	2	2	3	14	H
Wildfire	3	3	3	3	3	18	H
Volcano	3	3	2	2	2	9	M
Landslide	3	3	2	1	2	11	M
Avalanche	3	4	1	1	1	10	M
Drought	3	2	1	1	2	7	L

- Hazards Examined**
- Weather:
 - Drought
 - Severe Weather
 - Extreme Heat
 - Lightning
 - Hail
 - Tornado
 - Straight Line Wind
 - Severe Winter Weather
 - Extreme Cold
 - Severe Winter Storm
 - Flooding:
 - Fresh Flooding
 - River Flooding
 - Dam Failure
 - Geologic:
 - Seismicity
 - Wildfire:
 - Biological
 - Burrowing Rodents
 - Vector-Borne Disease
 - Livestock Disease
 - Communicable Disease
 - Technological (Man-Made) Hazards:
 - Structural Fire
 - Hazardous Materials
 - Civil Disorder
 - Terrorism





Hazard Severity Ranking

Hazard	Severity	Frequency	Probability	Exposure	Value	Loss	Cost
Wildfire	H	H	H	H	H	H	H
Earthquake	M	M	M	M	M	M	M
Blizzard	L	L	L	L	L	L	L
Flash Flood	M	M	M	M	M	M	M
Thunderstorm	L	L	L	L	L	L	L
Winter Storm	L	L	L	L	L	L	L
Ice Storm	L	L	L	L	L	L	L
Heavy Snow	L	L	L	L	L	L	L
Light Snow	L	L	L	L	L	L	L
Thunderstorm	L	L	L	L	L	L	L
Blizzard	L	L	L	L	L	L	L
Winter Storm	L	L	L	L	L	L	L
Ice Storm	L	L	L	L	L	L	L
Heavy Snow	L	L	L	L	L	L	L
Light Snow	L	L	L	L	L	L	L

Mitigation Projects

Project	Status
Identify Structures Subject to Flood with Emergency Generator	M
Develop Ordinances to Manage Storm Water in Subdivisions	M
Update existing Storm Water system	M

- ### Next Steps
- Provide List of those that viewed video
 - Provide Comments on Risk Ranking
 - Provide Comments on Mitigation Projects
 - Add Additional Project
 - Re-Prioritize Projects H, M, L
 - Adopt Plan after approval by FEMA