

Jefferson County - Idaho Wildland/Urban Interface Fire Mitigation Plan



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Jefferson County - Idaho

Wildland/Urban Interface Fire Mitigation Plan

September 13, 2004

**JEFFERSON COUNTY IDAHO
WILDLAND/URBAN INTERFACE FIRE MITIGATION PLAN**

PROMULGATION OF ADOPTION

Be it known that the Jefferson County Idaho Board of County Commissioners do hereby approve the adoption of the Jefferson County Idaho Wildland/Urban Interface Fire Mitigation Plan and direct its implementation through the creation of a Jefferson County Wildland/Urban Interface Advisory Committee.

Be it also known that the Board of County Commissioners hereby appoints Debbie Karren, in her role as the Jefferson County Disaster Coordinator, as the Jefferson County Wildland/Urban Interface Advisory Committee Chair.

This plan has been developed in the interest of providing fire mitigation protection to populations living in the wildland/urban interface. Through adoption of this Plan, all county and private agencies are requested to develop directives, Standard Operating Procedures, checklists or other supplemental guidance to insure its maximum effectiveness.

JEFFERSON COUNTY COMMISSIONER

DATE

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DATE

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**JEFFERSON COUNTY IDAHO
WILDLAND/URBAN INTERFACE FIRE MITIGATION PLAN**

PLAN REVIEWERS

The mission of the Jefferson County Wildland/Urban Interface Fire Mitigation Program is to promote public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from wildfires. The following representatives have reviewed the plan and provided input.

_____ Keith Birch – Idaho Department of Lands	_____ Date
_____ Kevin Conran – BLM	_____ Date
_____ Debbie Karren – Director of Emergency Services	_____ Date
_____ Kirt Hayes – Central Fire District	_____ Date
_____ Rick Lamb – Roberts Fire District	_____ Date
_____ John O’Neill – Idaho Fish and Game	_____ Date

Jefferson County - Idaho

Wildland/Urban Interface Fire Mitigation Plan

Executive Summary And Action Plan

September 13, 2004

Executive Summary and Action Plan

The mission of the Jefferson County Wildland/Urban Interface Fire Mitigation Program is to promote public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from wildfires. The Jefferson County Wildland/Urban Interface Fire Mitigation Plan is developed as a foundational element of the Program and addresses privately held unincorporated urban and rural areas of the county and their interface points with Federal or State Lands such as the Bureau of Land Management or the Idaho National Engineering and Environmental Laboratory.

This Plan establishes an action plan for mitigating the impacts associated with wildfires. If implemented over the next several years, the actions identified in this plan will help reduce the damages caused by wildfire in the wildland/urban interface. However, it is up to the community to ensure that these actions are taken. All mitigation is local and the primary responsibility for development and implementation of risk reduction strategies and policies lies with the identified local and federal jurisdictions. No plan is complete until it is implemented.

The county wildland/urban interface areas were all assessed during the summer of 2004. Based on the findings of the assessment, the assessment team geographically organized five (5) areas of risk or vulnerability zones and ranked them according to four criteria; Life Safety, Property Damage, Environmental Damage, and Economic Impact. The list of the respective zones and the identified mitigation implementing actions presented below represent a summary of the Jefferson County Wildland/Urban Interface Mitigation Program Action Plan.

Existing Actions

Red Zone Planning by the Central Fire District in WUI Vulnerability Zone 1

Short Term Actions

General Issues

- ✓ Develop a rural subdivision water supply building code.
- ✓ Develop defensible space programs around CRP Lands.

Heise/Lorenzo Riparian Area – WUI Vulnerability Zone 1

- ✓ Develop a wildland/urban interface public education program.
- ✓ Develop a fuels reduction program.
- ✓ Apply for grants to procure equipment used for mechanical treatment projects.
- ✓ Develop a year round static water source.
- ✓ Develop an evacuation plan.

Roberts Riparian Area – WUI Vulnerability Zone 2

- ✓ Develop a wildland/urban interface public education program.
- ✓ Develop a fuels reduction program.
- ✓ Apply for grants to procure equipment used for mechanical treatment projects.
- ✓ Develop a year round static water source.
- ✓ Develop an evacuation plan.

Menan/Deer Park Wildlife Mitigation Unit Area – WUI Vulnerability Zone 3

- ✓ Develop a wildland/urban interface public education program.
- ✓ Develop a fuels reduction program.
- ✓ Apply for grants to procure equipment used for mechanical treatment projects.
- ✓ Develop a year round static water source.
- ✓ Develop an evacuation plan.

Market Lake Wildlife Management Area – WUI Vulnerability Zone 4

- ✓ Develop a wildland/urban interface public education program.
- ✓ Develop an evacuation plan.

Mud Lake Wildlife Management Area – WUI Vulnerability Zone 5

- ✓ Develop a wildland/urban interface public education program.
- ✓ Develop an evacuation plan.

An economic analysis was conducted on all mitigation projects identified above. The analysis provides a foundation for the Jefferson County Wildland/Urban Interface Fire Mitigation Group and the responsible fire districts to begin mitigation project prioritization. While some projects provide an excellent return on investment, other factors must be closely examined in the prioritization process. Life safety issues must always take precedence over costs.

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Section 1: Introduction and Planning Process

Wildfires are a part of the natural ecological cycle of forests. However, as humans encroach onto forested lands, the risk of catastrophic disaster increases. These areas of risk are known as the wildland/urban interface. They can be sharp geographical edges, or zones of ever increasing risk potential. Regardless, they pose a threat to human life and property. The National Fire Plan calls for reducing this risk through a variety of measures including the creation of local wildland/urban interface fire mitigation programs. Jefferson County Disaster Services received a grant through the Idaho Falls Office of the Bureau of Land Management (BLM) to prepare a Wildland/Urban Interface Fire Mitigation Plan. This plan will document programmatic goals, identify implementing actions, and set priorities for reducing wildfire risk.

The Jefferson County Wildland/Urban Interface Fire Mitigation Plan; hereafter referred to as the Plan, addresses privately held unincorporated urban and rural areas of the county and their interface points with Federal or State Lands such as the Caribou Targhee National Forest. While this Plan does not establish requirements for the city, county, state or federally held lands, it does provide them with a framework for planning for the common impacts associated with wildfires. The resources and background information in the Plan are applicable countywide, as the goals and recommendations lay groundwork for local mitigation plans and partnerships.

All mitigation is local, and the primary responsibility for development and implementation of risk reduction strategies and policies lies with local jurisdictions. Local jurisdictions, however, are not alone. Partners and resources exist at the state and federal levels. No plan is complete until implemented. This Plan describes prescriptive programmatic actions that will bring about mitigation. These mitigation actions, if implemented over the next several years, will help reduce the damages caused by wildfire in the wildland/urban interface. However, it is up to the community to ensure that these actions are taken.

The Plan, and Appendices that follow, are the culmination of work conducted by the Jefferson County Wildland/Urban Interface Fire Mitigation Interagency Planning Group and includes a variety of measures designed to reduce the impact of wildfires.

The rising cost of disasters has led to a renewed interest in identifying effective ways to reduce vulnerability to wildfires. Wildland/urban interface fire mitigation planning assists communities by identifying resources, developing information, and formulating strategies for risk reduction, while helping to guide and coordinate mitigation activities throughout the county. The Jefferson County Wildland/Urban Interface Fire Mitigation Plan provides documentation of implementing actions designed to reduce risk from wildfires through education and outreach programs, the development of partnerships, and implementation of preventive activities such as land use or building codes. The resources and information within the Mitigation Plan:

1. Establish a foundation for coordination and collaboration among agencies and the public in Jefferson County,
2. Identify and prioritize mitigation projects and implementing actions;
3. Assist in meeting the requirements of federal assistance programs.

Program Mission

The mission of the Jefferson County Wildland/Urban Interface Fire Mitigation Program is to promote public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from wildfires.

Program Goals

The Jefferson County Wildland/Urban Interface Fire Mitigation Program has established goals that describe the overall direction that county agencies, organizations, and citizens will take toward mitigating wildland/urban interface risks from wildfires.

Protect Life and Property

- ❑ Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to wildfire hazards.
- ❑ Improve hazard assessment information; reduce losses and repetitive damages from hazard events.
- ❑ Improve countywide zoning, building codes, standards for new development and encouragement of preventative measures for existing development in areas vulnerable to wildfire hazards.

Public Awareness

- ❑ Develop and implement educational outreach programs.
- ❑ Provide information on tools, partnership opportunities, and funding resources to assist in implementation of mitigation actions.
- ❑ Develop a system to quickly and effectively communicate impending emergencies to residents of summer home areas.

Natural Systems

- ❑ Balance watershed planning, natural resource management, and land use planning with wildfire mitigation to protect life, property, and the environment.
- ❑ Preserve, rehabilitate, and enhance natural systems to serve wildfire mitigation functions.

Partnerships and Implementation

- ❑ Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.
- ❑ Encourage leadership within public and private sector organizations to prioritize and implement local, county, and regional hazard mitigation actions.

Emergency Services

- ❑ Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure.
- ❑ Strengthen emergency operations by increasing collaboration and coordination.

- ❑ Coordinate and integrate wildfire mitigation activities, where appropriate, with emergency operations plans and procedures.

Background

Jefferson County received a grant through the Idaho Falls Office of the Bureau of Land Management (BLM) to prepare a Wildland/Urban Interface Fire Mitigation Plan. This plan documents programmatic goals, identifies implementing actions, and sets priorities for reducing wildfire risk.

Wildfire hazard mitigation is the development and implementation of activities designed to reduce or eliminate losses resulting from wildfires. Wildfire mitigation can be used in conjunction with other county plans, including the County Comprehensive Land Use and Emergency Operations Plans. Each county within the state has received a request to write a simple Wildland/Urban Interface Fire Mitigation Plan. These plans are to contain at least the following five elements:

- 1) Documentation of the process used to develop the mitigation plan. This includes how the plan was developed, who was involved and how the public was involved.
- 2) A risk assessment to identify vulnerabilities to wildfire in the wildland/urban interface (WUI).
- 3) A prioritized mitigation strategy that addresses each of the risks. Examples of these strategies could be:
 - ❑ Training for fire departments
 - ❑ Public education
 - ❑ Hazardous fuel treatments
 - ❑ Equipment
 - ❑ Communications
 - ❑ Additional planning
 - ❑ New facilities
 - ❑ Infrastructure improvements
 - ❑ Code and/or ordinance revision
 - ❑ Volunteer efforts
 - ❑ Evacuation plans, etc.
- 4) A process for maintenance of the plan that includes monitoring and evaluation of mitigation activities.
- 5) Documentation that the plan has been formally adopted by the involved agencies.

To develop wildfire mitigation plans, it is suggested that each county bring together the following individuals, as appropriate for each county, to make up the County Wildland/Urban Fire Interagency Planning Group. This group should contain the following representatives.

- ❑ County Commissioners (Lead)
- ❑ Local Fire Chiefs
- ❑ Idaho Department of Lands representative
- ❑ USDA Forest Service representative
- ❑ USDI Bureau of Land Management representative
- ❑ US Fish and Wildlife representative
- ❑ Idaho Bureau of Homeland Security representative

- ❑ Local Emergency Planning Committee (LEPC) Chairperson
- ❑ Resource Conservation and Development representative
- ❑ State Fish and Game representative
- ❑ Interested citizens and community leaders as appropriate
- ❑ Other officials as appropriate

The planning group, with critical input from homeowners and the general public, will determine where the risks and vulnerabilities to wildland/urban fire are located within the county and what mitigation actions are required.

In Jefferson County, existing assessments and planning documentation have fulfilled many of the requirements made above, however, the purpose of this planning activity is to integrate existing relevant information into a single place and develop a strategic pathway to fire mitigation implementation.

Project Requirements

The Plan is being written to establish the jurisdiction's commitment to reduce risks from disasters and technological hazards and serve as a guide for decision makers as they commit resources to reduce the effects of wildfires upon private property within the designated wildland/urban interface areas.

The project has been outlined and conducted in accordance with the following requirements set forth by the Federal Emergency Management Agency (FEMA).

1. Develop and Document the Planning Process
2. Assess the Risk
3. Develop Mitigation Strategies
4. Develop a Maintenance Process for the Plan

Planning Methodology

Information contained in the Plan is based on research and information taken from a variety of sources. The intention of the planning team is not to duplicate existing information, but rather to integrate resources provided by members of the planning committee. The following “outcome based” steps are taken to implement the methodology:

- ❑ Establish Boundaries
- ❑ Describe Conditions
- ❑ Define Hazards
- ❑ Examine Vulnerabilities
- ❑ Analyze Risk
- ❑ Determine *Mitigation* Alternatives
- ❑ Analyze Alternatives
 - Socio-Economic Impacts
 - Environmental Impacts
 - Cost Benefit
- ❑ Choose Alternatives
- ❑ Resource Load Action Plan
- ❑ Implement – TAKE ACTION

The Interagency Planning Group is comprised of the following:

Name	Representing
Debbie Karren	Jefferson County Disaster Services
Don Gosswiller	BLM
Keith Birch	IDL
Kevin Conran	BLM
Kim Ragotzkie	Idaho Fish and Game
Mike Clements	BHS
Daniel Jose	Jefferson County
Lance R. Brady	BLM GIS
Sherry Lufkin	Jefferson County
Joyce Briggs	Jefferson County
Kirt Hayes	Central Fire District Chief
John O'Neill	Idaho Fish and Game
Wes Jones	ERS Project Manager
Rick Fawcett	ERS – Senior Consultant

Meetings

Planning meetings have been held to gather information and develop natural hazard actions for this plan. Additional meetings will be held with the County Commission, homeowners and the public.

Date	Group	Purpose
06/23/04	Jefferson County Wildfire Mitigation Planning Group	Planning Meeting
07/28/04	Jefferson County Wildfire Mitigation Planning Group	Planning Meeting
09/1/04	Jefferson County Wildfire Mitigation Planning Group	Planning Meeting
09/09/2004	Jefferson County Wildfire Mitigation Planning Group	Public Meeting

Public Participation

Public participation is being assured in four specific ways:

- Ensure ongoing involvement of private homeowners and/or representatives from the communities served by this process on the planning committees.
- Provide access to the Jefferson County Wildland/Urban Interface Fire Mitigation Plan and associated information on the Internet.
- Notification by mail to property owners who live within the vulnerability zones or who own property within the vulnerability zones but reside outside of the county, announcing the development of a plan, the opportunity to review the plan online, inviting them to make comments on the plan, and requesting them to complete a brief questionnaire.
- Facilitation of scheduled public meetings for residents living in the wildland/urban interface areas.

Mitigation Alternatives

Mitigation alternatives and resulting implementing actions are being prepared to address the vulnerabilities identified in Section 3. All mitigation alternatives will be analyzed for cost benefit where

possible. The resulting benefits will be summarized and provided as part of the final alternative descriptions.

The (*implementation*) Action Plan is the most important product that will be developed by this process. The Action Plan contained in the Executive Summary is a summary of Section 5 and identifies who is responsible for implementation of the action, what resources are required for implementation, and when the implementation is to be completed.

Plan Contents

Each section of the Plan provides important information and resources to assist in understanding the issues facing the county, its citizens, businesses, and emergency responders. The sections of the Plan work together to create a document that guides the mitigation mission to reduce risk and prevent loss from future wildfires.

The Plan is structured for ease of use and updating. Individuals interested in specific sections of the Plan will find the tabular format easy to negotiate and reference. The ability to update individual sections of the Plan places less financial burden on the county. Decision makers can allocate funding and staff resources to review and update selected sections, thereby avoiding a full update, which can be costly and time-consuming. New data can be easily incorporated, resulting in an evolving mitigation plan that remains current and relevant to Jefferson County.

The Plan is organized as follows:

1. **Executive Summary and Action Plan** - Provides an overview of the mitigation plan and a succinct listing of all implementing actions.
2. **Section 1: Introduction and Planning Process** - Describes mitigation planning requirements and the current planning methodology.
3. **Section 2: Jefferson County Idaho** - Presents a brief overview of Jefferson County.
4. **Section 3: Risk Assessment** - Provides hazard identification, vulnerability and risk analysis associated with wildfires in Jefferson County.
5. **Section 4: Public Participation** – Provides an overview of public involvement and documents public input into the planning process.
6. **Section 5: Hazard Mitigation Action Items** - Provides implementing actions developed to address the identified hazards and vulnerabilities.
7. **Section 6: Economic Analysis** – Provides the results of the economic analysis completed as part of the alternative selection process.
8. **Section 7: Plan Maintenance** - Provides guidance on plan implementation, evaluation and maintenance.

Plan Adoption

The Jefferson County Board of County Commissioners is responsible for adopting the Plan. Once the Plan has been adopted, the Jefferson County Director of Emergency Management is responsible for submitting it to the State Hazard Mitigation Officer at the Idaho Bureau of Homeland Security who will then submit the plan to the Federal Emergency Management Agency (FEMA) for review. This review

will assess how the plan meets the federal criteria outlined in FEMA Interim Final Rule 44 CFR Part 201. Upon acceptance by FEMA, Jefferson County will gain eligibility for Wildfire Mitigation Grant Program funds. A formal Plan adoption form is included as the first page of the Plan.

Coordinating Body

The Jefferson County Wildland/Urban Interagency Planning Group is responsible for coordinating development and implementation of the Action Plan. This group will undertake the formal review process. The County Commissioners will assign appropriate members of the Wildland/Urban Interagency Planning Group, private property owners, and representatives of resource providing agencies to form the Wildland/Urban Mitigation Advisory Committee. This committee will implement, evaluate and conduct an annual review of the plan. They will meet, at least quarterly, to examine opportunities for implementation of specific mitigation actions and evaluate the implementation process.

Subcommittees may be formed under the direction of the Advisory Committee to further evaluate actions as established and categorized in Section 5. Recommendations will then be made as to specific implementation processes including acquisition of funding and other necessary resources.

Implementation through Existing Programs

The Plan will provide a series of recommendations, which Jefferson County will have the opportunity to implement through existing programs and procedures.

Upon adoption of the initial Plan, the county will continue developing their natural hazard mitigation goals and actions using this document as a baseline of information for the risks associated with wildfires within the county. Within six months of formal adoption of the Plan, the newly formed and appointed Wildland/Urban Mitigation Advisory Committee will review the recommendations listed. This committee will continue to evaluate the feasibility of each strategy, determine the current status, readjust the priorities as necessary, and monitor the progress for implementation.

Section 2: Jefferson County Idaho

Profile of Jefferson County

Jefferson County was established February 18, 1913 with its county seat in Rigby. The County is located in southeastern Idaho and borders Madison County on the north and Bonneville County on the South. The Snake River is the county boundary between Madison and Jefferson Counties. The Snake River Riparian Area between Heise and Roberts comprises the majority of wildland/urban interface. The County primarily contains agricultural lands and borders the Idaho National Engineering and Environmental Laboratory on the west.

Heise/Lorenzo Riparian Area

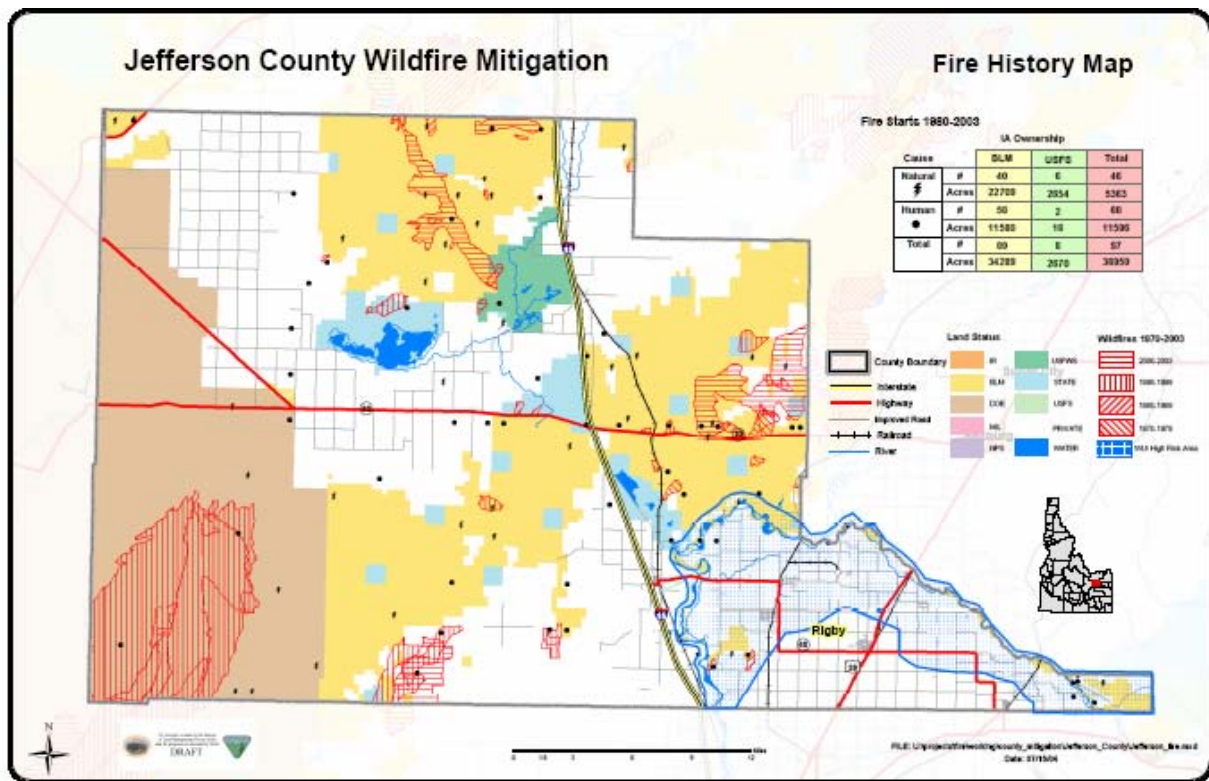
The Heise/Lorenzo Riparian area is located approximately 10 miles northeast of Rigby and includes the communities of Kelly Canyon, Heise, Sunnydale, Archer, Labelle, Lorenzo, and Menan Buttes. The area can be reached by traveling north on Interstate 15 and exiting onto Highway 26 east. The Riparian area lies within Madison, Jefferson and Bonneville Counties along the bends of the Snake River. Elevations average 5,000 feet. BLM lands within the assessment area occur along the riparian lands of the Snake River and portions of the Menan Buttes and Kelly Canyon. Agriculture farming, rangeland and urban development are the primary uses of private lands within the Heise and Lorenzo communities.

Conservation Reserve Program Lands

The Conservation Reserve Program encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as native grasses, wildlife plantings, trees, filterstrips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices. Areas covered by CRP ground in Jefferson County total 4,183 acres.

Fire History:

According to the BLM and the Forest Service, between 1980 and 2003 there were 97 fire starts resulting in roughly 40,000 acres of land burned by wildfires in Jefferson County. Of the reported 97 fire starts, 40 were naturally started, usually through lightning strikes, and 57 were started by humans. The naturally started wildfires are typically located in the high desert areas of the county. There were two significant fires in the Idaho National Engineering and Environmental Laboratory area in the 1990's. Both are reported to be human caused. The rural fire districts in the county do not retain records of acreage consumed in wildfires nor the number of annual responses.



Profile of the Fire Districts:

Central Fire District

The Central Fire District is a combined municipal and fire protection district serving Rigby, Ririe, Menan and Lewisville in Jefferson County. These communities have experienced some growth and are located north of Idaho Falls near Highway 20. Most of the Fire District's topography is rolling hills suitable for farming and ranching.

Hamer Fire District

The Hamer Fire District is a combined municipal and fire protection district. Hamer is located on Interstate 15, north of Idaho Falls. The topography of the area consists of low rolling hills. The major industry is agriculture: farming and ranching. The largest employer in the area is Larsen Farms, a potato farming and processing operation.

Roberts Fire District

The Roberts Fire District is a combined municipal and fire protection district. Roberts sits west of Interstate 15 and is a small growing community. The major industry is agricultural based. Topography is basically flat farmland with a large marshland that is a wild bird sanctuary.

West Jefferson Fire District

The West Jefferson Fire District is a combined municipal and fire protection district. The West Jefferson Fire District is based in Terreton and covers the western most portions of Jefferson County. The Fire District abuts the boundaries of the Idaho National Engineering and Environmental Laboratory on the south and west and Lemhi County on the north. The major industry is agricultural based. Topography is basically flat farmland with a large marshland that is encompassed in the Mud Lake Wildlife Management Area.

Section 3: Hazard, Vulnerability and Risk Assessment

Hazards

Wildfire –Wildfire is an unplanned or unwanted natural or human-caused fire, or a prescribed fire that threatens to escape its bounds.

Drought - Drought, a *prolonged period of dryness*, is a normal part of almost every climate and is actually defined in many different ways. Environmental impacts of drought are the result of damages to plant and animal species, wildlife habitat, and air/water quality; forest and range fires; degradation of landscape quality; and soil erosion.

Vulnerabilities

The following general categories were examined in detail to determine specific vulnerable areas within Jefferson County:

- Developed recreation sites
- Summer home sites
- Designated communication sites
- Municipal watersheds
- Private land with structures
- Timber areas
- Above-ground utility corridors
- High-use travel corridors
- Historic areas
- Range land
- Wildlife habitat
- Conservation Reserve Program (CRP) land

Heise/Lorenzo Riparian Area – WUI Vulnerability Zone 1

An evaluation of the Heise/Lorenzo area found the same basic conditions as were reported in 2000 by the Dynamac Corporation. Most of the homes are located adjacent to or are visible from major roads. The riparian areas located between Kelly Mountain and the Menan Buttes consist of predominantly



agricultural lands with homes along the river. These homes typically have access to county major roads. This extremely large wildland/urban interface vulnerability zone has significant light fuel loading. Many of the homes are built in the trees and fronted by agricultural croplands. There appears to be little if any defensible space around these homes. Most of the homes have good road access and the response times to the structures is reported to be approximately 20 minutes. There are no hydrant systems in this area. The Snake River and surrounding irrigation canals provide seasonal water supplies.

Based on information obtained from the 2000 Heise/Lorenzo Riparian Area Risk Assessment, conducted by the Dynamac Corporation, the proposed mitigation projects in order of priority were:

- ❑ Fuels reduction practices within public and private lands.
- ❑ Develop and maintain water storage tanks at specific locations to reduce the time needed for water transport.
- ❑ Develop an ongoing education and outreach program throughout the assessment area to encourage firewise practices.

These proposed projects have not yet been implemented.

Roberts Riparian Area – Vulnerability Zone 2

The Roberts Riparian Area includes the confluences of both the North Fork and South Fork of the Snake River. It has significant light brush and heavy marsh grass fuel loading. Many of the homes are built in the trees and fronted by agricultural croplands. There appears to be little if any defensible space around most of the homes. Most of the homes have good road access and the response times to the structures is reported to be approximately 20 minutes. There are no hydrant systems in this area. The Snake River and irrigation canals provide seasonal water supplies.

Menan/Deer Park Wildlife Mitigation Unit – Vulnerability Zone 3

This area encompasses the marsh and agricultural areas north of the City of Menan between the Snake River and the Menan Buttes. The area has heavy marsh grass fuel loading, light timber and brush. The area is dedicated to management of deer populations. There are several structures on the boundaries of these areas.

Market Lake Wildlife Management Area – WUI Vulnerability Zone 4

The Market Lake Wildlife Management Area is located in Jefferson County, north of Idaho Falls (exit I-15 at Roberts). Partners in Flight designated it in 1998 as a “Globally Important Bird Area.” More than 1% of the biogeographic populations of Snow Geese use the Market Lake area during the spring, and more than 1% of the biogeographic breeding populations of White-faced Ibis nest in the surrounding area. More than 50,000 Snow Geese migrate through each year, and more than 500 pair of Ibises nest there. In addition to these species, more than 4,000 Tundra Swans and 100 Trumpeter Swans migrate through the Market Lake area. There is a quarter mile access trail for the physically disabled that runs through a bird-rich poplar and willow shelterbelt. In addition, there is more than two miles of hiking trails.

The management area has significant fine fuel loading. However, most of the year the area is extremely moist and would be difficult to burn. In the late fall, the fuels are combustible. The area does not contain any permanent structures and the surrounding private lands are used primarily for agricultural purposes.



Mud Lake Wildlife Management Area – WUI Vulnerability Zone 5

Mud Lake WMA is located three miles north of Mud Lake and Terreton. The Management Area (WMA) was established primarily to preserve and improve nesting habitat for waterfowl. In 1940, the Idaho Department of Fish and Game purchased 607 acres of wetlands, creating Mud Lake WMA. Through the years, acquisition of adjacent land parcels, together with lease agreements and a withdrawal of lands from the US Bureau of Land Management have expanded Mud Lake WMA to its present 8,853 acres.

The habitats of Mud Lake WMA vary from bulrush, cattail, sedge, and saltgrass-filled sloughs in moist areas, to sagebrush, rabbitbrush, bitterbrush, and greasewood communities in dry, upland areas. Waterfowl such as trumpeter swans, mallard, northern pintail, gadwall, wigeon, northern shoveler, redhead, and ring-necked ducks can be seen at Market Lake WMA. Red-tailed and Swainson's hawks frequently nest in the area as well. Larger game can also be seen, mule deer, white-tailed deer, and pronghorn antelope.

The management area has significant fine fuel loading. However, most of the year the area is extremely moist and would be difficult to burn. In the late fall, the fuels are combustible. The area does not contain any permanent structures and the surrounding private lands are used primarily for irrigated agriculture purposes.

Risk Assessment

Heise/Lorenzo Riparian Area – WUI Vulnerability Zone 1

- Dense fuel loading
- No defensible space
- Seasonal static water supply
- One way in and out
- No evacuation planning

Roberts Riparian Area– WUI Vulnerability Zone 2

- Dense fuel loading
- No defensible space
- Seasonal static water supply
- One way in and out
- No evacuation planning

Menan/Deer Park Wildlife Mitigation Unit – Vulnerability Zone 3

- Dense fuel loading
- No defensible space
- Seasonal static water supply
- No evacuation planning

Market Lake Wildlife Management Area – WUI Vulnerability Zone 4

- Light fuel loading
- One way in and out
- No evacuation planning

Mud Lake Wildlife Management Area – WUI Vulnerability Zone 5

- Light Fuel Loading
- One way in and out
- No evacuation planning

For the purpose of quantifying the risk in each of the areas examined, wildland/urban interface zones have been developed. See the following map. An expanded view of the map is available in Appendix 6.

Jefferson County Wildfire Mitigation

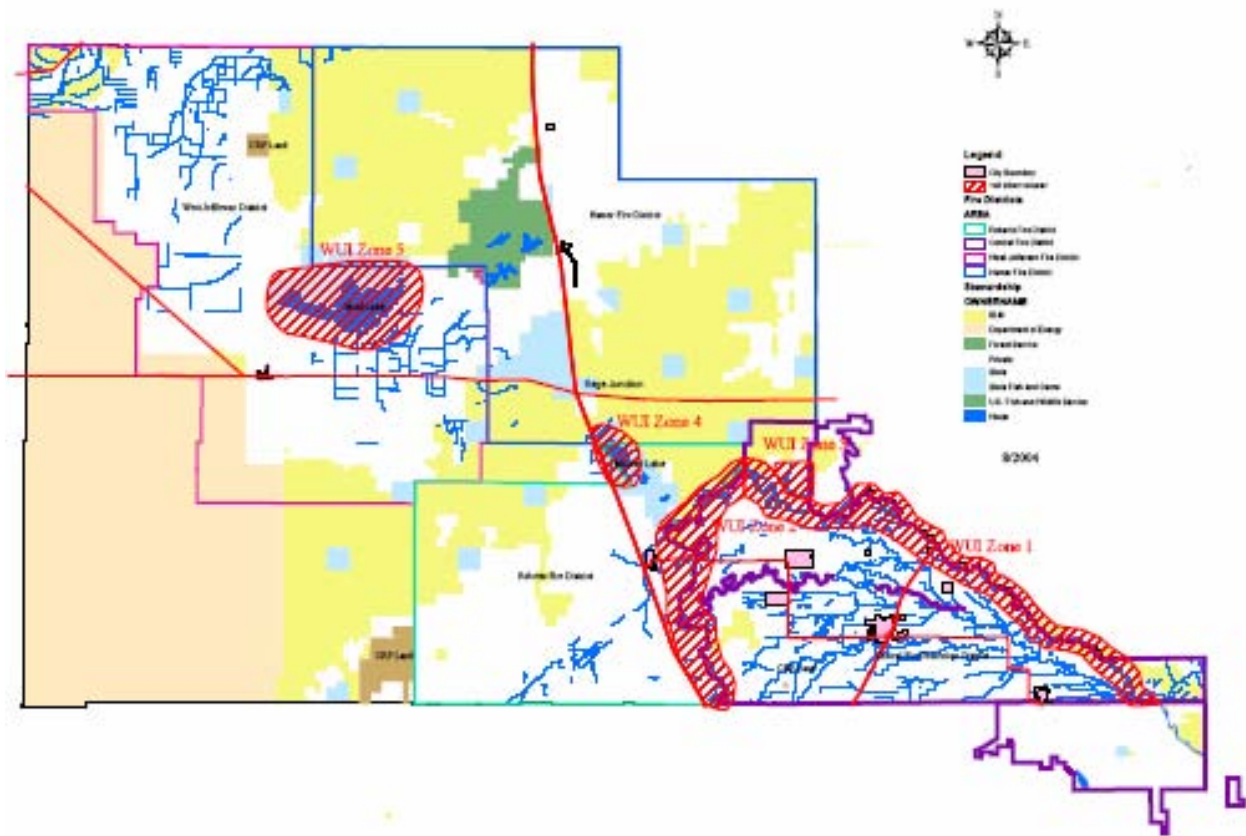


Table 1 is the evaluation of risk probability versus consequence. It will be used as a discussion tool with the Interagency Planning Group in establishing mitigation action priority. The table compares the identified hazard with the potential threat to life, property, and the environment. Future risk analysis efforts will better define the targets of consequence to specific risk. The ranking criteria are presented in Table 2.

Table 1 Risk Ranking

Identified Hazards	Risk Analysis			
	Life Safety	Property Damage	Environmental Damage	Economic Impact
WUI Vulnerability Zone 1	High	High	High	High
WUI Vulnerability Zone 2	High	Medium	High	Low
WUI Vulnerability Zone 3	Medium	Medium	High	Low
WUI Vulnerability Zone 4	Medium	Medium	High	Low
WUI Vulnerability Zone 5	Medium	Medium	High	Low

Table 2 Ranking Criteria

Consequence Criteria		
Life Safety	Low	Injuries limited to the area of effect. < 10
	Medium	Serious injuries >10
	High	Multiple fatalities, critical and serious injuries
Property Damage	Low	Minimal damages
	Medium	Structural damages evident
	High	Loss of structure
Environmental Damages	Low	Minimal impact at area of effect
	Medium	Regional damage
	High	Long-term recovery. Requires significant after action
Economic Impact	Low	Economic impact minimal
	Medium	Loss of business
	High	Regional long term loss

Section 4: Public Participation

The *key to successful implementation* of the Fire Mitigation Program is involvement from the private property owners in Jefferson County and the public who participate in the recreation and tourism within the confines of the county. The public participation process is being assured in four specific ways.

- ❑ Ensure ongoing involvement of private homeowners and/or representatives from the communities served by this process on the planning committees.
- ❑ Increase availability of the Jefferson County Wildland/Urban Interface Fire Mitigation Plan and associated information by placing it on the Internet.
- ❑ Correspond with resident and non-resident property owners announcing the development of a wildland/urban interface program and requesting them to complete a brief questionnaire.
- ❑ Facilitation of scheduled public meetings for residents living in the wildland/urban interface areas.

Public Involvement

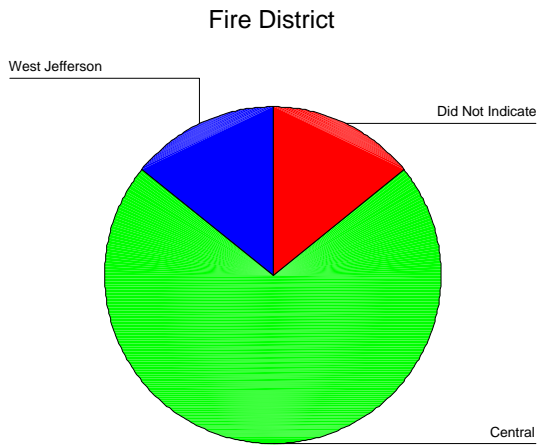
The Jefferson County Wildland/Urban Interface Fire Mitigation Interagency Planning group has actively announced planning meetings during the development of this Plan. The Group has welcomed individual homeowners and representatives from homeowners associations to all of their meetings and has asked for input of issues facing the homeowners in the interface areas. The Group will continue to work with homeowners during the implementation of mitigation alternatives and in the annual review and assessment of the Plan.

Homeowner Questionnaire

The results from the questionnaire are provided in detail in Appendix 4. There were 90 questionnaires mailed out. Roughly 10% of the questionnaires were returned. The following are highlights of the responses:

- ❑ 86% of the respondents were located in the Central Fire District.
- ❑ 86% responded that they had not participated in hazard reduction activities.
- ❑ 28% responded that they knew what to do if a wildfire affected their community.
- ❑ 57% of the respondents supported an increase in taxes to improve fire protection.
- ❑ 100% indicated that a Wildfire Public Education Program would be beneficial.
- ❑ 100% indicated that they would be willing to participate in wildland/urban interface mitigation activities.
- ❑ 72% indicated that a Web Page would be very beneficial in providing information to them regarding Wildland/Urban Interface Mitigation

The chart below illustrates the response by fire district.



Previous Public Meetings

Based on the interviews of community officials and the discussions during public meetings held in 2000, the Dynamac Corporation ascertained the communities within the Heise/Lorenzo assessment area and would like to see the following steps occur in the assessment area:

- ❑ Increased cooperation between BLM and local agencies on wildland fire issues.
- ❑ Increased ability to control wildland fires by pre-positioning water sources at specific locations north of Heise/Lorenzo.
- ❑ Decrease wildland fire hazards using fuels reduction practices.
- ❑ Increase resident's awareness of proper firewise activities such as landscaping, use of fire-resistant building materials, proper access roads, and emergency evacuation procedures.

Section 5: Mitigation Implementing Actions

The **implementing actions** are activities that the county agencies and citizens have proposed and agreed upon as those that if implemented will reduce the risk in the wildland/urban interface.

Existing actions - are activities that are currently in progress.

Short-term actions - are activities that county agencies may implement with existing resources and authorities within one to two years.

Long-term actions - may require new or additional resources or authorities, and may take between one and five years to implement.

Existing Actions

Red Zone Planning by the Central Fire District in WUI Vulnerability Zone 1

Short Term Actions

General Issues

- ✓ Develop a rural subdivision water supply building code.

Responsible Party:

Resources:

Due Date:

- ✓ Develop defensible space programs around CRP Lands.

Responsible Party:

Resources:

Due Date:

Heise/Lorenzo Riparian Area – WUI Vulnerability Zone 1

- ✓ Develop a wildland/urban interface public education program.

Responsible Party: Central Fire District

Resources: BLM Community at Risk Program

Due Date:

- ✓ Develop a fuels reduction program.

Responsible Party: Central Fire District

Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program

Due Date:

- ✓ Apply for grants to procure equipment used for mechanical treatment projects.

Responsible Party: Central Fire District

Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program

Due Date:

- ✓ Develop a year round static water source.

Responsible Party: Central Fire District

Resources: To be determined
Due Date:

- ✓ Develop an evacuation plan.

Responsible Party: Central Fire District
Resources: BLM Community at Risk Program
Due Date:

Roberts Riparian Area – WUI Vulnerability Zone 2

- ✓ Develop a wildland/urban interface public education program.

Responsible Party: Roberts Fire District
Resources: BLM Community at Risk Program
Due Date:

- ✓ Develop a fuels reduction program.

Responsible Party: Roberts Fire District
Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program
Due Date:

- ✓ Apply for grants to procure equipment used for mechanical treatment projects.

Responsible Party: Roberts Fire District
Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program
Due Date:

- ✓ Develop a year round static water source.

Responsible Party: Roberts Fire District
Resources: To be determined
Due Date:

- ✓ Develop an evacuation plan.

Responsible Party: Roberts Fire District
Resources: BLM Community at Risk Program
Due Date:

Menan/Deer Park Wildlife Mitigation Unit – WUI Vulnerability Zone 3

- ✓ Develop a wildland/urban interface public education program.

Responsible Party: Central Fire District
Resources: BLM Community at Risk Program
Due Date:

- ✓ Develop a fuels reduction program.

Responsible Party: Central Fire District
Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program
Due Date:

- ✓ Apply for grants to procure equipment used for mechanical treatment projects.

Responsible Party: Central Fire District
Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program
Due Date:

✓ Develop a year round static water source.
Responsible Party: Central Fire District
Resources: To be determined
Due Date:

✓ Develop an evacuation plan.
Responsible Party: Central Fire District
Resources: BLM Community at Risk Program
Due Date:

Market Lake Wildlife Management Area – WUI Vulnerability Zone 4

✓ Develop a wildland/urban interface public education program.
Responsible Party: Idaho Fish and Game
Resources:
Due Date:

✓ Develop an evacuation plan.
Responsible Party: Idaho Fish and Game
Resources:
Due Date:

Mud Lake Wildlife Management Area – WUI Vulnerability Zone 5

✓ Develop a wildland/urban interface public education program.
Responsible Party: Idaho Fish and Game
Resources:
Due Date:

✓ Develop an evacuation plan.
Responsible Party: Idaho Fish and Game
Resources:
Due Date:

Long Term Actions

None

Section 6: Economic Analysis

Introduction:

The following economic analysis was conducted using the guidance in Appendix 5. The Analysis provides a starting point for the Jefferson County Wildland/Urban Interface Fire Mitigation Group and the responsible fire districts to begin mitigation project prioritization. It should be noted that while some projects provide an excellent return on investment, other factors should be strongly considered and be included in the prioritization process. Life safety issues must always take precedence over costs. Other issues include:

- ✓ The number of structures in the subdivision
- ✓ The number of calls experienced in the area by the fire district
- ✓ Past fire history
- ✓ Seasonal use patterns
- ✓ Availability of funds
- ✓ Commitment and involvement of property owners
- ✓ Property aesthetics
- ✓ Environmental impacts
- ✓ Wildlife impacts

Vulnerability Zone Project Economic Analysis:

The following analysis was conducted based on a brief description of the project and the assumptions used to determine the scope and rough order of magnitude cost for the project. The information provided serves as a foundation for project prioritization and resource allocation. Detailed cost estimates may be required for grant applications

General Issues

- ✓ *Develop a rural subdivision water supply building code.*

Project Description – Examine current Jefferson County subdivision plat development codes and determine appropriate requirements that ensure adequate water supplies for fire suppression.

Assumption – This activity will occur through the normal operations and interface between the fire chief and the planning and zoning staff. No additional cost will be incurred.

- Cost - None
- Valuation – N/A
- ROI –N/A

Responsible Party: Central Fire District

Resources: Operations Budgets

Due Date:

- ✓ *Develop defensible space programs around CRP Lands.*

Project Description – The individual property owners, working with the Central Fire District and NRCS will establish defensible space actions. The cost of implementation is born directly by the property owner.

Assumptions: It is assumed that creation of defensible space costs \$3,000 an acre. The number of acres needed for treatment is TBD for this item and therefore a ROI cannot be calculated.

- Cost - \$3,000 per acre X #Acres TBD
- Valuation – TBD
- ROI – TBD

Responsible Party: Roberts Fire District
Resources: BLM Community at Risk Program
Due Date:

Heise/Lorenzo Riparian Area – WUI Vulnerability Zone 1

- ✓ *Develop a wildland/urban interface public education program.*
- ✓ *Develop an evacuation plan.*

Project Description – The Central District will conduct public education meetings for property owners in the WUI Zone. Educational materials will be provided. This project will be integrated with development of an evacuation program and will include WUI Zones 1 and 3.

Assumptions – The integrated program cost would be \$5,000 for this zone. If the program saved one home because of actions of the homeowner, the ROI would be based on the cost divided into the value of the average property in the subdivision.

- Cost - \$5,000 (this zone)
- Valuation – \$76,529 avg. property value
- ROI – 15.3 : 1

Responsible Party: Central Fire District
Resources: BLM Community at Risk Program, FEMA Fire Prevention Grant
Due Date:

- ✓ *Develop a fuels reduction program.*
- ✓ *Apply for grants to procure equipment used for mechanical treatment projects.*

Project Description – The Central Fire District will assist property owners in the development of a firewise/fuel reduction program. The project shall include mechanical treatments of properties within a 90’ radius of structures and will be based on both removal of fuels and the insertion of appropriate types of landscaping. Two mitigation projects will be integrated together, the development of the fuel reduction program and the procurement of the equipment to support the project.

Assumptions – The cost per acre for mechanical treatment is \$3,000, assume a 90’ treatment area would include work on only 1 acre or less of property and assume the average property value for the subdivision. The cost of the procurement of the equipment would be divided equally between all properties treated. The cost for the mechanical treatment equipment is estimated at \$10-15,000 divided by the number of properties treated.

- Cost – \$3,000 per acre/\$125.00 est. equipment cost per property
- Valuation - \$76,529 avg. property value
- ROI – 25.5 : 1

Responsible Party: Central Fire District
Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program
Due Date:

- ✓ *Develop a static water source.*

Project Description – The Central Fire District, along with property owners will work together to apply for grant funding to install three (3) 10,000-gallon underground static water tanks in the major subdivisions.

Assumption – The cost for a 10,000-gallon water tank buried below the frost line is \$10,000. The State of Idaho Ratings Bureau requires a flow rate of 250 gallons a minute for two hours or a capacity of 30,000 gallons of water storage. Estimating 3 major subdivisions.

- Cost – \$30,000 each set of tanks
- Valuation – \$76,529 avg. property value
- ROI – 2.6 : 1

Responsible Party: Central Fire District
Resources: FEMA Assistance to Fire Fighters Grant
Due Date:

Roberts Riparian Area – WUI Vulnerability Zone 2

- ✓ *Develop a wildland/urban interface public education program.*
- ✓ *Develop an evacuation plan.*

Project Description – The Roberts District will conduct public education meetings for property owners in the WUI Zone. Educational materials will be provided. This project will be integrated with development of an evacuation program.

Assumptions – The integrated program cost would be \$5,000 for this zone. If the program saved one home because of actions of the homeowner, the ROI would be based on the cost divided into the value of the average property in the subdivision.

- Cost - \$5,000 (this zone)
- Valuation – \$78,378 avg. property value
- ROI –15.7 : 1

Responsible Party: Roberts Fire District
Resources: BLM Community at Risk Program, FEMA Fire Prevention Grant
Due Date:

- ✓ *Develop a fuels reduction program.*
- ✓ *Apply for grants to procure equipment used for mechanical treatment projects.*

Project Description – The Roberts Fire District will assist property owners in the development of a firewise/fuel reduction program. The project shall include mechanical treatments of properties within a 90' radius of structures and will be based on both removal of fuels and the insertion of appropriate types

of landscaping. Two mitigation projects will be integrated together, the development of the fuel reduction program and the procurement of the equipment to support the project.

Assumptions – The cost per acre for mechanical treatment is \$3,000, assume a 90’ treatment area would include work on only 1 acre or less of property and assume the average property value for the subdivision. The cost of the procurement of the equipment would be divided equally between all properties treated. The cost for the mechanical treatment equipment is estimated at \$10-15,000 divided by the number of properties treated.

- Cost – \$3,000 per acre/\$125.00 est. equipment cost per property
- Valuation - \$78,378 avg. property value
- ROI – 26.1 : 1

Responsible Party: Roberts Fire District
Resources: IDL, BLM Community at Risk Program
Due Date:

- ✓ *Develop a static water source.*

Project Description – The Roberts Fire District, along with property owners will work together to apply for grant funding to install three (3) 10,000-gallon underground static water tanks in the major subdivisions.

Assumption – The cost for a 10,000-gallon water tank buried below the frost line is \$10,000. The State of Idaho Ratings Bureau requires a flow rate of 250 gallons a minute for two hours or a capacity of 30,000 gallons of water storage.

- Cost – \$30,000 each set of tanks
- Valuation – \$78,378 avg. property value
- ROI – 2.6 : 1

Responsible Party: Roberts Fire District
Resources: FEMA Assistance to Fire Fighters Grant
Due Date:

Menan/Deer Park Wildlife Mitigation Unit – WUI Vulnerability Zone 3

- ✓ *Develop a wildland/urban interface public education program.*
- ✓ *Develop an evacuation plan.*

Project Description – The Central District will conduct public education meetings for property owners in the WUI Zone. Educational materials will be provided. This project will be integrated with development of an evacuation program and will include WUI Zones 1 and 3.

Assumptions – The integrated program cost would be \$5,000 for this zone. If the program saved one home because of actions of the homeowner, the ROI would be based on the cost divided into the value of the average property in the subdivision.

- Cost - \$5,000 (this zone)
- Valuation – \$61,763 avg. property value
- ROI – 12.4 : 1

Responsible Party: Central Fire District

Resources: BLM Community at Risk Program, FEMA Fire Prevention Grant

Due Date:

- ✓ *Develop a fuels reduction program.*
- ✓ *Apply for grants to procure equipment used for mechanical treatment projects.*

Project Description – The Central Fire District will assist property owners in the development of a firewise/fuel reduction program. The project shall include mechanical treatments of properties within a 90’ radius of structures and will be based on both removal of fuels and the insertion of appropriate types of landscaping. Two mitigation projects will be integrated together, the development of the fuel reduction program and the procurement of the equipment to support the project.

Assumptions – The cost per acre for mechanical treatment is \$3,000, assume a 90’ treatment area would include work on only 1 acre or less of property and assume the average property value for the subdivision. The cost for the procurement of the equipment would be divided equally between all properties treated. The cost for the mechanical treatment equipment is estimated at \$10-15,000 divided by the number of properties treated.

- Cost – \$3,000 per acre/\$125.00 est. equipment cost per property
- Valuation - \$61,763 avg. property value
- ROI – 20.6 : 1

Responsible Party: Central Fire District

Resources: IDL/Forest Service Stevens Grant, BLM Community at Risk Program

Due Date:

- ✓ *Develop a static water source.*

Project Description – The Central Fire District, along with property owners will work together to apply for grant funding to install three (3) 10,000-gallon underground static water tanks in the major subdivisions.

Assumption – The cost for a 10,000-gallon water tank buried below the frost line is \$10,000. The State of Idaho Ratings Bureau requires a flow rate of 250 gallons a minute for two hours or a capacity of 30,000 gallons of water storage. Estimating 3 major subdivisions.

- Cost – \$30,000 each set of tanks
- Valuation – \$61,763 avg. property value
- ROI – 2.1 : 1

Responsible Party: Central Fire District

Resources: FEMA Assistance to Fire Fighters Grant

Due Date:

Market Lake Wildlife Management Area – WUI Vulnerability Zone 4

- ✓ *Develop Public Education Program and develop evacuation procedures.*

Project Description – The Idaho Fish and Game Management will develop evacuation routes and supporting signage for the Market Lake public areas.

Assumptions: The IFG will close roadways that are not safe for public use and will designate roadways for access and for evacuation routes.

- Cost – To be determined by IFG
- Valuation – N/A Public Access and Recreational Uses Only
- ROI – N/A Safety Issue

Responsible Party: IFG

Resources: BLM Operating Funds

Due Date:

Mud Lake Wildlife Management Area – WUI Vulnerability Zone 5

- ✓ *Develop Public Education Program and develop evacuation procedures.*

Project Description – The Idaho Fish and Game Management will develop evacuation routes and supporting signage for the Market Lake public areas.

Assumptions: The IFG will close roadways that are not safe for public use and will designate roadways for access and for evacuation routes.

- Cost – To be determined by IFG
- Valuation – N/A Public Access and Recreational Uses Only
- ROI – N/A Safety Issue

Responsible Party: IFG

Resources: BLM Operating Funds

Due Date:

Section 7: Plan Maintenance

The Plan maintenance process includes a schedule for monitoring and evaluating the programmatic outcomes established in the Plan annually and producing a Plan revision every five years. This section describes how the county will integrate public participation throughout the Plan maintenance process.

Formal Review Process

The Plan will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes that may affect mitigation priorities. The evaluation process includes an annual schedule and timeline, and identifies the local agencies and organizations participating in Plan evaluation. The project facilitator or designee will be responsible for contacting the Wildland/Urban Mitigation Advisory Committee members and organizing the annual review. Group 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 State or Federal policy, and to ensure they are addressing current and expected conditions. The Committee will also review the risk assessment portion of the Plan to determine if this information should be updated or modified, given any new available data. The coordinating organizations responsible for the various action items will report on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised or removed.

The facilitator will assign the duty of updating the Plan to one or more of the committee members. The designated members will have three months to make appropriate changes to the Plan before submitting it to the Committee members. The Committee will also notify all holders of the county plan and private property owners when changes have been made. Every five years, the updated plan will be submitted to the State Wildfire Mitigation Officer and the Federal Emergency Management Agency for review.

Continued Public Involvement

Jefferson County is dedicated to involving the public directly in review and updates of the Plan. The Committee is responsible for the annual review and update of the plan. The public will also have the opportunity to provide input into Plan revisions and updates. Copies of the Plan will be catalogued and kept at all of the appropriate agencies in the county. The existence and location of these copies will be publicized in the local newspaper following each annual review and update.

A public meeting will be held after each annual evaluation or when deemed necessary by the Committee. The meetings will provide the public a forum where they can express concerns, opinions, or new alternatives that can then be included in the Plan. The County Commission will be responsible for using county resources to publicize the annual public meetings and maintain public involvement.

Jefferson County - Idaho

Wildland/Urban Interface Fire Mitigation Plan

Appendices

September 13, 2004

Appendix 1

Meeting Minutes
Interagency Planning Committee



**Jefferson County Wildfire Mitigation Planning Project
06/23/04**

Attendees:

Name	Phone	Email	Affiliation
Wes Jones	552-2627	wjones@ersglobal.net	ERS – Operations Manager
Rick Fawcett	478-7982	fawcett@dats.com	ERS
Tim Schreiber	552-2627	tschreiber@ersglobal.net	ERS
Mike Clements	745-8641	mclements@bhs.idaho.gov	BHS
Don Gosswiller	524-7620	Donald_gosswiller@blm.gov	BLM
Lance R. Brady	524-7560	lance_r_brady@blm.gov	BLM
Debbie Karren	745-7988	ddkarren@juno.com	Jefferson County
Daniel Jose	745-9220	djose@co.jefferson.id.us	Jefferson County
Sherry Lufkin	745-9215	slufkin@jefferson.id.us	Jefferson County
Joyce Briggs	745-9215	jbriggs@co.jefferson.id.us	Jefferson County
Kirt Hayes	745-6003 243-3511 cell	chief@centralfiredistrict.com	Central Fire District
John O’Neill	525-7290	joneill@idfg.state.id.us	ID Dept. of Fish and Game

Scope:

Emergency Response Solutions facilitated the first Wildland/Urban Interface Mitigation Planning session on June 23, 2004 in the Jefferson County Community center from 9:30-10:45 a.m. The meeting was the first opportunity to discuss the wildland/urban interface fire mitigation plan development and future implementation activities in support of the Jefferson County Wildfire Mitigation Planning project.

Provided:

All personnel in attendance were provided copies of an introduction to the National Fire Plan, the State of Idaho Fire Plan, the Project Scope, and a listing of requested reference materials.

- Lance Brady from BLM provided hard copies and digital files of a Fire History Map and a Vegetation Map for Jefferson County.

Discussion points:

- ◆ Discussed who should be invited to serve on the Interagency Planning Team, what the expectations were from their participation.
- ◆ A discussion was held on the Basic “Outcome Based” Planning Process
- ◆ ERS requested that a map, depicting the boundary of the Wildland/Urban Interface area be developed. The map will be developed with input by the County GIS Department and BLM.
- ◆ Kirt Hayes and Debbie Karren will identify hazard areas within the County and place locations on the map.
- ◆ Discussed potential issues that might need to be addressed including:
 - ◆ Areas of Federal and State Lands
 - ◆ Identification of CRP ground/map data will be provided to Lance Brady from ERS/NRCS
 - Waiver from County Commissioners to use property owner assessment information.
 - Kirt Hayes advised that the Central Fire District has a Red Zone grant program in progress. Kirt will provide information collected to ERS.

- Talked of participating with the county zoning activities booth to facilitate public input on the plan.
- ◆ Idaho Statewide Implementation Strategy for the National Fire Plan – reviewed the draft Wildfire Mitigation Plan format and discussed how it complies with the guidelines.
- ◆ ERS will provide a web page link to the Draft Mitigation Plan for use by the planning team and the community citizens.
- ◆ ERS will begin development of the Mitigation Plan Draft and route it for review and comment as soon as the reference materials are made available.

The next meeting is scheduled for July 15th at 2:00 a.m. at the Jefferson County Community Center.



**Jefferson County Wildfire Mitigation Planning Project
July 28, 2004**

Attendees:

Name	Phone	Email	Affiliation
Shyne Brothers	552-2627	sbrothers@ersglobal.net	ERS
Rick Fawcett	478-7982	fawcett@dats.com	ERS Consultant
Keith Birch	313-3446	kbirch@idl.state.id.us	Idaho Department of Lands
Lance R. Brady	524-7560	lance_r_brady@blm.gov	BLM
Debbie Karren	745-7988	ddkarren@juno.com	Jefferson County
Sherry Lufkin	745-9215	slufkin@jefferson.id.us	Jefferson County
Bryan Grover	745-6003	asstchief@centralfiredistrict.com	Central Fire District
Kirt Hayes	745-6003 243-3511 cell	chief@centralfiredistrict.com	Central Fire District

Scope:

Emergency Response Solutions facilitated the second Wildland/Urban Interface Mitigation Planning session on July 26th, 2004 in the Jefferson County Community center from 2:00 – 3:30 p.m.. The meeting was the second opportunity to discuss the wildland/urban interface fire mitigation plan development and future implementation activities in support of the Jefferson County Wildfire Mitigation Planning project.

Provided:

All personnel in attendance were provided copies of the first draft of the Jefferson County Wildland/Urban Interface Fire Mitigation Plan.

All personnel in attendance were asked to review the proposed Mission and Goals for the Jefferson County Wildland/Urban Fire Mitigation Program. The Goals are stepping-stones between the broad direction of the mission statement and the specific recommendations outlined in the implementing actions, which include:

- Protect Life and Property
- Public Awareness
- Natural Systems
- Partnerships and Implementation
- Emergency Services

Discussion points:

- ◆ The County map, depicting the boundary of the Wildland/Urban Interface area was reviewed and additional issues to be included were identified. The map is being developed with input by the County GIS Department and BLM.
- ◆ Discussed potential issues that might need to be addressed including:
 - ◆ Areas of Fish and Wildlife State Lands
 - ◆ The Federal property located at Sage Junction
- Debbie Karren will request a waiver from County Commissioners to use property owner mailing and assessment information.
- Shyne Brothers will provide a copy of the public survey so that Debbie Karren can get approval for its release from the County Commissioners.

- Discuss the relationship between noxious weeds and mitigation alternatives.
- ◆ The First Draft of the Mitigation Plan can be reviewed on the ERS website, the password is jeffersonems.

Next Steps:

- Complete the Hazard Boundary Map.
- Send out the public survey to those living in the hazard zones.
- Complete the Hazard Assessment
- Development of mitigation alternatives
- Conduct Public Meetings

The next meeting will be scheduled in late August based on the return of public surveys and the completion of the hazard assessment.



**Jefferson County Wildfire Mitigation Planning Project
September 1, 2004**

Attendees:

Name	Phone	Email	Affiliation
Rick Fawcett	478-7982	fawcett@ats.com	ERS Consultant
Shyne Brothers	552-2627	sbrothers@ersglobal.net	ERS
Kirt Hayes	243-3511	chief@centralfiredistrict.com	Central Fire District
Keith Birch	313-3446	kbirch@idl.state.id.us	IDL
Rick Lamb	604-3220 228-3353	N/A	Roberts Fire District
Don Gosswiller	524-7620	Donald_gosswiller@blm.gov	BLM
Debbie Karren	745-7988	ddkarren@juno.com	Jefferson County
Mike Miller	745-9210	mmiller@co.jefferson.id.us	Jefferson County Sheriff's Office
Sherry Lufkin	745-9215	slufkin@co.jefferson.id.us	Jefferson County Assessor's Office
J. Howard Johnson	745-6664	Howard.Johnson@id.usda.gov	NRCS
John O'Neill	525-7290	joneill@idfg.state.id.us	Idaho Dept. of Fish and Game

Scope:

Emergency Response Solutions facilitated the third Wildland/Urban Interface Mitigation Planning session on September 1, 2004 in the Jefferson County Community Center from 2:00 – 3:30 p.m. The meeting was the third opportunity to discuss the wildland/urban interface fire mitigation plan development and future implementation activities in support of the Jefferson County Wildfire Mitigation Planning project.

Provided:

All personnel in attendance were provided copies of the draft of the Jefferson County Wildland/Urban Interface Fire Mitigation Plan. Copies of the public survey responses were also provided.

All personnel in attendance were asked to review the zone designations and risk assessments provided in section 3 of the plan.

Discussion points:

- ◆ The Wildland Urban Interface Zones and CRP ground need to be indicated on the map. Areas for each zone were established.
- ◆ The current fire protection provided to Market Lake and Mud Lake Wildlife Management Areas was discussed.
- ◆ Kirt Hayes established that there are no other existing actions to be included into the plan other than Red Zone.
- ◆ Don Gosswiller discussed some of the grant programs which are available including RC&D funding. He also indicated another source of grant funding for fire districts: community hospitals.
- ◆ Mike Miller indicated there is a new subdivision being developed by the Butte which is adding a 10,000 gallon water tank. A well will also be established near his home as a static water source.
- ◆ The need for development of an evacuation plan or notification system for the Wildlife Management Areas was discussed.
- ◆ Rick Fawcett will provide the economic analysis for the mitigation actions within the plan.
- ◆ The need for additional planning and zoning requirements for new housing developments was discussed.

- ◆ The public survey responses were provided and discussed.
- ◆ J. Howard Johnson with NRCS was present to provide information in regard to CRP ground. Firebreaks are possible on CRP ground. However, the homeowner needs to check with Farm Service first. He also indicated on the map where CRP ground is located in Jefferson County.
- ◆ The need for a general section relating to zoning requirements, CRP ground and other issues was addressed.
- ◆ Don Gosswiller stated that BLM needs a copy of the plan to review prior to submittal to county commissioners.
- ◆ The need for a signature page to be incorporated into the plan was addressed. This will provide relevant parties the opportunity to state they have participated in the planning process and have reviewed the plan.
- ◆ The Draft of the Mitigation Plan can be reviewed on the ERS website www.ersglobal.net, the password is *jeffersonems*.

Next Steps:

- Sherry Lufkin will add the WUI Zones and CRP ground to the map. She will provide a PDF file and a large copy of the map for the public meeting on September 9th.
- Rick Fawcett will perform the economic analysis and incorporate other necessary information into the plan.
- Shyne Brothers will provide the planning group with a copy of the Bonneville PDF Map File for review.

The public meeting is scheduled for September 9th at 6 p.m. at the Community Center in Rigby.

Appendix 2

Interagency Planning Group Public Meeting Minutes



**Jefferson County Wildfire Mitigation Public Meeting
September 9, 2004**

Attendees:

Name	Phone	Email	Affiliation
Rick Fawcett	478-7982	fawcett@ats.com	ERS Consultant
Shyne Brothers	552-2627	sbrothers@ersglobal.net	ERS
Kirt Hayes	243-3511	chief@centralfiredistrict.com	Central Fire District
Debbie Karren	745-7988	ddkarren@juno.com	Jefferson County

Scope:

Emergency Response Solutions facilitated a public meeting on September 9, 2004 in the Jefferson County Community Center. No members of the public were in attendance.

Provided:

Copies of the plan, public surveys, posters and WUI Zone maps were prepared.

Appendix 3
RC&D Fire District Assessment

Central Fire District High Country Resource, Conservation and Development Area June 2003

The following analysis was conducted as part of the vulnerability assessment to establish those challenges facing the local fire response elements. During meetings with the District Fire Chief the following concerns were expressed and documented in several reports found below.

- Lack of adequate water supplies, water distribution systems, etc.
- Inaccessible structures
- Narrow roads and bridges
- Load limits on bridges
- Inadequate fire plans
- Inadequate Protection Codes and Code Enforcement
- Lack of integrated communications, planning, preparedness, and response protocols
- The need for additional and improved communications equipment
- Need for additional training of personnel
- Insufficient staffing and retention of volunteers
- Insufficient public education
- Insufficient Fire District coverage
- Need for Fire Station construction/expansion
- Need for additional response vehicles and equipment
- Need for maintenance and testing procedures
- Lack of Resources: need for assistance in obtaining grants and other funding

The challenges facing the Central Fire District are not unlike those facing most rural fire districts throughout the U.S. The need for additional labor, vehicles, equipment, and training are all common challenges facing rural departments. The Fire District faces these challenges and others listed. The current response capability, while it could be improved, is adequate for most of the response areas within the county.

The Central Fire District is a combined municipal and fire protection district serving Rigby, Ririe, Menan and Lewisville in Jefferson County. These communities have experienced some growth and are located North of Idaho Falls near Highway 20. Most of the Fire District's topography is rolling hills suitable for farming and ranching.

Organizational Structure

The Central Fire District reports to the Fire District Commission. The organization consists of a chief, four battalion chiefs, a HazMat officer, an EMS officer, a tech rescue officer and a fire training officer. There are four captains, four lieutenants, four safety officers, 51 firefighters, 24 firefighter/EMT's and 14 EMT's.

Facilities:

The District has four fire stations with 18 bays. There is one station in Rigby with seven bays; one station in Menan with three bays; one station in Ririe with five bays and one station in Lewisville with three bays.

Response Area:

The Central Fire District provides fire protection for agricultural, rangelands, forest, wildland urban interface, residential, business, high tech (power sub-station) and high risk with potato processing plants and a fertilizer plant. The District serves 203 square miles.

Budget and Funding:

The budget has remained relatively steady over the past few years with 95% of funding coming from tax dollars. Funds are also generated through one-time purchase grants.

Grants:

Grant funds have been received from the BLM, Forest Service, the INEEL and the State EMS Bureau. The District has begun to study the National Fire Plan.

Records Management:

The District does maintain a comprehensive, computerized records management system. The system can track training, incident reports, medical CEU’s, recruitment, personnel, apparatus and vehicles. The District uses Firehouse software.

Firefighting Program:

The Central Fire District has 75 personnel within the firefighting program, all paid staff. Fire response includes protection for structures, wildland suppression, EMS extrication, HazMat and terrorist threat. The District responds to approximately 551 fire-related incidents annually. It has the capability of a 10-minute response time including scene size-up, ICS system, rapid entry team, water supply and initial attack. The District does not see itself at risk due to wildland urban interface or terrorist attacks. There are 62 firefighters trained in wildland suppression. It was reported that the District has some adequate and reliable water sources. The primary water supply sources include water mains, hydrants, bodies of water and a District water tender system.

Firefighting Program Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● 4 Station, 18 Bays ● Paid Personnel ● 7,000 Structural/1,500 Wildland Total GPM Capacity ● Computerized Record Keeping System ● Fire Response: Structural, Agricultural, Residential & Business ● 7 Structural; 2 Structural/Wildland & 4 Wildland Vehicles 	<ul style="list-style-type: none"> ● Add 3 Bays in Rigby; 2 Offices in Rigby; 1 HazMat Office and 1 Central Office ● Dry Hydrants ● Grants for One-time Purchases ● Library of EMS/Fire Related Grants ● Computer and Software Courses ● Procedural Plan for Testing/Recording Information for Equipment

Hazardous Materials Program:

The District does have a HazMat Team. This team works in conjunction with the Idaho Falls Fire Department. Mutual aid agreements are in place with the Forest Service, BLM, INEEL, Idaho Department of Lands, with the City of Roberts and with Madison County in Rexburg.

EMS Program:

The District does provide EMS services. It is licensed at the EMT-Basic, Non-transport level and at EMT-Basic level.

EMS Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● EMT Basic, Non-Transport ● EMT Basic 	<ul style="list-style-type: none"> ● Grants for Training and Materials ● Improved EMS Materials Library

Training and Certification:

The District does have minimum requirements for training and certification. It does have a training program in place.

Training and Certification Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● Structural Protection, Wildland Fire Suppression, EMS, HazMat and Rescue (Revis Training, Swift Water, High Angle) ● Some NFPA, NWCG Standards ● Standard Operating Procedures ● Limited Power Point Presentations 	<ul style="list-style-type: none"> ● Wildlands Fire Training – All Personnel Trained to Same Level ● On-site Training by Certified Instructors ● Train Instructors ● Refresher Courses ● Current NFPA Student Manuals & Workbooks ● Video's (or ability to borrow or rent) ● Power Point Presentations ● Training on Presentation of Courses

Communications:

Communication for the District is dispatched out of the Jefferson County 911 dispatch center. The District does have sufficient radio communication capacity. All vehicles are equipped with radios and the District does have sufficient hand-held units.

Communication Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● Responds to Remote Alarm Calls ● Portable Radios ● All Vehicles Radio Equipped 	<ul style="list-style-type: none"> ● Programming So All Radios Have Same Capabilities ● Unified Frequencies in All Radios ● Upgrade Older Hand-held Radios

Prevention and Inspection:

The District does not administer and enforce Fire Code regulations but it does conduct fire cause and origin investigations.

Prevention and Inspection Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● Fire Cause & Origin Investigations 	<ul style="list-style-type: none"> ● County to Adopt Code Enforcement ● Implement County Building Inspector Position

Public Education:

The District does conduct public education programs for wildland fires, structural fires and home safety. It also provides education on what to do when an emergency vehicle approaches for new drivers. It does participate in public outreach at fairs, schools, public events and fire station activities.

Public Education Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none">● Outreach Education● Public Education Programs	<ul style="list-style-type: none">● Grants to Purchase Handout Literature

Hamer Fire District

High Country Resource, Conservation and Development Area

June 2003

The Hamer Fire District is a combined municipal and fire protection district. Hamer is located on Interstate 15, north of Idaho Falls. The topography of the area is low rolling hills. The major industry is agriculture, farming and ranching. The largest employer in the area is Larsen Farms, a potato farming and processing operation.

Organizational Structure

The Hamer Fire District reports to the Fire District Commission. The organizational structure includes a fire chief, a secretary/treasurer and five firefighters. All staff are volunteers.

Facilities:

The District has one fire station with four bays double deep. The present station is new with room for expansion.

Response Area:

The Hamer Fire District provides fire protection for agricultural, rangelands, wildland urban interface, residential, business, and high risk with the potato processing plant. The total square miles of response area was not provided.

Budget and Funding:

The budget has remained steady over the past few years with 100% of funding coming from tax dollars.

Grants:

Grant funds have been received from the BLM and Forest Service. The District has begun to study the National Fire Plan.

Records Management:

The District does maintain a manual records management system. The chief is exploring record keeping systems at this time.

Firefighting Program:

The Hamer Fire District has 10 personnel within the firefighting program all volunteers. Fire response includes protection for structures and wildland suppression. The District responds to approximately 5 fire-related incidents annually. It has the capability of a 10-minute response time including scene size-up, external initial attack and water supply. The District does see itself at risk due to wildland urban interface but not to terrorist attacks. There are 2 firefighters trained in wildland suppression. It was reported that the District has some adequate and reliable water sources. The primary water supply sources include wells at station and agricultural pumps during the growing season.

Firefighting Program Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● 1 Station, 4 Bays ● Volunteer Personnel ● 500 Structural/400 Wildland Total GPM Capacity ● Manual Record Keeping System ● Fire Response: Structural, Agricultural, Residential & Business ● 1 Structural; 1 Structural/Wildland & 3 Wildland Vehicles 	<ul style="list-style-type: none"> ● Better Maintenance of Access Roads ● Smaller, More Maneuverable Wildland Trucks ● Well and Pump ● Tender ● Grants ● Assistance with Grant Writing ● Grant Writer ● Library Dedicated to EMS/Fire Grants ● Local Grant Writing Course ● Computer and Software for Record Keeping ● Current NFPA Manuals ● Proper Testing Equipment

Hazardous Materials Program:

The District does not have a HazMat Team. It will respond for support and scene safety. The District does have a written agreement with South Fremont County and is working on agreements with West Jefferson and Clark Counties.

EMS Program:

The District does not provide EMS services. It will respond to assist EMS units.

Training and Certification:

The District does not have minimum requirements for training and certification. It does have a training program in place.

Training and Certification Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● Minimal 	<ul style="list-style-type: none"> ● Wildland Fire Training – All Personnel Trained to Same Level ● Grants to Assist in Setting Up Training Program ● Training at the Local Level ● Training Materials ● IFSTA Student Manuals, Workbooks, Videos ● Local Instructors

Communications:

Communication for the District is dispatched out of the Jefferson County 911 dispatch center. The District does have sufficient radio communication capacity. All vehicles are equipped with radios and the District does not have sufficient hand-held units.

Communication Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● Responds to Remote Alarm Calls ● Portable Radios ● All Vehicles Radio Equipped 	<ul style="list-style-type: none"> ● A Members Equipped with Pagers and Hand-held Radios

Prevention and Inspection:

The District does not administer and enforce Fire Code regulations nor conduct fire cause and origin investigations.

Prevention and Inspection Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none">• Support from the State Fire Marshal’s Office	<ul style="list-style-type: none">• Training & Proper Equipment for Investigations

Public Education:

The District does conduct public education programs for wildland fires, structural fires and home safety. It does participate in public outreach at schools, public events and fire station activities.

Public Education Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none">• Outreach Education• Public Education Programs	<ul style="list-style-type: none">• Grants to Purchase Handout Materials• Prepackaged Presentations & Handouts

Roberts Fire District

High Country Resource, Conservation and Development Area

June 2003

The Roberts Fire District is a combined municipal and fire protection district. Roberts sits west of Interstate 15 and it is a small growing community. The major industry is agricultural based. Topography is basically flat farmland with a large marshland that is a wild bird sanctuary.

Organizational Structure

The Roberts Fire District reports to the Fire District Commission. The organization consists of a chief, an assistant chief, a training officer, a secretary, 11 firefighters, 4 firefighters/EMT's and 4 EMT's. The District recently merged the EMS and fire services.

Facilities:

The District has one fire station with 3 bays. The Chief would like to add four more bays to the present station. Because of space constraints, some apparatus has to be left outside.

Response Area:

The Roberts Fire District provides fire protection for agricultural, rangelands, wildland urban interface, residential, business and high risk with a propane bulk plant. The District serves 300 square miles.

Budget and Funding:

The budget has remained relatively steady over the past few years with 100% of funding coming from tax dollars.

Grants:

Grant funds have been received from the BLM, Forest Service, the State EMS Bureau and other private donations to the QRU. The District has begun to study the National Fire Plan.

Records Management:

The District does not maintain a comprehensive records management system. The Chief is looking into several programs to track District activities and operations. The Fire District Clerk keeps all financial records.

Firefighting Program:

The Roberts Fire District has 23 personnel within the firefighting program, all volunteers. Fire response includes protection for structures, wildland suppression and EMS. The District responds to approximately 140 fire-related incidents annually. It has the capability of a 10-minute response time including scene size-up, call for mutual aid and water/tender operations. The District does see itself at risk due to wildland urban interface but not to terrorist attacks. There are 11 firefighters trained in wildland suppression. It was reported that the District has some adequate and reliable water sources. The primary water supply sources include water mains, hydrants, bodies of water and a District water tender system.

Firefighting Program Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● 1 Station, 3 Bays ● Volunteer Personnel ● 2,000 Structural/600 Wildland Total GPM Capacity ● Manual Record Keeping System ● Fire Response: Structural, Agricultural, Residential & Business ● 2 Structural; 2 Structural/Wildland & 1 Wildland Vehicles ● 1 QRU Unit ● Grid Access Address System 	<ul style="list-style-type: none"> ● Addition to Current Station of Four Bays ● Grants ● Additional Hydrants ● Grants for One-time Purchases ● Library Dedicated to EMS/Fire for Grant Research ● Grant Writer and/or Person to Assist with Tracking of Grants ● A Local Course on Grant Writing ● Computer & Software for Records Management ● Equipment Testing Materials ● Proper NFPA Manuals

Hazardous Materials Program:

The District does not have a HazMat Team. It will respond to incidents for scene safety and to assist the team.

EMS Program:

The District is licensed to provide EMS services at the QRU level. The District has a total of 100 calls annually.

EMS Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● EMT Basic ● First Responder ● 1 QRU Unit ● 1 Ambulance 	<ul style="list-style-type: none"> ● Grants to Improve Apparatus & Equipment ● Improved Assistance from the EMS System, Mostly In Communication ● Assistance in Developing a Training Program

Training and Certification:

The District does have minimum requirements for training and certification. It does have a training program in place.

Training and Certification Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● EMS Basic ● Some IFSTA Essentials Manuals 	<ul style="list-style-type: none"> ● Student Manuals & Workbooks Both for IFSTA & NWCG ● Certified Instructors for On-site Training ● Assistance with Training Funds ● Video's, Computer Training Programs

Communications:

Communication for the District is dispatched out of the Jefferson County 911 dispatch center. The District does have sufficient radio communication capacity. All vehicles are equipped with radios and the District does have sufficient hand-held units.

Communication Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
<ul style="list-style-type: none"> ● Responds to Remote Alarm Calls ● Portable Radios ● All Vehicles Radio Equipped 	<ul style="list-style-type: none"> ● None Identified

Prevention and Inspection:

The District does not administer and enforce Fire Code regulations or conduct fire cause and origin investigations.

Public Education:

The District does not conduct public education programs or public outreach. The Chief would like to begin a library of prevention materials and visual aids.

Public Education Summary of Existing Resources, Assets and Needs

Existing Resources/Assets	Needs
• None	• Grants to Purchase Handout Materials and Visual Aids

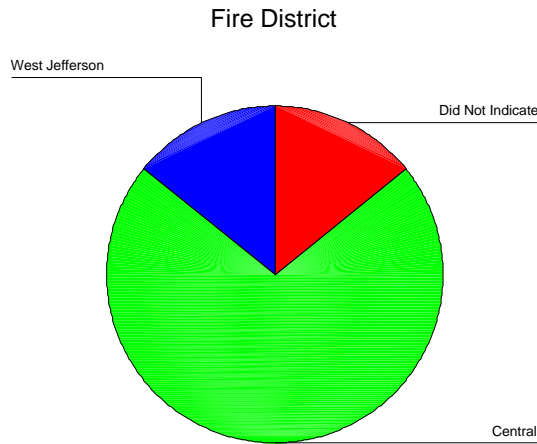
Appendix 4

Wildland/Urban Interface Fire Mitigation Questionnaire Results

**Jefferson County
Wildland/Urban Interface Fire Mitigation
Questionnaire Results**

1. Which **Fire District** do you reside in?

	Frequency	Percent	Cumulative Percent
Did Not Indicate	1	14.3	14.3
Central	5	71.4	85.7
West Jefferson	1	14.3	100.0
Total	7	100.0	



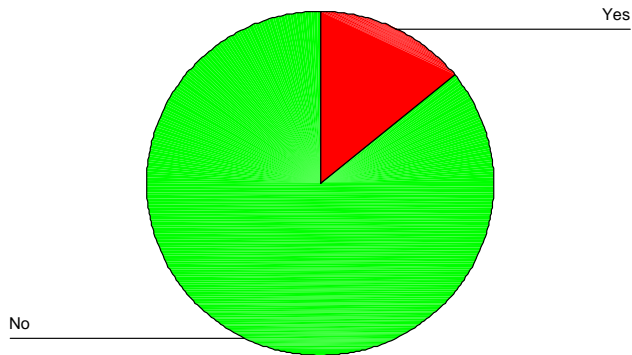
2. What specific locations within your community do you think are currently being exposed to extreme fire hazards and pose a wildfire risk to homes or property?

- Any Grain Field
- Don't see any that would be extreme in my immediate area.

3. Have you participated in community-sponsored activities to reduce the risk of wildland fires or to protect residents from wildfires spreading from public land to private?

	Frequency	Percent	Cumulative Percent
Yes	1	14.3	14.3
No	6	85.7	100.0
Total	7	100.0	

Participated in Risk Reduction



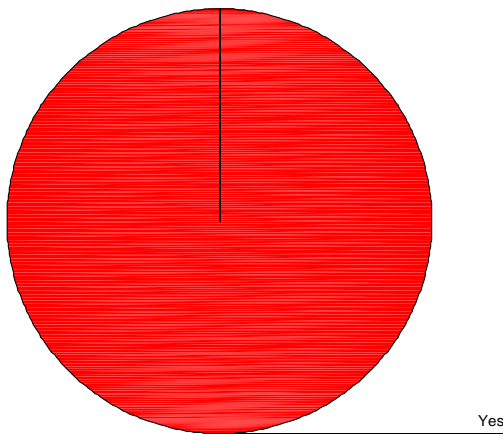
How can they be improved?

- Inform me about wildland fire hazards and prevention
- Education and community participation in programs to reduce potential problem areas.

4. Would wildland fire education programs be beneficial?

	Frequency	Percent	Cumulative Percent
Yes	7	100.0	100.0

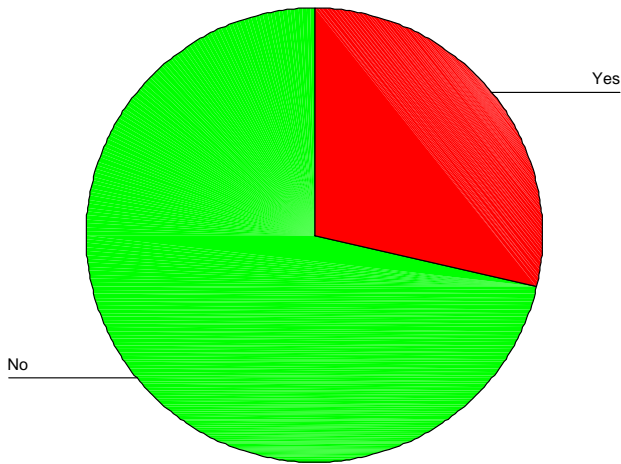
Education Beneficial



5. Do you know what to do if a wildland fire affects your community?

	Frequency	Percent	Cumulative Percent
Yes	2	28.6	28.6
No	5	71.4	100.0
Total	7	100.0	

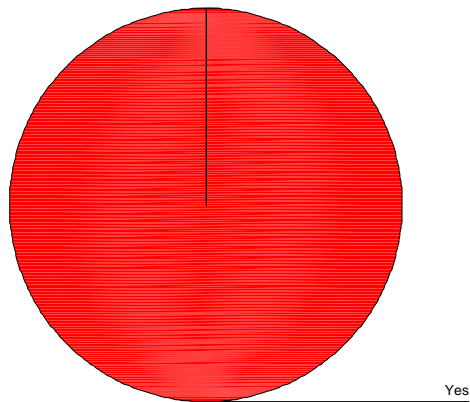
Affect Community



6. Are you willing to support/participate in wildland/urban risk mitigation activities such as fuels reduction, code enforcement, road and bridge improvement, and/or education?

	Frequency	Percent	Cumulative Percent
Yes	7	100.0	100.0

Willing to Participate



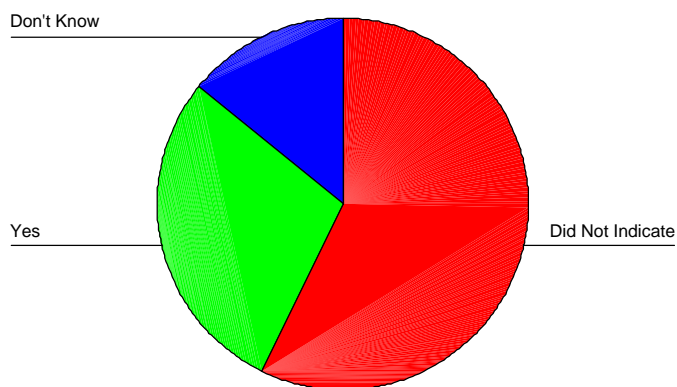
Please list those activities that you would be interested in participating or hearing about further.

- Education
- Code Enforcement, Road and Bridge Improvement, Education
- All
- Reduction of Fuels

7. If you are currently in an unprotected area would you be willing to be included in a current or new fire protection district?

	Frequency	Percent	Cumulative Percent
Did Not Indicate	4	57.1	57.1
Yes	2	28.6	85.7
Don't Know	1	14.3	100.0
Total	7	100.0	

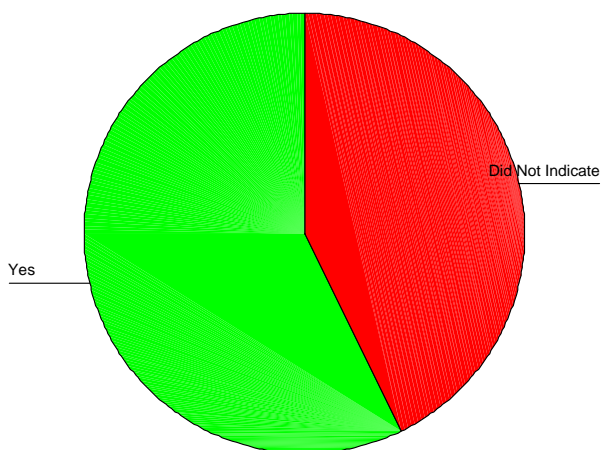
Include in Fire District



8. If you are currently in an unprotected area would you be willing to improve your fire protection response level through increased property taxes if that taxation resulted in improved property protection and potential savings on homeowners' insurance?

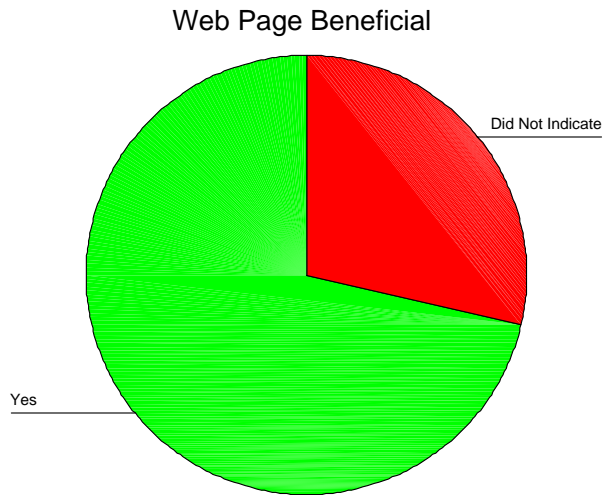
	Frequency	Percent	Cumulative Percent
Did Not Indicate	3	42.9	42.9
Yes	4	57.1	100.0
Total	7	100.0	

Increase Taxes



9. Would a web page with wildland/urban interface fire mitigation information help keep the community informed?

	Frequency	Percent	Cumulative Percent
Did Not Indicate	2	28.6	28.6
Yes	5	71.4	100.0
Total	7	100.0	



Appendix 5

**Fire Mitigation
Economic Analysis Guidance**

Fire Mitigation Economic Analysis Guidance

Benefit/cost analysis is a key mechanism used by the Idaho State Bureau of Homeland Security, the Federal Emergency Management Agency, and other state and federal agencies in evaluating wildfire mitigation projects, and is required by the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended. This guide outlines several approaches for conducting economic analysis of wildfire mitigation projects. It describes the importance of implementing mitigation activities, different approaches to economic analysis of mitigation strategies, and methods to calculate costs and benefits associated with mitigation strategies. Information in this section is derived in part from The Federal Emergency Management Agency Publication 331, Report on Costs and Benefits of Wildfire Mitigation.

This guide is neither intended to provide a comprehensive description of benefit/cost analysis, nor is it intended to provide the details of economic analysis methods that can be used to evaluate local projects. It is intended to (1) raise benefit/cost analysis as an important issue, and (2) provide a description of how economic analysis will be used to evaluate fire mitigation implementing actions discussed in Section 5.

Mitigation Strategies

Mitigation activities reduce the cost of disasters by minimizing property damage, injuries, potential loss of life, and by reducing emergency response costs, which would otherwise be incurred. Evaluating wildfire mitigation provides decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Evaluating mitigation projects is a complex and difficult undertaking, which is influenced by many variables.

- ❑ Wildfires affect all segments of the communities they strike, including individuals, businesses, and public services such as fire, police, utilities, and schools.
- ❑ While some of the direct and indirect costs of disaster damages are measurable, some of the costs are non-financial and difficult to quantify in dollars.
- ❑ Many of the impacts of such events produce “ripple-effects” throughout the community, greatly increasing the disaster’s social and economic consequences.

While not easily accomplished, there is value, from a social and public policy perspective, in assessing the positive and negative impacts from mitigation activities, and obtaining an instructive benefit/cost comparison. Otherwise, the decision to pursue or not pursue various mitigation options would not be based on an objective understanding of the net benefit or loss associated with these actions.

Economic Analysis Approaches for Mitigation Strategies

The approaches used to identify the costs and benefits associated with wildfire mitigation strategies, measures, or projects fall into two general categories: benefit/cost analysis and cost-effectiveness analysis. The distinction between the two methods is the way in which the relative costs and benefits are measured. Additionally, there are varying approaches to assessing the value of mitigation for public sector and private sector activities.

Benefit/Cost Analysis

Benefit/cost analysis is used in wildfire mitigation to show if the benefits to life and property protected through mitigation efforts exceed the cost of the mitigation activity. Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster related damages later. Benefit/cost analysis is based on calculating the frequency and severity of a hazard, avoided future damages, and risk. In benefit/cost analysis, all costs and benefits are evaluated in terms of dollars, and a net benefit/cost ratio is computed to determine whether a project should be implemented (i.e., if net benefits exceed net costs, the project is worth pursuing). A project must have a benefit/cost ratio greater than 1 in order to be funded.

Cost-Effectiveness Analysis

Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. This type of analysis, however, does not necessarily measure costs and benefits in terms of dollars. Determining the economic feasibility of mitigating wildfire can also be organized according to the perspective of those with an economic interest in the outcome. Hence, economic analysis approaches cover both public and private sectors as follows.

Investing in public sector mitigation activities

Evaluating mitigation strategies in the public sector is complicated because it involves estimating all of the economic benefits and costs regardless of who realizes them, and potentially to a large number of people and economic entities. Some benefits cannot be evaluated monetarily, but still affect the public in profound ways. Economists have developed methods to evaluate the economic feasibility of public decisions that involve a diverse set of beneficiaries and non-market benefits.

Investing in private sector mitigation activities

Private sector mitigation projects may occur based on one of two approaches; it may be mandated by a regulation or standard, or it may be economically justified on its own merits. A building or landowner, whether a private entity or a public agency may be required to conform to a mandated standard may consider the following options:

1. Request cost sharing from public agencies;
2. Dispose of the building or land either by sale or demolition;
3. Change the designated use of the building or land and change the wildfire mitigation compliance requirement; or
4. Evaluate the most feasible alternatives and initiate the most cost effective wildfire mitigation alternative.

The sale of a building or land triggers another set of concerns. For example, real estate disclosure laws can be developed which require sellers of real property to disclose known defects and deficiencies in the property, including earthquake weaknesses and hazards to prospective purchasers. Correcting deficiencies can be expensive and time consuming, but their existence can prevent the sale of the building. Conditions of a sale regarding the deficiencies and the price of the building can be negotiated between a buyer and seller.

Conducting Economic Analysis

Benefit/cost analysis and cost-effectiveness analysis are important tools in evaluating whether or not to implement a mitigation activity. The framework, which will be used for evaluating the Jefferson County Urban/Wildland Fire Mitigation Alternatives follows:

1. Identify the Alternatives

Alternatives for reducing risk from wildfires can include structural projects to enhance disaster resistance, education and outreach, and acquisition or demolition of exposed properties, among others. Different mitigation projects can assist in minimizing risk to wildfires, but do so at varying economic costs.

2. Calculate the Costs and Benefits

Choosing economic criteria is essential to systematically calculating costs and benefits of mitigation projects and selecting the most appropriate alternative. Potential economic criteria to evaluate alternatives include:

❑ **Determine the project cost**

This may include initial project development, repair and operating costs for maintaining projects over time.

❑ **Estimate the benefits.**

Projecting the benefits or cash flow resulting from a project can be difficult. Expected future returns from the mitigation effort depend on the correct specification of the risk and the effectiveness of the project, which may not be well known. Expected future costs depend on the physical durability and potential economic obsolescence of the investment. This is difficult to project. Estimating the costs and benefits of a hazard mitigation strategy can be a complex process. Employing the services of a specialist can assist in this process. These considerations will also provide guidance in selecting an appropriate salvage value. Future tax structures and rates must be projected. Financing alternatives must be researched, and they may include retained earnings, bond and stock issues, and commercial loans.

❑ **Consider costs and benefits to society and the environment**

These are not easily measured, but can be assessed through a variety of economic tools including existence value or contingent value theories. These theories provide quantitative data on the value people attribute to physical or social environments. Even without hard data, impacts of structural projects to the physical environment or to society should be considered when implementing mitigation projects.

❑ **Determine the correct discount rate**

Determination of the discount rate can be the risk-free cost of capital, but may include the decision maker's time preference and also a risk premium. Inflation factors should also be considered.

3. Analyze and Rank the Alternatives

Once costs and benefits have been quantified, economic analysis tools can rank the alternatives. Two methods for determining the best alternative given varying costs and benefits include net present value and internal rate of return.

Net present value

The net present value is the value of the expected future returns of an investment minus the value of expected future cost expressed in today's dollars. If the net present value is greater than the project costs, the project may be determined feasible for implementation. Selecting the discount rate, and identifying the present and future costs and benefits of the project calculates the net present value of projects.

Internal Rate of Return

Using the internal rate of return method to evaluate mitigation projects provides the interest rate equivalent to the dollar returns expected from the project. Once the rate has been calculated, it can be compared to rates earned by investing in alternative projects. Projects may be feasible to implement when the internal rate of return is greater than the total costs of the project. Once the mitigation projects are ranked on the basis of economic criteria, decision-makers can consider other factors, such as risk, project effectiveness, economic, environmental, and social returns in choosing the appropriate project for implementation.

Calculating Economic Benefits of Mitigation

The estimation of economic returns, which accrue to building or landowner as a result of wildfire mitigation, is difficult. Owners evaluating the economic feasibility of mitigation should consider reductions in physical damages and financial losses. A partial list follows:

- Building damages avoided
- Content damages avoided
- Inventory damages avoided
- Rental income losses avoided
- Relocation and disruption expenses avoided
- Proprietor's income losses avoided

These parameters can be estimated using observed prices, costs, and engineering data. Correctly determining the effectiveness of the wildfire mitigation project and the resulting reduction in damages and losses is the difficult part. Equally as difficult is assessing the probability that an event will occur. The damages and losses should only include those that will be borne by the owner. The salvage value of the investment can be important in determining economic feasibility. Salvage value becomes more important over the life of the assets. This is important because most businesses depreciate assets over time.

Additional Costs from Wildfires

Property owners should also assess changes in a broader set of factors that can change because of a large wildfire. These are usually termed "indirect" effects, but they can have a very direct effect on the economic value of the owner's building or land. They can be positive or negative, and include changes in the following:

- Commodity and resource prices
- Availability of resource supplies
- Commodity and resource demand changes
- Building and land values
- Capital availability and interest rates
- Availability of labor
- Economic structure
- Infrastructure
- Regional exports and imports
- Local, state, and national regulations and policies
- Insurance availability and rates

Changes in the resources and industries listed above are more difficult to estimate and require models structured to estimate total economic impacts. Total economic impacts are the sum of direct and indirect economic impacts. Usually, total economic impact models are not combined with economic feasibility models. Many models exist to estimate total economic impacts of changes in an economy. Decision-makers should understand the total economic impacts of natural disasters in order to calculate the benefits of a mitigation activity. This suggests that understanding the local economy is an important first step in being able to understand the potential impacts of a disaster, and the benefits of mitigation activities.

Additional Considerations

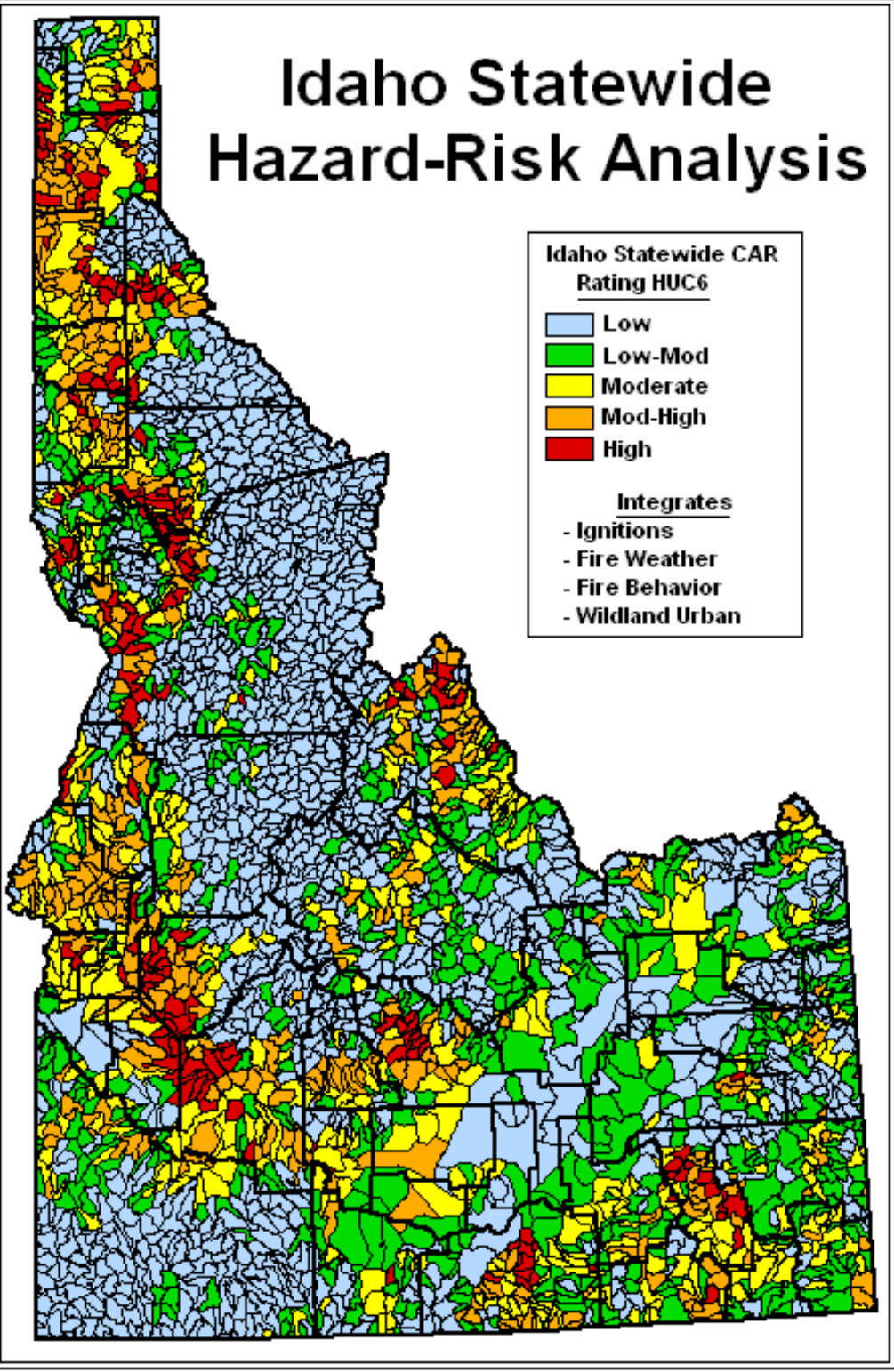
Conducting an economic analysis for potential mitigation activities can assist decision-makers in choosing the most appropriate strategy for their community to reduce risk and prevent loss from wildfires. Economic analysis can also save time and resources from inappropriate or non-feasible projects. Benefit/cost analysis is complicated, and the numbers may divert attention from other important issues. It is important to consider the qualitative factors of a project associated with mitigation that cannot be evaluated economically.

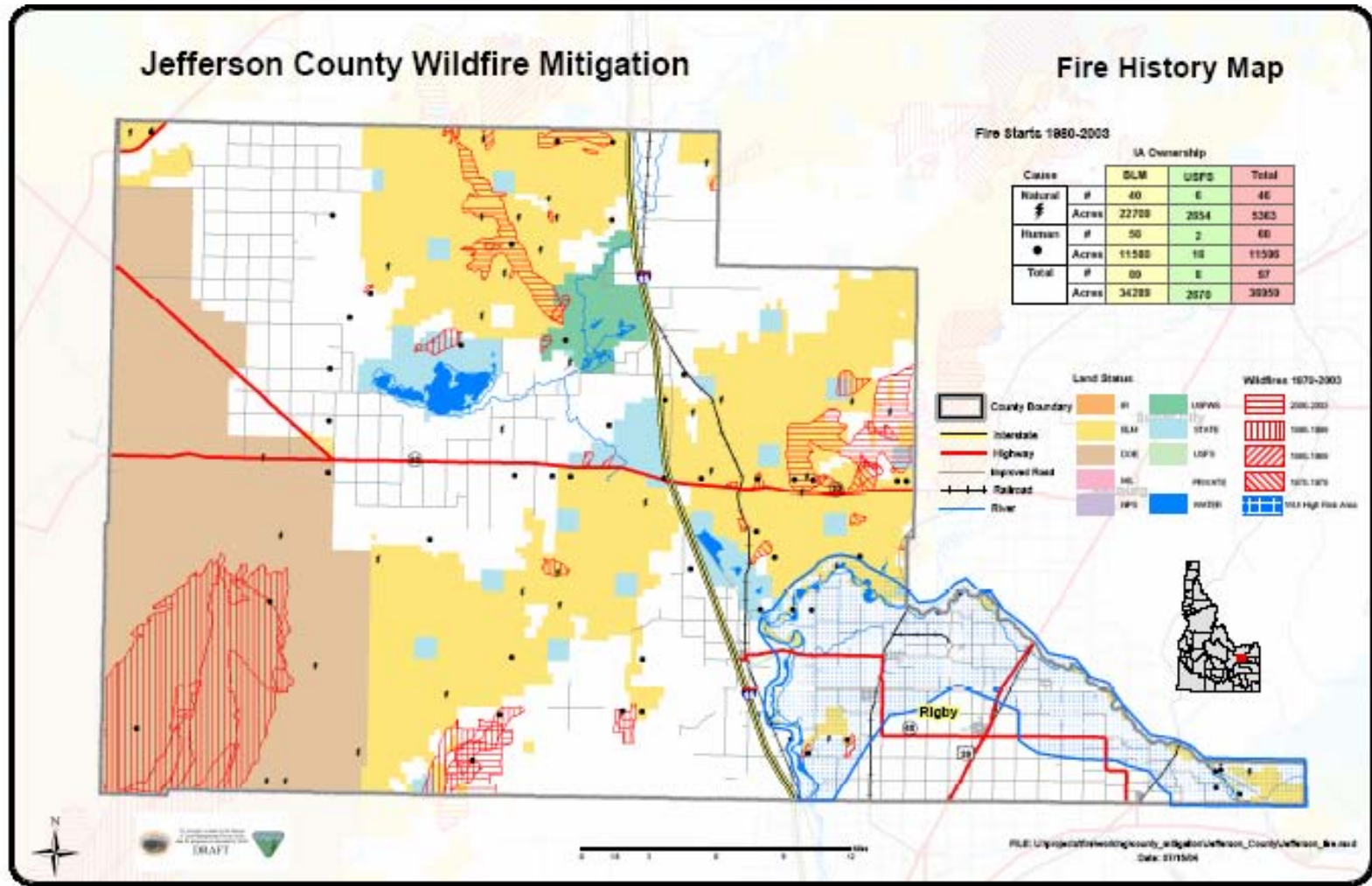
There are alternative approaches to implementing mitigation projects. Many communities are looking towards developing multi-objective projects. With this in mind, opportunity rises to develop strategies that integrate wildfire mitigation with projects related to watersheds, environmental planning, community economic development, and small business development, among others. Incorporating wildfire mitigation with other community projects can increase the viability of project implementation.

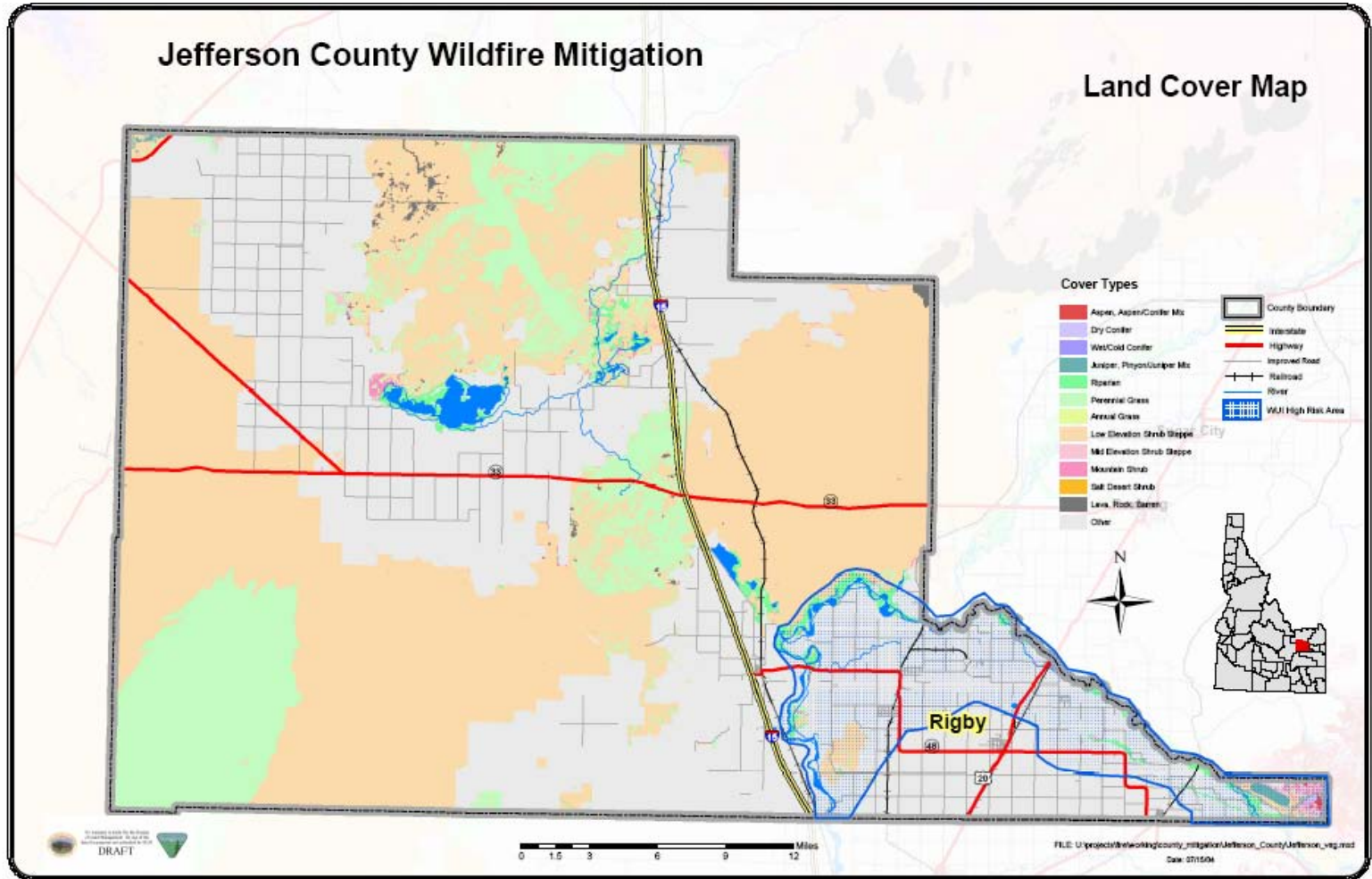
Appendix 6

Maps

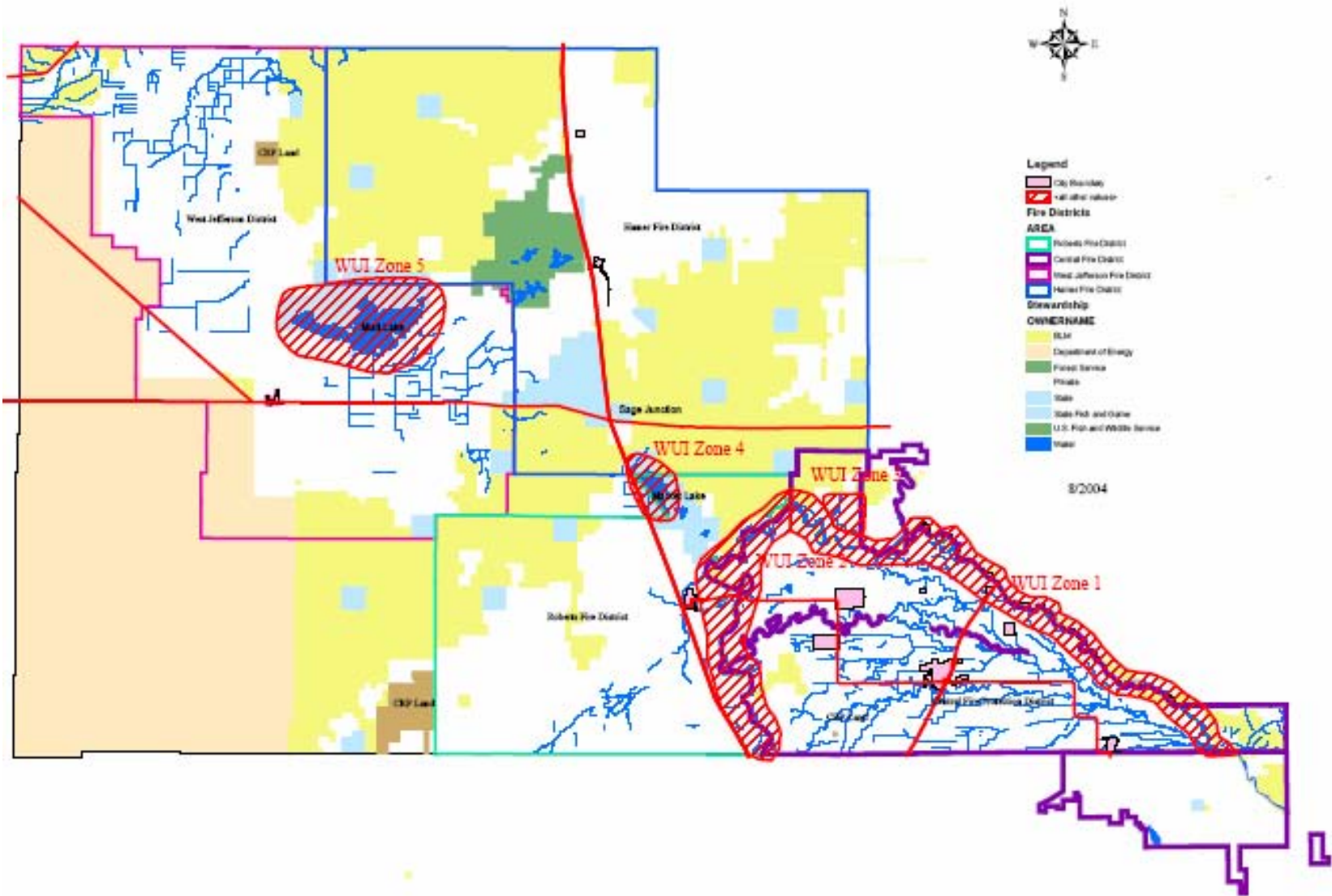
Idaho Statewide Hazard-Risk Analysis





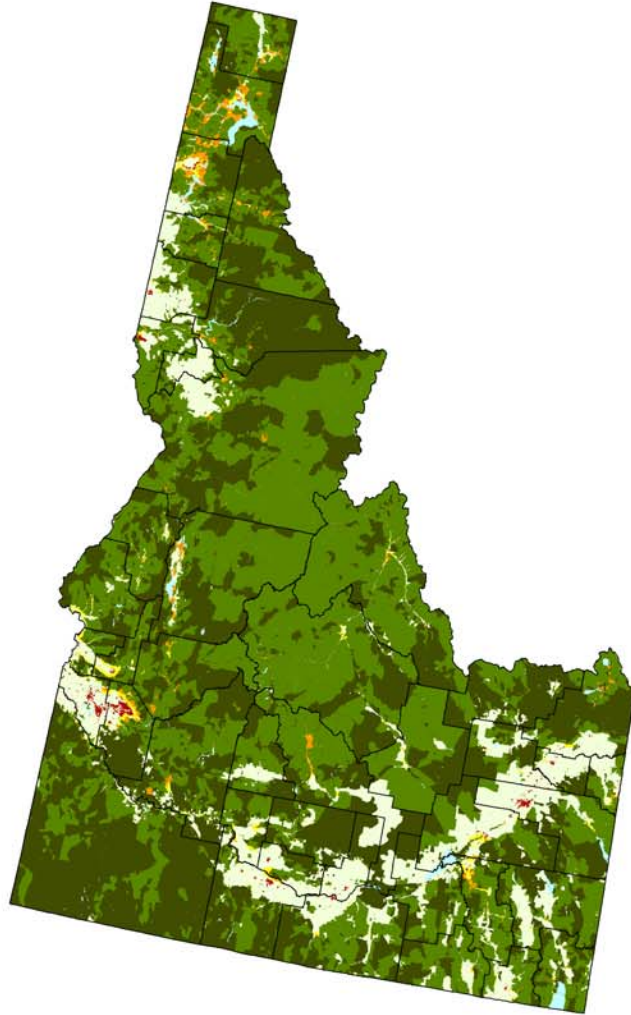


Jefferson County Wildfire Mitigation



Idaho

Wildland Urban Interface 2000



WUI	Non-WUI Vegetated	Non-Vegetated or Agriculture	Map Version: January 2004
Intermix	Very Low Density Housing	Medium and High Density Housing	Kilometers 0 20 40 80 120 160 Miles 0 10 20 40 60 80
Interface	No Housing	Low and Very Low Density Housing	
		County Boundaries	
		Water	

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- Intermix WUI is >50% vegetated and has at least low housing density
- Interface WUI is not vegetated, has at least low housing density, and is within 2.414 km of an area that is >75% vegetated and >5 sq. km in size
- Housing density is measured in units per sq. km. Density classes are very low (<6.17), low (6.17-49.21), medium (49.21-741.31), and high (>741.31)
- Vegetation includes forest, shrub, grassland, transitional or wetland but not agriculture (NLCD 1992/1993).
- Mapping units are 2000 US census blocks (US Census Bureau)
- Definition is based on the Federal Register (USDI/USDA 2001, vol. 66: 751)